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BEYOND CAPITALISM—2

Institutions for a Multi-Criterial Economy

How might a modern economy work if it were driven by multiple social goals instead of the pursuit of private profit? The first part of this contribution discussed the ways the classical socialist tradition addressed this question, from the nineteenth-century utopians to the crash industrializers of Soviet Russia, the planners of Red Vienna, the guild socialists of Edwardian Britain and the architects of the postwar welfare state.[1] A major problem they failed to resolve was how to design the institutions through which multiple democratically determined aims could be articulated and composed, with resources allocated accordingly. Early ideas of a simple community-regulated economy could not survive the growing differentiation of economic and social structures thrown up by capitalist development from the 1870s on, which had created complex, layered processes of production and correspondingly specialized, sometimes mutually unintelligible forms of knowledge and world outlooks. New social struggles—feminist, anti-colonial, anti-racist—advanced competing, perhaps incompatible values: autonomy, equality, recognition. Imposing a uniform plan overrode broader aims in pursuit of maximized output and ignored real local differences, with perverse results.

Organizing an economy around multiple goals dramatically increases the complexity of decision-making. Enduring ethical and political disagreements will persist. Even if broad consensus were achieved, material and technical constraints would mean that not all ambitions could be realized, requiring negotiated trade-offs. Besides, irreducible uncertainty about the future means we can never wholly predict the consequences of our decisions or anticipate new wants and needs; course correction

has to be part of the decision-making process. The result will necessarily involve ongoing political contestation. As Otto Neurath recognized, this means that the institutions of a multi-criterial economy should be designed not to suppress disagreements but to articulate them as intelligible alternatives and to structure the choices among them.[2] Neurath and his followers in 1920s Vienna made some headway, but the rise of Nazism crushed and scattered them before they could figure out what needed to be done.

The theoretical starting point here picks up from Neurath's insight that different goals and values—like good-quality work and housing for all, or sustainable agriculture and ecological balance—are not substitutable; they cannot be reduced to a single metric and ranked or 'optimized' accordingly. Their benefits need to be expressed *in kind*, for what they are themselves, and evaluated on that basis.[3] Some courses of action can be ruled out from the start, if they cost more and deliver less across all relevant dimensions—they are 'dominated' options, in the terms of rational-choice theory. But among the viable options that remain, there may be no automatic way to determine the best; no algorithm to make the final choice. They present what are known as partial-order problems, in that they can be partially ranked and ordered, but not fully so. Partial-order problems arise at every level of economic life: in households, deciding how to allocate time and resources; in firms, selecting inputs and production methods; in investment bodies, weighing competing futures. From a technical standpoint, there may be no single optimal answer. But from an economic and political perspective, a choice must still be made.[4]

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[1] Aaron Benanav, 'Beyond Capitalism—1: Groundwork for a Multi-Criterial Economy', NLR 153, May–June 2025.

[2] Otto Neurath, 'Socialist Utility Calculation and Capitalist Profit Calculation', in Thomas Uebel and Robert Cohen, eds, *Economic Writings, Selections 1904–1945*, Heidelberg 2004.

[3] This type of evaluation makes traditional cost-benefit analysis impossible. See Frank Ackerman and Lisa Heinzerling, *Priceless: On Knowing the Price of Everything and the Value of Nothing*, New York 2004; John O'Neill, 'Cost–Benefit Analysis, Rationality and the Plurality of Values', *The Ecologist*, vol. 26, no. 3, 1996.

[4] See Ralph Keeney and Howard Raiffa, *Decisions with Multiple Objectives: Preferences and Value Tradeoffs*, Cambridge 1976; Bernard Roy, *Multi-Criteria Methodology for Decision Aiding*, Dordrecht 1996; Valerie Belton and Theodor Stewart, *Multiple Criteria Decision Analysis: An Integrated Approach*, Boston 2002. What is imagined here is not so much a critique of rational-choice theory as an alternative theory of what would count as rational choice. See Catherine Herfeld, 'The Diversity of Rational Choice Theory: A Review Note', *Topoi*, vol. 39, no. 2, 2020; Amartya Sen, 'Reason and Justice: The Optimal and the Maximal', *Philosophy*, vol. 92, no. 1, 2017.

This requires a shift from optimization to composition, and from theory to practice. The question becomes: how can the composition of our values be organized institutionally under real-world conditions?

In what follows, I start with a brief overview of the institutional ensemble that will allow a multi-criterial economy to flourish. I then discuss in more detail the thinking about how each would operate, what capitalist practices it would replace and what the social effects would be. It should be stressed, first, that this is not a blueprint. It simply sketches mechanisms by which the challenge of replacing the profit drive by other, contestable values might be met. It should thus be seen as a framework for institutional design—necessarily underspecified, with the names of the institutions deliberately plain and bald; operating at a level of abstraction sufficient for the ideas to be applicable in varied national contexts, adaptable to specific cultures, histories and struggles. Second, it is not a theory of what those values should be. I have my own views about what matters most—how we should respond to climate change, for example, and what kind of world we should build in its wake. But readers will not find those views here. The aim is not to prescribe an ideal outcome, but to suggest a framework within which people can debate and resolve those questions themselves.[5]

Yet no system of collective choice can be legitimate if people lack access to livelihood, education, health, time or voice. Without a commitment to a shared baseline of rights and entitlements, without real freedoms and material guarantees, deliberation would be hollow. How those rights are defined and what they include will vary. But this framework assumes that the provision of universal basic services and income is the enabling condition for people to engage fully and freely in the decisions that structure their world. That is what makes the project emancipatory—what makes it socialist.

I. OVERVIEW: BEYOND THE PROFIT MOTIVE

The framework for a multi-criterial economy envisaged here implies a series of structural breaks. Capital accumulation and waged labour are

[5] Though this argument may resemble Rawls's account of the 'fair value' of political liberties, the objective here is not to idealize a fixed list of rights, but to emphasize their enabling role in collective decision-making—while recognizing that their content is itself a matter for political contestation.

both abolished. Investment is no longer driven by the pursuit of profit but by the purpose of meeting socially defined needs, while sustaining a wider diversity of ends that individuals and communities choose to pursue. Workers no longer depend upon their employers for their income, which is supplied instead by the Technical Associations and UBI. All providers—whether offering public or private goods and services—are non-profit entities. The framework proposes a large role for public provision, especially in sectors like housing, education, health, care and culture, which will absorb significant quantities of labour and resources. But consumer markets will remain vital arenas for personal choice.

Even where final consumption is largely de-commodified, production must rely on extensive exchange among firms. We need only think of the wide range of intermediate goods and services required to produce the most basic final products. A bakery needs ovens, flour, cleaning services, maintenance, accounting software, packaging, transportation and more. A neighbourhood clinic relies on specialized equipment, sterilization services, lab diagnostics, pharmaceuticals and repair technicians. Inter-firm exchanges are essential to any complex economy, and firms must be able to choose their suppliers, change them in response to delays or quality issues, and experiment with new approaches and partnerships. Market exchange enables this kind of flexibility and responsiveness, especially when production is distributed across many units.[6]

The question, then, is not whether to have markets but how to organize them without falling back into a narrow profit-driven logic, with firms focused solely on the 'efficiency' of reducing costs and increasing revenues as their overriding structural concern. A multi-criterial economy cannot be organized this way. Its goal is not to eliminate the value of economic efficiency, but to place it within a broader frame: to weigh possible efficiency gains alongside other values, like improvements in sustainability, work quality or neighbourhood cohesion. This requires another structural break. Firms will no longer rely on revenue surpluses to pay wages or finance future investments. Those functions will be undertaken by democratically accountable Technical Associations and Investment Boards. This framework preserves the benefits of market

[6] Benanav, 'Beyond Capitalism—1'; see also Pat Devine, *Democracy and Economic Planning: The Political Economy of a Self-Governing Society*, Cambridge 1988.

exchange—responsiveness to changing conditions, experimentation, innovation—where they matter most: in the inter-firm exchanges that sustain the wider production process.

The introduction of a digital dual-currency monetary system is the critical move in breaking the link between profits, wages and investment—while retaining market exchange. Two distinct currencies structure transactions: CREDITS are used by individuals for personal consumption; POINTS are used by firms and associations for inter-organizational transactions and investment. These currencies are not convertible—there is no direct exchange rate between them. This separation ensures, first, that incomes for consumption remain limited to that. Individuals cannot use their credits to acquire productive assets, fund investments or influence collective decisions. Disbursements to support civic, political and associational life are made in the POINTS currency—clearly distinguishing them from CREDITS for personal spending. Likewise, firms cannot use POINTS as a source of profit: POINTS cannot be saved, reinvested or converted into CREDIT incomes. This breaks the structural link between efficiency as such and private accumulation. It encourages firms to spend their full operating budgets each cycle without being driven to maximize surplus. It also makes possible a distinct, democratically governed investment process—separate from firm operations—through the Investment Boards, which allow other values to be brought to bear in shaping the production process.

An open digital ledger, the Data Matrix, registers the flows of POINTS and CREDITS, the latter in anonymized form, as they are disbursed and spent. By tracking purchases in real time, it creates a vast statistical mirror of the economy. Freely accessible, the Data Matrix can run reports and queries on macro-economic trends or sectoral patterns on request. Firms can use this to anticipate and adapt their production schedules, reducing inventories to manage resources more effectively. Crucially, each anonymized CREDIT purchase can be linked downstream through the POINTS system, mapping how individual consumption choices and firms' production decisions propagate through wider supply chains, making it possible to understand the broader economic effects that purchases initiate. From this, a powerful forecasting infrastructure can be built to illuminate possible futures. The Data Matrix allows anyone to query the forecasts and run 'what if?' simulations to see what policy or investment changes might produce different outcomes.

Within the framework envisaged here, individuals access resources through four primary channels: universal basic services; a universal basic income, denominated in CREDITS; a work-based income, also paid in CREDITS; and a budget, denominated in FREE POINTS, which they can allocate to the civic, cultural and political organizations they support, enabling these bodies—known as 'Free Associations'—to operate within the POINTS economy. At the same time, the digital currencies are issued under the discipline of an overall budget constraint, with macro allocations across the economy decided by democratic debate. This gives practical shape and urgency to the multi-criterial optimization process described above. Each of the major economic actors—households, firms, Investment Boards, Technical Associations—faces a composition problem: how to weigh multiple incommensurable aims—such as security, autonomy, meaning and efficiency—within limited envelopes of time, currency and materials? The sum of their choices, informed by the Demos's macro-economic decisions, determines the shape and character of the multi-criterial society.

The firm here refers to all producers, whatever their scale or structure: own-account operators, small shops, larger cooperatives or gigantic enterprises employing thousands. Firms are understood as institutions that convene people with different skills and knowledge in purposeful collaboration, structured by organizational routines, to fulfil some socially identified need or desire.[7] Within the multi-criterial economy, they are established by Investment Boards as worker-managed, publicly owned and non-profit, with a specific allocation of POINTS. Firms providing public-sector services—clinics, libraries, housing associations, schools—receive a budget in POINTS per capita of the population served. Firms producing goods and services for individual consumption receive POINTS on the basis of their market share of consumption spending. Operating within these budget constraints, all firms must allocate their resources across competing aims: meeting high standards of service or product quality, reducing ecological impact, improving workplace conditions, building resilience to shocks or maintaining internal democracy. Firms use some of their POINTS to pay Technical Associations for the hire of labour, the price of which fluctuates with demand; other

[7] This distinguishes firms from associations, which also organize people for shared purposes, but whose goals are autonomously defined.

POINTS are spent on renting publicly owned land and infrastructure, or on inter-firm transactions. Firms also produce proposals for future investment, for which fresh POINTS will be issued, as decided by their sectoral Investment Board.

Investment is the primary mechanism driving the transformation of the economy over time. It is how society expands capacity, upgrades equipment, or shifts direction entirely. In a multi-criterial economy, investment is not guided by expected financial returns but by judgements about how to prioritize among alternative futures. These decisions unfold across three nested levels. Minor improvements are handled through direct allocations to firms by the sectoral Investment Boards. Larger projects and long-term strategies are the subject of informed deliberation and voting by the Boards, which include elected representatives from the workers in that sector, plus consumers, communities and experts drawn from Technical Associations. Cross-sectoral transformations—such as decarbonization, reparation of past wrongs, or the reduction of the working week—are overseen by project-specific Coordinating Committees. At each level, investment decisions face the same challenge: how to weigh legitimate but often incompatible priorities within the limits of available resources; budgetary constraints again compel prioritization, helping to structure disagreements and enable transparent composition among rival pathways, as a collective procedure for navigating uncertainties and producing the necessary trade-offs.

Labour is organized by a network of Technical Associations, building on the models of professional guilds, trade unions and accreditation bodies, but with an expanded mandate for recruitment and salary disbursement, as well as training, further education and research. The Technical Associations have special responsibility for integrating technical expertise into public deliberation, electing expert representatives to help guide strategic decisions. This encompasses not just engineers and scientists, but also tradespeople, care workers, cooks, cleaners and anyone whose know-how can help shape production and provisioning. The Technical Associations' internal activities are also shaped by partial-order problems, as they determine how to allocate limited resources—within the constraints set by their own associational POINTS budgets—across multiple missions and priorities, from recruitment and training programmes to R&D.

Alongside them are civic and cultural Free Associations, supported by funding through the 'FREE POINTS' system. Together with the Technical Associations, this layer sustains the cultural and intellectual life of the society, animating a broader realm of collective endeavour—artistic production, political organizing, independent research, religious expression. Free Associations serve not just as value carriers but as value creators, helping a society continually revisit and reshape what it counts as worthwhile. While they define their own goals, and are not charged with delivering socially mandated outcomes, the civic and cultural associations still face their own composition problems: choosing how to pursue plural goals within real budgetary constraints.

2. A DUAL MONETARY SYSTEM

In mainstream economics, markets are celebrated as mechanisms of self-regulating efficiency: firms respond to price signals, adjust production methods and compete by minimizing costs and maximizing output to earn monetary rewards. Market competition resolves into a delicate dance of rational coordination, allowing for efficient allocation without central planning. A more critical tradition, rooted in Marxist economics, sees this instead as a war for survival. Market efficiency, in this view, is not a sign of harmony but the aggregate outcome of systemic compulsion, locking firms into relentless competition, driven both by the incentive to capture financial rewards and by the threat of losing market share. For Marxists, these pressures drive firms not only to pursue product and process innovation but also to deepen the exploitation of labour and the environment, offloading costs onto society and crushing competitors to secure monopoly rents.[8]

Yet these contrasted perspectives share a common assumption. Whether seen as elegant optimization machines or ruthless engines of accumulation, markets are assumed to subordinate all other considerations to a profit-driven, efficiency-first logic. But this drive is not intrinsic to markets themselves. It arises because participants in capitalist markets are motivated by the prospect of monetary return. Firms seek profits, and it is this orientation—imposed by the structure of ownership and competition—that is the overriding imperative. To move beyond it, what must be

[8] See Anwar Shaikh, *Capitalism: Competition, Conflict, Crises*, Oxford 2016.

severed is not the use of markets, but the tie between market participation and profit-seeking.[9]

To do that, the financial pressures that currently structure firms' decision-making must be removed. In a capitalist economy, profit is both a source of income for owners and an important source of investment funds for enterprises. Firms are thus compelled to generate, retain and also distribute surpluses to their owners and creditors. That accumulative imperative is what forces firms to privilege cost-minimization and revenue-maximization above other goals. How can markets retain their informational and adaptive value without reintroducing the coercive dynamics of profitability? Firms still need to face budgetary constraints, or else their decisions become arbitrary. But those constraints must shape firms' activity without demanding the accumulation of monetary surpluses. This is precisely what the introduction of a digital dual-currency system is designed to achieve.

Before the rise of modern capitalism, money did not function as a single, universal medium. Most societies maintained multiple currencies or currency-like tokens, each tailored to specific domains. Monetary multiplicity was arguably a rational response to the differentiated structure of exchange relations. One currency might be used in local markets, another for long-distance trade, a third for religious offerings or taxes. In West Africa, cowries, brass rods and cloth circulated simultaneously, each corresponding to a particular kind of transaction or social relationship. Modern money's three core functions—unit of account, medium of exchange, store of value—were divided across these tokens. Different monies were thus also instruments of institutional separation, maintaining the boundary between morally distinct realms of life.[10]

It was only with the rise of capitalism that money became increasingly unified—both in form and in function—as part of a larger effort to generalize the commodity form. This was not an evolutionary inevitability,

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[9] Oskar Lange, in his contribution to the Socialist Calculation Debate, offered one way to think about this. Keynes also imagined that the productive apparatus of capitalism might one day be liberated from the profit motive, leaving markets intact while detaching them from accumulation. See Benanav, 'Beyond Capitalism—1'.

[10] Respectively: Akinobu Kuroda, *A Global History of Money*, London 2020; Jane Guyer, *Marginal Gains: Monetary Transactions in Atlantic Africa*, Chicago 2004; Peter Spufford, *Money and Its Use in Medieval Europe*, Cambridge 1988.

but a political and institutional project. As states consolidated fiscal authority and capitalist markets expanded, older systems of plural currencies were gradually dismantled. Beginning in early modern Europe and accelerating in the nineteenth century, national governments sought to impose a single legal tender, backed by centralized tax systems and enforced through commercial law and monetary administration. This new form of money was designed to be universal in scope, abstract in form, and indifferent to context: it could mediate any transaction, represent any good and bind any party, regardless of social relation or moral standing. Its emergence coincided with the spread of wage labour and the commodification of time, land and life itself.[11]

In Part One, I described how the Soviet Union inadvertently reintroduced monetary plurality by dividing its national currency, the ruble, into two distinct circuits: one for production, one for consumption. Within the planned economy, enterprises operated entirely in non-cash rubles—an internal accounting unit mediated by Gosbank, which authorized all inter-enterprise transactions and blocked unauthorized flows. Cash rubles, by contrast, circulated only in the consumer economy, entering when wages were paid and exiting when households made purchases. This institutional firewall between circuits was not a theoretical invention but a practical solution to the growing complexity of the command economy. For a time, this dual structure made centralized planning workable at scale. But as Perestroika's reforms loosened financial controls, the firewall broke down. By the late 1980s, arrears ballooned, deliveries failed and material flows became untrackable.

The CREDITS and POINTS system proposed here does not represent a break with history so much as a return to something this earlier system glimpsed but could not sustain. Unlike the Soviet model, this system begins from the premise that economic coordination requires two distinct currencies, each embedded in its own institutional and political logic. The model also draws on the deeper historical precedent of monetary multiplicity, in which different tokens governed different realms: here, consumption is organized through CREDITS, while production is coordinated through POINTS. Firms do not receive CREDITS and cannot spend or accumulate them. Firms producing goods and services

[11] Eric Helleiner, *The Making of National Money: Territorial Currencies in Historical Perspective*, Ithaca 2003; David Graeber, *Debt: The First 5,000 Years*, Brooklyn 2011.

for consumers receive POINTS in proportion to the share of all CREDITS spent by consumers on their products. These POINTS are drawn from that portion of the total social budget allocated to meeting consumer needs and wants. POINTS are not convertible into CREDITS, and CREDITS cannot be used to acquire POINTS. This structural separation is what makes it possible to preserve market coordination without reverting to a profit-driven system.[12]

Because POINTS cannot be hoarded, carried over or transformed into personal gain, firms have no incentive to underspend their budgets or generate surpluses. Unspent POINTS depreciate and disappear after a defined period, further encouraging firms to allocate their full budgets each cycle in pursuit of their production goals. At the same time, firms cannot use the operational POINTS they acquire to finance investment: upgrades and capacity expansions must be proposed and approved through the separate Investment Board system. The result is a clean division of functions. CREDITS support consumption; they may be transferred in a limited way between individuals but are removed from the system once spent at consumer-facing firms.[13] POINTS finance operational expenditures; they circulate in the production sphere for a limited time but then are extinguished as well. By preventing the accumulation of generalized purchasing power in either domain, this system ensures that production decisions remain oriented toward fulfilling social and ecological aims, rather than toward extracting surpluses, which becomes functionally impossible.

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[12] The dual-currency approach developed here is also inspired by Daniel Saros's innovative proposal for a digital credits-and-points system in *Information Technology and Socialist Construction: The End of Capital and the Transition to Socialism*, New York 2014. Saros proposes a dual-currency system in which consumers receive labour-based credits to acquire goods, while firms bid for production inputs using planning board-allocated points. He imagines economic coordination as a once-per-cycle process: firms bid for all their inputs in a single, simultaneous auction, assuming static knowledge of needs, capacities and technologies. Unlike Saros's model, the present proposal employs credits and points within more traditional, decentralized market interactions, which are structured specifically to eliminate financial accumulation and thus enable genuine multi-criterial production.

[13] Marx discusses a similar idea in *Capital, Volume I*, London 1992, p. 188, footnote 1, referencing Robert Owen's conception of labour certificates—currency-like instruments which, after being spent, do not continue circulating. Marx compares these certificates to theatre tickets, which are presented upon entry and immediately withdrawn from circulation. See Peter Hudis, *Marx's Concept of the Alternative to Capitalism*, Leiden 2012.

Earlier attempts to separate circuits of production and consumption ran up against a major structural weakness: they lacked a durable mechanism to enforce the boundary. Separation depended on administrative fiat, informal norms, or physical segregation, and once pressure built—through opportunistic conversion, scarcity, or policy drift—leakage became inevitable. What distinguishes the present model is that it learns from these breakdowns. It does not rely on maintaining discipline through bureaucracy alone but instead uses digital architecture to make the separation enforceable by design. CREDITS and POINTS are legally distinct and digitally incommensurable. They exist in separate circuits, recorded in the Data Matrix, with no pathway for conversion. The CREDIT economy thus preserves a familiar form of economic agency—choosing how to live—but places it within a system where, thanks to universal basic services and income, no one must work to survive, and where production is organized around the pursuit of plural ends.[14] CREDIT budgets must be replenished each month to sustain purchasing power.

POINTS, too, enter the system anew—at the start of every quarterly production cycle. The Demos decides the overall shape of the economy by periodically reevaluating what proportion of the total available POINTS should be allocated to each of the economy's five domains: (i) public universal provision; (ii) provision for individual consumption; (iii) provision within the associative domain, which includes the Technical Associations as well as the self-determining Free Associations; (iv) the administrative domain, including the Investment Boards, Coordinating Committees, Evaluation Bodies and Research Institutes that help to shape the system as a whole; (v) the domain of future provisioning, allocating investment for transformational infrastructural and technological development. Individuals and associations can prompt the Data Matrix to generate Neurath-style plan options showing what results different POINTS allocations would produce.[15] For example, the Demos could decide to allocate 25 per cent of POINTS to public provisioning, 25 per cent to production for individual consumption, 20 per cent to

[14] For a contemporary proposal along these lines, see Saule Omarova, 'The People's Ledger: How to Democratize Money and Finance the Economy', *Vanderbilt Law Review*, vol. 74, no. 5, 2021, pp. 1231–1309.

[15] For Neurath's discussion of pictorial statistics, see the texts collected in the chapter, 'From "Vienna Method" to "ISOTYPE"', in Otto Neurath, *Empiricism and Sociology*, Marie Neurath and Robert Cohen, eds, Boston 1973, pp. 214–48.

the associative domain, 15 per cent for administration and 15 per cent for future development. The significance lies not so much in the ratios themselves as in the fact that they can change, through political contestation over how needs and priorities are defined, informed by forecasts and scenarios produced by the Data Matrix.

Permanent stability

Once firms receive their operational POINTS budgets, they are free to allocate them to cover rental charges for the factors of production—land, labour, capital goods—and buy intermediate inputs from other producers.[16] POINTS used for rental charges are stamped out of existence and removed from circulation, while those spent on intermediate inputs pass on through the supply chain. All POINTS eventually exit the system, either through rental payments or by expiring with the end of the production cycle, so firms have no incentive to hoard or accumulate them. The production cycles overlap, with new POINTS injected at the pace that old ones leave the system, ensuring continuous circulation. By adjusting the flow of new POINTS to match resources and productive capacity, the system ensures that economic activity remains balanced, preventing both inflationary excess and the under-utilization of resources.

This structure eliminates the need for taxation or debt-based money creation. In capitalist economies, public goods and services appear to be 'funded' by extracting revenue from private activity, creating the illusion that taxation is necessary to sustain essential services and infrastructure. In reality, public services exist because society chooses to allocate labour, materials and capital toward them, not because financial transfers make them possible. The multi-criterial economy makes this explicit

[16] Land in this system is publicly owned, and commercial space is hired from the regional Land Authority. Labour, as we have seen, is rented from the relevant Technical Associations. Rental prices for land and labour fluctuate with supply and demand—but, crucially, POINT-denominated rental prices for labour do not directly affect CREDIT-denominated salaries for work; the two are structurally separate. The need for this separation is discussed most fully in Michael Albert and Robin Hahnel, *The Political Economy of Participatory Economics*, Princeton 1991. Rental charges for capital goods—machinery, buildings, equipment, hardware, software—is set as a percentage of the purchasing price, depreciated over time according to standard geometric methods. Again, once POINTS have been used for rental charges they are removed from the system.

by directly allocating points to the domain of public provision. Another contrast: under capitalism, savings appear to be necessary to fund future investment, whereas here, investment is not constrained by prior financial surpluses; setting aside POINTS in each cycle creates the necessary 'savings' for socially desired investment.

The POINTS–CREDITS system also has profound implications for the logic of investment. In capitalist economies, investment only occurs when firms expect future profits, leading to waves of expansion and contraction. When anticipated returns are high, investment surges; when expectations decline, firms cut back, leading to stagnation. These ups and downs are further exacerbated by credit dynamics, as speculation and interest-rate fluctuations determine the availability of funds. In the multi-criterial economy, investment follows a different pattern. A fixed share of POINTS is automatically set aside in each production cycle and used to fund the developments which the Demos—at local, regional or national level—has decided are most important. These digital investment resources are not accumulated by any individual or entity; they earn no financial rate of return. Instead, they are created collectively and allocated democratically in line with a variety of different ends. Because investments are decoupled from profitability, they can be directed towards whatever society considers most worthwhile.[17]

The result is a form of permanent macroeconomic stability that capitalism has never achieved. Because the investment process is neither privately controlled nor limited to efficiency gains, the economy no longer suffers from speculative booms or recessionary busts. This does not mean inertia, simply that firms can operate from a stable platform, focusing on improving what they do. Instead of investment surges and collapses, the economy sees overlapping investment waves, shifting with technological developments and evolving social priorities. At times, investment may focus on efficiency gains—when new methods

[17] I assume we are using this model to build a largely post-growth economy—one in which the total quantity of goods and services produced remains relatively stable over time. After an initial period of transition, which would involve adjustments to the size and shape of the economy, investment would largely be directed toward qualitative improvements in production. However, the model is structurally compatible with either growth or degrowth: what matters is not the pace of expansion, but the priorities embedded in the allocation of investment.

allow for significant improvements in production processes. At others, it may be aiming to reduce working hours, improve care infrastructure, increase resilience or support community life. When one avenue of improvement starts to become saturated or less urgent, investment can flow elsewhere. Because POINTS cannot be saved for later spending—they function as a means of exchange but not as a store of value—their total volume can be modulated each cycle to keep demand and supply in balance overall. Local pinch-points and bottlenecks may still emerge, but these can be monitored and addressed as they arise. This coherence is achieved not through top-down planning or market discipline, but through structured decision-making, in which decentralized action is aligned with democratic priorities. In a multi-criterial society, baseline macro-economic stability is built into the structure of the system.

3. THE DATA MATRIX

Past models of computational socialism imagined that centralizing a mass of economic data could optimize the entire economy. Planners would feed desired outputs, necessary inputs and available resources into a central algorithm to produce a comprehensive blueprint. Yet even if a coherent plan could be constructed, these efforts consistently failed in practice. Firms lacked the flexibility to switch suppliers or try out new ideas. Persistent quality issues and shortages were the result.[18] In the multi-criterial economy, no algorithm or central authority dictates the details of production. Instead, the role of the Data Matrix is to aid coordination by making visible the broader consequences of individual production decisions. Firms operate with open books, and POINTS-based exchanges can be audited at any time. Because every transaction is logged and auditable, irregularities can be automatically flagged. Machine-learning algorithms scan patterns of POINT spending, as well as anonymized CREDIT spending, to generate a powerful forecasting infrastructure.[19] Forecasts show us not what must happen, but what might—and what we could, through collective effort, choose to alter.

[18] See the discussion of Gosplan's experience in Benanav, 'Beyond Capitalism—1', pp. 74–7.

[19] Max Grünberg discusses the potential of algorithmic planning tools to forecast and respond to emergent trends in 'The Planning Daemon: Future Desire and Communal Production', *Historical Materialism*, vol. 31, no. 4, 2023.

They don't make the rules; they offer recommendations, automatically generated through digital analyses of data and trends.[20] Economic actors may choose to rely extensively on such automated guidance, streamlining their operational decisions, or they may deliberately override it. The Data Matrix system anticipates the ripple effects specific choices would make but respects people's judgement, under real-world constraints.

This approach to big-data forecasting differs fundamentally from how giant firms deploy it today. Amazon and Google mainly use their proprietary data, which they jealously guard, to identify profitable niches for new products; forecasting is oriented toward maximizing returns.[21] By contrast, the system described here treats forecasting as an instrument of democratic awareness, helping to open up the future as a field for action. Here, we can imagine a ChatGPT-like interface, capable of rendering vast statistical matrices into digestible narratives and visualizations for public consultation. A journalist might query whether increased demand for electronics is leading to greater electronic waste and see where that waste is going. A community association might query what would happen if investment were redirected towards denser public-housing models. Forecasting becomes political; it shows, clearly, what existing or alternative choices might achieve—or destroy.

This massive informational apparatus is institutionally open and democratically governed. The Data Matrix is not an insulated technocratic agency. Instead, it combines the expertise of professional statisticians and data scientists with direct democratic input and participation from worker groups, social movements and community organizations. Members of the public can run their own queries, generating hypothetical or counter-factual reports. New metrics are debated, revised and contested, shaping methodologies of data collection and interpretation. A care-workers' association, for example, might reject standard

[20] For example, firms might receive simple operational guidance: 'Current forecasts show Supplier X facing rising orders; consider switching temporarily to Supplier Y to ease coordination.' Others might focus on ecological outcomes—'Switching to Supplier Z would reduce your carbon footprint by 5 per cent'—or worker well-being: 'Firms using this ergonomic tool report measurable improvements in worker comfort.'

[21] See Andrew McAfee *et al.*, 'Big Data: The Management Revolution', *Harvard Business Review*, vol. 90, no. 10, 2012, pp. 60–8; Nick Srnicek, *Platform Capitalism*, Cambridge 2017; Viktor Mayer-Schönberger and Thomas Ramge, *Reinventing Capitalism in the Age of Big Data*, Boston 2018; Philipp Staab, *Markets and Power in Digital Capitalism*, Manchester 2024.

productivity-focused time-motion studies, advocating instead for ethnographic logs and collaborative interviews that better capture the nuanced realities of their work. Here, democracy operates at an epistemic level: collectively determining how and what we know about our conditions. The goal is a statistical system capable of ongoing learning across a wide variety of social and ecological dimensions.[22]

No single metric can summarize this diversity; rather, the statistical system must maintain parallel indicators—making visible tensions and trade-offs among different criteria.[23] While profit-driven macro-economic management relies on a small set of aggregate indicators—GDP, productivity, employment, inflation—a multi-criterial society will need anonymized data across many more factors.[24] The Data Matrix will need to encompass not just the spending of CREDITS and POINTS, but also social indicators, tracking community and workplace dynamics as well as measurements of subjective well-being. Biophysical accounting will register all flows of energy, raw materials, emissions and waste, organizing this data into input-output matrices that could provide real-time visibility into ecological conditions—carbon cycles, resource extraction rates relative to regeneration, biodiversity losses, water use, soil depletion and pollution levels—thus revealing the economy's proximity to critical planetary boundaries. Different production and consumption scenarios can then be modelled within these constraints, clarifying the paths available and the social or ecological consequences of pursuing them.[25] Data Matrix systems will be adaptive and responsive to emerging

[22] See, for example, Alan Irwin, *Citizen Science: A Study of People, Expertise and Sustainable Development*, London 1995; Jason Corburn, *Street Science: Community Knowledge and Environmental Health Justice*, Cambridge MA 2005; Rick Bonney *et al.*, 'Citizen Science: A Developing Tool for Expanding Science and Public Participation', *BioScience*, vol. 59, no. 11, 2009.

[23] Democratic decision-making need not become overwhelming in the face of this expanded statistical apparatus, as specific political projects or decisions always mobilize only a relevant subset of indicators, comparing clearly defined options and scenarios.

[24] For critiques of GDP and conventional macroeconomic indicators, see Joseph Stiglitz, Amartya Sen and Jean-Paul Fitoussi, *Mismeasuring Our Lives: Why GDP Doesn't Add Up*, New York 2010; United Nations, *The Sustainable Development Goals Report*, New York, various years.

[25] See Jakob Heyer and Walther Zeug, 'Ökobilanz und kybernetische Wirtschaftsplanung', *PROKLA*, vol. 54, no. 2, 2024, pp. 267–86; Walther Zeug *et al.*, 'A Framework for Implementing Holistic and Integrated Life Cycle Sustainability Assessment of Regional Bioeconomy', *The International Journal of Life Cycle Assessment*, vol. 26, no. 10, 2021, pp. 1998–2023.

concerns; a coalition representing disabled persons, for instance, could track the navigability of public spaces, translating lived experience into actionable data.

By linking CREDIT-based consumption and POINT-based production data with this expansive, democratically governed, computational-communicative matrix, it will be possible to achieve a much greater degree of macro-economic, biophysical and social stability. Changing patterns of ecological overshoot, workplace burnout, social isolation or psychological distress become visible in real time, shaping decisions about where to invest resources. But it is equally important that they directly inform operational decisions of firms. The economy becomes, in short, self-reflective—not just stable in the aggregate, but responsive to the multiplicity of values and conditions it must continually balance. The result is a system that can sustain what earlier designs only approximated: a sustainable, plural form of coordination in which different domains of value—economic performance, ecological responsibility and social purpose—remain linked but non-convertible.

4. UNIVERSAL PROVISION

A multi-criterial economy begins with a simple commitment: that everyone should have secure access to the goods and services they need to participate fully in society. The expansion of public provision has been a fundamental goal for the left—socialist, social democratic and Keynesian—for over a century. In the US such programmes remained limited; welfare was racialized, means-tested and narrowly targeted. In Europe, Christian Democrat governments constructed broader systems, though they were always designed to reinforce traditional family roles. In Britain, the Attlee government took initial steps towards a more universal model, also built on the male-breadwinner ideal. Social Democrats in the Nordic countries went further, building expansive provision for education, healthcare, housing, childcare and transit. Yet even in their most generous forms, these institutions remained partial and embattled, built within capitalist systems that begrudged public spending; most were hollowed out from the early 1980s.

A multi-criterial economy will aim to realize their unfinished promise, making access to essential goods and services the foundation of society,

so that worries about survival can finally fade away. Under this system, public provisioning encompasses not only housing, health, care, education, libraries and transport systems, but also cell phones, internet access, neighbourhood canteens, parenting support, laundries, help for the elderly or disabled. The cultural and civic infrastructure is equally expansive: free access to all books, films, music and news; studios for audio and video production; media platforms of every type; publicly maintained digital workspaces, gyms, pools, hiking trails, saunas, gardens and spaces for celebration, grief and ritual.[26]

One effect of expanded public provisioning would be the positive reshaping of domestic life. Under capitalism, much of the labour of survival—cooking, cleaning, caregiving—has been privatized, offloaded onto households and within them, disproportionately onto women; where these needs are met through the market, results are patchy, expensive and unequal. The multi-criterial economy approaches care as a matter of collective concern, met through universal services and public funding for home care, allowing people to choose whether to live in shared arrangements or alone, without those choices being dictated by financial precarity or unequal burdens. The security that universal basic services provide is not just a matter of fairness and compassion; it is also a precondition for being able to participate in a society organized around shared decisions over competing goals. When people are stressed about making the rent, finding care or managing chronic illness, their worlds narrow.[27] Economic insecurity forces people to sacrifice the future for the present, limiting their capacity and will to participate in forward-looking structures. Guaranteed good-quality provision helps to clear the mind.

Capitalism depends on public provision to supply a literate able-bodied workforce, as well as urban infrastructure, policing, the judiciary and

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[26] On public services as the infrastructure of democratic life, see Eric Klinenberg, *Palaces for the People: How to Build a More Equal and United Society*, New York 2018; Foundational Economy Collective, *The Foundational Economy*, Manchester 2018; Anna Coote and Andrew Percy, *The Case for Universal Basic Services*, Cambridge 2020.

[27] On how material insecurity fractures minds, narrows horizons and corrodes trust, see Sendhil Mullainathan and Eldar Shafir, *Scarcity: Why Having Too Little Means So Much*, New York 2013; Richard Sennett, *The Corrosion of Character: The Personal Consequences of Work in the New Capitalism*, New York 1998; Robert Putnam, *Bowling Alone: The Collapse and Revival of American Community*, New York 2000; Amartya Sen, *Development as Freedom*, Oxford 1999.

so forth. But at the same time, employers rely on economic insecurity to maintain workplace discipline and control over their workforces. Universal services make labour less pliable and threaten capital's control over the terms of employment. Meanwhile, a deeper structural dynamic has intensified this problem. Services like care, health and education absorb growing shares of total employment, partly because productivity growth in these sectors will always be relatively low.[28] Capitalist accounting treats these labour-intensive sectors as cost sinks—inefficient and in need of cuts. As the share of services in the economy grows, austerity deepens and essential needs go unmet, since the cost of meeting them would draw spending away from private consumption.

In a multi-criterial system, the role of essential services will be able to expand much further. A socialist society will undoubtedly encompass a large service economy, since it will be organized around meeting a wider range of social and psychological needs. Sectors like care work, education, health and recreation will continue to be marked by low productivity growth, requiring a large share of society's capacity. Yet they are precisely the areas where multi-criterial investment can yield the greatest returns, by enriching their social value and improving their conditions of work. Public services need not be limited to providing the basics; as universal access becomes the norm, they can become sites of collective aspiration and enjoyment. Public housing can be beautiful. Pools, libraries, transit systems and care centres can be maintained at the highest level.[29]

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[28] This phenomenon is known as Baumol's cost disease: in labour-intensive services, wages must still rise in line with the rest of the economy to attract workers, even though output per worker grows slowly if at all. See William Baumol and William Bowen, 'On the Performing Arts: The Anatomy of Their Economic Problems', *American Economic Review*, vol. 55, no. 2, 1965. On how this dynamic contributes to long-run trends of deindustrialization, see Robert Rowthorn and Ramana Ramaswamy, 'Growth, Trade and Deindustrialization', *IMF Staff Papers*, vol. 46, no. 1, 1999. See also Dietrich Vollrath, *Fully Grown: Why a Stagnant Economy Is a Sign of Success*, Chicago 2020; Aaron Benanav, *Automation and the Future of Work*, London and New York 2020, and 'A Dissipating Glut?', NLR 140/141, March–June 2023.

[29] Ecological constraints may require scaling back resource-intensive production, but a society that consumes fewer material goods can still live better if it invests in low-impact service activities that enhance life across multiple dimensions. See Kristin Ross, *Communal Luxury: The Political Imaginary of the Paris Commune*, London and New York 2015; Friends of the Classless Society, 'Contours of the World Commune', *Endnotes*, vol. 5, 2019.

Firms producing goods and services for public provision—clinics, transit systems, schools—are funded in POINTS on a per capita basis relative to the populations they serve. Like all firms within the multi-criterial economy, they are established by the relevant Investment Board, assessed by Evaluation Committees and are publicly owned, non-profit and worker-run. Service users are also involved in the assessments, voting as politically constituted communities to shape the systems they rely on. They can draw on the resources of the Data Matrix to clarify the implications of different provisioning possibilities, propose trade-offs and monitor outcomes. Firm models can remain diverse, even within a given community—childcare centres with different methodologies, for example—so long as the underlying infrastructure is universal and equitably supported. Funding can follow enrolment or usage, while democratic structures ensure that the system remains open to revision, contestation and ongoing improvement.

How far should public provisioning go? Should everything be free at the point of use? Some goods and services are too varied, taste-driven or context-specific to be organized through universal provisioning systems. It makes more sense to access them through markets, not necessarily because they are luxuries but because their value lies in enabling choice and expressing difference: restaurants, clothes, haircuts, cosmetics, furniture, vacations, pet care, forms of entertainment. In these realms, markets preserve diversity rather than undermining it, allowing people to seek novelty or craft identity in ways that universal provisioning cannot easily match. A limited but free-to-use basic income helps to support the personal character of this type of consumption, supplemented by additional earnings from work-based salaries.[30]

A degree of income inequality will remain, since certain demanding jobs—late-night care work, long-distance haulage, specialized surgery,

[30] See Philippe Van Parijs and Yannick Vanderborght, *Basic Income: A Radical Proposal for a Free Society and a Sane Economy*, Cambridge MA 2017; Guy Standing, *Basic Income: And How We Can Make It Happen*, London 2017; Erik Olin Wright, *How to Be an Anti-Capitalist in the 21st Century*, London 2019. In *Automation and the Future of Work*, Ch. 5, I criticized the idea that a basic income could serve as a silver bullet for the problems of increasingly stagnant, late-capitalist societies. But that critique does not diminish the role such policies might play in an emancipated future, where basic income could support autonomy and enable choice within a reimagined system of universal provisioning.

underwater welding—will need greater remuneration to reflect their particular burdens. In today's economy, the ability to consume more and work less is often reserved for those already possessing immense wealth, or those who do work of questionable social value—speculating on financial securities or maximizing online engagement—rather than those performing essential but arduous tasks. A multi-criterial economy shifts that pattern, enabling fairer distributions of effort and reward based on negotiations across Technical Associations. Crucially, higher incomes will no longer translate into greater social weight. Because of the CREDITS-POINTS split, people cannot use higher CREDIT earnings to accumulate capital or hire lobbyists to influence collective decisions. In a multi-criterial economy, the goal is not to eliminate all economic inequality, but to ensure that differences in income among individuals do not become differences in freedom.

This same principle applies at the collective level. Under capitalism, the division of resources between universal public services and individual discretionary spending is systematically skewed. Public provision is treated as a cost to be minimized, while the growth of private consumption is framed as the ultimate goal. A multi-criterial economy redraws this line through democratic decision-making about how much provisioning should be guaranteed to all and what should remain a matter of individual responsibility. This is not a technical problem that can be optimized by a computer or outsourced to experts. It is a political question, shaped by different ideas of need and obligation. What counts as a need is not fixed; needs are historically and socially defined, shaped by shifting norms, evolving expectations and collective struggle.[31] How society draws this line conditions the kinds of life choices individuals can realistically make.

So long as basic needs are guaranteed and income differences remain modest, markets can help organize the trade-offs of personal lives across

[31] On the politics of needs, see Agnes Heller, *The Theory of Need in Marx*, London 1976; Kate Soper, *On Human Needs*, Brighton 1981; Len Doyal and Ian Gough, 'A Theory of Human Needs', *Critical Social Policy*, vol. 4, no. 10, 1984; Nancy Fraser, 'Social Justice in the Age of Identity Politics', in Nancy Fraser and Axel Honneth, *Redistribution or Recognition? A Political-Philosophical Exchange*, London and New York 2003, Ch. 1.

many dimensions. Some may opt to work less and have more free time; others may work more and spend more on travel, hobbies or home comforts. Within this more equitable structure, individuals will still need to navigate difficult personal choices, balancing incommensurable aims: autonomy, connection, stability, achievement, leisure, personal growth. A multi-criterial economy does not eliminate the hard choices people have to make, but it ensures that, in making these choices, they have a strong foundation of social support.

5. WORKER-RUN FIRMS

In a multi-criterial economy, firms operate with autonomy, but not impunity. Each firm is established through an initial allocation of POINTS by a sectoral Investment Board and remains accountable to that Board over time. The firm belongs to the people who work there, but not in a capitalist sense; workers cannot buy or sell the firm's productive assets, nor draw income from its residual earnings. Instead, ownership takes the form of collective self-governance: workers exercise authority over internal decisions, selecting production methods, setting priorities and navigating trade-offs among competing aims. Firms cannot unilaterally expand their productive capacities—that requires Investment Board approval—but they retain discretion over how they operate within a given scale. They can change suppliers, introduce new processes, revise outputs, and return unused resources to the broader economy. To protect this autonomy, firms enjoy strong procedural rights. If they believe they are being treated unfairly, they can appeal to an independent judiciary empowered to hear and resolve such claims.

Firms' autonomy is not a blank cheque. It is conditioned on performance in meeting three interrelated goals. The first is to balance POINT inflows and outflows over time, so that the firm uses its POINTS budget effectively without accumulating surpluses or running chronic deficits. Second, the firm aims to maintain a good level of capacity utilization, ensuring that resources are neither wasted nor stretched beyond their limits. Third, it is expected to meet baseline multi-criterial standards for social, environmental and workplace performance, as determined by the Investment Board. The firm's price-setting, in this context, is an exercise

in judgement: it must reflect its actual cost structure, its anticipated demand, and the broader social aims it is trying to serve.[32]

Freed from the imperative to generate profit, the firm's POINTS budget and working practices can help to support a wide range of transformations: ecological restoration, new forms of mobility, enhanced product quality, durable goods, workplace redesign, community well-being, regeneration of public space. These benefits are measured in kind—that is, in different units; their outcomes are not reducible to a single metric and cannot be ranked on a common scale. As a result, there is no optimal method of production. Each involves compromises, and determining the best balance among competing priorities requires ongoing, situated judgement. Workers themselves possess the local and specific knowledge necessary to evaluate these trade-offs in context, and they hold the right to decide collectively how to prioritize among the goals their firm is pursuing. These decisions are necessarily provisional and subject to debate at Investment Boards, where firms across each sector learn from one another and make the case for their way of resolving trade-offs.

At the same time, each individual firm's performance is assessed by an Evaluation Committee composed of stakeholders: workers from similar firms, consumers, users, technical experts, representatives of affected communities. Members are randomly selected by sortition to ensure diversity and prevent capture. The process of evaluation is not primarily about surveillance or discipline; it is designed to support learning, adaptation and alignment. While financial balance can often be assessed automatically, both capacity utilization and broader social performance require judgement. The Evaluation Committee examines whether the firm is meeting its stated objectives, how well it is managing trade-offs

[32] Prices in POINTS markets are not mechanically determined by supply and demand but set by producers themselves—and hence are 'administered prices' in the strict sense. In fact most prices are set in advance by the dominant producers in today's capitalist economies: for groceries, consumer electronics, cars etc. In a multi-criterial system, pricing power is redistributed: Investment Boards govern capacity expansion, shaping the competitive landscape, while allowing firms to set prices within known and stable parameters. On administered prices, see Frederic Lee, *Post-Keynesian Price Theory*, Cambridge 1998, as well as Lee's *Microeconomic Theory: A Heterodox Approach*, London 2018. For a mainstream treatment that reaches similar conclusions, see Alan Blinder *et al.*, *Asking about Prices: A New Approach to Understanding Price Stickiness*, New York 1998.

among incommensurable goals and what adjustments might be needed. It also asks whether firms are operating on or near the 'production frontier'—delivering results across multiple dimensions without excess waste or missed opportunity.

Firms are not passive recipients of these evaluations. They are given space to explain and justify their choices—to show why certain trade-offs were made, and how they weighed competing priorities within budgetary constraints. The aim is not to identify a single correct path, but to make sure firms are acting in good faith to compose multiple values under constraint at or near the production frontier, rather than drifting into efficiency-first habits, neglecting goals that cannot be priced, or giving themselves too many perks. For most firms, evaluations take place at regular intervals. But large or systemically important firms are subject to continuous review, with rotating standing committees to provide ongoing oversight. This ensures that influential firms do not drift from their multi-criterial commitments or accumulate informal power. If firms fail to meet standards or cannot resolve conflicts on their own, a further mechanism exists: receivership, which comes with a loss of autonomy and control over production decisions.

Receivership is not a punishment. It is a temporary intervention designed to restore viability and uphold multi-criterial standards. Firms may enter receivership involuntarily—due to persistent failure—or voluntarily, if they are unable to resolve internal conflicts or manage complex transitions. In either case, the goal is rehabilitation, not liquidation. Only if recovery proves unworkable does dissolution occur and resources are reallocated. When a firm is wound down for reasons beyond its employees' control, they retain salary support and can access retraining or reassignment programmes. In this way, receivership functions not as a disciplinary tool, but as a mechanism for structured economic adaptation, ensuring that production remains responsive to collective priorities.

Under the dual-currency system, firms experience real budget constraints without being forced into efficiency-first competition. In this environment, firms are not flying blind. Because investment decisions are made publicly and all firms operate with open books, they can plan in relation to one another. They know what changes are coming, where supply is likely to expand or contract and how their own efforts fit into

the evolving landscape of their industry. Coordination is not imposed from above but emerges from shared visibility and mutual adjustment. The break with capitalism's profit-driven logic also makes it possible to reorganize firms around democratic governance and decentralized decision-making, in place of hierarchical management structures.

Workplace freedoms

Worker-managed firms have often been viewed as unsustainable. Critics argue that they are reluctant to hire new employees, as doing so dilutes existing workers' incomes; that they tend to underinvest, favouring higher worker incomes over long-term expansion; that to succeed, they will ultimately need to mimic the profit-driven strategies of conventional capitalist firms, making workplace democracy nothing more than a rubber stamping of regular managerial priorities.[33] These are real concerns, but they point not to inherent flaws in worker self-management but rather to the pitfalls of operating such firms within a profit-driven economy. A multi-criterial economy removes those pressures. Salaries, denominated in CREDITS, are set externally by the Technical Associations rather than by firms, removing the temptation to maximize wages at the expense of the firm's long-term health. Investment is allocated by the relevant Board, eliminating the need for firms to withhold funds for future growth.

As a result, worker-managed firms can become the default model of production, with organizational structures depending on the nature of their work. In some sectors, small, self-managed teams can handle their tasks autonomously. Others will need to coordinate production

[33] For classic analyses of the structural challenges facing worker-managed firms, see Benjamin Ward, 'The Firm in Illyria: Market Syndicalism', *American Economic Review*, vol. 48, no. 4, 1958; Evsey Domar, 'The Soviet Collective Farm as a Producer Cooperative', *American Economic Review*, vol. 56, no. 4, 1966; James Meade, 'The Theory of Labour-Managed Firms and of Profit Sharing', *Economic Journal*, vol. 82, no. 325, 1972; Jaroslav Vanek, *The Participatory Economy*, Ithaca 1971; Gregory Dow, *Governing the Firm: Workers' Control in Theory and Practice*, Cambridge 2003. For a useful counterpoint to these critiques, see Jan Vanek, *The Economics of Workers' Management: A Yugoslav Case Study*, London 2017 [1969]. For a recent attempt to build a coherent system around worker-managed firms, see Mike Beggs, 'The Market and Workplace in a Democratic Socialism', *Catalyst*, vol. 6, no. 3, 2022, which proposes externalized finance through public banks and wage stability through national benchmarks to overcome common property problems.

between those responsible for different stages of the firm's workflow. In some instances these approaches will be combined, allowing teams to manage specialized tasks while contracting with others on shared projects. A common objection to worker-management made by workers themselves is that it requires endless meetings. But meetings proliferate in capitalist firms as well, often without a clear purpose. In worker-run firms, meetings should take place only when they involve irreversible decisions, significant operational risk or coordination across multiple teams. In other cases, firms can rely on an advising system, similar to those used in the most effective 'flat firms' today. Individual workers retain decision-making authority over their own tasks but are required to consult those affected by their choices. The system helps foster a sense of responsibility and confidence in one's own judgement, qualities that extend beyond the workplace and lay the foundations for the full mobilization of collective knowledge.[34]

In capitalist firms, workers develop an immense body of experience—practical problem-solving, workflow adaptations, innovative technical approaches—but it is largely subordinated to the imperatives of revenue maximization. In a multi-criterial economy the firm becomes a site for problem-solving, where workers are encouraged to bring their skills, experience and judgement to bear in proposing innovations and experimenting with new ways of organizing production. What looks at first like a set of constraints—no retained earnings, no profit targets, no control over expansion—turns out to be a form of freedom. Firms are no longer forced to navigate credit markets or chase revenue in order to expand. Instead, they receive an operating budget and a clear set of goals. Within these parameters, they are free to concentrate on the substance of their work: to improve practices, share ideas and test innovations without being steered by profit imperatives.

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[34] I draw above all in this section from Frédéric Laloux, *Reinventing Organizations: A Guide to Creating Organizations Inspired by the Next Stage in Human Consciousness*, Brussels 2014. See also Michael Lee and Amy Edmondson, 'Self-Managing Organizations: Exploring the Limits of Less-Hierarchical Organizing', *Research in Organizational Behaviour*, vol. 37, 2017; Brian Robertson, *Holacracy: The New Management System for a Rapidly Changing World*, New York 2015; Gary Hamel and Michele Zanini, *Humanocracy: Creating Organizations as Amazing as the People Inside Them*, Boston 2020; Cal Newport, *A World without Email: Reimagining Work in an Age of Communication Overload*, London 2021; Dennis Bakke, *Joy at Work: A Revolutionary Approach to Fun on the Job*, Seattle 2005.

That freedom also transforms the motivation to work. Under capitalism, workers are often compelled to sacrifice the wide variety of goals they regard as meaningful—such as concern for quality, care and sustainability—in order to meet efficiency targets. When other goals are introduced, they appear as performance metrics to be gamed, always subordinated to the overriding aim of making money. In a multi-criterial economy this logic is broken. Intrinsically worthwhile goals such as ecological balance or workplace well-being can be treated as ends in themselves, to be balanced collectively within the limits of available resources.[35]

Among the goals worth pursuing for their own sake, the improvement of work and the reduction of working hours stand out as central. Firms are encouraged to redesign tasks and workflows to enhance autonomy, engagement and satisfaction. Outside experts—engineers, workplace designers, organizational psychologists—can be brought in to help reshape tasks and environments in ways that support intrinsic motivation.[36] Repetitive tasks are eliminated wherever possible, not because they are inefficient, but because they degrade the experience of work. Where repetitive tasks remain necessary, their burdens should be fairly distributed, through rotation or structural adjustments, so that no group is permanently assigned the least desirable work.[37] The balance between reducing working hours and improving work quality is determined democratically, at the level of the firm, the sector and the wider society. A multi-criterial economy does not demand that work should be the primary site of meaning in life; unlike earlier socialist traditions, which placed labour at the centre of self-realization, this allows people

[35] Here I draw on the Self-Determination Theory developed by Edward Deci and Richard Ryan in *Self-Determination Theory: Basic Psychological Needs in Motivation, Development and Wellness*, New York 2017; see also Mihalyi Csikszentmihalyi, *Beyond Boredom and Anxiety: Experiencing Flow in Work and Play*, San Francisco 1997; George Leonard, *Mastery: The Keys to Success and Long-Term Fulfillment*, New York 1998; Daniel Pink, *Drive: The Surprising Truth about What Motivates Us*, New York 2009; and Edward Deci, *Why We Do What We Do: Understanding Self-Motivation*, New York 1996.

[36] For an example, see Åke Sandberg, ed., *Enriching Production: Perspectives on Volvo's Uddevalla Plant as an Alternative to Lean Production*, Aldershot 1995.

[37] The problem of how to allocate unpleasant or less desirable work has been central to debates over democratic planning. See Albert and Hahnel, *The Political Economy of Participatory Economics*; and Devine, *Democracy and Economic Planning* for contrasting perspectives.

to treat it as one domain of meaning-making among many. At the same time, firms—sometimes working with other community groups and associations—can aim to shape the wider social environment in which its workers live by developing investment proposals for consideration by their Investment Board.

6. INVESTMENT BOARDS

As the Keynesians saw, the operational level of the economy—the production and distribution of goods and services—is structured and developed through society's investment function. Present capacities are the accretions of the investment decisions of the past. In a multi-criterial economy, the decisions of democratically constituted Investment Boards determine what kinds of material, infrastructure and organizational capacity will be available in each cycle of production. Each Investment Board oversees a distinct sector, such as durable manufacturing, transportation, food services, housing and commercial space, safety and justice, healthcare.[38] These Boards set up firms, change them and close them down. They allocate the POINTS to build factories and transit networks, reconfigure supply chains, embed software systems and introduce new tools and workflows. Investment can also be directed towards the reorganization of work, the retrofitting of homes for comfort and sustainability, the expansion of care infrastructure and the cultivation of public goods, from green spaces to crèches and libraries, that enrich the texture of everyday life. A social survey or other instrument could be used to determine how POINTS allocated to investment are distributed across the various Boards, thus determining their annual budgets.

Investment Boards are political assemblies—one for each sector—composed of workers, consumers, community representatives and technical experts.[39] In essence, they represent a form of collective self-management

[38] The International Standard Industrial Classification of All Economic Activities (ISIC, Rev.4) provides a first approximation of how these sectors might be divided up.

[39] This structure draws inspiration from Devine, *Democracy and Economic Planning*, though Devine's model involves a more layered institutional architecture, with interacting community and sectoral boards operating on multiple levels.

of an industry, encompassing not only those who produce goods and services but also those who rely on them. The Boards provide a space for debate, coalition-building and decision-making: an institutional infrastructure that enables the economy to be governed as a collective project. Because they are sites of political contestation, democratic composition is crucial. Workers have a direct knowledge of the industry in question—and a direct interest in investments that could improve working conditions—so they have an essential role to play. Users and customers help ensure that investment decisions prioritize product quality, affordability and accessibility. Representatives from community groups and civic associations offer a wider social perspective on the sector. Technical experts bring specialized knowledge, helping assess the feasibility and coherence of competing proposals.

Various electoral designs might be envisaged for bringing together these stakeholder groups. One option would be to organize Investment Board elections sectorally, with workers, consumers and community representatives voting for their sector's representatives every few years. This model emphasizes proximity and participation: those with direct experience in an industry would have the most influence over its development. A second option would be a general election to the Investment Boards, based on proportional representation, in which political parties or coalitions compete over the society-wide direction of investment. A national vote could determine the composition of all Boards, with seats allocated proportionally. This model ensures that the Boards reflect broader ideological orientations rather than functioning as isolated policy arenas.

A third model would be bicameral. Each Board would consist first of a Sectoral Assembly, composed of workers and consumers who directly assess and propose investment plans, and second of a Social Priorities Assembly, elected through a general proportional vote to review those plans and either ratify or send them back for revision. This would prevent sectoral Boards from pursuing isolated agendas while ensuring that large-scale ideological shifts are reflected in policy. If the two chambers became deadlocked, a snap election within that sector could resolve the impasse. The multi-criterial framework is flexible with regard to which model is chosen. What matters most is that investment remains an open arena of contestation—one where competing

perspectives can be fought for—rather than defaulting to bureaucratic inertia or elite control.[40]

Another question is whether technical experts should hold voting power on Investment Boards. One option is to grant experts full voting rights, ensuring that engineering, ecological, logistical and scientific knowledge is embedded at the heart of the process. A second option positions experts as external advisers, without voting power. In either case, experts should be chosen by democratic elections within their Technical Associations, rather than appointment by political leaders—recognizing expertise as an organized form of collective knowledge, not a personal credential.[41] A further layer of democratic participation could come in the form of Citizen Panels, assembled through sortition to oversee Investment Board performance, producing public reports that can inform future electoral choices. However, the legitimacy of investment decisions depends on people having a direct say in shaping outcomes, and that requires political representation.[42]

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[40] Direct or participatory democracy would be a fourth model for the Investment Boards, but large-scale participatory processes often struggle to manage complexity, sustain participation and prevent inequalities of voice. For different perspectives, see Carole Pateman, *Participation and Democratic Theory*, Cambridge 1970; Iris Marion Young, *Inclusion and Democracy*, Oxford 2000; Archon Fung, 'Varieties of Participation in Complex Governance', *Public Administration Review*, vol. 66, 2006; Nadia Urbinati, *Representative Democracy: Principles and Genealogy*, Chicago 2006; Ernesto Ganuza and Gianpaolo Baiocchi, *Popular Democracy: The Paradox of Participation*, Stanford 2016.

[41] For debates about how to integrate technical expertise into democratic decision-making, see Sheila Jasanoff, *The Fifth Branch: Science Advisers as Policymakers*, Cambridge MA 1990; Frank Fischer, *Democracy and Expertise: Reorienting Policy Inquiry*, Oxford 2009; Hélène Landemore, *Open Democracy: Reinventing Popular Rule for the Twenty-First Century*, Princeton 2020; Zeynep Pamuk, *Politics and Expertise: How to Use Science in a Democratic Society*, Princeton 2024.

[42] While sortition has been proposed as a way to deepen democratic participation, it should not be applied to investment decisions, which concern political choices among alternative futures and must remain contestable. For proposals for a society and economy structured around sortition, see Alexander Guerrero, *Lottocracy: Democracy without Elections*, Oxford 2024, and Michael McCarthy, *The Master's Tools: How Finance Wrecked Democracy (And a Radical Plan to Rebuild It)*, London and New York 2025. For critical perspectives, see Cristina Lafont, *Democracy without Shortcuts: A Participatory Conception of Deliberative Democracy*, Oxford 2020; and Cristina Lafont and Nadia Urbinati, *The Lottocratic Mentality: Defending Democracy against Lottocracy*, Oxford 2025.

People must be able to campaign for what they believe in, vote for representatives who share their priorities and hold them accountable through public scrutiny and the power to remove them from office. There is good reason to expect representative government to function better in this setting, since political debate is no longer skewed by concentrated wealth or constrained by the threat of capital flight. As noted above, each member of the Demos receives an equal-sized FREE POINTS budget, which they can allocate to Free Associations, including those dedicated to political agitation or the contestation of elections. While vested interests may still exist—no system can eliminate them entirely—their reach is sharply constrained. There are no profits to defend, no private fortunes to be made from steering investment decisions. And crucially, the economy itself is not structured in a way that pits democracy against economic performance. In capitalist systems, efforts to reflect popular values in economic life often come at the cost of investor confidence. Here, the system is designed to respond to the values that people actually hold. Democratic decisions concerning those values are the very means through which the economy moves forward.

Each investment cycle begins with the Investment Boards reviewing comprehensive data on sectoral conditions. The Data Matrix provides multi-dimensional insights into economic, ecological, social and subjective conditions. These diverse indicators are not aggregated into a single composite score but intentionally presented as divergent signals, emphasizing real tensions between priorities. As we've seen, Neurath-style visualizations can help Boards situate sectoral conditions within the economy as a whole, showing linkages to other sectors and relationships to larger ecological and social aggregates. Intuitive interfaces allow Board members and stakeholders to explore the data interactively, running hypothetical scenarios forecasting what would happen if investment priorities shifted. Expert testimony and stakeholder input complement these quantitative metrics, offering qualitative evaluations of the sector's most pressing challenges.

Once an Investment Board has received its allocation of POINTS, it issues calls for investment proposals. Representatives of workers, customers, community members and technical experts may announce the problems they want to solve or the goals they want to promote, but these guidelines do not set fixed boundaries. Proposals can respond directly to those

priorities, or they can introduce new possibilities—drawing attention to challenges or innovations that haven't yet been identified. Investment proposals often originate from within existing firms, whose workers are well positioned to identify bottlenecks or opportunities for improvement; their direct engagement with production allows them to envisage possibilities that external decision-makers might overlook. Investment proposals can also argue for start-up firms; Investment Boards reserve a portion of their POINTS for new ventures, ensuring that emerging firms have access to early-stage support for premises, capital equipment and labour. Many proposals will arise from collaboration with research institutes, consultancies and civic associations. A community organization focused on urban mobility may develop a proposal for expanding public-transit infrastructure and seek out elements within the transportation sector capable of implementing it. A research institute working on sustainable materials may collaborate with firms in construction to transition away from traditional inputs. Every proposal must be linked to a firm capable of implementing it, ensuring that projects are not only interesting but also practically feasible.

Investment proposals are structured documents that specify feasibility, budget requirements, supply-chain implications and potential risks, as well as articulating the intended contribution to broader social goals. Since developing proposals involves a significant amount of work, firms receive recognition and compensation for their efforts. Material incentives may take the form of bonuses in CREDITS, providing fair recompense for the time spent. But the deeper motivation is intrinsic: the opportunity to contribute to meaningful innovation and shape the trajectory of economic development. In this sense, competition for investment funds in a multi-criterial economy resembles competition in the sciences more than a capitalist market. Scientists do not pursue discoveries primarily for financial gain but for recognition, the ability to shape their field and the satisfaction of producing knowledge that benefits society. Public recognition plays a crucial role in this dynamic: firms that repeatedly develop successful innovations gain credibility with Investment Boards, making it easier to secure funding in the future.[43] Because investment proposals and POINT transactions are

[43] For the comparison with competition in the sciences, see John O'Neill, *The Market: Ethics, Knowledge and Politics*, Abingdon 1998.

fully public, firms are not navigating in isolation or attempting to outmanoeuvre competitors through proprietary knowledge. Instead, they operate within an open and highly coordinated environment, fostering collaborative forms of competition.

The Investment Board's selection from the proposals operates within strict budget constraints. Each Board should aim to spend 100 per cent of its portion of the total investment POINTS disbursed during each investment cycle. Some are pre-allocated directly to firms through a fast-track process, enabling incremental upgrades and maintenance. The remaining funds are strategically allocated across a range of needs: supporting new proposals, accelerating the adoption of proven innovations, incubating new firms, restructuring failing ones and maintaining long-term funding commitments for multi-year transformations. Within these limits, the selection process is not about choosing the most compelling individual proposals but assembling a set of investments that will shape the sector in a coherent and forward-looking way. While investment proposals are not algorithmically ranked or reduced to numerical scores, they undergo graded assessments prepared by sectoral-board staff, primarily to test the accuracy of cost estimates. These assessments help Board members screen out proposals that seem unlikely to deliver. But technical grading can only go so far: benefits cannot be reduced to a common scale. People reasonably disagree about which criteria matter most, how to define and pursue them, and how to weigh them against each other. Social values therefore cannot be treated as static inputs to be engineered into the system; they emerge dynamically through the pattern of investments over time, revealing which priorities the Investment Boards—and the broader public—consider most important.

Board members deliberate openly over the trade-offs that selecting a particular set of proposals embodies. They can draw on concurrent discussions occurring in public forums that allow community groups, ecological monitors, adjacent-sector representatives and others to voice support or concerns. Stakeholders can also formally present their views to the Investment Board and argue for specific investments. Technical experts provide testimony and analysis at Board members' request. Integrating both stakeholder deliberations and expert insights ensures that investment decisions are both informed and broadly legitimate, even if they are irreducibly political.

The Investment Board then votes on which proposals to approve. The voting process could be structured in different ways, with the goal of ensuring broad-based approval rather than domination by any single stakeholder group. However, sometimes sets of proposals will address the same issue in fundamentally different ways. When proposals are compatible—such as different models for transit expansion—Investment Boards may approve several, fostering differentiation and experimentation. When only one option can proceed, Boards would use a run-off voting process to determine the preferred path. In cases where representatives judge that a proposal would be actively harmful to long-term societal goals—such as by overshooting ecological limits or undermining social priorities—they can trigger a veto process to determine whether the proposal should be blocked. Blocked proposals can be revised and resubmitted in future cycles. In this way, veto power ensures that critical protections are enforced without closing off the possibility of negotiated transformation over time.

Synchronizing transformation

Because their domains are sector-specific, Investment Boards do not impose a fully coherent, centralized plan for the economy from above, but coordination and compromise will often emerge organically through this process. Board members will recognize interdependencies between investments and build coalitions to strengthen support. But the system does not depend on consensus. Because the investment process is structured around voting, not unanimity, the economy moves forward even when Board members' priorities diverge and conflicts are unresolved. The goal is not to eliminate political contestation, but to institutionalize it—to make structured disagreement the engine of decision-making rather than its breakdown.[44]

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[44] My approach to Investment Board governance is deeply influenced by Pat Devine's *Democracy and Economic Planning*. However, Devine's 'negotiated coordination' model seeks to promote consensus as the normal basis of economic coordination. In his account, when compromise cannot be reached, economic coordination breaks down; sectors or activities grind to a halt until agreement is restored. By contrast, the model proposed here—what we might call a *conflictual coordination model*—assumes that disagreement is a permanent feature of economic life. Coordination proceeds not by resolving conflict in advance but by structuring it into political procedures capable of producing actionable outcomes despite ongoing contestation.

Once the Board has disbursed the agreed POINTS allocations, the firms set about implementing their proposals. As discussed above, the outcomes of investment projects are assessed by Evaluation Committees, composed of workers, consumers, technical experts and community representatives. They also consider what new questions have emerged, illuminating unforeseen outcomes and suggesting fresh lines of inquiry. In large corporations and bureaucratic government agencies, failed projects are often concealed to protect reputations; multi-criterial evaluations ensure that ineffective investments are publicly acknowledged. The Data Matrix can supply additional insights, helping Evaluation Committees and Investment Boards decide which projects should be cancelled, restructured or fast-tracked for broader adoption across the sector. But the evaluation process is not just about determining success or failure; it is about collective learning. Firms build reputations for consistency in meeting multi-criterial commitments, or willingness to lead on pioneering issues. Similarly, Investment Board members—and their political coalitions—are evaluated by stakeholders and voters on how effectively their investment decisions have held up. This iterative evaluation process transforms investment into an ongoing democratic experiment, continuously adapting to the new conditions.

Some investment decisions cannot be left to the sectoral Investment Boards' incremental and exploratory process. They require broad, synchronized action across multiple sectors. For these, there are Coordinating Committees: institutions designed to drive society-wide transformations that require cross-sectoral alignment. During periods of rapid change—including the early stages of the transition to a multi-criterial economy—Coordinating Committees could become the primary instruments through which investment funds are channelled. Their aim is to steer economic change to achieve major objectives, in a way that overcomes bottlenecks and inertia, allowing society to move forward without waiting for each sector to work out its own course. This does not mean centralized economic planning in the traditional sense. There is no master blueprint, dictating how all the pieces must fit together. Instead, the Demos selects a number of overarching priorities and directs a portion of investment funds toward them. In this sense, Coordinating Committees serve as the industrial-policy mechanism of a multi-criterial economy: targeted, time-limited and democratically structured efforts at large-scale coordination—similar in function to five-year plans in traditional planned economies or contemporary China and

Vietnam, but embedded within a contested political system rather than imposed from above.[45]

Each Coordinating Committee is funded through a set-aside share of investment POINTS; for instance, 10 per cent of total funds might be allocated to a particular Committee, if the polity determines that is warranted. Unlike Investment Boards, which manage ongoing sectoral investments, Coordinating Committees have fixed time horizons, ensuring that their mandates remain focused. Membership of these Committees could be determined in multiple ways, blending technical expertise with democratic accountability. Once it is constituted, the Coordinating Committee's first task is to map out different possible pathways for achieving its goal. If the focus is a green transition, for instance, it might develop several competing models for phasing out fossil fuels and restructuring key industries. These proposals are then presented for public discussion. Sortition-based citizen assemblies might evaluate the proposals, drawing on expert testimony, modelling projections and stakeholder consultation. Then, a society-wide referendum is held to choose among the competing proposals. This grants democratic legitimacy to the selected pathway, giving the Coordinating Committee a mandate to proceed.

Crucially, the Committee does not bypass the Investment Boards; its proposals must still pass through the normal investment process. What the Committees does is shift the economic calculus for firms and Investment Boards by covering the costs of aligned projects. If an Investment Board approves a project that furthers the Coordinating Committee's mandate, funds from the Committee offset the project's cost, eliminating the

[45] For a democratic vision of industrial policy, see Amy Kapczynski and Joel Michaels, 'Administering a Democratic Industrial Policy', *Harvard Law and Policy Review*, vol. 18, no. 2, 2023. On the contemporary revival of industrial policy—particularly in relation to both China's rise and the need for a more coordinated form of the green transition, not just dependent on carbon pricing—see Jesus Felipe, ed., *Development and Modern Industrial Policy in Practice: Issues and Country Experiences*, Cheltenham 2015; Ha-Joon Chang and Antonio Andreoni, 'Industrial Policy in the 21st Century', *Development and Change*, vol. 51, no. 2, 2020; Barry Naughton, *The Rise of China's Industrial Policy, 1978 to 2020*, Mexico City 2021; Réka Juhász, Nathan Lane and Dani Rodrik, 'The New Economics of Industrial Policy', *Annual Review of Economics*, vol. 16, no. 1, 2024; and Mariana Mazzucato and Dani Rodrik, 'Industrial Policy with Conditionalities: A Taxonomy and Sample Cases', Working paper, UCL Institute for Innovation and Public Purpose, 2023.

financial burden from the Board's perspective. In this way, Coordinating Committees deliberately soften the budget constraints facing investment decisions—a necessary feature for driving large-scale structural change. However, this softening is carefully limited: it applies only to investment costs, not to firms' ongoing operational budgets.[46]

The final component of the investment system is the General Facilitation Committee, which aids other investment-coordinating bodies when bottlenecks arise. Unlike the sectoral Investment Boards, which focus on within-sector decision-making, or the issue-specific Coordinating Committees, which direct investment toward major transformations, the General Facilitation Committee does not have an active political agenda but helps resolve cross-sectoral conflicts that emerge organically from the investment process. For example, if two sectors require a simultaneous infrastructure expansion—say, energy storage and electrified transportation—but each Investment Board hesitates to move forward without the other, the General Facilitation Committee can allocate funds to encourage synchronized development. By resolving these emergent interdependencies, it helps avoid potential industrial-policy coordination failures.

Historically, industrial policy has been narrowly deployed to scale up manufacturing for wartime mobilization. Its deeper potential lies in generalizing this approach across multiple dimensions of social life. The green transition is an obvious candidate for Coordinating Committee intervention, but the model could be extended to any democratically desired transformations: work quality, collective care and democratic renewal, alongside traditional economic and infrastructural goals. One Coordinating Committee might drive the replacement of plastics with sustainable alternatives, funding R&D, infrastructure shifts and

[46] János Kornai famously criticized the 'soft budget constraint' as a source of inefficiency under socialism, but his analysis, like that of Włodzimierz Brus and Kazimierz Laski, mistakenly identified the core problem as the absence of market-determined ('parametric') prices and the continued use of sectoral industrial policy. Yet it was precisely aggressive industrial policy that drove the USSR's extraordinary rates of industrial growth between the 1930s and 1950s—and allowed it to repel the Nazi invasion. See János Kornai, 'The Soft Budget Constraint', *Kyklos*, vol. 39, no. 1, February 1986; Włodzimierz Brus and Kazimierz Łaski, *From Marx to the Market: Socialism in Search of an Economic System*, Oxford 1989.

consumer adaptation strategies. Another might push for a four-day workweek by supporting productivity-enhancing automation, invest in improved work quality for neglected occupations like care workers, cooks and cleaners, or prepare for the challenges of large-scale climate migration by creating welcoming, resilient cities. Given the finite capacity of society to focus simultaneously on different large-scale transformations, the number of active Coordinating Committees would be limited; a reasonable framework might allow up to three to operate at any given time. At the end of a Committee's mandate, its impact would be evaluated. If it has successfully completed its objectives, it is dissolved. If the goal remains partially unmet but still relevant, the Demos can vote to renew its mandate.

7. TECHNICAL ASSOCIATIONS

A technologically complex society requires a highly specialized division of labour. Unlike some visions of a world after capitalism which imagine that generalist skills will become the norm, the multi-criterial economy takes the trajectory of technological progress seriously. It does not require fewer specialists but more, spread across an expanding array of disciplines. Specialization is not an accidental feature of modern production but a necessary condition for sustaining a technologically advanced economy. A single industrial process might involve mechanical engineers, software developers, materials scientists, interface designers and supply-chain specialists. Progress happens not by flattening specialization but by integrating diverse forms of expertise across complex systems. In such a society, expertise must not remain the privilege of a few. Instead of abolishing professionalization, it must be universalized: everyone could be an expert in something, and many could acquire multiple competencies over the course of their lives. Sustaining a multi-criterial economy therefore requires an institutional framework that fosters expertise, integrating it into democratic economic decision-making.

This is the role of the Technical Associations. As we've noted, they build on the model of professional guilds or unions, but go far beyond; they are responsible for training, certification, internal professional standards and the integration of expertise into the investment-planning process.

Technical Associations ensure that every field has a structured process for educating new entrants and recognizing their competence. Some fields such as education, medicine and law already have strong professional traditions. Others might need to develop or expand them—for example, logistics, sanitation, food preparation, eldercare, homemaking, childcare and community health. Every socially necessary task, whether historically valorized or neglected, becomes a site of structured training, evolving standards and professional pride. Membership in a Technical Association is not tied to employment status; one may be an unemployed cook, a freelance data analyst or a caregiver between jobs. What matters is not whether one currently holds a paid position but whether one has completed training, demonstrated competence and participated in the life of the Association.[47]

Technical Associations define and transform professional standards. The work of a teacher is not judged in the same way as that of an architect or a surgeon; the goals of a software engineer differ from those of a sanitation expert. In each field, Technical Associations set professional standards of competence and excellence through processes of democratic debate, as members contest and refine their visions of what best practices should be and how their fields should evolve in response to social and technological shifts. By embedding these debates within stable institutions, Technical Associations also provide a crucial mechanism for accountability. In a world where monetary incentives are muted, professional excellence must be upheld through peer evaluation. Professionalization is not just a credential; it is a continually reaffirmed capacity to contribute to collective goals. Trust in a profession—and pride in belonging to it—depend on the integrity with which Technical Associations hold their members to the standards of their craft.

Technical Associations also provide a key institutional bridge between expertise and democracy, ensuring that experts participate in decision-making structures as accountable representatives, rather than as an unchallengeable elite. Hence the democratic process through which

[47] For an early version of this idea, see Émile Durkheim, *The Division of Labour in Society*, trans. W. D. Halls, Basingstoke 1984 [1893]), Preface to the Second Edition. Durkheim argued that occupational groups could serve as vital intermediaries between individuals and the wider economy, fostering solidarity, regulating professional standards and ensuring a more ethical organization of economic life.

Technical Associations elect their own representatives to participate in Evaluation Committees and on Investment Boards and Coordinating Committees. These elections are structured to reflect the diversity of perspectives within a field, ensuring that expertise is represented not as a monolithic voice but as a contested process, acknowledging that experts disagree, even within a single technical domain, on methodologies, priorities and the trade-offs between different values. Instead of suppressing these conflicts, the democratic structure of Technical Associations brings them into the open, allowing them to be debated within a framework that is accountable to the broader society. Since technical representatives can be recalled and replaced by their Associations, their authority is contingent on maintaining the trust of their peers. This guarantees that expertise remains dynamic, adapting to new developments and evolving priorities, rather than ossifying into bureaucratic stagnation.

Without safeguards, Technical Associations risk becoming insular or resistant to change. To counter this, they need protocols that encourage cross-training, allowing workers from other fields to bring in fresh perspectives. Openness prevents them from becoming closed guilds, stifling innovation and limiting access to new talent. A dedicated Investment Board for Technical Associations addresses this challenge. Like other Boards, this one allocates investment resources, which Associations need to upgrade their own training facilities, infrastructure and tools. At the same time, this Board certifies Associations, ensuring they meet rigorous standards of professionalism, ethical conduct and societal value. The Board could also mediate disputes within and between rival Associations, and adjudicate accusations of pseudoscience—in addition to helping emerging fields, such as synthetic biology, figure out how to structure themselves.

Finally, the Board serves as the space where Associations negotiate relative incomes across professions, aligning financial rewards with societal priorities. In a multi-criterial economy, as we have seen, firms do not directly pay workers' salaries. Instead, they pay rental charges for labour, just as they pay rental charges for fixed assets and land. These rental charges are denominated in POINTS and fluctuate based on the scarcity or abundance of different types of labour. When demand for workers from a particular profession rises, rental charges increase, encouraging

firms to economize on their use. When demand falls, rental charges decrease, signalling labour availability. However, individual salaries, paid in CREDITS, do not fluctuate with rental charges.

Deciding how salaries compare across professions—whether nurses should earn more than engineers, or care workers more than administrative workers—is a social issue. Since CREDITS correspond to a fixed share of total production—although one that the Demos can expand or contract over time—raising salaries in one area effectively reduces them in others. Wage-setting thus becomes a structured process of balancing economic needs with evolving social values. A general movement towards the compression of salary spreads will tend to prevail. However, if a profession sees rising rental charges but struggles to attract enough workers, it may be desirable to raise salaries to encourage more entrants. Conversely, if too many people enter a profession with limited opportunities, salaries may be adjusted downward to discourage over-saturation. But salary decisions are not dictated directly by changes in labour-market conditions. A society that values teaching or care work, for example, may choose to raise salaries for those professions even if their rental charges remain relatively low. Labour-market signals remain one consideration among many, always subordinated to collective judgement about social priorities.

Decoupling salary determination from firm-level decision-making has major consequences for economic coordination. In capitalism, wages vary according to firm profitability, producing high-paying jobs in finance and tech while essential jobs such as teaching and care work remain underpaid. In the multi-criterial economy, salaries are set at the societal level, preventing extreme inequalities from emerging within and between sectors. Firms, meanwhile, do not compete for labour by offering higher salaries. They simply decide whether to hire a given type of worker based on the Association's rental charge. This salary system also reshapes worker loyalty. Under capitalism, workers depend on their employers for income, making them vulnerable to exploitation and job insecurity. Here, professional identity is anchored in Technical Associations rather than firms. As long as workers uphold their profession's standards, they retain their salary levels even when transitioning between jobs. If there is no work for them to do at a particular firm, they can leave without fear of salary loss. If a firm pressures workers toward self-exploitation—demanding excessive productivity, cutting corners or

disregarding professional ethics—workers can turn to their Association for support. This ensures that efficiency pressures do not degrade working conditions and that professional standards remain the foundation of economic life.

8. ASSOCIATIONAL LIFE

A truly multi-criterial system needs institutions that do more than allocate resources. They must also shape knowledge, coordinate expertise and provide space for cultural and political experimentation. Unlike earlier eras, when innovation could emerge from isolated breakthroughs inside individual firms, modern technological development requires a massive and interlinked infrastructure of research, consultation and coordination. At the same time, a multi-criterial economy demands more of its technology than an efficiency-first economy ever did. It needs an infrastructure capable of identifying and mitigating value trade-offs across domains, rather than ignoring them in pursuit of narrow efficiencies. If Technical Associations ensure that specialized expertise is cultivated and integrated into economic decision-making, they do not, on their own, constitute a complete innovation system. In a multi-criterial society, technological progress is not confined to a single efficiency-driven trajectory but instead serves diverse social and cultural goals. Far from dampening technological dynamism, this system accelerates and generalizes it.

Even if a multi-criterial society chose to limit total output for ecological reasons, innovation would remain vigorous, pushing the boundaries of what can be achieved within environmental constraints; new energy sources, regenerative production methods and waste-free industrial processes could allow it to expand what it produced without exceeding planetary limits. The direction of technological change will be shaped by the kinds of problems society chooses to solve and the goals it chooses to pursue.[48] As priorities shift, so do investment funds for innovation. To sustain this development, the multi-criterial economy will depend upon a broad ecosystem of institutions—research institutes, consultancies,

[48] See Nils Rochowicz, 'Planning Progress: Incorporating Innovation and Structural Change into Models of Economic Planning', *Competition and Change*, vol. 29, no. 1, 2024.

local organizations—each playing a distinct role in guiding innovation. The history of technological advance already shows what this kind of public innovation system can achieve: the internet, life-saving vaccines and renewable energy technologies all emerged from public investment and open collaboration rather than market competition. By prioritizing societal goals over financial returns, this system ensures that technological progress benefits everyone, driving development along paths that would otherwise have remained unexplored.

The necessity of associational life extends beyond the technical sphere. A multi-criterial society is about enabling people to live richer, more expansive lives. What we might call the associational layer opens up into a world of cultural and political activities which people pursue freely, on their own terms. Its self-run organizations constitute a 'Free Sector', populated with Free Associations.[49] This move to the associational layer means that, in the strictest sense, this is no longer a model of an economy. It is the outline of a larger social architecture: a system that integrates what we once called 'the economy' into the broader terrain of political, social and cultural life. The boundaries between the economy and politics, which in capitalism were always contested but never fully dissolved, are here deliberately dismantled. What was formerly the economy is no longer an isolated domain; it becomes a field of collective judgement and political imagination, deeply intertwined with all other aspects of life.

Distinct from the functional economy—including from this perspective the Technical Associations and the investment system—the Free Sector is a structured space where people organize, experiment and engage in intellectual, cultural and political life without being constrained by economic justifications. Unlike markets, which require goods and services to prove their worth through consumer demand, or Investment Boards, which allocate resources based on assessed social priorities, the Free Sector is governed by a different principle: the right of individuals

[49] Some currents of socialist thinking have long stressed the centrality of associational life. See Peter Kropotkin, *The Conquest of Bread* (1892); G. D. H. Cole, *Guild Socialism Restated* (1920); R. H. Tawney, *The Acquisitive Society* (1920); Anton Pannekoek, *Workers' Councils* (1947). See also John O'Neill, 'Socialism, Associations and the Market', *Economy and Society*, vol. 32, no. 2, 2003; and, for an emphasis on associations in economic democracy, Paul Hirst, *Associative Democracy: New Forms of Economic and Social Governance*, Cambridge 1994.

and groups to explore and develop ideas, movements and institutions without needing to justify themselves in advance. This is not a side feature of a multi-criterial society. It is an essential part of how it remains dynamic, adaptive and open-ended. Historically, discussions of a realm of freedom beyond economic necessity have often centred on individual pursuits—education, leisure and cultural enrichment. But in practice, what people do in their free time is just as often associative as it is solitary.[50]

The organization of the Free Sector guarantees that people not only have the time but also the resources needed to question and reshape the trajectory of society itself. Activities within the Sector are funded through FREE POINTS, which account for a dedicated share of total production in each cycle. As we've touched on above, these are distributed equally to all, on a monthly or annual basis. In contrast to CREDITS, which are used for personal consumption, FREE POINTS can only be donated to Free Associations. Individuals can create or support associations across artistic, scientific, political and cultural domains—gaming and techno clubs, science and sports federations, political groupuscules and full-fledged political parties. These Free Associations use their POINTS to pay rental charges for facilities, equipment and intermediate inputs—for everything they need to function—just like firms. However, they are not allowed to hire labour. Work in the Free Sector remains voluntary, ensuring that its activities are driven by intrinsic motivation rather than commodified incentives. To participate, associations need only to register with the Investment Board that governs the Free Sector—which would also be responsible for monitoring these associations to make

[50] The distinction between a realm of necessity and a realm of freedom has deep roots in Western thought, dating back to Aristotle's *Politics*, where the realm of freedom was reserved for a leisured elite sustained by the labour of others. A major transformation occurred with Thomas More's *Utopia* (1516), where the division was no longer between classes but within each individual's day, balancing necessary labour and leisure for all—drawing on more positive late-medieval conceptions of the dignity of work. This tradition was further developed by early communists like Étienne Cabet and culminated in Marx's famous discussion of free time in the *Grundrisse* and *Capital, Vol. III*, where he spoke of a 'realm of freedom' as arising only beyond 'the realm of necessity'. Marx's focus on individualized free time may owe something to Schiller's *On the Aesthetic Education of Man* (1795), which emphasized the cultivation of free creative capacities. Karl Kautsky likewise linked the expansion of free time to the future of the working class in *The Class Struggle* (1892). This theme was taken up by many 20th-century thinkers, stretching from W. E. B. DuBois to André Gorz.

sure they are not violating any rules. Once registered, they can acquire FREE POINTS through donations and apply for fixed assets.

In capitalist societies, free time has been defined largely in negative terms: time off from work, a temporary escape from economic demands. People spend much of their leisure time recovering from exhaustion, numbing themselves through passive entertainment—watching TV or scrolling social-media posts—or catching up on domestic labour. The pressures of overwork, financial precarity and social instability leave little space for sustained engagement in creative, intellectual or political life. A multi-criterial society changes this dynamic. Universal security, shorter working hours and universal services liberate people from survival anxiety, enabling them to think beyond immediate necessity and explore their passions. As people adjust to their newfound freedom, free time evolves from a site of recuperation into an active domain of social life. This shift—from recovery to engagement—redefines the meaning of freedom itself. Not merely freedom from economic coercion, it is the freedom to pursue shared projects and to co-create social life alongside others.[51]

One of the defining features of Free Sector activity is that it operates in a space where needs are often un- or under-defined. Robotics enthusiasts might build machines that stretch the boundaries of possibility simply because they enjoy the challenge. An independent research team might explore speculative fields of knowledge that established institutions dismiss. These endeavours are not constrained by pre-existing social expectations or narrow arguments about utility; they are driven by the intrinsic motivations of participants. Because of the flexibility of FREE POINTS, these associations can exist at multiple scales. Some are small self-organized groups. Others grow into larger institutions that serve as intermediaries, aggregators or hubs for specialized work. Arts councils,

[51] Few discussions of the realm of free time have fully engaged with its associative, collective dimension. An early emphasis on voluntary association appears in Kropotkin's *The Conquest of Bread*. Bertrand Russell, in his excellent and understudied *Proposed Roads to Freedom* (1918), criticized Kropotkin's proposal and developed his own theories of art and culture under socialism. Later critiques of leisure under capitalism, such as Guy Debord's *The Society of the Spectacle* (1967) and other Situationist writings, gestured towards associative conceptions of freedom and cultural production. However, none of these approaches directly addressed the question of how resources might be collectively allocated within the realm of freely associated activity, which is the central concern here.

for instance, can collect FREE POINTS from donors and redistribute them to experimental creators. Independent research institutes play a parallel role in the intellectual realm. Religious and spiritual organizations are also sustained through voluntary support. Donors cannot dictate what the organizations do, but they can withdraw their support if the Association no longer aligns with their values. Under capitalism, many artistic and intellectual pursuits depend on wealthy benefactors, government grants or corporate sponsorship, each of which imposes constraints on what can be pursued. The Free Sector replaces this with a decentralized form of patronage, where power over cultural, intellectual and political life is distributed across society.

The political significance of the Free Sector extends far beyond cultural and intellectual life. It is also foundational to the democratic system. Under capitalism, political organizing is heavily constrained by financial barriers. Movements that challenge entrenched power structures struggle to acquire resources, while corporate and elite interests dominate public discourse through lobbying, media control and campaign finance. In a multi-criterial society, political organizations are supported directly through FREE POINTS, ensuring that movements are sustained by public participation rather than elite patronage. This system enables a far more dynamic and contested political landscape. New ideas can gain traction without requiring the backing of established interests. Movements that might struggle under capitalism can thrive in a world where people have the means to support them directly. Political organizations can form, dissolve and reconfigure as the priorities of the population shift. Democratic life in the Free Sector ensures that society is always open to internal contestation, collective learning and political renewal.

What has been outlined here is merely the institutional framework of a multi-criterial economy freed from the logic of profit. The political content that animates it would emerge from the choices and struggles of its participants, who—secure in their access to the necessities of life—would be free to decide collectively which among the possible alternative futures they wish to pursue, and to transform their world accordingly.