Why Don't Banks Buy Fintechs? Competitive Deterrence in Credit Markets

Sonny Biswas* Kostas Koufopoulos† Anjan Thakor‡

June 17, 2026

Abstract

We develop a model to explain why banks rarely acquire fintech firms despite obvious technological synergies. When an efficient bank acquires a fintech to gain its proprietary, non-contractible screening technology, an inefficient rival can undercut the merged entity by offering unscreened loans. This credit-market competition erodes the merged entity's profitability and deters the acquisition, even when it would have generated strictly positive synergies. We characterize the conditions under which this deterrence binds and show that deterrence is stronger in higher-quality borrower pools. Instead of acquiring fintechs, banks collaborate with them to capture orthogonal synergies.

JEL codes: G21, G34, L22.

Keywords: fintech, bank–fintech collaboration, acquisition, credit markets.

*Henley Business School, University of Reading. `s.biswas@henley.ac.uk`.

†University of Sussex Business School. `k.koufopoulos@sussex.ac.uk`.

‡ECGI, FTG Fellow, and Olin Business School, Washington University in St. Louis. `thakor@wustl.edu`.

1 Introduction

Banks and fintech firms increasingly coexist in credit markets. Fintech lenders rely on data-driven screening technologies to identify creditworthy borrowers (see, e.g., Fuster et al. (2019); Di Maggio et al. (2022); Cramer et al. (2026)), while traditional banks possess monitoring capabilities (e.g., Holmström and Tirole (1997)). Despite the obvious synergies between the technological screening capabilities of fintechs and the monitoring capabilities of banks, outright acquisitions of fintech firms by banks are rare. However, bank–fintech partnerships are quite common.[1] These empirical patterns raise a natural question: why do banks rarely acquire fintechs, and what are the conditions that determine whether a bank chooses to partner with a fintech or acquire it outright?

The usual explanations for the rarity of outright acquisitions of fintechs by banks appeal to regulatory or integration frictions. We propose a more basic economic force arising from credit market competition. Acquiring the fintech changes an acquiring bank's product and this change lets a rival undercut the merged entity. This prospect of post-acquisition competition deters the bank from acquiring the fintech in the first place, even if such an acquisition would have generated strictly positive synergies.

Model preview. We develop a model of competition between two traditional banks and a fintech lender. The fintech screens borrowers using proprietary technology and lends only following a favorable signal. Traditional banks do not screen but can monitor loans after origination. Monitoring enhances borrower success probabilities at a marginal cost to the bank, and banks differ with respect to their monitoring efficiency, one being more efficient than the other.[2] If a bank acquires the fintech, positive synergies arise. The reason is that screening helps to weed out bad borrowers who are unaffected by bank monitoring, so the marginal benefit of monitoring increases as only good borrowers are funded and monitored. However, the fintech's model must be operated by the one who produced it, and the action of screening is not verifiable within the merged entity, implying that the acquiring bank must pay an informational rent to the fintech division within the merged entity to incentivize screening.

[1]Banks accounted for less than 1% of fintech acquisitions over 2013–2023 (Oliver Wyman, 2024); consistent with this, European Banking Authority (2018) documents that banks' preferred mode of engagement with fintechs is partnership rather than outright acquisition.

[2]We do not mean to suggest that banks do not screen. There are foundational theories of banking in which they do (e.g., Allen (1990); Ramakrishnan and Thakor (1984)). At the risk of oversimplification, our assumption is trying to capture the idea that fintechs are better or more specialized than banks in screening, consistent with recent empirical evidence (e.g., Janbek and Bancel (2024); Di Maggio and Yao (2021)), as well as theory papers (e.g., Gambacorta et al. (2022); Hu and Zryumov (2026)). Specifically, Buchak et al. (2018) document that 30% of the contributions to the growth of fintech and shadow banks have come from the ability of fintech lenders to provide different information-based screening than that provided by banks.

A central premise of our paper is that the fintech brings something in terms of screening to the bank-fintech relationship that the bank does not possess or wish to invest in organically. Empirical evidence supports this. Jagtiani and Lemieux (2019) use Y-14M data to document that the correlation between rating grades (assigned by fintech lenders) and FICO scores has declined from about 80% in 2007 to about 35% in 2014. This implies that a fintech's non-contractible screening technology provides information that is distinct from traditional banking criteria.

Our main result is that the prospect of post-acquisition competition within the traditional banking sector (as opposed to competition in the market for corporate control), combined with the informational rent paid to the fintech division, can deter efficient acquisitions. Suppose that the efficient bank acquires the fintech. The acquisition gives it the technology to screen all applicants, but borrowers who do not know their type and anticipate that they might be rejected under screening can instead seek unconditional credit from the less efficient standalone rival. Anticipating this competitive response, the efficient bank forgoes the fintech acquisition even when the joint surplus from combining screening and monitoring would have been positive.

The mechanism has two ingredients. First, post-acquisition screening lowers the probability that a borrower will receive credit, so the fear of possible rejection may cause borrowers to gravitate to the less efficient standalone rival bank. Second, the informational rent paid by the acquiring bank to the fintech further erodes the acquiring bank's margin. Absent the rent (that is, if screening were contractible), credit-market competition shrinks but never eliminates the acquisition gain. While the rent paid by the bank may not by itself deter acquisition, it does so when combined with competitive pressure from the rival bank.

Our base model makes some stark assumptions for modeling simplicity and to highlight the core intuition in a transparent way. This raises an obvious question of robustness, which we address by considering several extensions:

First, we append the model with a second cohort of borrowers who are observably distinct from the baseline borrowers but of lower pool quality. The fintech is the sole feasible lender for this cohort, even though these borrowers also benefit from bank monitoring. The fintech screens applicants and, upon approval, it refers them to the efficient bank for monitoring. The bank and the fintech split the monitoring surplus. The two parties thus remain separate on the baseline borrowers but collaborate on the second cohort. This arrangement reflects practice:

For example, LendingClub operates a consumer lending platform that heavily utilizes alternative data and machine learning algorithms to screen applicants. In its historical marketplace model, LendingClub provided the proprietary risk-assessment and screening technology, while WebBank (an FDIC-insured traditional state-chartered bank) officially originated and funded the approved loans. Another example is Up-start, a fintech start-up that screens borrowers using proprietary and non-contractible AI models. It refers approved borrowers to traditional banks and credit union partners. The banks use their low cost of capital and traditional monitoring advantages to fund these loans, reflecting the structure of our model. Finally, Fundera is a fintech screening platform for SME loans that refers approved borrowers to traditional lending institutions in exchange for a fee.[3]

Second, we consider the case in which the merged entity may sidestep the deterrence by acquiring the fintech and shutting down its screening technology – a killer acquisition that removes the fintech as a competitor without realizing any synergy. We show that such acquisitions would arise in equilibrium for a subset of parameters (when the average quality of the borrower pool is low), but they leave net social surplus unchanged while transferring surplus from borrowers to the merged entity. For this reason, we believe that antitrust review would block them, restoring the deterrence region. However, we also acknowledge that antitrust enforcement is imperfect and provide an analysis of the consequences of some killer acquisitions successfully bypassing regulators.

Third, the baseline model assumes that borrowers do not know their type. We show that the results go through qualitatively provided borrowers' private signals about their type are sufficiently noisy. With enough noise, it is still worthwhile for the bank to lend to borrowers with negative private signals, and the contract that attracts them will automatically attract those with positive private signals as well.

Fourth, we consider the fintech's decision to enter the market when entry requires a fixed sunk cost. Since the informational rent is a multiple of the marginal screening cost, the marginal cost must be large enough for the rent to cover both the marginal cost and the sunk fixed cost. But if the marginal cost is too large, acquisition becomes unprofitable for the bank and the fintech remains inactive in equilibrium. Fintech entry therefore arises only when the marginal cost of screening lies in an intermediate range.

Fifth, we assume that banks do not screen. In reality, many banks spend considerable amounts on IT and quantitative modeling. In an extension we show that if the fixed cost of developing a screening technology from scratch is high enough, it may exceed the fintech's entry cost. Thus, our model should be viewed as examining a bank's decision to either *invest more* in screening or buy a fintech.

Finally, we consider the case where both the efficient and the inefficient banks are credible acquirers. The efficient bank now faces not only post-acquisition competition in the credit market but also competition in the market for corporate control. This changes how the surplus is split and the fintech captures a part of it. However, the

[3]Note that when we say "fintech", we are referring to the kinds of relatively small fintech firms that are potential acquisition targets for banks, not large BigTech firms like, say, the Ant Group.

acquisition and no-acquisition regions remain unchanged.

Empirical Implications. Our model generates several new and testable empirical predictions. First, outright acquisitions arise in concentrated banking markets, whereas partnerships between banks and fintechs arise in competitive markets. This is a novel prediction of the model that remains to be tested, but we allude to some existing evidence that suggests that this prediction may find support in the data. Second, acquisitions are more likely between highly differentiated banks and fintechs in low-quality credit markets, controlling for the degree of interbank competition. Third, controlling for competition and bank heterogeneity, efficient banks with very low monitoring costs prefer to remain standalone rather than acquire fintechs. Fourth, acquisitions become less attractive as borrower pool quality improves. Fifth, the competitive deterrence effect strengthens as borrower pool quality improves. Finally, fintech targets with lower screening costs command higher acquisition premia, since low screening costs make the inefficient bank a credible bidder as well, and competition between the two banks in the market for corporate control transfers a part of the surplus to the fintech. In Section 6 we discuss these predictions and indicate which have existing empirical support.

Related Literature. Numerous papers consider credit market competition between traditional lenders and non-bank lenders (see, e.g., Donaldson et al. (2021); De Roure et al. (2022); He et al. (2023); Thakor and Merton (2024); He et al. (2025); Vives and Ye (2025a,b); Huang (2025); Li and Pegoraro (2026)). But these papers do not consider the bank's decision to acquire the fintech, which is our focus.

Hu and Zryumov (2026) consider a model in which banks and fintechs compete or collaborate depending on exogenous parameters. In their setting, banks may form partnerships with fintechs by providing them funds, but they do not allow for outright acquisition of fintechs by banks. Hence, although an acquisition would be efficient in their setting, the model is silent on why such acquisitions are rare. In our model also, acquisitions are socially valuable, but the problem is that they are not privately optimal for the bank. This means banks may forgo these socially valuable opportunities and pursue collaborations with fintechs instead.

We also contribute to the literature on takeovers and M&As. In existing models (see, e.g., Bradley et al. (1988); Fishman (1988, 1989); Bulow and Klemperer (1996); Bulow et al. (1999); Hoffmann and Vladimirov (2025)), when multiple bidders compete in the market for corporate control, the target gains bargaining power and captures a larger share of the surplus, but value-enhancing mergers still take place – the acquirer and the target compete over a fixed surplus.

By contrast, we consider competition in the product market – specifically the credit market. Even when the efficient bank is the only credible acquirer – the rival does not bid for the target but offers an alternative product (unscreened loans) to borrowers – the prospect of post-acquisition competition against the rival bank deters acquisition. The synergy captured by the merged entity is therefore not fixed, but it depends on the degree of product-market competition. When parameters are such that the inefficient bank is also a credible bidder, the usual surplus-reallocation effect reappears, but the credit-market deterrence effect is unchanged, and the acquisition region is unaffected.

Product market competition also deters acquisitions in Salant et al. (1983) and Farrell and Shapiro (1990), where outsiders expand output in response to a merger. In those settings, deterrence operates through output expansion in a homogeneous good. In contrast, the outsider's competitive advantage in our model comes from product differentiation generated by the merger itself, not from output expansion in a homogeneous good.

The rest of the paper is organized as follows: Section 2 develops the model. Section 3 has an analysis of the base model. Section 4 examines extensions. Section 5 provides a numerical illustration. Section 6 discusses empirical implications. Section 7 concludes. All proofs are in the Appendix.

2 Model

2.1 Set-up

There are three dates: $t = 0, 1, 2$. The economy is populated by three types of agents: two traditional banks, a fintech firm, and a continuum of borrowers. The banks and the fintech have endowments of 1 unit, while the borrowers are penniless. All agents are risk-neutral and there is no time discounting.

Borrowers. Borrowers have a unit mass, and each borrower owns a project. Borrowers seek one unit of funding to invest in their project. A project produces X if it succeeds and 0 if it fails. Good projects succeed with probability $p_g \in (0, 1)$ and bad projects succeed with probability $p_b \in (0, p_g)$. A fraction α of the projects are good and $1 - \alpha$ are bad. Borrowers themselves do not know their project type.[4]

Traditional Banks. Traditional banks can monitor loans. By forming relationships with borrowers, they can increase the success probability of a good project from p_g to $p_g + \delta$, where $\delta < 1 - p_g$. Monitoring does not affect the success probability of bad

[4]In Section 4.4, we relax this assumption. The results go through provided that a borrower's private information is sufficiently noisy.

projects.[5] Banks are denoted by $i \in \{1,2\}$; monitoring entails a per-borrower cost c_i; and $c_1 < c_2$, so Bank 1 is a more efficient monitor than Bank 2. As we will see, Bank 2 will be inactive in equilibrium: since $0 < c_1 < c_2$, Bank 1 will always be able to undercut Bank 2 and win all borrowers. However, the presence of Bank 2 affects Bank 1's decision on whether or not to acquire the fintech firm.

Define the expected success probability of a borrower under unconditional monitored lending as:

$$Q(\alpha) \equiv \alpha(p_g + \delta) + (1 - \alpha)p_b \tag{1}$$

where α is the probability that the project is good, in which case monitoring raises the success probability to $p_g + \delta$, and $1 - \alpha$ is the probability it is bad, in which case monitoring has no effect and the project succeeds with probability p_b.

Fintech. The fintech owns a screening technology which operates at a constant marginal cost of $f \geq 0$ per evaluation. We interpret f as the cost of the ongoing investments – in data access and in the scarce, skilled human capital required to operate the model – that keep the technology informative. If f is incurred, screening produces a perfectly informative signal: a favorable signal indicates that the borrower is good and an unfavorable signal indicates that the borrower is bad. If f is not incurred, screening is uninformative and prior beliefs are unchanged.

Suppose that a bank acquires the fintech. The act of screening is not verifiable to third parties, so it must be incentive compatible for the fintech to incur the cost. Following Holmström and Tirole (1997), we assume that project outcomes are perfectly correlated, which prevents the law of large numbers from revealing the quality of the funded pool ex post. We make this assumption to simplify the analysis; the results are qualitatively sustained if there is imperfect correlation. Such correlation may arise, for instance, when lenders specialize in common industry or geography (see, e.g., Blickle et al. (2026)).

Moreover, the technology can only be operated by its developer – the skill required to run the model is prohibitively costly to acquire for anyone who did not build it. The associated human capital is therefore inalienable – any acquisition of the fintech by a bank necessarily brings the developer along with it, and the bank delegates screening to her. We take this inalienability as a primitive. In practice, it reflects the tacit-knowledge and relational frictions that make key technical personnel effectively irreplaceable in knowledge-intensive acquisitions (see Hart and Moore (1994) on the inalienability of human capital, and Hart and Holmström (2010) on integration with

[5] The results are qualitatively unaffected as long as monitored bad projects are negative-NPV so that screening them out is always valuable. Absent this assumption, screening would be meaningless.

delegation). This pattern is pervasive in technology-sector M&As: Coyle and Polsky (2013) document the ”acqui-hire” phenomenon, in which the principal motive for acquisition is hiring the target firm’s technical talent rather than acquiring its product, and Beaumont et al. (2025) show that firms entering unfamiliar business areas through acquisition typically do so to obtain operational human capital rather than develop it from scratch.

One might object that some algorithmic screening tools – for example, standardized credit scoring models and codified ML pipelines – are partially transferable, which attenuates the problem. The ongoing effort needed to keep a model informative, however – data curation, retraining, feature engineering, and judgement on edge cases – remains difficult to verify, so the residual non-contractibility that we model remains.

Foundational support for our assumption that fintech human capital is both essential and non-contractible can also be found in the computer science (especially artificial intelligence) literature that highlights the ”black box” nature of machine learning and the rapid decay of algorithmic efficiency. Bathaee (2018) points out that because advanced machine learning and deep learning models do not rely on pre-programmed heuristics, their exact internal decision-making processes cannot be codified in advance. This justifies our assumption that the screening mechanism is inherently non-contractible.[6]

2.2 Parametric Restrictions.

We make the following parametric assumptions:

Assumption 1 $Q(\alpha)X - c_2 > 1 > [\alpha p_g + (1-\alpha)p_b]X$

A1 requires that unconditional monitored lending is profitable for Bank 2, and hence also for Bank 1, but unconditional unmonitored lending is unprofitable. This implies that monitoring is positive-NPV for both banks. By A1, the bounds on α are:

$$\underbrace{\frac{1 + c_2 - p_b X}{(p_g + \delta)X - p_b X}}_{\underline{\alpha}} < \alpha < \underbrace{\frac{1 - p_b X}{(p_g - p_b)X}}_{\bar{\alpha}} \tag{2}$$

The interval $(\underline{\alpha}, \bar{\alpha})$ is non-empty when the benefit of monitoring exceeds the cost sufficiently. This condition is assumed to hold throughout.

Assumption 2 $p_g X > 1 > p_b X$

[6]Gama et al. (2014) examine ”concept drift” (model decay) which involves intertemporal changes in statistical properties of a target variable that render static predictive models obsolete and require continuous feature engineering to maintain the predictive efficiency of the algorithm. In the context of our model, this implies that the algorithm is not a ”set-it-and-forget-it” verifiable tool. Rather, it requires ongoing, unobservable human curation, necessitating fintech human capital.

Assumption 3 $(1 + c_1 - p_b X) - \underline{\alpha}(\delta X + 1 - p_b X) < f < \alpha(p_g X - 1)$

A2 requires that lending to a good borrower is profitable, $p_g X > 1$, while lending to a bad borrower is not, $p_b X < 1$. The right inequality of A3 ensures that fintech screening is profitable, making it a viable standalone lender. The left inequality of A3 ensures that standalone Bank 1 generates greater surplus than the standalone fintech for the lowest feasible α (and hence also for a higher α). We relax this assumption in Section 4.8; our results go through as long as there exist *some* feasible α for which Bank 1 generates greater surplus than the standalone fintech.

Assumption 4 $f > \frac{(1-\alpha)(p_g+\delta-p_b)}{p_g+\delta}\left[(1-\alpha)(1+c_2-p_b X) - (c_2 - c_1)\right] \equiv \hat{f}$

Assumption A4 ensures that Bank 2 cannot profitably acquire the fintech when Bank 1 remains standalone. We show in Section 4.7 that this assumption is unimportant for the main results. Relaxing it only affects the split of the surplus.

Lemma 1 *Given Assumptions A1–A3,* $f < (1-\alpha)(1 + c_1 - p_b X)$.

2.3 The Game

We consider the following game:

Stage 0 (Acquisition at $t = 0$). Banks submit simultaneous sealed bids. If both banks bid, the fintech accepts the higher bid; if bids are equal, the fintech chooses Bank 1. If only one bank bids, it makes a take-it-or-leave-it offer at the lowest price consistent with both the fintech's reservation value and its incentive-compatibility constraint.[7]

Stage 1 (Offers at $t = 1$). Each lender publicly announces the required promised repayment R, which is paid by the borrower upon project success. Within the merged entity, the fintech division privately chooses whether to incur the screening cost f. If the fintech does not incur f, it may still reject applicants at any rate of its choosing, but approvals are uninformative about borrower type.

Stage 2 (Applications and lending). Each borrower applies to at most one lender.[8] A standalone bank funds all applicants and monitors their projects. The fintech or the merged entity extends credit only to applicants who receive a favorable screening

[7] Surplus-sharing would enlarge the deterrence region; assigning the full bargaining power to the bank therefore stacks the assumptions against our result.

[8] We assume that loan applications are observable, which may be justified by spikes in credit scores when lenders pull applicant data. Consequently, if a borrower applies to a lender, the lender would know whether the borrower had previously been denied credit and would update its beliefs about the borrower's type accordingly. Even with unobservable applications, the results are unaffected.

signal; the merged entity additionally monitors funded projects. The banking division within the merged entity observes the aggregate approval rate but not whether screening has occurred.[9]

Stage 3 (Repayment at $t = 2$). Funded projects are realized. Borrowers repay R if the project succeeds; otherwise, the lender receives zero.

The equilibrium concept we use is subgame perfection. We solve for the subgame perfect Nash equilibrium by backward induction.

3 Analysis

3.1 Benchmark 1: First Best

In this section, we state the first-best outcome which assumes that fintech screening is observable and verifiable.

Lemma 2 *In the first-best allocation, the fintech screens borrowers and approves loans only if screening produces a favorable signal. Bank 1 then monitors these approved loans. The net social surplus NSS at this allocation is:*

$$NSS^{FB} = \alpha[(p_g + \delta)X - 1 - c_1] - f \tag{3}$$

3.2 Fintech Break-even Rate

If borrowers seek credit from the fintech at promised repayment R_f, only good borrowers (fraction α) receive a favorable signal and are funded; each succeeds with probability p_g. The fintech's expected profit is:

$$\Pi_f = \alpha(p_g R_f - 1) - f \tag{4}$$

The fintech incurs the screening cost for each borrower since granting a loan unconditionally is loss-making for the fintech (by A1). A fraction α of borrowers generate a favorable signal and obtain funding. The promised repayment for which the fintech just breaks even is obtained by setting $\Pi_f = 0$:

$$R_f = \frac{\alpha + f}{\alpha p_g} \equiv \tilde{R}_f \tag{5}$$

[9] We adopt the tie-breaking rule that an indifferent borrower chooses Bank 1, whether it operates as a standalone or as part of the merged entity, over any other lender.

At this break-even rate, the borrower's expected profit when borrowing from the fintech is:

$$V_f = \alpha p_g(X - \tilde{R}_f) = \alpha(p_g X - 1) - f \tag{6}$$

A borrower turns out to be good with probability α, in which case it obtains a loan and the project succeeds with probability p_g.

3.3 Bank Break-even Rate

If borrowers seek credit from Bank i at a promised repayment R_i, all borrowers are funded and monitored, and the average success probability is $Q(\alpha)$. Bank i's expected profit is:

$$\Pi_i = Q(\alpha)R_i - 1 - c_i \tag{7}$$

The promised repayment for which Bank i just breaks even is obtained by setting $\Pi_i = 0$:

$$R_i = \frac{1 + c_i}{Q(\alpha)} \equiv \tilde{R}_i \tag{8}$$

At this break-even rate, the borrower's expected profit when borrowing from Bank i is:

$$V_i = Q(\alpha)(X - \tilde{R}_i) = Q(\alpha)X - 1 - c_i \tag{9}$$

A borrower obtains the loan unconditionally and is monitored by the bank. So, the average success probability is $Q(\alpha)$. Since $c_1 < c_2$, Bank 1 offers a strictly higher borrower surplus than Bank 2 at their respective break-even rates, $V_1 > V_2$, and can always undercut it. Bank 1 and Bank 2 offer the same product – unscreened, monitored loans – so Bank 1 wins all borrowers by offering a marginally lower repayment.

The comparison between Bank 1 and the fintech is less straightforward since they offer distinct products. Bank 1 lends unconditionally – even a borrower with a bad project receives funding and succeeds with probability $p_b > 0$, while a good project benefits from the monitoring enhancement δ. The fintech screens first and lends only following a favorable signal, but the resulting loan pool is of higher quality, which is reflected in a potentially lower promised repayment. A borrower, unaware of her type, therefore faces a trade-off between the unconditional access offered by Bank 1 (along with the associated monitoring enhancement for the good borrowers) and the potentially lower repayment offered by the fintech. The bank may attract borrowers even if $R_i > R_f$. The condition $V_1 > V_f$, ensured by the left inequality of A3, guarantees that Bank 1's offer yields a higher expected payoff, so Bank 1 can always undercut the fintech as well.

Lemma 3 *Bank 1 can always undercut Bank 2, and given A3, it can also undercut the fintech.*

We relax A3 in Section 4.8.

3.4 Acquisition Price

In this section, we derive the payment a bank must make to acquire the fintech and form a merged entity.[10]

Incentive Compatibility. Within any merged entity, the acquiring bank offers a success-contingent payment ρ to the fintech division for each approved loan. Since screening is neither observable nor verifiable, the fintech cannot be contractually obligated to screen. The fintech division screens only if it is incentive compatible to do so. The fintech's incentive compatibility (IC) constraint is:

$$\alpha(p_g + \delta)\rho - f \;\geq\; \alpha\big[\underbrace{\alpha(p_g + \delta) + (1-\alpha)p_b}_{Q(\alpha)}\big]\rho \tag{10}$$

The left-hand side is the expected payoff under screening, net of cost f. The right-hand side is the payoff under optimal deviation: forgo screening and randomly approve a fraction α of applicants, mimicking the approval rate that genuine screening would produce. This is the binding deviation because the banking division observes the aggregate approval rate but not whether screening occurred; any deviation from rate α would be detected. Rearranging the IC constraint:

$$\rho \;\geq\; \frac{f}{\alpha(1-\alpha)(p_g + \delta - p_b)} \equiv \rho^* \tag{11}$$

The acquiring bank minimizes ρ subject to incentive compatibility, so $\rho = \rho^*$.

The standalone fintech puts up the unit of funding itself and does not share with any other party the repayment on successful loans. If it forgoes screening and approves randomly, it funds the full mass of borrowers, and for any $R \leq X$ (the limited

[10]We assume that the upfront acquisition price paid by the acquiring bank to the fintech is (weakly) positive. This can be microfounded by introducing unobserved bank heterogeneity. Suppose a fraction of banks are "bad" types whose monitoring is value-destructive (the borrower fails with probability 1) and who would abscond with any funds received. If bad banks are sufficiently numerous, the fintech would expect to lose any transfer with high probability and so refuses a negative price. A weakly positive price, in turn, keeps bad banks out, since they cannot generate returns to cover it. This restriction does not affect any other mechanics of the model.

liability constraint) its expected payoff is $[\alpha p_g + (1-\alpha)p_b]R - 1$, which is strictly negative by A1. This means that the fintech finds the screening cost worth incurring (for some feasible R which allows the fintech to break even). Post-acquisition, the fintech division shares the loan repayment with the banking division – it receives ρ when an approved loan succeeds, and nothing if it defaults. The banking division provides the funding and thus suffers a loss when the loan defaults. Avoiding incurring the screening cost and approving at rate α yields the fintech division a strictly positive expected payoff of $\alpha Q(\alpha)\rho$, which is precisely the deviation that makes the IC constraint bind. Acquisition separates the screening decision from the funding decision. Since screening effort is unobservable and depends on scarce human capital that is essential to operating the model, this separation generates the informational rent.

The expected payment to the fintech division is:

$$\alpha(p_g + \delta)\rho^* = \frac{(p_g+\delta)f}{(1-\alpha)(p_g+\delta-p_b)} \equiv \Psi \tag{12}$$

Note that this expression depends only on primitives and does not depend on the identity of the acquiring bank or on the fintech's reservation value.

Lemma 4 *Within a merged entity, the bank must pay a strictly positive informational rent, $\Psi - f > 0$, to induce the fintech to incur the screening cost f. The informational rent is increasing in the borrower pool quality, α.*

Imperfect Correlation. We assume that projects are perfectly correlated, which disables the law of large numbers: the bank cannot use the realized aggregate success rate to infer whether screening occurred. Following Ramakrishnan and Thakor (1991), suppose instead that outcomes are imperfectly correlated, with pairwise correlation $r \in [0,1)$. The bank then chooses between the incentive payment Ψ derived above and a signal-based payment, say $\Psi_s(r)$, using whichever is cheaper. The signal sharpens as the correlation falls, so $\Psi_s(r)$ is monotonically increasing in r. At $r = 0$ the law of large numbers detects screening perfectly, so $\Psi_s(0) = f$ and no rent is paid. As $r \to 1$, the signal becomes useless and $\Psi_s(r)$ is unbounded. Since the incentive payment Ψ is independent of r, there exists $\bar{r} \in (0,1)$ satisfying $\Psi_s(\bar{r}) = \Psi$. The bank pays $\min\{\Psi, \Psi_s(r)\}$ to the fintech. So, the rent equals the baseline $\Psi - f$ for $r \geq \bar{r}$, becoming $\Psi_s(r) - f$ for $r < \bar{r}$, which shrinks as r falls, and the rent vanishes at $r \to 0$. Thus, when the correlation is high (the empirically relevant case; see Blickle et al. (2026)), the signal is too noisy and the rent is $\Psi - f$.

We now use Ψ to show that Bank 2 is not a credible acquirer, given Assumption A4 (which we relax later on). Suppose Bank 2 acquires the fintech. The merged entity screens borrowers and funds only those that obtain favorable signals from the fintech division. Bank 1 remains active with unconditional lending. By A1, Bank 1 can always break even unconditionally for all $\alpha \geq \underline{\alpha}$. For merged Bank 2 to attract any borrowers it must match Bank 1's break-even payoff $V_1 = Q(\alpha)X - (1 + c_1)$; the corresponding rate R_{2m} satisfies:

$$\alpha(p_g + \delta)(X - R_{2m}) = Q(\alpha)X - (1 + c_1) \tag{13}$$

$$\implies R_{2m} = \frac{(1 + c_1) - (1 - \alpha)p_b X}{\alpha(p_g + \delta)} \tag{14}$$

Net of the informational rent due to the fintech division, Bank 2's part of the expected profit of the merged entity is $\Pi_2^{Acq} = \alpha[(p_g + \delta)R_{2m} - 1 - c_2] - \Psi$. Substituting R_{2m}:

$$\Pi_2^{Acq} = (c_1 - c_2) + (1 - \alpha)(1 + c_2 - p_b X) - \Psi \tag{15}$$

$\Pi_2^{Acq} \geq 0$ if and only if $f \leq \hat{f}$.

Proposition 1 *Suppose Bank 1 does not acquire the fintech firm. Given Assumption A4, Bank 2 cannot profitably acquire the fintech.*

Assumption A4 rules out the scenario in which the inefficient bank becomes a credible acquirer. We show in Section 4.7 that relaxing A4 affects only the split of the surplus, not the main results.

Fintech's Reservation Price. By Lemma 3, Bank 1 profitably undercuts the fintech in the standalone market, so the fintech earns zero as an independent lender. By Proposition 1, Bank 2 will not bid for the fintech. With no competing bidder and no standalone profit, the fintech's reservation value is 0. The fintech's participation constraint is therefore:

$$\alpha(p_g + \delta)\rho - f \geq 0 \tag{16}$$

This is strictly weaker than the IC constraint derived above. Since $\rho = \rho^*$ satisfies incentive compatibility, the participation constraint is slack, and the total expected payment from the banking division to the fintech division is Ψ. To implement this allocation, Bank 1 could offer the fintech a fraction γ of the merged entity's gross revenue: $\gamma\alpha(p_g + \delta)R = \Psi$. Equivalently, any success-contingent claim – including equity earn-outs or performance-linked bonuses – that delivers the same expected payment Ψ satisfies the IC constraint with equality and yields an identical outcome. The fintech's original owner stays on as a manager to operate the screening technology.

3.5 Benchmark: No Bank 2

Suppose that $c_2 = \infty$: it is prohibitively costly for Bank 2 to monitor, and Bank 1 faces no competitive threat from Bank 2. If Bank 1 acquires the fintech firm, borrowers must obtain loans from the merged entity. In the absence of competition from Bank 2, the merged entity extracts the full surplus by setting the promised repayment to $R = X$. The expected profit of the merged entity is therefore:

$$\Pi^{Acq}(c_2 = \infty) = \alpha[(p_g + \delta)X - 1 - c_1] - f. \tag{17}$$

The fintech division screens borrowers at a cost f and approves α loans, and the banking division monitors funded projects by incurring a cost c_1, increasing the success probability of each approved loan. The total expected profit $\Pi^{Acq}(c_2 = \infty)$ is shared between the bank and the fintech divisions. As noted in the previous section, the banking division must pay a positive informational rent to the fintech division to induce screening. The expected profit of the banking division, net of payments to the fintech division, is:

$$\Pi_1^{Acq}(c_2 = \infty) = \alpha[(p_g + \delta)X - 1 - c_1] - \Psi \tag{18}$$

Now, consider the case in which Bank 1 and the fintech remain independent. Bank 1 and the fintech compete for borrowers, driving down the interest rate until the fintech can no longer reduce it further, to $\tilde{R}_f$. Bank 1 sets an interest rate R_1 which makes borrowers just indifferent between borrowing from the bank and the fintech:

$$Q(\alpha)(X - R_1) = \underbrace{\alpha(p_g X - 1) - f}_{V_f(\tilde{R}_f)} \tag{19}$$

The left-hand side reflects the borrower's expected profit when she borrows from the bank. The borrower obtains the loan unconditionally since there is no screening and the bank monitors each loan. If the project succeeds and produces X, the borrower repays R_1. The right-hand side is the borrower's expected profit when she borrows from the fintech at its break-even interest rate. We solve for R_1:

$$R_1 = X - \frac{\alpha(p_g X - 1) - f}{Q(\alpha)} \equiv R_1(f) \tag{20}$$

Bank 1's profit when it does not acquire the fintech is as follows:

$$\Pi_1^{\text{Standalone}}(c_2 = \infty) = Q(\alpha)R_1 - 1 - c_1 \tag{21}$$

The bank makes the loan unconditionally and monitors each project but receives the promised repayment only when the project succeeds (i.e., with probability $Q(\alpha)$). Using $R_1(f)$, we obtain:

$$\Pi_1^{\text{Standalone}}(c_2 = \infty) = Q(\alpha)X - (1 + c_1) - [\alpha(p_g X - 1) - f] \tag{22}$$

Bank 1 acquires the fintech firm if the gain to itself (net of payment to the fintech division) – denoted $\mathcal{G}_{c_2=\infty} \equiv \Pi_1^{Acq}(c_2 = \infty) - \Pi_1^{\text{Standalone}}(c_2 = \infty)$ – is positive:

$$\mathcal{G}_{c_2=\infty} = (1 - \alpha)(1 + c_1 - p_b X) + \underbrace{\alpha(p_g X - 1) - f}_{V_f} - \Psi \tag{23}$$

The first term is the exclusion benefit – screening removes bad borrowers, each of whom destroys $1 + c_1 - p_b X > 0$ in value under unconditional lending. The second term, V_f, is the gain from no longer competing with the fintech once it has been acquired. The third term is the expected payment from the banking division to the fintech division.

Proposition 2 *Under no competition from Bank 2, Bank 1 acquires the fintech if $\mathcal{G}_{c_2=\infty} \geq 0$, which holds when the cost of screening is sufficiently small:*

$$f < \frac{(1 - \alpha)(p_g + \delta - p_b)\left[(1 - \alpha)(1 + c_1 - p_b X) + \alpha(p_g X - 1)\right]}{(1 - \alpha)(p_g + \delta - p_b) + (p_g + \delta)} \equiv f^* \tag{24}$$

For low c_1, f^* lies within the A3 bounds (as illustrated in Figure 1). Thus, there exist feasible parameters for which Bank 1 does not acquire the fintech despite strictly positive synergies from the merger and elimination of competition from the fintech. This occurs when the screening rent is large enough to outweigh the positive merger effects.

3.6 Standalone Equilibrium

In this section, we consider the case in which all lenders remain independent (no mergers or partnerships) and compete for borrowers. As established in Lemma 3, Bank 1 can undercut both Bank 2 and the fintech for all parameters. To determine the binding outside option for borrowers, we compare a borrower's expected profit when borrowing from the fintech at the break-even rate, V_f, to the expected profit she obtains when borrowing from Bank 2 at the break-even rate, V_2. The fintech's offer dominates if $V_f > V_2$, which holds when:

$$\alpha < \frac{1 + c_2 - p_b X - f}{\delta X + 1 - p_b X} \equiv \hat{\alpha} \tag{25}$$

Lemma 5 $\hat{\alpha} \in (\underline{\alpha}, \bar{\alpha})$ *if*

$$(\delta X + 1 - p_b X)(\bar{\alpha} - \underline{\alpha}) > (c_2 - c_1) \tag{26}$$

The cutoff $\hat{\alpha}$ captures the trade-off between screening and monitoring value. When α is low ($\alpha < \hat{\alpha}$), there are many bad projects and the fintech's ability to condition credit on a favorable signal is valuable. In this case, the fintech firm is Bank 1's relevant rival. As α rises, the pool improves and bank monitoring becomes increasingly attractive because it boosts the success probability of the growing mass of good projects via δ. Once α exceeds $\hat{\alpha}$, monitoring (even by the inefficient bank) dominates selective lending, and Bank 2 becomes Bank 1's relevant rival.

Bank 1's expected profit is: $\Pi_1 = Q(\alpha)R_1 - 1 - c_1$. To derive the promised repayment, Bank 1's offer to the borrower matches the best offer of the binding rival. Substituting the resulting R_1 into Π_1 yields the following:

Proposition 3 *Bank 1 captures borrowers for all $\alpha \geq \underline{\alpha}$ and earns:*

$$\Pi_1^{Standalone} = \begin{cases} \alpha(\delta X + 1 - p_b X) + f - (1 + c_1 - p_b X) & \text{for } \alpha \in (\underline{\alpha}, \hat{\alpha}) \\ c_2 - c_1 & \text{for } \alpha \in [\hat{\alpha}, \bar{\alpha}] \end{cases} \tag{27}$$

3.7 Bank 1 Acquires the Fintech

In this section, we consider Bank 1's decision to acquire the fintech firm. Unlike Section 3.5, the merged entity faces competitive pressure from the standalone Bank 2.

Suppose that Bank 1 acquires the fintech firm. The merged entity screens all borrowers and funds and monitors only those that obtain favorable signals from the fintech division. Because screening is neither observable nor verifiable, the banking division must pay an expected fee Ψ to induce the fintech division to screen. As established in Lemma 4, the informational rent $\Psi - f$ is strictly positive for all parameter values.

With promised repayment R_m, the banking division's expected profit, net of the payment to the fintech division, is:

$$\Pi_1^{Acq} = \alpha(p_g + \delta)R_m - \alpha(1 + c_1) - \Psi \tag{28}$$

By A1, Bank 2 can always break even by providing unconditional monitored lending, and hence it competes against the merged entity. The merged entity must match the expected payoff borrowers obtain when they borrow from Bank 2 at its break-even rate, $V_2 = Q(\alpha)X - (1 + c_2)$, and sets R_m satisfying $\alpha(p_g + \delta)(X - R_m) = Q(\alpha)X -$

$(1 + c_2)$. This yields:

$$R_m^* = \frac{(1 + c_2) - (1 - \alpha)p_b X}{\alpha(p_g + \delta)} \tag{29}$$

Note that the merged entity must offer a lower promised repayment to compensate borrowers who might turn out to have bad projects. Since borrowers are *a priori* unaware of their type, they forgo unconditional lending only if screened lending is cheaper (after accounting for the monitoring benefits). Substituting (29) and rearranging:

$$\Pi_1^{Acq} = (c_2 - c_1) + (1 - \alpha)(1 + c_1 - p_b X) - \Psi \tag{30}$$

The first term, $c_2 - c_1$, is the cost-advantage rent for Bank 1 because it monitors more efficiently than Bank 2. The second term, $(1 - \alpha)(1 + c_1 - p_b X)$, is the exclusion benefit – screening removes the fraction $1 - \alpha$ of bad borrowers, each of whom would have destroyed $1 + c_1 - p_b X > 0$ in value under unconditional lending. The third term, Ψ, is the total expected payment required to incentivize the fintech division to screen. The informational rent embedded in Ψ reduces the banking division's profit from acquisition.

Turning to Bank 1's decision on whether to acquire the fintech or remain standalone, there are two cases to consider: when $\alpha < \hat{\alpha}$, Bank 1's relevant rival is the fintech, and when $\alpha \geq \hat{\alpha}$, Bank 1's relevant rival is Bank 2.

Case 1: $\alpha < \hat{\alpha}$. In this region, the fintech is the binding outside option and $\Pi_1^{\text{Standalone}} = \alpha(\delta X + 1 - p_b X) + f - (1 + c_1 - p_b X)$ (Proposition 3). Using (30), the acquisition gain (denoted $\mathcal{G}_{B2} = \Pi_1^{Acq} - \Pi_1^{\text{Standalone}}$) is:

$$\mathcal{G}_{B2}\big|_{\alpha<\hat{\alpha}} = (c_2 - c_1) + (2 - \alpha)(1 + c_1 - p_b X) - \alpha(\delta X + 1 - p_b X) - f - \Psi \tag{31}$$

Since both f and Ψ are proportional to f, the gain is linear and strictly decreasing in f. Setting $\mathcal{G}_{B2} = 0$ and solving for the screening cost, Bank 1 acquires the fintech if and only if $f < f_1^{**}$, where:

$$f_1^{**} \equiv \frac{(1 - \alpha)(p_g + \delta - p_b)\left[(c_2 - c_1) + (2 - \alpha)(1 + c_1 - p_b X) - \alpha(\delta X + 1 - p_b X)\right]}{(1 - \alpha)(p_g + \delta - p_b) + (p_g + \delta)} \tag{32}$$

Case 2: $\alpha \geq \hat{\alpha}$**.** In this region, Bank 2 is the binding outside option and $\Pi_1^{\text{Standalone}} = c_2 - c_1$. Using (30), the acquisition gain is:

$$\mathcal{G}_{B2}\big|_{\alpha \geq \hat{\alpha}} = (1-\alpha)(1 + c_1 - p_b X) - \Psi \tag{33}$$

The gain is again linear and strictly decreasing in f (through Ψ). Setting $\mathcal{G}_{B2} = 0$ and solving, Bank 1 acquires the fintech if and only if $f < f_2^{**}$, where:

$$f_2^{**} \equiv \frac{(1-\alpha)^2(1 + c_1 - p_b X)(p_g + \delta - p_b)}{p_g + \delta} \tag{34}$$

Observe that if screening were verifiable ($\Psi = f$, so the informational rent $\Psi - f$ is zero), the gain in (33) would reduce to $(1-\alpha)(1 + c_1 - p_b X) - f > 0$ and an acquisition would always be profitable in this region. The inequality holds by Lemma 1. It is the informational rent that can reverse the sign. Specifically, the banking division of the merged entity keeps $(p_g + \delta)(R_m^* - \rho) - (1 + c_1)$ per approved loan, and this margin turns negative when ρ is sufficiently large. The standalone bank avoids this cost entirely – it does not screen and therefore pays no rent – while still earning $c_2 - c_1 > 0$ by pricing against Bank 2.

Proposition 4 *Under competition from Bank 2, Bank 1 acquires the fintech if and only if the screening cost is sufficiently small, $f < f^{**}$, where:*

$$f^{**} \equiv \begin{cases} f_1^{**} & \text{for } \alpha \in [\underline{\alpha}, \hat{\alpha}) \\ f_2^{**} & \text{for } \alpha \in [\hat{\alpha}, \bar{\alpha}] \end{cases} \tag{35}$$

3.8 Competition Deters Acquisition

In this section, we contrast Bank 1's decision to acquire the fintech when facing competition from Bank 2 with the benchmark without Bank 2.

We present our main result in the proposition below:

Proposition 5 *Competition from Bank 2 strictly shrinks the acquisition region for all parameters satisfying Assumptions A1–A4: $f^{**} < f^*$. There exist parameters such that competition deters acquisition, so that $\mathcal{G}_{c_2=\infty} > 0 > \mathcal{G}_{B2}$.*

The economic mechanism underlying this result consists of the combined effects of competition and informational rents. If screening were verifiable ($\Psi = f$), Bank 2's presence would reduce the acquisition gain but could never eliminate it entirely, so Bank 1 would always acquire. The informational rent changes this conclusion. Under acquisition, the banking division must pay $\Psi > f$ to induce the fintech division to screen, a rent that a standalone bank never pays. When Bank 2 is absent, the merged entity sets $R = X$ and captures the full surplus, which can absorb the rent. In this case, the screening-cost threshold is f^*. When Bank 2 is present, the merged entity must match Bank 2's unconditional offer, compressing its revenue while the magnitude of the informational rent due to the fintech division is unaffected – the threshold falls to f^{**} (f_1^{**} for $\alpha \in [\underline{\alpha}, \hat{\alpha})$ and f_2^{**} for $\alpha \in [\hat{\alpha}, \bar{\alpha}]$). Thus, for $f \in (f^{**}, f^*)$, acquisition is privately profitable absent Bank 2 even after taking into account the informational rent, but unprofitable with Bank 2. That is, competition deters a socially desirable acquisition.

4 Extensions

4.1 Collaboration

Our baseline model explains why banks rarely acquire fintechs. We now turn to the choice of collaboration. The evidence indicates that banks and fintechs frequently collaborate, partnering on specific borrower segments while maintaining independent operations in their core portfolios. To match this pattern, suppose there exists a second cohort of borrowers (Cohort 2) identical to borrowers in the baseline model (Cohort 1) in all respects except pool quality, which is lower: $\alpha_2 < \alpha$. Unlike Cohort 1, unconditional monitored lending to Cohort 2 is also unprofitable, $Q(\alpha_2)X - c_1 < 1$. Screened lending, however, generates positive surplus: $\alpha_2(p_g X - 1) - f > 0$.

The fintech is the sole feasible lender to this cohort and earns monopoly profits $\alpha_2(p_g X - 1) - f > 0$ per applicant as a standalone lender. If Bank 1 monitors Cohort 2's screened borrowers, the surplus increases by $\alpha_2(\delta X - c_1)$ per applicant, and it is shared between the two parties according to bargaining power $\eta \in (0, 1]$. The fintech obtains $\eta\alpha_2(\delta X - c_1)$ in addition to $\alpha_2(p_g X - 1) - f$.

Participation. The fintech's participation constraint in the collaboration arrangement is given as follows:

$$\alpha_2(p_g X - 1) - f + \eta\alpha_2(\delta X - c_1) > \alpha_2(p_g X - 1) - f \tag{36}$$

The fintech is the sole feasible lender to Cohort 2. Absent collaboration, the fintech serves this cohort independently and retains the full surplus, which is strictly positive. Under collaboration, it obtains a fraction of the surplus enhancement due to monitoring, which is also strictly positive, since $\delta X > c_1$ by A1 and $\eta > 0$. Thus, the fintech's participation constraint is always satisfied.

Incentive Compatibility. The fintech's IC constraint on Cohort 2 is:

$$\alpha_2(p_g X - 1) - f + \eta\alpha_2(\delta X - c_1) \;>\; \alpha_2\left[(\alpha_2 p_g + (1-\alpha_2)p_b)X - 1\right] + \eta\alpha_2(\alpha_2\delta X - c_1) \tag{37}$$

The left-hand side is the fintech's expected profit from screening: it retains the full selection gain on funded loans and captures a share η of the monitoring gain. The right-hand side is the expected profit from forgoing screening (and saving the cost f) and unconditionally approving a random fraction α_2 of applicants. All approved borrowers are monitored but only a fraction α_2 of these approvals are good borrowers who benefit from the monitoring enhancement and the fintech obtains a fraction η of the monitoring surplus.

The constraint is slack term-by-term. On the screening side (the LHS), $\alpha_2(p_g X - 1) - f$ is strictly positive by the assumption that screened lending is profitable, whereas its counterpart on the no-screening side, $\alpha_2[(\alpha_2 p_g + (1-\alpha_2)p_b)X - 1]$, is strictly negative since unscreened, unmonitored lending is unprofitable. The monitoring-uplift term $\eta\alpha_2(\delta X - c_1)$ likewise exceeds its counterpart $\eta\alpha_2(\alpha_2\delta X - c_1)$ for any $\eta > 0$, since $\alpha_2 < 1$ and $\delta X > c_1$ by A1. Screening is therefore incentive compatible without an additional rent, because the fintech internalizes the full selection gain.

The absence of an informational rent on Cohort 2 reflects the fact that the fintech retains the full selection gain on this cohort. With collaboration, only the monitoring surplus enhancement is shared with the bank, and the bank cannot bypass the fintech to capture this additional surplus on its own – Cohort 2 is unprofitable under unconditional lending, so the bank is not a feasible standalone lender there. The fintech therefore does not need to be motivated with additional incentives to screen since the selection gain accrues entirely to it. On Cohort 1, by contrast, the bank is the default lender in the standalone benchmark and can profitably serve borrowers without the fintech's input. If the bank acquires the fintech, a portion of the selection gain accrues to the bank, but this comes at a cost – screening effort by the fintech division is unobservable inside the combined entity. Since the selection gain is now shared, an informational rent Ψ must be paid to the fintech to ensure that screening occurs.

Collaboration vs. Acquisition. Under collaboration, the fintech screens Cohort 2 borrowers and refers approved applicants to Bank 1 for monitoring. The two entities remain separate, so Cohort 1 borrowers have no reason to defect to Bank 2. These borrowers can obtain unconditional credit from Bank 1, which earns its standalone profit on Cohort 1. Under acquisition, by contrast, Bank 1 owns the screening technology and all the competitive dynamics of the baseline model apply. Since the Cohort 2 monitoring enhancement is identical under both structures, the comparison reduces entirely to Cohort 1. For this cohort, Bank 1 prefers collaboration whenever $\mathcal{G}_{B2} < 0$. Orthogonal synergies stemming from the monitoring enhancement on Cohort 2 may be realized through collaboration without undertaking an outright acquisition, which is privately undesirable from Bank 1's perspective due to its effect on Cohort 1.

Proposition 6 *Suppose $\mathcal{G}_{B2} < 0$. Then Bank 1 and the fintech collaborate on Cohort 2 in equilibrium. The fintech screens and refers approved borrowers to Bank 1 for monitoring, while Bank 1 serves Cohort 1 as a standalone lender. An acquisition is strictly dominated by collaboration for Bank 1.*

When $\mathcal{G}_{B2} \geq 0$, Bank 1 acquires the fintech and captures the acquisition gain, and this strictly dominates collaboration. Collaboration is therefore the unique equilibrium arrangement precisely in the region where competition from Bank 2 deters acquisition in the baseline model.

Implementation. In practice, fintechs refer screened borrowers to traditional banks, which fund the approved loans on their own books in exchange for a fee. We show that, for some parameters, such a fee-based arrangement implements the same outcome on Cohort 2 as in Proposition 6, including the surplus split derived above, even though the bank rather than the fintech now holds the loan on its books.

Consider a fee ρ paid to the fintech for each referred loan, conditional on the loan succeeding. Since screening is unobservable, the fintech screens only if it is incentive compatible to do so. Its IC constraint is:

$$\alpha_2(p_g + \delta)\rho - f \;\geq\; \alpha_2\big[\alpha_2(p_g + \delta) + (1 - \alpha_2)p_b\big]\rho \tag{38}$$

The left-hand side is the payoff from screening (approving the α_2 borrowers with favorable signals), net of the screening cost. The right-hand side is the payoff from forgoing screening and approving a fraction α_2 at random.

The fee that reproduces the surplus split derived above leaves the fintech with its value added – the full selection gain plus a share η of the monitoring surplus:

$$\alpha_2(p_g + \delta)\rho - f \;=\; \alpha_2(p_g X - 1) - f + \eta\, \alpha_2(\delta X - c_1) \tag{39}$$

which yields,

$$\rho \;=\; \frac{(p_g X - 1) + \eta(\delta X - c_1)}{p_g + \delta} \;\equiv\; \rho_{C2} \tag{40}$$

At this fee, net of its investment, the bank earns $\alpha_2(p_g + \delta)(X - \rho_{C2}) - \alpha_2(1 + c_1) = (1 - \eta)\alpha_2(\delta X - c_1) > 0$, its share of the monitoring surplus, so the split coincides with Proposition 6.

Note that ρ_{C2} is independent of f: the fintech incurs the screening cost both under collaboration and in its outside option of screening and funding on its own books, so f cancels. Substituting ρ_{C2} into (38), the IC holds if and only if:

$$f \ \leq \ \alpha_2(1-\alpha_2)(p_g+\delta-p_b)\,\rho_{C2} \ \equiv \ \bar{f} \tag{41}$$

The threshold $\bar{f}$ is strictly positive, since $\rho_{C2} > 0$, and the remaining factors are positive. Hence, for every $f \leq \bar{f}$, the success-contingent fee is large enough to leave the fintech's IC slack (or just binding when $f = \bar{f}$), and the allocation of Proposition 6 is implemented by a fee-based arrangement in which the bank issues the loan on its own books, reflecting practice.

Corollary 1 *Suppose $f \leq \bar{f}$. The efficient bank–fintech partnership can be implemented by a fee-based arrangement in which the bank issues the Cohort 2 loan on its own books and pays the fintech a success-contingent fee, ρ_{C2}.*

4.2 Killer Acquisitions

The baseline model assumes that the merged entity operates the fintech's screening technology post-acquisition. Because borrowers do not know their type, they value the unconditional access offered by Bank 2, and the merged entity must therefore offer a discount on its screened loans to retain them. Could the merged entity instead neutralize this competitive threat directly by not using the fintech's technology (killing the technology upon acquiring the fintech) and offering unscreened loans itself?

Suppose Bank 1 acquires the fintech and chooses not to operate the screening technology, in effect killing it (in the spirit of Cunningham et al. (2021)).[11] The merged entity then offers the same product as a standalone Bank 1 – unconditional monitored credit – but the fintech is no longer an independent competitor. The merged entity's only rival is Bank 2, and Bertrand competition pins its profit to the monitoring cost advantage:

$$\Pi_1^{\text{Killer}} \ = \ c_2 - c_1 \tag{42}$$

Comparing Π_1^{Killer} to the screened-acquisition profit in (30), operating the screening technology dominates killing it whenever:

$$(1-\alpha)(1+c_1-p_bX) - \Psi \ > \ 0 \tag{43}$$

which holds if and only if $f < f_2^{**}$ for any α. For larger f, the merged entity could still

[11]There are also some other somewhat similar mechanisms to "kill" the competition, such as the "pay-for-delay" contracts used in the pharmaceutical industry. See Li et al. (2025).

acquire the fintech simply to remove it as a competitor in the credit market. Since the standalone fintech is inactive in equilibrium, with a reservation price of 0, a take-it-or-leave-it offer of $\epsilon > 0$ would be accepted.

Region $\alpha \geq \hat{\alpha}$. In this region, the standalone profit equals $c_2 - c_1$ (Proposition 3), so acquiring and not screening yields strictly lower profit than remaining standalone ($c_2 - c_1 - \epsilon$). The merged entity gains nothing from owning the fintech if it does not operate the technology. Acquisition occurs in equilibrium only if screening is strictly profitable net of the informational rent, i.e., if $f < f_2^{**}$, exactly as in the baseline. Proposition 5 is unaffected.

Region $\alpha < \hat{\alpha}$. In this region, the fintech is the binding outside option for borrowers and the standalone profit $\alpha(\delta X + 1 - p_b X) + f - (1 + c_1 - p_b X)$ is strictly less than $c_2 - c_1$ (from the definition of $\alpha < \hat{\alpha}$). Acquiring and not screening is therefore strictly more profitable than remaining standalone, since the acquisition eliminates competition from the fintech. The killer-acquisition gain relative to remaining standalone is:

$$\mathcal{G}_{B2}^{\text{Killer}} = (c_2 - c_1) - [\alpha(\delta X + 1 - p_b X) + f - (1 + c_1 - p_b X)] > 0 \tag{44}$$

The acquisition is therefore always privately profitable for Bank 1 when $\alpha < \hat{\alpha}$. The acquisition profit can be either through screening when $f \leq f_2^{**}$ (capturing both the screening synergy net of the rent and the benefit from neutralizing fintech competition), or through a killer acquisition when $f > f_2^{**}$ (simply neutralizing the competitive threat of the fintech). We show in the proof of Proposition 7 that $f_2^{**} < f_1^{**}$ for $\alpha < \hat{\alpha}$. This implies that the competitive deterrence region for $\alpha < \hat{\alpha}$ is entirely eliminated.

Proposition 7 *For $\alpha < \hat{\alpha}$, the merged entity acquires for all f: it acquires and screens when $f \leq f_2^{**}$, and acquires and kills (does not screen) when $f > f_2^{**}$. For $\alpha \geq \hat{\alpha}$, the merged entity strictly prefers screening to not screening whenever screening is privately profitable, and Proposition 5 is unaffected.*

Killer acquisitions only arise for $\alpha < \hat{\alpha}$: killing is worth paying for only when removing the fintech changes who Bank 1's relevant rival is. For $\alpha < \hat{\alpha}$, the relevant rival is the fintech, so eliminating it as competition lifts the bank's profits to $c_2 - c_1$. For $\alpha \geq \hat{\alpha}$, the fintech's competitive threat is not relevant anyway.

Killer acquisitions are privately profitable for Bank 1 in the $\alpha < \hat{\alpha}$ region when $f > f_2^{**}$, but they strictly destroy social surplus relative to screened acquisitions. In the baseline, competitive deterrence arises in the $\alpha < \hat{\alpha}$ region for $f \in (f_1^{**}, f^*)$. Allowing the acquiring bank to offer unscreened loans eliminates this deterrence, since an acquisition now occurs for all f in this region, with the fintech technology being killed off for $f > f_2^{**}$. The deterrence region for $\alpha \geq \hat{\alpha}$ is unaffected.

It should be noted that antitrust reviews would scrutinize applications for such acquisitions and reject them since the merged entity does not operate the screening technology, while a competitor exits the market, transferring surplus from borrowers to the bank. Anticipating this rejection, Bank 1 does not bid, and the competitive deterrence region for $\alpha < \hat{\alpha}$ is reinstated. The model thus identifies two distinct sources of inefficiency with sharply different policy implications – (i) deterrence (under-acquisition of socially valuable targets), and (ii) killer acquisitions (over-acquisition for foreclosure). While (ii) may be directly remedied by antitrust regulation, (i) cannot.

4.3 Killer Acquisitions with Imperfect Regulatory Scrutiny

One criticism of our analysis in Section 4.2 could be that, in practice, many acquisitions fall below the Hart-Scott-Rodino reporting threshold or simply fly under the regulatory radar. In this section, we allow for imperfect antitrust enforcement and examine how the equilibrium shifts if killer acquisitions bypass regulators.

Let $\lambda \in (0, 1)$ represent the probability that a killer acquisition successfully escapes antitrust regulatory scrutiny. Let $C \geq 0$ denote the fixed compliance cost and legal costs incurred by Bank 1 to attempt an acquisition. As established above, if Bank 1 acquires the fintech and chooses to "kill" the screening technology, its profit is pinned to its monitoring cost advantage against Bank 2: $\Pi_1^{Killer} = c_2 - c_1$. When Bank 1 attempts a killer acquisition under imperfect regulation, its expected profit is:

$$E[\Pi_{Attempt}] = \lambda(c_2 - c_1) + (1 - \lambda)\Pi_1^{Standalone} - C \tag{45}$$

Equilibrium Shift Bank 1 will attempt a killer acquisition, which simplifies to:

$$\lambda \mathcal{G}_{B2}^{Killer} > C \tag{46}$$

where $\mathcal{G}_{B2}^{Killer} = (c_2 - c_1) - \Pi_1^{Standalone}$ represents the killer-acquisition gain relative to remaining standalone.

For $\alpha \geq \hat{\alpha}$, Bank 1's standalone profit already equals $c_2 - c_1$, meaning that the acquisition gain $\mathcal{G}_{B2}^{Killer}$ is exactly zero. Since $C > 0$, Bank 1 never attempts a killer acquisition in this region, and the equilibrium remains unchanged.

For $\alpha < \hat{\alpha}$ and $f > f_2^{**}$, Bank 1's standalone profit is strictly less than $c_2 - c_1$, making the killer acquisition gain strictly positive ($\mathcal{G}_{B2}^{Killer} > 0$). Under perfect regulation ($\lambda = 0$), the expected payoff is negative for any $C > 0$. The acquisition is entirely deterred, and Bank 1 voluntarily remains standalone. Under imperfect regulation ($\lambda > 0$), if regulatory scrutiny is sufficiently lax (specifically, $\lambda > \frac{C}{G_{B2}^{Killer}}$), the expected gain offsets the compliance cost. Bank 1 will formally attempt the acquisition.

Conclusion of the Shift. Introducing imperfect regulatory antitrust enforcement shifts the equilibrium by shrinking the pure deterrence region. For parameters where the screening cost f is high and $\alpha < \hat{\alpha}$, the equilibrium shifts from Bank 1 always choosing to remain standalone to a probabilistic outcome. Bank 1 attempts the acquisition: with probability λ, it successfully bypasses regulators, shuts down the fintech, and captures $c_2 - c_1$ (which reduces consumer surplus), and with probability $1 - \lambda$, the merger is blocked, forcing Bank 1 back into credit market competition against the standalone fintech.

4.4 Borrowers have Noisy Private Information

In the baseline model, we assume that borrowers are uninformed about their type. Suppose, instead, that each borrower observes a private signal $s \in \{g, b\}$ of her project's quality with precision q: $\mathbb{P}(s = g \mid \text{good}) = \mathbb{P}(s = b \mid \text{bad}) = q$. The baseline corresponds to $q = 1/2$, where the private signal is uninformative and the borrower's posterior equals the prior α. The fintech's signal remains perfectly informative. By Bayes' rule, the posteriors of the two signal types are:

$$\alpha_g \equiv \frac{q\alpha}{q\alpha + (1-q)(1-\alpha)} \tag{47}$$

$$\alpha_b \equiv \frac{(1-q)\alpha}{(1-q)\alpha + q(1-\alpha)} \tag{48}$$

with $\alpha_b < \alpha < \alpha_g$ for $q > 1/2$, and $\alpha_g, \alpha_b \to \alpha$ as $q \to 1/2$.

Bank 2 cannot observe a borrower's private signal and must offer a single rate R_2 to all applicants. We focus on the candidate equilibrium in which the merged entity attracts both signal types, leaving Bank 2 with no applicants along the path of play. Off the equilibrium path, Bank 2 prices to break even on a deviator pool of average quality α, giving $\tilde{R}_2 = (1 + c_2)/Q(\alpha)$ – the same rate as in the baseline. A type-s borrower's outside option from deviating to Bank 2 is given as follows:

$$V_2(\alpha_s) = Q(\alpha_s)(X - \tilde{R}_2) \tag{49}$$

A type-s borrower's expected surplus from the merged entity at a promised repayment R_m is $\alpha_s(p_g + \delta)(X - R_m)$. This borrower is funded only if truly good, which occurs with probability α_s. Since $\alpha_b < \alpha_g$, the bad-signal borrower faces a higher rejection risk and her expected surplus from the merged offer is strictly lower. At Bank 2, by contrast, every applicant is funded regardless of the signal, and even a borrower whose project turns out to be bad collects $X - \tilde{R}_2$ with probability p_b. This insurance is more valuable to the bad-signal borrower, who is more likely to have a bad project. Higher rejection risk at the merged entity and greater insurance value at Bank 2 are two factors that both make the merged offer relatively less attractive to the bad-signal type, whose participation constraint therefore binds.

Lemma 6 *The bad-signal borrower is the binding type for the merged entity: if the bad-signal borrower prefers the merged entity to Bank 2, the good-signal borrower does so strictly.*

The merged entity sets $R_m^{**}(q)$ such that the bad-signal borrower is indifferent between it and Bank 2:

$$\alpha_b(p_g + \delta)(X - R_m^{**}) \;=\; \underbrace{Q(\alpha_b)(X - \tilde{R}_2)}_{V_2(\alpha_b)} \tag{50}$$

yielding

$$R_m^{**}(q) \;=\; X - \frac{Q(\alpha_b)}{\alpha_b(p_g + \delta)}(X - \tilde{R}_2). \tag{51}$$

At $q = 1/2$, $\alpha_b = \alpha$, $Q(\alpha_b) = Q(\alpha)$, and $R_m^{**}(1/2) = R_m^*$, recovering the baseline rate from (29). For $q > 1/2$, $\alpha_b < \alpha$ and bad-signal borrowers are harder to retain; the merged entity must lower R_m to compensate them for the higher rejection risk, so $R_m^{**}(q) < R_m^*$. By Lemma 6, good-signal borrowers strictly prefer the merged offer at $R_m^{**}(q)$ and apply alongside bad-signal borrowers, confirming the candidate equilibrium.

Because both signal types apply to the merged entity, the average quality of the applicant pool is α, exactly as in the baseline. The fintech's IC constraint and the informational rent Ψ are unchanged. The banking division's profit, net of the rent, is

$$\Pi_1^{Acq}(q) \;=\; \alpha(p_g + \delta)R_m^{**}(q) - \alpha(1 + c_1) - \Psi. \tag{52}$$

At $q = 1/2$, $R_m^{**}(1/2) = R_m^*$ and this reduces to the baseline expression $(c_2 - c_1) + (1 - \alpha)(1 + c_1 - p_b X) - \Psi$ in (30). For $q > 1/2$, $R_m^{**}(q) < R_m^*$, so $\Pi_1^{Acq}(q) < \Pi_1^{Acq}(1/2)$. This means that noisy private information *shrinks* the acquisition gain, because the merged entity must compensate bad-signal borrowers more generously to retain them. We now have:

Proposition 8 *For every (α, f) in the interior of the baseline deterrence region, there exists $q^\dagger(\alpha, f) > 1/2$ such that for all $q \in [1/2, q^\dagger(\alpha, f)]$, $\mathcal{G}_{c_2=\infty} > 0 > \mathcal{G}_{B2}$. The set of parameters for which competition deters acquisition therefore has positive measure under noisy private information.*

The mechanism does not rely on borrowers being literally uninformed. It only requires that the borrower's private signal be not very precise. As q rises, α_b falls and the merged entity must offer ever larger price concessions to retain bad-signal borrowers. Beyond some threshold, $q^\dagger$, retention becomes more costly than abandoning the bad-signal type altogether and the candidate equilibrium gives way to a separating arrangement. In this arrangement, it may or may not be positive-NPV for Bank 2 to lend to the bad-signal borrowers. The baseline analysis is the limiting case of an entire family of models with noisy private information, and the deterrence region is robust to small departures from $q = 1/2$. As we illustrate using a numerical example in Section 5, the deterrence effect may be stronger when $q > 1/2$ (in the neighbourhood of $1/2$).

4.5 Fintech Entry

In the baseline model, the fintech's screening technology is taken as given. Suppose instead that the fintech must incur a fixed entry cost $\phi_1 > 0$ to develop the technology before it can screen. Once developed, the marginal cost of screening each borrower is $\phi_2 \geq 0$, with $\phi_1 + \phi_2 = f$ to maintain comparability with the baseline.[12] The entry cost ϕ_1 is sunk at the time of acquisition.

By Lemma 3, Bank 1 always undercuts the standalone fintech, so the fintech earns zero as an independent lender. The fintech therefore enters only if it anticipates being acquired. Upon acquisition, the IC constraint is determined by the marginal screening cost ϕ_2, yielding an expected payment:

$$\Psi(\phi_2) \; = \; \frac{(p_g + \delta)\phi_2}{(1-\alpha)(p_g + \delta - p_b)} \tag{53}$$

The fintech's participation constraint requires that this payment covers both the sunk entry cost and the marginal screening cost: $\Psi(\phi_2) \geq \phi_1 + \phi_2 = f$. Since $\Psi(\phi_2) > \phi_2$ by Lemma 4, the constraint is satisfied whenever the informational rent covers the entry cost, $\Psi(\phi_2) - \phi_2 \geq \phi_1$:

$$\phi_2 \; \geq \; \frac{(1-\alpha)(p_g + \delta - p_b)\phi_1}{Q(\alpha)} \; \equiv \; \underline{\phi}_2 \tag{54}$$

From the baseline analysis, Bank 1 finds an acquisition to be profitable only if the marginal screening cost is sufficiently small, $\phi_2 < \phi_2^{**}$, where the threshold depends on pool quality. The fintech therefore enters if and only if ϕ_2 lies in the intermediate range $[\underline{\phi}_2, \phi_2^{**})$: large enough that the informational rent covers the entry cost, yet small enough that Bank 1 still finds acquisition profitable.

[12]Since borrowers have mass 1, we multiply the marginal cost by 1, giving $\phi_1 + \phi_2 = f$. For mass m, this generalises to $\phi_1 + m\phi_2 = f$.

The two boundaries reflect opposing forces. If ϕ_1 is large relative to ϕ_2, the informational rent – which scales with ϕ_2 – is too small to recoup the entry cost, and the fintech stays out. If ϕ_1 is small and the fintech enters, the resulting rent $\Psi(\phi_2)$ may be large enough to deter acquisition; anticipating this, the fintech does not enter, since it would sink ϕ_1 only to remain inactive in equilibrium. Entry thus requires the informational rent to be large enough to justify the sunk cost, but not so large as to deter the acquisition that makes entry worthwhile in the first place.

Proposition 9 *In the presence of a fixed cost of entry, fintech firms enter the market for an intermediate level of marginal cost of screening:* $\phi_2 \in [\underline{\phi}_2, \phi_2^{**}]$*, provided this set is non-empty.*

4.6 The "Build vs. Buy" Constraint

One might ask: why does the efficient bank simply not build its own screening technology? To address this, we now provide a minor formal extension of the base model to show that the fixed cost of internal R&D in screening (which could be in addition to its existing screening capacity) for the bank may be prohibitively high compared to a fintech start-up's entry cost.

Let K_{Build} denote the fixed R&D and implementation cost for Bank 1 to develop an internal screening algorithm from scratch. Let ϕ_1 be the start-up fintech's entry cost to develop the same technology. We assume that $K_{Build} >> \phi_1$ due to traditional banks' legacy IT architecture, rigid corporate structure, and heavy regulatory compliance burdens associated with internal development.

Suppose Bank 1 considers building the technology in-house. Let Π_1^{Screen} denote Bank 1's gross expected profit in the credit market when it operates its own proprietary screening technology, competing against non-screening Bank 2. Bank 1's net expected payoff from the "Build" strategy is:

$$\Pi_1^{Build} = \Pi_1^{Screen} - K_{Build} \tag{55}$$

Comparing with the standalone profit when Bank 1 does not build, $\Pi_1^{Standalone}$, Bank 1 will strictly prefer to not build the technology if Π_1^{Build} is lower than $\Pi_1^{Standalone}$, yielding:

$$K_{Build} > \Pi_1^{Screen} - \Pi_1^{Standalone} \tag{56}$$

Let $\mathcal{G}_{Screen} = \Pi_1^{Screen} - \Pi_1^{Standalone}$ denote the gross operational gain from possessing the screening technology. As long as $K_{Build} > \mathcal{G}_{Screen}$, the strategy to build in-house is strictly dominated.

Conversely, the agile start-up fintech faces a much lower entry friction ϕ_1 (where $\phi_1 < \mathcal{G}_{Screen}$), making independent entry potentially profitable for the fintech.

Equilibrium Analysis. Because K_{Build} is prohibitively high, Bank 1 relies on the fintech to develop the screening technology and subsequently faces the "Buy" decision. As established in the baseline model, Bank 1 acquires the fintech firm if the acquisition gain, net of the informational rent Ψ paid to the fintech division, is positive.

However, because post-acquisition competition from Bank 2 erodes the merged entity's margins, this acquisition gain is frequently driven below zero. Therefore, the efficient bank is trapped: the "Build" option is blocked by the high fixed cost K_{Build}, and the "Buy" option is blocked by the deterrence mechanism. Consequently, the equilibrium resolves exactly as observed in empirical data – banks forgo both building and buying, instead opting for orthogonal partnerships with standalone fintechs.

4.7 Relaxing A4: Competition in the Market for Corporate Control

Assumption A4 requires $f > \hat{f}$, ensuring that Bank 2 cannot profitably acquire the fintech when Bank 1 remains standalone. In this section, we show that relaxing A4 does not affect the equilibrium acquisition region: Bank 1 always outbids Bank 2 and the only consequence is a redistribution of surplus towards the fintech.

When Bank i acquires the fintech, the merged entity determines prices in competition against the standalone rival, Bank i', and the acquiring bank's gross profit (before the informational rent) is:

$$\Pi^{Acq}(i) = (c_{i'} - c_i) + (1 - \alpha)(1 + c_i - p_b X) \tag{57}$$

The difference is:

$$\Pi^{Acq}(1) - \Pi^{Acq}(2) = (c_2 - c_1)(1 + \alpha) > 0 \tag{58}$$

which is strictly positive for all feasible α, but it falls as the efficiency gap $c_2 - c_1$ closes and it becomes 0 when $c_2 = c_1$.

Suppose $f \leq \hat{f}$, so that the surplus generated in the merged entity net of the information rent that must be paid to the fintech is (weakly) positive, $\Pi^{Acq}(2) - \Psi \geq 0$ (holding with equality for $f = \hat{f}$), and Bank 2 is a credible bidder. Both banks bid in Stage 0. Bank 2's maximum willingness to pay is $\Pi^{Acq}(2)$, which, being larger than Ψ induces the fintech to screen within the merged entity. Bank 1's maximum willingness to pay is $\Pi^{Acq}(1)$. By (58), Bank 1 can always outbid Bank 2. In the unique equilibrium, Bank 1 acquires the fintech at a price $P = \Pi^{Acq}(2)$, leaving Bank 1 with a net profit of:

$$\Pi^{Acq}(1) - P = (c_2 - c_1)(1 + \alpha) > 0 \tag{59}$$

The fintech, which earns zero as an independent lender (Lemma 3), now obtains an acquisition price $\Pi^{Acq}(2)$ (in expectation) that exceeds the price it obtains under Assumption A4, which is just the incentive payment Ψ.

A natural question is whether relaxing A4 expands the set of parameters for which acquisition occurs. The following result shows that it does not.

Lemma 7 *$\hat{f} < f_1^{**}$ when $\alpha \in [\underline{\alpha}, \hat{\alpha})$ and $\hat{f} < f_2^{**}$ when $\alpha \in [\hat{\alpha}, \bar{\alpha}]$*

The result has a clean economic interpretation. The region where A4 is violated ($f < \hat{f}$) corresponds to screening costs low enough that even Bank 2 (the inefficient bank) can profitably acquire the fintech. But low screening costs also mean that the incentive payment Ψ is small, making an acquisition especially attractive for Bank 1. Thus, whenever Bank 2 is a credible acquirer, Bank 1 finds an acquisition to be even more attractive.

Relaxing A4 affects only the surplus distribution, not the equilibrium structure. Under A4, the fintech has no outside option, and the acquisition price is simply the informational rent. Without A4, the presence of Bank 2 as a competing bidder gives the fintech a part of the surplus. The fintech obtains an expected price equal to Bank 2's acquisition profit, $\Pi^{Acq}(2)$, while Bank 1 retains a payoff that depends only on the monitoring-cost differential and the borrower pool quality, $(c_2 - c_1)(1 + \alpha)$.

Assumption A4 therefore sacrifices no generality for equilibrium characterization. Whether or not Bank 2 is a credible acquirer, the acquisition region in the (α, f) space and the identity of the acquirer remain unchanged. A4 is a simplifying assumption that pins the acquisition price to the informational rent, not a substantive restriction on the set of equilibrium outcomes.

Proposition 10 *For sufficiently low screening costs, $f < \hat{f}$, the fintech captures surplus beyond its informational rent. The acquisition region remains unchanged from the baseline.*

The ordering $\hat{f} < f^{**}$ (Lemma 7) implies that competition in the market for corporate control reallocates surplus between Bank 1 and the fintech but it does not affect the set of parameters for which the prospect of post-acquisition competition in the credit market deters an acquisition.

It is worth noting that, with symmetric banks ($c_1 = c_2$), if Bank 1 can out-compete the fintech, Bank 2 can do so as well, which makes them each other's main rival. Then, Bertrand competition drives standalone profits to zero for both banks. Similarly, if Bank 1 is a credible acquirer, so is Bank 2. Competition between these two credible acquirers bids the acquisition price up until the acquirer's expected profit is $(c_2 - c_1)(1+\alpha)$, which equals zero when $c_2 = c_1$. Thus, when $c_2 = c_1$, banks have zero expected profits whether they remain standalone or they acquire the fintech.

4.8 Relaxing A3: The Target becomes the Acquirer

The left inequality of A3, $f > (1 + c_1 - p_b X) - \underline{\alpha}(\delta X + 1 - p_b X)$, ensures $V_1 > V_f$ for all feasible α, so Bank 1 is the price-setter in the standalone equilibrium and the fintech earns zero as an independent lender (Lemma 3). Suppose the bound is violated, so $V_f > V_1$ for some feasible α. In this case, the fintech's offer dominates Bank 1's unconditional offer; the fintech becomes the default lender in the standalone benchmark. Since monitoring remains positive-NPV and $c_1 < c_2$, the fintech engages Bank 1 to monitor approved loans. Bertrand competition pins R through the borrower-indifference condition:

$$\alpha(p_g + \delta)(X - R) = V_1 \tag{60}$$

The monitoring surplus is $\alpha(\delta X - c_1)$. Since the fintech could otherwise engage Bank 2 at cost c_2, it keeps at least $\alpha(\delta X - c_2)$, and the remainder is split between the fintech and Bank 1 according to bargaining power. As in the collaboration arrangement, the fintech's IC is slack since it internalizes the full selection gain, so no informational rent is required.

Lemma 8 *Suppose A3 is relaxed so that there exist values of α for which $V_f > V_1$. For these values of α, the equilibrium allocation coincides with the first best of Lemma 2, namely that the fintech screens borrowers, Bank 1 monitors approved loans, and no informational rent is paid.*

Lemma 8 implies that the deterrence result relies on the left inequality of A3, which ensures that Bank 1 dominates the standalone fintech for all feasible α. When this inequality is relaxed, the first-best allocation can arise on the parameter region where $V_f > V_1$. Even so, with A3 relaxed, our main results apply whenever α is large enough that $V_1 > V_f$.

5 Numerical Illustration

In this section, we illustrate that the various outcomes described above may arise within feasible parameter regions.

Figure 1 identifies the equilibrium that arises across the (α, f) parameter space. We set $X = 3$, $p_g = 0.55$, $p_b = 0.05$, $\delta = 0.3$, $c_1 = 0.02$, and $c_2 = 0.20$. These parameters pin down the thresholds on α: $\underline{\alpha} = 0.4375$ and $\bar{\alpha} = 0.5667$.

The white regions within the α thresholds are regions where the left inequality of A3 is violated. Within the feasible region, three cases arise:

In the green region, Bank 1 acquires the fintech whether it faces competition from Bank 2 or not: $\mathcal{G}_{c_2=\infty} > \mathcal{G}_{B2} > 0$. Bank 2 is a credible acquirer below $\hat{f}$, which lies entirely in the green region. In this region, the fintech obtains a fraction of the surplus beyond the informational rent.

In the cream region, Bank 1 does not acquire the fintech in either case even though acquisition is socially desirable, $NSS^{FB} > 0$: $\mathcal{G}_{B2} < \mathcal{G}_{c_2=\infty} < 0 < NSS^{FB}$. Here f is so high that the informational rent by itself deters acquisition.

Our main results reside in the red region. Here, Bank 1 acquires the fintech absent competition from Bank 2 even after accounting for the rent paid to the fintech, but not when Bank 2 is present: $\mathcal{G}_{c_2=\infty} > 0 > \mathcal{G}_{B2}$. Thus, in the red region, competition and informational frictions combine to deter socially desirable acquisitions. As discussed in Section 4.2, Bank 1 could in principle acquire the fintech and shut down its screening technology for $\alpha < \hat{\alpha}$, but such killer acquisitions would be blocked by antitrust review since they transfer surplus from borrowers to the merged entity without raising total surplus.

To pick a point on the figure, choose $\alpha = 0.55$ and $f = 0.20$. $f = 0.20$ pins down $\hat{\alpha} = 0.4857$, implying that the fintech is the standalone Bank 1's relevant rival for $\alpha \in [0.4375, 0.4857)$ and Bank 2 is the relevant rival for $\alpha \in [0.4857, 0.5667]$. The chosen α is greater than $\hat{\alpha}$, so the chosen point lies in the region in which Bank 2 is the binding rival. The expected payment to the fintech is $\Psi = 0.4722$, which is more than the screening cost $f = 0.20$, making the rent positive. The first-best surplus is $NSS^{FB} = 0.6415 > 0$, so acquisition is socially desirable. Yet, under competition from Bank 2, $\mathcal{G}_{B2} = -0.0807 < 0$: Bank 1 prefers to remain standalone. By contrast, absent Bank 2, $\mathcal{G}_{c_2=\infty} = 0.0768 > 0$: Bank 1 would acquire. In terms of screening-cost cutoffs, $f_2^{**} = 0.1658 < f = 0.20 < f^* = 0.2228$.

In the above example, we assumed that borrowers have no private information, $q = 1/2$. Suppose, instead, that borrowers have noisy private information, $q > 1/2$ (see Section 4.4). Specifically, let $q = 0.52$. By Bayes' rule, a borrower with a bad signal infers that the probability her project is good is $\alpha_b = 0.53$, slightly below the prior of 0.55. Absent Bank 2, Bank 1's acquisition gain is unaffected relative to the $q = 1/2$ case, $\mathcal{G}_{c_2=\infty} = 0.0768 > 0$, and it acquires the fintech. Under competition from Bank 2, the acquisition gain falls slightly because the standalone profit is unaffected but the merged entity must offer a relatively lower promised repayment to retain the bad-signal borrowers, which strengthens Bank 1's incentive to remain standalone compared to the $q = 1/2$ case: $\mathcal{G}_{B2} = -0.0818$. Thus, even with noisy private information, Bank 1 acquires the fintech absent Bank 2 but does not in its presence.

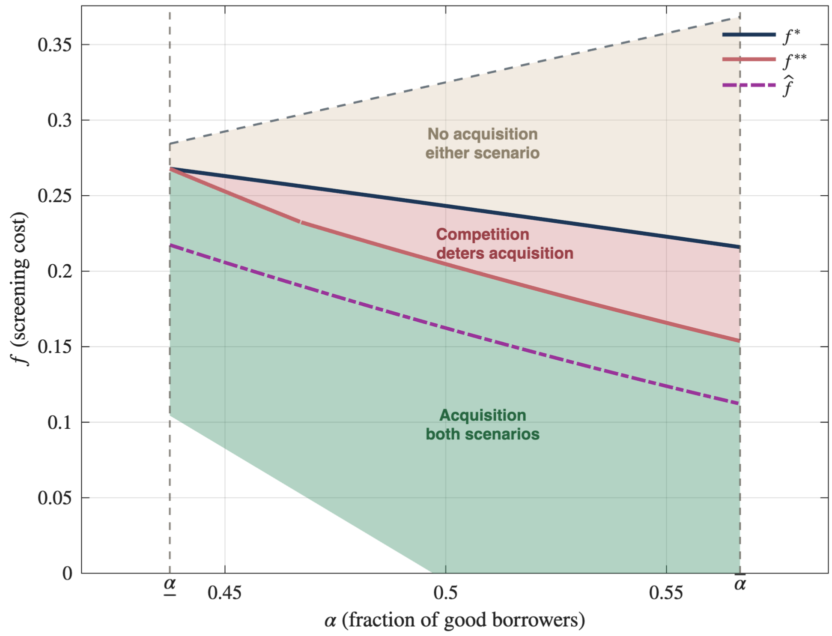

Figure 1: Acquisition Regions in (α, f) parameter space

6 Empirical Implications

Our model rationalizes the stylized fact that motivates the paper, namely that bank–fintech acquisitions are rare despite clear technological complementarities. The cross-sectional predictions below identify conditions under which acquisitions should nonetheless occur.

1. *In competitive banking markets, banks tend to collaborate with fintechs rather than acquire them, whereas outright acquisitions are concentrated in less competitive markets.*

   The model's central mechanism is that competitive pressure from a rival bank shrinks the set of parameters for which acquisition is privately optimal and can eliminate it altogether (the red region in Figure 1). When an acquisition is deterred but orthogonal synergies remain available, the bank and the fintech collaborate to realize those synergies while remaining separate on their core borrower pool. The pattern maps directly onto market structure, namely acquisition where competitive pressure is weak and collaboration where it is strong. We use "competitive" to refer to the intensity of credit-market competition between banks, which maps empirically onto market-concentration measures such as HHI.

   Consistent with our model, outright acquisitions of fintechs by traditional banks are quite rare, with top-tier North American and European banks completing fewer than 100 such deals between 2013 and 2023. This has been documented in various papers (e.g., Hornuf et al. (2021); European Banking Authority (2018); Frost et al. (2019)).

Alfhaili et al. (2025) provide evidence that traditional and wholesale banks exhibit little appetite for fintech acquisitions. The preference of banks to form partnerships with fintechs for synergistic gains has also been documented. For example, Jagtiani et al. (2025) provide evidence, based on loan-level data from Y-14M reports for CCAR banks, that traditional banks use non-equity partnerships with fintechs, and the use of alternative (fintech) data in credit decisions that is facilitated by this leads banks to offer larger credit lines and discounted mortgage rates to nonprime borrowers and other historically difficult-to-screen borrowers (see also Chernoff and Jagtiani (2024)).

Our prediction that bank acquisitions of fintechs, if they do occur, will be encountered in relatively concentrated banking markets and rarely in competitive markets is novel and remains to be tested. But some existing evidence hints at potential support in the data. For example, Puri et al. (2024) find that banks facing greater competition are more likely to make investments in fintech start-ups and create operational partnerships, although that paper does not examine outright acquisitions. And the report by U.S. Department of the Treasury (2022) expresses concern about the likelihood of acquisitions by firms in financial services that already possess significant market power and the resulting elimination of competition (p. 100), although their concern is mainly about Big Tech, not about banks acquiring fintechs *per se*.

2. *Acquisitions are more likely between highly differentiated banks and fintechs in low-quality credit markets; differentiation does not predict acquisition likelihood in high-quality markets.*

   A larger monitoring-cost gap $c_2 - c_1$ raises the acquisition gain $\mathcal{G}_{B2}$, but only when borrower pool quality is low enough for the fintech to be the efficient bank's main rival ($\alpha < \hat{\alpha}$). In this region, a wider gap makes acquisition more attractive relative to the standalone option. When $\alpha \geq \hat{\alpha}$, both the standalone and merged entity face Bank 2 as the rival and the $c_2 - c_1$ term cancels out; bank differentiation drops out of the acquisition decision. The prediction is therefore conditional – acquisitions should track bank differentiation primarily in lower-quality credit markets. We use "differentiation" to refer to heterogeneity in monitoring costs across banks, which maps empirically onto cross-sectional variation in banks' operating efficiency.

3. *Controlling for the degree of differentiation across banks, banks with lower monitoring costs are less likely to acquire fintechs.*

   Although the most efficient bank is the natural acquirer, acquisition may not occur if that bank is too efficient in absolute terms. The acquisition gain $\mathcal{G}_{B2}$ is increasing in c_1 for all feasible α: a more efficient monitor faces a lower per-borrower loss from funding bad projects, $1 + c_1 - p_b X$, which reduces the exclusion benefit of screening. Thus, a smaller c_1 lowers the bank's incentive to acquire the screening technology, because the monitoring efficiency already mitigates the value destruction from funding bad borrowers.

This channel is consistent with De Roure et al. (2022), who show that fintech lending grows when banks face higher regulatory costs. In our model, a rise in c_1 makes acquisition more attractive relative to standalone operation, inducing fintechs to enter, grow, and eventually become acquisition targets. The mechanism is distinct from the standard regulatory-arbitrage view of fintech growth.

4. *Acquisition becomes less attractive as borrower pool quality rises.*

   The acquisition gain $\mathcal{G}_{B2}$ is decreasing in α in both regions of the parameter space. Three forces work in the same direction. First, the primary benefit of acquiring the fintech is the exclusion of bad borrowers, each of whom destroys $1 + c_1 - p_b X > 0$ in value under unconditional lending. As α rises, the fraction of bad borrowers $1 - \alpha$ shrinks, and the exclusion benefit falls with it. Second, a higher α raises the profitability of unconditional monitored lending, improving the standalone bank's outside option. Third, the informational rent Ψ is *increasing* in α, and this too makes an acquisition less attractive. As the borrower pool improves, the fintech's temptation to forgo screening and randomly approve borrowers grows, because a random approval is more likely to select a good borrower. The merged entity must therefore pay a larger rent to incentivize screening precisely when screening is least valuable. Together, these forces imply that bank-fintech acquisitions should be more prevalent in markets with lower average borrower quality, where screening technology is most valuable and the incentive cost of inducing it is the lowest. To test this, one would regress acquisition likelihood on pool quality and expect a negative coefficient.

   Evidence on the borrower segments served by fintech lenders – concentrated in subprime, thin-file, and underserved populations Jagtiani and Lemieux (2019); Di Maggio and Yao (2021); Di Maggio et al. (2022) – is consistent with screening being most valuable in lower-quality pools, where our model predicts acquisition to be most likely.

5. *The competitive deterrence effect strengthens as borrower pool quality rises.*

   The previous prediction established that acquisitions are less attractive in higher-quality pools. The model also implies that the *marginal* effect of competition itself is increasing in pool quality. Formally, the wedge $\mathcal{G}_{B2} - \mathcal{G}_{c_2=\infty}$ is decreasing in α: competition from Bank 2 is more damaging to the acquisition case when the borrower pool is of higher quality. In markets with high-quality borrower pools, banks should therefore be especially reluctant to acquire fintechs when facing competitive pressure from rival banks, even if the same acquisition would be profitable in a less competitive environment. Empirically, the prediction maps onto an interaction – the negative effect of borrower pool quality on acquisition likelihood should be stronger in less concentrated banking markets.

6. *Fintech targets with lower screening costs command higher acquisition premia.*

   This prediction comes from relaxing A4. When f is low, Bank 2 is a credible acquirer, and bidding competition between the two banks transfers surplus to the target. As f rises, Bank 2's maximum bid Π_2^{Acq} falls, and at $f = \hat{f}$, it becomes zero. For $f \geq \hat{f}$, the fintech obtains only the informational rent, Ψ. A natural test would regress the fintech target's abnormal return (or acquisition premium) on proxies for the cost of operating the screening technology. The model predicts a *negative* coefficient – fintechs with cheaper screening attract more aggressive bidding and earn higher premia. While we are not aware of any direct existing evidence of this, Seitanidis et al. (2026) examine 3,700 global fintech M&A transactions between 2008 and 2025 and report that acquisition premia in deals involving banks acquiring fintechs were about 188% higher than those in traditional M&A transactions.

7 Conclusion

We develop a model in which two traditional banks and a fintech lender compete in credit markets. The fintech screens borrowers while banks monitor funded projects. We identify a novel economic force that deters efficient acquisitions. The prospect of post-acquisition competition from an inefficient rival bank makes an acquisition privately suboptimal even when the joint surplus from combining screening and monitoring is positive. The mechanism is as follows: post-acquisition screening selects borrowers, enabling the rival to undercut the merged bank by offering unconditional credit to borrowers who are unaware of their type. Moreover, due to the unverifiability of screening, the merged entity must pay an informational rent to the fintech division, further eroding the banking division's margin. A standalone bank avoids both costs – it does not screen, so it pays no rent, and it prices against its weaker rival. Our results offer a theoretical foundation for the conspicuous absence of fintech acquisition by banks. In doing so, the analysis also produces a host of new testable predictions that await empirical testing.

8 Appendix: Proofs

Proof of Lemma 1. Proof. By the right inequality of Assumption A3, we have $f < \alpha(p_g X - 1)$. The condition $f < (1-\alpha)(1+c_1-p_b X)$ therefore holds if $(1-\alpha)(1+c_1-p_b X) > \alpha(p_g X - 1)$. Rearranging,

$$1 + c_1 - p_b X > \alpha\big[(p_g - p_b)X + c_1\big] \tag{A.1}$$

which implies

$$\alpha < \frac{1 + c_1 - p_b X}{(p_g - p_b)X + c_1} \tag{A.2}$$

This condition holds for all feasible α if the upper bound exceeds the maximal feasible value $\bar{\alpha}$, i.e.,

$$\frac{1 + c_1 - p_b X}{(p_g - p_b)X + c_1} > \bar{\alpha} \tag{A.3}$$

Using $\bar{\alpha} = \frac{1-p_b X}{(p_g-p_b)X}$, this inequality becomes:

$$\frac{1 + c_1 - p_b X}{(p_g - p_b)X + c_1} > \frac{1 - p_b X}{(p_g - p_b)X} \tag{A.4}$$

which simplifies to $p_g X > 1$. By Assumption A2, this condition is satisfied. Hence, $f < (1-\alpha)(1+c_1-p_b X)$ holds for all feasible α. ■

Proof of Lemma 2. Proof. By A2, lending to good borrowers is efficient while lending to bad borrowers is not. Screening separates the two types: by A3, the cost of screening is small enough that the surplus from lending exclusively to favorably screened borrowers is strictly positive. Between the two banks, Bank 1 is the efficient monitor, so assigning monitoring to Bank 1 maximises the success probability of approved loans at the lowest cost. Combining fintech screening with Bank 1 monitoring therefore maximises the net total surplus. ■

Proof of Lemma 4. Proof. We check the ratio of the expected payment to the actual screening cost:

$$\frac{\Psi}{f} = \frac{p_g + \delta}{(1-\alpha)(p_g + \delta - p_b)} \tag{A.5}$$

For any α, the RHS is strictly greater than 1 if $Q(\alpha) > 0$, which holds universally. It follows that $\Psi/f > 1$ and thus $\Psi > f$ for all parameter values. Taking the derivative of Ψ with respect to α:

$$\frac{\partial \Psi}{\partial \alpha} = \frac{(p_g + \delta) f}{(p_g + \delta - p_b)(1 - \alpha)^2} > 0 \tag{A.6}$$

The derivative is positive for all parameters. ■

Proof of Lemma 5. **Proof.** *Step 1: Prove* $\hat{\alpha} > \underline{\alpha}$. At $\alpha = \underline{\alpha}$, Bank 2 just breaks even, so $V_2(\underline{\alpha}) = 0$. By A3, $f < \underline{\alpha}(p_g X - 1)$, hence $V_f(\underline{\alpha}) = \underline{\alpha}(p_g X - 1) - f > 0$. Since $V_f > V_2$ at $\alpha = \underline{\alpha}$, the fintech is the binding outside option there, so $\hat{\alpha} > \underline{\alpha}$.

Step 2: Prove $\hat{\alpha} < \bar{\alpha}$. Simplifying $\hat{\alpha} < \bar{\alpha}$ and rearranging, the condition is equivalent to:

$$f > (1 + c_2 - p_b X) - \bar{\alpha}(\delta X + 1 - p_b X) \tag{A.7}$$

From A3 (left inequality): $f > (1 + c_1 - p_b X) - \underline{\alpha}(\delta X + 1 - p_b X)$. So (A.7) holds whenever:

$$(1 + c_1 - p_b X) - \underline{\alpha}(\delta X + 1 - p_b X) \geq (1 + c_2 - p_b X) - \bar{\alpha}(\delta X + 1 - p_b X) \tag{A.8}$$

which rearranges to (26). ■

Proof of Proposition 3. **Proof.** Bank 1's expected profit is: $\Pi_1 = Q(\alpha) R_1 - 1 - c_1$. For $\alpha < \hat{\alpha}$, Bank 1 matches the fintech by setting $R_1^* = R_1(f)$. The expected profit is strictly positive. In particular, at the smallest feasible value of α, expected profits are $\underline{\alpha}[(\delta - p_b)X + 1] - (1 + c_1 - p_b X) + f$, which is positive by A3. Since expected profits are increasing in α, it follows that $\Pi_1 > 0$ for all feasible α in this region. For $\alpha > \hat{\alpha}$, Bank 1 matches Bank 2 and sets $R_1^* = \tilde{R}_2$ and earns $c_2 - c_1$, which is strictly positive by construction. ■

Proof of Lemma 6. **Proof.** The ratio of merged-entity surplus to Bank 2 surplus for a type-s borrower is:

$$\frac{\alpha_s (p_g + \delta)(X - R_m)}{Q(\alpha_s)(X - \tilde{R}_2)} = \frac{X - R_m}{X - \tilde{R}_2} \cdot \frac{\alpha_s (p_g + \delta)}{Q(\alpha_s)}. \tag{A.9}$$

The first factor is independent of α_s. The second factor is increasing in α_s. To see why, we consider the derivative:

$$\frac{\partial}{\partial \alpha_s} \frac{\alpha_s (p_g + \delta)}{Q(\alpha_s)} = \frac{(p_g + \delta) p_b}{Q(\alpha_s)^2} > 0 \tag{A.10}$$

Hence the ratio is strictly increasing in α_s, so any R_m that attracts the bad-signal borrowers to the merged entity necessarily also attracts the good-signal borrowers. ■

Proof of Proposition 5. **Proof.** For any f satisfying A3, the acquisition gain satisfies $\mathcal{G}_{B2}(f) < \mathcal{G}_{c_2=\infty}(f)$. We verify this in each region.
Case 1: $\alpha \in [\underline{\alpha}, \hat{\alpha})$. Subtracting (23) from (31), the informational-rent terms Ψ cancel:

$$\mathcal{G}_{B2} - \mathcal{G}_{c_2=\infty} \;=\; (1 + c_2 - p_b X) - \alpha(p_g + \delta - p_b)X \tag{A.11}$$

Multiplying and dividing the first term on the right-hand side by $(p_g + \delta - p_b)X$:

$$\mathcal{G}_{B2} - \mathcal{G}_{c_2=\infty} \;=\; \underbrace{\frac{1 + c_2 - p_b X}{(p_g + \delta - p_b)X}}_{\underline{\alpha}}(p_g + \delta - p_b)X - \alpha(p_g + \delta - p_b)X \tag{A.12}$$

$$=\; (\underline{\alpha} - \alpha)(p_g + \delta - p_b)X \;\leq\; 0 \tag{A.13}$$

where the inequality follows from $\alpha > \underline{\alpha}$. Since both gains are linear in f with the same slope, the gap is independent of f, so $f_1^{**} < f^*$.
Case 2: $\alpha \geq \hat{\alpha}$. Subtracting (23) from (33), the informational-rent terms again cancel:

$$\mathcal{G}_{B2} - \mathcal{G}_{c_2=\infty} \;=\; f - \alpha(p_g X - 1) \;<\; 0, \tag{A.14}$$

which is strictly negative by A3. Hence $\mathcal{G}_{B2}(f) < \mathcal{G}_{c_2=\infty}(f)$ for every A3-feasible f, so $f_2^{**} < f^*$.

Since $\mathcal{G}_{B2} < \mathcal{G}_{c_2=\infty}$ in both regions, if $\mathcal{G}_{c_2=\infty} < 0$ then $\mathcal{G}_{B2} < 0$, so competition never induces acquisition under A1–A4.

It remains to show that there exist parameters such that $\mathcal{G}_{c_2=\infty} > 0 > \mathcal{G}_{B2}$. The informational rent $\Psi - f$ is essential for this result. To see why, suppose first that screening were verifiable, so that $\Psi = f$ (the fintech is compensated for the screening cost but earns no rent). In Case 2, the acquisition gain under Bank 2 competition would be $\mathcal{G}_{B2}|_{\Psi=f} = (1 - \alpha)(1 + c_1 - p_b X) - f$; this is strictly positive by Lemma 3. In Case 1, $\mathcal{G}_{B2}|_{\Psi=f}$ is linear in α, equals $\mathcal{G}_{c_2=\infty}|_{\Psi=f} > 0$ at $\alpha = \underline{\alpha}$ (where (A.13) binds with equality), and equals $(1 - \hat{\alpha})(1 + c_1 - p_b X) - f > 0$ at $\alpha = \hat{\alpha}$ (by continuity with Case 2), so it is positive throughout. Hence, when $\Psi = f$, $\mathcal{G}_{B2} > 0$ for all feasible α and competition cannot deter acquisition.

Now restore the informational rent ($\Psi > f$). In Case 2, $\mathcal{G}_{B2} = (1 - \alpha)(1 + c_1 - p_b X) - \Psi$, which turns negative once f exceeds f_2^{**}. Meanwhile, the benchmark gain from (23) can be rewritten as:

$$\mathcal{G}_{c_2=\infty} \;=\; \mathcal{G}_{B2} + \underbrace{\left[\alpha(p_g X - 1) - f\right]}_{>0 \text{ by A3}}. \tag{A.15}$$

Thus $\mathcal{G}_{c_2=\infty}$ exceeds $\mathcal{G}_{B2}$ by a strictly positive wedge. There exist parameters for which this wedge is large enough to keep $\mathcal{G}_{c_2=\infty} > 0$ even as $\mathcal{G}_{B2} < 0$, i.e., $f \in (f_2^{**}, f^*)$. ■

Proof of Proposition 7. **Proof.** The text above the proposition shows that, when $\alpha < \hat{\alpha}$, Bank 1 acquires the fintech and kills its technology for any $f > f_2^{**}$. In the baseline (when the bank must operate the fintech's technology upon acquisition), deterrence arises for $f \in (f_1^{**}, f^*)$. Allowing killing makes Bank 1 acquire (and kill) for every $f > f_2^{**}$, so to show the deterrence region for $\alpha < \hat{\alpha}$ is entirely eliminated it suffices that $f_2^{**} < f_1^{**}$. Define the screen-versus-kill margin:

$$h(f) \;\equiv\; \Pi_1^{Acq}(f) - \Pi_1^{\text{Killer}} \;=\; (1-\alpha)(1 + c_1 - p_b X) - \Psi(f) \tag{A.16}$$

using (30) and (42). Since $\Psi(f)$ is strictly increasing in f, h is strictly decreasing; and by the definition of f_2^{**} in (34), $h(f_2^{**}) = 0$.

Evaluate h at f_1^{**}. By the definition of f_1^{**} in (32), acquire-and-screen and standalone profits coincide there, $\Pi_1^{Acq}(f_1^{**}) = \Pi_1^{\text{Standalone}}(f_1^{**})$, so

$$h(f_1^{**}) \;=\; \Pi_1^{Acq}(f_1^{**}) - (c_2 - c_1) \;=\; \Pi_1^{\text{Standalone}}(f_1^{**}) - (c_2 - c_1) \tag{A.17}$$

By the definition of $\hat{\alpha}$, $\alpha < \hat{\alpha}$ gives:

$$\Pi_1^{\text{Standalone}}(f) < c_2 - c_1 \tag{A.18}$$

Applying this at $f = f_1^{**}$ yields $h(f_1^{**}) < 0$. Thus $h(f_1^{**}) < 0 = h(f_2^{**})$. Since h is strictly decreasing in f, it is negative only to the right of its unique root f_2^{**}, so $f_1^{**} > f_2^{**}$. ■

Proof of Proposition 8. **Proof.** Fix any α in the interior of one of the two baseline regimes, $\alpha \in (\underline{\alpha}, \hat{\alpha})$ or $\alpha \in (\hat{\alpha}, \bar{\alpha})$.

First, we show that $\Pi_1^{Acq}(c_2 = \infty)$ is unaffected in q. In the no-Bank 2 benchmark, the merged entity sets $R_m = X$, which yields zero expected surplus to every signal type, $\alpha_s(p_g + \delta)(X - X) = 0$, independent of α_s. The participation constraints of both signal types are therefore satisfied simultaneously, the applicant pool quality remains α, the informational rent Ψ is unchanged, and $\Pi_1^{Acq}(c_2 = \infty)$ is constant in q.

Second, we show that $\Pi_1^{\text{Standalone}}(q)$ is unaffected in q for $\alpha \geq \hat{\alpha}$ and continuous in

q at $q = 1/2$ for $\alpha < \hat{\alpha}$.

Subregion $\alpha \geq \hat{\alpha}$: Bank 2 is the binding outside option. A type-s borrower's surplus from Bank 2 at the break-even rate $\tilde{R}_2 = (1 + c_2)/Q(\alpha)$ is $Q(\alpha_s)(X - \tilde{R}_2)$, and her surplus from Bank 1 at rate R_1 is $Q(\alpha_s)(X - R_1)$. The common factor $Q(\alpha_s)$ cancels in each type's IC constraint, so setting $R_1 \to \tilde{R}_2$ attracts both signal types simultaneously. Bank 1's per-loan margin and pool quality α are unchanged, yielding $\Pi_1^{\text{Standalone}}(q) = c_2 - c_1$ for all q.

Subregion $\alpha < \hat{\alpha}$: The fintech is the binding outside option. The good-signal type's surplus from the fintech, $\alpha_g p_g(X - R_f)$, is strictly increasing in α_g, and the ratio $\alpha_s p_g / Q(\alpha_s)$ governing Bank 1's required rate concession is strictly increasing in α_s. Hence the good-signal type is the binding type for Bank 1's pricing, and the rate $R_1(q)$ that retains her satisfies $R_1(q) \leq R_1(1/2)$, with equality at $q = 1/2$. Since α_g is continuous in q at $q = 1/2$, so is $R_1(q)$, and therefore so is $\Pi_1^{\text{Standalone}}(q) = Q(\alpha)R_1(q) - (1 + c_1)$.

Third, as we argue in the main text, $\Pi_1^{Acq}(q)$ is continuous in q near $q = 1/2$. From (51), $R_m^{**}(q)$ is continuous in q through α_b and $Q(\alpha_b)$, so $\Pi_1^{Acq}(q) = \alpha(p_g + \delta)R_m^{**}(q) - \alpha(1 + c_1) - \Psi$ is continuous at $q = 1/2$.

Putting it together, $\mathcal{G}_{B2}(q) = \Pi_1^{Acq}(q) - \Pi_1^{\text{Standalone}}(q)$ and $\mathcal{G}_{c_2=\infty}(q) = \Pi_1^{Acq}(c_2 = \infty) - \Pi_1^{\text{Standalone}}(q)$ are continuous in q at $q = 1/2$, coinciding with the baseline expressions. By continuity, there exists $q^\dagger(\alpha, f) > 1/2$ such that the strict inequalities $\mathcal{G}_{B2} < 0 < \mathcal{G}_{c_2=\infty}$ are preserved on $[1/2, q^\dagger]$. ■

Proof of Lemma 7. Proof. We need to show that the acquisition gain $\mathcal{G}_{B2}$ is strictly positive at $f = \hat{f}$ for every feasible α, since $\mathcal{G}_{B2}$ is strictly decreasing in f and equals zero at $f = f^{**}$.

By definition of $\hat{f}$, we have $\Pi_2^{Acq}(\hat{f}) = 0$. From (58):

$$\Pi_1^{Acq}(\hat{f}) = (c_2 - c_1)(1 + \alpha) > 0. \tag{A.19}$$

The acquisition gain is $\mathcal{G}_{B2}(\hat{f}) = \Pi_1^{Acq}(\hat{f}) - \Pi_1^{\text{Standalone}}(\hat{f})$. We must show $\Pi_1^{\text{Standalone}}(\hat{f}) < (c_2 - c_1)(1 + \alpha)$.

For a given α, the standalone profit at $f = \hat{f}$ takes one of two forms depending on which rival is the binding outside option at the screening cost $\hat{f}(\alpha)$.

Subcase (a): $\alpha \geq \hat{\alpha}(\hat{f})$. In this subcase, Bank 2 is the binding outside option and $\Pi_1^{\text{Standalone}}(\hat{f}) = c_2 - c_1$ (Proposition 3). The acquisition gain at $\hat{f}$ is:

$$\mathcal{G}_{B2}(\hat{f}) = (c_2 - c_1)(1 + \alpha) - (c_2 - c_1) = \alpha(c_2 - c_1) > 0 \tag{A.20}$$

Subcase (b): $\alpha < \hat{\alpha}(\hat{f})$. In this subcase, the fintech is the binding outside option and $\Pi_1^{\text{Standalone}}(\hat{f}) = \alpha(\delta X + 1 - p_b X) + \hat{f} - (1 + c_1 - p_b X)$. The condition $\alpha < \hat{\alpha}(\hat{f})$ means, by definition of $\hat{\alpha}$:

$$\alpha < \frac{1 + c_2 - p_b X - \hat{f}}{\delta X + 1 - p_b X} \tag{A.21}$$

which rearranges to:

$$\alpha(\delta X + 1 - p_b X) + \hat{f} < 1 + c_2 - p_b X \tag{A.22}$$

Subtracting $1 + c_1 - p_b X$ from both sides of (A.22):

$$\underbrace{\alpha(\delta X + 1 - p_b X) + \hat{f} - (1 + c_1 - p_b X)}_{\Pi_1^{\text{Standalone}}(\hat{f})} < c_2 - c_1 \tag{A.23}$$

Combining (A.19) and (A.23):

$$\begin{aligned} \mathcal{G}_{B2}(\hat{f}) &= \Pi_1^{Acq}(\hat{f}) - \Pi_1^{\text{Standalone}}(\hat{f}) \\ &> (c_2 - c_1)(1 + \alpha) - (c_2 - c_1) = \alpha(c_2 - c_1) > 0 \end{aligned} \tag{A.24}$$

In both subcases, $\mathcal{G}_{B2}(\hat{f}) \geq \alpha(c_2 - c_1) > 0$.

It remains to show that $\hat{f}$ lies strictly below f^{**} for all α. For fixed α, the acquisition profit Π_1^{Acq} is decreasing in f (through Ψ) regardless of which rival binds, while the standalone profit is either increasing in f (when the fintech is the binding outside option) or constant in f (when Bank 2 binds). Hence $\mathcal{G}_{B2}$ is strictly decreasing in f in each regime. The standalone profit is continuous at the boundary between regimes: at the screening cost where $\alpha = \hat{\alpha}(f)$, the fintech-binding expression evaluates to exactly $c_2 - c_1$, matching the Bank 2-binding value. So $\mathcal{G}_{B2}$ is one continuous, strictly decreasing function of f. Since it is strictly positive at $f = \hat{f}$, its unique zero $f^{**}(\alpha)$ must lie strictly to the right: $\hat{f} < f^{**}$ for all feasible α. ■

References

Alfhaili, F. A., Bakoush, M., and Wolfe, S. (2025). The role of banks' business models in their fintech acquisitions. *Journal of Financial Services Research*.

Allen, F. (1990). The market for information and the origin of financial intermediation. *Journal of Financial Intermediation*, 1(1):3–30.

Bathaee, Y. (2018). The artificial intelligence black box and the failure of intent and causation. *Harvard Journal of Law & Technology*, 31(2):889–938.

Beaumont, P., Hébert, C., and Lyonnet, V. (2025). Build or buy? Human capital and corporate diversification. *Review of Financial Studies*, 38(5):1333–1367.

Blickle, K., Parlatore, C., and Saunders, A. (2026). Specialization in banking. *The Journal of Finance*. Forthcoming.

Bradley, M., Desai, A., and Kim, E. H. (1988). Synergistic gains from corporate acquisitions and their division between the stockholders of target and acquiring firms. *Journal of Financial Economics*, 21(1):3–40.

Buchak, G., Matvos, G., Piskorski, T., and Seru, A. (2018). Fintech, regulatory arbitrage, and the rise of shadow banks. *Journal of Financial Economics*, 130(3):453–483.

Bulow, J., Huang, M., and Klemperer, P. (1999). Toeholds and takeovers. *Journal of Political Economy*, 107(3):427–454.

Bulow, J. and Klemperer, P. (1996). Auctions versus negotiations. *American Economic Review*, 86(1):180–194.

Chernoff, A. and Jagtiani, J. (2024). The role of bank–fintech partnerships in creating a more inclusive banking system. *Journal of Digital Banking*, 8(4):330–354.

Coyle, J. F. and Polsky, G. D. (2013). Acqui-hiring. *Duke Law Journal*, 63(2):281–346.

Cramer, K. F., Ghosh, P., Kulkarni, N., and Vats, N. (2026). Shadow banks on the rise: Evidence across market segments. *Journal of Financial Economics*. Forthcoming.

Cunningham, C., Ederer, F., and Ma, S. (2021). Killer acquisitions. *Journal of Political Economy*, 129(3):649–702.

De Roure, C., Pelizzon, L., and Thakor, A. V. (2022). P2P lenders versus banks: Cream skimming or bottom fishing? *Review of Corporate Finance Studies*, 11(2):213–262.

Di Maggio, M., Ratnadiwakara, D., and Carmichael, D. (2022). Invisible primes: Fintech lending with alternative data. NBER Working Paper 29840, National Bureau of Economic Research, Cambridge, MA.

Di Maggio, M. and Yao, V. (2021). Fintech borrowers: Lax screening or cream-skimming? *Review of Financial Studies*, 34(10):4565–4618.

Donaldson, J. R., Piacentino, G., and Thakor, A. V. (2021). Intermediation variety. *Journal of Finance*, 76(6):3103–3152.

European Banking Authority (2018). Report on the impact of FinTech on incumbent credit institutions' business models. Technical report, European Banking Authority, Paris.

Farrell, J. and Shapiro, C. (1990). Horizontal mergers: An equilibrium analysis. *American Economic Review*, 80(1):107–126.

Fishman, M. J. (1988). A theory of preemptive takeover bidding. *RAND Journal of Economics*, 19(1):88–101.

Fishman, M. J. (1989). Preemptive bidding and the role of the medium of exchange in acquisitions. *Journal of Finance*, 44(1):41–57.

Frost, J., Gambacorta, L., Huang, Y., Shin, H. S., and Zbinden, P. (2019). BigTech and the changing structure of financial intermediation. *Economic Policy*, 34(100):761–799.

Fuster, A., Plosser, M., Schnabl, P., and Vickery, J. (2019). The role of technology in mortgage lending. *Review of Financial Studies*, 32(5):1854–1899.

Gama, J., Žliobaitė, I., Bifet, A., Pechenizkiy, M., and Bouchachia, A. (2014). A survey on concept drift adaptation. *ACM Computing Surveys*, 46(4):44:1–44:37.

Gambacorta, L., Khalil, F., and Parigi, B. M. (2022). Big techs vs banks. BIS Working Paper 1037, Bank for International Settlements, Basel. Also issued as CEPR Discussion Paper No. 17649.

Hart, O. and Holmström, B. (2010). A theory of firm scope. *Quarterly Journal of Economics*, 125(2):483–513.

Hart, O. and Moore, J. (1994). A theory of debt based on the inalienability of human capital. *Quarterly Journal of Economics*, 109(4):841–879.

He, Z., Huang, J., and Parlatore, C. (2025). Information span and credit market competition. NBER Working Paper.

He, Z., Huang, J., and Zhou, J. (2023). Open banking: Credit market competition when borrowers own the data. *Journal of Financial Economics*, 147(2):449–474.

Hoffmann, F. and Vladimirov, V. (2025). Auctions versus negotiations: The role of the payment structure. *Journal of Finance*. Forthcoming.

Holmström, B. and Tirole, J. (1997). Financial intermediation, loanable funds, and the real sector. *Quarterly Journal of Economics*, 112(3):663–691.

Hornuf, L., Klus, M. F., Lohwasser, T. S., and Schwienbacher, A. (2021). How do banks interact with fintech startups? *Small Business Economics*, 57(3):1505–1526.

Hu, Y. and Zryumov, P. (2026). Lending competition and funding collaboration. Working paper.

Huang, J. (2025). Fintech expansion. Working paper.

Jagtiani, J. and Lemieux, C. (2019). The roles of alternative data and machine learning in fintech lending: Evidence from the LendingClub consumer platform. *Financial Management*, 48(4):1009–1029.

Jagtiani, J., Lemieux, C., and Goldstein, B. (2025). Fintech innovations in banking: Fintech partnership and default rate on bank loans. *Working Paper*.

Janbek, K.-E. and Bancel, F. (2024). Fintech lenders and borrowers screening: Superior abilities or lax practices? *Finance Research Letters*, 63:105303.

Li, J. and Pegoraro, S. (2026). Borrowing from a bigtech platform. Forthcoming, *Review of Financial Studies*.

Li, X., Lo, A. W., and Thakor, R. T. (2025). Paying off the competition: Contracting, market power, and innovation incentives. *Review of Finance*. Forthcoming.

Oliver Wyman (2024). The state of the financial services industry 2024. Technical report, Oliver Wyman.

Puri, M., Qian, Y., and Zheng, X. (2024). From competitors to partners: Banks' venture investments in fintech. NBER Working Paper 33297, National Bureau of Economic Research, Cambridge, MA.

Ramakrishnan, R. T. S. and Thakor, A. V. (1984). Information reliability and a theory of financial intermediation. *Review of Economic Studies*, 51(3):415–432.

Ramakrishnan, R. T. S. and Thakor, A. V. (1991). Cooperation versus competition in agency. *Journal of Law, Economics, and Organization*, 7(2):248–283.

Salant, S. W., Switzer, S., and Reynolds, R. J. (1983). Losses from horizontal merger: The effects of an exogenous change in industry structure on Cournot-Nash equilibrium. *Quarterly Journal of Economics*, 98(2):185–199.

Seitanidis, P., Aggelopoulos, E., and Grypeos, D. (2026). Mergers and acquisitions: Analyzing global fintech and regtech trends over the period 2008-2025. *FinTech*.

Thakor, R. T. and Merton, R. C. (2024). Trust in lending. *Review of Economics and Statistics*. Forthcoming.

U.S. Department of the Treasury (2022). Assessing the impact of new entrant non-bank firms on competition in consumer finance markets. Report, Washington, DC.

Vives, X. and Ye, Z. (2025a). Fintech entry, lending market competition, and welfare. *Journal of Financial Economics*, 168:104040.

Vives, X. and Ye, Z. (2025b). Information technology and lender competition. *Journal of Financial Economics*, 163:103957.