

Contracts in an Undefined Unit: A Legal Question of First Impression

Quae ab initio non valent, ex post facto convalescere non possunt

The Foundational Problem: A Unit Without Determinate Reference

Legal systems generally require the object of a contract, and the terms that fix it, to be determinate or determinable. A quantity is determinate only if its unit has a valid intensional definition: necessary and sufficient conditions in independently determinable terms.

Valid unit (metre)

Distance light travels in $1/299,792,458$ of a second — externally anchored, not circular, independently determinable by any observer.

Valid unit (kilogram)

Defined via Planck's constant — independent of any physical artefact, verifiable anywhere.

Monetary unit (any currency)

'Money is a medium of exchange' → exchange presupposes value → value presupposes a standard → the standard is money. No element exists outside the loop; legal tender designation names the unit without defining it.

The question for counsel: do obligations stated in such a unit meet the determinacy requirement of their legal system?

The $B = 0$ Result and Theorem 1

$$A = A + B \text{ if and only if } B = 0$$

Let $A \geq 0$ be the value of goods and services transacted. Let $B \geq 0$ be the independent value attributed to the monetary unit itself. If $B > 0$, then $A + B \neq A$ — the annotation does not measure only what was transacted. It measures something more. The recording instrument is no longer passive.

Percentage charges levied at n links of a value chain compound: $C_n = W(1+r)^n$, where W is the real cost and r the percentage rate charged.

— Theorem 1 (Chapter 8), proved by induction; Corollary 3 extends it to repeated cycles

- A unit that carries its own value ($B > 0$) records more than what was transacted: the instrument is no longer passive.
- Its supply is charged as a percentage of the value transacted, so across two or more links of a value chain and its cycles the charges compound.
- The recorded cost C_n therefore diverges from the real cost W : the financial charges are the only costs in the chain that compound.

The Harm, Stated Precisely

The harm follows from how the unit is supplied: at a cost calculated as a percentage of the value transacted.

Measurable:

Percentage charges at two or more links of a value chain and its cycles compound, and are carried in the price of virtually every real good and service (Theorem 1; Corollary 3; Ch. 9; Ch. 26a §3.1).

Distributive:

Producers' share of what they produce erodes toward zero: $W/C_n = 1/(1+r)^n$ (Corollary 4).

Systemic:

Recurring insolvency crises, and attenuation measures that are themselves paid for in the same unit (Chapters 12 and 14; Ch. 26a §7.2).

Conflict:

Compounding sovereign obligations that cannot be met from production make war appear structurally rational (Chapter 11; Ch. 21a §5).

The briefing derives the causal path. The amount borne by any given party is an empirical question, and quantifying it is part of building a claim.

Why This Compels Action

If the derivation holds, inaction is not neutral: it is continued participation, with knowledge, in a harm that can be stopped.

Logical:

The derivation stands until a specific error is identified (FILP; Appendix B). Relying on the unit without identifying one is acting on a premise that cannot be defended.

Moral:

The harm falls on every party, including the reader's clients and the reader. Its cause is identified and the remedy costs nothing to implement: continuing as before is a choice.

Institutional:

After formal notice, presenting monetary contracts and aggregates as determinate is done knowingly. MSTA submits this is at minimum negligent misrepresentation (Chapter 20).

Professional:

Conduct rules require competent advice on material legal risks and allow moral considerations (e.g. ABA Model Rules 1.1 and 2.1). A notified challenge to the unit is such a risk.

The briefing does not ask counsel to accept its conclusion. It asks them to test it: once the argument is known, not testing it is itself a decision.

Fungibility Presupposes a Measure

1	Definition:	A fungible thing is one whose units are interchangeable with any other unit of the same kind and quality.
2	Equality:	To say one unit equals another presupposes a measure by which the two are compared.
3	No measure:	The monetary unit has no valid intensional definition as a measure (Chapter 1). Legal tender designates the unit; it does not define it.
4	Therefore:	Without a measure, the equality of one unit to another cannot be established. The unit's fungibility is presupposed, not demonstrated.
5	Question:	Monetary obligations presuppose a fungible unit of account. Do obligations resting on an undemonstrated presupposition have determinate terms?

Authorities cited in V16: Art. 1753 and Art. 1272 Spanish Civil Code; Bell v Lever Brothers [1932] AC 161; UCC § 1-201(b)(24). See “How this maps onto your legal system”.

Void from Inception: The Doctrine

"Quae ab initio non valent, ex post facto convalescere non possunt — that which is void from the beginning cannot be made valid by subsequent act."

— Common law and civil law principle

- A void instrument is not merely voidable — it has no legal effect from its inception. No subsequent performance, consent, or reliance can cure it.
- The progress defence (Chapter 21a §1): the monetary system has been the engine of development — this is self-referential. It validates the misrepresentation by appealing to consequences measured in units produced by the misrepresentation.
- The measurement problem (Chapter 21a §2): global financial claims exceed global real assets by a factor of about three (Bain & Company, 2012). Measured in the same unit, genuine development and compounded extraction cannot be separated.
- The counterfactual (Chapter 21a §3): under $r = 0$, logistic growth produces genuine expansion. The misrepresentation does not produce growth — it taxes growth.

How This Maps onto Your Legal System

The logical argument does not depend on any one jurisdiction (Appendix C, O-6). Its legal consequences do: counsel should check each element against their own law.

Element	What to check	Example authority
Determinacy of terms	Must the object and price of a contract be determinate or determinable?	Spain: Civil Code art. 1273
Impossible object	Is an object that cannot be determined treated as impossible?	Spain: Civil Code art. 1272
Fungibility	How does your law define fungible things and loans of money?	Spain: Civil Code art. 1753
Mistake or misrepresentation	Do mistake, error or misrepresentation doctrines reach the substance of the contract?	England and Wales: Bell v Lever Brothers [1932] AC 161
How the law defines money	Does statute define money as a measure, or only designate it?	US: UCC § 1-201(b)(24), “medium of exchange”
Void or voidable	Does indeterminacy void an obligation from inception, or only make it voidable?	Quae ab initio non valent
Constitutional clause	Who holds the power over money and over standards of measure?	US: Const. art. I, § 8, cl. 5

Notice and Knowledge

The argument has been formally submitted to the Bank for International Settlements, the European Central Bank and the Banco de España, among others. The Banco de España registered the submission; no substantive response has been received from any of them.

MSTA's submission: continued presentation of monetary contracts and aggregates as valid, without qualification, after formal notice, constitutes at minimum negligent misrepresentation (Chapter 20).

Questions for counsel:

Does formal notice of a reasoned challenge change the standard of care owed by an institution that continues as before? Could continued presentation without qualification engage negligent misrepresentation, or duties of good faith, in your jurisdiction?

— The procedural demand creates a dated record of that notice

Silence is neither refutation under FILP nor acceptance: its legal weight is notice.

Implications by Field of Law: Propositions and Questions

Contract:

Obligations stated in an undefined unit lack determinate terms (Chapter 1).

Q: Does your law treat this as indeterminacy of object, impossibility, or neither?

Regulatory capital:

A ratio of two quantities stated in an undefined unit is itself indeterminate.

Q: Can compliance with capital and leverage ratios then give determinate assurance?

Sovereign debt:

Compounding makes nominal obligations unpayable from production alone (Theorem 1).

Q: How does your law treat obligations that cannot be met by the means contemplated?

Constitutional:

Mandates such as price stability are steered by $V = PQ/M$, formally indeterminate (Chapter 13a). US Const. art. I, § 8, cl. 5 pairs regulating the value of money with fixing the standard of measures.

Q: Can a mandate be fulfilled through an indeterminate signal, or without a defined standard?

Taxation:

Percentage-based taxes compound through the value chain like the percentage fee (Chapter 22, R2).

Q: Does this bear on proportionality or capacity-to-pay principles?

Standing and the Generalised-Grievance Problem

Courts usually decline harms shared equally by everyone. The harm here is general, but it falls on identifiable parties in measurable amounts. Questions for counsel:

Claimant:

Which claimant best shows a concrete, particular injury: a producer at the end of a long value chain, a borrower, a taxpayer, a public body?

Collective action:

Is a collective or representative action available for a harm spread across many parties?

Public interest:

Does your system allow public-interest standing, or an abstract constitutional challenge, without individual injury?

Forum:

Civil courts on a specific contract, constitutional review of a monetary mandate, or administrative review of an authority's reply to the procedural demand?

FILP as the Evidential Standard — Symmetric Burden of Proof

First Independent Logical Principles (FILP): every claim must trace to either (a) a phenomenon that can be empirically observed independently by anyone, or (b) a valid logical derivation from such a phenomenon or an axiom whose denial leads to contradiction. It is the familiar evidential discipline, with the burden applying equally to both sides.

Applied symmetrically to monetary claims:

"Interest is the price of capital"

Must trace to an independently observable phenomenon or valid derivation. It cannot: the 'price' of capital presupposes the validity of the monetary unit whose validity is under examination. Circular under FILP.

"Inflation is too much money chasing too few goods"

$V=PQ/M$ is proved formally indeterminate (Chapter 13a). The claim attributes a causal mechanism to a formula that cannot distinguish between four radically different economic realities.

"The system works because it has produced growth"

Self-referential: measures progress in units whose validity is the subject of the dispute. Equivalent to using a broken thermometer to verify its own accuracy.

Non-engagement, institutional preference, or economic opinion does not constitute refutation under FILP. Refutation requires identifying a specific logical error in the derivation, in commensurate FILP terms.

Why No Strategy Within the System Can Cure the Harm

To counsel, these three structural reasons matter because they show that no alternative remedy exists within the system: only correction of the unit removes the harm.

Three independent structural reasons no optimum strategy exists in a $B>0$ system:

- First: $C_n = W(1+r)^n$ diverges independently of every strategic variable available to any agent — no agent controls r or n
- Second: the policy signal $V=PQ/M$ is formally indeterminate — the instrument through which agents perceive the system's state is structurally unreliable
- Third: Stein's conservation principle — every locally optimal intervention transfers instability residue without reducing it at system level

Chapter 20: The Remedy and Its Legal Consequences

The passive unit ($B=0$) provides the remedy. Its legal standing is established by the same standard as any valid concept: a complete, non-circular intensional definition.

New contracts:

Must be denominated in units satisfying all 13 conditions of Chapter 18. $B=0$ necessary but not sufficient — all conditions must hold simultaneously.

Existing contracts:

Assessed for validity under Chapter 20. Prior accumulated obligations require legal treatment — but their source (the compounding mechanism) is switched off the moment $B=0$ is adopted.

Switch character:

The correction acts like a light switch, not a dial. No new phantom obligations are created from the moment of definitional change. The prior obligations remain and require transitional management.

Dissolution of phantom obligations:

Once formal invalidity of contracts denominated in void units is established, the phantom obligations that make certain actors' war calculus structurally rational dissolve. The quae ab initio principle is not merely remedial — it removes a structural cause of conflict.

The Procedural Instrument — A Demand That Precedes Legal Action

Any party to a monetary contract can make the following demand in writing to their central bank, finance ministry, or commercial bank:

"Acknowledge in writing: (1) that no valid formal definition of the monetary unit currently exists that is internally consistent, obeys natural law, and is wholly consistent with the terms of current monetary contracts; (2) that the operative notion of money constitutes a misrepresentation of what a valid monetary unit must be; (3) that this misrepresentation produces structural instability with consequences for every individual subject to it."

If refused or unanswered:

A refusal does not prove that no definition exists; it documents that the authority was notified and produced none. Record the date, recipient and reply.

If authority provides a definition:

Verify against three criteria: internal consistency; conformity with natural law; coherence with terms of current contracts. If any criterion fails, inconsistency is implicit acknowledgment.

Either way:

The demand cannot be answered without engaging the formal finding. It is unanswerable on its own terms within the current framework.

Access-to-Information Request

Before any proceedings, a request under the applicable transparency law can establish the record: whether the authority holds any document that defines the unit as a measure.

Applicable laws include the US Freedom of Information Act (5 U.S.C. § 552), Spain's Ley 19/2013 de transparencia and Regulation (EC) No 1049/2001 for EU institutions; the ECB has its own public-access rules.

Suggested request:

“All records in which [the authority] defines [the currency unit] as a unit of measure, as distinct from records designating it as legal tender.”

— Adapt the wording to the statute that applies

The demand asks for an acknowledgment; this request asks only for documents, which the authority must answer under the law that governs it.

Questions for Counsel

1	Determinacy:	Do obligations stated in a unit without a valid intensional definition meet your legal system's requirement of determinate terms?
2	Fungibility:	Does the fungibility argument engage your system's definition of fungible things?
3	Standing:	Who has standing, in which forum, and on what harm?
4	First step:	Which route fits first: the demand, an access-to-information request, or a test case on a single contract?
5	Notice:	What does formal notice change for institutions that continue as before?
6	Transition:	Are there transitional remedies for obligations already accrued?

What Is Established, What Is Asked

Established (derivation)

- The monetary unit has no valid intensional definition (Chapter 1)
- Percentage charges on its supply compound along value chains and their cycles (Theorem 1, Corollary 3)
- Fungibility presupposes a measure the unit does not have
- The argument has been formally notified to the BIS, ECB and Banco de España without substantive response

Asked of counsel

- Do obligations in an undefined unit meet your system's determinacy requirement?
- Who has standing, in which forum, and on what harm?
- What does formal notice change for institutions that continue as before?

Why it cannot wait: the harm compounds with every cycle, and once the argument is known, not testing it is itself a decision.

The Simplicity of the Remedy

Record the value of goods and services by their own value (domain) — not as a proportion of the value of what is being recorded. Never assign the value of one's service on the basis of the value of the goods and services of others.

The formal specification is complete.
The remedy costs nothing to implement.

Appendix B: Scientific Status — The Falsifiability Register

Every substantive assertion in the MSTA document maps to its type and falsifiability condition.

Category	Examples	Falsifiability
Logically necessary	$M \cap C = \emptyset$; $B=0$ proof; A24 entailment	Denial requires accepting arithmetic/logical impossibility
Mathematically proved	Theorem 1; Radon-Nikodym failure; $V=PQ/M$ indeterminacy	Falsifiable only by identifying error in the proof — none identified
Empirically confirmed	Human talent power law; non-monetary production; $B>0$ transmission	Falsifiable by contrary observation
Empirically predictive	Laziness as rational withdrawal; UBI studies	Generates testable predictions about behaviour under $r=0$

Each substantive assertion is classified by type, with its falsifiability condition: logically necessary, mathematically proved, or empirically testable.

"The argument stands until a specific logical error is identified in commensurate FILP terms. Non-engagement does not constitute refutation."

— MSTA V16, Preamble

Appendix C: Key Objections and Responses — For Legal Proceedings

O-1 Transition *“Correction requires dismantling the system.”*

No. The system does not need to be shut down. Correction is at the definitional level — instability ceases to be generated; prior obligations managed under Chapter 20.

O-6 Jurisdiction *“Quae ab initio applies variably by jurisdiction.”*

The logical argument (indeterminate contract, no determinate truth conditions) is jurisdiction-independent. Legal authorities cited as one expression of the logical necessity, not as its proof.

O-11 Separability *“Ontological and operational errors can be addressed independently.”*

Proved incorrect by Chapter 3: the percentage fee is logically entailed by $B > 0$ — it cannot be rationally eliminated without correcting the definition. They are one problem at two levels.

O-12 MMT *“Sovereign issuers cannot be forced into insolvency — a valid definition exists in legal tender.”*

Legal tender defines acceptance, not measurement validity. A broken thermometer can be made legal tender. The indeterminacy and instability proofs apply regardless of issuance arrangements.

Enforcement *“Contracts in these units have been enforced for centuries.”*

Enforcement shows acceptance, not determinacy: a void instrument is not cured by performance (quae ab initio).

Standing *“This is a generalised grievance.”*

The harm is general, but it falls on identifiable parties in measurable amounts; see “Standing and the Generalised-Grievance Problem”.