



Observable but not verifiable: Audit quality and financial stability

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Observable but Not Verifiable:

Audit Quality and Financial Stability

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Abstract

Audit quality is an institutional outcome, not a trait of auditors. A regime disciplined mainly by inspectability and liability rewards provable evidence and tends to crowd out the soft information auditors observe but cannot prove. The paper traces this bias to the regulatory rewarding of ex-post verifiability at a time when accounting has turned predictive, and argues that in banking it becomes systemic: because auditors across banks wait for the same verifiable triggers, dispersed, bank-specific deterioration is filtered out and recognition is synchronized, turning staggered adjustments into a common, abrupt shock. The relevant contrast is not early versus late recognition but gradual versus abrupt. The policy implication is not to turn auditors into supervisors, but to design standards, liability, inspection, and supervisory communication so that judgment over information observable before it is verifiable is protected rather than taxed.

Keywords: audit quality; observable versus verifiable information; expected credit losses; financial stability; bank auditing.

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Table of contents

Abstract	1
Acknowledgements	2
Table of contents	2
1. Introduction	3
2. Accounting and auditing: from private institutions to regulated functions.....	5
3. The institutional constraints of audit quality	6
3.1. Observable is not the same as verifiable	6
3.2. Quality is produced by the institutional regime	8
4. Regulation rewards the verifiable — accounting demands the predictive.....	9
5. External audit and financial stability.....	11
5.1. Why banks are the leading case	12
5.2. Audit as financial-stability infrastructure.....	13
6. Current controversies through the observable/verifiable lens.....	17
6.1. General audit controversies	17
6.2. Banking applications	19
7. Structural shifts: ownership and artificial intelligence.....	20
7.1. Ownership: private-equity capital	20
7.2. Production: artificial intelligence	22
8. Policy implications	23
9. Concluding remarks	26
References	28

1. Introduction

How does the institutional regime under which auditors work shape the information that audited financial statements convey, and when does that effect become a matter of financial stability? Financial stability depends critically on the timely recognition of losses, or more precisely on their gradual recognition, since what destabilizes is abruptness rather than lateness, yet modern audit regulation increasingly tends to reward information that can be verified *ex post*. Most diagnoses locate the problem in auditor competence and independence (DeAngelo, 1981a). This paper locates it elsewhere: in the regime that determines which information auditors are able and willing to use and transmit. The central claim is that when accounting becomes more predictive — its estimates increasingly forward-looking, as with fair values and expected credit losses — while audit discipline becomes more dependent on *ex-post* verifiability, audit regulation can improve inspectability and liability while weakening the auditor's use of decision-relevant soft information — and that in banking this engagement-level bias becomes systemic, because verifiability thresholds synchronize loss recognition across institutions.

The argument turns on an old distinction from contract theory. Information may be observable to management, auditors, and other informed parties while still not being verifiable by courts, inspectors, supervisors, investors, or market participants. Audit quality therefore depends not only on competence and independence but on independent professional judgment over both hard information that outsiders can verify and soft information that auditors may observe but cannot easily prove, the relevant burden being the auditor's need to support a conclusion with evidence a third party could later check, whether a court in a liability action, an oversight inspector, or a supervisor (Grossman and Hart, 1986; Grout et al., 1994; Arruñada, 2000).

This distinction is crucial in banking. A bank auditor can often see that underwriting standards are slipping — looser covenants, growing exceptions, pressure to book volume — long before the deterioration surfaces in the defaults or market prices that third parties can verify. Two distinct verification thresholds are at work and should not be conflated: a regulatory one, under which a loss becomes recognizable once it meets the accounting or supervisory definition of impairment or non-performance, and a market one, under which the loss becomes manifest in prices. The paper's claim is that decision-relevant deterioration is often observable before either threshold is crossed. The same is true of broader warnings about business-model fragility, liquidity vulnerability, management credibility, control deterioration, risk culture, and governance weakness: they typically emerge before they become legally or regulatorily verifiable.

At the same time, modern accounting — driven by standard-setters' shift from historical cost toward fair value and forward-looking impairment, and by prudential demand for risk-sensitive numbers — increasingly requires predictions — expected credit losses, fair values, impairment tests, liquidity and going-concern assessments — while audit regulation, inspections, and liability tend to reward *ex post* documentation based on third-party-verifiable evidence. The two movements are not formally contradictory, but

they create a bias toward defensive auditing: compliance may increase while the informational content of the audit declines.²

When these biases delay recognition of deteriorating credit quality in particular, the consequence runs along a single chain: observable deterioration, unverifiable evidence, defensive delay, a common hard trigger, synchronized recognition, and a systemic shock. Risk accumulates silently and later surfaces through abrupt information shocks, so the contribution of auditing to stability lies not only in the accuracy of reported figures but in the timing and dispersion of risk recognition. The relevant contrast is not early versus late recognition but gradual versus abrupt adjustment; much of the procyclicality attributed to expected-loss accounting is the procyclicality of waiting for verifiable evidence, which arrives late and for all institutions at once. Not late, but abrupt — synchronized across banks — is what destabilizes.

The contribution is a law-and-economics synthesis rather than a new primitive. The observable/verifiable distinction (Grossman and Hart, 1986), the hard/soft and professional-judgment argument (Grout et al., 1994), and the demand for audit from agency cost (Jensen and Meckling, 1976; DeAngelo, 1981a) are borrowed, building on Arruñada (1999a, 2000). The paper adds three things: (i) it applies the observable/verifiable distinction to the institutional production of audit quality; (ii) it shows that the tension has intensified because accounting moved toward prediction while audit discipline moved toward inspectability, a shift documented in the post-Enron reform architecture (PCAOB inspections, ISA 230 documentation requirements, and the revised estimates standard ISA 540) that rewards retained, reviewable evidence; and (iii) it explains why, in banking, this has financial-stability consequences, because filtering out bank-specific soft information delays recognition until common verifiable triggers arrive, turning dispersed deterioration into synchronized adjustment.

This paper does not claim that verifiability is undesirable: verifiability is necessary for accountability, and is precisely what makes auditors themselves disciplinable, because courts and inspectors cannot otherwise distinguish honest but mistaken judgment from negligence or capture. It does not claim that inspections reduce audit quality in general, nor that auditors should replace supervisors. Nor does it collapse the two regimes: the private audit and the public inspection remain distinct functions with distinct audiences, and the argument concerns how the observable/verifiable boundary constrains each of them and the traffic of information between them.

The paper's claim is narrow: when the relevant judgment depends on information observable before it is verifiable, a regime that rewards only the verifiable reduces the informational content of the audit and synchronizes recognition delays across banks. The difficulty is therefore recursive — no regime can fully protect professional judgment while keeping it fully disciplinable — and the choice is between second-bests, which is why the systemic stakes in banking, rather than any first-best remedy, drive the analysis.

The paper proceeds as follows. It first sets out the theory core — accounting's predictive turn, auditing's inspectability turn, the observable/verifiable distinction, and

² This is a form-over-substance drift in the sense explored by the symposium on substance and form in accounting and auditing in this journal (see the contributions collected in *Accounting, Economics, and Law: A Convivium*, and Biondi, 2011): the observable/verifiable regime rewards documentable form even where economic substance is visible but not yet provable.

audit quality as an institutional outcome — and the regulatory mechanism that biases auditing toward the verifiable. It then develops banking as the leading case and external audit as financial-stability infrastructure, where the engagement-level bias becomes systemic as recognition is synchronized across banks. It reads the standard controversies through the same lens, treats private-equity ownership and artificial intelligence as extensions of the central claim, and closes with policy implications built on a single principle: regulation should protect, rather than tax, the auditor's use of information that is observable before it becomes verifiable.

2. Accounting and auditing: from private institutions to regulated functions

A prior question conditions everything that follows: what is accounting for. The dominant framing treats it as a technology for estimating economic value, so that better accounting means more accurate valuation (a framing associated with the decision-usefulness and value-relevance tradition; see, for contrasting assessments, Barth, Beaver, and Landsman, 2001, and the measurement critique in Biondi, 2011). The Coasean view is different. Accounting emerged and evolved mainly to support contracting, monitoring, and accountability within organizations (Coase, 1937, 1990; Jensen and Meckling, 1976; Watts and Zimmerman, 1986). Its primary function was not to determine what assets are worth but to make agents answerable for the resources entrusted to them. Historically it was built around transactions, rights, and obligations, not valuations, because transactions are verifiable and verifiability is what makes the numbers useful for governance. This is the accountability rather than valuation conception of accounting associated with Ijiri (1975) and Sunder (1997), in which the role of the accounts is to support the enforcement of obligations among contracting parties. In a restatement of this view, Ball (2026) argues that accounting methods are “contracting-useful” rather than “decision-useful”: transactions can be independently verified at low cost, which is what makes accounting numbers contractible, while valuations rest on unverifiable expectations of future outcomes. This is why the demand for highly accurate valuation is largely a modern overlay, and why it sits uneasily on a system whose comparative advantage is verifiable accountability rather than predictive measurement.

For most of its history, the information accounting relied on was anchored in transactions, documents, inventories, and contractual benchmarks — evidence that third parties could verify. Modern accounting asks for more. Fair-value measurement, impairment tests based on discounted cash flows, expected-credit-loss (ECL) rules under IFRS 9 and the US current-expected-credit-loss standard, expanded disclosures about assumptions, and scenario-based prudential information all require predictions. In banks, such estimates affect provisions, earnings, capital ratios, dividends, supervisory responses, market confidence, and sometimes the timing of corrective action. The financial-statement auditor is therefore asked to assure not only the historical recording of transactions but also the reasonableness of management's judgments about uncertain future states, to the extent the accounting framework requires them.

Historically, auditing emerged as a privately demanded mechanism for reducing contracting costs among shareholders, creditors, and managers; mandatory audit therefore did not create auditing but transformed an existing private institution into a

regulatory one. This sequence matters because regulation does not merely expand the use of auditing: it may change the nature of the product itself, shifting it from a judgment-based contractual safeguard toward a compliance-oriented public certification. The reform sequence documented above (mandatory rotation, public oversight, expanded reporting, and reviewable-evidence requirements) reconfigures the auditor's incentives from bonding a judgment through reputation toward producing a defensible file, a change in the economic nature of the service and not only in its intensity (Ramanna, 2015; Biondi, 2011).

Auditing is itself a technology for transforming privately observed information into externally verifiable information: the auditor's privileged access supplies the observations, and the opinion lets outsiders rely on assertions they could not verify themselves. The institutional bias described in this paper can thus be stated in one line: regulation increasingly asks this technology to use only inputs that were already verifiable. These contractual origins matter here not for their corporate-governance implications but because they explain which information becomes verifiable — the hinge on which the rest of the argument, and its bearing on financial stability, turns.

3. The institutional constraints of audit quality

Two ideas organize what follows. The first is a distinction — between what auditors can observe and what they can prove. The second is its consequence — that audit quality is less a trait of auditors than a product of the regime that decides which of the two it rewards.

3.1. Observable is not the same as verifiable

The argument starts from the old contract-theory distinction between information that is observed by the relevant parties and information that can also be verified by third parties for enforcement, supervision, or market sanction. Grossman and Hart (1986) introduced this distinction in the incomplete-contract literature. Grout, Jewitt, Pong, and Whittington (1994) applied it to auditor professional judgment, and Arruñada (1999a, 2000) developed its regulatory implications for audit quality. In this setting, hard information is both observable and verifiable. Soft information is observable to auditors, managers, directors, or supervisors, but cannot be fully proved to courts, inspectors, or outside investors at the relevant date.

A concrete example clarifies the distinction. A relationship manager and the engagement auditor may both see that a mid-sized borrower has begun to draw its committed lines to the limit, delay supplier payments, and lose a key customer: early signs that the loan is impaired. This information is observable to insiders and to the auditor, who can access the files, yet it is not verifiable in the sense used here: it cannot yet be established, at acceptable cost and to the standard a court, inspector, or oversight board would demand, that a loss has been incurred, because no default, covenant breach, or downgrade has occurred. Verifiability here is not about who may read the file but about whether the judgment can be proved to a third party who was not present and does not share the insider's tacit knowledge.³

³ The terminology parallels the distinction between hard and soft information in the banking literature (Liberti and Petersen, 2019), but the two distinctions are not identical. Hardness concerns transmission:

Observable information is perceived by a party — management, auditor, director, or supervisor — at a point in time. *Verifiable* information can additionally be proved to a third party — court, inspector, supervisor, or market — at acceptable cost. *Hard* information is both observable and verifiable; *soft* information is observable but not, at the relevant date, verifiable. *Inspectability* is the degree to which the audit can be reviewed ex post against retained, third-party-checkable evidence. *Defensiveness* is the auditor's rational tilt toward inputs and procedures whose support can later be proved, at the expense of using soft information. In these terms, unverifiable evidence is evidence the auditor can observe but cannot, at acceptable cost, prove to a third party (a court, inspector, or supervisor) at the reporting date; it is the evidentiary counterpart of soft information.

Recognition conditioned on third-party verifiability produces what may be called *verifiability delay*: when decision-relevant information becomes observable before it becomes verifiable, recognition based on it is delayed by construction. The delay is not a behavioral lapse but a feature of the regime: the information exists, yet the standard withholds recognition until it can be proved. Proof here is not synonymous with market detection: it encompasses the full range of evidence a third party could later check, of which a market price is only one instance.

The distinction is not a semantic refinement. It changes the diagnosis of audit failures. A regime that disciplines auditors mainly through ex post litigation or inspection—asking whether an outsider can later verify the procedures performed, the evidence retained, and the conclusions documented—will tend to push auditors toward hard information. That may protect the audit firm in litigation or inspection, but it can reduce the value of the audit for users. The auditor's comparative advantage is not only to check arithmetical or documentary facts; it is also to make an independent judgment about whether the accounts remain credible in light of client-specific knowledge, contradictory indications, managerial incentives, and sectoral experience, a comparative-advantage argument developed in Arruñada (1999a) and consistent with more recent evidence on the informational role of auditor judgment (Aobdia, 2019).

For supervisors, the distinction matters twice over: the earliest signals of bank deterioration are typically observable well before they become verifiable, and the confidential channels through which that information can still be used are institutional rather than market ones. Two such channels exist and should be distinguished. The first is the supervisor's own inspection, which observes the bank directly and can act on soft information without ever making it public. The second is the structured communication between the private auditor and the prudential supervisor. This is not a free professional exchange, since auditors remain bound by client confidentiality; it is a regulated, and in defined cases mandatory, reporting relationship, in which EU law and supervisory guidance require auditors of banks to report certain matters to supervisors and frame a two-way dialogue between them (European Banking Authority, 2016; Basel Committee

hard information is quantitative, storable, and impersonally transmissible, its content independent of who collects it. Verifiability concerns enforcement: whether information can be proved to third parties with sanctioning power, such as courts, inspectors, or supervisors. The two usually coincide — hard information is typically verifiable, soft information typically not — but they can come apart: a quantitative but discretionary model output is hard, yet only weakly verifiable. What binds auditors under the current regime is verifiability, not hardness.

on Banking Supervision, 2014). Soft information that the audit opinion cannot carry to the market can still travel through these channels to the party equipped to act on it.

3.2. Quality is produced by the institutional regime

Audit quality is not a personal attribute of auditors; it is produced — or eroded — by the regime in which they work. DeAngelo’s canonical definition treats audit quality as the joint probability that an auditor both discovers a material breach and reports it (DeAngelo, 1981a). This remains useful because it separates competence from independence, while the related analysis of fee discounting shows that initial discounts (“low-balling”), being sunk, do not in themselves impair independence: the relevant pressure comes from client-specific quasi-rents, the profits at stake in keeping the engagement (DeAngelo, 1981b). These same quasi-rents cut both ways: while they can bond quality, they also expose the auditor to capture, since challenging management is not obviously the path to reappointment, the tension emphasized by the literature on auditor independence and client influence (Ramanna, 2015; Bazerman, Morgan, and Loewenstein, 1997). But the same framework also shows why audit quality cannot be reduced to compliance with a checklist. Competence depends on evidence-gathering, expertise, client-specific knowledge, technology, staffing, supervision, review, delegation, and industry range (Lennox et al., 2023; Dekeyser et al., 2024). Independence depends on incentives, reputation, liability, client dependence, internal governance, and the auditor’s willingness to confront management.

Audit quality is therefore not simply an attribute of the audit firm, the engagement partner, the audit file, or the inspection regime. It is the result of their interaction with the client’s reporting system, governance, accounting standards, liability rules, public oversight, market discipline, and the information environment. This matters here: when accounting judgments depend on information that is observable to auditors and insiders but not verifiable by outsiders, a regime focused mainly on inspection and liability may improve documentation while weakening judgment. This is why private safeguards and regulatory design have to be analyzed together (Arruñada, 1999a, 2000).

Much of that regime is private. Because the users who rely on audited accounts cannot assess audit quality at the time it is produced (and, in the statutory setting, do not themselves pay for it, since the audited company is required by law to engage and pay the auditor), audit firms bond it: client-specific quasi-rents and reputational capital act as collateral that self-enforces quality, while the diversification of fee income across many clients dilutes dependence on any one of them and thereby protects independence (DeAngelo, 1981a; Arruñada, 1999a, 2000). These safeguards are the surviving core of the private institution described in Section 2, and they define the proper role of public intervention: to facilitate and strengthen the market’s own protective mechanisms rather than to replace them (this is a claim about institutional design, not a denial that auditing serves a public interest: the point is that the public interest in reliable accounts is best served by preserving, rather than displacing, the private collateral that lets an auditor stand behind a judgment that cannot be fully proved)— and, at a minimum, not to destroy the collateral on which quality rests (Arruñada, 2000). Several of the controversies examined below — mandatory rotation, non-audit services, concentration, ownership — are best read as disputes over whether a given rule reinforces or erodes these private safeguards. The shift is one of disciplining device: the older private regime disciplined judgment through reputation and quasi-rents (the private audit firm being

tied to both regimes at once: to the financial-reporting regime through its statutory opinion, and to the prudential regime through its regulated reporting duties to supervisors), which could back an opinion that could not be fully proved; the regulated regime disciplines the file, which rewards what an outsider can later inspect.

Recent reviews confirm this multidimensional view. Positioned against this literature, the present contribution is not a new proxy for audit quality but a reframing: where Francis (2011), Knechel et al. (2013), and DeFond and Zhang (2014) treat quality as a latent trait imperfectly captured by proxies, the argument here locates it in the institutional regime that determines which information auditors may use and transmit, making the observable/verifiable boundary the primary variable. These reviews show that audit quality is latent and only imperfectly inferred from proxies such as restatements, abnormal accruals, going-concern opinions, internal-control weaknesses, audit fees, report lag, litigation, or inspection findings. Detzen and Gold (2021) add that different actors mean different things by audit quality: inspectors may emphasize documentation, audit committees may value challenge of management, investors may value credibility, and supervisors may value early warning. This is why a more inspectable audit process is not necessarily a higher-quality audit. The standards that set these terms are themselves institutional outcomes rather than neutral technical choices, shaped by the narrow expert constituencies that dominate their making (Ramanna, 2015).

4. Regulation rewards the verifiable — accounting demands the predictive

Two regulatory movements now coexist. Accounting standards increasingly demand forward-looking estimates. Audit regulation increasingly demands ex post reviewable evidence. Post-Enron and post-crisis reforms — including public oversight, Public Company Accounting Oversight Board (PCAOB) inspections, strengthened audit committees, restrictions on non-audit services, EU mandatory rotation for public-interest entities (the statutory audit being the audit legally required of certain companies, as distinct from a voluntary engagement), under Regulation (EU) No. 537/2014 (European Parliament and Council, 2014), expanded audit reporting under ISA 701 and AS 3101 (International Auditing and Assurance Standards Board, 2015; Public Company Accounting Oversight Board, 2017), and more demanding standards for accounting estimates such as ISA 540 (Revised) (International Auditing and Assurance Standards Board, 2018) — have made audit work more inspectable.

The direction of these standards is explicit in their text. ISA 540 (Revised) reorganizes the audit of estimates around the auditor's duty to obtain evidence on the data, assumptions, and methods behind management's estimate and to evaluate them against the requirements of the applicable framework, evidence that must be documented and is, by design, reviewable ex post. For expected credit losses specifically, IFRS 9 requires provisions to reflect forward-looking, probability-weighted estimates that incorporate reasonable and supportable information about future conditions (International Accounting Standards Board, 2014). The two mandates pull in opposite directions at exactly the point this paper isolates: the accounting standard asks for a forward-looking judgment about a state that is observable but not yet verifiable, while the auditing standard asks the auditor to support that judgment with evidence a later reviewer can

check. They have not made the future more verifiable. The gap between certified estimates and realized enterprise performance is a structural feature of measurement, not a transient imperfection (Biondi, 2011).

Predictive accounting amplifies this gap. The more standards require forward-looking estimates, the larger the set of decision-relevant information that is observable before it is verifiable. Predictive measurement does not create the gap but widens it: each estimate of a future state rests on signals an informed party can perceive yet cannot yet prove. Verifiability here is not limited to a market-price signal: it includes any evidence a third party could check (realized defaults, covenant breaches, downgrades, or documented model inputs), so the argument does not reduce proof to Level 1 fair value, so the share of the audit exposed to *verifiability delay* grows with the predictive content of the standard.

The movements are not logically inconsistent. Estimates still require evidence, and auditors must document why management's assumptions are reasonable. The scope of that assurance is narrower than it may appear. Assurance over an estimation model ordinarily addresses the appropriateness of the methodology, the internal consistency of its application, and the reasonableness of inputs at the reporting date; it is not a warranty that the modelled outcome will be realized. ISA 540 (Revised) frames the auditor's task in these terms rather than as an endorsement of management's forecast, which is precisely why soft, forward-looking judgment sits uneasily inside a verification-based mandate. The institutional problem is that liability and inspection tend to privilege information that third parties can verify later. This can make defensive auditing rational: the audit comes to convey less than the auditor knows. Dye's (1993) liability model explains why liability does not simply increase quality; excessive or poorly designed liability may induce exit, defensive behavior, or reliance on safer but less informative evidence. Public oversight can improve credibility, as shown by Gipper, Leuz, and Maffett (2020), and oversight boards can matter, as Hanlon and Shroff (2022) show. But inspection incentives also shape what auditors document and therefore what they are willing to use.

The strongest evidence that public oversight produces real discipline also illustrates where that discipline operates. Aobdia, Dou, and Kim (2021) find, in a difference-in-differences design, that banks reduced originate-to-distribute lending (loans originated to be securitized or sold to investors rather than held on the bank's own balance sheet) after the PCAOB criticized their auditors' work on those transactions (measured over the following years, not the reporting period) — a real effect on substance, not paperwork. Read against the present framework, the result is narrower and more precise than a general vindication of inspection: what oversight disciplined was a documentable practice — securitization volumes, sale accounting, gain recognition — by raising the evidential price of supporting it. That is the verifiable side of the audit, where inspection has always had traction.

That study's empirical design itself, however, counsels caution about the finding's internal validity as well as its generalization: PCAOB criticism is not randomly assigned; the treated banks differ systematically, with effects concentrated precisely where risk controls were weaker and earnings-management incentives stronger; and a contraction in a documentable activity is as consistent with auditors defensively raising evidence requirements as with better judgment. These caveats qualify the finding as

well as locate it. The side that design cannot reach is the one at issue here: whether the same inspection regime strengthens or weakens the auditor's use of information that leaves no comparable paper trail.

This boundary points to a deeper, recursive difficulty. The regulatory preference for verifiable evidence is not an error: verifiability is what makes auditors themselves disciplinable, because courts and inspectors cannot distinguish honest but mistaken judgment from negligence or capture. The same logic constrains any remedy. Sanctioning auditors who ignore available warning signs presupposes that ignoring a soft signal can be proved *ex post* — which is precisely what softness precludes; and any attempt to reward judgment through inspection invites auditors to convert judgment into documentation, reintroducing verifiability through the back door. Nor does the constraint vanish in a hypothetical unregulated market: clients, investors, and reputational sanctions can no more verify the auditor's judgment than courts or inspectors can, so the market would evaluate audit performance only through noisy *ex post* outcomes — failures, restatements, litigation — which is why private discipline needs large quasi-rents as collateral.

There is therefore no first-best in which professional judgment is both fully protected and fully accountable. The relevant question is which second-best distorts less: a regime that demands hard evidence everywhere and silently discards the auditor's earliest information, or one that tolerates weaker *ex post* discipline in judgmental areas in exchange for keeping that information in play. The argument of this paper is that in banking the costs of the first distortion are systemic, because the regime tends to discount the same early signals in every bank at the same point in the cycle, while those of the second remain largely at the engagement level, because a tolerated misjudgment stays idiosyncratic and the other safeguards — reputation, liability for what remains provable, supervisory dialogue — still bound it. The imbalance grows as accounting becomes more predictive.

5. External audit and financial stability

Banking is where the distinction stops being a matter of audit quality and becomes a matter of financial stability. Two steps make the case: first, why banks are the limiting instance; then, what external audit does, and fails to do, for stability.

Banks, however, are audited twice over, under two regimes this paper has so far treated as one. The first is the private, statutory audit of the financial statements: an independent firm opines, for shareholders and the market, on whether the accounts are free of material misstatement under the accounting framework. The second is public supervision: the prudential authority inspects the bank's operations, models, and risk positions, and its output is not a market opinion but a supervisory judgment feeding capital requirements, remedial measures, and ultimately resolution.

The two audits start from the same accounts but apply opposite aims — the auditor seeks faithful representation and recognizes a loss when the framework supports it; the supervisor seeks stable capital and may add prudential adjustments on top to smooth the cycle — and they differ in what they may act on. Disciplined by liability and inspection, the private audit leans toward what can be proved; the supervisor, inside a confidential relationship and producing no market signal, can act on the soft, not-yet-verifiable

information the audit must leave aside. The distinction matters: the observable/verifiable problem bites differently in each, and much of what looks like an audit failure is a division-of-labor problem between them.

5.1. Why banks are the leading case

Pérez Rodríguez (2021) provides the closest banking application of this argument. In expected-credit-loss accounting — under which banks provision for forecast loan losses instead of waiting for losses to be incurred — bank managers and auditors tend to prioritize hard information that is observable, quantifiable, and verifiable by third parties. Macro scenarios and model parameters are easier to defend than soft information about underwriting quality, borrower incentives, risk appetite, or management credibility. The result can be loss deferral and a weaker picture of bank safety and soundness. This is the setting in which the observable/verifiable distinction becomes a financial-stability issue.

The problem is clearest in banks because bank balance sheets are opaque, leverage is high, liquidity is fragile, maturity transformation is central, and failures generate externalities.

Expected credit losses, fair values of illiquid instruments, collateral valuations, loan modifications, model outputs, liquidity assumptions, and going-concern assessments can all affect regulatory capital and market confidence before they can be verified against outcomes. Beatty and Liao (2014) show why accounting in banking is especially intertwined with valuation, risk assessment, regulatory capital, and economic decisions. Expected-credit-loss accounting is the leading concrete instance. Whether such measurement amplifies instability is contested: Laux and Leuz (2010) find little evidence that fair-value accounting itself drove the 2008 crisis, which directs attention away from the measurement basis and toward the regime governing when estimates may be recognized.

Four features make banking the limiting case. First, leverage and maturity transformation magnify measurement error: a small mis-estimate in the value of loans or in expected losses, which in an industrial firm would be a rounding issue, can move a bank from apparent solvency to insolvency, because thin equity sits atop a large balance sheet funded by runnable liabilities.

Second, the central estimates are themselves the purest instances of observable-but-not-verifiable information. Whether a loan book is deteriorating is typically visible to the lender — through borrower behavior, sector knowledge, and the quality of underwriting — well before it is verifiable through realized defaults or market prices. Expected-credit-loss accounting asks auditors to assure exactly this kind of judgment, and a regime that rewards only ex-post-verifiable evidence creates incentives for both managers and auditors to favor the hard, late-arriving signal.

Third, the same estimates carry regulatory consequences. In an industrial firm, a managed number distorts a performance metric; in a bank, provisions, fair values, and impairments feed directly into regulatory capital, liquidity ratios, and supervisory triggers, though not mechanically: prudential metrics draw on the accounting numbers but apply their own treatments (prudential filters, add-ons, and valuation adjustments), so the regulatory figure is a supervised transformation of the audited one rather than the same number, so managers face a much larger set of accounting-based constraints they

have incentives to meet — and the room to manage them lies precisely in the components that cannot be verified.⁴

Fourth, the bias has external effects. It is not a set of independent, bank-specific mistakes: because every bank faces the same incentive at the same point in the cycle, a common evidentiary threshold correlates errors that would otherwise diversify away. The soft signal is filtered out bank by bank, and that engagement-level bias aggregates — *synchronized recognition* — converting staggered, idiosyncratic deterioration into a single, system-wide adjustment when the verifiable trigger finally arrives.

5.2. Audit as financial-stability infrastructure

External audit serves stability less by preventing failures than by setting the timing and dispersion of loss recognition. Discipline auditors mainly by ex-post verifiability, and bank-specific early warnings drop out: recognition waits for common hard triggers. The result is not late recognition but *synchronized* recognition — not late, but abrupt.

That externality is what turns external audit from a private safeguard into financial-stability infrastructure. Even so, its contribution is easily misunderstood. Auditors do not prevent bank failures, perform prudential supervision, or guarantee solvency. Their contribution is more indirect: they influence the timing with which risks are incorporated into financial reporting.

Silicon Valley Bank illustrates the point. Its accounts received a clean audit opinion shortly before the bank failed, and the speed of that failure was widely read as an audit failure. It was not, at least not in the sense the public assumed. An opinion attests that the financial statements fairly present what can be verified at the reporting date; it is not a forward-looking verdict on solvency, liquidity, or business-model viability. The deterioration that mattered — a funding base exposed to correlated withdrawal, and securities whose economic loss was visible long before it had to be recognized — was the kind of risk that becomes verifiable only once it has already materialized.

The dual regime sharpens rather than weakens the point. The concerns that the audit opinion could not carry were, in part, visible to supervision well before the failure: examiners had identified interest-rate and liquidity-management weaknesses through the inspection channel. What failed was not the detectability of the risk but the translation of a supervisory observation into timely action, and, separately, the inability of the private audit, bound to verifiable evidence and to a market audience, to recognize the same soft signal in the certified accounts. The episode thus illustrates both halves of the argument: soft information was observable to at least one monitor, yet the regime that produces the public number recognized only what could be proved, and the channel that did observe the risk did not act on it in time.

The case is therefore less a story of negligence than of the expectation gap this paper has described: users treated an unqualified opinion as a signal of safety, while the regime that produced it rewarded what could be proved over what could be seen. It also shows the bind directly. Flagging a soft, not-yet-verifiable concern about funding fragility could have helped trigger the very run it warned of; waiting for the verifiable fact left any warning too late to matter. That is the timing problem, not an accuracy

⁴ I owe this point to Marcelo Ortiz.

problem, and it is why the design question is how to let auditors act on what they observe before it can be proved.⁵

The design problem is complicated by the fact that audit and prudential regulation are jointly determined. The value of earlier recognition depends on what prudential authorities want the numbers they rely on to achieve. Here the dual regime matters again: supervisors do not control financial reporting, and they routinely apply their own prudential filters and adjustments on top of the audited figures, so the objective they pursue for regulatory capital—faithful representation, countercyclical buffering, comparability, or stability—so audit regulation cannot be assessed entirely independently of prudential regulation (Masciandaro et al., 2020). Bank-audit rules designed while prudential objectives remain unsettled can fail in two ways: supervisors may neutralize the newly recognized information by filtering it out of regulatory capital, applying prudential filters that strip the recognized loss from the capital measure while it remains in the financial statements, or the two sets of rules may simply collide. Either way, it amounts to calibrating the thermometer before agreeing on the definition of fever.

Instability is frequently a story of delayed recognition. Losses that accumulate gradually are acknowledged only after adverse events make them impossible to ignore, at which point markets, supervisors, and counterparties revise their assessments at once, producing abrupt adjustments in valuations, capital, funding conditions, and credit supply. Earlier recognition, on this account, would be stabilizing. But earlier public recognition can also precipitate the withdrawal it anticipates, which is why the stabilizing case rests on gradual, as-observed recognition rather than on abrupt disclosure.

This claim must be squared with the standard objection that expected-loss accounting is itself procyclical: provisions that jump when a downturn begins can amplify the cycle rather than smooth it. The objection refines the argument rather than contradicting it, because what stabilizes or destabilizes is not early versus late but gradual versus abrupt. The paper's position in this debate is therefore specific rather than a general endorsement of earlier recognition: forcing abrupt recognition of already-distressed exposures can itself be destabilizing, as the post-2008 suspension of full fair-value recognition acknowledged; expected-loss accounting is not procyclical as such, and the case for it turns on whether the regime lets recognition track deterioration as it becomes observable. Where it does, provisions move gradually and informatively; where liability and inspection confine recognition to verifiable triggers, the same standard produces the abrupt, synchronized jumps its critics attribute to expected-loss accounting itself. Losses recognized progressively, as deterioration becomes observable, produce small and continuous adjustments; losses recognized only when they become verifiable arrive late and all at once—whether under an incurred-loss trigger or under an expected-loss

⁵ The account of Silicon Valley Bank draws on the Federal Reserve's post-mortem (Board of Governors of the Federal Reserve System, 2023), which documents the run and the supervisory background. The European record offers a close parallel: Banco Popular carried clean audited accounts yet was declared "failing or likely to fail" by the European Central Bank once its liquidity drained, and was resolved and sold for a nominal sum within days (Single Resolution Board, 2017). Here too the failure was abrupt rather than late, and an unqualified opinion was read as a verdict on safety it was never meant to give.

standard applied defensively, in which staging and models update only when verifiable inputs move.

Much of the procyclicality attributed to expected-loss accounting is, on this reading, the procyclicality of verifiability. The early evidence is consistent with the standard carrying real informational content when it is allowed to: expected-loss provisions predict future bank risk better than incurred-loss provisions did, and markets treat the new numbers as informative, especially when credit conditions deteriorate (Lopez-Espinosa et al., 2021).

Spain's dynamic-provisioning regime offers the closest historical experiment. By requiring banks to build provisions before losses became verifiable through realized defaults, it smoothed credit supply through the cycle and supported firms in the downturn (Saurina, 2009; Jiménez et al., 2017). It is also instructive about the constraint at issue here: the regime achieved earlier recognition by formula, calibrated on two decades of default data, rather than by judgment — it made earlier recognition verifiable by rule, sidestepping rather than solving the problem of soft information.

Two qualifications matter. First, the regime was a supervisory instrument introduced by the Bank of Spain in 2000, well before the crisis, not a post-crisis reform: it is evidence that the earlier-recognition benefit can be obtained through the supervisory channel when the accounting channel will not carry soft information. Second, dynamic provisioning cushioned the impact but did not prevent the Spanish banking crisis, which was driven by a concentrated real-estate and construction exposure that no provisioning formula could offset; the mechanism addresses the timing of recognition, not the underlying excess risk-taking.

The two sources of procyclicality are analytically distinct. Accounting procyclicality is built into the standard itself: staging thresholds and point-in-time parameters generate jumps in provisions when a downturn begins, and would do so even if all available information were used without distortion. The procyclicality of verifiability operates instead through the information set: when liability and inspection reward only what can be proved, managers and auditors postpone recognition until hard triggers move — realized defaults, published macro data, market prices.

The distinction matters for aggregation. Soft information is bank-specific and arrives at different times — each loan book deteriorates on its own schedule, visible through underwriting and borrower behavior. The point concerns the timing at which idiosyncratic deterioration becomes visible, not an attribution of cause to borrowers alone; systematic excess risk-taking at the business-model level, including the originate-to-distribute model, is a separate and well-documented source of correlated exposure. Recognition based on it would be staggered across institutions and gradual in the aggregate. Verifiable triggers, by contrast, are common to all banks and move at the same point in the cycle, so recognition based on them is synchronized and abrupt. This is the transmission mechanism behind the externality described in the previous section: by filtering out the staggered, idiosyncratic signal and waiting for the common one, the regime converts dispersed, early adjustments into a correlated, late shock. It also explains why prudential filters and transitional arrangements, which smooth the capital impact of recognition, address the symptom rather than the information regime that produces it.

External auditors and prudential supervisors are complementary monitors, not substitutes. Auditors assess whether financial statements are materially misstated under accounting standards. Supervisors focus on safety and soundness, depositor protection, and systemic risk. Crucially, supervisors do so partly through direct inspection of the bank (examining loan files, models, and risk positions), which is a form of public audit of bank operations running parallel to, and informationally ahead of, the private audit of the financial statements. Nicoletti (2018) shows that auditors and bank regulators can improve provisioning timeliness when the other monitor is absent or weak, but that their objectives can also conflict. This complementarity-with-tension is exactly what the dual-regime reading predicts: two monitors with the same accounts but opposite aims will reinforce each other where their objectives align and pull apart where prudential smoothing and faithful representation diverge. Aobdia, Dou, and Kim (2021) link public audit oversight to the originate-to-distribute model before the financial crisis, finding that stronger oversight of the private audit was associated with less risk-shifting through securitization, evidence that the public-oversight regime can affect substance, not only documentation, while Lopez-Espinosa, Ormazabal, and Sakasai (2021) examine the shift from incurred-loss to expected-loss provisioning. These studies support a narrow conclusion: bank audit quality matters for financial stability, but it does so through specific accounting estimates, incentives, and information channels rather than through a generic expansion of the auditor's mandate.

The dual regime also invites an objection. If supervisors inspect loan files, models, and risk positions, and run informationally ahead of the audit, auditors hold no comparative advantage in detecting a relaxation of credit standards, and the filtering of soft information out of the audit might seem to matter little in practice: whatever the audit misses, supervision sees. The objection deserves a direct answer in three parts.

First, coverage. Supervisory intensity is proportionate: continuous inspection concentrates on the largest institutions, while smaller banks are examined at much lower frequency. Crises have repeatedly incubated in that thinner stratum, from the Spanish savings banks to the United States regional banks of 2008, where the annual audit is the monitor with the highest frequency of contact. Second, the public number. Supervision acts in private: its knowledge feeds capital requirements and remedial measures, but it does not correct the published accounts, and the synchronized-recognition externality runs through the published accounts, the signal on which depositors, counterparties, and markets coordinate. Silicon Valley Bank makes the asymmetry concrete: the supervisor knew, the market did not, and what the run responded to was the abrupt revision of the public signal. Third, joint failure. Neither channel is reliable alone: supervisory observation may fail to translate into action, as it did there, and the audit may stay confined to the verifiable; Nicoletti (2018) shows each monitor improving provisioning timeliness where the other is weak. The claim is therefore not that auditors outperform inspectors at detecting deterioration. It is that the regime governing the audited, published number sets the timing and dispersion of public recognition, and supervisory knowledge, however good, does not substitute for that.

From a financial-stability perspective, then, the question is not whether auditors should become supervisors. It is whether institutional arrangements preserve their ability to incorporate relevant information into reporting before risks grow severe enough that recognition becomes unavoidable. The controversies that follow are different manifestations of this single problem.

6. Current controversies through the observable/verifiable lens

Seen through the observable/verifiable lens, the standard auditing controversies sort themselves along the paper's own line. Some concern audit regulation in general — the instruments that discipline auditors, the structure of market and demand — and turn on whether each protects or punishes the use of soft information. Others concern the estimates where observation and verification diverge most, and there banking is the limiting case.

6.1. General audit controversies

Each controversy below turns on the same mechanism: how the regime shapes the balance between soft, observable information and hard, verifiable information.

Public inspections. Inspection regimes can increase reporting credibility and discipline audit firms (Lamoreaux, 2016; Gipper et al., 2020; Hanlon and Shroff, 2022). Two inspection regimes should be distinguished here as well. Public-oversight inspections (PCAOB-type) review the work of audit firms; prudential inspections review the bank itself. The evidence just cited concerns the former, but for banks the latter is at least as important, because supervisory examination of the bank's loan book and models is the channel through which soft, not-yet-verifiable deterioration is actually observed and acted upon. The design question is how to ensure that inspection rewards the substance of judgment alongside its documentation: where the file is the only thing that can be reviewed ex post, auditors may rationally invest more in documentation than in the use of soft information. Regulators themselves recognize that inspection findings are an input to audit quality rather than a measure of it (International Forum of Independent Audit Regulators, 2025); the complementary design objective is therefore to assess whether the auditor challenged management's judgment, not only whether every step is visible in the file.

Expanded audit reporting. Key audit matters and critical audit matters (KAMs and CAMs) can identify areas where judgment is greatest. Yet their informational value depends on specificity. Burke et al. (2023) find that CAMs convey little new information to markets on average. Chan and Liu (2023) show theoretically that CAMs can increase or decrease audit effort and investor scrutiny depending on strategic responses. For banks, KAMs are useful only if they illuminate the assumptions and soft risks behind ECL, fair values, going concern, IT controls, and liquidity judgments. Evidence on the informativeness of key audit matters is mixed, with effects concentrated where the disclosure conveys genuinely entity-specific risk rather than boilerplate (Gutierrez et al., 2018; Bédard, Gonthier-Besacier, and Schatt, 2019).

Mandatory rotation. Rotation promises fresh eyes (and some jurisdictions, notably France, have gone further with joint audit, in which two firms sign the same accounts, trading higher cost for a second independent judgment) but destroys client-specific knowledge. Arruñada and Paz-Ares (1997) emphasized that rotation can reduce competence and distort competition. Florio (2024) finds the empirical literature fragmented and context-dependent. Federsel (2025) reports a fresh-look effect in European key audit matters, but that does not prove better audit judgments. In complex bank audits, the loss of accumulated knowledge about models, systems, controls, and supervisory context is a serious cost.

Non-audit services. Restrictions protect independence in appearance and sometimes in fact, especially where self-review or management-role threats arise. But blanket restrictions can also eliminate knowledge spillovers. Arruñada (1999b) argues that non-audit services may improve professional judgment by deepening knowledge of controls, intangible assets, management capability, and regulated activities. DeFond, Raghunandan, and Subramanyam (2002) and Tepalagul and Lin (2015) show why simple claims that non-audit fees necessarily impair independence are empirically fragile. What matters is client dependence, self-review risk, and diversification, not the mechanical composition of fees.

Audit committees and the demand side. Audit quality is not supplied in a vacuum. Audit committees determine whether management is challenged, whether the auditor is supported when conflict arises, and whether higher-quality audit work is demanded and paid for. Because audit fees price effort, complexity, risk, and market structure, they are an imperfect signal of audit quality rather than a direct measure of it (Simunic, 1980). Pomeroy and Thornton (2008) and Bilal, Chen, and Komal (2018) show that audit-committee characteristics matter, especially expertise. For bank audits, the relevant expertise includes credit risk, ECL models, liquidity, fair value, IT systems, and regulatory capital.

Mandatory audit and the expectations gap. The same logic also raises a more uncomfortable question: whether mandatory audit can weaken the private demand for audit quality. A voluntary audit is demanded because users value the auditor's assurance; a mandatory audit is also purchased because the law requires a certificate. This is not an argument against mandatory audits of listed firms or banks, where dispersed users and externalities may justify compulsion. But it is an argument for recognizing that compulsion changes the nature of the service and makes part of the demand artificial.⁶ The risk is that auditors, clients, and regulators converge on the minimum product that satisfies legal, regulatory, and inspection requirements; the audit file becomes the product, and the audit opinion a compliance certificate.

This convergence may widen the expectations gap. Because the audit is mandatory and publicly regulated, users may read the audit opinion as a broader guarantee of reliability, the absence of fraud, solvency, liquidity, or business-model viability. Yet the auditor provides reasonable assurance over financial statements, not insurance against failure. In banking, the difference is decisive. Auditors can test estimates, controls, disclosures, models, and going-concern assumptions, but they cannot verify future credit losses, prevent liquidity runs, or substitute for prudential supervision. The policy issue is therefore not whether audit should be more or less regulated in the abstract. It is how to prevent mandatory audit from becoming a ritual of inspectable compliance while preserving its value as a reputation-backed, judgment-based assurance mechanism.

⁶ Evidence on the value and the artificiality of demand points in the same direction. In the United States, many private firms voluntarily purchase financial-statement verification when it has contractual value, confirming that assurance is demanded on its merits where it is not legally required (Minnis, 2011; Badertscher et al., 2023). In Spain, by contrast, the statutory-audit mandate of 1988 was followed by fast and lucrative growth and then by a drift toward a commodity service — sometimes an entry service for more profitable work — even though roughly three in ten audits remain voluntary (Consejo General de Economistas, 2021).

6.2. Banking applications

In banking the same mechanism operates with higher stakes, since the estimates at issue feed directly into capital and stability.

Expected-credit-loss (ECL) accounting. The models banks use to estimate expected losses combine probability of default, loss given default, exposure at default, staging rules, and macroeconomic scenarios. Earlier work on bank loan-loss provisions had already shown that provisions can reflect capital management, earnings management, and signaling, not only expected losses (Ahmed et al., 1999). These inputs are necessary, but they can crowd out soft information about underwriting standards, borrower incentives, collateral enforcement, management risk appetite, and portfolio-specific deterioration. Pérez Rodríguez (2021), discussed in Section 5.1, documents this displacement directly in bank loss estimation.

Fair-value measurement and impairment. When market prices are available, verification is easier. When markets are illiquid and Level 3 models dominate, auditors verify models, inputs, controls, governance, and consistency. They cannot verify the future cash flows at the reporting date. The audit challenge is therefore the quality of skeptical judgment, not only the existence of a model file.

Climate-related estimates. These are an extreme case of the same problem: long horizons, deep model uncertainty, sparse historical data, and limited scope for third-party verification make climate-affected figures (in ECL, impairments, provisions, and insurance liabilities) observable to informed parties long before they become verifiable. The audit challenge is again the quality of judgment, not the availability of a defensible file. Here too the supervisory channel carries part of the load the audit cannot. The supervisory authorities have run dedicated exercises that probe exactly these long-horizon, model-dependent exposures, notably the ECB's 2022 climate risk stress test and the EBA's EU-wide pilot exercise mapping banks' climate-risk exposures (European Central Bank, 2022; European Banking Authority, 2021), assessing forward-looking vulnerability through supervision rather than through the certified accounts.

Concentration and "too-few-to-fail." Audits of the largest financial institutions are performed by a very small number of global networks (Basel Committee on Banking Supervision, 2008). This concentration raises a continuity-of-service concern familiar from other critical infrastructure: the disorderly exit of a major firm, or reputational contagion within a network, could disrupt assurance precisely when confidence is most fragile. This is why resolvability and contingency planning for the audit market — ensuring that a major firm's distress can be managed without interrupting assurance to systemic clients — belong on the financial-stability agenda in their own right, independently of the competition question. It also bears directly on audit quality: when a systemic client cannot credibly be replaced, confrontation becomes costlier for both sides — the auditor cannot walk away any more than the client can switch.

The dominant policy response treats concentration mainly as a competition problem. Yet it may also be a natural, endogenous consequence of the capabilities required to audit systemic institutions: global coverage, sector expertise, technological investment, and the capacity to absorb litigation and reputational risk are themselves barriers to entry. On this reading, concentration is partly the result of the scale needed to supply credible assurance in highly complex environments, which is also why ownership and

capital structure matter — external capital can let challenger firms build that scale faster. The policy question is therefore not simply how to reduce concentration but how to widen the pool of capable competitors without weakening the incentives that sustain audit quality.

7. Structural shifts: ownership and artificial intelligence

Two structural shifts are changing who owns audit firms and how audits are produced. Both are usually debated as questions of independence or efficiency, leading to familiar prescriptions: ownership limits in one case, faster adoption in the other. But through the observable/verifiable lens, both are questions about, respectively, who bears the risk of judgment and how the capacity for judgment is formed. The prescriptions change accordingly: assess each ownership structure by where it places the reputational exposure that backs judgment, and test the technology by whether the firms that adopt it still form auditors able to exercise it.

7.1. Ownership: private-equity capital

The ownership at issue here is ownership of the audit firm itself. Opening audit-firm capital to private-equity investors cuts directly across the observable/verifiable distinction. The partnership model ties partners' wealth and reputation to long-horizon engagement quality and to a mutual-monitoring incentive that is itself a private safeguard of independence. What matters is not private-equity capital as such but its structure: whether the stake is a controlling blockholding or a minority interest, and whether the investors are independent or related parties, since only some of these arrangements displace the long-horizon, reputation-backed incentives at issue. External capital can bring investment in technology, scale, and succession liquidity, all of which may raise observable quality. But it can also shorten horizons, redistribute rents away from the partners who bear reputational risk, and weaken the personal exposure that disciplines judgment in precisely the soft-information areas where verification fails.

The phenomenon is no longer marginal. Private-equity transactions in European accountancy firms rose from 43 in 2022 to 112 in 2023 and 192 in 2024, and roughly 40 percent of them involved firms that also provide audit and assurance services (Accountancy Europe, 2025a). In the Dutch market for non-public-interest entities (companies outside the PIE category — that is, other than listed firms, banks, and insurers — for which the statutory-audit regime is lighter), firms with private-equity backing had moved to about 30 percent of audits by 2025 (Autoriteit Financiële Markten, 2025). The share that touches some audit or assurance service should not be confused with the much smaller share that reaches the audit of public-interest entities, which is closer to one quarter of direct investments (International Federation of Accountants, 2026).

The geography is revealing. Direct investment concentrates in Continental Europe and the United Kingdom, but the share that reaches the audit of public-interest entities is small there and falls disproportionately on the United States, where larger firms auditing listed clients are the target; in Europe the capital flows overwhelmingly into tax, accounting, payroll, and advisory work and largely steers clear of statutory audit (International Federation of Accountants, 2026). The pattern fits the observable/verifiable mechanism rather than a story about audit demand. What

regulation makes attractive is not audit judgment but the recurring, predictable revenue that mandated compliance work generates across tax, reporting, and advisory services — cash flow that investors treat as collateral for the debt financing the acquisition, and as a base value should the advisory upside disappoint (Accountancy Europe, 2025b). Capital is drawn to where regulation has turned professional services into stable income and a fragmented population of small and mid-sized firms invites consolidation, not to where audit is hardest. And even where the capital does reach firms that audit public-interest entities, it does not reach the audit itself: the recurring device splits the firm into a CPA-owned attest entity and a separately owned services entity, so that ownership returns accrue beside the audit rather than within it.⁷ In the European Union the statutory-auditor control requirement reinforces this: it keeps the audit practice itself largely off-limits and channels capital into the surrounding non-audit services, so the largest volumes appear precisely where direct ownership of audit firms is most restricted.

Early descriptive evidence that looks inside the engagement is consistent with the concern raised here: in the Dutch supervisor's sample, the use of quality controls rose, yet the average number of significant risks identified fell (from 3.87 to 3.74) and the statutory auditor's share of engagement hours declined (from 10.4 to 9.3 percent), while independence-threat identification moved in both directions across firms. The evidence is descriptive, heterogeneous, and subject to selection, and does not yet support a causal claim; but it already shows behavioral change in the direction the observable/verifiable account predicts — documented compliance holding up or rising while the judgmental content of the audit thins.

The effect is likely to differ by firm size. Private-equity entry has been concentrated in small and mid-sized firms, and there it bears on market structure. Auditing large banks requires scale — geographic coverage, technology, and the capacity to absorb litigation risk — that mid-tier firms accumulate only slowly through retained partner capital. External capital can compress that timeline and let challenger firms reach the threshold at which they can credibly bid for systemic engagements, which would reduce concentration rather than entrench it. So the ownership question is not one-directional: the same instrument that may dilute partner-level incentives at the top can widen the pool of capable auditors in the middle. What ultimately matters is not the identity of the investor but how a given ownership structure changes the incentive to use and stand behind imperfectly verifiable information, and therefore whether auditors remain willing to challenge management when the evidence cannot later be proved.

How capital enters depends on the regime, and the legal form itself embeds the incentive question. In the European Union, audit firms must remain majority-controlled by statutory auditors or audit firms, which limits direct private-equity control and pushes investment into more complex vehicles (Accountancy Europe, 2025a). In the

⁷ Private-equity entry into public accounting was attempted unsuccessfully in 2006 and 2012 — the first derailed by the 2008 crisis, the second by the firms' limited need for outside capital — and took hold only from 2021, beginning in the United States and reaching Europe with a roughly two-year lag (International Federation of Accountants, 2026; Accountancy Europe, 2025a). What changed by 2021 was not the regulatory mandate, long in place, but the firms' need for capital to fund technology and partner succession. The sequence is itself evidence against reading the recent surge as a response to compliance demand: the mandate predates the investment by decades, and the trend originated where that particular mandate is weakest.

United States the recurring device is the alternative practice structure, in which the attest function is connected by a services agreement to a separate, at least partly private-equity-owned entity; the resulting independence questions are live enough that standard-setters have reopened the relevant rules (International Ethics Standards Board for Accountants, 2025).

These structures matter for the present argument because they relocate ownership returns (“residual claims”) and monitoring incentives away from the auditors who bear reputational risk, the very exposure on which willingness to stand behind unverifiable judgment depends. If private-equity ownership weakens auditors’ willingness to act on soft information, loss recognition may become more delayed and more correlated across institutions.

7.2. Production: artificial intelligence

AI affects both sides of the bank audit. On the client side, it changes how banks generate the estimates auditors must assess, expanding model-based outputs and the opacity of their inputs. On the audit side, it alters the mix of capital and labor in producing the audit itself, and this has a consequence that reaches beyond cost. The audit firm’s career structure rests on deferred compensation in the sense of Lazear (1979): juniors are paid below their marginal product early and above it later (a profile now under strain, as audit firms struggle to retain junior staff and the prospect of a long internal career has narrowed), a profile that disciplines effort and, crucially in this profession, finances the on-the-job acquisition of human capital. Junior work is not merely cheap labor; it is the mechanism through which professional judgment and skepticism are formed, and the billable pyramid is the model that pays for that formation.

If AI agents replace junior work, the firm may verify hard, structured information more cheaply and more exhaustively — reconstructing full populations rather than sampling — which is precisely where auditing was already strong. But the implicit deferred-compensation contract that funded human-capital acquisition may not survive the removal of its lower rungs. The risk is a workforce that can operate the tools without having developed the judgment to challenge them, hollowing out exactly the soft-information capability that this paper treats as the auditor’s comparative advantage. Efficiency gains in verifiable testing are then purchased at the cost of the slower, tacit learning that produces credible judgment in the unverifiable cases that matter most for stability. The technology therefore tends to widen, rather than close, the gap between what is observable and what is verifiable.

The pattern in the regulatory evidence is consistent with this reading. Adoption so far concentrates on structured, codifiable tasks: in 2024, 88 percent of audit regulators reported observing automated tools and techniques in journal-entry testing, with lower frequencies in risk assessment and substantive procedures, while the use of generative AI in public-company audits remained minimal in the inspections observed (International Forum of Independent Audit Regulators, 2025). In other words, the technology is cheapening codifiable verification first, which is where auditing was already strong, and has not been shown to strengthen the formation of contextual judgment to the same degree.

The micro-level employment evidence is genuinely mixed and may simply describe different phases of the same adjustment: Law and Shen (2025) find that AI-adopting offices increase auditor headcount, especially at junior and intermediate levels, and raise demand for soft skills, whereas Fedyk et al. (2022) find that AI investment improves quality, reduces fees, and eventually displaces human labor as the function centralizes. Either way, the governance of the transition lags its deployment: a thematic review of the largest firms found no formal monitoring of the effect of these tools on audit quality and, with one exception, no specific key indicators of their use and impact (Financial Reporting Council, 2025). The sector is deploying the tools faster than it is measuring their effect on the very capability — judgment over the observable-but-not-verifiable — that this paper treats as central. If AI strengthens verification while weakening the formation of judgment, the banking system may end up with more testing and less early warning.

8. Policy implications

What follows are implications of a single principle: regulation should protect, rather than tax, the auditor's use of information that is observable before it becomes verifiable.

First, *the policy goal should be informational quality, not maximal formal independence*. Independence is necessary, but it is valuable because it supports competent judgment and credible reporting. Rules that eliminate knowledge or suppress professional judgment may improve appearance while reducing substance.

Second, *audit regulation should protect the auditor's use of soft information*. Standards and inspections should ask whether the auditor identified contradictory evidence, considered client-specific and idiosyncratic risks, challenged management's assumptions, and escalated unresolved issues. Evidence must be sufficient and appropriate, but the standard should not implicitly define sufficiency as what can be proved by hard data alone.

These first two implications raise a question that extends beyond banking: through which vehicles can regulation move observable but not yet verifiable information toward the users of any audited firm, where no prudential supervisor stands ready to receive it? Three vehicles exist, and each calls for protection rather than invention. Expanded reporting can carry graduated judgment: key audit matters that expose assumptions, sensitivities, and contradictory evidence transmit the shape of the auditor's concern without asserting what cannot be proved, provided liability safe harbors cover good-faith, judgment-based disclosure. Communication with those charged with governance is the general-firm analogue of the supervisory channel: the audit committee is the confidential recipient available to every audited entity, and the same design cautions apply, low documentation demands and an informational rather than directive exchange. And the design of inspection and liability, taken up next, determines whether either vehicle is used or shunned. The realistic goal is graduated, judgment-exposing disclosure plus protected private channels, not wholesale publication of soft information, which the report, being a public signal, cannot carry without converting warning into trigger.

Third, *liability and inspection should avoid rewarding defensive auditing*. Excessive liability or narrowly procedural inspections can make auditors less willing to use

information that they cannot later prove. The better target is balanced accountability: auditors should be sanctioned when they ignore available warning signs or fail to challenge management, but not because an ex post outcome proves that a reasonable judgment under uncertainty was wrong.

Fourth, *supervisor-auditor communication should be improved without confusing roles*. Auditors should not become prudential supervisors, and supervisors should not outsource safety-and-soundness judgments to auditors. But structured communication can help auditors understand supervisory concerns and help supervisors identify whether accounting judgments are becoming too defensive, too hard-data-driven, or too delayed.

Within the present framework, this fourth implication deserves more weight than it usually receives, because the supervisory channel is not one recommendation among several: it is the only institutional home available to information that is observable but not verifiable. Soft information cannot support an audit opinion, a litigation defense, or an inspection file; it can support a confidential, bilateral conversation in which nothing must be proved and nothing is published.

The infrastructure largely exists — the duty of public-interest-entity auditors to report material concerns to banking supervisors under Article 12 of the EU audit regulation (European Parliament and Council, 2014), the European Banking Authority (2016) guidelines on communication between supervisors and auditors, the United Kingdom’s written and face-to-face auditor reporting regime for major banks (Bank of England, 2013, 2016), and the Basel Committee’s guidance on external audits of banks (Basel Committee on Banking Supervision, 2014) — but it tends to be used episodically and defensively, to discharge a duty rather than to transmit judgment (World Bank Centre for Financial Reporting Reform, 2015).

Three design cautions follow from the argument itself. First, the channel works only while its own verifiability demands stay low: the more the dialogue must be documented, minuted, and inspected, the more it reproduces the defensive dynamic it was meant to escape. Second, it must remain informational rather than directive: a supervisor who uses it to tell the auditor what to verify converts the audit into an instrument of prudential policy and forfeits the independent judgment that made the conversation worth having. Third, the channel must not run through an auditor the bank itself pays for supervisory purposes: where the supervisor relies on a bank’s own auditor, as Switzerland long did, the auditor’s dependence on the audited bank contaminates the very signal the channel exists to carry — a design constraint, not a model to copy.

The United Kingdom regime illustrates the first caution. The Prudential Regulation Authority pairs an agreed-scope written report with a standing bilateral meeting, and it deliberately keeps the two registers apart: questions settled in advance are answered in writing, but anything the supervisor wishes to raise beyond that scope is put orally in the meeting, with only an oral response expected (Bank of England, 2016). The most formalized regime on record thus protects an unminuted space precisely for what is emergent or not yet provable, and confines the written channel to matters already within the scope of a high-quality audit. The lesson is not that documentation improves the dialogue, but that the verifiable and the soft need separate channels — a written record for what can bear one, and a protected oral exchange for what cannot. The European

safe harbor points the same way: by shielding good-faith disclosure from confidentiality and liability (European Parliament and Council, 2014), it lowers the cost of transmitting exactly the information that no file could later vindicate.

Spain shows how concrete the infrastructure already is, and how far it reproduces the same segmentation. At the supervisor's request, auditors of credit institutions prepare a complementary report to the audit, a written, agreed-scope account of the audit work in areas of supervisory interest, produced under a technical standard negotiated between the Banco de España and the audit profession and periodically updated (Instituto de Contabilidad y Auditoría de Cuentas, 2020). The duty to report relevant facts to the supervisor is statutory (Law 22/2015, art. 38 and seventh additional provision) and short-fused: the implementing regulation allows three working days. Bilateral meetings between supervisors and auditors follow the European Banking Authority (2016) guidelines and, for significant institutions, the practice of the Single Supervisory Mechanism. The Spanish pair, a written complementary report plus periodic meetings, thus tracks the division the United Kingdom formalizes: a documented channel for what can bear a record, a conversational one for what cannot.

These cautions sit in tension with the standard case for documenting the channel. That case rests on three risks: that the supervisor leans so heavily on an auditor paid by the bank that early warning weakens; that the supervisor shifts work onto the auditor which the bank should produce itself, displacing the firm's own controls; and that, after a failure, no one can reconstruct who knew what and when. The first two are real and argue for the design constraints above — independence of the channel, and a supervisor who informs rather than directs. The third, diffuse accountability, is the one that invites a fully auditable record, and it is the one that cuts against the mechanism: the traceability that would cure it is the same traceability that drives the auditor back to what can be proved. Reducing the accountability risk by documenting the channel therefore aggravates the problem the channel exists to solve. The resolution is not more record-keeping but segmentation — trace what is hard, protect what is soft — which is what the better regimes already do.

A further objection comes from the bank's side of the relationship: a bank that sees its auditor as an informer for the supervisor may stop confiding in it, drying up the access on which the audit depends. Three features of the existing design contain that risk. The duty is legal and symmetric: every auditor of every bank is bound by it, so no bank escapes it by switching auditors and no auditor loses clients by complying. The exchange is routine and bidirectional rather than incident-driven: a standing meeting with low stakes per exchange normalizes the flow, whereas a duty triggered only by incidents casts each communication as a denunciation, one more reason to prefer regular structured dialogue over pure incident reporting. And confidentiality is two-sided: nothing transmitted reaches the market, and the supervisor already inspects the bank directly, so the marginal exposure the channel adds is small. Managers' incentive to withhold information from auditors exists under any liability-driven regime; a routinized channel minimizes the addition, an episodic one maximizes it.

Fifth, *expanded reporting should be used to expose judgment, not to produce boilerplate*. KAMs and CAMs should identify the assumptions, sensitivities, contradictory evidence, and soft-risk factors that make estimates fragile. In banks, reporting on expected credit losses (ECL) and fair value should make clear whether

management's estimate depends mainly on hard macro scenarios and model parameters or also reflects underwriting quality, borrower incentives, controls, and other idiosyncratic indicators.

Sixth, *audit committees and sophisticated users should strengthen the demand for judgment-based audit quality*. Audit committees should support auditors when they challenge management, require enough effort in high-judgment areas, and ensure that expertise in credit risk, ECL models, liquidity, fair value, IT systems, and regulatory capital is available on the demand side of the audit relationship.

Seventh, *the structural shifts should be assessed by their effect on judgment*. For ownership, the relevant test is where each structure leaves the residual claims and the reputational exposure that back judgment, not the identity of the investor. For artificial intelligence, it is whether firms continue to form auditors able to exercise that judgment — an effect the firms themselves are not yet measuring (Financial Reporting Council, 2025).

Finally, *external audit should be presented as a contractual and informational safeguard, not as a guarantee of solvency, the absence of fraud, liquidity, or business-model viability*. This warning is stronger when audit is mandatory: compulsion may be justified where contracting failures and externalities are serious, but it can also expand expectations and encourage a compliance-certificate view of the audit. For financial stability, its contribution is real but bounded: it disciplines financial reporting, supports market confidence, and can complement supervision. It should not be turned into implicit insurance for supervisors, investors, or banks: its function is to produce justified confidence, not to absorb systemic uncertainty, and a regime that treats it as a backstop will both overburden the audit and misprice the risks it was meant to reveal.

9. Concluding remarks

The significance of the observable/verifiable distinction has grown over time. Accounting has become more predictive, banking more dependent on judgment-based estimates, and audit regulation more focused on inspectability, while financial stability has become more dependent on the timely recognition of risk. Together these developments make the tension between what is observable and what is verifiable more consequential, and they recast the controversies surveyed here — credit-loss estimation, fair value, inspections, reporting, rotation, non-audit services, concentration, ownership, artificial intelligence, and climate-related reporting — as expressions of one institutional problem rather than a list of separate disputes. The most important long-run effect of regulation may not be on audit quantity or audit price but on audit content: by rewarding inspectability, regulation can gradually redefine auditing itself.

The argument is not only interpretive; it yields testable implications. First, stronger file-inspection pressure should shift expected-credit-loss estimates toward model parameters and macroeconomic scenarios and away from borrower-specific soft information, the more so where inspection intensity is high. Second, loss recognition should be more synchronized across banks when common hard triggers dominate, and more dispersed where soft information is allowed to enter earlier. Third, supervisory communication channels should matter most for estimates that carry high prudential consequence and have low public verifiability, and least where the numbers are already hard. Fourth,

private-equity ownership and artificial-intelligence adoption should improve codifiable verification before, and more than, they improve judgment over information that is observable but not yet verifiable. Each prediction concerns the composition and timing of recognition, not its level, and each follows from the same mechanism: a regime that rewards the verifiable reshapes what the audit contains.

Whether or not these predictions are borne out, the design problem they point to is the same. The goal should not be to make audits look more independent, but to make them more informative, more accountable, and less vulnerable to becoming compliance rituals. Financial stability does not require turning auditors into supervisors; it requires preserving their ability to use information that is observable before it becomes verifiable.

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