



Riding the New Wave of Integrated Payments

The “better together” logic of software plus payments appeals to many merchant customers, offers new revenue streams for platform providers, and can reward careful private equity investors.

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At a Glance

- ▶ Independent software vendors have the potential to address \$35 trillion in payments, or 15% of the worldwide total, by integrating payments into their platforms.
- ▶ Determining the optimal model for a platform entails analysis of the benefits, total cost of ownership, and risks.
- ▶ In our view, a promising platform is an alternative payment facilitator model, where the platform performs select payfac functions.
- ▶ Investors assessing software firms moving into this space should avoid overweighting dazzling revenue potential and underweighting timing, cost, and risk considerations.
- ▶ Due diligence should also look to the broader world of embedded finance for future growth, as payments can be bundled with banking-as-a-service offerings.

Integrated payments—building payments directly into the software systems that businesses use to conduct commerce—is poised to unlock significant growth for many types of software firms. By making the software more distinctive and valuable to merchant customers, integrated payments adds a revenue stream that complements software-as-a-service (SaaS) offerings. Bain & Company estimates that up to \$35 trillion in payments could be addressed annually by independent software vendors (ISVs) worldwide, or roughly 15% of all payments.

Participating in payment transactions as a software platform hinges on a “better together” logic for customers—the idea that bundling software with payments beats the standalone alternatives. At its best, payment processing becomes just one part of an integrated software package, not the main attraction. But when a range of tools and services work in unison, they improve the customer experience and reduce the need to stitch together unrelated products from different vendors.

ISVs with integrated payments have been taking share in merchant acquiring, or the acceptance and settlement of credit card payments on behalf of businesses. ISVs accounted for one-sixth of 2020 US merchant acquiring payment volume, and that figure is growing at a mid-teens percentage rate. The “better together” value proposition, it seems, is delighting merchants.

But delighting merchants takes effort and focus. Even with the help of leading enablers such as Stripe, integrating payments requires an investment in people and technology, and success is not assured. ISVs are competing against traditional financial institutions such as JPMorgan Chase and the other software platforms used by their customers.

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The task becomes creating the “better together” value proposition and effectively cross-selling the payments module. To achieve full potential, some platforms will also have to motivate merchants to convert to electronic or more profitable payment methods. Meanwhile, choosing how to begin the payments journey can be daunting for platforms. The good news: These challenges are by no means insurmountable, and getting it right can be quite lucrative.



Demystifying integrated payments

Payment processing connects businesses to payment “rails,” the infrastructure that powers transactions using credit and debit cards and other payment methods. Platforms increasingly bundle payment processing with their software to differentiate their product and tap new revenue streams. This trend has been most pronounced in the US, where cards account for about half of consumer expenditures and profit pools abound for all those involved in operating payment rails—merchant acquirers, card networks such as Visa and Mastercard, and card issuers.

Software companies can facilitate payment processing through several models (see *Figures 1 and 2*). Platforms are graduating toward models that provide more control over the customer experience, plus a greater share of the profit pool, in return for additional responsibilities and risks. Let’s review each in turn.

The simplest model is a referral partner. The platform can monetize the customer relationship through referral fees or commissions, while leaving the provision of services largely to the payment service provider (PSP), often a bank or payments specialist.

Alternatively, a platform can become an independent sales organization, or ISO, authorized to act on behalf of a PSP to sell card payment processing services to merchants. The ISO cannot be in the settlement funds flow, as the money must move directly from the PSP to the merchant.

The relationship between an ISO and a PSP can range from a retail model, where the platform sells the PSP’s services as an agent in return for a commission, to a wholesale model, where the ISO buys processing at wholesale rates and resells at a markup. The wholesale model generally allows more control over pricing and the customer experience, but it entails taking on underwriting and merchant risk.

A third model to embed payments involves becoming a payment facilitator, known as a payfac. The payfac stands in place of the merchant for the purpose of credit and debit card rules, maintaining submerchant accounts for its merchant customers and touching the money in the settlement funds flow.

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Figure 1: Software platforms can facilitate payments in a number of ways

	Referral without customization		Independent sales organization (ISO)		Payment facilitator (payfac)		
	Pure referral	Referral with integration	Retail	Wholesale	Alternative	Rent	Own
Description	• Payment service provider (PSP) handles all payment activities		• Platform controls specific functions of PSP without becoming a merchant acquirer or payfac		• Platform performs select payfac functions	• Platform “rents” or builds infrastructure to be a payfac	
Platform value proposition	• Monetize users without added risk/complexity	• Monetize users and improve user experience with minimal risk/complexity	• Sell at PSP’s pricing for a commission, with minimal risk	• Earn spread between wholesale and retail rates • Assume underwriting and merchant risk	• Deliver user experience and revenue quickly • Can select responsibilities/risks to assume	• Reduce upfront cost • Earn significant revenue for accepting risks and responsibilities	• Maximize revenue at high upfront cost • Assume all risks and responsibilities

Source: Bain & Company

Figure 2: Platforms can generate more revenue by assuming greater risk and responsibilities

	Referral without customization		Independent sales organization (ISO)		Payment facilitator (payfac)		
	Pure referral	Referral with integration	Retail	Wholesale	Alternative	Rent	Own
Customer experience	None	Low	None	Medium	Medium/high	High	High
Revenue in basis points	0–30	0–30	10–40	40–60	20–60	50–80	60–100
Operating expense	None	Limited	Low	Moderate	Low	Moderate	High
Risk	None	Limited	Limited	Moderate	Limited	Moderate	High
Time to market	Minimal	Less than 3 months	Less than 3 months	6–12 months	0–6 months	6–18+ months	1–2+ years

Least favorable Most favorable

Note: Revenue assumes small or midsize merchants with an average payments value of \$250,000 annually, or 100 basis points net of interchange
Source: Bain & Company

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An ecosystem of fintechs including Stripe, Finix, Payrix, and WePay has emerged to support ISVs, either through the rental of infrastructure or through alternative models that offer the benefits of being a payfac without registering with the card networks. This gives a platform more flexibility in terms of which responsibilities and risks it wants to assume.

The models can look and feel similar, and they often achieve similar economics. However, each has different underlying technology and regulatory requirements.

How the merchant experience changes

How, specifically, does integrating payments benefit merchants? We would highlight three characteristics: a better experience, lower costs, and greater access to services.

A better merchant experience. Integrating payments can create a superior experience in three ways. First, it combines software and payments onboarding, underwriting, and know-your-customer processes. Second, the bundle can simplify vendor management. Not only does the merchant have just one vendor to manage, but the vendor also is motivated to provide better, more responsive service. Third, the combination allows platforms to provide a unified suite of tools for business, resulting in saved time, fewer errors, and greater visibility of the entire customer life cycle. Dax Dasilva, founder of Lightspeed, notes, “Customers want to work with one partner that can bring together all the solutions they need to run all the elements of their business.”

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Lower costs. As platforms compete to provide a compelling package, lower costs often come in the form of using payments revenue to subsidize sales of software or hardware, as Toast does with its hardware. Alternatively, platforms may offer attractive payment processing rates to lure customers or encourage adoption of feature-rich packages. For example, Shopify merchants receive tiered payments pricing based on their plan. The Basic plan at \$29 per month includes payments at 2.9% plus 30 cents per transaction, the Shopify plan at \$79 per month charges 2.6% plus 30 cents, and the Advanced plan at \$299 per month delivers pricing at just 2.4% plus 30 cents.

In addition, integrated payments often enables merchants to avoid the cost of manual reconciliation and exception handling from weakly integrated solutions.

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Greater access to services. The software-plus-payments bundle can improve access to merchant services, because platforms often have a better view of the merchant’s business than an outside financial institution, which helps the platform assess risk more accurately.

This is a powerful proposition in high-risk merchant acquiring categories such as gyms, which have traditionally been underserved by processors. A fitness club business management software that controls facility access by verifying membership status of gymgoers will track critical metrics like member visits, churn, total members, and facility operating costs. Access to such data allows for vertical-specific underwriting that is much more nuanced than that of a generic payment processor.

This logic gets even stronger in situations where the software transforms the risk of acquiring the merchant (moving to a recurring billing model), or where funds can be held back to manage credit risk (enabled by a payfac model). Democratization of payments for smaller operators has contributed to the success of gym business management system Mindbody.

Platforms have created compelling “better together” value propositions across many software categories and merchant industries. These include retail and restaurant point-of-sale (for instance, Toast and Lightspeed), e-commerce (Shopify, Wix, and BigCommerce), accounting and accounts receivable/payable (Intuit, Sage, and Xero), vertical software for nonprofits (Community Brands and Blackbaud), fitness clubs and sports (Mindbody and ABC Fitness Solutions), and real estate (Yardi).

While these benefits apply across the board, integrated payments has seen the greatest adoption in areas that display the following characteristics.

A majority of small and midsize customers. Smaller businesses tend to favor the “better together” proposition. Large enterprises, by contrast, often take a “best in breed” approach and can get favorable pricing from bundling their treasury, corporate lending, and investment banking products with traditional financial institutions.

Proximity to the transaction. Platforms closest to facilitation of the economic transaction, such as those that interface with the customer, have been more successful.

High card acceptance levels. In the US, platforms serving industries with high card payment volumes typically have greater success, given the opportunity to cross-subsidize merchants. Insurance, utilities, real estate, and other industries with a greater share of low-margin payments (such as automated clearinghouse) or physical payments (checks) see less activity. Internationally, this matters less given interchange fee caps and the importance of appropriate local payment methods for the customer experience. Still, well-designed integrated propositions can increase card acceptance by adding the payment acceleration and credit protection benefits of cards.

Complex payments. Platforms that cater to industries with more complex payment needs (such as recurring payments, split tickets, or instant payouts) can strengthen the logic by improving functionality and processes. For example, card-on-file payments for recurring subscriptions,

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memberships, and semi-recurring bills for classes or special equipment rental are administratively complex, which favors adoption of integrated, automated payments to ease operations and safely save payments data.

With these characteristics in mind, retail e-commerce and point-of-sale platforms targeted at small businesses have moved furthest along the integrated payments adoption curve. Meanwhile, integrated accounting and customer relationship management platforms have taken hold with some of their customers, but they often see lower penetration rates when they are not the closest system to the transaction itself. Insurance software providers are more likely to have partnerships and integrations with payment gateways because of their enterprise customer base and payment method mix, despite being close to sometimes-complex payments.

Dive into the vast profit pool

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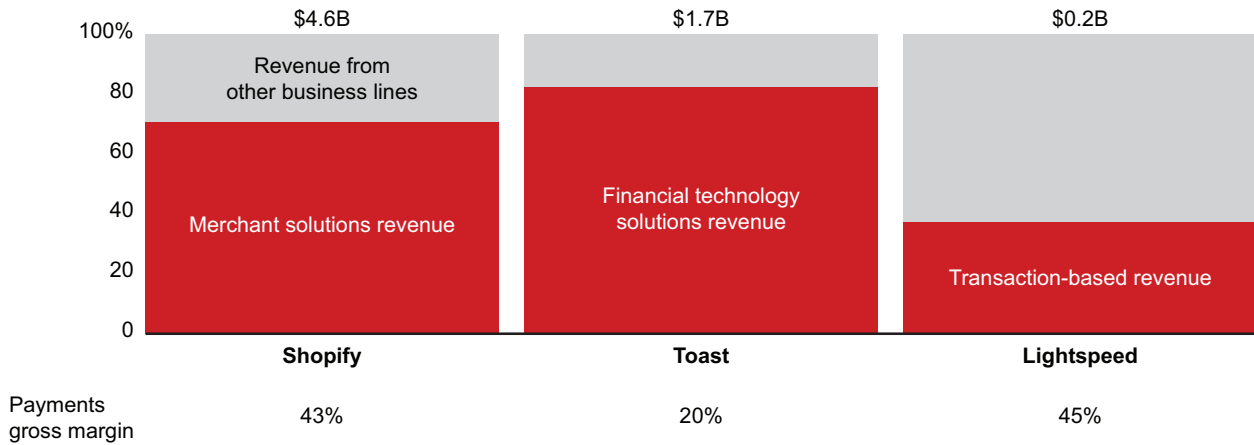
In fact, payments revenue can outstrip the platform’s core SaaS revenue (*see Figure 3*). For example, in 2021 Shopify generated over \$3 billion, or more than two-thirds of its total revenue, from its merchant solutions, principally through credit card processing and currency conversion fees. This revenue stream has grown from almost \$1 billion in 2019 and provides gross margins of over 40%. Similarly, about 80% of Toast’s revenues link to payments and other financial services, not to software or equipment leases. (Note that Shopify, Toast, and, for some of its revenue, Lightspeed report on a gross basis, meaning they include pass-through interchange fees as revenue and a direct cost.)

Platforms earn this revenue from the credit and debit card fees paid by merchants, sometimes referred to as the merchant discount rate. A majority of payment processing profits come from serving smaller merchants, due to higher price levels. Headline pricing for small businesses commonly runs 2.9% plus 30 cents in the US, though it is lower in jurisdictions with regulatory caps, such as the European Union and Australia. Card issuers like JPMorgan Chase and card networks take a majority of this fee, leaving about 100 basis points for the merchant acquirer. Enterprises typically contract on an “interchange plus” model, agreeing to a pass-through of issuer and network fees (the “interchange”), plus a negotiated fee to the merchant acquirer (the “plus”). This fee is commonly less than 15 basis points for enterprises with at least \$1 billion in revenue (*see Figure 4*).

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Figure 3: Leading platforms produce substantial revenue from integrated payments

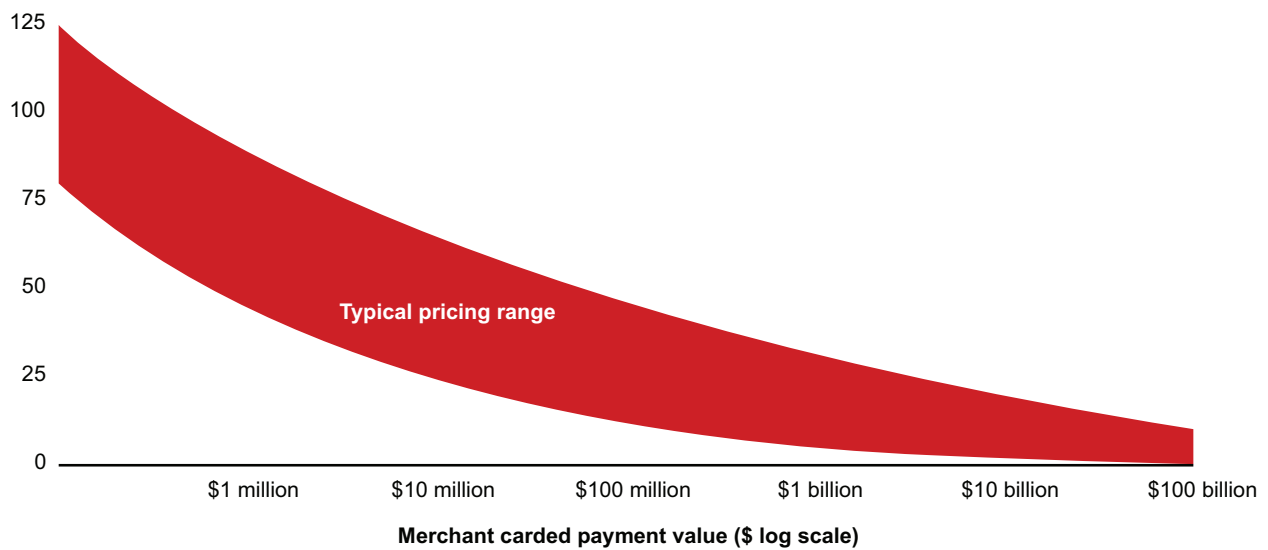
2021 revenue



Notes: Merchant solutions includes Shopify Payments, the main driver of growth in merchant solutions; payment processing fees are recognized on a gross basis; financial technology solutions includes integrated payment processing for Toast, as well as other financial services such as working capital loans; payment processing fees are recognized on a gross basis; transaction-based revenue includes revenue from Lightspeed Payments and revenue-sharing agreements with payment partners; revenue includes mix of gross and net recognition depending on nature of revenue; annual reports from prior years combine software and payments revenues for Lightspeed Payments; Lightspeed Payments revenue is based on year ending March 2021; payments gross margin reflects gross margin on segment containing payments revenue for each company
Sources: Company 10-Ks, 8-Ks, and S-1s; analyst reports; Bain analysis

Figure 4: Platforms serving smaller businesses can drive favorable economics

Card payment processing fee net of interchange, in basis points of transaction value processed



Sources: Market participant interviews; payment processor websites; Credit Suisse and Stripe data; Bain analysis

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Typically, other methods such as automated clearing house (ACH) payments have lower processing revenues than card processing. ISVs can often create a value-added service for managing these payments, which maintains margin for the ISV, enhances the customer experience, and reduces overall payment costs for customers.

Platforms earn a share of the payment processing fee, depending on the model chosen, responsibilities undertaken, and risk assumed. A company dipping its toe into integrated payments could expect to earn up to 30% of the “plus,” while a mature integrated payments company that internalizes the payments capability could earn the full 100%.

For a software company that touches \$1 billion of carded payments collected by small businesses, adopting a payfac-alternative model could generate \$5 million of net revenue, assuming 50 basis points of fees, 100% penetration, and revenue recognized on a net basis. This does not account for potential benefits from winning and retaining more customers through a differentiated product offering, which also increases customer lifetime value.



Selecting the right integrated payments model

Integrated payments only makes sense when it helps a platform develop a competitive advantage. Start with a quick test to decide whether to pursue it (see *Figure 5*).

If a software platform is confident it can create a compelling “better together” logic for its merchant customers, it then faces the question of exactly how to facilitate payments.

Determining the optimal model for a given platform requires examining the benefits, total cost of ownership, and risks across models in the context of the platform’s strategy. Let’s start with two versions of a payment facilitator model (see *Figure 1*). The payfac stands in place of the merchant for the purpose of credit and debit card rules, maintaining submerchant accounts for its merchant customers and touching the money in the settlement funds flow.

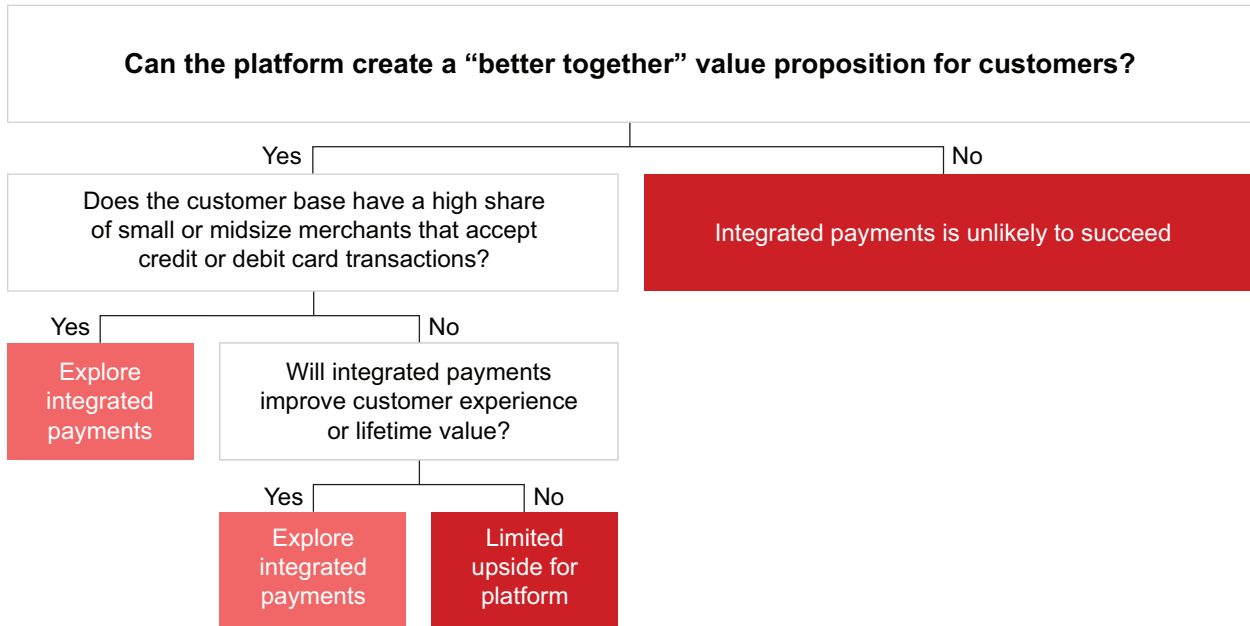
A typical promising platform may be best served by a payfac-alternative model. This affords more control over the customer experience, pricing, and speed. Deployment takes weeks or months, rather than quarters or years. Launching in stages and gradually building the integrated payments offering may be the most effective way to quickly enter the market, onboard merchants, and start processing.

Jumping straight to a rental model—where the platform rents infrastructure—might make sense for platforms with high payment volume that are prepared to manage the complexity and make a larger upfront investment. By contrast, referral and ISO models generally do not unleash the full opportunity to improve the customer experience. And building comprehensive “own” payfac capabilities tends to be a step too far for all but the largest ISVs.

There are exceptions where full payfac operations make sense at a smaller scale, notably when capturing a special interchange that would not be available to clients separately (such as microticket interchange rates in vending machines) or with a low-risk and sticky customer base. For example, payfac models

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Figure 5: A quick test to decide whether to pursue integrated payments



Source: Bain & Company

are common among software vendors providing US municipal government payment portals, because cardholder fraud is low, chargeback risk is very low, and client onboarding and churn is slow—all minimizing the requirements and risks of underwriting.

The expanding ecosystem of enabling firms

No platform has to tackle integrated payments on its own, as it can call on support from an ecosystem of companies that has been growing for a decade. Stripe launched Connect in 2012, when few software companies were integrating payments into their product offerings and those that did had few options. Platforms such as Shopify, Squarespace, and Xero were early adopters of Stripe’s offering.

Since then, WePay, Payrix, Finix, and others have emerged to help platforms integrate payments. They offer solutions for integrated referrals or payfac-alternative models, or middleware for platforms looking to rent payfac infrastructure.

As platforms other than the largest e-commerce and point-of-sale ISVs begin to facilitate payments, the enabling firms have evolved their product suite to suit a broader range of platforms. For example, Finix introduced Finix Flex in 2020 to provide a stepping-stone toward becoming a registered payfac with the card networks. Meanwhile, Stripe’s Connect end-to-end payments platform offers flexible building blocks and modular capabilities to grow with a business over time.

Matching the model to the situation

Creating exceptional customer experiences, setting prices, and getting significant shares of the revenue are the drawing cards for many platforms, but in return they must take on more responsibilities and risks. Moving from a pure referral model toward a payfac model, a platform will increase its ability to see customer data, own the customer experience, customize the product and pricing, and reap more of the revenue (see *Figure 2*).

However, this comes at a cost: The platform needs to internalize risk and compliance capabilities, invest in people and technology infrastructure, and integrate payments systems into the core software platform.

A greater effort/higher return model likely makes sense when a platform aims to do the following:

- **Control the customer experience.** Platforms that want to control the onboarding and ongoing customer experience will generally need to adopt a wholesale ISO, payfac, or payfac-alternative model. While referral with integration or retail ISO models might make inroads on the customer experience, they likely won't be able to deliver on the full-potential "better together" logic, as onboarding and relationship management generally stay with the payment service provider.
- **Set payments pricing.** Referral models have limited ability to influence pricing, so platforms looking to set payment pricing will need to move to ISO and payfac models. Platforms will generally see greater pricing flexibility when they bear the underwriting risk.
- **Underwrite merchants.** Where the "better together" logic depends on a superior ability to underwrite merchants, platforms should focus on wholesale ISO, payfac-alternative, or payfac models.
- **Touch the money.** A payfac-alternative or payfac model works if the platform wants to insert itself into the money flows to manage risk (such as holding back settlement to manage chargeback risks), split payments among multiple parties, or extract fees. This can be important when a platform wants to offer adjacent financial services, as when merchant cash advances with repayments are collected automatically as a percentage of sales.
- **Take advantage of card network rules.** In certain circumstances, it may be beneficial to own the merchant identification number to take advantage of discounted interchange rates or other network rules. This will typically require a payfac or payfac-alternative model.

Calculating revenue and the total cost of ownership

Revenue derives from the value of payments passing through (or sometimes adjacent to) the platform. A starting point is the revenue earned by the platform's merchants, such as gross merchandise value in e-commerce. However, the share of those payments that a platform can facilitate varies significantly. This variance depends on the nature of the platform (is it facilitating the economic transaction?

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is there a platform better positioned?), customer characteristics (large enterprise customers are less likely to seek a bundle), and execution of technology, marketing, and sales.

Payment method mix and geography also matter. Card payments typically are the most lucrative kind, while a large flow of physical payments, whether cash or check, calls for a change in behavior. Even within credit cards, the merchant size, average order size, and payment complexity can affect the margin available. In addition, other solutions, from fraud prevention to subscriptions, may be bundled with core payment processing to generate additional revenue.

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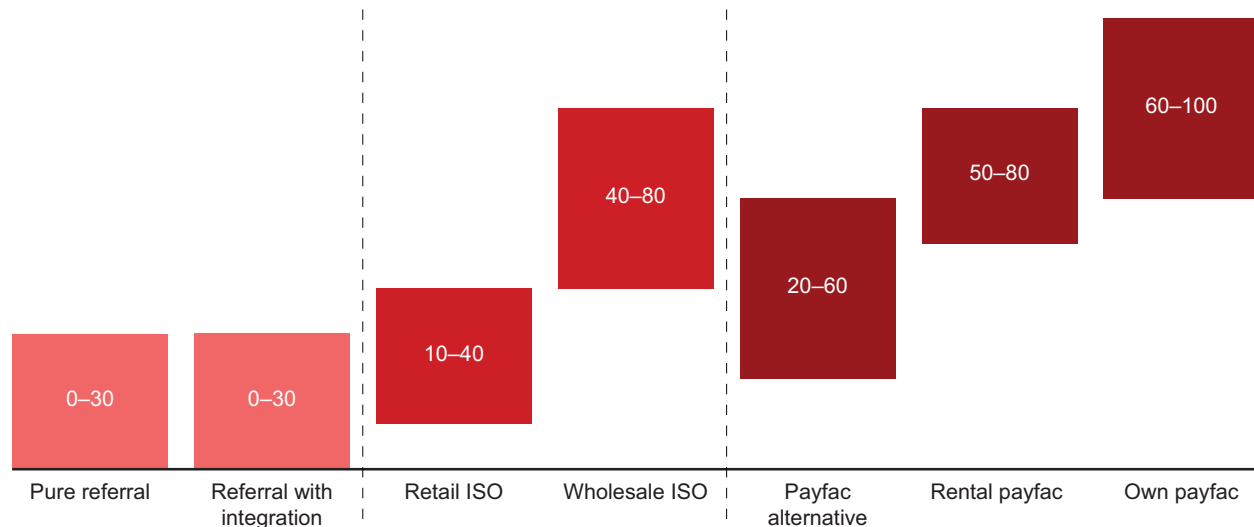
Client size is another important consideration for a payfac model. The net margin potential for acquiring payments will tend to decline as merchant size increases: Micro merchants might generate 100 to 200 basis points in spread, a small store or restaurant 70 to 100 basis points, and large enterprise clients fewer than 20 basis points. While micro merchants appear to present very lucrative net margins, this comes on small volumes and with high churn. Making a micro merchant customer base work requires sophisticated onboarding and underwriting automation. For instance, an onboarding cost of \$100 for a merchant that generates 100 basis points on \$3,000 per year in card volume with a three-year expected life falls below the breakeven point.

For an archetypal platform processing \$500 million of card payment volume flowing directly through its platform from small and midsize businesses with average payment volumes of \$250,000 annually, success may look like a 50% payments penetration, earning 20 to 60 basis points in a payfac-alternative model or 50 to 80 basis points in a rental payfac model. More is available for the “own” payfac model, while referral models have significantly lower upside (see *Figure 6*). The revenue differences in the alternative, rent, and own models are not inherent to the models, but instead stem from the division of responsibilities and risk, along with the pricing structure negotiated with enabling firms.

Here, we are recognizing revenue on a net basis—meaning revenue net of interchange fees like card network and processing fees. While some platforms will recognize on a gross basis for accounting or optics, the choice does not influence the fundamental economics.

Besides revenue considerations, model selection should be based on total cost of ownership, including both setup and ongoing costs. A rental payfac model can require up to \$3 million in setup costs and

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Figure 6: The potential revenue lift from integrated payments depends on which model a company selects**Net payments revenue from small and midsize merchants, in basis points of transaction value processed**

Notes: Revenue is net of interchange and merchant acquiring and enabler costs or revenue share; assumes merchants have an average payments value of \$250,000, or 100 basis points net of interchange
Sources: Market participant interviews; Bain analysis

an additional \$1 million to \$3 million in annual costs. In contrast, a payfac-alternative model with limited responsibilities can cost as little as \$200,000 to \$800,000 up front and \$0.4 million to \$1.2 million annually. A significant portion is fixed costs, with variable costs in the form of customer support and credit or fraud losses.

Payfac and ISO models involve much more regulatory and compliance overhead than payfac-alternative models. Becoming a full payfac typically requires an agreement with a sponsoring merchant acquirer such as Worldpay, registering as a payfac with the card networks, becoming compliant with the Payment Card Industry Data Security Standard (PCI DSS), and possibly obtaining a money transmitter or equivalent license. Network registration and standard validation will incur annual costs. And regulatory complexities often lead to legal and payments consulting advice to ensure compliance with evolving laws.

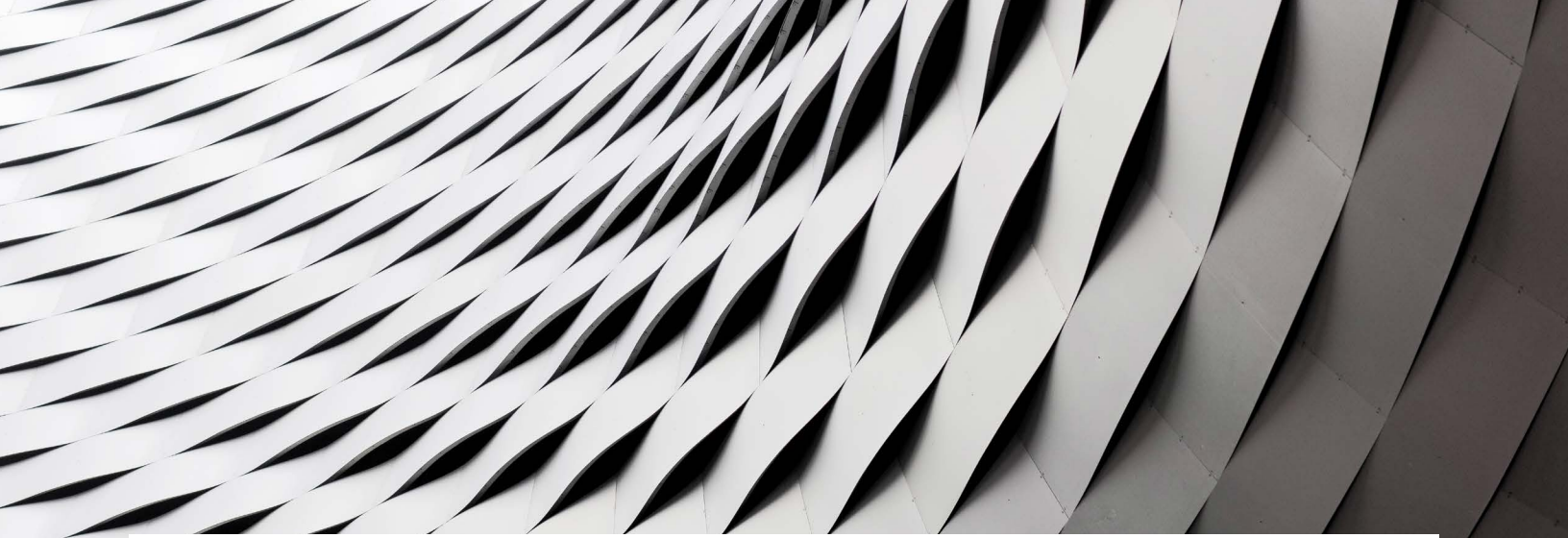
Both payfac-alternative and rental payfac models require technical, operations, and risk/compliance capabilities. Platforms beginning their payments journey in a payfac-alternative model will need to build a team of 3 to 8 people across product, engineering, operations, support, and risk functions, and 10 or more full-time employees to cover all the payfac responsibilities once it's up and running.

A rental payfac model can be operational within 6 to 18 months, although it may take longer depending on the pace of model choice, vendor selection, and execution. For the payfac-alternative model, Stripe sees major platforms such as GitHub and WooCommerce launch in two to three months.

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Beyond the financial analysis, ISVs need to decide whether they want to internalize the capabilities required to move to the payfac end of the spectrum. Many platforms will not have the bandwidth or appetite to develop the full suite of capabilities needed for a payfac. As ISVs assess a platform provider, uptime reliability and security will be key considerations.

Global platforms must select a model that will scale internationally, partnering with enabling firms that have a global footprint and support the suite of payment methods used by merchants in each geographic market. The most ambitious platforms will also look ahead to other embedded finance applications, building with an enabler such as Stripe that has payments, lending, and banking-as-a-service products to chart a quicker route to market.



Investing in software assets with payments potential

As integrated payments becomes increasingly central to the investment thesis for independent software vendors, accurately assessing the opportunity, yet not overpaying for assets, is critical. At the same time, for companies already in a private equity or growth equity portfolio, beginning or accelerating integrated payments will help maximize the return upon exiting the asset.

With this in mind, financial investors will need to address a set of key questions as they test their investment thesis and model the financial effects.

The success of integrated payments hinges on a “better together” logic for merchant customers of a software platform, consisting of benefits spanning customer experience, cost, access to services, and risk. As a rule of thumb, more of these benefits flow from vertical industry platforms and where merchants skew smaller in size.

Failure to establish a “better together” case dooms an integrated payments investment thesis. In this case, customers have no reason to buy from the platform, leaving it to compete only on price in a business that has neither experience nor a cost advantage. The result is generally that customers will seek payment services directly from another platform in their technology stack, or through another channel.

Assuming the “better together” logic takes hold, validating a competitive advantage for the target asset tends to be straightforward. Where small or midsize customers receive material credit or debit card payments, that significant revenue stream can strengthen the core business or flow through to the bottom line. In the absence of a material payments revenue stream, the thesis will hinge on the ability to raise customer lifetime value for the platform’s core business, through such means as improved functionality and greater retention.

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A useful diligence exercise involves answering a set of high-gain questions.

To determine whether the “better together” logic exists for customers, ask:

- Do the platform’s peers offer integrated payments? If so, do they achieve high payments penetration rates?
- What size are the current customers?
- Does the core software enable economic activity such as booking, or serve as the main source or system of record for the transaction?
- Who owns the end-client relationship?
- What data flows through or belongs to the ISV that will improve the integrated payments value proposition, resulting in features such as better pricing or risk management?
- Are the merchants difficult to underwrite for traditional merchant acquirers?
- What is the profile of the transactions—recurrent, semi-recurrent, or one-off?
- Do any other platforms in customer technology stacks or ecosystems have a more compelling “better together” logic?
- Which types of product bundles could the ISV provide to subsidize the software or payment offer?

To gauge the extent of competitive advantage, ask:

- What mix of payment methods do the platform’s customers accept for the relevant transactions?
- What price do customers pay for payment processing, for each payment method?
- Would embedding payments improve the merchant experience through, for instance, streamlined onboarding or unified tools? And would that improve the core software product?

Realism in modeling

Private equity and other investors increasingly incorporate payments into base-case financial models, not just upside cases. But in using payments to justify higher multiples, investors must ensure they don’t overweight sometimes dazzling revenue potential, while underweighting timing, cost, and risk considerations. Modeling realistic scenarios and making choices that reduce execution risks are essential to appropriately valuing the opportunity.

Realistic modeling includes evaluating revenue drivers such as payment volume, payment penetration, and take rates, along with total cost of ownership (both upfront and recurring costs), while taking into

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account the expected timing of launch and customer uptake over the holding period. These variables will be sensitive to company-specific factors and model choice. They can also change over time.

A driver-based approach often will serve for commercial due diligence. When investors need more precision, they can build sophisticated models that account for platform growth, average order value, payment methods, and card-present vs. card-not-present transactions, while also breaking out revenue and cost line items at a more granular level. Example line items include estimated net revenue after deducting interchange and enabler fees from the merchant discount rate; other value-added services that can be cross-sold; and modeled credit provisions, chargebacks, onboarding, and customer support on a variable basis.

Toggling between payfac-alternative and rental payfac models will allow deal teams to get a sense of which model fits a given ISV. Our hypothesis is that a payfac-alternative model (such as Stripe Connect, Finix Flex, or Payrix Pro) tends to work well for a typical platform integrating payments. This model can accelerate time to market, minimize upfront costs, and leave key responsibilities and risks with the enabling partner firm.

Enabling firms offering modular products allow platforms to pick and choose where it makes sense to invest in payments capabilities, thus giving the platforms flexibility to take on more over time.

Enabling firms offering modular products allow platforms to pick and choose where it makes sense to invest in payments capabilities, thus giving the platforms flexibility to take on more over time. For example, Shopify started on Stripe Connect in 2013 and has evolved to use Stripe's Custom Connect, which allows Shopify to own more of the value chain and achieve economics of the rental model.

How it plays out with one platform

Let's evaluate a hypothetical software platform, which we'll call SaaS Co. The company currently realizes \$12 million in pretax profits on \$40 million in revenue. Its software facilitates \$500 million of carded consumer transactions by small and midsize businesses annually, but it does not currently monetize payments. The analysis includes payment volume, payment penetration, take rate, and total cost of ownership.

Payment volume. Investors will need to understand total payments touched by the platform and payment method mix. They should focus initially on credit/debit card payments value, staying wary of aggressive assumptions on payment mix shift. Early investors in this space often underestimated the time and effort required to train the market to switch over from ACH. Sell-side data can be tested

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from the top down based on industry payments and market share, or from the bottom up based on customer numbers and revenue. For SaaS Co., we will assume \$500 million per year.

Payment penetration. Several activities influence payment penetration, including the strength of the “better together” logic and the chosen pricing, marketing, and sales tactics. Benchmarking comparable platforms—by talking with enabling firms or looking across existing portfolio companies—and understanding merchant needs and characteristics will help raise investors’ confidence in the assumptions around penetration.

For example, an integrated accounting package may have a compelling integrated payments value proposition for some businesses, such as a home services contractor managing finances through its accounting platform, but not for others, such as a local coffee shop that uses Toast as its point-of-sale system. Penetration rates tend to be lower for horizontal platforms that have a diverse range of customers and that may not be closest to the economic activity.

The effectiveness of sales and marketing can also influence the penetration rate. Eight years after launching Shopify Payments, Shopify is reaching penetration rates approaching 90% in the US. Adoption accelerated as a result of Shopify charging a fee to connect to payment processors other than Shopify Payments. Shopify attained high adoption through its core product strength and relative bargaining position. But near-mandatory bundling is not an option for all platforms.

For SaaS Co., with its strong “better together” logic and custom base dominated by small firms, a penetration rate of 50% to 60% is ambitious but achievable.

Take rate. The take rate stems from net payment processing fees available and the model selected. Net revenue for card payments typically ranges between 10 and 100 basis points for all but the largest enterprises. The position within that range will vary by merchant size and, in some cases, by industry. Certain high-risk merchant acquiring categories, such as gambling, may have even higher margins.

How this revenue splits between the platform and enabling firm will depend on the model adopted and the division of responsibilities and risk. Assuming 100 basis points are available, a platform may see 20 to 60 basis points within a payfac-alternative model and 50 to 80 basis points for a rental payfac model. The increased take rate is not a free lunch, though, as it comes with added costs and risks that must be factored into the total cost of ownership.

Investors should actively plan for price discounts to drive adoption or deliver on the “better together” value proposition. For example, Shopify reduces price by as much as 50 basis points for those on its most expensive plan.

For SaaS Co., with its small-business clientele in a low-risk merchant acquiring industry, we will assume the net payment processing revenue is 100 basis points. SaaS Co. may start out earning 40 basis points on card payment volume under a payfac-alternative model. If it pursued a rental payfac model, it could see closer to 60 basis points. We’ve built a 5-basis-point discount into our model.

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When evaluating collateral from the asset's seller, investors should clarify whether disclosed figures occur on a net or gross basis. Here, we discuss revenue on a net basis. However, more platforms are reporting revenue on a gross basis, either because that is the correct application of generally accepted accounting principles, or because it allows them to sell a growth story or take advantage of revenue multiplier valuation methods. Investors should be indifferent between a smaller but higher-margin vs. a larger but lower-margin revenue stream.

Total cost of ownership. The model selected for the platform drives cost. For integrated referrals models, costs will largely consist of the technical resources to build and maintain the integration. Standard payfac-alternative models will typically require upfront investment of \$200,000 to \$800,000 and annual costs of \$0.4 million to \$1.2 million. Taking on more responsibility with a rental payfac will raise the upfront investment to \$1 million to \$3 million, with annual costs of the same magnitude.

Comparing revenue potential to total cost of ownership serves as a useful starting point to inform which model will optimize earnings for a company.

Comparing revenue potential to total cost of ownership serves as a useful starting point to inform which model will optimize earnings for a company. However, financial investors should also bear in mind operational and exit considerations.

Operational, timing, and exit considerations

Operational and timing risks can have significant effects on realized returns, which will influence the choice of a model.

Experienced investors warn that pursuing a rental or "own" payfac model usually takes longer than anticipated. The plan of, say, six months ends up taking two years to get everything set up and customers on board. Hiring the right people, developing the strategy, and running a request-for-proposals process takes time even prior to building the solution.

It can take even longer when the platform is global, so many companies stagger implementation of payments, starting with the US, given the size and profitability of payments there, and then rolling out to other countries one by one. Certain providers such as Stripe enable global payments acceptance once a platform is live. Then, the sales and marketing teams will need to be educated and motivated to cross-sell payments.

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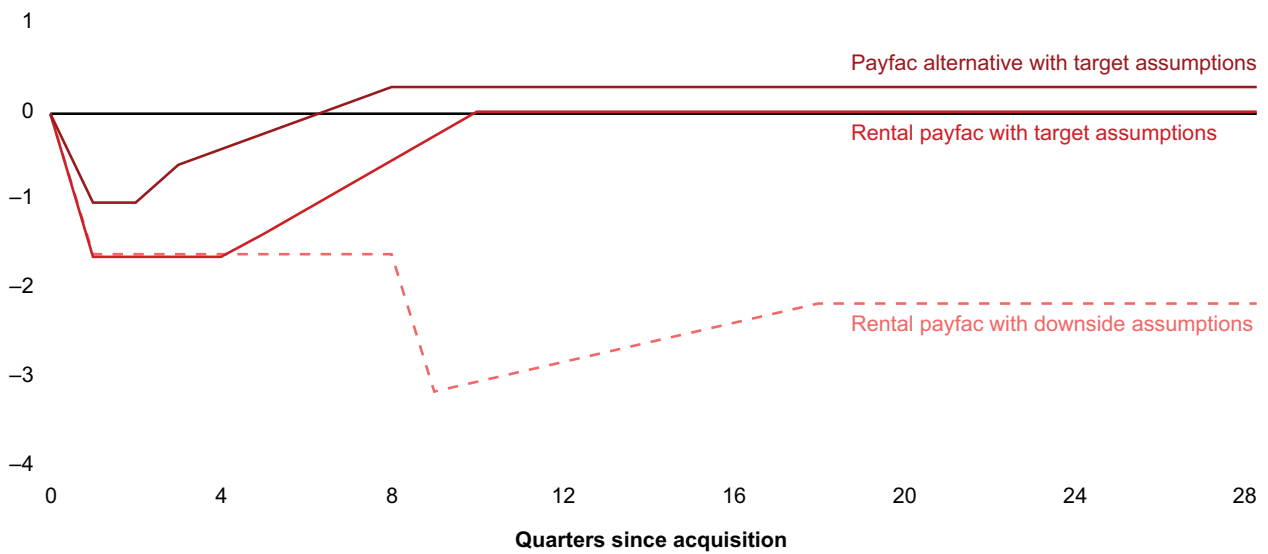
Downside scenarios, even mild ones such as cost overruns or lower-than-expected penetration, can make it difficult to realize the expected gains in less than a five-year holding period. This might not concern investors if payments are purely upside, but it could cause problems if investors built payments into base-case models, especially when the management team has limited payments experience. For investors with significant exposure to software, investing in payments expertise on operations teams can provide critical support for portfolio companies.

We've modeled the stylized cash flows for SaaS Co. pursuing payfac-alternative and rental payfac models. In the base scenario, SaaS Co. achieves the targets outlined above. We use a 6-month and 12-month period to launch payfac-alternative and rental models. We assume that, regardless of model, it takes 18 months from launch to achieve the target penetration rate. A reasonable downside scenario would involve delayed implementation due to other management priorities, a lower-than-expected penetration rate of 40%, and costs at the high end of typical ranges.

In year four of the base case, SaaS Co. generates \$1.65 million in revenue under the rental model, most of which is consumed by ongoing costs. Meanwhile, the downside scenario produces less than half of the revenue, and the higher ongoing employee costs result in persistent negative cash flows (see Figure 7). Under a payfac-alternative model, SaaS Co. generates only \$1 million in revenue, but the model's lower cost structure creates superior cash flows.

Figure 7: Scenario analysis yields different cash flows for rental payfac and payfac-alternative models

Annualized free cash flow (\$ millions)



Source: Bain & Company

Enter the legal advisers

For any platform that has already explored payments, legal advisers have an important role to play. Exclusivity provisions in existing contracts can hamper adoption rates. For example, an existing ISO arrangement may restrict the ISV from offering payment processing services to merchants signed up under the ISO arrangement. This will restrict penetration to new business during the exclusivity period.

One further caution: Investors in ISVs that have ventured deeper into these payment activities should not assume that they are doing things correctly from a network rules or regulatory perspective. The “merchant of record” concept is not a regulatory construct but rather a set of network requirements that have changed over time. In our due diligence work with investors, we have seen businesses with over \$1 billion in annual card volume that were acting in a payfac capacity by disbursing split payments. These businesses were not registered with their acquirer and the networks as a payfac, exposing them to potential civil and criminal penalties as an unlicensed money transmitter.

For any platform that has already explored payments, legal advisers have an important role to play. Exclusivity provisions in existing contracts can hamper adoption rates.

We have also seen ISVs misapply the card network’s merchant of record to receive and hold inbound consumer payments in a stored-value account for later disbursement to their merchants, relying on the gift card exemption afforded direct retailers in most US state jurisdictions. This misclassification of their relationship with the consumer would also expose the ISV to enforcement actions if discovered. Legal advisers should be engaged to ensure that potential targets have a money transmission license, stored value operator license, and other relevant licenses as required.

Beyond payments to embedded finance

As investors carry out due diligence on target assets, or review their portfolio, they should look to the broader world of embedded finance for future growth. Payments can be bundled with banking-as-a-service offerings that create revenue through merchant spending on a linked debit card, or through term lending with repayments as a portion of sales. Stripe, for instance, is building a compelling package of its connect, capital, treasury, and issuing services that allows platforms to offer all of these to their customers.

Other platforms are looking beyond traditional banking and payments products. For example, Storable, a provider of self-storage management software, has integrated renters insurance to protect the contents of lockers.

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While the financial product will change, the fundamental evaluation process will be similar: Does the platform plus financial service provide a more compelling “better together” logic for its customers? Can the platform create a competitive advantage by offering the bundle? And can it then chart a path to execute the plan effectively?

Integrated payments fits into the broader emerging trend of embedded finance. We anticipate that platforms will increasingly embed banking, lending, insurance, and other financial products, supported by firms such as Stripe, Unit, and Trov that are forming an ecosystem of developers. Mastering the integrated payments business will not only yield growth in the near term but also put platforms—and their investors—on a path for sustained growth through a range of new revenue streams.

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About Stripe

Stripe is a financial infrastructure platform for businesses. Millions of companies—from the world's largest enterprises to the most ambitious start-ups—use Stripe to accept payments, grow their revenue, and accelerate new business opportunities. Headquartered in San Francisco and Dublin, the company aims to increase the GDP of the internet.

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