WORKING PAPERS

N° 1795

OCTOBER 2026

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**Abstract**

Consumers learn how to interpret an information source through repeated exposure. We study how this understanding is priced and how access to historical reports changes competition. In a Gaussian model with inherited customer histories and terminal pricing, the familiar source charges a renewal premium. Better outcome feedback widens the premium when rival reports are inaccessible, but can narrow it once some rival records are available. For independent historical dates, we derive the exact threshold for this reversal. Within the covered interior market, archive opening narrows the premium and raises consumer surplus. Its effect on aggregate forecasting quality and total surplus is less direct: a partial opening can reduce both by reallocating consumers toward a source that remains less informative. Complete access nevertheless improves both outcomes relative to any incomplete archive. The results distinguish the quality of feedback from access to the evidence with which consumers combine it.

*Keywords:* information markets; source familiarity; archive access; feedback; Bayesian learning.

*JEL codes:* D83; L13; D61.

## 1 Introduction

An investor who has followed the same analyst for several years knows how to read her recommendations. Optimism in one report and caution in another need not be taken at face value, because the investor has learned how the analyst's prior views enter her judgments. A new analyst may be equally competent and still be harder to use. The same consideration applies to a forecasting service or a columnist whose perspective becomes familiar through repeated exposure. Understanding a source can make its information more useful even when the source does not become more accurate.[1]

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[1]A known perspective can be subtracted from a report. In our benchmark, uncertainty about perspective reduces report value; the magnitude of a perspective that is already known does not. This separates understanding a source from agreement with it or confidence in its neutrality.

We ask how this understanding affects competition between information providers. Consider a consumer who is deciding whether to renew a subscription or turn to another source. Her past purchases have taught her something about the familiar source's perspective. What happens to the value of that relationship when she receives better information about past outcomes? And what changes if she can also inspect the rival's past reports? Better feedback makes the available records more informative, whereas archive access changes which source those records allow her to understand.

These two changes need not have the same competitive effect. If consumers can inspect only reports they previously purchased, better outcome feedback reinforces the familiar source's advantage. Once some rival reports become accessible, the same improvement in feedback can narrow the advantage instead. The familiar source still supplies the more useful report, but consumers may learn more from an additional unit of evidence about its rival. We characterize when this reversal occurs.

To examine this question, we combine Gaussian source learning with differentiated price competition. Each source has a stable perspective and observes a noisy signal of a new state. Its report combines the signal with that perspective according to a known rule. Past reports help consumers learn the perspective and hence recover more of the information in a new report. The value of this understanding increases at a diminishing rate. It is greatest at intermediate expertise: very poor sources provide little information worth recovering, while very expert sources place little weight on their perspective.

We first consider prices in a terminal renewal market. The familiar source charges a premium and retains a larger share of its returning consumers. Their history is given, as are source expertise and the reporting rule. We therefore study what firms can charge for an established informational relationship. The incentives to acquire customers and to build that relationship require a dynamic analysis beyond the renewal stage.

The main comparison holds the stock of historical reports fixed. Consumers have $n$ reports from the familiar source and access to $m \leq n$ reports from its rival. Each accessible report can be paired with outcome feedback of the same precision. Better feedback can widen or narrow the renewal premium; we derive the threshold separating these cases. Opening additional rival records always narrows the premium. Complete access equalizes consumers' understanding of the two sources, but the effect of feedback can reverse before access is complete. We also consider a public profile of each source, which supplies equally accessible information about their perspectives.

The consequences for forecasting and welfare depend on consumers' responses to prices. A consumer can benefit from a lower price while switching to a source whose report remains less informative. Within the covered interior market, better feedback and wider archive access raise consumer surplus, yet aggregate forecasting accuracy and total surplus can fall. We give exact conditions for such losses following a finite increase in archive access. Complete access nevertheless improves both outcomes relative to any incomplete archive. An opening that is initially harmful can therefore become beneficial when carried through to completion.

Our analysis builds on the source-learning model of Sethi and Yildiz (2016). Their equations (5)–(7) provide the Gaussian filter we use to value reports and measure the information in historical records. Their Section 8 also establishes the mechanism by

which delayed outcome revelation reinforces attachment to previously observed sources. Saghafian et al. (2022) study the choice between familiar and accurate Gaussian sources with unknown inference models, allowing for imperfect outcome revelation, while Sethi and Yildiz (2026) examine the broader consequences of differences in perspective. We bring access to rival records into a priced renewal market. This lets us identify when access reverses the competitive effect of feedback, and why partial and complete opening can have different consequences for the allocation of consumers.

The same learning technology appears in Lukyanov and Ogorodnikov (2026), who study a monopolist's choice of evidence precision over two periods, including the role of public calibration. Their question concerns the sequence of information quality supplied by a seller. We hold expertise fixed and consider competing sources: the object of interest is how access to their records changes the effect of outcome feedback on renewal prices.

The paper also relates to work on learning and customer histories in competition. Bagwell (1990) studies informational differentiation as an entry barrier. Villas-Boas (2004, 2006) examine learning, loyalty, and competition with experience goods, and de Nijs and Rhodes (2013) study behavior-based pricing in that setting. In Chen et al. (2024), correlated product values allow experience with one product to inform consumers about its rivals. In our model, perspectives are independent before observation, so learning about a rival requires access to its reports. Prices are chosen conditional on the accumulated evidence; first-period customer acquisition is outside the analysis.

Campbell (2015) connects understanding information, subscription pricing, and open access. His consumers choose between an original information source and a freely available understanding of its contents that degrades over time. Our archive helps a consumer learn a source's stable reporting transformation and use its next report about a new state. This gives outcome feedback and record access separate roles: one improves the interpretation of a historical report, while the other makes that report available in the first place.

There are also precedents for the tension between consumer gains and efficient allocation. Fudenberg and Tirole (2000) show that competitive poaching can induce inefficient switching. Armstrong and Zhou (2022) and Bergemann et al. (2025) study how information about product values can make the gains to consumers from competition conflict with efficient matching. Here evidence changes the decision value of the reports themselves. Using the Hotelling allocation, we separate the resulting prediction loss from the change in surplus and obtain share cutoffs for each. These conditions explain how a partial archive opening can be harmful even though complete opening is beneficial.

Paid news and financial commentary provide applications of the model. Media models often emphasize a preference for congenial news, strategic slant, or reputation for accuracy (Mullainathan and Shleifer, 2005; Gentzkow and Shapiro, 2006); Hsu et al. (2022) study verification and selective disclosure by competing outlets. Our focus is on access to evidence about a fixed reporting transformation.[2] The same question arises for proprietary forecasting services and subscriber archives. Advertising finance and strategic editorial choices would require additional structure.

[2] Gentzkow et al. (2025) study trust when source accuracy is uncertain and ideological priors affect the assessment of reports. In our model expertise is known, while perspective is unknown and can be subtracted once learned. Understanding a source consequently means learning how to decode its reports.

Section 2 derives report value and familiarity. Section 3 introduces renewal pricing. Section 4 compares feedback quality, archive access, and public calibration. Section 5 studies forecasting quality and surplus. Section 6 discusses interpretation and limitations. Appendix A contains the proofs; Appendix B considers reports about overlapping historical states.

# 2 Reports and source learning

## 2.1 Environment

We distinguish a source's stable perspective from the changing state about which it reports. Time is discrete. In every period $t$, a new state $\theta_t$ is drawn independently from

$$\theta_t \sim \mathcal{N}(0, 1).$$

An information source $i$ has a fixed perspective $\mu_i$. The source's own prior for the current state is $\mathcal{N}(\mu_i, 1)$. From the consumer's perspective,

$$\mu_i \mid \mathcal{H} \sim \mathcal{N}(m_i, \rho_i^{-1}),$$

where $\mathcal{H}$ is the consumer's information before the current report. The posterior mean $m_i$ is her estimate of the perspective, and $\rho_i > 0$ measures how well she understands it.[3]

Source $i$ observes

$$x_{it} = \theta_t + \varepsilon_{it}, \qquad \varepsilon_{it} \sim \mathcal{N}(0, \phi^{-1}),$$

where $\phi > 0$ is expertise. The source then reports her posterior mean,

$$y_{it} = \frac{\mu_i + \phi x_{it}}{1 + \phi}. \tag{1}$$

Initial perspectives, states, and signal errors are mutually independent, and errors are independent across sources and dates. Expertise and the reporting rule are public. The source knows her own perspective. We hold the reporting transformation fixed and allow providers to compete through prices. This isolates the effect of consumers learning how to interpret a source.[4]

After observing any reports purchased in period $t$, the consumer chooses an action $a_t$ and receives payoff

$$-(a_t - \theta_t)^2.$$

The optimal action is the posterior mean. We measure the gross value of a report by

[3]Consider a tennis correspondent who admires a particular player. He may overstate the player's chance of winning after noisy news about fitness, or too readily attribute a defeat to temporary injury. A regular reader learns how much optimism to subtract. A newcomer may be just as aware of the correspondent's expertise, yet lack this understanding of his perspective, $\mu_i$.

[4]The reporting rule can also describe a committed editorial technology, such as an outlet's house style. If a source could change its slant in response to being decoded, its reporting incentives and consumers' learning would have to be determined jointly.

the ex ante reduction in the consumer's expected quadratic loss relative to receiving no report. The state and realized loss are not observed directly; Section 4 introduces a noisy post-action signal of the state.

## 2.2 The value of one report

A consumer uses her estimate of the perspective to recover the information in a report. After subtracting the estimated perspective and rescaling, she obtains

$$z_{it} \equiv \frac{(1+\phi)y_{it} - m_i}{\phi} = \theta_t + \varepsilon_{it} + \frac{\mu_i - m_i}{\phi}. \tag{2}$$

Conditional on $\mathcal{H}$, this is a signal of $\theta_t$ with independent noise variance

$$\frac{1}{\phi} + \frac{1}{\phi^2 \rho_i}.$$

Its precision is therefore

$$\lambda(\rho_i, \phi) = \frac{\phi^2 \rho_i}{1 + \phi \rho_i}. \tag{3}$$

**Lemma 1.** *Given perspective precision $\rho > 0$, the posterior variance of the state after one report is*

$$v(\rho, \phi) = \frac{1}{1 + \lambda(\rho, \phi)} = \frac{1 + \phi\rho}{1 + \phi(1+\phi)\rho}.$$

*The gross value of the report is*

$$b(\rho, \phi) = 1 - v(\rho, \phi) = \frac{\phi^2 \rho}{1 + \phi(1+\phi)\rho}. \tag{4}$$

*It is increasing and strictly concave in $\rho$, and increasing in $\phi$.*

Equation (2) shows why expertise and understanding both matter. Greater expertise reduces the noise in the source's private signal; greater $\rho$ reduces the error the consumer makes when subtracting its perspective. The value in (4) is concave in $\rho$ because further improvements in understanding are worth less when the perspective is already well known. If it were known exactly, the consumer could recover the source's signal, worth $\phi/(1+\phi)$. Familiarity can bring the report closer to this value, but cannot improve the underlying signal.

## 2.3 Learning a perspective

The same report also teaches the consumer something about the source. Multiplying (1) by $1 + \phi$ gives

$$(1+\phi)y_{it} = \mu_i + \phi\theta_t + \phi\varepsilon_{it}. \tag{5}$$

Suppose first that the realized state is never separately revealed. Conditional on $\mu_i$, the last two terms in (5) have variance $\phi^2 + \phi$. One exposure therefore adds perspective

precision

$$\kappa_0(\phi) = \frac{1}{\phi(1+\phi)}. \tag{6}$$

After $n$ reports from the same identified source, the consumer's precision about its perspective is $\rho + n\kappa_0(\phi)$. Learning is possible without observing any realized state because the distribution of states is known and stationary. If that distribution were unknown or drifting, a persistent change in reports could instead reflect a change in the world. We set this identification problem aside.

The value of familiarity after $n$ exposures is the difference between the value of a report from the familiar source and that of an otherwise identical unfamiliar source:

$$\Delta_n(\rho, \phi) \equiv b\Big(\rho + n\kappa_0(\phi), \phi\Big) - b(\rho, \phi). \tag{7}$$

**Proposition 1.** *For every $n \geq 1$, $\rho > 0$, and $\phi > 0$,*

$$\Delta_n(\rho, \phi) = \frac{n\phi}{(1+\phi)[1+\rho\phi(1+\phi)][n+1+\rho\phi(1+\phi)]}. \tag{8}$$

*The familiarity advantage is positive, increases at a diminishing rate with $n$, and decreases with $\rho$. As a function of expertise, it has a unique interior maximum. The maximizing $\phi_n^*$ is the unique positive solution to*

$$n + 1 = 2(n+2)\rho\phi^2(1+\phi) + \rho^2\phi^2(1+\phi)^2(1+4\phi). \tag{9}$$

Repeated exposure helps the consumer distinguish the source's stable perspective from the information in each new report. Every exposure adds the same precision increment $\kappa_0$, but adds less value as understanding improves. The effect of expertise is different. At low $\phi$, perspective carries substantial weight and is easy to learn, yet there is little information about the state to recover. At high $\phi$, the report is already close to the source's private signal and is useful even to a newcomer. The advantage of familiarity is therefore greatest between these extremes.

The restriction $\rho > 0$ is important. At the improper-prior boundary $\rho = 0$, (8) is understood as a limit and equals $n\phi/[(n+1)(1+\phi)]$, which increases monotonically in expertise; the hump disappears. Moreover, as a proper prior becomes increasingly diffuse, the maximizing expertise moves arbitrarily far to the right. The result is exact for every $\rho > 0$, but over a bounded empirical range familiarity may still appear to rise with expertise when initial knowledge of perspective is very imprecise.

# 3 Renewal pricing

Consider a cohort that has previously obtained $n$ reports from source $F$ and none from source $U$. Cohort membership is observable to both sources, offers can be conditioned on it, and there is no arbitrage across cohorts. A free trial assigned independently of horizontal preferences is one interpretation. The pricing game is terminal; equivalently, firms are myopic about any source learning their current sales create. Both sources have

expertise $\phi$, marginal cost $c \geq 0$, and the same initial perspective precision $\rho$. Prices cannot fall below $c$.

Historical evidence is processed before prices are chosen. The current state, signals, and reports are realized afterward. We study a non-signalling price game: commercial pricing units observe the common evidence available to the cohort but have no private information about the perspectives. The reporting routine can use its own perspective, as in (1), but cannot communicate it separately before purchase. Thus a price conveys no additional information about report value.[5]

Let $b_F \geq b_U$ be the report values when prices are chosen, and write $\Delta = b_F - b_U$. With only the inherited history, $b_F = b(\rho + n\kappa_0, \phi)$ and $b_U = b(\rho, \phi)$, so the gap is $\Delta_n$ from Proposition 1. Section 4 changes these values by supplying public profiles, outcome feedback, or access to an archive. The pricing result below applies to all these cases. Realized posterior means may differ, but report values depend only on the corresponding precisions and are common within the cohort.

Consumers are indexed by $x \in [0, 1]$ and distributed uniformly. Source $F$ is located at 0 and source $U$ at 1. A consumer's utility from purchasing one report is

$$u_F(x) = \bar{v} + b_F - p_F - \tau x,$$
$$u_U(x) = \bar{v} + b_U - p_U - \tau(1 - x),$$

where $\tau > 0$ captures horizontal differences in fit, presentation, or topic coverage, in the manner of Hotelling (1929). Consumers buy at most one current report. This is a maintained restriction on current consumption, motivated by limited attention.[6] Each price buys access to one new report; for a paid outlet, this can be read as the price of a short renewal interval. The common component $\bar{v}$ is large enough for the candidate market to be covered, and sources set prices simultaneously.

**Proposition 2.** *Suppose* $0 \leq \Delta < 3\tau$ *and*

$$\bar{v} + b_U - c - \frac{3\tau}{2} + \frac{\Delta}{2} > 0.$$

*The unique covered interior price equilibrium is*

$$p_F^* = c + \tau + \frac{\Delta}{3}, \qquad p_U^* = c + \tau - \frac{\Delta}{3}. \tag{10}$$

*The familiar source serves the share*

$$x_F^* = \frac{1}{2} + \frac{\Delta}{6\tau} \tag{11}$$

[5]This separation is substantive. Verifiable disclosure of the perspective could remove calibration uncertainty; a privately informed seller's price could itself convey information. Neither disclosure nor a price-signalling game is included in the benchmark.

[6]Consumers have very little time and a great deal of available information. Processing a second report can improve a decision and still not be worth the attention it requires. We do not derive single-homing as an equilibrium of the differentiated market studied here.

*and earns*

$$\pi_F^* = \frac{(3\tau + \Delta)^2}{18\tau}, \qquad \pi_U^* = \frac{(3\tau - \Delta)^2}{18\tau}. \tag{12}$$

*In particular, the equilibrium price premium is*

$$p_F^* - p_U^* = \frac{2\Delta}{3}.$$

For a positive gap, the familiar source charges more and serves a larger share of its returning cohort. Two thirds of the informational advantage appears in the price difference in this Hotelling specification; the remainder shifts the marginal consumer. The fraction depends on demand structure. These are cohort-specific comparisons. With mirror cohorts of legacy $F$ and legacy $U$ consumers, both firms can charge their own returning users more and retain a disproportionate share while aggregate firm shares remain symmetric.

# 4 Feedback and access to historical reports

## 4.1 A common technology for learning from records

The cohort enters the renewal stage with $n \geq 1$ stored reports from $F$. An archive contains $n$ past reports from $U$, of which $m \in \{0, \ldots, n\}$ are accessible before renewal. These rival reports concern dates not represented in the stored $F$ history. Their states and signal errors are therefore independent of the cohort's historical evidence about $F$. Archive selection depends on the number of records, not their contents. This permits a transparent comparison of access while holding the available stock of records fixed.[7]

For each accessible report, a truthful outcome record is supplied after the historical action and before renewal prices are set:

$$d_t = \theta_t + \nu_t, \qquad \nu_t \sim \mathcal{N}(0, \delta^{-1}).$$

The errors are independent across dates and of all other primitives. The precision $\delta \geq 0$ is the same for both sources. At $\delta = 0$ there is no outcome information; as $\delta \to \infty$, the historical state becomes known. The consumer can consult an archived report for calibration even though it was not purchased when the historical decision was made. Access to these records, or an equivalent sufficient statistic, is costless to the consumer in the benchmark. Section 5.4 discusses implementation costs.

Conditional on $d_t$, the variance of the historical state is $1/(1+\delta)$. The residual

$$(1+\phi)y_{it} - \phi\mathbb{E}[\theta_t \mid d_t] = \mu_i + \phi\Big(\theta_t - \mathbb{E}[\theta_t \mid d_t]\Big) + \phi\varepsilon_{it}$$

[7]Reports about shared historical states require joint filtering. Appendix B derives that filter and shows that the feedback reversal and the contrast between partial and complete opening survive. The exact threshold below is specific to independent dates and cannot be applied mechanically to overlapping records.

has noise variance $\phi + \phi^2/(1+\delta)$. Each report–outcome pair therefore supplies precision

$$\kappa(\delta, \phi) = \frac{1+\delta}{\phi(1+\delta+\phi)}, \qquad \kappa_\delta = \frac{1}{(1+\delta+\phi)^2} > 0. \tag{13}$$

At zero feedback this is $\kappa_0$; under exact feedback it approaches $1/\phi$. This is the precision increment in Sethi and Yildiz (2016, equation (7)), with feedback precision in place of the observer's private-signal precision.

We also allow an independent public profile $s_i^\chi = \mu_i + \eta_i$ for each source, where $\eta_i \sim \mathcal{N}(0, \chi^{-1})$. The precision $\chi \geq 0$ and access to the profiles are symmetric; $\chi = 0$ denotes their absence. The profile errors are independent of each other and of all other primitive shocks. Profiles and historical records are conditionally independent given the perspectives. They estimate perspective, rather than rate neutrality or honesty.

Before renewal, the perspective precisions and report values are

$$r_F = \rho + \chi + n\kappa(\delta, \phi), \qquad r_U = \rho + \chi + m\kappa(\delta, \phi), \qquad b_i = b(r_i, \phi). \tag{14}$$

The $F$ precision in (14) replaces the precision from its original $n$ reports. The reports are processed again with their outcomes; they are not counted a second time. More precisely, feedback adds $n(\kappa - \kappa_0)$ to the inherited precision $\rho + n\kappa_0$.

All evidence is processed before firms choose prices, and accessible record counts are common knowledge. The Gaussian posterior variances do not depend on realized record values. Consequently the pricing game still depends on the information only through

$$\Delta_{n,m}(\chi, \delta) = b(r_F, \phi) - b(r_U, \phi). \tag{15}$$

The label $U$ continues to identify the rival, even when an archive makes it partially familiar. For $m < n$, $F$ remains better understood. At $m = n$, report values are equal.

## 4.2 When better feedback strengthens familiarity

Let

$$q = \phi(1+\phi), \qquad A = 1 + q(\rho + \chi), \qquad \zeta = q\kappa(\delta, \phi) = \frac{(1+\phi)(1+\delta)}{1+\delta+\phi}. \tag{16}$$

Here $\zeta$ increases from 1 toward $1+\phi$. It measures the information supplied by a record relative to a report without outcome feedback.

**Proposition 3.** *For $0 \leq m < n$,*

$$\Delta_{n,m} = \frac{\phi}{1+\phi} \frac{(n-m)\zeta}{(A+n\zeta)(A+m\zeta)} > 0. \tag{17}$$

*If $m = 0$, better feedback strictly increases $\Delta_{n,0}$. If $0 < m < n$, its marginal effect has the sign*

$$\operatorname{sgn}\left(\frac{\partial \Delta_{n,m}}{\partial \delta}\right) = \operatorname{sgn}(A^2 - nm\zeta^2). \tag{18}$$

*In particular, writing $H = A/\sqrt{nm}$:*

1. *If $H \leq 1$, the advantage decreases with feedback; the derivative at zero is zero only when $H = 1$.*

2. *If $H \geq 1 + \phi$, the advantage strictly increases at every finite feedback precision.*

3. *If $1 < H < 1 + \phi$, it increases and then decreases, with a unique maximum at*

$$\delta^* = \frac{(1+\phi)(H-1)}{1+\phi-H}. \tag{19}$$

*At $m = n$, the advantage is identically zero.*

Better feedback helps consumers interpret every accessible report. Since they have more reports from $F$, this gives the familiar source an advantage. At the same time, they already understand $F$ better, so an additional unit of precision is less valuable there. With $m = 0$, the rival has no report that the consumer can pair with the outcome, and only the familiar source benefits. Once rival records become available, the larger gain from learning about a less understood source can outweigh the difference in record counts.

Within the covered interior market, the price gap, $F$'s share, and total industry profit move with $\Delta_{n,m}$. Thus (18) also determines their response to feedback. A decreasing advantage does not mean that the rival becomes more informative: $F$ has the larger report value whenever $m < n$. For example, at $\phi = 1$, $\rho = 0.1$, $\chi = 0$, and $n = 5$, feedback strengthens familiarity when $m = 0$ but weakens it at every finite precision when even one rival report is accessible. With $\phi = 1$, $\rho = 0.5$, $\chi = 0$, $n = 2$, and $m = 1$, the interior maximum occurs at $\delta^* = \sqrt{2}$.

## 4.3 Opening an archive and supplying public profiles

Archive access and feedback quality are different instruments. Opening a further rival record leaves $b_F$ unchanged and raises $b_U$. It therefore narrows the familiarity advantage at every feedback precision. A symmetric public profile improves both report values, but helps the less understood source more.

**Corollary 1.** *Holding feedback precision fixed, increasing $m$ strictly reduces $\Delta_{n,m}$ until it reaches zero at $m = n$. Holding record counts fixed with $m < n$, increasing $\chi$ strictly reduces $\Delta_{n,m}$. In the covered interior equilibrium, either change lowers $F$'s price, share, and profit; raises $U$'s price, share, and profit; and lowers total industry profit.*

Outcome feedback and public profiles thus differ in the evidence they make usable. Without rival records, feedback improves understanding only of the source the consumer has used. Public profiles improve understanding of both sources and help the less familiar one more. Proposition 3 shows how opening an archive changes the first comparison: feedback can now be applied to both sources, so its competitive effect depends on the extent of access.

**Remark 1.** *The mechanism behind the sign comparison extends beyond Gaussian learning. For $r > 0$, $k > 0$, $n > m \geq 0$, and a differentiable, increasing and strictly concave*

*report-value function $B$, the advantage $B(r+nk) - B(r+mk)$ falls after an equal increment to $r$. Its response to better records, represented by $k$, is*

$$nB'(r+nk) - mB'(r+mk).$$

*At $m = 0$ it is positive. For $m > 0$, concavity alone does not determine its sign. The Gaussian specification gives the closed-form threshold in (18); it is not needed for the distinction between record quality and record access.*

# 5 Forecasting quality and renewal surplus

A smaller renewal premium need not mean better forecasts or higher total surplus. To see why, we distinguish the reduction in aggregate prediction loss, consumer surplus after prices and horizontal mismatch, and total surplus with prices treated as transfers. Each measure concerns the renewal period, conditional on the inherited history.

## 5.1 Prices and the allocation of consumers

Let $\Delta = b_F - b_U \geq 0$. If a share $x$ is assigned to $F$, gross renewal-period surplus is

$$W(x) = \bar{v} + b_U - c + \Delta x - \frac{\tau}{2}\Big[x^2 + (1-x)^2\Big]. \tag{20}$$

The last term is aggregate mismatch cost. The planner takes the two report values as given and chooses who receives each report.

**Proposition 4.** *Under the conditions of Proposition 2, the surplus-maximizing share is*

$$x_F^S = \min\left\{1, \frac{1}{2} + \frac{\Delta}{2\tau}\right\}. \tag{21}$$

*For $0 < \Delta < 3\tau$, equilibrium assigns strictly fewer consumers to $F$ than the planner does. The deadweight loss is*

$$DWL = \begin{cases} \dfrac{\Delta^2}{9\tau}, & 0 \leq \Delta < \tau, \\ \dfrac{(3\tau - \Delta)(5\Delta - 3\tau)}{36\tau}, & \tau \leq \Delta < 3\tau. \end{cases} \tag{22}$$

The familiar source captures part of its informational advantage through its price. Some consumers consequently buy the rival's report even though the gain from a better forecast would justify their additional mismatch cost at $F$. Better information changes report values, but it can also change this allocation distortion.

## 5.2 Three measures of the gains from information

At the equilibrium share $x_F^* = 1/2 + \Delta/(6\tau)$, aggregate forecasting benefit is

$$Q^E = (1 - x_F^*)b_U + x_F^* b_F = b_U + \frac{\Delta}{2} + \frac{\Delta^2}{6\tau}. \tag{23}$$

Since the prior variance of the state is one, aggregate expected quadratic prediction loss is $1 - Q^E$. Consumer surplus and gross total surplus are respectively

$$CS^E = \bar{v} + b_U - c - \frac{5\tau}{4} + \frac{\Delta}{2} + \frac{\Delta^2}{36\tau}, \tag{24}$$

$$W^E = \bar{v} + b_U - c - \frac{\tau}{4} + \frac{\Delta}{2} + \frac{5\Delta^2}{36\tau}. \tag{25}$$

Their difference is total industry profit,

$$W^E - CS^E = \tau + \frac{\Delta^2}{9\tau}. \tag{26}$$

**Proposition 5.** *Consider a differentiable parameter change $s$ with $b_{F,s}, b_{U,s} \geq 0$ and $b_{F,s} + b_{U,s} > 0$, preserving the covered interior equilibrium. Its effects are*

$$\frac{dJ^E}{ds} = (1 - \omega_J)b_{U,s} + \omega_J b_{F,s}, \qquad J \in \{CS, Q, W\}, \tag{27}$$

*where*

$$\omega_{CS} = \frac{1}{2} + \frac{\Delta}{18\tau}, \qquad \omega_Q = \frac{1}{2} + \frac{\Delta}{3\tau}, \qquad \omega_W = \frac{1}{2} + \frac{5\Delta}{18\tau}.$$

*Consumer surplus strictly increases. Forecasting benefit and gross total surplus can decrease only when the change narrows the advantage. A decrease in $Q^E$ additionally requires $x_F^* > 3/4$; a decrease in $W^E$ requires $x_F^* > 4/5$.*

The consumer-surplus weights form a convex combination because $1/2 \leq \omega_{CS} < 2/3$: improving either report benefits consumers. The weights for forecasting and total surplus can exceed one because they also reflect the change in source choice. A consumer who switches may gain through a lower price or a better horizontal fit while receiving a report with a larger prediction error. If enough consumers switch, this loss can outweigh the direct improvement in the rival's report.

Better feedback raises both report values when $m > 0$, and only $F$'s value when $m = 0$. It always raises consumer surplus. In the closed-archive case it also raises $Q^E$ and $W^E$. With partial access, the feedback threshold in Proposition 3 determines whether there is a potentially adverse reallocation effect; a narrowing advantage is necessary, but not sufficient, for a forecasting or welfare loss.

For a public profile, define

$$t_\chi = \frac{b_{F,\chi}}{b_{U,\chi}} = \left(\frac{A + m\zeta}{A + n\zeta}\right)^2. \tag{28}$$

For $m < n$, this ratio lies strictly between zero and one. The exact conditions are

$$Q_\chi^E < 0 \iff t_\chi < \frac{2\Delta - 3\tau}{2\Delta + 3\tau}, \tag{29}$$

$$W_\chi^E < 0 \iff t_\chi < \frac{5\Delta - 9\tau}{5\Delta + 9\tau}. \tag{30}$$

Equality gives a zero marginal effect. A negative right-hand side cannot exceed $t_\chi$, so these expressions include the regions in which a loss is impossible. Public profiles always improve each source's report at a fixed choice, but their aggregate prediction effect can be negative. For instance, $\phi = 1$, $\rho = 0.1$, $n = 5$, $m = \chi = \delta = 0$, and $\tau = 0.16$ give $Q_\chi^E \simeq -0.1077$, $CS_\chi^E \simeq 0.2822$, and $W_\chi^E \simeq -0.0297$. Taking $\bar{v} = 2$ and $c = 0$ satisfies coverage. The derivatives at zero are right derivatives.

## 5.3 Partial and complete archive opening

Opening an archive is a discrete change in record access. It need not be approximated by a marginal change in precision. Hold $n$, $\chi$, and $\delta$ fixed, and increase accessible rival records from $m_0$ to $m_1$, where $0 \le m_0 < m_1 \le n$. Let $\Delta_0$ and $\Delta_1$ be the associated advantages and put $d = \Delta_0 - \Delta_1 > 0$. This is also the increase in $b_U$; $b_F$ is unchanged.

**Proposition 6.** *Suppose the initial equilibrium is covered and interior. Every increase in archive access preserves coverage and an interior market share, including the symmetric outcome at $m = n$. The finite changes are*

$$CS_1^E - CS_0^E = d\left[\frac{1}{2} - \frac{\Delta_0 + \Delta_1}{36\tau}\right] > 0, \tag{31}$$

$$Q_1^E - Q_0^E = d\left[\frac{1}{2} - \frac{\Delta_0 + \Delta_1}{6\tau}\right], \tag{32}$$

$$W_1^E - W_0^E = d\left[\frac{1}{2} - \frac{5(\Delta_0 + \Delta_1)}{36\tau}\right]. \tag{33}$$

*Thus forecasting benefit falls if and only if the average of the initial and final familiar-source shares exceeds $3/4$. Gross total surplus falls if and only if their average exceeds $4/5$. Complete opening, $m_1 = n$, strictly raises all three outcomes relative to every incomplete archive.*

With independent historical dates, opening rival records improves $b_U$ while leaving $b_F$ fixed. The share conditions describe when the resulting movement of consumers is costly. A partial opening makes the rival easier to understand, but its report is still less informative. Drawing consumers toward it can then reduce aggregate forecasting benefit and gross surplus. Complete opening removes this informational disadvantage. The reports become equally valuable, their prices are equal, and consumers choose the source that best suits their horizontal preferences.

Table 1 illustrates the distinction using a fixed stock of five reports per source. Opening the first rival record lowers prediction quality and gross surplus, even though consumer surplus rises. Opening all five records improves every outcome relative to the closed

archive. The feedback technology is held fixed throughout this comparison. Appendix B reproduces the qualitative comparison when rival records concern the same dates as the familiar reports, although opening them then improves both report values.

Table 1: Opening a fixed archive

| Rival records $m$ | $x_F^*$ | Price gap | $Q^E$ | $CS^E$ | $W^E$ |
|---|---|---|---|---|---|
| 0 | 0.9480 | 0.2240 | 0.4019 | 2.1202 | 2.3456 |
| 1 | 0.6955 | 0.0978 | 0.3747 | 2.1946 | 2.3387 |
| 5 | 0.5000 | 0.0000 | 0.4194 | 2.2631 | 2.3881 |

Notes: $\phi = 1$, $\rho = 0.1$, $n = 5$, $\chi = \delta = 0$, $\tau = 0.125$, $\bar{v} = 2$, and $c = 0$. No outcomes are revealed at $\delta = 0$, but each archived report is still evidence about perspective. Coverage holds at every listed access level. Higher $Q^E$ means lower expected prediction loss. Surplus excludes implementation costs.

### 5.4 Implementation costs

Let $K(\chi, \delta, m; n)$ be the allocated or amortized resource cost of providing profiles, outcome feedback, and access to records, measured in renewal-period units. Net surplus is

$$\mathcal{W} = W^E - K(\chi, \delta, m; n). \tag{34}$$

An archive opening is worthwhile on net only if its gross benefit exceeds its incremental resource cost. Starting from a covered interior equilibrium, complete access maximizes gross surplus among the access levels considered, but it need not maximize net surplus. The same distinction applies to public profiles and better outcome feedback: their marginal gross benefits must cover their marginal costs. These comparisons take the provision of information as given. A cost technology, financing mechanism, and model of private provision would be needed to determine which institution is supplied or to evaluate policy over the lifetime of a customer relationship.

## 6 Interpretation and limitations

The model applies most directly to paid forecasting, financial commentary, newsletters, and other information services with identifiable repeat customers. In each case, a stable perspective can reflect an analyst's prior beliefs or a service's reporting convention. Learning that perspective lets a consumer extract more information from the next report, even though the source's expertise is unchanged.

The access comparison distinguishes a private subscriber history from an archive that can be consulted before purchase. A resolved forecast stored only in the subscriber's account informs the consumer about a source she has used. Making a rival's historical forecasts available permits outcome evidence to inform switching decisions as well. A public profile provides another way to learn about a source without having consumed its reports. These examples concern evidence about a source's reporting transformation. A

generic credibility label need not estimate perspective or have the same effect.[8]

The mechanism suggests several ways to distinguish interpretive familiarity from other sources of loyalty. Holding expertise and horizontal fit fixed, exclusive past exposure raises the familiarity premium at a diminishing rate, whereas public information about perspective narrows it. Better outcome feedback strengthens the premium when rival reports are inaccessible, but can weaken it once consumers can consult those reports. Varying record access separately from feedback quality would therefore help identify the mechanism. Retention alone would not distinguish it from habit or a preference for congenial content.

Three restrictions are central to interpretation. First, the inherited cohort and its information are exogenous. Prices are terminal or myopic, so the model does not account for investment in acquiring customers or strategic provision of trial reports. Second, the exact feedback threshold and finite-opening formulas use records about independent dates, selected without regard to content. Appendix B treats overlapping dates: the qualitative effects survive, but the threshold does not carry over. Strategic disclosure and price signalling are outside the maintained information structure. Third, consumers purchase at most one current report. The analysis does not solve the interaction between multihoming, differentiated pricing, and future source learning. These restrictions define a conditional renewal problem in which the consequences of access can be stated precisely.

# 7 Conclusion

Consumers learn how to read a source through repeated exposure. In a differentiated renewal market, this understanding makes its next report more valuable and supports a price premium within its returning cohort. How further evidence affects that premium depends on which sources the consumer can learn about.

When rival reports are inaccessible, better outcome feedback reinforces the familiar source's advantage. Access to some rival records can reverse this effect, even while the familiar source remains better understood. The threshold compares the gain from applying feedback to more reports with the diminishing value of learning about an already familiar source. Opening further rival records always narrows the premium.

Lower prices and more useful reports do not by themselves ensure better aggregate forecasts. Consumers may switch toward a source that remains less informative, and a partial archive opening can consequently raise consumer surplus while reducing forecasting quality or gross total surplus. Complete access removes the information gap and the associated pricing distortion. Within the covered interior market, it improves all three outcomes relative to any incomplete archive. Whether these gross gains justify providing access depends on implementation costs. The renewal comparison therefore identifies both a benefit of complete opening and a reason to examine carefully the path by which access is expanded.

[8] A profile in this model resembles a description of how to read a source, rather than a seal certifying that the source is correct. A precise description of a pronounced perspective can be useful even when readers disagree with it.

# A Proofs

## A.1 Proof of Lemma 1

From (2), the report is equivalent to a signal of $\theta_t$ with noise variance

$$\sigma_z^2 = \frac{1}{\phi} + \frac{1}{\phi^2 \rho}.$$

The associated precision is $\lambda = 1/\sigma_z^2 = \phi^2\rho/(1+\phi\rho)$. Since the prior precision of $\theta_t$ is one, posterior variance is $(1+\lambda)^{-1}$, which gives the expression for $v$ and hence (4). Writing $q = \phi(1+\phi)$,

$$\frac{\partial b}{\partial \rho} = \frac{\phi^2}{(1+q\rho)^2} > 0, \qquad \frac{\partial^2 b}{\partial \rho^2} = -\frac{2q\phi^2}{(1+q\rho)^3} < 0.$$

Moreover,

$$\frac{\partial b}{\partial \phi} = \frac{\rho\phi(2+\rho\phi)}{[1+\rho\phi(1+\phi)]^2} > 0.$$

□

## A.2 Proof of Proposition 1

The closed form follows from a change of variables that is worth isolating, because it is what makes the whole comparative-static analysis tractable. Let

$$q = \phi(1+\phi), \qquad A = 1 + q\rho.$$

Equation (4) can be written as

$$b(\rho, \phi) = \frac{\phi}{1+\phi}\left(1 - \frac{1}{A}\right).$$

Because $q\kappa_0 = 1$, replacing $\rho$ by $\rho + n\kappa_0$ replaces $A$ by $A+n$: one exposure advances the state variable by exactly one unit, whatever the level of expertise. Hence

$$\Delta_n = \frac{\phi}{1+\phi}\left(\frac{1}{A} - \frac{1}{A+n}\right) = \frac{n\phi}{(1+\phi)A(A+n)},$$

which is (8). Extending $n$ to the positive real line gives

$$\frac{\partial \Delta_n}{\partial n} = \frac{\phi}{(1+\phi)(A+n)^2} > 0, \qquad \frac{\partial^2 \Delta_n}{\partial n^2} = -\frac{2\phi}{(1+\phi)(A+n)^3} < 0.$$

The derivative with respect to $\rho$ is

$$\frac{\partial \Delta_n}{\partial \rho} = b_\rho(\rho + n\kappa_0, \phi) - b_\rho(\rho, \phi) < 0$$

by strict concavity of $b$ in its first argument.

For the expertise result, logarithmic differentiation gives

$$\frac{\partial \log \Delta_n}{\partial \phi} = \frac{D_n(\phi)}{\phi(1+\phi)A(A+n)},$$

where

$$D_n(\phi) = n + 1 - 2(n+2)\rho\phi^2(1+\phi) - \rho^2\phi^2(1+\phi)^2(1+4\phi).$$

For $\rho > 0$, $D_n$ is strictly decreasing on the positive real line, starts at $n+1$, and tends to minus infinity. It therefore has one positive zero, characterized by (9). Finally, (8) tends to zero as $\phi$ tends to either zero or infinity, so the unique stationary point is the unique global maximum. □

## A.3 Proof of Proposition 2

Let $\Delta = b_F - b_U$. The indifferent consumer is located at

$$x_F = \frac{\tau + \Delta - p_F + p_U}{2\tau}. \tag{35}$$

On the interior, profits are $(p_F - c)x_F$ and $(p_U - c)(1 - x_F)$. The first-order conditions are

$$2(p_F - c) = \tau + \Delta + (p_U - c), \qquad 2(p_U - c) = \tau - \Delta + (p_F - c).$$

Solving gives (10); substitution into (35) gives (11), and the profit formulas follow. Under $\Delta < 3\tau$, both shares and markups are positive. To check global deviations, clip (35) to $[0, 1]$. Interior profit is strictly concave. Given the candidate $p_U$, the most profitable price at which $F$ captures the entire market yields profit $2\Delta/3$, while its interior profit exceeds this by $(3\tau - \Delta)^2/(18\tau)$. Source $U$ could capture the entire market only at a price no greater than $c$, yielding no positive profit; losing the whole market yields zero. The stated inequality makes the marginal consumer's utility strictly positive at the candidate. An outside option can only reduce demand away from the clipped covered-market demand and therefore creates no profitable additional deviation. □

## A.4 Proof of Proposition 3

Conditioning the report on its outcome gives the variance and precision in (13). Historical dates are distinct, so these signals are conditionally independent across the two source histories. A stored report with a newly observed outcome is one joint observation, whose total precision contribution is $\kappa$, rather than $\kappa_0 + \kappa$. Independent public profiles add $\chi$ to each perspective precision. This proves (14).

Using $b(r, \phi) = \phi(1+\phi)^{-1}[1 - (1+qr)^{-1}]$ gives

$$\Delta_{n,m} = \frac{\phi}{1+\phi}\left(\frac{1}{A+m\zeta} - \frac{1}{A+n\zeta}\right),$$

which is (17). Moreover,

$$\zeta_\delta = \frac{\phi(1+\phi)}{(1+\delta+\phi)^2} > 0,$$

and direct differentiation yields

$$\frac{\partial \Delta_{n,m}}{\partial \delta} = \frac{\phi}{1+\phi} \frac{(n-m)\zeta_\delta (A^2 - nm\zeta^2)}{(A+n\zeta)^2 (A+m\zeta)^2}. \tag{36}$$

At $m = 0$ this is positive. For $0 < m < n$, its sign is positive, zero, or negative according as $\zeta$ is below, equal to, or above $H = A/\sqrt{nm}$. Since $\zeta$ increases strictly from 1 toward $1+\phi$, the three regimes follow, including the zero derivative at $H = 1$, $\delta = 0$. In the intermediate regime, solving $\zeta = H$ gives (19). If $m = n$, the two marginal precisions are equal at every feedback level and the gap is zero. □

## A.5 Proof of Corollary 1

An increase in $m$ strictly raises $r_U$ and leaves $r_F$ fixed. Monotonicity of $b$ implies that $\Delta_{n,m}$ falls. For a public-profile increment and $m < n$,

$$\frac{\partial \Delta_{n,m}}{\partial \chi} = b_\rho(r_F, \phi) - b_\rho(r_U, \phi) < 0$$

by strict concavity. The signs for prices, shares, and individual profits follow by differentiating (10)–(12) with respect to $\Delta$. Total industry profit is $\tau + \Delta^2/(9\tau)$, which strictly falls with a strict reduction of a positive gap. An archive opening preserves coverage because

$$\bar{v} + b_U - c - \frac{3\tau}{2} + \frac{\Delta}{2} = \bar{v} + \frac{b_F + b_U}{2} - c - \frac{3\tau}{2}$$

increases, while the gap remains in $[0, 3\tau)$. The same argument applies to public calibration. □

## A.6 Proof of Proposition 4

Differentiating (20) gives

$$\frac{\partial W(x)}{\partial x} = \Delta + \tau - 2\tau x, \qquad \frac{\partial^2 W(x)}{\partial x^2} = -2\tau < 0.$$

The unconstrained maximizer is $1/2 + \Delta/(2\tau)$. Since $\Delta \geq 0$, only the upper constraint can bind, which gives (21). If $0 \leq \Delta < \tau$, quadratic completion yields

$$W(x_F^S) - W(x_F^*) = \tau(x_F^S - x_F^*)^2 = \frac{\Delta^2}{9\tau}.$$

If $\tau \leq \Delta < 3\tau$, the planner chooses $x_F^S = 1$. Subtracting (25) from (20) evaluated at one gives

$$W(1) - W(x_F^*) = -\frac{\tau}{4} + \frac{\Delta}{2} - \frac{5\Delta^2}{36\tau} = \frac{(3\tau - \Delta)(5\Delta - 3\tau)}{36\tau}.$$

For $\Delta > 0$, the strict audience comparison follows immediately from (11). $\square$

## A.7 Proof of Proposition 5

Integrating the reduction in quadratic prediction loss at the equilibrium cutoff gives (23). Consumer surplus is

$$CS^E = \bar{v} + Q^E - p_F^* x_F^* - p_U^*(1 - x_F^*) - \frac{\tau}{2}\Big[(x_F^*)^2 + (1 - x_F^*)^2\Big].$$

Substitution of equilibrium prices gives (24). Adding industry profit, or evaluating (20) at $x_F^*$, gives (25). Differentiation of these three expressions, using $\Delta_s = b_{F,s} - b_{U,s}$, gives (27).

The covered interior condition implies $0 \le \Delta < 3\tau$, hence $1/2 \le \omega_{CS} < 2/3$. Consumer surplus is therefore strictly increasing under the stated assumptions. If $\Delta_s \ge 0$, then $J_s = b_{U,s} + \omega_J \Delta_s > 0$ for each of the three outcomes: if the gap does not increase strictly, both report values must increase. Thus a decrease requires $\Delta_s < 0$.

When $\Delta \le 3\tau/2$, $\omega_Q \le 1$, so $Q_s$ is nonnegative. When $\Delta \le 9\tau/5$, $\omega_W \le 1$, so $W_s$ is nonnegative. Using (11), a decrease consequently requires $x_F^* > 3/4$ and $x_F^* > 4/5$, respectively. At the threshold a derivative can be zero if only $U$ improves; this does not affect the strict-loss statements.

For the public-profile formulas, $b_\rho(r, \phi) = \phi^2/(1 + qr)^2$ gives (28). Thus

$$J_\chi = b_{U,\chi}\{1 - \omega_J(1 - t_\chi)\}, \qquad J \in \{Q, W\}.$$

The derivative is negative exactly when $t_\chi < 1 - 1/\omega_J$, which yields (29) and (30). $\square$

## A.8 Proof of Proposition 6

Opening records leaves $b_F$ fixed and raises $b_U$ by $d$, so $\Delta_1 = \Delta_0 - d$. The coverage argument in the preceding corollary applies, and $0 \le \Delta_1 < \Delta_0 < 3\tau$ ensures positive shares and markups throughout. Subtracting (24), (23), and (25) at the two access levels gives (31)–(33). Since $\Delta_0 + \Delta_1 < 6\tau$, the consumer-surplus change is strictly positive.

The prediction change is negative if and only if $\Delta_0 + \Delta_1 > 3\tau$, and the surplus change is negative if and only if $\Delta_0 + \Delta_1 > 18\tau/5$. The average endpoint share is

$$\frac{x_{F,0}^* + x_{F,1}^*}{2} = \frac{1}{2} + \frac{\Delta_0 + \Delta_1}{12\tau},$$

which gives the two conditions in the proposition. Equalities give zero changes.

At complete access, $\Delta_1 = 0$ and $\Delta_0 < 3\tau$, so all three brackets are strictly positive. Applying this argument to every $m_0 < n$ shows that complete opening maximizes gross surplus among the available access levels. $\square$

# B Overlapping historical states

The independent-date restriction permits source-by-source updating, but many archives contain reports about the same events. Suppose instead that all $m$ accessible rival reports concern $m$ of the $n$ dates already represented in the familiar history. There is one outcome signal per date, observed once. The remaining assumptions are unchanged. Write $r = \rho + \chi$ and $v_\delta = 1/(1+\delta)$.

Conditional on the outcome signal, a pair of transformed reports has noise covariance

$$\Omega = \phi I_2 + \phi^2 v_\delta \mathbf{1}\mathbf{1}^\top. \tag{37}$$

The shared state produces the off-diagonal term. Define

$$k = \frac{1}{\phi(1+\phi v_\delta)}, \qquad h = \frac{1+\phi v_\delta}{\phi(1+2\phi v_\delta)}, \qquad g = \frac{v_\delta}{1+2\phi v_\delta}.$$

An unpaired familiar report contributes $k$ to its perspective precision. Inverting (37), a paired observation contributes diagonal precision $h$ and off-diagonal precision $-g$. Independence across dates therefore gives the joint posterior precision matrix

$$P_m = \begin{pmatrix} r + (n-m)k + mh & -mg \\ -mg & r + mh \end{pmatrix} \equiv \begin{pmatrix} a & z \\ z & e \end{pmatrix}. \tag{38}$$

Its determinant $D = ae - z^2$ is positive. The *marginal*, rather than conditional, perspective precisions relevant for purchasing one current report are

$$R_F = a - \frac{z^2}{e} = \frac{D}{e}, \qquad R_U = e - \frac{z^2}{a} = \frac{D}{a}. \tag{39}$$

Current report values remain $b(R_F, \phi)$ and $b(R_U, \phi)$ because the new state is independent of the historical states. Correlation between perspectives does not change the value of a single report once its marginal precision is used.

Since $a - e = (n-m)k$, the familiar source is strictly better understood for $m < n$ and equally understood at complete access. Opening a paired rival report can also improve understanding of $F$: the rival report helps filter the shared historical state. This is why the source-by-source increments and the finite-change formulas in the main text cannot simply be reused.

The feedback reversal nevertheless survives. Take $\phi = 1$, $\rho = 0.1$, $\chi = 0$, and $n = 5$. At $\delta = 1$, differentiating the gap obtained from (39) gives approximately 0.0089773 when $m = 0$ and $-0.0015871$ when $m = 1$. Access to one rival report reverses the sign. The exact threshold is different: at $m = 1$ and $\delta = 0$, the derivative is approximately 0.0059260 with overlapping dates, whereas it is negative with independent dates. The qualification attached to Proposition 3 is therefore economically consequential.

Table 2 repeats the archive comparison in Table 1, now with overlapping dates. Opening one record improves both report values but lowers aggregate forecasting benefit and gross surplus. Complete opening raises all three outcomes.

Table 2: An archive of reports about shared states

| $m$ | $b_F$ | $b_U$ | $x_F^*$ | $Q^E$ | $CS^E$ | $W^E$ |
|---|---|---|---|---|---|---|
| 0 | 0.4194 | 0.0833 | 0.9480 | 0.4019 | 2.1202 | 2.3456 |
| 1 | 0.4199 | 0.2962 | 0.6650 | 0.3785 | 2.2052 | 2.3438 |
| 5 | 0.4200 | 0.4200 | 0.5000 | 0.4200 | 2.2637 | 2.3887 |

Notes: The parameters are those of Table 1. Each rival record now concerns a date in the familiar history. All listed equilibria satisfy coverage and interiority. The numerical entries use joint filtering in (38)–(39).

The benefit of complete access extends beyond this example. Additional observations weakly reduce each marginal posterior variance. At $m = n$, both reports consequently have a common value $b^*$ at least as large as the familiar report's value at any earlier access level. From an incomplete covered interior equilibrium, aggregate forecasting benefit was strictly below that earlier familiar value, since a positive share bought the less informative rival report. At complete access it equals $b^*$. Horizontal mismatch is also minimized at the symmetric allocation, so gross surplus strictly rises. Consumer surplus rises as well: both report values weakly increase, at least one strictly, and the segment between the initial values and $(b^*, b^*)$ lies in the covered interior region, where Proposition 5 applies. This argument establishes the complete-opening comparison without claiming that every intermediate access level improves forecasting or gross surplus.

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