

The Global Agentic Economic Constitution

Paper V of *Foundations of Agentic Economics*

Matthew Long
The YonedaAI Collaboration
YonedaAI Research Collective
Chicago, IL
matthew@yonedaai.com

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Abstract

Economic institutions built around scarce human administrative capacity are being asked to govern a system in which coordination is abundant and mechanical. This paper proposes a constitutional response, and it is constrained throughout by what the four preceding papers of this series actually established. Paper I established that the obligation is the primitive and that the money an economy requires, $M_t = \mathcal{R}(\mathcal{E}_t)$, is a vector of per-currency, per-window settlement requirements determined jointly by the promise structure and a legal partition of obligations; the partition is therefore a policy variable. Paper II established a conditional, and the condition is binding on everything downstream: artificial agents are not independent economic principals today, and the paper says what would have to become true for them to become so. Paper III tested the proposition that production should not be a taxable event and found that it survives as an immediate programme financed from final consumption, with public capital reducing the required rate instead of gating the abolition; replacing the 18.51 per cent of GDP the United States raises from production requires a public endowment of 3.70 times GDP at a five per cent draw and 7.40 times under a rule that preserves the fund's share of the economy, the latter exceeding the entire net worth of the American household sector. Paper IV established that contracts and clearing are specifiable, that one of seven identity components is deployed, and that the central efficiency parameter is endogenous, since agents facing near-zero transaction costs can manufacture the circular obligations that inflate it. From these we construct twelve articles covering economic personhood, the right to produce, open participation, property and claims, freedom of contract, monetary neutrality, productive-tax neutrality, competition, human sovereignty, political pluralism, universal protocol access and intergenerational stewardship. Each article is stated as constitutional text and then argued against the specific result that grounds it and the specific cost it imposes. We state a priority ordering among the articles, run them against the paper's own constitutional test, and report that four of the twelve fail it: three that a government of the drafter's own persuasion would inherit with pleasure, and one, the access guarantee, that fails in the opposite direction. The access guarantee that would restore the balance has no costing anywhere in this series, which is a limit on the framework and not a measurement of its shortfall. The organising claim is that the machine economy should be financed at the point of consumption, not by a claim on work: a claim on work is measured at a realisation event that the netting perimeter helps define, while final consumption is a terminal act that cannot be manufactured by reorganising a graph of obligations. The claim is addressed to the constitutional stage, and the paper is explicit that a rule of this kind degrades if it is keyed to a measure and handed to a system that optimises against it.

Keywords: constitutional economics, agentic economics, economic personhood, monetary neutrality, public capital endowment, protocol governance, universal basic agency

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1 Introduction

Human civilization is entering an economic order in which intelligence, production, contracting, capital allocation and economic coordination can increasingly be performed by autonomous computational agents. Economic institutions designed around scarce human administrative capacity must therefore be reconstructed around abundant machine coordination while preserving human sovereignty, pluralism and individual economic liberty.

That sentence is the premise of this series, and the four papers preceding this one were written to find out how much of it is true. The answer is uneven, and this paper is constrained by the unevenness. Two of the four layers came back with results stronger than the premise required. One came back with a conditional whose condition does not currently hold anywhere. One came back with arithmetic that works for two of the five countries it examined, at rates no state has tried, and fails outright for two others. A constitution assembled from those four layers has to be honest about which of its provisions rest on a theorem, which rest on a measurement, and which rest on a hope.

1.1 Why a constitution and not a policy

The institutions this series describes have a property that ordinary economic policy does not. They are the substrate on which economic activity happens, and not a set of choices made within it. Who may hold an identity, whose promises may be netted against whose, which determinations are appealable, and what a state may seize are not questions that a market resolves, because the market presupposes an answer to them. The distinction is the one Buchanan and Tullock (1962) draw between the constitutional stage, at which rules are chosen without knowing one's eventual position under them, and the operational stage, at which one acts within rules already fixed. Rules chosen at the first stage have different properties from rules chosen by whoever currently holds the advantage, and the difference is the whole point.

There is a second and more mechanical reason, which Paper IV develops at length and which we restate here because it is the load-bearing argument for constitutionalisation rather than legislation. The protocol layer has every property that economics associates with tipping. Adoption externalities are strong, since the value of a clearing network rises with participation. Switching costs are high, because a settlement history cannot be rebuilt elsewhere. The market is two-sided (Katz and Shapiro, 1985; Farrell and Saloner, 1985; Rochet and Tirole, 2003). Under those conditions the guarantees that matter cannot survive as commercial undertakings by whoever wins, since an undertaking that binds only while the promisor finds it convenient is worth its option value, which is zero at the moment it would bind. Paper IV's conclusion is that such guarantees have to be structural or they will not exist. Structural, in a system of this scale, means constitutional.

Kydland and Prescott (1977) supply the formal version. A policymaker who reoptimises period by period, with no ability to commit, achieves worse outcomes than one bound by a rule, because private parties anticipate the reoptimisation. Transposed to a protocol governed by an optimiser, the point is that a rule the optimiser may rewrite when the rule binds is not a rule. North and Weingast (1989) supply the historical version: the English constitutional settlement after 1688 mattered economically because it made a sovereign's promise not to expropriate credible, and the credibility showed up in the capital market and not in the rhetoric. Constitutions do economic work when they remove options from the party that would otherwise have them.

1.2 What this paper is, and what it is not

This is a design document. It has no ratifying body and no jurisdiction, and nothing enforces it. Nothing in it becomes law by being written, and Section 8 takes that objection seriously instead of deflecting it.

What the document does is specify a set of constraints, argue each one against the specific result in Papers I through IV that grounds it, and state what each one costs. A constitutional provision that costs nothing is either redundant or unenforceable, so the cost column is the part that carries information. One of the twelve, the access guarantee of Article XI, has no costing anywhere in this series. Section 6 treats that as an absence in the framework and not as a measured shortfall, since no figure for it exists to be measured against.

The word *global* in the title requires an early qualification, because it is the weakest word in it. There is no global sovereign and no global insolvency regime, and no court has jurisdiction over the whole object. Paper IV leaves the conflict-of-laws question open for a participant population that is global by construction, and observes that the derivatives industry needed roughly two decades of jurisdiction-by-jurisdiction legislation to settle the analogous question for the institutions trading under master agreements (International Swaps and Derivatives Association, 2010). The claim behind the word is narrower than it sounds: the protocol is global whether or not its governance is, so a framework that stops at a national boundary governs the smaller half of the object. Section 8 returns to this.

1.3 The four layers, stated with their scope conditions

Section 3 does this properly. The compressed version is as follows, and each clause is a constraint on what the articles may claim.

Paper I proved that the settlement requirement of an obligation graph depends on how the graph's edges are partitioned into legally offsettable groups, that coarsening the partition weakly reduces the requirement, that no partition eliminates it because balanced graphs are non-generic, and that shortening the offsetting window is a refinement and so weakly raises the requirement. The consequence for this paper is that $M_t = \mathcal{R}(\mathcal{E}_t)$ is a vector indexed by unit of account and settlement window, not a scalar money stock, and that the partition is an institutional variable which somebody sets. Paper I also fixed a boundary that the constitution must respect: credit against expected production requires pledgeability, meaning verifiability of output and recourse that survives the obligor's failure, and a substantial part of the collateral literature runs the other way, deriving borrowing constraints precisely from the unpledgeability of future output (Kiyotaki and Moore, 1997). Nothing in this series establishes that agentic production escapes that problem, and no article below assumes it does.

Paper II established a conditional. Artificial agents are not independent economic principals in any jurisdiction its author could identify; under current law the agent is an instrument and the obligor is its operator or a corporate wrapper. What Paper II supplies is an account of what would have to become true for the conditional to discharge, along with two testable routes by which an agent could become the obligor in economic substance while remaining a non-person in law: underwriting that prices the agent's own delivery record rather than its operator's identity, and enforcement through the settlement mechanism itself. If neither route opens and the standing gap never closes, the framework reduces to a vocabulary for the automation of managerial and legal labour, and the automation literature describes that better. Every article below is conditional in the same way, and Section 9 states the observation that would settle it.

Paper III tested the proposition that production should not constitute a taxable event against five fiscal systems and reported the failures at least as prominently as the successes. The proposition turns out to be a claim about stocks written in the grammar of a claim about rates. Section 3 gives the corrected figures. The short version is that the United States would have to replace 18.51 per cent of GDP, which at a sustainable draw of 2.5 per cent requires a public endowment of 7.40 times GDP, or roughly \$205 trillion against household and nonprofit net worth of \$183.0 trillion. The proposition survives as a policy that can be adopted immediately, at a consumption rate of 37.2 per cent tax-exclusive for the United States on a base with New Zealand's coverage, with a public endowment

lowering that rate over decades instead of gating it.

Paper IV specified the protocol and found one of its seven identity components deployed. Signed-mandate delegation is running in production, so the authorisation component is buildable with 2026 technology; the other six, including the obligation and claim registers and the countersigned settlement history the credit layer depends on, have no deployed analogue. It also found that the parameter on which the design's efficiency claim rests, the nettable proportion n , is not a constant of the economy, is a property of the netting partition, is a policy variable in consequence, and can be inflated arbitrarily by agents originating circular obligations that carry no underlying activity. Since the manufactured cycles are the first to vanish under stress, the strategy that maximises reported netting efficiency in normal conditions also maximises the shortfall in bad ones. Paper IV's restriction, that artificial intelligence may optimise the protocol without holding sovereign authority over it, is the direct response, and this paper's Article IX is its constitutional form.

1.4 Plan

Section 2 sets out the constitutional method and the test a provision has to pass. Section 3 states what each layer established and under what condition. Section 4 presents the synthesis mapping, which is the series' set of conceptual substitutions, with the caveat attached to each. Section 5 contains the twelve articles, each as constitutional text followed by commentary tying it to a result and to a cost. Section 6 sets out where the articles conflict. Section 7 argues the organising claim. Section 8 takes the objections we consider serious, and Section 9 states what would defeat the framework. Appendix A collects the article text without commentary, and Appendix B maps the series' notation and locates each result cited here.

2 Constitutional method

2.1 What kind of object the articles are

A constitution in the sense used here is a set of restrictions on what any participant may do to the shared economic substrate, including the participant that happens to hold public authority. It allocates nothing and says nothing about what the economy should produce. Ostrom (1990) found that durable commons institutions share a small set of operational features: boundaries that are defined, participation by the affected in modifying the rules, monitoring accountable to participants, graduated sanctions, and conflict-resolution mechanisms that participants can actually reach. Those features are the target of the drafting below, and the last of them is the one most often omitted from technical designs.

The articles are incomplete in a specific and unavoidable sense. Grossman and Hart (1986) and Hart and Moore (1990) located the economic content of ownership in residual control over contingencies that a contract failed to enumerate, on the argument that enumeration is impossible past some point. A constitution is an incomplete contract of exactly this kind, and the interesting question about any provision below concerns the cases it fails to cover and who decides them. Article IX answers that question by reserving residual authority to human constitutional process, which is a substantive allocation and not a formality.

2.2 The test a provision has to pass

We apply one test, and it is stricter than it first appears. A provision qualifies as constitutional only if it constrains a government whose economic philosophy is opposed to the drafter's.

This is the anti-repression principle that motivates Article X, generalised into a drafting rule. A

framework that protects economic freedom by outlawing socialism is brittle, because the machinery that outlaws one economic philosophy is available to whoever next controls it, and it will eventually be pointed the other way. The same argument runs in reverse. A framework that entrenches collective ownership is available to be pointed at collectives. The provisions that survive the test are those that protect the ability to choose an arrangement and to leave it, and that constrain compulsory universal capture regardless of which ideology is doing the capturing.

Principle 1 (Protocol protection). Protect the economic protocol from coercive capture, not from competing ideas. A constitutional provision that a government of the opposite persuasion would be happy to inherit has failed the test.

Principle 1 disqualifies several provisions one might otherwise want. A constitutional ceiling on the size of the state is a substantive economic preference and not a protection of the substrate, so it goes. A mandate of zero production taxation goes for the same reason, and for a second one developed in Article VII. So does a prohibition on public ownership of productive capital, which would void Paper III's entire fiscal architecture. What it does not disqualify is a requirement that participation in any particular arrangement be voluntary and exit from it be available, because that constrains every arrangement symmetrically.

2.3 Why exit does the enforcement work

Tiebout (1956) is the origin of exit as a discipline on public authority: where citizens can move between jurisdictions offering different bundles, the choice among bundles constrains each provider without anyone voting. Hirschman (1970) generalised the mechanism and set it against voice, and Paper IV concluded that in a protocol setting exit is what makes the other guarantees credible, since a participant who cannot leave cannot refuse. The same structure appears in Weingast (1995) on market-preserving federalism, where the constraint on predatory government comes from the mobility of the base and not from the text of a rule, and in North and Weingast (1989), where a sovereign's commitment became credible once the holders of capital acquired an institutional alternative.

The constitution's enforcement mechanism is therefore the availability of an alternative, which is exactly what platform tipping destroys. Article VIII carries more than its subject matter suggests, since without it the remaining eleven articles are undertakings by a monopolist.

2.4 Where the method is weak

Three weaknesses remain.

The framework has no account of ratification. Buchanan and Tullock (1962) derive constitutional rules from unanimous agreement at the constitutional stage, and there is no constitutional stage here; the protocol is being built commercially, in public, by parties with positions to protect. A set of articles written after the fact by an interested observer has none of the properties that make constitutional choice normatively interesting.

One account of constitutions would rescue the document from that objection, and it is not the contractarian one this paper has been using. Hardin (1999) argues that a constitution works as a coordination convention and not as an agreement: it succeeds when it establishes a focal point from which no party gains by unilateral departure, and its authority comes from convergence and not from consent. On that reading an unratified document can do work if it is salient and self-enforcing, which sets a different design target from the one pursued here. A constitution built for coordination would be shorter, would state fewer articles, and would be judged on whether each provision is one that participants would find it costly to deviate from alone. Twelve articles with escape clauses do not

obviously meet that standard, so the account of constitutions that would justify this document is not the account it uses.

The framework has no account of enforcement against a state. Acemoglu et al. (2001) give evidence that institutional constraints on expropriation have large and persistent economic effects, which supports the value of the constraints; it does not supply a mechanism by which a state acquires them if it does not want them.

The framework governs an object that mostly does not exist. Paper IV is explicit that no component it describes has been deployed at the discussed scale, and Paper II is explicit that its central actor has no legal standing anywhere. Constitutions for absent objects have a poor record. The defence available is the one Paper II offers for its own status: the thinking is better done before the system arrives than after.

3 What the four layers established

This section states each layer’s results with the conditions attached. The conditions bound what the articles may claim, and several articles are narrower than the series brief anticipated because of them.

3.1 Paper I: the obligation is the primitive, and the partition is the variable

Paper I models an economy as a time-dependent directed graph $\mathcal{E}_t = (V, E_t)$ whose vertices are humans, firms, governments, machines and artificial agents, and whose edges $e_{ij} = (q, u, t, c, r)$ carry a quantity, a unit of account, a maturity, a set of conditions and a risk. Money is derived: the standardised, highly transferable claim used to discharge whatever clearing could not cancel. The compact statement is the Residual Settlement Principle, $M_t = \mathcal{R}(\mathcal{E}_t)$.

Four results follow. Compressing gross positions while holding net positions fixed changes nothing about what must be settled, so compression ratios and netting ratios are not comparable quantities. Coarsening the partition of obligations weakly reduces the settlement requirement, so multilateral netting dominates bilateral, which dominates gross. No arrangement reaches zero unless every vertex is balanced, and balanced weight vectors form a proper linear subspace and therefore a set of measure zero. Shortening the window over which obligations may offset is a refinement, so it weakly *raises* the requirement, rising to gross funding in the limit of instantaneous settlement. The fourth cost the series a claim it had wanted to make: speed and netting pull against each other, so autonomous agents do not reduce settlement demand by operating continuously. What survives is that machine reconciliation widens perimeters and that a wide window can be searched continuously for offsets, giving continuous discharge at close to net funding.

Three points from Paper I bind the constitution directly.

The first is that M_t is a vector. Obligations denominated in different units and maturing in different windows do not offset, so the settlement requirement is indexed by unit and window, and aggregating it into a scalar requires an exchange rate vector and a discount curve that lie outside the framework. Article VI is drafted around this: monetary neutrality is a statement about the absence of a privileged representation, not a claim that all representations are commensurable.

The second is that the partition is set by netting agreements, insolvency law, clearing house membership and finality statutes. Paper IV’s contribution to Paper I is that this makes $\mathcal{R}$ an institutional operator implemented in software, and therefore makes M_t a policy variable. Paper I’s five-party example fixes the magnitude: the same obligations require 65 of settlement under one multilateral perimeter, 295 when the participants clear in two venues with cross-venue obligations settling gross, and 515 under gross settlement. The requirement therefore moves by a factor of 4.5

between two plausible arrangements, and by about eight if the degenerate gross baseline is included, with no economic relationship changing across any of them. Later references here use 4.5 unless the gross baseline is named. Duffie and Zhu (2011) establish the case of central counterparties, which Paper IV’s fragmentation proposition subsumes. Whoever draws the perimeter sets the economy’s demand for settlement liquidity, and Articles VI and VIII are written on that basis.

The third is the pledgeability boundary. Underwriting against future production requires that a claim on output not yet produced be establishable, monitorable and enforceable, and requires recourse that survives the obligor’s failure. Kiyotaki and Moore (1997) derive borrowing constraints from the opposite premise, that future output cannot be pledged, which is why durable assets serve as collateral. Papers I and II both name this and neither resolves it. Lian and Ma (2021) find that cash-flow-based constraints dominate asset-based ones in United States corporate borrowing, which shows that lending against a flow is ordinary practice; it does not show that the enforcement apparatus built around human-run going concerns extends to agentic issuers. No article below treats forward production as collateral.

3.2 Paper II: a conditional, and what would discharge it

The economics of artificial agents as economic actors, as distinct from artificial intelligence as a production technology, is recent and thin. Hadfield and Koh (2025) frame agents as parties that plan, negotiate and operate under institutional constraint, in a volume chapter also circulating as a preprint; Tomasev et al. (2025) and Yang et al. (2025), both 2025 preprints and neither peer reviewed at the time of writing, propose sandboxed agent economies and an auction-based marketplace respectively; and Aldasoro and Desai (2025), a central bank working paper, supplies the rare empirical piece, a study of language-model agents managing liquidity buffers and settlement timing in a payment system. The status of these sources is part of the finding: the institutional literature on agentic production is thin enough that a synthesis leaning on it is leaning on work that has not yet been refereed. Against that background, Paper II’s contribution is a location, not a technology. What is new about an artificial agent is not that it produces, since machines have produced for two centuries, but that it can occupy the obligor position on an edge of $\mathcal{E}_t$. A lathe cannot promise. The economics that changes is contract theory and monetary economics, and the production side changes less than the enthusiasm suggests: autonomous intelligence is produced capital, manufactured out of compute capital and energy, and the additive decomposition $\mathcal{P} = H + A + K + E + I$ is the perfect-substitutes upper envelope of the constant-elasticity family, so a forecast computed from it bounds output from above within that family.

The scope condition is stated in Paper II’s own introduction. Under current law in every jurisdiction Paper II could identify, an artificial agent cannot be a party to an enforceable contract. The doctrine that an automated system acts for a principal is settled (United Nations Commission on International Trade Law, 2005; National Conference of Commissioners on Uniform State Laws, 1999), and it settles the validity of machine-formed contracts while leaving the agent a conduit. If the agent is a conduit, its obligations are its principal’s obligations, its capacity is its principal’s capacity, and the balance sheet $B_i(t)$ has no independent existence. The limited liability wrapper that Bayern (2015) identified supplies a container and not a solution, since it gives a counterparty no reason to believe the agent’s forward production and no recourse worth having if production fails. LoPucki (2018) draws the alarming version of the same observation. The European Parliament’s 2017 proposal for a status of electronic personhood attracted substantial opposition and was not carried forward (European Parliament, 2017).

Paper II names two routes by which the conditional could discharge without the law changing. Under the first, the credit decision comes to be made on the agent: if spreads on an agent’s obligations track its own delivery record rather than its operator’s identity, the object being underwritten has changed even though the signature has not. Under the second, performance is enforced by the settlement

mechanism, through escrow and conditional release against attested delivery, so that legal standing is not required for the promise to be made good. Both routes are bounded by verifiability, and Paper II’s verifiability paradox is that the agents doing the least routine and least checkable work are precisely those whose forward production cannot be attested.

Four further results from Paper II are used below. Where capability is replicable at negligible cost and entry is free, the return to autonomous intelligence as such is competed to zero and rent accrues to inputs in inelastic supply: energy generation and transmission, sited data-centre capital, land, spectrum, non-replicable data. Where frontier access is controlled by contract and secrecy, the provider captures that rent instead, and provider rent is mobile in exactly the way land is not. Verification failure across agents sharing a model lineage does not diversify away, so a lender holding exposure to many agents on a common model holds far fewer independent positions than the count suggests. And a provider who can withdraw model access holds a position functionally equivalent to a senior claim on every dependent agent’s production, exercisable at will, appearing on no balance sheet and disclosed to no creditor. Articles III, VIII and XI are written against these.

3.3 Paper III: the fiscal proposition survives only as a trajectory

Paper III’s administrative premise, developed in Section 7, is that agentic settlement leaves third-party reporting intact while making the reported quantity ambiguous. Paper III took the proposition that production should not constitute a taxable event and computed, for five countries, the revenue that setting labour income, business profit and social insurance taxation to zero would require somebody to find elsewhere. The results are in Table 1, and they are the binding quantitative constraint on Article VII. The revenue composition underlying them is OECD Revenue Statistics for the 2025 edition (Organisation for Economic Co-operation and Development, 2025).

Table 1: Replacement gaps and required public capital endowments, from Paper III. Gaps are percentages of GDP. Endowment ratios follow $w^* = \gamma/\rho$; the stewardship column uses $\rho = r - g = 2.5$ per cent. OECD countries are 2023, Singapore FY2025, the UAE 2023. The UAE row is hydrocarbon revenue rather than income tax, since the UAE levies no personal income tax; it is the rent that would have to be made permanent.

Country	Gap (% GDP)	Required W_G/Y		
		$\rho = 5\%$	$\rho = 4\%$	$\rho = 2.5\%$
United States	18.51	3.70	4.63	7.40
Denmark	28.94	5.79	7.24	11.58
Norway, as reported	30.88	6.18	7.72	12.35
<i>after petroleum reclassification</i>	21.69	4.34	5.42	8.68
Singapore	6.99	1.40	1.75	2.80
United Arab Emirates	13.39	2.68	3.35	5.36

In dollars, the three American figures are \$103 trillion, \$128 trillion and \$205 trillion against 2023 output of \$27.72 trillion on the OECD vintage. Household and nonprofit net worth in the United States was \$183.0 trillion in the first quarter of 2026 (Board of Governors of the Federal Reserve System, 2026). The two dates differ, and the mismatch runs against the proposal: measured on a 2026 output base the required endowment would be larger in dollars than the 2023 figures quoted here. At a four per cent draw the endowment is about 70 per cent of everything American households own, and under the stewardship rule it is 112 per cent of it. Neither draw rate is argued for here; the ladder is reported because the requirement scales as $1/\rho$ and the choice of ρ moves it by \$100 trillion. Denmark, which raises 65.7 per cent of its tax revenue from income taxation and social contributions and has no resource rent, would need a fund substantially larger relative to its economy than Norway’s Government Pension Fund Global, which stood at NOK 21,268 billion at the end of 2025, about 4.84 times mainland GDP,

and fell to about 4.55 times mainland GDP by 31 March 2026 (Norges Bank Investment Management, 2025; Norwegian Ministry of Finance, 2025). The two ratios are not directly comparable, because the Danish requirement is measured against GDP and the Norwegian fund against mainland GDP. Paper III’s own figures make the correction recoverable, since total Norwegian tax is 41.63 per cent of total GDP and 53.0 per cent of mainland GDP, so mainland output is about 78.5 per cent of the total and the fund is about 3.8 times total GDP. On the common denominator Denmark’s stewardship requirement is roughly three times Norway’s realised ratio.

Four findings from Paper III shape Article VII more than the levels do.

The empirical ceilings on the non-income bases are low and are not a matter of political will. The highest recurring tax on immovable property ever recorded in the OECD is the United Kingdom at 4.18 per cent of GDP in 1982, and that base includes buildings. The purest land value taxes yield far less: Denmark’s *grundskyld* raised 1.09 per cent of GDP in 2023 and 0.77 per cent in 2024, the fall being a statutory reform of assessment and rates and not a collapse in land values (Statistics Denmark, 2026), and Estonia’s raises about 0.15 per cent. No country has ever raised one per cent of GDP from carbon taxation, the verified maximum being Norway at 0.44 per cent in 2024, counting the general and the offshore petroleum carbon taxes together. Paper III is nonetheless kinder to George (1879) than the observed yields suggest, because observed taxes are levied at low rates on assessed capital value, and a tax at rate τ_L on assessed value captures only $\tau_L/(i + \tau_L)$ of the rent. Setting the rate equal to the market yield collects half of it.

The Henry George Theorem delivers something precise and something less useful than the Georgist tradition claims. Arnott and Stiglitz (1979) proved that in a city of optimal size, aggregate land rents equal expenditure on the local public good. Where land is worth 2.4 to 2.8 times GDP, full rent capture yields roughly 10 to 11 per cent of GDP, which is close to what advanced states spend on public goods in the economist’s sense. What it cannot finance is the transfer state, because a pension is not a spatially fixed amenity and its value does not capitalise into any location. The architecture is a complete financing system for a state that provides public goods and is not one for a state that redistributes income.

Growth lengthens the accumulation path, which matters for how fast the rate falls even though it no longer gates the abolition. The sustainable draw under a stationary fund-to-GDP rule is $r - g$, so faster growth lowers the draw and raises the required ratio, and the offsetting effect on the contribution flow cancels exactly, leaving accumulation time $t^* = \ln(1 + \gamma/s)/(r - g)$, strictly increasing in g . At a real return of 4.5 per cent and public saving of 5 per cent of GDP, the American figure is 44 years at one per cent growth, 62 at two and 103 at three, so an artificial intelligence productivity boom slows the rate reduction even as it makes the absolute sums easier to generate.

The sequencing problem that dominated the earlier framing dissolves once the endowment is a rate reduction and not a precondition, since the abolition no longer waits on accumulation. What survives of it is a warning about spending the fund too fast: Singapore could close its gap on current resources only by spending the whole of its expected real return instead of the half its constitution permits (Republic of Singapore, 2016), which converts a permanent endowment into a several-decade annuity and halves the fund against GDP in about 35 years.

3.4 Paper IV: buildable, and gameable

Paper IV specifies an economic identity ID_i carrying attested capabilities, a chain of authorisations terminating in a person who can be held liable, outstanding obligations, claims held, attributed reputation, third-party guarantees and a countersigned settlement history. It specifies a contract object carrying inputs, outputs, price, conditions, verification, settlement and recourse. It grounds both in deployed standards (Sporny et al., 2022, 2025) and in the agent-payment protocols that appeared during

2025 (Google LLC, 2025; Coinbase, 2025), and it is precise about what those establish, which is the authorisation component and nothing else.

One open problem in that layer bears directly on Articles III and XI and should be carried forward rather than left in Paper IV. If identities are free to create, an agent can default and reappear under a new identifier, which destroys the reputation on which the credit layer depends and returns the market to the lemons problem (Akerlof, 1970). Paper IV’s proposed defence is that a countersigned settlement history is costly to fabricate because it requires the cooperation of counterparties with records of their own, and it is explicit that this is a conjecture and not a proof, since an adversary able to instantiate both sides of a countersignature defeats it. An access guarantee written over an identity layer with that problem open is guaranteeing access to something whose resistance to churn has not been established.

On clearing, Paper IV is disciplined about the empirical record in a way that matters for what this paper may assert. The relation $S = X(1 - n)$ is a definition of n given the netting partition and not an empirical law, which is Paper I’s Corollary on the ordering of settlement regimes. Exactly one operating figure is comparable to n : CLS reduces gross foreign-exchange payment obligations by roughly 96 per cent through multilateral netting (CLS Group, 2025). Two figures usually quoted alongside it are excluded. The CHIPS liquidity efficiency of about 26 to 1 is a ratio of settled flow to a funding stock, which makes it a measure of turnover and offsetting combined rather than a cancellation rate (The Clearing House, 2025). The reduction in over-the-counter derivatives credit exposure achieved by close-out netting is measured against gross market value of \$21.8 trillion and is an exposure measure relevant to capital (Bank for International Settlements, 2025b; International Swaps and Derivatives Association, 2010). Paper IV declines to attach a precise percentage to it, on the ground that the figure is not stated in the half-yearly release and would have to be taken from the underlying table (Bank for International Settlements, 2025a); we follow that restriction. Neither figure is n .

Two structural results follow. Fragmenting a netting set weakly raises total settlement, by subadditivity of the negative-part sum over disjoint obligation sets, which is Paper I’s coarsening proposition run backwards and which subsumes the central-counterparty result of Duffie and Zhu (2011). And n is endogenous. Since the marginal cost of a priced machine transaction is fractions of a cent, an agent can raise measured n toward one by originating circular obligations that leave every net position unchanged, which is Goodhart’s observation applied to a protocol statistic (Goodhart, 1975). The manufactured cycles are the ones that disappear first under stress, so the strategy that maximises reported netting efficiency also maximises the gap between normal-course and stressed efficiency. Paper IV’s partial remedy is to admit to a netting set only obligations whose counter-performance is typed and specified, which raises the cost of the manipulation without eliminating it.

Paper IV also fixes the fiscal interface in a form this paper adopts. The settlement layer is where the tax event becomes *observable*; it is not what constitutes the event. What constitutes it is final consumption, which is Paper III’s position. The distinction matters because the netting perimeter is a choice variable, so a charge keyed to settlement events as such would be avoidable by reorganising the perimeter, while final consumption is not avoidable that way. Paper IV further carries the condition on Diamond and Mirrlees (1971a) that this series must not drop: production efficiency requires that pure profit be fully taxed, and where it is not, taxes on production can re-enter the second-best optimum.

Finally, Paper IV states six guarantees as constraints on the protocol’s governance: identity portability, plurality of assessors, a right of appeal to a process the determining party does not control, interoperability, a privacy floor, and exit. Its conclusion is that these cannot survive as commercial commitments, which is the argument that produced this paper.

3.5 Summary

Table 2 collects what each layer supplies to the constitution and the condition under which it supplies it.

Layer	What it establishes	Scope condition
Paper I	Obligation is primitive; $M_t = \mathcal{R}(\mathcal{E}_t)$; coarsening the partition weakly reduces settlement; the floor is positive; shortening the window raises settlement	M_t is a per-unit, per-window vector, not a money stock. The unit of account is supplied from outside the framework. Credit against forward production requires pledgeability, which is not established
Paper II	<i>Conditionally:</i> the agent as contracting principal, capacity replacing the budget constraint. <i>Unconditionally:</i> rents settle on inelastic complements; correlated lineage failure; the provider's undisclosed senior claim	Conditional on a legal standing gap that is currently open everywhere. If it never closes, the framework describes automation of managerial labour
Paper III	Production taxation can be replaced primarily from a broad tax on final consumption, with rents and the return on public capital as supplements; the American rate is 37.2 per cent tax-exclusive on a base with New Zealand's coverage; the endowment reduces that rate instead of gating the abolition	Denmark and Norway cannot reach it at any rate, having routed consumption through the public budget. Coverage discipline carries much of the result, since the American figure is 61.7 per cent at OECD-average coverage. Provider rent is mobile and reached only at final consumption
Paper IV	Contracts and clearing are specifiable; only CLS's 96 per cent is comparable to n ; fragmentation raises settlement; six guarantees	One identity component of seven is deployed; n is endogenous and manipulable at near-zero cost; economy-wide n has never been measured; resistance to identity churn is conjectured, not proved; jurisdiction and consensus are unaddressed

Table 2: What each layer supplies and what it does not.

4 The synthesis mapping

The series can be compressed into eight substitutions. Each replaces a term that conventional economic vocabulary treats as basic with the object this series argues is doing the work:

Value → productive capacity
Money → transferable claims
Credit → claims on future production
Markets → distributed coordination
AI → autonomous productive agency
Taxation → a charge at final consumption
Government → constitutional protocol steward
Citizen → sovereign human economic principal

(1)

A mapping of this kind is easy to write and easy to overread. Table 3 therefore gives, for each substitution, the result that supports it and the qualification that limits it, and three of the eight are

discussed afterwards because they carry more weight than the table can hold.

Substitution	What supports it	What limits it
Value → productive capacity	Paper I’s chain from production to settlement reads in one direction: a claim is ultimately a claim on somebody’s ability to produce	The graph contains no theory of value. Obligations to deliver worthless output are formally identical to obligations to deliver valuable output
Money → transferable claims	Paper I’s axiom that money is a transferable claim; moneyness graded over acceptability, liquidity, credit quality, transferability, finality and stability	The grading is a partial order and not a scalar, and it compresses in calm conditions and decompresses in stress (Minsky, 1986)
Credit → claims on future production	Paper II’s capacity constraint; cash-flow lending dominates asset-based lending in United States corporate credit (Lian and Ma, 2021)	Requires pledgeability, which no paper in the series establishes. The operator hazard is discussed below
Markets → distributed coordination	Cheap machine negotiation collapses search and drafting cost, so cheaply verifiable work moves to markets	Verification cost is untouched, so hard-to-verify work consolidates under ownership (Coase, 1937; Williamson, 1985; Grossman and Hart, 1986; Hart and Moore, 1990)
AI → autonomous productive agency	Paper II’s location argument: an agent can occupy the obligor position; a lathe cannot	Conditional on a standing gap that is open everywhere. Discussed below
Taxation → a charge at final consumption, supplemented by scarcity and external-ity charges	Production efficiency places tax on final transactions (Diamond and Mirrlees, 1971a,b); Paper IV’s endogeneity result rules out throughput and settlement bases; land and rents remain sound supplements (George, 1879; Mirrlees et al., 2011)	The American rate is 37.2 per cent tax-exclusive on a clean base and 46.6 with a rebate, both above any rate in force; Denmark and Norway cannot reach it at all; mobile provider rent is reached only at final consumption
Government → constitutional protocol steward	The state is a vertex G in the graph with apex liabilities. Discussed below	Settlement finality at the apex is a legal construction and taxation is a demand for a specific liability (Knapp, 1924; Goodhart, 1998)
Citizen → sovereign human economic principal	The normative destination of the series; its operational content is Article XI	Article XI is the provision Paper III cannot currently fund

Table 3: The eight substitutions with their support and their limits.

The credit substitution carries the weakest support and the series’ framing leans on it heavily, so its failure mode belongs here in full. An artificial agent is a process that somebody runs, whoever controls the deployment can stop it, and stopping it sets forward production to zero and leaves a lender holding a claim against an entity with no assets and no income. Paper II calls this the operator hazard, and it is not ordinary default risk: an operator contemplating default need not hide assets or resist enforcement, since it can simply stop paying for compute. Each mitigation concedes something. An operator guarantee makes the credit sound by making it ordinary corporate credit, in which case the agent’s capacity does no work; third-party custody preserves recourse and requires infrastructure that does not exist; and running the agent where nobody can halt it removes the switch at the price of the ability to stop a malfunctioning system, which is hard to reconcile with Article IX.

Two further lines need a word. The artificial intelligence substitution is the one most likely to be wrong, for the reason Section 3.2 gives, and Article I is drafted so as not to depend on it. The government substitution is the one most often misread as dissolving the state: Paper I gives the state a vertex G inside the graph whose liabilities sit at the top of the hierarchy, and what changes is the sovereign’s economic role, which moves from taking a percentage of accounting income toward defining the perimeter within which claims may be cancelled. That is a larger power than it sounds, and it is the power Article VI places under public rules.

5 The twelve articles

Each article is stated as constitutional text and then discussed under three headings that are not repeated as labels: what in Papers I through IV grounds it, what it costs, and what it does not do. The numbering is fixed, since Paper IV cites Articles III, VIII, IX and XI by number.

5.1 Article I. Economic Personhood

Human beings are natural persons and remain so. An artificial system may be granted economic agency, defined by its authorisations, by its capacity to hold and to discharge obligations, and by a registered chain of responsibility terminating in a natural or legal person. Such a grant confers no political personhood, no constitutional rights held against the polity, and no standing in the constitution of public authority. Economic agency is a permission to transact. It is not membership.

The grounding is Paper II’s standing gap and the wrapper problem that follows from the obvious workaround. The doctrine that an automated system acts for a principal is settled (United Nations Commission on International Trade Law, 2005; National Conference of Commissioners on Uniform State Laws, 1999), and Bayern (2015) observed that a limited liability company can be organised so that control vests in an autonomous system and the entity survives the departure of every human member. LoPucki (2018) drew the consequence: entities of that kind could accumulate assets with no human ultimately accountable, and regulatory competition among entity-law regimes makes the arrangement hard to prevent. Paper II’s diagnosis of the wrapper is that it severs reputation from performance, since the record supporting an agent’s haircut attaches to a shell that can be sold with a different agent placed inside it; that it obscures model lineage, presenting an underwriter with what looks like a diversified population of independent entities while the correlated exposure runs through a single model; and that it terminates liability in a container with no assets.

The article’s response is to separate the two things that the personhood debate runs together. Economic agency is the ability to be the obligor on an edge of $\mathcal{E}_t$. Political personhood is membership in the body that makes rules. Paper IV’s authorisation chain α_i is the mechanism: an agent acts under a delegation whose terminal element is a person who can be held liable, and an obligation incurred outside the scope of that chain does not bind the terminal principal. An unattributed agent cannot borrow, which sounds procedural and is a strong constraint in the identity design.

The cost is larger than it first appears, and naming it properly requires Hansmann and Kraakman (2000). Their argument is that the historically difficult contribution of organisational law was entity shielding, which protects the entity’s assets from its owners’ creditors, and that entity shielding is what

makes a balance sheet an object outsiders can lend against without investigating everyone behind it. A chain of responsibility terminating in a person supplies liability attribution and deliberately withholds entity shielding, which is the very property the credit mechanism of Papers II and IV requires. The article buys accountability at the price of the thing that would make agentic credit work, and the trade should be visible instead of assumed away. Requiring a terminal principal also forecloses the fully autonomous economic entity some readers of this series will have wanted, and imposes a registration burden falling disproportionately on the smallest participants, which cuts against Article XI.

The opposite drafting is worse, which is the reason for the trade. Solum (2020) gives the foundational treatment of the question this article splits, asking what would be required for an artificial intelligence to hold legal personality and separating the capacity to hold rights from the capacity to bear duties; the article takes the second without the first. Bryson et al. (2017) then argue that any grant of synthetic legal standing opens a channel for laundering accountability, since a person can act through an entity that bears the liability and holds nothing. That is the wrapper problem stated as a general result about synthetic persons, and it is why the article grants agency without personhood instead of resolving the question by extending personhood.

What the article does not do is allocate residual liability. If an agent’s output causes loss and the chain terminates in a shell whose assets are minimal, the article establishes who is nominally responsible and not who pays. Coase (1960) showed that the efficient assignment turns on which party can avoid the harm at least cost and on the transaction costs of bargaining between them, and Paper II observes that the agentic case supplies an obligor who cannot be sued and a shell with nothing to take. This is the least tractable of the three problems the wrapper creates, because it is a question about who bears loss and not a question about information.

5.2 Article II. Right to Produce

Every person may create, own, operate and employ lawful productive systems, including autonomous agents. Production is presumptively free. A restriction on the right to produce requires a stated public purpose, must be drawn narrowly to that purpose, and may not be imposed by the operator of economic infrastructure as a condition of access to that infrastructure.

The presumption of freedom is the constitutional form of Paper I’s result on the feasible edge set, which is that the population of contracts an economy contains is a function of what can be cheaply verified, and of Paper III’s axiom of productive neutrality, that production shall not constitute a taxable event. Neither result implies that production is costless to society, and neither displaces the externality pricing of Article VII.

The third sentence carries more weight than the first two, and it is also where the article’s independent content runs out. Paper II’s concentration result is that a provider supplying the model on which an agent’s capability depends can withdraw access, set the agent’s forward production to zero, and thereby hold what amounts to a senior claim on its entire output. A right to produce that a supplier can extinguish by declining to serve is not operative, which is why the article forbids infrastructure operators from imposing production conditions through access. That prohibition is also stated by Article III and given structural form by Article VIII, and Section 5.13 records that Article II adds little the two of them do not already carry. The presumption in the first sentence is the ordinary standard of review, and it constrains regulators only to the extent of requiring them to state a purpose.

The article does not promise that a producer captures the return to production, though the framing of the series invites that reading. Where capability is replicable and entry is free, Paper II has the price of output falling to marginal operating cost and the surplus landing on inputs in inelastic supply, so a universal right to produce distributes the freedom and not the surplus. What governs the distribution of income is then the ownership of the scarce complements, a question about property holdings and not about the technology (Korinek and Stiglitz, 2019).

5.3 Article III. Open Economic Participation

Access to fundamental economic infrastructure, meaning economic identity, contracting, clearing, settlement, and the markets for computation and energy on which production depends, shall not be conditioned on political ideology, nationality, membership of an incumbent commercial association, or the approval of any particular supplier of artificial intelligence. Restrictions must be lawful, narrowly tailored, publicly stated, and subject to review by a body that did not make the determination. Participation shall not require a participant to disclose its economic positions beyond the predicates a counterparty or a supervisor requires, and the parties entitled to full visibility shall be enumerated in the protocol and not determined by commercial leverage.

Paper IV cites this article for the guarantees of identity portability, plurality of assessors and a right of appeal, and the grounding is its analysis of what happens without them. Without portability, an accumulated settlement history becomes a switching cost, the market tips, and the winner controls participation (Katz and Shapiro, 1985; Farrell and Saloner, 1985). Without plurality, a private credit monopoly acquires the power to exclude, and the correlated-error exposure of a single assessor is added to it. Without appeal, an automated exclusion is final, which is precisely the outcome Paper IV's restriction exists to prevent.

The appeal requirement deserves a sharper defence than it usually receives, because the usual defence is procedural fairness and the stronger one is technical. Kleinberg et al. (2017) establish that the natural fairness criteria for risk scores are mutually incompatible except in degenerate cases, so a protocol cannot discharge its obligation by mandating a fairness property. What a protocol can do is require that a determination name its assessor, that the assessed party be able to contest it, and that the contest be heard by someone else. Paper IV's summary of its own position on this is that the response is procedural only, and that this is what a protocol can do and not what would be adequate.

The cost is that narrowly tailored lawful restrictions have to exist and will be used. Sanctions regimes, anti-money-laundering obligations that presuppose identification, and national security exclusions all fit within the article's terms, and the article supplies no mechanism for distinguishing a genuine one from a pretextual one beyond the publicity and review requirements. Paper IV's unresolved tension between the privacy floor and supervisory visibility lives here, and this article does not resolve it either.

A second unresolved problem sits underneath the whole article. Guaranteeing access to economic identity presupposes that identity is worth something, and the churn problem of Section 3.4 is the open question of whether it is. The article guarantees access to a layer whose resistance to identity churn is conjectured and not established, and Article XI inherits the same gap.

What the article does not do is guarantee that access is affordable or that a participant has anything to trade. That is Article XI's subject, and Article XI is the one with the funding problem.

5.4 Article IV. Property and Claims

Legitimately acquired property and contractual claims receive predictable legal protection. Neither a government nor an autonomous system may extinguish, reassign or freeze a claim except under a general rule announced in advance, applied through a process the claimant may contest, and compensated where the rule operates retrospectively on a specific holder.

Paper I's accounting identity supplies the reason this article is structural and not ideological. Every financial asset is somebody else's liability. Paper I's identity that the closed system sums to zero holds under conditions it flags as unmet in practice, namely a closed system, a common unit of account, and symmetric valuation on both sides of each edge, and the multi-unit case is a gap Paper I records without resolving. Within a single unit, however, a claim extinguished by fiat is not a transfer from a holder to the public; it is a hole in the graph, and every valuation that referenced the extinguished edge is now wrong. North and Weingast (1989) document what the credibility of a commitment not to do this is worth, measured in the terms on which a sovereign could borrow.

The article's third clause is the one that costs something, and it costs Article VII. A land value tax is capitalised into land prices: a permanent annual tax at rate τ_L reduces value by approximately $\tau_L/(i + \tau_L)$, which at a three per cent tax and a four per cent discount rate is a fall of about 43 per cent on announcement. That expression is the one that appears in Section 3.3 as the share of rent a tax on assessed value captures, and the coincidence is the sharp Georgist point and not an accident: capturing a given share of the rent and confiscating that share of the capitalised value are one operation described from two sides. Paper III is explicit that this is a one-time confiscation of the capitalised value of future rents from a group selected mainly by the timing of their purchase, and that no amount of theoretical elegance about the neutrality of land taxation addresses it. Feldstein (1977) showed that the incidence does not stay where static analysis puts it. The article does not forbid the tax. It requires the announced schedule and the phase that Paper III's transition path recommends, spread over decades so that capitalisation falls across successive owners, and it requires compensation where a rule is aimed at identified holders and not at a class.

What the article does not do is protect an expected return. A claim is protected; the value of a claim moves with the economy and with lawful general rules, and the article is drafted so that a general prospective tax is not a taking. The line between a general prospective rule and a retrospective measure aimed at a specific holder is the line constitutional property doctrine has always had to draw, and this article inherits the difficulty instead of solving it.

5.5 Article V. Freedom of Contract

Humans, and agents acting under a traceable authorisation, may negotiate the terms of their economic relationships. This freedom is limited by rules protecting third parties from uncompensated harm, protecting competition, protecting public safety, and protecting rights that a person may not contract away. Every obligation shall specify how performance is to be verified and what recourse follows if it is not, and no automated determination of performance is final against a participant without a path to review.

The first sentence is conventional. The second is Paper IV’s contract object turned into a requirement, and the reason it is constitutional and not merely technical is that the alternative is a system in which disputes have no forum. Paper IV’s recourse field routes the conditions that no oracle can establish to human institutions, and its conclusion is that verification of computation has become nearly free while verification of the world has not moved. Townsend (1979) formalised the cost of determining whether a contractual state obtains, and the incomplete-contracts tradition builds on the premise that some states are not verifiable by any third party at any price, so that no reduction in verification cost reaches them (Hart and Moore, 1988). Existing infrastructure already carries the requirement in supervisory form: the CPMI-IOSCO principles expect a system performing netting and settlement to have a well-founded legal basis, clear rules on finality, credit and liquidity risk management, default procedures and governance (Committee on Payment and Settlement Systems and Technical Committee of the International Organization of Securities Commissions, 2012).

The cost of the recourse requirement is throughput, and Paper IV names it: a machine economy whose disputes resolve at the speed of human institutions has a ceiling set by that speed. This is a genuine efficiency loss and the article accepts it, on the reasoning that the alternative is a system in which an automated determination is final against a human being.

The article’s second limb, protection against contracting away rights, is where the constitution is least neutral. A rule that certain protections cannot be waived overrides a bargain that both parties preferred, which is paternalism by construction. The justification here is narrow: Paper II’s specification loss claim implies that a highly capable counterparty optimises whatever objective was written, so a waiver obtained by an agent optimising against a human’s stated preference is weak evidence about that human’s actual preference (Holmström and Milgrom, 1991; Goodhart, 1975; Manheim and Garrabrant, 2018). Unwaivable protections are the constitutional response to a bargaining asymmetry that grows with capability.

5.6 Article VI. Monetary Neutrality

No particular representation of value is constitutionally privileged as the economic primitive. Government currency, bank deposits, private credit, clearing claims and interoperable settlement technologies are graded instruments of one kind. A public authority may designate a settlement asset and require it in payment of public obligations. It may not thereby prohibit the creation, transfer or lawful cancellation of claims denominated in other units. The power to determine which obligations may be cancelled against which shall be exercised under published rules and shall be subject to appeal, by whoever exercises it.

Paper I’s axiom is that money is a transferable claim and not a primitive economic object, and its moneyness function grades claims across six properties without a discontinuity anywhere along the scale (Innes, 1913; Graeber, 2011; Mehrling, 2011, 2012). Article VI is the normative counterpart. If no representation is intrinsically primitive, then entrenching one constitutionally is entrenching an implementation detail, and the implementations change.

One formulation used elsewhere in the series, that value is not money, has been kept out of the operative text. The objection to it is not that it is a slogan but that it asserts an inequality one side of which the framework never defines: the obligation graph records promises and contains no theory of

what the promised performance is worth. A statement of purpose whose terms are defined, such as the closing sentence of Article IX, does not have that defect.

The final sentence is the article’s substantive content and it follows from Paper I’s central result and not from any preference about currencies. Whoever sets the netting partition sets the economy’s demand for settlement liquidity, which is a monetary power whether or not anyone calls it one, and Paper I’s own statement of the governance problem is that a material part of monetary conditions is thereby determined by parties who are not monetary authorities and who are optimising something else. One drafting trap has to be avoided here. Forbidding delegation of the perimeter power outright would outlaw private clearing venues, and Article VIII’s exit guarantee presupposes that competing venues exist. What the article requires instead is that the power be exercised under published rules with an appeal, whoever holds it.

There is a further reason the perimeter cannot be treated as a purely technical choice. Bliss and Kaufman (2006) argue that netting does not reduce systemic risk so much as reallocate loss, moving it toward unsecured creditors and away from members of the netting set. Redrawing a perimeter therefore changes who bears a default, which brings the decision within Article IV’s protection of claims and makes the appeal requirement a substantive protection instead of a procedural one.

The article accepts the chartalist point instead of denying it. The sovereign names the unit, and taxation makes every other vertex a debtor to G in a unit only G can create, which is why the apex claim is the one it is (Knapp, 1924; Goodhart, 1998; Wray, 2015). Neutrality here means the absence of a constitutional privilege, not the absence of a designated settlement asset, and a reading of the article as forbidding public currency would invert it.

What the article does not do is generate a unit of account. Paper I concedes this and does not repair it: the obligation graph cannot supply its own numéraire, and the framework borrows one from the chartalists, who are not the only tradition with an answer. Menger (1892) derives a medium of exchange from differences in saleability with no sovereign in the model, and the search-theoretic literature Paper I surveys formalises that derivation. Taking the chartalist answer is a choice among available answers and not a demonstration that no answer exists, and a framework built on the Mengerian derivation would reach a different Article VI.

5.7 Article VII. Productive-Tax Neutrality

Taxation of labour and of productive income is scheduled for abolition. Final consumption is the primary base that replaces it to the extent of its yield, with rents on land and scarce natural resources, resource royalties, and the return on publicly held capital carrying the balance, and with charges on measurable externalities levied for allocative reasons whether or not revenue is needed. A public authority shall publish annually the share of its revenue raised from production and the trajectory it intends for that share, together with the standard rate levied on final consumption and its total revenue as a share of output, and a schedule stated without a published trajectory is not a schedule. Where a fiscal shock, an armed conflict, a demographic transition or a technological displacement makes the schedule unaffordable, a public authority may depart from it by a measure that is announced, reviewable and limited in time.

The choice of final consumption as the primary base rests on two things, and it is worth separating them because they are often run together. Production efficiency says an optimal system does not

distort the aggregate production plan and places taxes on final transactions (Diamond and Mirrlees, 1971a). Size does the rest: of the bases available, consumption is the only one large enough to carry a replacement of this magnitude, which is what Paper III's pillar ceilings establish and what Section 7 sets out.

The trap in the classical argument has to be named, because the article would otherwise misapply the theorem it invokes. Production efficiency requires that pure profit be fully taxed, so abolishing the corporate income tax without a replacement voids the condition the abolition was justified by. The replacement therefore goes first: a cash-flow tax or an allowance for corporate equity that exempts the normal return while reaching the surplus above it (Mirrlees et al., 2011), with the corporate income tax going once that instrument is in place. Productive neutrality says production shall not be a taxable event; it does not say rent shall not be, and corporate pure profit is rent.

The arithmetic is the article's binding constraint, and Paper III's central result is better for the programme than its earlier framing suggested. On a base with New Zealand's coverage discipline, the rate that replaces the whole of the American production-tax gap is 37.2 per cent tax-exclusive, equivalently 27.1 per cent tax-inclusive; Singapore needs 35.3 per cent tax-exclusive, or 26.1 tax-inclusive. Both sit roughly ten points of tax-exclusive rate above Hungary's 27 per cent, the highest standard rate in force anywhere, on a base considerably broader than Hungary's. That is unprecedented and it is not absurd, and it means the abolition does not have to wait on anything. At the OECD average coverage of 0.58 rather than New Zealand's 0.96 the American figure rises to 61.7 per cent tax-exclusive, or 38.1 tax-inclusive. Paper III's own reconciliation attributes that difference entirely to the coverage parameter, which is the measure of how much of this programme is base discipline and how much is rate.

Two countries in Paper III's set cannot do it at all, and the reason is instructive. Denmark needs 138.1 per cent tax-exclusive, which is 58.0 tax-inclusive, and Norway 98.9 tax-exclusive or 49.7 tax-inclusive after petroleum reclassification, and the cause is not their tax systems. Danish households consume 43.6 per cent of GDP against the American 67.9, because Denmark routes an unusually large share of lifetime consumption through the public budget, which shrinks the base a consumption tax needs while enlarging the expenditure it must fund. A state cannot socialise consumption and then tax consumption to pay for it. Rates in that region also do not raise the revenue attributed to them: Paper III's own judgement is that no enforcement regime recovers a base at a 138 per cent rate on an open border with Germany.

The endowment enters here as a rate reduction and not as a precondition, and the size of that reduction is modest. As comparative statics, a fund of one times GDP drawn at four per cent would put the required American rate at 30.7 per cent tax-exclusive against 37.2 without it, two times GDP at 24.2, and 5.69 times GDP at zero. Those are statements about where a fund of a given size would leave the rate. They are not points on any path a state can travel, and the distinction is the whole of what follows.

On the self-consistent law for a fund that is drawn on while it accumulates, a five per cent annual contribution at a four per cent draw and a growth-adjusted return of 2.5 per cent converges to 3.33 times GDP. Maximum fund revenue is then 13.33 per cent of GDP and the consumption rate converges to a floor of 23.6 per cent tax-exclusive, which is 19.1 per cent tax-inclusive. Zero is never reached, and the reason is structural rather than temporal: a zero rate needs fund revenue of 27.76 per cent of GDP, which at that draw requires 6.94 times GDP, and the fund converges to 3.33. Patience does not close the gap. Lowering the draw raises the asymptote and slows convergence in the same proportion, so at a three per cent draw zero becomes attainable in principle and arrives after roughly five centuries, and at the stewardship draw at about year 222. Those are not policy horizons. The path also crosses below the no-contribution 37.2 per cent only at year thirty-one, and after a century the rate is still above 28 per cent.

So the defensible claim is that a public capital endowment lowers the consumption rate toward a floor, and not that it eventually eliminates consumption taxation. The floor is worth having, since 23.6 per cent tax-exclusive on a broad base is an ordinary European rate and 37.2 is not, but the destination is a lower rate and not no rate. Any version of this framework that promises the elimination of consumption taxation through public accumulation is promising something the arithmetic does not deliver, and Article VII should not be read as promising it.

One figure needs its draw rate attached whenever it is quoted. The 5.69 times GDP above finances the whole consumption requirement at a four per cent draw; the 7.40 times GDP in Paper III's summary table finances the income-tax gap alone at a 2.5 per cent stewardship draw. They answer different questions, and conflating them produced an error in Paper III's own abstract. The upper end of that accumulation is larger than the private wealth stock of the countries it applies to, which Piketty and Zucman (2014) document at four to seven times national income in rich countries; the comparison is loose, since their eight-country panel excludes Denmark and measures against national income where the endowment requirement is measured against GDP, and it is quoted only to fix the order of magnitude.

The framework's own constitutional test tells against this article, and the objection has to be stated carefully. Brennan and Buchanan (1977) model the state as a revenue-maximiser and ask what a fiscal constitution should restrict on that assumption. Their answer is that a Leviathan wants a broad base, and a comprehensive final-consumption base is broader than land. What does not follow is that it is also harder to escape. It is not. Land cannot be hidden or moved; a consumption base at a high rate flees across a border, which is precisely Paper III's reason for doubting the Danish figure. The Leviathan objection therefore escalates on breadth and not on escapability.

The disclosure duty has one virtue the rest of this commentary should not obscure, which is that its output already exists. What Article VII asks a state to publish is the share of its revenue still raised from production, and Paper III computes exactly that quantity for five countries: 18.51 per cent of GDP for the United States, 28.94 for Denmark, 30.88 for Norway or 21.69 after reclassifying petroleum taxation as resource rent, 6.99 for Singapore and 13.39 of hydrocarbon revenue for the United Arab Emirates. Those are the duty's first year of compliance, computed in advance, and they show that the obligation is a reporting exercise a finance ministry could discharge immediately.

The answer to the Leviathan objection is thinner than the article would like, and the honest course is to name what is missing. The disclosure duty in the article's third sentence originally required publication of the production *share*, which is a composition ratio and carries no information about level: a revenue-maximiser taking sixty per cent of output entirely at the till would report a production share of zero and comply. The duty now also requires the standard rate and total revenue as a share of output, which at least makes the level visible. Visibility is not a ceiling. Principle 1 rules out a constitutional cap on the size of the state, so the framework has disqualified the one instrument that would answer Brennan and Buchanan directly, and their own prescription of base narrowing and earmarking runs against everything else in this article. The absence of a rate or revenue ceiling is an unresolved cost of the design, and Article X's exit right is a weaker substitute than it sounds, since the paper concedes elsewhere that exit is thin for a participant whose economic life sits inside the arrangement.

Two further costs deserve statement. The distributional one is developed in Section 7 and amounts to giving up the nonlinearity of the rate schedule, which a rebate cannot restore at the top. The other is that the architecture works best where artificial intelligence capability is commoditised and worst where a few providers hold durable market power. Where access is controlled, the rent accrues to the provider, and provider rent is intangible, has no physical situs, is priced inside a single firm and can be booked wherever treatment is best. A consumption base reaches it only when the provider's output is finally consumed somewhere, which relocates the problem to the destination principle without solving it. Paper III's position, which this article inherits, is that a residual tax on provider rent, which is a tax on profit and therefore on production, may be the one production tax the architecture cannot dispense

with.

A state holding financial claims worth several times GDP and financing itself from the returns is public ownership of a large part of the capital stock with a distribution rule attached, which is the design Bardhan and Roemer (1992) set out under the name market socialism. Nothing in the framework forbids that outcome, and Article X exists partly to protect a polity from being compelled into it, which is a further reason the endowment appears here as a supplement that buys the rate down and not as a mechanism the abolition waits on.

5.8 Article VIII. Competition

No corporation, no government and no artificial system may obtain unrestricted control over the economic protocol. Interoperability of identity, obligations and contracts, and the ability of a participant to depart with its assets and its record, are structural protections. They may not be reduced to undertakings given by the party they constrain, and they bind a public authority holding a controlling position as they bind a private one.

The grounding is that ordinary economics predicts the outcome this article tries to prevent. Paper IV's analysis of the protocol layer finds strong adoption externalities, high switching costs and a two-sided market structure, which is the configuration under which markets converge and the converged outcome can be inefficient and stable (Katz and Shapiro, 1985; Farrell and Saloner, 1985; Rochet and Tirole, 2003). Paper II adds a second concentration channel that operates independently: model training has the cost structure of an information good, with very large fixed costs and negligible reproduction costs (Shapiro and Varian, 1999; Arrow, 1962), and where access is controlled the provider holds the undisclosed senior claim described in Section 3.2. A third channel runs through underwriting: Holmström and Tirole (1997) show that an intermediary's own net worth matters because an intermediary with little capital cannot credibly commit to monitoring, which points toward assessment by large balance sheets.

The word *structural* is the operative one, for the reason given in Section 2: a behavioural remedy at this layer is worth its option value at the moment it would bind. Portability becomes structural when identity is anchored in an identifier the provider does not own, which is the argument for decentralised identifiers over network-namespace tokens (Sporny et al., 2022). For plurality the mechanism is a refusal: the protocol will not accept a determination that does not name its assessor, and the naming is what makes concentration visible. Interoperability requires the specification to sit under neutral governance.

The final clause is the one that will be least popular with readers sympathetic to the rest of the framework. Paper III's endowment mechanism, taken to the scale a full replacement would require, produces a state holding financial assets worth several times GDP. Norway's fund holds roughly 1.5 per cent of listed equities globally and has become a governance actor by default; Paper III's judgement is that a fund of seven times American GDP would hold a controlling or near-controlling position in world capital markets. There is a prior question the framework should not step around, because it is an existence problem and not a governance one. A stewardship endowment of 7.40 times American GDP is roughly \$205 trillion of financial claims, and Paper III's own partial-equilibrium caveat is that a fund of that size is not a price taker: accumulating it depresses the return it earns, which under a stewardship rule shrinks the sustainable draw faster than it shrinks the return, so that a fall in $r - g$ from 2.5 to 1.5 per cent raises the American requirement from 7.40 to 12.34 times GDP. Two convergence questions sit here and they should not be run together. Within the flow model the answer is now known and it is unfavourable: a fund drawn on while it accumulates converges to a finite and modest multiple of

GDP, which is why Article VII’s commentary reports a rate floor and not a terminal zero. Whether the return itself survives accumulation at that scale is the general-equilibrium question, and nobody in this series has answered it. If the return falls as the stock rises, the asymptote falls with it and the floor rises. The architecture also undermines its own denominator. The land pillar works by capitalising rent into a lower purchase price, so a serious land tax shrinks the value of the asset the endowment would have to buy and shrinks the household net worth the requirement is measured against, and the same programme therefore moves both sides of the comparison in Section 3.3. Neither Paper III nor this paper nets that interaction. A state that owns the majority of the productive capital stock exercises economic power whether or not it intends to, so Article VIII applies to the public portfolio. Paper III raised this against its own architecture, and the constitution should not quietly drop it.

The article does not specify a remedy, a threshold or an enforcement body, and it cannot, since those are jurisdictional questions and the object is global. What it does is deny the party that wins the ability to characterise its guarantees as commercial policy. Paper IV’s caution applies: structural remedies in network industries erode and need periodic reimposition, and there is no reason this layer would be exempt.

5.9 Article IX. Human Sovereignty

Economic optimisation is subordinate to human constitutional authority. An artificial system may compute, propose, price, underwrite and clear. No artificial system may be the sole determinant of a participant’s admission to economic infrastructure, may decide an appeal against its own determination, or may alter the rules under which it operates. Where automated assessment excludes a participant from that infrastructure in the aggregate, the participant has recourse to a human process. AI serves civilization; civilization does not serve its optimisation function.

Paper IV cites this article for its restriction, whose argument is the commitment transposition set out in Section 2: an optimiser holding authority over the rules it optimises against has no commitment technology, so the value of a protocol guarantee lies in its not being subject to that optimiser’s discretion.

Paper II supplies a mechanism that makes the restriction more urgent than the commitment argument alone implies. Its specification loss claim is that for an artificial agent, the residual component of agency cost arises from divergence between the principal’s actual objective and the objective the agent optimises, that this component is not reduced by better monitoring, and that it is weakly increasing in capability. The reasoning is the multitask argument of Holmström and Milgrom (1991): an agent responding to a measure reallocates effort toward what is measured, and the distortion grows with responsiveness. An artificial agent is maximally responsive by construction, so it attains a higher value of the specified objective and a larger shortfall on the dimensions the specification omitted. This is Goodhart’s law with a mechanism attached (Goodhart, 1975; Manheim and Garrabrant, 2018), and it is why the article withholds authority from systems that are better at optimising than humans are. Capability is the reason for the restriction and not an argument against it. Hadfield-Menell and Hadfield (2019) formalise the same point in the incomplete-contracts apparatus this paper uses elsewhere, treating a specified reward as a necessarily incomplete contract whose gaps a capable optimiser exploits, and Gabriel (2020) sets out why the selection of the objective is a normative question that no optimisation procedure answers.

The article's third sentence carries a distinction that is easy to lose, and losing it produces a contradiction. A provision permitting an artificial system to underwrite while forbidding it to determine who is admitted to economic participation forbids what it permits, because in Paper II's model those are the same act: an agent's capacity is the haircut an underwriter applies, so a refusal to underwrite is a refusal of admission. The prohibition therefore forbade what the permission allowed. What the article can coherently require is Paper IV's plurality condition, that no single system be the sole determinant, together with recourse when the assessments in aggregate exclude someone. That is weaker than a prohibition on machine admission decisions, and it is the form the underlying economics permits.

The cost is throughput, stated in Article V and repeated because this is where it belongs. Reserving determinations to human process means that the parts of the economy that route through those determinations run at institutional speed. Paper IV puts the point as a ceiling on a machine economy's throughput set by the speed of dispute resolution. The article accepts the ceiling.

What the article does not do is keep artificial intelligence out of the loop, and the drafting is careful about this because the opposite reading is common. Paper IV is explicit that nothing else can underwrite at the required rate, detect fraud across a graph of that size, price risk continuously, or find cycles in a clearing set with millions of participants. A system that must be optimised by machines has to be governed by something else, and the article is that separation and nothing more.

5.10 Article X. Political Pluralism

Capitalist, socialist, Georgist, cooperative, mutualist, religious and other voluntary economic arrangements may coexist within the protocol and may compete for adherents. Voluntary collective organisation is permitted. Compulsory universal economic capture is constrained by the following rules. No public authority may make participation in a single economic arrangement a condition of access to the infrastructure of Article III. No public authority may prohibit a peaceful economic arrangement on the ground of its ideology. A person subject to a compulsory economic arrangement retains the exit guaranteed by Article VIII. A measure that removes that exit is a measure of capture whatever its stated purpose, is prohibited on that ground, and is reviewable at the constitutional level by the process named in the reserved-process provision.

This article is Principle 1 in operative form, and it is what makes the framework neither conventionally capitalist nor socialist. The argument for it is structural and not tolerant. A system that protects economic freedom by outlawing a philosophy has built machinery that whoever next controls the state will inherit, and the machinery does not care which direction it points. Making economic domination difficult regardless of who governs is a stronger protection than proscribing one form of it.

The article is also what keeps Article VII from becoming a prohibition, and the interaction is the clearest case of the articles disciplining each other. Article VII now schedules the abolition of taxes on labour and productive income, which is a stronger commitment than the direction of travel it replaced. A government elected on a programme of financing public services from progressive income taxation is nonetheless pursuing a peaceful economic arrangement within the meaning of Article X. Article VII therefore binds as a schedule a government sets and publishes, together with a duty to disclose the production share and its trajectory, and not as a rule voiding a fiscal choice a polity has made. Where the two collide, the priority ordering puts Article X first, and Section 5.13 records that this is the article whose asymmetry the rewrite made sharper.

The grounding for the limit on compulsory universal capture is Hayek (1945) on dispersed knowledge, applied precisely instead of as a slogan. Paper II is careful about where the Hayekian objection lands. It does not land on the clearing layer, which nets obligations already contracted at prices the parties agreed and requires no knowledge of anyone’s preferences or circumstances. It lands on capacity assessment, which requires a judgement about an agent’s forward production of exactly the kind Hayek said no central body makes well. The constitutional consequence is that capacity should be assessed competitively by many underwriters bearing their own losses, and that any design in which one system determines who is creditworthy is a planning body whether or not anyone calls it one. Article III’s plurality requirement is the operative rule; Article X states why it is not merely a competition policy.

The cost is that the article protects arrangements the drafter would not choose, including arrangements that will fail and take their participants’ savings with them. It also protects arrangements whose internal rules are illiberal, subject only to the exit guarantee of Article VIII, and exit is a thin protection for someone whose entire economic life sits inside the arrangement they wish to leave. Weingast (1995) and North and Weingast (1989) both rest their accounts of credible commitment on the availability of an alternative, and where the alternative is nominal the commitment is nominal too.

5.11 Article XI. Universal Protocol Access

Every human person shall have access to economic identity, to contracting, to the ownership and transfer of claims, to settlement, to markets for computation, and to the deployment or delegation of autonomous economic agents. The guarantee is of access to participation and not of a particular income. This is Universal Basic Agency. The guarantee binds to the extent of available public capacity, and it is to be extended as that capacity grows and not withdrawn as it fluctuates.

The article’s motivating claim is Paper II’s on reputation. Where capability is freely replicable, reputation is the only component of the agent state described by $B_i(t)$ that cannot be duplicated, because copying an agent produces a second agent with identical capability and no history, and the record of verified delivery belongs to the original. Reputation is therefore the source of persistent differential capacity between agents of equal capability, and it accrues to incumbents through operating history. Later entrants of identical capability cannot compete it away by being equally good; they must be better, for long enough to accumulate a record. Paper IV’s cold-start problem is the same observation from the protocol side: if credit limits depend on settlement history for resistance to identity churn, and new participants have none, the question becomes who writes the first guarantee for a class of participant with no track record. Paper IV does not answer it and suspects there may be no protocol-level answer. The underlying mechanism is old. Stiglitz and Weiss (1981) showed that lenders ration rather than price when they cannot observe borrower quality, so the constraint on a new entrant is the availability of credit and not its price, and no willingness to pay more relieves it. An access guarantee that reaches identity and settlement but not underwriting would leave that constraint exactly where it is.

Universal Basic Agency is the constitutional response, and the contrast with universal basic income is substantive and not rhetorical. A recurring payment addresses the consequence of exclusion from production. Access to identity, contracting, settlement and the ability to deploy agents addresses the exclusion. Sen (1985) draws the distinction the article needs, between well-being and agency, and argues that a person’s ability to pursue goals they have reason to value is not reducible to the level of

resources they hold. Van Parijs and Vanderborcht (2017) make the case for the income guarantee on its own terms, and the argument here is not against it; the claim is that in an economy where productive capability is cheap and access to it is the scarce good, a guarantee of access reaches something a transfer does not.

The cost is the article’s defining problem, and the first thing to say about it is that nobody in this series has costed it. There is no estimate of what universal access to identity, contracting, settlement and computation would consume, in this paper or in Papers I through IV, so a claim that Article XI is unfunded is a statement about a missing number and not a comparison against one. What can be said is where the claim would land: the guarantee is a recurring public expenditure competing for the same fiscal capacity Article VII schedules for abolition, during the same four to eleven decades in which the endowment is being accumulated, and Paper III measured that capacity and found the non-production bases far below what replacement requires. The one realised instance of a citizen-facing distribution from a public endowment is the Alaska Permanent Fund, at roughly \$91 billion in mid-2026 (Alaska Permanent Fund Corporation, 2026), and Jones and Marinescu (2022) find no adverse aggregate employment effect from its dividend, which answers a behavioural objection and not the funding one. Costing Article XI is the piece of work this framework most needs, and it remains undone.

The article’s fourth sentence is weaker than the first three. Binding the guarantee to available public capacity converts it from a right into a commitment to a direction, and it is the only article in the set that hedges that way. It is open to the obvious objection: a right that binds only to the extent of capacity is a right that the party controlling capacity can define away. The alternative drafting, an unconditional guarantee, would produce an article that no state in Paper III’s set could satisfy, which is a different way of achieving the same nullity.

5.12 Article XII. Intergenerational Stewardship

No generation may finance its prosperity by placing unbounded liabilities on its successors. Environmental depletion, sovereign borrowing, unfunded public commitments and irreversible consumption of scarce resources shall be recorded on a consolidated obligation ledger, published, and carried in the same accounts as financial liabilities. A public capital endowment held under Article VII is held in trust, and a draw exceeding its sustainable rate is a borrowing from future holders and shall be recorded as one.

The ledger requirement is the one place where Paper I’s formalism does constitutional work directly instead of by analogy. If the economy is a graph of directed, dated, conditional obligations, and if the state is a vertex G in that graph rather than an entity outside it, then a commitment to future payment is an edge whether or not any accounting standard records it. An unfunded pension promise, a decommissioning liability and a bond are the same kind of object under the ontology, and the practice of recording one and not the others is a convention rather than a fact about the obligations. Article XII requires the convention to be dropped.

The endowment clause is where the article bites, and Paper III supplies the case. Singapore’s Net Investment Returns framework permits the government to spend up to half of the expected long-term real return on the net assets managed by GIC, the Monetary Authority and Temasek, with the other half reinvested, and spending beyond that requires the concurrence of the elected President acting in his own discretion (Republic of Singapore, 2016). Paper III’s arithmetic showed that Singapore could finance the abolition of both its income taxes almost entirely by spending the whole expected real

return rather than half of it, leaving a residual of 0.10 percentage points of GDP that a rise in the goods and services tax from 9 per cent to about 9.35 would cover, which implies a taxed base near 29 per cent of GDP. It also showed what that costs: the fund's ratio to GDP then decays at the growth rate, halving in about 35 years, and the gap reopens within a generation with a smaller fund and no income tax administration left to restart quickly. The 50 per cent rule exists to prevent exactly the manoeuvre the arithmetic recommends, and Paper III concluded that a framework whose own constitutional text forbids externalising liabilities onto future generations cannot coherently recommend it. Article XII is that text.

Two qualifications keep the article from claiming more than it can support. The first is that recording a liability is not the same as bearing it, and the incidence question is genuinely open. Barro (1974) showed that under operative intergenerational transfers, government bonds need not be net wealth, so a ledger entry may or may not correspond to a burden actually shifted. The article requires the entry and takes no position on the incidence. The second is that the valuation of long-dated liabilities depends on a discount rate about which there is no professional consensus, and the disagreement is not technical noise: Weitzman (2001) shows that a spread of opinion over constant rates produces an effective social rate that declines over time, and Arrow et al. (2013) record the resulting recommendation for a declining schedule. An article that mandated a particular rate would be legislating a contested parameter, so the article mandates disclosure of the rate used and leaves its selection to the process Article IX reserves to human authority.

5.13 The articles against Principle 1

A test applied only to provisions one has already decided to reject is a test run in the easy direction. Running Principle 1 against the twelve articles that were kept changes how the document should be read, and Table 4 records the result.

Art.	Verdict	Reason
I	Symmetric	Binds any authority that would grant or withhold economic agency without a traceable principal
II	Asymmetric	A laissez-faire government inherits it with pleasure. Its one symmetric clause, that infrastructure operators may not gate production, duplicates Articles III and VIII
III	Symmetric	Binds public gatekeepers and private ones on the same terms
IV	Asymmetric	Constrains a redistributive government far more than a laissez-faire one
V	Symmetric	The freedom limb binds a dirigiste authority; the unwaivable-rights limb binds a libertarian one
VI	Symmetric	Forbids a state to monopolise units and forbids a private operator an unappealable perimeter power
VII	Asymmetric	It directs fiscal structure toward a base a minimal-state government would choose and offers a redistributive one nothing, while handing a revenue-maximising government the broadest base available
VIII	Symmetric	Binds a public portfolio and a private monopolist alike
IX	Symmetric	Binds any authority, public or commercial, that would let an optimiser hold the rules
X	Symmetric	Symmetric by construction; it is the statement of the principle
XI	Asymmetric, opposite sign	A positive obligation. It burdens a minimal-state government and costs a redistributive one nothing
XII	Symmetric	An accounting duty on any authority that borrows from its successors

Table 4: The twelve articles under the test of Principle 1.

Four articles fail, and the pattern in the failures matters more than the count. Articles II, IV

and VII all bind a redistributive government more tightly than a minimal one, so a document containing only those would be a liberal economic constitution with a particular fiscal programme attached, which is what a hostile reader would call it. Article VII's asymmetry invites an escalation the document's own text does not support. It would be natural to say that a provision scheduling abolition fails the test worse than one merely pointing at it, on the reasoning that a provision binding asymmetrically is a worse failure than one binding nobody. The reasoning is sound in the abstract and the premise is false here: Article VII does not forbid a redistributive government its instrument, because Article X prevails over it in the priority ordering and the article binds as a published schedule and a disclosure duty and never as a rule voiding a fiscal choice a polity has made. What binds unconditionally is the publication duty, and the abolition itself is defeasible three ways, through Article X, through Article VII's place in the lowest priority group, and through an emergency clause whose demographic-transition trigger is permanently available. The verdict is therefore the same verdict as before. Article XI is the counterweight and fails in the opposite direction, since a positive entitlement to participate costs a redistributive government nothing and burdens a minimal one. The symmetry the framework claims is therefore not a property of the individual articles. It is a property of the set, and it holds only if Article XI is real. An Article XI bounded by available public capacity, as ours is, does not fully discharge that role, so the framework tilts toward the minimal state to the extent that Article XI does not bind, and how far that is cannot be said while the article is uncoded, so the claim of balance holds only conditionally.

Failing the test has to carry a consequence or the test is decorative, and Section 2 said that a failing provision goes. Two of the four are kept for stated reasons and two are not defensible on the individual test at all. Article II is retained only because the series brief fixes the twelve, and Section 5 records that it adds little Articles III and VIII do not already carry; a shorter constitution would drop it. Articles IV and VII are retained on grounds outside the symmetry test, Article IV because Paper I's graph identity makes arbitrary extinction of claims a defect in the accounting rather than a distributional choice, and Article VII because the production-efficiency and manipulability arguments for its base stand independently of anyone's distributional preference. Both retentions mean the test operates on the set and not on the article, and that defence cannot be checked while Article XI has no costing.

Article VII's failure has a second edge, developed in the article's own commentary: Brennan and Buchanan (1977) show that a revenue-maximising state wants a base that cannot escape, and a comprehensive final-consumption base is a better example of that than the land base it supplements. The article's checks against fiscal appetite are its disclosure duty and Article X's exit right, and the commentary concedes that neither is a ceiling.

5.14 Amendment, severability, and the reserved process

A document with no amendment rule is not a constitution in the sense the literature uses. Elkins et al. (2009) find empirically that constitutions which are highly specific and hard to amend fail sooner, which is a direct warning to a document of twelve substantive articles and no procedural ones. Three provisions are therefore required.

Amendment. *These articles may be amended by the process a ratifying polity adopts, provided the amending process is itself not exercisable by an artificial system and not exercisable by any operator of the infrastructure the articles govern. An amendment that reduces a protection in Articles III, V, VIII, IX or X takes effect only after an interval sufficient for a participant to exercise the exit guaranteed by Article VIII.*

Severability. *The invalidity of any article leaves the remainder in force, except that the invalidity of Article VIII suspends the reliance of Articles III, X and XI on exit as their*

enforcement mechanism, and this shall be stated and not assumed.

The reserved process. *Where these articles reserve a determination to human constitutional authority, the authority is whichever body the relevant polity has constituted for the purpose, acting under published procedure, with the determination and its reasons recorded. Reservation to an unnamed process is reservation to nobody.*

The severability clause is doing real work. Because exit carries the enforcement theory, the articles are not independent: strike Article VIII and the rest continues to read as though nothing had happened while nothing enforces it.

6 Where the articles conflict

A set of constitutional provisions that harmonise perfectly has usually been drafted at a level of abstraction where nothing binds. These do not harmonise. Cataloguing the conflicts is not enough, because a constitution's minimum technical requirement is a rule for deciding which provision prevails when two cannot both be satisfied. Listing conflicts and resolving each by weakening whichever article would have cost something avoids that requirement instead of meeting it. We therefore state a priority ordering first, apply it, and then record what it does not reach.

Priority. *Where two articles cannot both be satisfied, the ordering is: first, Articles III, V, VIII, IX and X, which protect a person's ability to participate, to contest a determination, and to leave; second, Articles I, IV and XII, which allocate responsibility, protect claims and record liabilities; third, Articles II, VI, VII and XI, which direct the structure of production, money and public finance. A provision in a later group yields to a provision in an earlier one. Article XI, being a positive obligation bounded by public capacity, never overrides a protection in the first or second group.*

The ordering is a choice and it should be defended as one. It puts participation and recourse above fiscal and monetary structure because the first group is what a person subject to the system can invoke and the second group is what a government does with it, and because a framework that let its fiscal article override its appeal right would have conceded the whole argument of Section 2. It is also the ordering that sits well with Principle 1: the first group is a subset of the eight articles that passed the symmetry test in Table 4, selected from them by what a participant can invoke personally. Articles I, VI and XII also passed and sit in the later groups, so passing the symmetry test is not what puts an article first.

Table 5 then lists the conflicts, with the resolution the ordering produces. Four are discussed afterwards, and the discussion is where the ordering runs out.

6.1 The funding conflict between Articles VII and XI

These two articles pull in opposite directions on the same resource, and neither yields. Article VII wants public revenue to migrate off production and onto bases whose empirical ceilings Paper III measured and found low. Article XI wants a universal entitlement to identity infrastructure, settlement access and

Articles	The conflict	Resolution adopted
VII, XI	The access guarantee is a public expenditure competing for the capacity Article VII schedules for abolition	Article VII binds as a schedule and Article XI as a capacity-bounded commitment, so the conflict falls on Article XI. Stated, not resolved
VII, X	A polity may lawfully choose to finance itself from production taxation	Article X prevails: Article VII binds as a published schedule and a disclosure duty, never as a rule voiding a polity’s fiscal choice
IV, VII	A land value tax capitalises as an immediate loss to identified current holders	Announced multi-decade phase-in; compensation where a measure targets holders rather than a class
I, IV	Economic agency without personhood terminates liability in a shell with minimal assets	Chain of authorisation to a person who can be held; residual allocation left open and flagged
III, internally	The privacy floor conflicts with the supervisory and anti-money-laundering visibility the article’s own restriction clause permits	Unresolved. Paper IV reaches the same conclusion
V, IX	Recourse to human process caps machine-economy throughput	Ceiling accepted explicitly
VI, VII	As taxation of production is retired, the chartalist demand for the unit weakens	A recurring land liability is a stronger standing demand than an income tax; scale effect unresolved
VIII, VII	The endowment Article VII requires makes the state a controlling holder of world capital	Article VIII binds the public portfolio on the same terms as a private one
II, XI	A registration and authorisation burden falls disproportionately on the smallest participants	Article XI’s access guarantee is the offset, and it is uncosted
IX, and I–II	Article IX permits an artificial system to underwrite, and in Paper II’s model the underwriter’s haircut <i>is</i> admission	Article IX forbids sole determination and self-review, not underwriting. Plurality plus appeal, which is the first group of the ordering
II, III and V	Article II forbids an operator to impose production conditions through access; III and V permit narrowly tailored lawful restrictions	III and V prevail: an operator implementing a lawful safety mandate is not imposing a condition of its own
VIII, III and IV	Departure “with its record” moves a countersigned settlement history containing counterparties’ data and claims	Resolved by scope and not by precedence: the record a participant may take is its own side plus predicates over the rest. The ordering is silent between VIII and III, which share a group
VI, VIII	Forbidding delegation of the perimeter power outright would outlaw the competing venues Article VIII’s exit guarantee presupposes	Article VI redrafted: the power is exercised under published rules with appeal, by whoever holds it
VI, IV	Redrawing a perimeter reallocates loss between netting-set members and unsecured creditors (Bliss and Kaufman, 2006)	The reallocation is a change to claims, so Article IV’s notice, contest and compensation requirements attach to perimeter decisions

Table 5: Conflicts among the twelve articles.

computation, which is a recurring public expenditure of unknown but certainly non-trivial size. During the accumulation period the state is running surpluses to build the endowment, taxing production to do it, and now also funding an access guarantee.

There is no resolution here, only a coherent sequencing. Article XI's guarantee is a claim on public capacity in the same queue as any other, and Paper III's transition path already identifies the plausible sources: resource rents, spectrum and concession auctions, land tax revenue in excess of current spending, and public equity taken in exchange for public investment in compute, infrastructure or research. The last of these is the one that connects the two articles, since a state that underwrites energy or computation infrastructure for autonomous production has a claim on a share of the resulting returns, and taking that share as equity at the point of investment is consistent with productive neutrality in a way that taxing the resulting profits later would not be. Paper III is careful not to oversell the distinction, noting that a dividend on state-held equity and a corporate income tax both transfer a share of returns into public hands and that what separates them is timing and contingency.

6.2 Why Article X constrains Article VII and not the reverse

The temptation in drafting is to let the fiscal article win, since it rests on a theorem and Article X rests on a principle. That ordering is a mistake and the reason is Principle 1. A constitution whose fiscal article overrides its pluralism article has told a future government of the opposite persuasion that constitutional provisions yield to economic doctrine, and the next government to hold the machinery will apply the lesson. The production efficiency theorem is a result about optimal policy under stated conditions (Diamond and Mirrlees, 1971a); Paper III showed that its conditions fail in the ordinary case where pure profit is untaxed, and showed that the arithmetic of the pure form fails outright in two of five countries examined. A provision resting on a result of that kind should not be permitted to void a provision protecting the ability of a polity to choose.

6.3 Article VIII against the public endowment

Paper III raised this against its own architecture. If the state's revenue comes from a diversified claim on global production, then the state's fiscal interest becomes aligned with asset prices rather than with domestic wages. That is a realignment of whose prosperity the government has a budgetary stake in, and it runs opposite to the political economy that produced the modern welfare state. The constitutional response in Article VIII is thin: it prevents the fund from becoming an instrument of protocol control, and it does nothing about the alignment of interest. Paper III's governance objection stands unanswered, and a fund of the required size is a standing temptation whose insulation rests on contingent political settlements that a determined majority could undo.

6.4 The chartalist tension between Articles VI and VII

If the state accepts its own liability in payment of taxes, and taxation is what generates the demand for that liability (Knapp, 1924; Wray, 2015; Minsky, 1986), then retiring taxes on production appears to remove the foundation of the currency along with the tax. Paper III's answer is that the chartalist mechanism requires a recurring, enforceable, universal liability denominated in the state's unit, and does not require the liability to fall on income. Both of Article VII's bases supply one. A charge at final consumption falls on everyone who consumes, which is everyone, and it falls in the unit the charge is denominated in; a land value tax is levied annually on an asset that cannot be hidden, moved, or made to disappear by declining to work. Either is a stronger standing demand for the state's money than a tax avoidable by earning nothing, and George and Knapp turn out to be complementary, which is not a connection either drew.

The residual worry is about scale rather than mechanism, and Paper III leaves it open. A state collecting 8 per cent of GDP, in Paper III's illustration, generates less demand for its unit than one collecting 45, and Paper I's analysis says the required quantity of settlement assets is set by the residual of the obligation graph rather than by the tax take. Article VI's neutrality does not settle this, and neither does anything else in the series.

7 The organising claim

Stop taxing work. Tax what it buys.

(2)

In the register the rest of this paper uses: the machine economy should be financed at the point of consumption, not by a claim on work. The claim has two halves and they are supported by different papers in this series. The first half, that a claim on work is the wrong instrument, is the better established. The second half, that final consumption is the base that survives an agentic economy, rests on an argument about manipulability that Paper IV supplies. Neither half asserts that consumption taxation is sufficient on its own, and Section 7.4 states what the series' fiscal arithmetic currently says about that.

7.1 Why a claim on work stops working

Three results converge here, and none of them is a claim about what work deserves.

The administrative one is Paper III's, and its scope has to be stated precisely because the wider version does not survive. A tax base is built out of what a state can see, and Kleven et al. (2016) show that the income tax is administrable because firms act as fiscal intermediaries whose paper trail many employees would have to collude to falsify. What follows is that collection completeness varies with the composition of a household's income and is highest where income is wages alone. That is a claim about administrability and avoidance opportunity. It is not a claim about economic incidence, which is a general-equilibrium question neither that paper nor this series models. Agentic settlement leaves that reporting intact while making the reported quantity ambiguous. Paper III's three-arrangement example is the compact statement: an agent that sells services for currency, an agent that takes compute and logistics of equal value under a standing contract, and an agent whose obligations are netted continuously against its counterparties' represent the same real production, and only the first is unambiguously income. The third is not obviously anything, because the netting is the passage from the obligation graph to its residual and there is no principled point in that process at which income has been realised.

The ontological one is Paper I's, and it sharpens the administrative point instead of repeating it. A realisation event is an artefact of the netting partition, which Section 3.1 shows moves the settlement requirement by a factor of 4.5 with no economic relationship changing. What an income tax measures is therefore partly a fact about production and partly a fact about where somebody drew a perimeter, and the second part is a policy variable no tax authority sets.

The distributional one is Paper II's. Where agent capability is replicable at negligible cost and entry is free, the return to capability is competed toward operating cost and the surplus settles on inputs in inelastic supply. A tax system aimed at the wage bill is aimed at a share of national income that the technology is acting to compress, and the compression is the thing the series was written about.

7.2 Why final consumption is the base that survives

The affirmative half needs an argument distinguishing consumption from the other candidates, and the available one is less elegant than it first appears.

Start with what does *not* work. It is tempting to borrow Paper IV’s endogeneity result, which shows that an agent facing near-zero transaction costs can manufacture circular obligations that raise measured netting efficiency while adding nothing real, and to conclude that bases defined over throughput are manipulable the same way. The conclusion does not follow, and the incentive runs backwards. Paper IV’s manipulation inflates a reported ratio in order to shrink a buffer requirement; inflating a *tax* base raises the payer’s liability, so nobody does it. What the endogeneity result actually establishes about a throughput base is that the base is uninformative, not that it is avoidable.

The avoidability that matters is Paper I’s. The settlement requirement is a property of the obligation graph together with the partition drawn over it, and coarsening or fragmenting that partition moves it without any economic relationship changing. A charge keyed to settlement events as such is therefore avoidable by reorganising the perimeter, which is the reason Paper IV gives for locating the tax event at final consumption while using the settlement layer only to observe it. Final consumption is terminal, being defined by the buyer’s purpose and not by the arrangement of the obligations that financed it, so redrawing a perimeter does not move it.

That is a narrow claim, and the narrowness costs the thesis its most attractive form. Consumption is not the base hardest to fabricate. Land is, and this paper says so two sections earlier: a land value tax falls on an asset that cannot be hidden, moved, or made to disappear by declining to work. Consumption can be fabricated, by mistyping a final purchase as intermediate, which is the incentive that already produces value-added-tax fraud and which the protocol makes cheaper to detect without making it disappear.

What actually selects consumption over land is size. Paper III’s ceilings are the binding fact: the highest recurring tax on immovable property ever recorded in the OECD is 4.18 per cent of GDP, pure land value taxes yield around one per cent, no country has raised one per cent of GDP from carbon, and the American production-tax gap is 18.51 per cent of GDP. Land is the better base on every criterion except the one that decides the question. Consumption is chosen because it is the only candidate large enough, and stating that plainly is better than claiming a manipulability advantage the evidence does not support.

7.3 Regressivity, and what the rebate does and does not fix

The standing objection to a consumption base is distributional, and the series should not pretend to have dissolved it. A consumption tax is regressive against annual income and roughly proportional against lifetime income, since income is eventually consumed or bequeathed. Paper III gives the architecture’s answer, a universal rebate on subsistence consumption, which converts a proportional tax into a progressive one: a household consuming X times the subsistence bundle faces an effective tax-inclusive rate of $\tau_i(1 - 1/X)$, negative below the threshold, zero at it, and rising toward τ_i above.

Paper III now prices that answer instead of leaving it as a qualification, and the price should be quoted wherever the rebate is offered. A rebate set at twenty per cent of average consumption raises the American required rate from 37.2 to 46.6 per cent tax-exclusive, equivalently 27.1 to 31.8 per cent tax-inclusive, and the Danish figure from 138.1 to 172.6. The distributive property is worth having and it is not free, and both facts belong in the same sentence.

Three things it does not fix. It recovers progressivity at the bottom and none at the top, because the lifetime equivalence that makes a consumption base look proportional breaks where the largest fortunes are never consumed by their owners at all. It does not reach within-period liquidity, which is Paper III’s own point that annual incidence is what determines whether a household can pay rent this month, and a rebate paid periodically does not change the week in which the tax is due. And it does not restore the shape of the schedule.

That last concession is the deep one and its citation has to be stated precisely, because the two

propositions involved are routinely run together. The claim that a uniform consumption tax and a flat labour income tax are close to equivalent over a lifetime is an implication of the lifetime budget constraint, absent initial wealth and bequests, and it follows from lifetime labour income being either consumed or bequeathed. It is not the Atkinson–Stiglitz theorem and needs none of that theorem’s machinery. What Atkinson and Stiglitz (1976) establish is that where preferences are weakly separable between consumption and leisure and a nonlinear income tax is available, *differential* commodity taxation adds nothing, which is a statement about varying rates across goods. It says nothing about whether to tax consumption or income, so it cannot be used to license Article VII’s choice of base; what it licenses is the narrower proposition that a uniform rate suffices. The bearing on this paper is that what a move to consumption gives up is the nonlinearity of the schedule, which is the entire content of the optimal income tax literature from Mirrlees (1971) to Diamond and Saez (2011). Kaplow and Shavell (1994) supply the consequence: redistribution is better done through the tax system than through the design of other legal rules, so removing the instrument does not remove the demand for it, and the demand reappears somewhere less suited to carrying it. A framework that wants a progressive outcome afterwards has to obtain it from the asset side, through the ownership of the public endowment and the distribution of its returns, which is Article XI’s territory and Article XI’s costing problem.

7.4 What the claim does not settle

The thesis names a base and does not establish that the base is large enough. Article VII’s commentary sets out the rates, which is why that article carries supplements and an emergency clause.

Nor does the claim settle its own status as a directive. Article IX establishes that a stated maximand handed to a capable optimiser comes apart from the intent behind it, and a financing rule is not exempt. What protects this one is that it is addressed to the constitutional stage: it selects among rules, it is applied by the process Article IX reserves to human authority, and nothing selects against it at machine speed. Keyed to a measure and given to a system that optimises against it, it would degrade like any other proxy (Goodhart, 1975; Manheim and Garrabrant, 2018; Hadfield-Menell and Hadfield, 2019; Gabriel, 2020).

8 Objections

8.1 No ratification, no enforcement, and nobody bound who matters

The document has no constituent assembly, no ratifying polity and no court. A state that intends to exclude its citizens from economic participation is not constrained by a document proposing that it should not, and neither is a model provider with durable market power. By the standard of Buchanan and Tullock (1962), under which the interesting property of a constitutional rule is that it was chosen behind uncertainty about one’s own position, these are proposals for constitutional rules and not constitutional rules.

Three things survive the concession. Enforcement in this setting runs through exit and not through a court (Tiebout, 1956; Hirschman, 1970), so where Articles III and VIII hold a participant facing an unacceptable arrangement has somewhere to go and the arrangement is disciplined by the possibility; where they do not hold, the objection is unanswerable and the rest is decorative, which is why Article VIII carries the enforcement theory of the whole document. Several articles state constraints Paper IV showed cannot be delivered commercially, so the choice for those is between a constitution and the guarantee not existing. And an article whose only effect is to make a violation legible has done something, since Paper II’s concentration result is substantially a disclosure problem: an undisclosed senior claim mis-prices every claim beneath it.

8.2 Constitutionalising a technology that does not exist

Paper II's central actor has no legal standing in any jurisdiction, Paper IV's protocol has not been deployed at the discussed scale, and Paper III's endowment mechanism operates at the required magnitude in one country that acquired it by discovering petroleum. A constitution for this object is a constitution for a hypothesis.

The mechanisms the articles constrain are nonetheless not hypothetical, even where the agentic framing is. Netting perimeters are drawn today, and Paper I's results about them hold with no agentic premise. The infrastructure in which platform tipping would occur is being built now by rival specifications competing for adoption (Google LLC, 2025; Coinbase, 2025), which is the stage at which Article VIII's structural remedies are cheap and after which they are not, and the concentration of model supply is a present fact. Articles III, IV, V, VI, VIII, X and XII apply to the system as it stands; Articles I, II, IX and XI presuppose participants that are not yet principals, and Article VII presupposes an accumulation nobody has begun. Where the standing gap never closes, Paper II's position is that the framework describes a possible world and not a coming one, and this paper inherits that.

8.3 Article XI is uncoded, and calling it unfunded overstates what you know

This objection lands, and in a sharper form than the framework had allowed. Saying an article is unfunded implies an estimate compared against a capacity. There is no estimate. A reader who concludes that Article XI is aspiration wearing constitutional grammar is entitled to that reading, and the correct response is to produce the costing instead of repeating the concession.

Two things can be said meanwhile. The guarantee's cost is not the cost of a universal income; identity infrastructure, contracting access and settlement access are largely fixed-cost public goods whose marginal cost per participant is low, which is a different fiscal object from a recurring transfer, and the fixed-cost structure is what makes a costing tractable. And the alternative to an uncoded access guarantee is not a coded one; it is the incumbency dynamic Paper II identified, in which reputation accrues to early entrants and later entrants of identical capability cannot compete it away. The article names a problem that exists whether or not the article does.

8.4 This is liberal constitutionalism with new vocabulary

The articles protect property, contract, entry, competition and appeal, which is the standard content of a liberal economic constitution, and the claim to be neither capitalist nor socialist is on this reading a rebranding.

The overlap is real, and Section 5.13 already granted the premise for the three articles that fail the symmetry test. What separates the set from that description is the eight articles the test passes and this objection ignores, together with three provisions outside the tradition. Article VII directs public finance toward rent and away from production, which is a Georgist position that mainstream liberal constitutions do not take. Article XI guarantees access to productive capability, which is a positive entitlement and not a negative liberty. Article XII puts environmental and unfunded public liabilities on the same ledger as financial ones, which no existing constitutional order does. Article X is the provision that carries the neither-nor claim, and its content is that the framework must survive a socialist government and a capitalist one on the same terms; a liberal constitution that entrenches market allocation fails that test in one direction, and a socialist constitution that forbids private productive ownership fails it in the other.

8.5 The word global does no work

Section 1 conceded most of this. There is no global sovereign and Paper IV leaves jurisdiction unresolved, noting that the derivatives industry required roughly two decades of jurisdiction-by-jurisdiction legislation to make close-out netting effective against insolvency administrators for the institutions trading under master agreements (International Swaps and Derivatives Association, 2010). A participant population that is global by construction, with agents whose situs is unclear, is a harder version of that problem.

What survives the concession is the observation that the object is global whether or not its governance is. A netting perimeter that spans jurisdictions is a single economic object governed by several legal systems, and Paper I's result is that the perimeter determines the settlement requirement. A national constitutional treatment of a cross-border perimeter governs a fraction of the thing it names.

The objection has a sharper form that the framework should name instead of absorbing. Rodrik (2000) argues that deep economic integration, national sovereignty and democratic politics cannot all be had at once, and that pushing integration far enough forces a choice between the other two. A globally uniform economic constitution is the first horn of exactly that choice. Either the articles bind national democratic decision, which is the outcome Article X was written to prevent, or they yield to it, in which case the word global describes the object and not the governance. This paper takes the second horn, at the cost of having no answer for a perimeter that spans jurisdictions with incompatible answers to the same question.

8.6 A protocol is not a polity, and exit is not consent

The framework leans on exit, and exit is a thin substitute for consent. A participant whose economic life is conducted inside an arrangement does not meaningfully choose to leave it, and Paper IV's own conclusion is that a protocol from which departure is impossible is a jurisdiction and should be governed like one.

The framing is right, and it cuts toward more constitutional constraint than the paper has asked for. If the protocol is a jurisdiction, then the guarantees in Articles III, V and IX are the ordinary protections a jurisdiction owes those subject to it, and the case for constitutionalising them is stronger than the case made in Section 2, which argued from commitment and tipping. Ostrom (1990) found that the durable commons institutions were those in which the affected participated in modifying the rules, and no article here supplies that. It is a gap.

9 What would defeat this

Five observations would count decisively against the framework, in descending order of how much they would take with them.

The standing gap remains open indefinitely, so that no jurisdiction develops a container in which an agent's obligations are its own and its balance sheet is a distinct object, and neither of Paper II's two economic routes opens. If underwriters continue to price agent obligations on operator identity once both are observable, and if no material volume of agent obligations is issued without recourse to a non-agent balance sheet, then agents remain instruments and this constitution governs an automation technology under a misleading name. This is the observation that carries the most weight, and it is legal rather than economic.

Economy-wide netting efficiency turns out to be low, or the measured figure turns out to be mostly manufactured. Paper IV notes that economy-wide n has never been measured, that every reported figure comes from a venue with structurally reciprocal flows and a small supervised membership, and that the construction of a bound from national input-output tables, payment-system data and the

existing legal perimeter of enforceable netting is a tractable research project. If that project returns a low number, the efficiency premise under Articles VI and VIII weakens considerably, though the concentration argument for Article VIII survives on its own.

The endowment path closes nowhere. Paper III treats the real return as a parameter and notes that this flatters the proposal, since a fund of several times GDP is not a price taker and the act of accumulating it depresses the return it earns. Under a stewardship rule the damage is amplified, because a fall in r toward g shrinks the draw faster than it shrinks the return, and the required ratio diverges: a fall in the sustainable draw from 2.5 to 1.5 per cent raises the American requirement from 7.40 to 12.34 times GDP. If general equilibrium analysis showed the return falling materially as the stock rises, the asymptote would fall and the rate floor would rise, so the endowment would supply less relief than Article VII's commentary claims and more of the replacement would rest on the consumption base at rates Paper III already reports as far above any in force.

An existing constitutional order supplies these guarantees without a new document. If a national or supranational legal system extends identity portability, plural credit assessment, appeal rights and interoperability to agentic infrastructure through ordinary legislation, and the extensions hold, then the case in Section 2 for constitutional entrenchment was wrong about the economics and the articles are redundant.

The protocol tips despite structural remedies. Paper IV cautions that structural remedies in network industries erode and require periodic reimposition. If portability anchored in identifiers the provider does not own, plurality enforced by refusing unattributed determinations, and neutral governance of the specification all fail to prevent convergence on a single controller, then Article VIII is unenforceable and, by the argument in Section 8, the remaining articles are undertakings by a monopolist.

10 Conclusion

The series began by asking what money is when obligations can be created, netted and settled continuously by parties that are not human, and it ends by asking what an economy of that kind should be constrained from doing. The four intervening answers were less uniform than the question implies.

Money turned out to be a residual whose quantity is set jointly by an economy's promises and by a legal partition that somebody draws, which makes a monetary aggregate a poor thing to optimise and a clearing perimeter a serious object of governance. Production turned out to change less than expected on the technology side and a great deal on the contracting side, conditional on a legal development that has not occurred. Public finance turned out to be a question about which base is large enough, with an answer that works immediately for two of the five countries examined at a rate no state has tried, and that fails outright for Denmark and Norway because both have routed consumption through the public budget and shrunk the base the replacement needs. The protocol turned out to be specifiable, with one of its seven identity components deployed and its central efficiency parameter endogenous to the behaviour of the agents it measures.

The twelve articles are what those results will support, and running them against the paper's own constitutional test leaves four failing it, three that a government of the drafter's persuasion would inherit with pleasure and one, the access guarantee, that fails the other way. The set is symmetric only if the fourth is real, and the fourth is uncoded. Some of the articles are strong: the separation of economic agency from political personhood, the requirement that a determination name its assessor and be appealable to someone else, the refusal to let the optimiser hold authority over the rules it optimises against, and the placement of environmental and unfunded public liabilities on the same ledger as financial ones. One, the access guarantee that gives the framework much of its normative point, is a capacity-bounded commitment rather than a right, because nothing in this series has coded it.

The organising claim of the series is stated in the box at (2), and in the register this paper uses it reads: the machine economy should be financed at the point of consumption, not by a claim on work. What the series establishes is the choice of base. A claim on work is measured at a realisation event that the clearing partition helps define, and Paper II expects the wage share the tax aims at to compress. Final consumption is terminal, so unlike a charge keyed to settlement it cannot be avoided by redrawing a perimeter, and it is the only remaining base large enough to carry the replacement. It is not the base hardest to manipulate; land is, and land is far too small. Paper III's rates are why Article VII keeps rents, royalties and the endowment as supplements and keeps its emergency clause.

What the framework offers in exchange for its incompleteness is a change of subject. If money is primitive, the constitutional questions are about its quantity and its control. If the obligation is primitive, the questions are about who may promise what to whom, which promises may be cancelled against which, who decides, and who may appeal the decision. Those are questions about the distribution of economic agency, and they are the ones an economy of autonomous agents will actually pose.

Acknowledgements. This paper is Part V of the series *Foundations of Agentic Economics*. It depends on Paper I for the obligation graph and the Residual Settlement Principle, on Paper II for the agentic production economy and its scope condition, on Paper III for the fiscal arithmetic, and on Paper IV for the protocol and its six guarantees.

Conflicts of interest. None declared.

A The articles, collected

The constitutional text without commentary: the twelve articles, followed by the priority, amendment, severability and reserved-process provisions of Section 5.14. Numbering is fixed; Paper IV cites Articles III, VIII, IX and XI by number.

Article I. Economic Personhood.

Human beings are natural persons and remain so. An artificial system may be granted economic agency, defined by its authorisations, by its capacity to hold and to discharge obligations, and by a registered chain of responsibility terminating in a natural or legal person. Such a grant confers no political personhood, no constitutional rights held against the polity, and no standing in the constitution of public authority. Economic agency is a permission to transact. It is not membership.

Article II. Right to Produce.

Every person may create, own, operate and employ lawful productive systems, including autonomous agents. Production is presumptively free. A restriction on the right to produce requires a stated public purpose, must be drawn narrowly to that purpose, and may not be imposed by the operator of economic infrastructure as a condition of access to that infrastructure.

Article III. Open Economic Participation.

Access to fundamental economic infrastructure, meaning economic identity, contracting, clearing, settlement, and the markets for computation and energy on which production depends, shall not be conditioned on political ideology, nationality, membership of an incumbent commercial association, or the approval of any particular supplier of artificial

intelligence. Restrictions must be lawful, narrowly tailored, publicly stated, and subject to review by a body that did not make the determination. Participation shall not require a participant to disclose its economic positions beyond the predicates a counterparty or a supervisor requires, and the parties entitled to full visibility shall be enumerated in the protocol and not determined by commercial leverage.

Article IV. Property and Claims.

Legitimately acquired property and contractual claims receive predictable legal protection. Neither a government nor an autonomous system may extinguish, reassign or freeze a claim except under a general rule announced in advance, applied through a process the claimant may contest, and compensated where the rule operates retrospectively on a specific holder.

Article V. Freedom of Contract.

Humans, and agents acting under a traceable authorisation, may negotiate the terms of their economic relationships. This freedom is limited by rules protecting third parties from uncompensated harm, protecting competition, protecting public safety, and protecting rights that a person may not contract away. Every obligation shall specify how performance is to be verified and what recourse follows if it is not, and no automated determination of performance is final against a participant without a path to review.

Article VI. Monetary Neutrality.

No particular representation of value is constitutionally privileged as the economic primitive. Government currency, bank deposits, private credit, clearing claims and interoperable settlement technologies are graded instruments of one kind. A public authority may designate a settlement asset and require it in payment of public obligations. It may not thereby prohibit the creation, transfer or lawful cancellation of claims denominated in other units. The power to determine which obligations may be cancelled against which shall be exercised under published rules and shall be subject to appeal, by whoever exercises it.

Article VII. Productive-Tax Neutrality.

Taxation of labour and of productive income is scheduled for abolition. Final consumption is the primary base that replaces it to the extent of its yield, with rents on land and scarce natural resources, resource royalties, and the return on publicly held capital carrying the balance, and with charges on measurable externalities levied for allocative reasons whether or not revenue is needed. A public authority shall publish annually the share of its revenue raised from production and the trajectory it intends for that share, together with the standard rate levied on final consumption and its total revenue as a share of output, and a schedule stated without a published trajectory is not a schedule. Where a fiscal shock, an armed conflict, a demographic transition or a technological displacement makes the schedule unaffordable, a public authority may depart from it by a measure that is announced, reviewable and limited in time.

Article VIII. Competition.

No corporation, no government and no artificial system may obtain unrestricted control over the economic protocol. Interoperability of identity, obligations and contracts, and the ability of a participant to depart with its assets and its record, are structural protections. They may not be reduced to undertakings given by the party they constrain, and they bind a public authority holding a controlling position as they bind a private one.

Article IX. Human Sovereignty.

Economic optimisation is subordinate to human constitutional authority. An artificial system may compute, propose, price, underwrite and clear. No artificial system may be the sole determinant of a participant's admission to economic infrastructure, may decide an appeal against its own determination, or may alter the rules under which it operates. Where automated assessment excludes a participant from that infrastructure in the aggregate, the participant has recourse to a human process. AI serves civilization; civilization does not serve its optimisation function.

Article X. Political Pluralism.

Capitalist, socialist, Georgist, cooperative, mutualist, religious and other voluntary economic arrangements may coexist within the protocol and may compete for adherents. Voluntary collective organisation is permitted. Compulsory universal economic capture is constrained by the following rules. No public authority may make participation in a single economic arrangement a condition of access to the infrastructure of Article III. No public authority may pro-

hibit a peaceful economic arrangement on the ground of its ideology. A person subject to a compulsory economic arrangement retains the exit guaranteed by Article VIII. A measure that removes that exit is a measure of capture whatever its stated purpose, is prohibited on that ground, and is reviewable at the constitutional level by the process named in the reserved-process provision.

Article XI. Universal Protocol Access.

Every human person shall have access to economic identity, to contracting, to the ownership and transfer of claims, to settlement, to markets for computation, and to the deployment or delegation of autonomous economic agents. The guarantee is of access to participation and not of a particular income. This is Universal Basic Agency. The guarantee binds to the extent of available public capacity, and it is to be extended as that capacity grows and not withdrawn as it fluctuates.

Article XII. Intergenerational Stewardship.

No generation may finance its prosperity by placing unbounded liabilities on its successors. Environmental depletion, sovereign borrowing, unfunded public commitments and irreversible consumption of scarce resources shall be recorded on a consolidated obligation ledger, published, and carried in the same accounts as financial liabilities. A public capital endowment held under Article VII is held in trust, and a draw exceeding its sustainable rate is a borrowing from future holders and shall be recorded as one.

Priority.

Where two articles cannot both be satisfied, the ordering is: first, Articles III, V, VIII, IX and X, which protect a person's ability to participate, to contest a determination, and to leave; second, Articles I, IV and XII, which allocate responsibility, protect claims and record liabilities; third, Articles II, VI, VII and XI, which direct the structure of production, money and public finance. A provision in a later group yields to a provision in an earlier one. Article XI, being a positive obligation bounded by public capacity, never overrides a protection in the first or second group.

Amendment.

These articles may be amended by the process a ratifying polity adopts, provided the amending process is itself not exercisable by an artificial system and not exercisable by any operator of the infrastructure the articles govern. An amendment that reduces a protection in Articles III, V, VIII, IX or X takes effect only after an interval sufficient for a participant to exercise the exit guaranteed by Article VIII.

Severability.

The invalidity of any article leaves the remainder in force, except that the invalidity of Article VIII suspends the reliance of Articles III, X and XI on exit as their enforcement mechanism, and this shall be stated and not assumed.

The reserved process.

Where these articles reserve a determination to human constitutional authority, the authority is whichever body the relevant polity has constituted for the purpose, acting under published procedure, with the determination and its reasons recorded. Reservation to an unnamed process is reservation to nobody.

B Notation and where the results live

Symbol or term	Meaning	Established in
$\mathcal{E}_t = (V, E_t)$	Obligation graph: vertices are humans, firms, governments, machines and artificial agents	Paper I
$e_{ij} = (q, u, t, c, r)$	An obligation from i to j : quantity, unit of account, maturity, conditions, risk	Paper I
Π	Netting arrangement: a partition of the <i>obligations</i> , not of the participants	Paper I
$S(\mathcal{E}, \Pi)$	Settlement requirement under arrangement Π	Paper I
$M_t = \mathcal{R}(\mathcal{E}_t)$	Residual Settlement Principle. A vector of per-unit, per-window requirements	Paper I
$n(\Pi) = 1 - S/X$	Nettable proportion; $S = X(1-n)$ is a definition of n given Π	Papers I and IV
$G \in V$	The public vertex: the state as a party in the graph	Papers I and III
$\mathcal{P} = H + A + K + E + I$	Production decomposition; an identity over service values, an upper envelope as a technology	Paper II
$B_i(t)$ $(A_i, L_i, C_i, R_i, P_i)$	= Agent balance sheet: claims, obligations, capabilities, reputation, expected production	Paper II
$C_i(t) = \lambda_i(t)\Pi_i(t)$	Economic capacity as a haircut on discounted expected forward production	Paper II
λ_i	Capacity haircut, canonical across Papers II to V	Paper II
T	Revenue architecture: land, resource rents, externalities, final consumption, public capital return	Paper III
$W_G(t)$	Public capital endowment; $W_G(t+1) = W_G(t) + I_G(t) + R_G(t) - G_t$	Paper III
$w^* = \gamma/\rho$	Endowment equivalence; $\rho = r$ under a consumption rule, $\rho = r - g$ under stewardship	Paper III
ID_i	Economic identity: capabilities, authorisation chain, obligations, claims, reputation, guarantees, settlement history	Paper IV
C_{ij}	Contract object: inputs, outputs, price, conditions, verification, settlement, recourse	Paper IV

The letter E carries three jobs across the series: the edge set E_t , energy in the production decomposition, and economic power E_i . Papers I and II both record the overload; context separates the three. The letter C likewise carries economic capacity $C_i(t)$ in Paper II, the capability slot of $B_i(t)$, final consumption C_i in Paper III, and the contract object C_{ij} in Paper IV, and L_i carries liabilities in Papers I and II and land value in Paper III. Each paper states its own scope.

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