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AMERICAS TECHNOLOGY

# Entering the Agentic AI Era for the Commerce Landscape

Beginning with the launch of ChatGPT in November 2022 and the subsequent scaling of large language models (LLMs), and continuing more recently with conversational agentic canvases being increasingly adopted by 1b+ global consumers, **AI is increasingly impacting and reshaping the consumer shopping journey.** While adoption today is concentrated in **product discovery, research, and recommendations,** we expect steady, measured progress toward end-to-end agentic shopping, where AI can increasingly act on behalf of consumers across discovery, comparison, purchase, and payment. **We view this as a long-duration transition (think over the next 3-5+ years),** analogous to the development of eCommerce itself, rather than an overnight disruption (most notably since consumer computing habits change slower than the frontier of technological enablement). Our central conclusion is that **value should increasingly follow consumer intent.** As AI agents become a more important starting point for shopping, the strategic question shifts from simply **who owns the digital storefront to who owns discovery, intent, and the infrastructure required to convert that intent into a trusted transaction.** This creates opportunities/challenges across eCommerce, digital advertising, payments, and cybersecurity, while introducing new debates around customer ownership, distribution economics, merchant margins, and liability. Based on the work in the report, we would highlight a range of **companies that are positively skewed toward this secular growth theme** over the long-term: META, GOOGL, AMZN, V, MA, EFX, TRU, FICO, LYV, SHOP, NET, STUB, WMT, SN, and TPR.

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In this deep dive report, we assess the current landscape of agentic commerce (as AI interfaces increasingly shift from conversational to action oriented) and examine how industry participants across commerce (online/offline), digital advertising, payments/fintech, and information services are both currently positioned and might evolve to respond to shifting consumer behavior.

**We frame four key implications:**

1. **Agentic commerce could catalyze the next leg of eCommerce penetration, but adoption should be gradual and category dependent.** Consumers are already using AI extensively for shopping-related discovery, but autonomous purchasing remains much less developed. We see the earliest opportunity in lower-risk, recurring and commoditized purchases where consumer preferences are relatively straightforward. More subjective categories, such as apparel and luxury, are likely to progress more slowly. We identify **$2.6tn of U.S. consumer spending in high-likelihood categories** and estimate that roughly **2% agentic penetration of high-likelihood card-present spending could add approximately 1% to eCommerce growth.**
2. **In advertising, monetization should migrate with commercial intent rather than disappear.** AI is already improving creative generation, targeting, campaign optimization and measurement. Agentic commerce adds a longer-duration shift as product discovery increasingly begins inside AI interfaces instead of traditional search or merchant sites. We believe this could resemble the desktop-to-mobile transition: the scarce asset may increasingly become being the merchant, service or brand an agent repeatedly selects for a consumer. Retail media and paid search are not necessarily eliminated or disintermediated, but advertising dollars could migrate toward AI-native sponsored recommendations and other mechanisms for influencing agent-driven discovery.
3. **Agentic Payments is building off of existing infrastructure, and further development of liability frameworks should accelerate adoption.** Agentic payments introduce technical and governance questions around consumer authorization, agent identity, fraud, disputes, returns, and liability. Emerging protocols from Google, Stripe, Visa, and Mastercard are building the infrastructure for agent-to-merchant interaction and payment authorization, but the broader liability framework remains underdeveloped. We believe that agentic payments will build off the existing platform for consumer payments (and already are), rather than start from scratch with emerging payment form factors. We view the card networks (V/MA) as well positioned, owing to network effects around carded payments, and their infrastructure that is capable of supplying tokenization, identity, authentication, fraud prevention and real-time decisioning at scale.
4. **The threat environment may scale faster than legitimate autonomous commerce.** Merchants historically sought to distinguish humans from bots; agentic commerce requires them to distinguish **authorized agents from malicious automation.** Traditional signals such as device reputation, IP address, navigation patterns, and transaction velocity may become less useful in isolation when legitimate transactions increasingly originate from cloud-based agents operating at

machine speed. We therefore expect greater demand for verified agent identity, consumer-agent linkage, fraud decision and cybersecurity infrastructure.

**Where we see the biggest strategic debates:**

- **Who owns the consumer?** Large retailers (online & offline) may resist ceding discovery and the customer relationship to horizontal agents because doing so risks weakening first-party data, loyalty, cross-selling, and retail-media economics. On this, we note AMZN recently blocked Muse AI (META) from shopping on Amazon.com.
- **Does agentic commerce democratize discovery or reinforce scale?** Agents could improve discovery of smaller merchants, benefiting ecosystems such as Shopify, but optimization around price, availability, delivery speed, and transaction reliability could simultaneously favor scaled retailers such as Amazon and Walmart.
- **Does search disruption simply create a new toll collector?** AI agents could initially reduce dependence on paid search, but scaled agent platforms may ultimately monetize their control of consumer intent through advertising, referral fees, commissions, or preferred placement. It is likely that the evolution of the top/middle of the advertising funnel will be a critical industry development as digital advertising and retail media networks become increasingly interconnected.
- **Can trust infrastructure keep pace with product innovation?** The technology enabling agentic transactions is advancing rapidly, but widespread adoption depends on clear rules around intent verification, erroneous purchases, fraud losses, chargebacks, and returns.

Against this backdrop, we see a broad set of potential long-term beneficiaries across **eCommerce and commerce infrastructure, payments, identity, fraud prevention, and cybersecurity.** Importantly, we believe the winners will be determined less by AI capability alone and more by the combination of **distribution, consumer trust, merchant participation, transaction infrastructure, and the ability to capture commercial intent** as the consumer internet moves from conversation toward action. Lastly, with the introduction of Muse AI (by Meta) the competitive landscape is now set to intensify in terms of existing **advertising, social media and LLM agentic platforms** to introduce products, alter consumer behavior and attempt to establish themselves (if successful) as the platform layer for consumer AI.

Based on the work in the report, we would highlight in the table below a range of **companies that are positively skewed toward this secular growth theme** over the long-term (despite some of these stocks reflecting investor sentiment of the opposite view):



**Exhibit 1: Stocks favorably leveraged to agentic commerce growth**

| Sub-Sector | Ticker | Company | Price | Rating | 12M Price Target | Upside% | Covering Analyst |
|---|---|---|---|---|---|---|---|
| Digital Advertising | META | Meta Platforms | $744.10 | Buy | $725.00 | (2.6%) | Eric Sheridan |
| Digital Advertising | GOOGL | Alphabet | $337.83 | Buy | $435.00 | 28.8% | Eric Sheridan |
| eCommerce | AMZN | Amazon.com | $249.27 | Buy | $375.00 | 50.4% | Eric Sheridan |
| eCommerce | SHOP | Shopify | $142.34 | Buy | $194.00 | 36.3% | Gabriela Borges |
| Payments | V | Visa | $361.52 | Buy | $438.00 | 21.2% | Will Nance |
| Payments | MA | Mastercard | $559.92 | Buy | $701.00 | 25.2% | Will Nance |
| Business & Info Services | FICO | Fair Isaac | $879.62 | Buy | $1,548.00 | 76.0% | George Tong |
| Business & Info Services | EFX | Equifax | $155.32 | Neutral | $199.00 | 28.1% | George Tong |
| Business & Info Services | TRU | TransUnion | $70.95 | Neutral | $89.00 | 25.4% | George Tong |
| Retail | WMT | Walmart | $110.53 | Buy | $132.00 | 19.4% | Kate McShane |
| Apparel & Accessories | SN | SharkNinja | $168.49 | Buy | $204.00 | 21.1% | Brooke Roach |
| Apparel & Accessories | TPR | Tapestry | $110.51 | Buy | $169.00 | 52.9% | Brooke Roach |
| Packaged Food & Food Retail | HSY | Hershey | $168.45 | Buy | $224.00 | 33.0% | Leah Jordan |
| Packaged Food & Food Retail | MDLZ | Mondelez International | $61.44 | Buy | $72.00 | 17.2% | Leah Jordan |
| Personal Care | EL | Estee Lauder | $98.83 | Buy | $112.00 | 13.3% | Bonnie Herzog |
| Cybersecurity | NET | Cloudflare | $352.45 | Buy | $389.00 | 10.4% | Gabriela Borges |
| Entertainment | LYV | Live Nation Entertainment | $169.03 | Buy | $210.00 | 24.2% | Stephen Laszczyk |
| Entertainment | STUB | StubHub Holdings | $5.31 | Buy | $16.00 | 201.3% | Eric Sheridan |

Prices as of 9/23/26

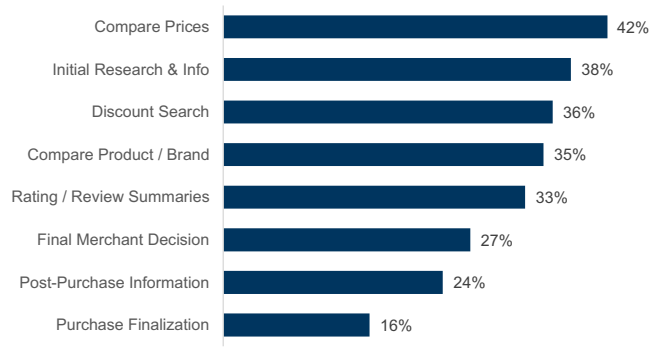
Source: FactSet, Goldman Sachs Global Investment Research

# Examining how Agentic Commerce Might Catalyze the Next Wave of eCommerce Adoption

## What is the current State of AI in commerce?

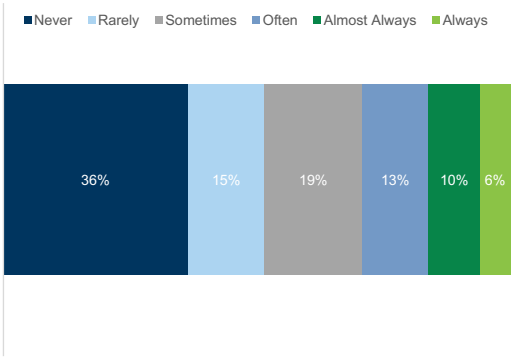
Agentic commerce is positioned to enable the next phase of the consumer shopping experience. Although still in the early innings, consumers are already putting agents to work for their shopping needs as shopping now ranks the third leading application for AI (Epsilon) and nearly half of shoppers having already shifted to AI for product discovery (~44% of online buyers now use AI tools for product discovery according to Bain & Co. and many already using AI tools for comparative price analysis). We believe the application of agentic AI within retail commerce has the potential to provide incremental pathways for consumers to interact with brands to which consumers will find the most relevancy. This, in turn, will drive incremental conversion while driving minimal incremental marketing dollars. However, we believe there continues to be a significant portion of eCommerce volume that is not exposed/connected to the major foundational models (e.g. Amazon and Walmart), which we believe limits the breadth these models can provide and could hinder broader user adoption if solutions are not reached.

**Exhibit 2: How consumers use AI when they shop**




Source: Nielsen, Goldman Sachs Global Investment Research

**Exhibit 3: 6 in 10 consumers use AI when shopping**




Source: Epsilon Pulse, Goldman Sachs Global Investment Research

**Mapping the state of agentic commerce technology today**

The state of the technology that is powering agentic Commerce today is highly fragmented and still actively evolving. We see the greatest consumer adoption in the upper funnel commerce journey, while the technology and adoption of lower funnel agentic purchase/conversion is more limited, with various competing protocols and consumer journeys. Below we describe the current state of Agentic Commerce technology and adoption across 1) upper funnel product discovery, 2) lower funnel purchase conversion, and 3) protocols in development to enable the broader ecosystem.

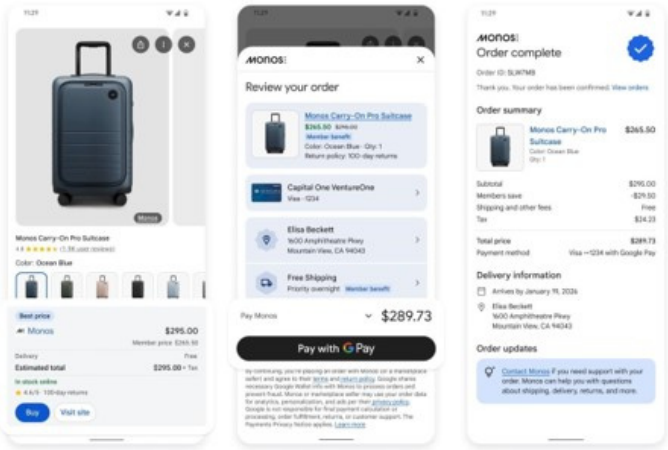
**1) Product Discovery and Research:** Agentic commerce is already having a meaningful impact on the upper funnel shopping journey for consumers. Agentic tools have seen meaningful adoption across discovery and advice, with consumers leveraging LLMs to discover, research, and recommend new products and services. The experience is enabled by consumer facing LLMs that can canvas merchant inventory on behalf of the consumer. These agents respond to consumer shopping queries and purchase ideas, products comparisons, and help refine merchants down to those capable of fulfilling certain obligations, like maximum shipping times, price limits, etc. This form of agentic usage can alter the role search engines play in the eCommerce journey, with many consumers either opting to engage with agents (e.g. Muse), or skipping the search engine experience all together.

- Product highlight: Google (GOOGL) currently has two products that it sells to assist its customers in acquiring and retaining customers. **Conversational Commerce** (GenAI chat): Real-time, multi-modal conversational shopping that drives customers to the products and services that are desired and assists in making purchasing decisions. Google also offers GenAI for Digital Commerce: **Catalog & Content Enrichment** (GenAI search) which allows merchants to improve their online product discovery that is hidden in large amounts of product data. We believe consumers are broadly familiar with these solutions. We also note the emergence of personalization engines (such as Mastercard's adaptML) designed to enable personalized recommendations based on aggregated and anonymized transaction data. The data enables geography-based predictive targeting and spend insights in which retailers can segment while financial institutions can apply the data to tailor advertising for bank cardholders.
- Retailer based agents: In addition to horizontal agentic experiences, often provided by the large frontier model companies, large retailers have also rolled out merchant specific agents that only exist on the merchants' digital properties. Examples include Amazon Alexa and Walmart's Sparky. While these experiences provide less breadth for the consumer by restricting the search to a specific retailer's inventory, they have significantly fewer scaling hurdles that have helped them see early adoption. First, they eliminate the need for new payment and security protocols, by using first party identity verification, agents, and payment acceptance. This helps solve many of the trust- and security-related hurdles around consumer adoption. Second, they keep retailers in control of the eCommerce journey, allowing for first party marketing and loyalty solutions. However, this approach prioritizes merchants' desires to preserve the control over the customer relationship and the primacy of merchant's digital storefront over providing the consumer with a comprehensive product discovery experience across multiple eCommerce surface areas. We expect these two goals to

remain at odds, but given the lower scaling barriers for first party agent experiences, we believe retailer agents are likely to lead the adoption curve in the near term until some of the trust and scaling barriers for more horizontal solutions are resolved.

**2) Lower funnel and end-to-end agentic commerce**: Lower funnel agentic commerce, which involves an end-to-end experience from product discovery all the way to conversion and payment, is in earlier stages, but there have been several implementations to enable agentic purchase functionality for consumers, which allows the consumer to delegate permissions to complete a transaction to an AI agent. The technical implementation of these experiences varies widely, but currently fall under several buckets, including 1) browser-based agents (e.g. Claude in Chrome) 2) module-based agents (e.g. LinkedIn's Hiring Assistant), 3) embedded digital wallets (e.g. Stripe Link Agent Wallet), & most recently 4) personal (operating system) agents (e.g. META's Muse). For browser-based agents, the consumer is able to research a given product and is presented a set of options with the requested information and details. If the consumer is interested in completing a transaction, the agent transitions/crawls through the normal shopping cart steps and adds the item into the cart on the back end, and when the consumer is interested in completing the purchase, they are redirected to the merchant's website where payment credentials are requested to complete the transaction. Module or tool-based agents require a higher degree of integration between the AI Application and the merchant. In this case, a consumer can complete or conduct their product research through a merchant provided and embedded tool that sits inside the chat window (consumer not redirected to merchant's website). Finally, there is an embedded digital wallet model, where the consumer's payment credentials are stored within the AI application and transactions can be completed through the chat (though merchant catalogs must be exposed). Examples of this include Amazon's "Buy for Me" and Rufus as well as the launch of UCP, in which Google noted it expects to put a buy button directly on Google surfaces across AI mode in Search and Gemini.

**Exhibit 4: Embedded purchase within Gemini**




Source: Company data

**Recent agentic product launches have catalyzed renewed investor debate around agentic commerce adoption.**

**With the introduction of several action-based consumer agents in the last few weeks** (i.e. Spear Street Technology's Instinct; Meta's Muse AI), **the consumer AI landscape is undergoing a fundamental paradigm shift, transitioning rapidly from passive, conversational chatbots to proactive, autonomous agents capable of executing real-world tasks.** We see the industry moving from simpler call-and-response functionality to completing more complex, high-value personal workflows (e.g. travel booking, bill negotiation, calendar management, shopping, and administrative tasks). Below, we elaborate on these launches and frame ecosystem implications:

- **Instinct:** The Instinct platform launched with an end-to-end agentic personal assistant experience that connects directly to a user's email, messaging apps, calendar, etc. Agent functionality includes reservation making as well as an agentic commerce experience, where consumers can browse products and complete purchases via messenger based communication with the agent.
- **Muse AI (META):** Muse similarly allows for an end-to-end agentic personal assistant experience, embedded within Meta's ecosystem and capable of working across websites and applications (further details here). The user experience was designed around existing messaging behaviors to minimize the learning curve, where users can interact with Muse through a) dedicated iOS and Android applications, b) desktop/web interfaces, and c) WhatsApp.

From our perspective, the launch of these personal agents represents a potential conversation-to-action shift in consumer internet behavior. Over time, we believe these agents could become an increasingly important point of aggregation for consumer intent, sitting between users and a broad range of digital services. For scaled platforms like META, with established consumer relationships and large distribution, this creates an opportunity to deepen engagement while expanding the number of user interactions that occur within their ecosystems. Longer term, we believe that successful execution could support additional monetization avenues overtime, notably in commerce and advertising.

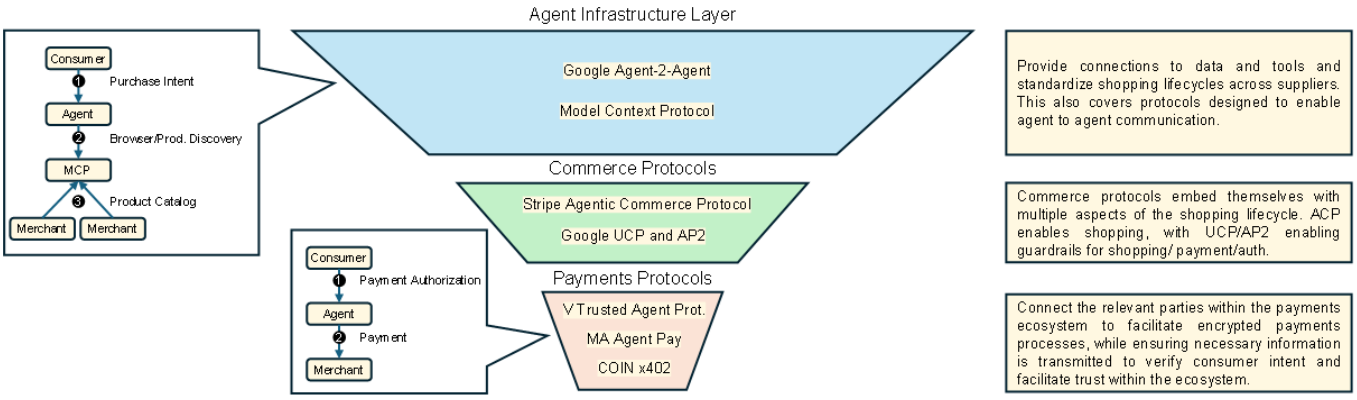
Within **commerce** and **advertising**, we view agentic experiences as a potential extension of ongoing efforts to reduce friction across the consumer journey where consumers may increasingly rely on AI native interfaces to assist with discovery, research, and purchase/transaction. As adoption broadens, we see the potential for greater convergence between commerce and advertising as platforms seek to connect commercial intent more directly with measurable transaction outcomes.

**As it relates to payments within Muse**, we view the current implementation as prioritizing time to market over being at the frontier of technical innovation in payments, with the initial launch highly reliant on Stripe's "Link for Agents" offering, with ShopPay and PayPal on track to be added shortly. Stripe's offering is highly reliant on two-step transactions where Stripe charges the consumer's card and then reissues a virtual card and inputs the second card on the merchant's website, which introduces a degree of inefficiency and calls into question who is liable for fraud/chargebacks (i.e. is it Stripe as the processor of the consumers card or the merchant as the processor for the virtual

card). Longer term, we believe the technology will evolve towards the current wallet ecosystem, and we expect V/MA's agentic token platform to help streamline the payment flows, approval rates, fraud risk, and the merchant's ability to match incoming transactions to the end consumer. However, **our overarching view is that now that consumer agentic platforms are going mainstream, it is much more clear that the card ecosystem is the default platform on which agentic payments are being built.**

**3) Protocols enabling the ecosystem:** Several protocols have been developed to address the requirements for agentic commerce. At the merchant level, protocols such as MCP (model context protocol) serve as a foundational layer that enables merchants to expose their catalogs/inventory to the agentic ecosystem (although several notable large merchants have limited 3rd party agents from crawling their catalogs). When consumers are in the early shopping stages, browsing items and conducting product comparisons, their agent will leverage shopping protocols (like UCP) to interact with the merchant exposed inventory. At a high level, protocols like UCP leverage a common language for agents and systems to reduce the burden for communication. Finally, to complete a transaction, payment authorization and authentication are required, leveraging payment protocols like Visa Trusted Agent Protocol and Mastercard Agent Pay. These payment protocols answer many of the questions posed above and facilitate the necessary feedback loop to determine intent and ultimately protect both merchants and consumers (for example, ensuring a consumer requested a certain item in a certain size to ensure a return or dispute request is valid). The overall agentic commerce landscape is still in its early stages with many of the protocols changing over the past year+. We believe that although the protocols establish a clear path for parties to interact and enable purchase facilitation, clear rules and liabilities for each stakeholder still need to be worked out and are required prior to seeing broader ecosystem adoption. In Exhibit 5 we provide a high level overview of the types of agentic commerce-related protocols.

**Exhibit 5: Agentic Commerce Protocol Overview**




Source: Goldman Sachs Global Investment Research

- **Merchant side product and inventory**: Foundational to agentic commerce enabling the connection of agents across commerce ecosystem. For example, the Model Context Protocol (MCP), is an open-source standard designed to connect AI models directly to secure data sources, functioning as an integration standard rather than a payment protocol, standardizing how AI agents interface with external data infrastructure enabling, for instance, a shopping agent to read product catalogs,

check inventory, and handle discovery on eCommerce platforms without requiring custom integrations for every distinct system. Google's Universal Commerce Protocol (UCP) is another service that allows merchants to enable agentic commerce.

- Agentic infrastructure players that currently offer agentic commerce frameworks in the market:
  - **Stripe Link's wallet for agents**: Infrastructure that enables consumers who shop at businesses that accept Link to instantly checkout using their preferred saved payment method, leveraging Stripe's Shared Payment Token technology. If a merchant does not accept Link, Link's wallet for agents will provision a single-use virtual card to complete the transaction on the user's behalf. To get started, consumers must initially approve agent's access Link account. Once the consumer approves the transaction, the agent will complete the purchase, either leveraging the single-use virtual cards or SPT.
  - **(UCP)**: UCP operates with a wide scope that spans product discovery, identity linking, multi-item card building, checkout, and post-purchase support, the protocol enables users to add items directly from platforms like Search, Gemini, YouTube, and Gmail into a single "Universal Cart." UCP also includes Google's payment framework (Agentic Payments Protocol, or AP2), that separates the shopping and discovery related aspects of commerce with the payment related aspects.
  - **Commerce Agent Platform**: An open-source blueprint that allows for merchants to build AI shopping and merchant-operations agents.
    - **Shopping Agent:** The shopping agent is embedded within a merchant's website. The agent can search catalogs, compare products, and build a cart. **The current agent framework does not process payments directly, rather it hands payment off to a payment gateway or an external agentic payment provider**. The framework enables agents to can integrate with AP2, the x402 protocol, and TAP / Mastercard Agent Pay to deliver payments on after the cart is created or simply hand off the consumer to the traditional checkout page.
    - **Merchant Agent:** Merchant customized agents are designed to empower store owners and drive incremental commerce insights. Agents can relay useful information, such as proactively suggesting changes to store operation activities (based on the merchant's commerce data), create in-portal UI such as charts and dashboards, etc. The agent then presents the findings and creates suggestions that allow users to ultimately approve prior to anything going live.
  - **Stripe Agentic Commerce Protocol (ACP)**: Stripe's ACP is an open-source framework developed that facilitates consumer initiated, agent facilitated purchases via chat interfaces. The ACP protocol standardizes checkout conversations between AI agents and merchants, handling agentic commerce sessions from creation to completion. Supported by Stripe's Agentic Commerce Suite, which provides hosted endpoints for businesses to share real-time product availability and accept payment terms, the protocol enables

verified agents to safely initiate payment transactions using single-use, Shared Payment Tokens (SPTs) scoped to a specific merchant and maximum dollar amount. Importantly, more recently, Stripe appears to be leaning more into Stripe Link wallet for agents, particularly with the recent launches of Meta's Muse, Grok Bot, and Instinct.

- **Payments Protocols:** Payments protocols operate at the final phase of an agentic transaction, and operate alongside ACP and UCP at the point of sale. Visa and Mastercard have agentic services that facilitate these transactions including Visa Trusted Agent Protocol (VTAP) and Mastercard Agent Pay. Both protocols handle agent verification and user intent and purchase mandate tracking. Additionally, these protocols rely heavily on each network's tokenization services, Visa tokenization services (VTS) and Mastercard Digital Enablement Suite (MDES), to create cryptographically secure payment credentials. These tokenization services are foundational to eCommerce card transactions (>50% of V/MA eCommerce transactions are tokenized) and use cryptography to prevent the use of raw account and card numbers in payment transactions. These protocols also add an additional layer of data on top of existing tokenization technology to include data specific to agentic transactions such as User intent, and cart mandate.
  - **Tokenization:** To reduce the vulnerability of carded transactions, the card networks established a standardized secure method for consumers to transact called tokenization. Tokenization involves provisioning a token which represents a consumers card credentials (or DPAN) or digital wallet which can be decrypted by the networks as it passes through the payments system to the merchant. Tokenized transactions do not expose the consumers credentials and are combined with the cryptographically secured message, adding additional transaction security and reducing the vulnerability to cyber threats. The card networks plan to leverage this technology for agentic transactions, with agentic transactions similarly carrying cryptographically secured messages/signatures and agents being provisioned to operate on behalf of an underlying payment credential (similarly not exposing underlying payment credentials). In traditional payments, tokenization has resulted in significant reductions in online fraud and increased transaction approval rates over time.

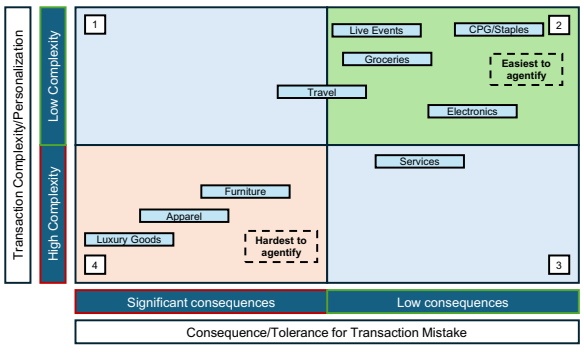
## Framing the medium term opportunity for the growth in agentic commerce transactions

eCommerce has grown rapidly over the years, but has taken share of the total consumer spending relatively slowly over the course of several decades primarily due to the difficulty of changing habitual consumer spending patterns, as well as various trust / security operational challenges for both consumers and merchants. From broad consumer introduction in the mid-90s to broad adoption and mobile expansion in the 2010s, we believe agentic commerce could be the next step in eCommerce growth and define a new channel for consumers to shop online going forward. We believe agentic commerce could evolve over time, transitioning from low touch product discovery to autonomous transactions, all built on a suite of agentic protocols. However, as we show below, previous changes in consumer shopping patterns have been gradual, and uneven across categories. We expect the growth in agentic commerce to be similar, with adoption scaling over decades rather than years.

## Consumer: We see $2.6tn in near-term addressable US spending that could lead the way towards broader consumer adoption

The history of eCommerce shows that adoption rates varied across purchase categories. All transactions involve the risk that a consumer will be unhappy with the good they purchased, and consumer shopping behaviors are foundationally tied to how easy it is to minimize risk. Features such as free returns, consumer transaction disputes, detailed product catalogs, or in-person shopping all exist to mitigate the risk of a purchase not meeting the consumer's expectations. We believe agentic commerce will first see adoption in product categories where the risk that AI misinterprets consumer intent is lowest, with adoption gradually rising in higher risk categories over time as the technology and frameworks improve. As such, in Exhibit 6 we introduce a framework for thinking about transaction risk. Decomposed complexity and subjectivity of the product and the severity of the consequences for misexecuted purchases. Ultimately, we believe that lower risk and more commoditized products are likely to see the fastest adoption whereas subjective categories such as apparel and luxury are likely to lag adoption.

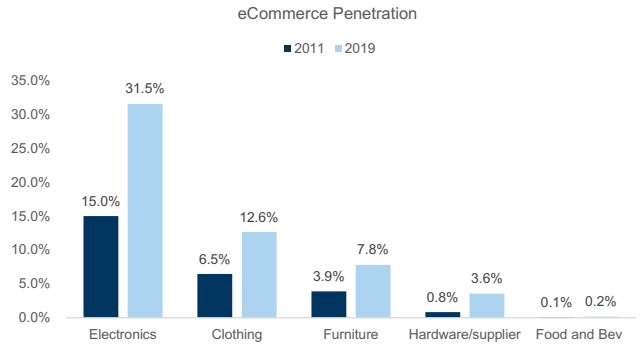
**Exhibit 6: Consumer Agentic Commerce Adoption Framework**




| Consumer Agentic Framework Explanation | | |
|---|---|---|
| Quadrant | Explanation | Examples |
| 1 | Demonstrate signficant value prop for merchants; consumers could face major consequences if transactions do not meet expectations or are made incorrectly | Airlines, hotels, etc. |
| 2 | Low likelihood of transaction failure and likely reflects lower cost items | Toilet paper, cleaning supplies, packaged foods, groceries etc. |
| 3 | Specific consumer preferences combined with relativley low consequences if transaction does not meet criteria | Car-hailing, dining / reservations, delivery |
| 4 | Longest to see adoption due to high relative costs to consumers if failure occurs combined with high consumer preferences | Personalized items that may not require urgency, but are specific to user preferences and likely to be returned (shoes, jewelery, etc) |

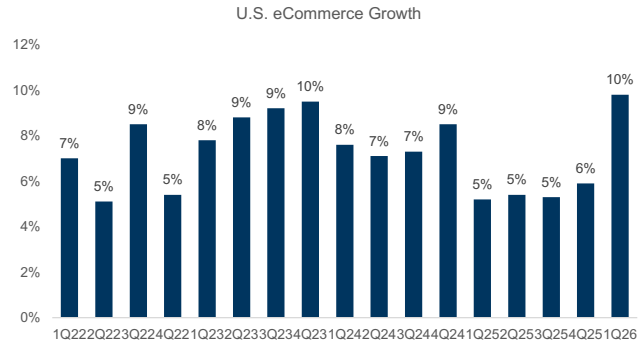
Source: Goldman Sachs Global Investment Research

**Exhibit 7: On average, eCommerce gained ~50bps of total retail spend from 2011 to 2019**



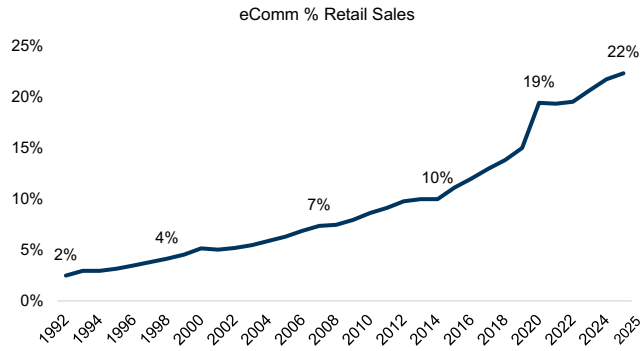

Source: Census Bureau, Goldman Sachs Global Investment Research

**Exhibit 8: U.S. eCommerce has been growing in the HSD range**




Source: Census Bureau

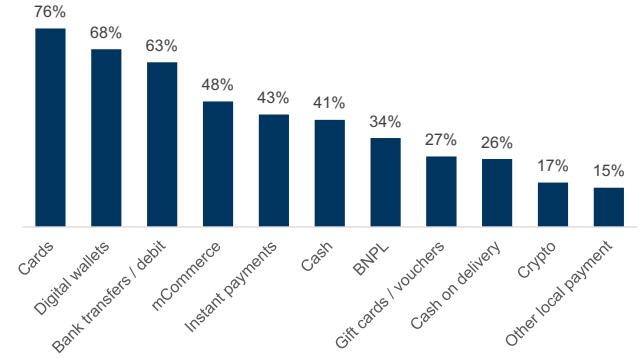
**Exhibit 9: eComm has penetrated nearly 1/4 of the addressable consumer market over the last 30+ years**




Electronic shopping and mail-order house % Retail sales and food services excl motor vehicle and parts and gasoline stations

Source: Census Bureau, Goldman Sachs Global Investment Research

**Exhibit 10: Cards, digital wallets, and bank transfers dominate preferred acceptance methods in the market**



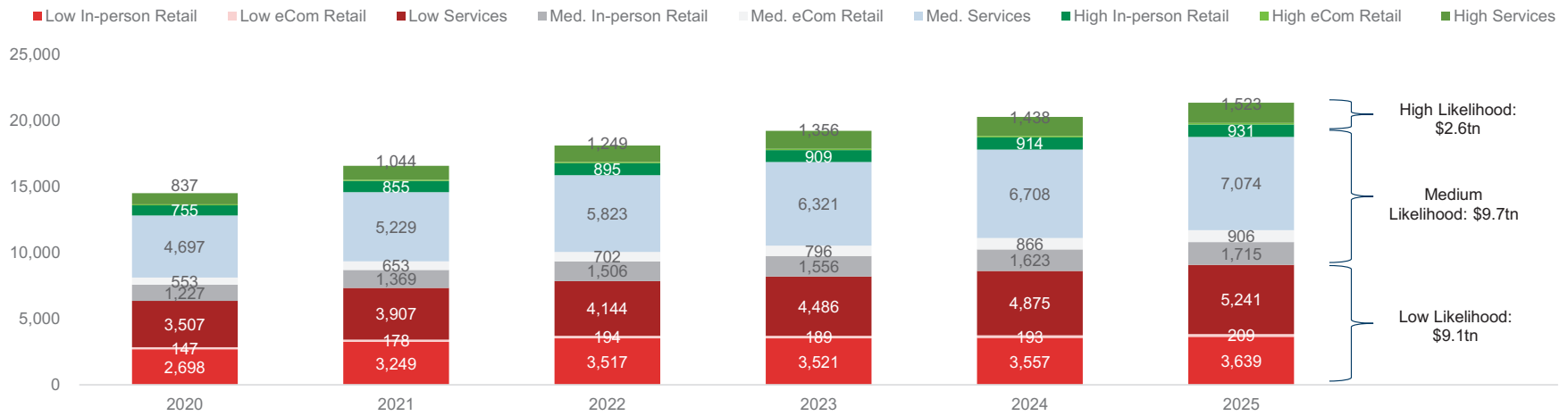

Source: 2026 Global eCommerce Payments and Fraud Report, Goldman Sachs Global Investment Research

## We see a $2.6tn near-term US consumer spending opportunity within existing spending for agentic commerce to take share

We believe there is an opportunity for agentic commerce to accelerate eCommerce adoption and capture share of in person retail payments. We believe the attach rate of agentic commerce will be dependent on the category and how much trust or risk is embedded in a transaction (as highlighted earlier). In Exhibit 11 we bucket and size the corresponding categories into a historical time series and highlight the corresponding growth rates. Based on our categorization, and recognizing there will remain categories within each bucket that are unlikely to be adopted in an agentic commerce landscape, we believe that roughly 60% of spend volume (retail and services) today falls into our high and medium likelihood baskets, amounting to over $12.3tn in commerce volume. **Putting it all together, we believe roughly ~2% agentic commerce driven penetration into our "high likelihood" card-present categories could drive an incremental 1pt acceleration of total eCommerce growth (or ~50bps penetration of our "high and medium likelihood" card-present categories).**



**Exhibit 11: We believe nearly $3tn in commerce activity could be addressable for agentic commerce in the nearer term across retail categories**




| Retail Categorization | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Auto/Parts Dealers | Furniture | Electronics and Appliances | Home Improvement | Food and Beverage | Health and Personal Care | Apparel and Accessories | Sporting Goods, Hobby, Book, Music | General Merchandise | Miscellaneous | Nonstore retailers |
| Categorization | Low | Low | High | High | Low | High | Low | Low | Medium | Medium | Medium |
| In-store CAGR | 7% | 2% | 4% | 2% | 4% | 6% | 13% | 4% | 3% | 10% | 10% |
| eCom CAGR | 9% | 30% | 5% | 9% | 9% | 6% | 3% | 4% | 13% | 6% | 10% |

| Agentic Conversion of Card Present to eCom sensitivity | | | | | |
|---|---|---|---|---|---|
| % eCom acceleration | 0.5% | 0.8% | 1.0% | 1.3% | 1.5% |
| % pen of High-likelihood CP | 1.1% | 1.7% | 2.3% | 2.8% | 3.4% |
| % eCom acceleration | 0.5% | 0.8% | 1.0% | 1.3% | 1.5% |
| % pen of High/Med.-likelihood CP | 0.3% | 0.4% | 0.5% | 0.6% | 0.8% |

| GSe Category CAGRs | | | |
|---|---|---|---|
| | In-store Retail | eCom Retail | Services |
| High | 4% | 6% | 13% |
| Medium | 7% | 10% | 9% |
| Low | 4% | 6% | 8% |

*excludes services like events, travel, etc.

Source: Census Bureau, Goldman Sachs Global Investment Research

## A brief case study on the history of eCommerce shows adoption could be slow

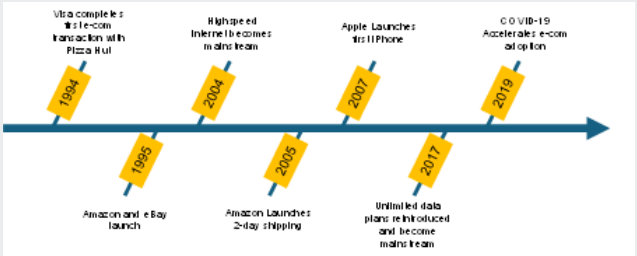
We look to the phases of growth eComm to assess how quickly widespread consumer adoption can form and the various hurdles/accelerants to the growth seen over the past 30+ years. We believe agentic commerce adoption is likely to follow a similar path, evolving over an extended period. Below we briefly highlight the evolution of eComm:

**Phase 1, The Initial Phase (1990-1998):** At its inception the internet was designed for the transfer of information, disrupting legacy messaging systems like fax machines, pagers, and telephone. After decades of commercial and government use, the internet became widely available in the 90s, driven by the PC boom. In its early years, consumers primarily used the internet for informational purposes and research, which we describe as synonymous with today's consumer product discovery. Over time, commerce across the internet gained traction, largely credited to the launch/growth in popularity of Amazon and eBay.

**Phase 2, Building Trust (1998-2007):** In its infancy, eCommerce struggled with consumer trust, which was a limiting factor for adoption. For example, simply purchasing a good online now required a consumer to consider 1) will the transaction be approved? 2) will the merchant provide the service/good? 3) how long and how much will it take to deliver? Although liability protections existed, consumers were hesitant to enter card credentials in fear of bad actors intercepting the details. Over the course of the next decade, V and MA launched several protocols, to aid in ensuring that a person using a card online is the legitimate cardholder, with V/MA modern platforms leveraging adaptive risk-based decisioning, compliance standards, and data exchange to ensure consumer authentication. Over the same time, PYPL gained traction, providing an added layer of consumer protection and fueling much of the adoption it has today. In this stage, we saw eComm scale meaningfully with the overall fraud risk falling coinciding with large eComm penetration gains (increasing from 4% to 7%).

**Phase 3, Reducing Barriers (2007-Current):** With protections in place driving both consumer and merchant adoption, eComm saw its next leg of growth come from significantly lower barriers to access the internet, particularly for consumers. Between 2000 and 2010, accessibility to high speed / broadband internet and widespread smart phone adoption gave consumers multiple touchpoints to interact across the web. The growing habituation lent itself to increased screen time and kicked off a new age in digital advertising across the various new surfaces. One of the final catalysts was for shipping costs and delivery times to fall. In the early years of eComm, shipping was often prohibitively costly and had delivery times well in excess of what's seen today. This led to convenience ultimately playing a much larger role in commerce, while in the past, limited access to physical storefronts or inventory were often a leading factor for eComm use. Finally, V and MA launched tokenization services (replace card account # with secure token), which significantly increased the security behind online purchases, with V noting ~54% of CNP transactions are now tokenized (V estimated ~$650mn reduction in fraud in FY24).

**Exhibit 12: Multiple drivers fueled eComm growth over recent decades**



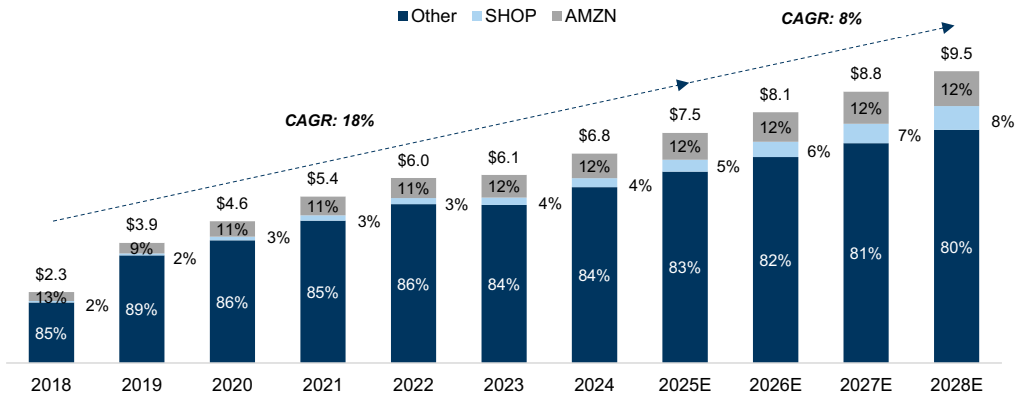

Source: Goldman Sachs Global Investment Research

## Agentic commerce has the potential to increase fragmentation of eCommerce, with higher visibility of smaller merchants, and smaller basket sizes

We believe agentic commerce adoption, like the rise of eComm, provides the opportunity to increase the visibility of smaller merchants and optimize consumer preferences. eCommerce has lowered the barriers for D2C merchants, removing the need for costly physical store fronts and the operational logistics that come with it. In eComm, consumer traffic is heavily influenced by advertising and meeting consumers where they are (social media, search engines, etc.). Agentic transactions are likely to expand the reach of SMBs and merchants previously less visible to consumers through agentic protocols optimizing for consumer preferences. For example, a consumer searching to purchase an apparel item within a certain budget and criteria could be presented with options from a myriad of providers, not limited to the largest retailers. This has already been occurring, with smaller DTC merchants, evidenced by the share gains of the Shopify platform, taking significant share of eCommerce over time.

We believe agentic commerce also has the potential to create fragmentation in baskets and reductions to average order values. For example, a consumer may find the clothing item they were looking for at a specific merchant, but may purchase related items (like shoes, or accessories, etc.) at a different merchant's website (either for product specific reasons, or because the accessories were available at a different merchant at a lower price).

**Exhibit 13: SHOP has taken share in a growing eCommerce marketplace**




Source: Company data, Goldman Sachs Global Investment Research, WorldPay Global Payments Report

**1) Product discovery**

Prior to the launch of the large foundational models, the primary mechanism for product discovery was for consumers to use search engines. In many instances this required a degree of intent and specificity into the item they expected to purchase. With product discovery responsibilities shifting to the large foundational models, the burden for searching for items is reduced, with consumers capable of leaning into conversational dialogue, where text can be translated to identify intent and personalize user experiences to direct consumers to the relevant merchants. Not surprisingly this would drive incremental volumes away from search engines and result in shopping processes that still end with consumers entering merchant websites, albeit through a different medium. Given search is predominantly consolidated between a few primary platforms, we believe this will likely result in search engine providers adapting their ad models and altering the mechanisms of paid search advertising.

**2) Purchase transaction initiation**

**Payments Optimization:** Merchants have historically preferred consumers to steer away from higher cost payment methods like credit/debit cards and we believe there could be material changes to the payments and financial services ecosystem with consumers initiating transactions through foundational models. Although investors have noted the potential for merchants to systematically optimize payments acceptance costs, we believe the value proposition offered to consumers and the time it takes to materially shift consumer behavior makes it unlikely for preferences to quickly change. In eCommerce today, consumers favor credit cards over alternative payment methods primarily given their 1) attractive reward structure and 2) lower consumer risks.

**3) Autonomous transactions**

At the autonomous stage of agentic commerce, the agent has been granted autonomy in acquiring a specific product with consumers giving prerequisites for a specific good or service. Though still in the very early innings, conceptually a consumer can define specific parameter for a specific product and set rules for the agent to follow. For example, the consumer can have spending limit-based rules, where the agent may transact for purchases below a certain dollar amount autonomously, with transactions exceeding a predefined amount requiring consumer authentication. With trust being the focal point of autonomous transactions, high consumer penetration relies on each stakeholder (protocol, merchant, psp, issuer, etc.) establishing a frictionless and safe consumer experience. With autonomous transactions limited to concept opposed to actually currently in process, we believe adoption will rely on establishing trust between all parties involved and answering several questions including: Who owns fraud losses? Who owns charge-backs? Who owns returns? Who bears liability for erroneous purchases? Who governs agent behavior? Ultimately, it remains unclear whether commerce will reach the autonomous transaction level and the degree to which various retail categories are addressable (i.e. more commoditized vs personalized), but what remains clear is the need for a clear established governance framework to drive trust and responsibilities across the ecosystem.

# Agentic Commerce as an Evolution on Consumer Intent - A View from Digital Advertising

Since publishing our report on the impact of AI on advertising profit pools last year (link), investor debates have evolved from discussions around broader AI enablement toward more specific questions - including consumer discovery as agentic commerce has evolved from concept to nascent product deployment over the past 8-12 months. At the same time, operators across our digital advertising coverage continue to uptake AI adoption as a whole, both internally and in driving new product offerings - deploying AI across creative generation, campaign optimization, audience targeting, measurement, and increasingly consumer-facing search and commerce experiences.

**Our overarching view is the impact of agentic commerce on digital advertising is likely to be more phased than the broader application of AI across the advertising ecosystem.** In our view, digital advertising remains the industry subsector (in our coverage) the furthest along in AI adoption today (i.e. within advertiser tooling, targeting, measurement, and workflow automation). By contrast, agentic commerce represents a longer duration shift connected to a broader network of stakeholders across industries, dependent on consumer behavioral change, merchant participation, and trusted transaction infrastructure (along with governance frameworks and approaches to identity/authorization) before it can scale meaningfully.

We therefore view agentic commerce as part of AI's gradual reallocation of value across different layers of the advertising stack. Near term, we believe AI is primarily enhancing advertising efficiency (in terms of lowering creative production costs, improving campaign optimization, increasing ROAS, etc.). Over time, however, as consumers increasingly rely on AI assistants for product discovery and purchase decisions, a greater share of commercial intent may originate within AI interfaces rather than traditional search or retailer/marketplace websites. **We take the opportunity to frame a) how AI is impacting the advertising ecosystem today (and where agentic commerce will have the greatest impact) and b) outline how agentic commerce could drive a similar value shift in traffic and engagement as observed with the desktop-to-mobile transition (where our prior report outlines shifts in consumer internet in greater detail).**

## State of AI in Advertising

**Ads are increasingly embedded directly within AI-native experiences,** but ad formats continue to evolve beyond traditional display or search. Today, ads most commonly appear in AI-driven experiences in one of a few ways: a) inside conversational AI/chatbot interfaces as clearly labeled text or images below responses; b) as product feed ads tied to shopping catalogs, or c) more directly aimed to workflows through sponsored recommendations. Overall, publisher approaches (especially AI platforms) emphasize contextual relevance - utilizing the content of the conversation to determine delivery while balancing for separation between ads and organic responses. Given this, we view the industry as nascent and still evolving with ads (both in terms of delivery and format) in AI-native experiences/interfaces as advertisers experiment for both consumer-facing and agent-facing ads (as the potential for AI shopping assistants and personal agents to guide purchasing decisions becomes more significant).

From an advertiser perspective, based on a host of industry conversations and channel

checks, sentiment appears increasingly constructive but still measured. Many advertisers view AI interfaces as significant channels due to evolving consumer behavior (treating AI as a more context-rich search platform to research products and make purchase decisions) where adoption today is being driven by the belief that AI can offer richer context and stronger intent/signals than traditional media. Still, industry enthusiasm is tempered by concerns around attribution and measurement given difficult visibility into whether an AI agent processed an ad, incorporated it into a recommendation, or ultimately influenced a purchase. Thus, the key debate has increasingly shifted towards how effectively value can be measured and captured in an AI-driven world.

**Parallels to the desktop-to-mobile shift**

As consumers migrated to mobile interfaces, companies that successfully converted users into app downloads created more durable relationships (i.e through stored credentials, personalized experiences, and direct engagement channels). App users therefore became more valuable than (anonymous) web traffic, while long-tail traffic sources became comparatively less differentiated/valuable.

**We see the potential for agentic commerce to drive a similar shift, where rather than the key asset being an app install**, this would be in the form of being the default merchant/service/brand that an AI agent repeatedly selects on the user's behalf (given the consumer's pre-existing preference/frequency habits).

Companies that establish durable AI agent relationships could benefit from higher retention, greater purchase frequency, and lower customer acquisition costs, whereas firms that rely heavily on winning traffic at the top of the funnel may face greater competition and commoditization.

Given this, the value of users could become increasingly concentrated - similar to how a smaller base of highly engaged (app) users ultimately have become more valuable than a larger pool of occasional web visitors, a relatively smaller (albeit deeply loyal) cohort of customers embedded within an agent's preference may become disproportionately valuable (and the remaining traffic becomes harder to capture and potentially less monetizable over time).

**Blurring the lines between eCommerce and advertising**

As eCommerce platforms have matured, **revenue growth has increasingly shifted away from traditional merchandise sales towards Retail Media Networks (RMNs)**, which allow advertisers to gain access to high intent audiences and give them the ability to link advertising dollars to purchase behavior. For retailers, Retail Media often serves as a high margin revenue stream that leverages their already existing traffic and 1P data assets. We have previously noted (link) Statista estimates the size of retail media to be ~$170b globally in 2025, up from $77b in 2020, representing a 17% 5-year CAGR and expect this to continue to be a large contributor to eComm growth overtime.

One of the key debates surrounding agentic commerce is whether a greater share of consumer discovery occurring within AI agents ultimately weakens the value proposition of RMNs. While we believe this transition remains in its early stages and have yet to observe any meaningful impact on retail media performance, the long-term implications remain an area of investor focus. On one hand, fewer consumers navigating traditional

search results and retailer-owned digital properties could reduce opportunities for sponsored listings and native advertising. On the other hand, we are already beginning to see the emergence of sponsored recommendations and AI-native advertising formats, where brands pay for preferential visibility within AI-generated shopping recommendations. As a result, we believe the debate is less about whether advertising disappears and more about how advertising budgets evolve as discovery migrates toward conversational and agent-driven experiences.

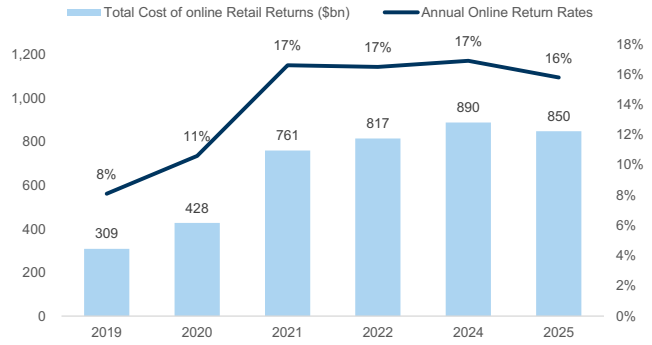
Ultimately, the debate centers on who owns discovery, traditional retail ecosystems or agentic platforms, as value and monetization are likely to accrue to the party that controls the consumer decision-making process. Many AI agents are designed to optimize around factors such as price, speed, availability, and assortment. As a result, we believe scaled retailers, which consistently perform well across these dimensions, are positioned to benefit as agentic commerce adoption increases (vs smaller brands which have historically relied more heavily on paid acquisition or brand marketing to drive traffic). Over time, we believe agentic commerce may shift competitive advantage away from customer acquisition and toward operational excellence, reinforcing the position of retailers with scale, logistics capabilities, and strong value propositions.

# Practical Considerations and Scaling Obstacles for Agentic Commerce Adoption

## Intent verification and liability remain headwinds to both consumer and merchant sponsorship

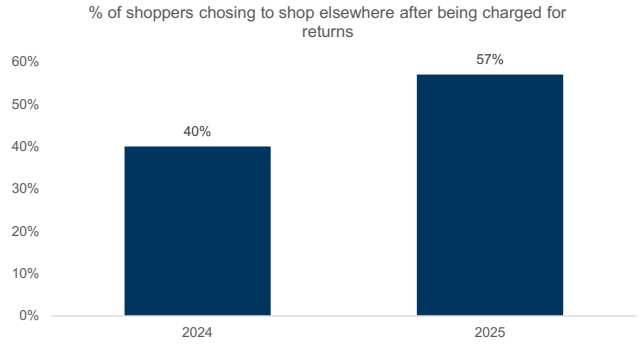
We believe consumer intent verification is a major unsolved issue that will impact merchant willingness to accept and consumer willingness adopt agentic transactions. In an agentic transaction, consumers will need to provide details that their agent is authorized to operate within. This includes budgets, categories, time constraints, etc. Under the current commerce landscape, the liability of a transaction primarily sits with the merchant and the consumer's bank. The consumer is never held liable for fraud and is heavily favored in transaction disputes with the merchants, resulting in merchants bearing the brunt of the liability for problems that arise with eCommerce transactions. Merchants also have significant financial exposure to transaction risk in eCommerce as a result of favorable return policies. Elevated return rates in agentic channels could significantly reduce the profitability of this channel for merchants , resulting in elevated transaction risk. In the near term we believe that agentic transactions will require more authentication and biometrics. However, as the agentic commerce surface area increases, we believe merchants and banks will be increasingly focused on reducing the financial liability in agentic transactions, which may result in barriers that limit adoption, or changes in how data associated with the consumer's agentic platform is shared with ecosystem participants.

**Exhibit 14: Return rates have increased significantly over the past several years, increasing merchant costs**




Source: National Retail Federation

**Exhibit 15: Bad experiences involving returns is key source of customer churn for merchants**




Source: National Retail Federation

**Current state of intent verification**

Consumer purchase intent has been a challenge for agentic providers to solve. The consumer intent problem is generally defined as the necessity to confirm specific transaction details and intentions of the consumer, confirming the final purchase is in fact the intended product (e.g. ensuring consumer intended to purchase a specific item, color, size, etc.), and ensuring in the event of an erroneous transaction, the liable party is identified. Mastercard/Google's Verified Intent framework (IP donated to FIDO alliance) and ACP's permissioned signatures both leverage tokenization technology, and are designed to provide intent information and ensure this remains secure throughout the transaction process. Under these frameworks, agents present a token that contains documentation of the consumer's intent and is presented to a merchant along with their payment details, with the aim of establishing consumer protections that mimic traditional purchases. The current protocols are primarily designed to provide documentation/audit trail, opposed to supplying banks with transaction level data often provided from traditional transactions. Although the protocols represent a good starting point for defining the underlying protections that we believe are necessary to drive consumer adoption, we believe the data provided to each party liable for incorrect transactions will likely need to increase in order to drive buy-in from the traditional payment ecosystem parties (i.e. banks, and merchants etc.).

## Agentic commerce opens a new front in the battle over who owns the end consumer relationship in eCommerce

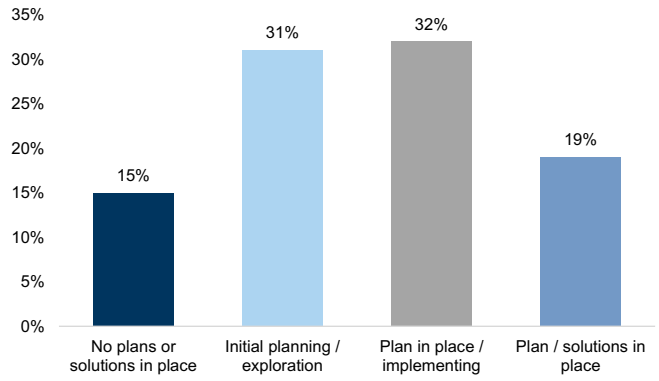
Some retailers have exhibited reluctance to allow independent AI agents to become the primary customer interface, which we attribute to concerns around loss of customer ownership, potential margin headwinds, and increased commoditization risk.

- **Loss of customer ownership.** If consumers make their purchases with independent AI agents instead of direct channels, retailers lose access to (1) first-party customer data and browsing behavior that enable personalized marketing, (2) loyalty engagement that encourages higher frequency, and (3) cross-selling opportunities that increase average ticket.
- **Higher customer and traffic acquisition costs for merchants.** Agent platforms could seek referral fees, advertising revenue, commissions, and preferred placement payments from retailers in exchange for directing consumer agentic traffic to merchant websites, an already established practice across search and marketplace intermediaries. This could introduce a new structural cost layer that could compress retailers' margins over time, which is likely most acute for larger merchants, such as Amazon, who have established large marketplaces that are less reliant on digital advertising for traffic acquisition. On this note, we note that Amazon recently blocked Muse from its marketplace.
- **Price competition and margin risk.** With agentic commerce, consumers are able to compare price, delivery speed, and product availability more easily across retailers. We believe this would also lessen the influence of website experience, brand, and loyalty ecosystem on consumers' purchasing decisions. Among retail categories, we believe CPGs are most exposed to commoditization risk given that many of these products are widely available across retailers at comparable price points, are often purchased for habitual replenishment rather than active discovery, and are

vulnerable to private-label substitution (e.g., an AI agent may highlight a lower-cost private-label option).

- **Agentic Shopping Permissioning:** We note AMZN's recent decision to block Muse AI (and other unauthorized shopping agents) from shopping on Amazon.com.

**Exhibit 16: Merchant readiness to accept agentic AI payments (2026, all payment professionals)**




Source: 2026 Global Payments & Fraud Report, Goldman Sachs Global Investment Research

**The overall pace of agentic commerce adoption will likely be influenced not only by consumer demand and technological readiness, but also by the willingness of ecosystem participants to expose catalogs, payments, and transaction infrastructure to third-party agents.**

The launch of Muse provides an early case study in how ecosystem participants are approaching agentic commerce, highlighting a rising divide between open and closed commerce ecosystems. Some participants have embraced agentic commerce as a new distribution channel and are actively enabling their products, catalogs, and transaction infrastructure to be accessed by third-party agents. In many cases, those participants are playing offense as they don't have a deep, embedded customer relationship. Examples include Shopify's integration with Muse and other AI shopping surfaces, payment providers such as Stripe, PayPal, Visa, and Mastercard building infrastructure for agent-mediated transactions, and Ticketmaster's participation in AI-driven discovery experiences. Other ecosystem participants have taken a more restrictive approach, prioritizing ownership of the customer relationship and control of the shopping experience. Amazon's decision to restrict shopping access from unauthorized agents highlights concerns around first-party data, retail media economics, loyalty programs, and customer ownership. In addition, the behavior of agents on platform (collection of data, signal shared) is more critical to the 1st/3rd party marketplace operator than for payments or merchant enablement.

In our own view, it is too early and at too small a scale to know which approach will yield a more defensible and advantageous position against scaled shifts in the broader landscape (over a longer-term horizon than early adopters in the last 10 days). Companies that are already dependent on external traffic acquisition have less to lose and more to gain from agentic commerce adoption, as AI agents can act as another source of demand generation and customer acquisition. Platforms where the shopping journey begins and remains within a single ecosystem face a more complex tradeoff

between maximizing distribution and preserving control of the consumer relationship. In the case of Muse, Shopify is now positioned to benefit from Muse adoption via Shop Pay while marketplaces could lose share if product discovery begins to shift away from their ecosystem.

## Agentic Commerce will Create Broad-Based Demand for Fraud and Cybersecurity Solutions

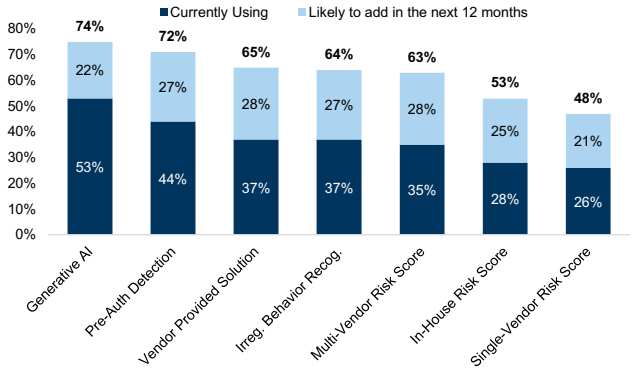
Fraud remains a major cost in eCommerce and is the shared liability of banks and merchants to cover fraud in the marketplace. We believe the adoption of agentic commerce will create a more severe threat environment with the cost of account takeover and stolen payment credentials rising precipitously given the speed with which malicious agents can exploit vulnerabilities. As a result of the heightened threat environment, we believe demand for fraud detection identify verification services will increase. We see this demand hitting a range of traditional players such as NET and AKAM, as well as more specific consumer and commerce specific providers such as the card networks (V/MA) and credit bureaus (EFX/TRU).

**We believe the core problem is that agentic commerce requires merchants to treat some automated traffic as customers, whereas bot controls today are largely designed to distinguish humans from machines and block activity such as scraping or inventory abuse. In an agentic model, merchants need to determine who is behind an agent and whether it is authorized to act for a customer.**

- **We see a reasonable base-case**: where security intensity (as a percentage of merchant eCommerce revenue) will increase, and we believe much of the functionality will be bundled with existing CDN/application-security and payments offerings
- **Emerging frameworks include**: ANS (Agent Name Service), effectively a DNS-like identity and discovery system for agents, while Visa Trusted Agent Protocol and Mastercard Agent Pay are intended to help merchants verify agent identity and purchasing intent. Security vendors enforce across these frameworks.
- **Consumer**: consumers generally do not buy separate security products for online transactions because protection is embedded in the merchant or payment network. We expect a similar structure in agentic commerce.

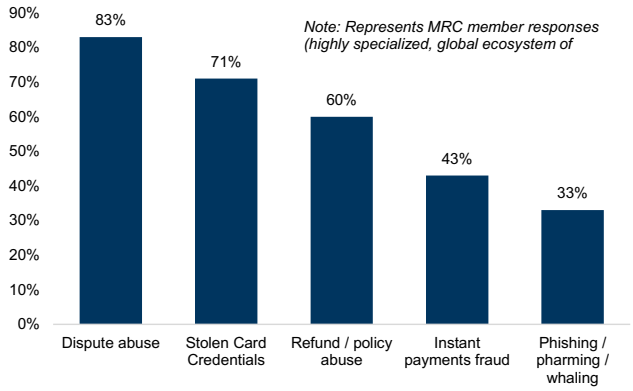
In terms of the economics for security platforms, a 2026 IANS survey says that retailers spent an average of approximately 75bps of revenue on cybersecurity, while eCommerce represents approximately 17% of US retail sales. Assuming that 25-50% of a retailer's security budget supports online operations, this would imply cybersecurity spending equivalent to ~1-2% of eCommerce revenue. At a bare minimum, we would assume this range to hold but long term we would expect higher intensity from the additional risks and unknowns introduced by machine-to-machine transactions.

### Exhibit 17: Merchant demand for fraud prevention services is broad-based and increasing




Source: 2026 Global Payments & Fraud Report, Goldman Sachs Global Investment Research

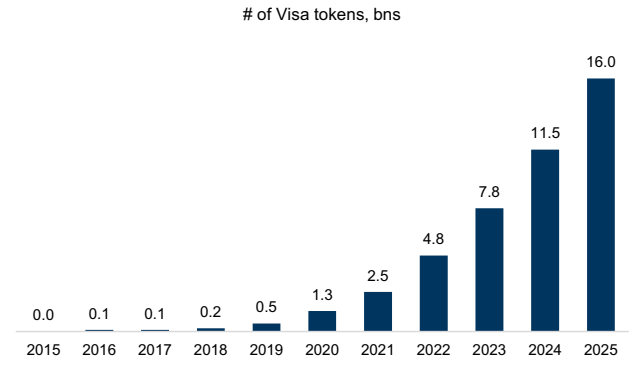
### Exhibit 18: Fraud continues to be top-of-mind for companies




Fraud attacks experienced in past 12 months, by MRC membership (2026, fraud professionals)

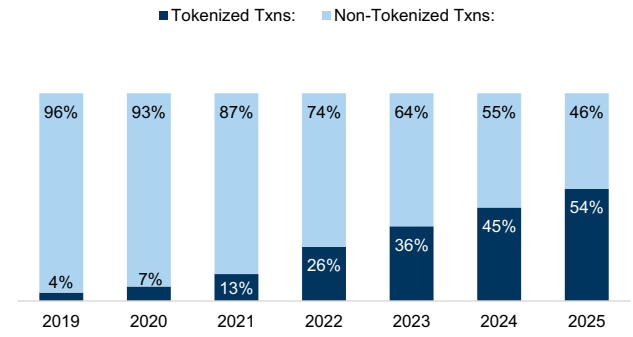
Source: 2026 Global Payments & Fraud Report, Goldman Sachs Global Investment Research

### Exhibit 19: Visa annual token issuance has increased significantly over the last several years




Source: Company data, Goldman Sachs Global Investment Research

### Exhibit 20: Visa has shown the ability to shift away from manual entry checkout to tokenized transactions




*Note: Reflects CNP txns, including both "bottom" checkout and card-on-file*

Source: Company data, Goldman Sachs Global Investment Research

### Exhibit 21: Where the fraud liability falls within the broader payments ecosystem still needs to be figured out

| Fraud Liability by Transaction Type | | | | |
|---|---|---|---|---|
| *Typical party responsible for fraud losses* | | | | |
| **Transaction Type** | **Card-Present Transaction** | **Card-Not-Present Transaction** | **Non-Card Payments (varies)** | **Agentic Commerce** |
| Responsible Party | Issuing Bank | Merchant | Consumer | TBD |

Source: Goldman Sachs Global Investment Research

## Exhibit 22: Heightened focus on payments security expected as agents are adopted in eCommerce

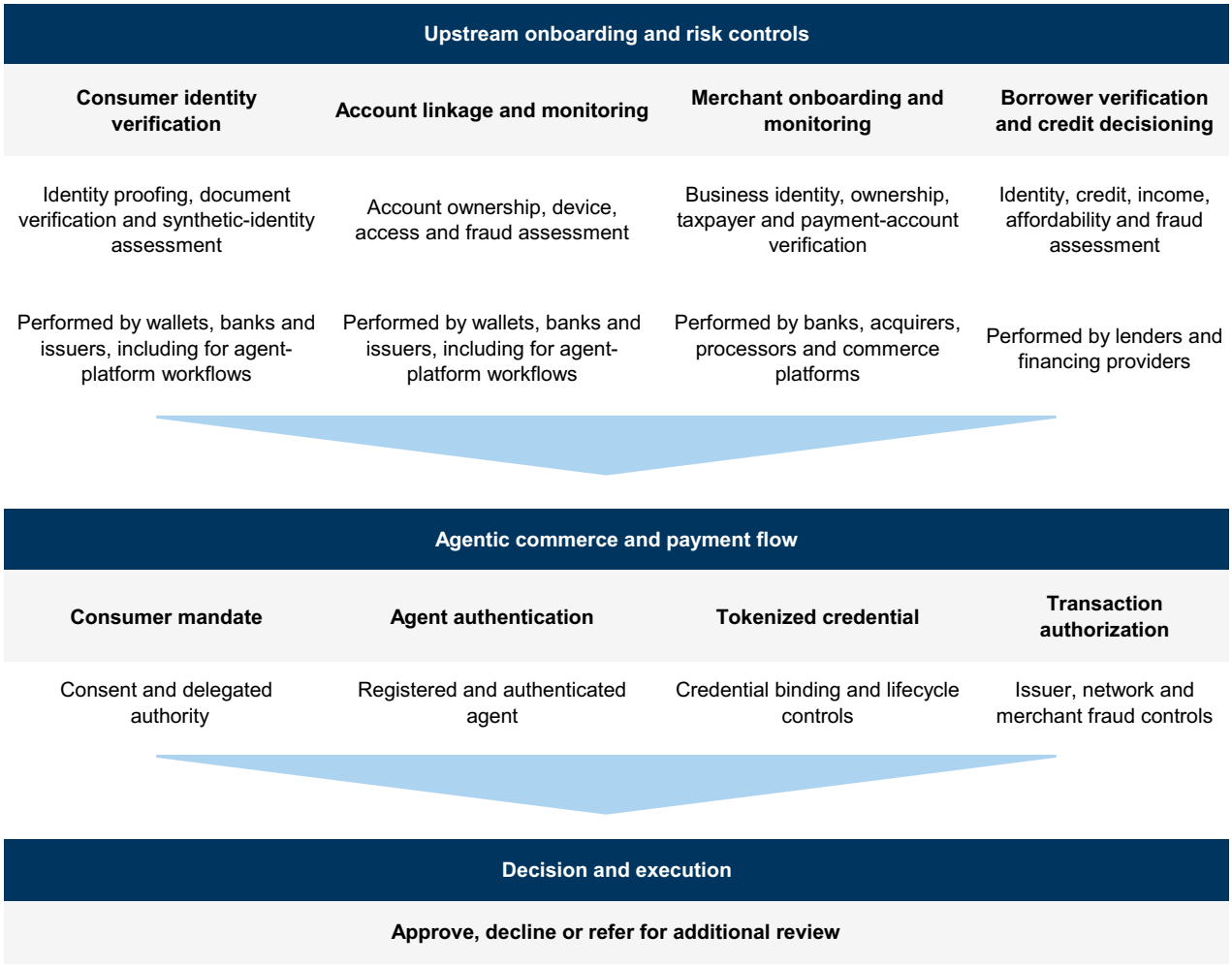
| Select eCommerce Fraud Detail | | | | | |
|---|---|---|---|---|---|
| | **Dispute abuse** | **Stolen Card Credentials** | **Refund / policy abuse** | **Instant payments fraud** | **Phishing / pharming / whaling** |
| **Overview** | Legitimate customers misrepresent txns for financial gain | Scripts or botnets are used to test the validity of a single card or basket of stolen cards making small, rapid txns on eComm sites - once approved, the attacker can use the card elsewhere | Post-purchase fraud that exploits a merchant's return / refund policies for financial gain | Exploitation of instant / irreversible payment networks (e.g. Zelle & Stablecoin) to execute fraudulent transfers | Phishing: mass deceptive emails<br>Pharming: redirects legitimate web traffic to fraudulent websites with malware<br>Whaling: targeted phishing aimed HNWIs |
| **Current Implications** | Merchants often bear the cost of chargebacks as **90% of disputes are resolved in favor of the consumer** | **Merchants could be deemed higher risk due to large spikes in txn decline rates** | **30% of shoppers admitted to buying an item for a specific event to return it after the event** | **Consumer trust remains low in instant payments** - has yet to gain broad ubiquity | Used to allow attackers to **leverage real login credentials to make unauthorized payments** |
| **Outlook** | Higher velocity of payments increases merchant exposure to fraudulent threats | Automation of fraud routines making it more difficult to distinguish between fraudulent actors and legitimate customers | Increased data fragmentation across providers reduces visibility into the individual consumer behavior | The reduction of friction across payments will drive incremental focus around authorization certainty | Increased risk of legitimate agentic payments occuring on fraudelent websites |
| **Market Sizing / Hard Impact** | **Average cost to resolve each first party misuse dispute was $80** | **Visa reported $1.1bn in enumeration losses were in 2024** | Of the $706bn in returns, **14.2% is preventable due to returns fraud and abuse** | **In 2023 APP fraud loss was $4.38bn, 63% was real time payments** | **$216bn in phishing / spoofing losses in 2025** |

Source: Goldman Sachs Global Investment Research, Javelin Strategy & Research, Optoro Returns Survey, FBI, Appriss Retail, Visa Bi-Annual Threats Report Spring 2025, 2026 Global eComm Payments and Fraud Report

## Identity and decisioning infrastructure complements payment security

Agentic commerce requires payment controls to incorporate new agent, identity and transaction context. Emerging commerce and payment protocols provide much of the technical infrastructure required for agents to interact with merchants, transmit consumer consent and initiate transactions. UCP standardizes agent-to-merchant communication across discovery, checkout and post-purchase workflows, and Visa Trusted Agent Protocol, Mastercard Agent Pay and AP2 provide mechanisms for agent registration, user-authentication claims, credential binding and transaction-level consent. Existing payment credentials, issuer authorization, merchant onboarding and network fraud controls will remain central to validating participants and protecting transactions in agentic commerce. That said, selected higher-risk events may require additional context to assess account-takeover or synthetic-identity risk, changes in the relationship between the consumer and payment account, unfamiliar merchant counterparties or financing requests subject to lender policies. Agentic commerce may therefore increase the value of identity verification, counterparty intelligence and real-time fraud and credit decisioning as complementary inputs to existing payment controls. EFX and TRU provide consumer, account, device and merchant-risk inputs that could support these assessments, with FICO providing fraud and credit decisioning infrastructure around events such as new account linkages, unfamiliar merchants and financing requests.

**Exhibit 23: Agentic commerce could increase demand for identity and risk inputs within existing payment workflows**




Potential supporting infrastructure includes EFX and TRU identity, account, merchant-risk and borrower-risk inputs, as well as FICO credit and fraud decisioning capabilities. Material changes or elevated risk may trigger reassessment within existing onboarding, monitoring and decisioning workflows.

Source: Goldman Sachs Global Investment Research

Agentic commerce could reduce the standalone effectiveness of several traditional digital-fraud signals. Fraud systems have historically relied on device reputation, IP geolocation, session velocity, navigation patterns, typing cadence and other behavioral signals generated during browser or mobile-app interactions. Authorized agents alter the interpretation of these signals because the originating device may be cloud infrastructure, the IP address may be shared across users, navigation is programmatic and transaction speed may exceed normal human behavior. Legitimate agents may therefore exhibit characteristics that existing fraud models associate with scraping, credential stuffing, card testing or other automated attacks. Fraud models may increasingly need to combine behavioral indicators with verified agent credentials, linkage to the underlying consumer, delegated permissions and transaction-specific context to distinguish malicious agents, authorized agents operating outside their mandates and authorized agents interacting with fraudulent merchants. The relevant question therefore shifts from whether activity is automated to whether the automation is authorized, remains within the consumer's approved parameters and involves a legitimate counterparty.

**Exhibit 24: Agentic commerce could reduce the standalone effectiveness of traditional digital-fraud signals**

| Fraud Signal | Status under Agentic Commerce | Rationale | Complementary Signal |
|---|---|---|---|
| **Device and Network Signals** | | | |
| Device reputation | Potentially misleading | Origination device may be cloud infrastructure shared across unrelated users | Verified agent credential and consumer-agent linkage |
| Devices linked across accounts | Potentially misleading | Shared model-provider infrastructure may connect unrelated consumers | Persistent consumer, account and device relationships |
| Proxy, VPN and hosting detection | Potentially misleading | Hosting infrastructure may be the normal execution path for authorized agents | Agent registration and authorization context |
| IP geolocation | Potentially misleading | IP address may belong to the model provider and be shared across users | Consumer, account and transaction context |
| Cookie and session persistence | Less available | Agent sessions may be ephemeral and lack conventional returning-customer history | Persistent identity and account relationships |
| **Behavioral Signals** | | | |
| Typing cadence and cursor movement | Unavailable | No direct human interaction exists at the point of execution | Agent credentials and consumer authentication |
| Navigation patterns | Potentially misleading | Navigation is programmatic and more uniform than human browsing | Mandate, merchant and transaction context |
| Session velocity | Potentially misleading | Authorized transaction activity may exceed normal human speed | Real-time transaction anomaly detection |

Source: Goldman Sachs Global Investment Research

### Consumer identity verification

Consumer verification may remain relevant when higher-risk changes occur around an authenticated agent. A valid agent credential can demonstrate that a recognized software actor is authorized to transact, but does not independently determine whether the underlying consumer identity is legitimate, synthetic, stolen or associated with a compromised account. EFX and TRU already provide identity resolution, document and account verification, device intelligence, synthetic-identity detection and fraud signals across onboarding and account-access workflows. These capabilities could support risk-based decisions when material changes occur in the consumer's identity, account relationships or delegated authority. Payment networks and agent platforms would continue to tokenize credentials and enforce transaction controls, with the potential bureau role centered on assessing the consumer identity and account relationship behind the agent credential.

**Exhibit 25: Higher-risk changes could trigger additional consumer identity assessment**

| Potential trigger | Incremental risk | Potential identity response |
|---|---|---|
| **New financial account linked** | Account ownership mismatch or compromised account | Account ownership verification and identity consistency checks |
| **Unfamiliar device or access pattern** | Potential account takeover | Device, account and identity-risk assessment |
| **Broader delegated purchasing authority** | Greater exposure from unauthorized access | Risk-based identity reassessment or step-up verification |
| **Financing request initiated** | Identity or application fraud | Identity, credit, income and fraud checks |
| **Material change in identity attributes** | Synthetic, stolen or manipulated identity | Identity resolution and synthetic-identity detection |

Source: Goldman Sachs Global Investment Research

### Merchant identity verification

Agentic commerce could increase the complexity of merchant onboarding and ongoing risk monitoring. Banks, acquirers and commerce platforms already validate merchant identity, ownership, registration status and compliance requirements before enabling card acceptance, with payment networks and fraud controls supporting subsequent transactions. Agent-led discovery does not eliminate these protections or require merchants to undergo a new KYB review for each transaction.

That said, agents could direct more commerce toward unfamiliar or recently established merchants, increasing the importance of detecting fraudulent storefronts, mismatches between digital endpoints and represented businesses, undisclosed ownership relationships or changes in merchant payment accounts. EFX could support banks, acquirers and commerce platforms through business, principal, taxpayer and payment-account verification, with TRU providing device, IP and relationship intelligence around digital storefronts. The potential opportunity therefore lies in more sophisticated merchant onboarding, periodic monitoring and risk-based reassessment.

### Borrower verification and credit decisioning

Agent-led commerce could move financing earlier in the purchasing journey and increase verification and decision activity before a purchase is completed. Consumers generally select a product and merchant before applying for a specific financing option, but agents could compare available credit with product prices and merchant terms during discovery. Lenders may therefore provide more eligibility, pricing and prequalification responses across financing alternatives before one option is selected and funded. Borrower verification would become an input into product and merchant selection. This could increase identity, credit, income, affordability and eligibility activity associated with a completed purchase, particularly when agents compare multiple lenders or financing products. The key change is that financing availability may be assessed earlier and more frequently within the commerce workflow.

Lenders would retain credit authority, with EFX and TRU supplying data inputs and FICO

supporting governed decisioning workflows. An agent could collect consumer-permissioned information and submit a financing request, but lenders would continue to assess the applicant's identity, repayment history, existing obligations, income and capacity to repay. EFX and TRU could provide credit, income, affordability, identity and fraud inputs used in this assessment. FICO Scores would remain a standardized borrower-risk input, and FICO Platform and lender-controlled systems could apply predictive models, business rules, pricing strategies and decision governance. The lender would remain responsible for eligibility, credit limits, pricing and approval, with the agent comparing the financing options made available to the consumer. Agent-led commerce could therefore create demand for real-time borrower verification and scalable decisioning infrastructure as financing becomes more closely integrated with product discovery.

**Exhibit 26: Agent-led commerce could move financing decisions earlier in the purchasing journey**

| Commerce stage | Potential agent activity | Required infrastructure | Relevant providers |
|---|---|---|---|
| **Product discovery** | Compare product prices, merchants and available financing | Consumer-permissioned information and preliminary eligibility inputs | EFX, TRU |
| **Financing comparison** | Request eligibility, pricing and prequalification responses across financing alternatives | Identity, credit, income, employment, affordability and fraud data | EFX, TRU |
| **Offer decisioning** | Compare lender-approved offers based on consumer-defined parameters | Scores, predictive models, business rules, pricing, optimization and governance | FICO, lenders |
| **Application** | Submit the consumer-selected financing request | Identity verification, underwriting and fraud decisioning | EFX, TRU, FICO, lenders |
| **Purchase** | Complete the purchase using the approved financing option | Lender approval, payment authorization and transaction execution | Lenders, payment providers |

Agents may facilitate comparison and application submission, but lenders retain responsibility for eligibility, credit limits, pricing and approval.

Source: Goldman Sachs Global Investment Research

### Establishing secure agent-to-merchant connectivity

Cloudflare sits in front of merchant websites and APIs, positioning it to identify and verify shopping agents before they interact with the storefront. Its Bot Management products can help merchants distinguish legitimate purchasing agents from scrapers, fraudsters and other malicious bots. Integrations with Visa Trusted Agent Protocol and Mastercard Agent Pay allow Cloudflare to verify agent identity and purchasing intent using emerging industry standards. Agentic commerce could drive greater adoption and usage of Cloudflare's bot-management, API-security and application-security products, although the incremental revenue opportunity remains unclear.

## Digital Advertising: Distribution, Trust, and Integration as Key

Within digital advertising, we view **META** and **GOOGL** as the primary secular beneficiaries of the emerging agentic commerce landscape. As consumer AI evolves from conversational assistants toward autonomous agents capable of executing end-to-end workflows, we believe value creation will increasingly accrue to platforms that combine distribution, intelligence, trust, and commerce enablement. As model capabilities continue to commoditize, we view competitive differentiation as likely to shift from underlying model quality toward platform integration, distribution, and proprietary data. Similar to the consolidation of mobile operating systems around iOS and Android during the desktop-to-mobile transition, we expect consumer agents to consolidate around platforms with the strongest distribution, trust, and commerce integrations. Thus, within our digital advertising coverage, META and GOOGL stand out in having the existing distribution, intelligence, user base, and access to compute to build and scale the consumer agent opportunity in the coming years.

We see **META** as particularly well-positioned at the intersection of consumer AI and digital advertising. The company has highlighted that AI-driven investment has translated to engagement and ad monetization momentum across its Family of Apps, while more recent announcements like the launch of its personal AI agent, Muse, reflect Meta's role in the conversation-to-action paradigm in consumer AI, and subsequently in agentic commerce (where Muse can facilitate end-to-end agentic commerce experiences given integrations with 3P networks). Over time, we see the potential for these agentic offerings to enable new monetization vectors across commerce and advertising. We would note that early traction around Muse adoption – with the app seeing over 2.8mm downloads since its release and becoming the top ranked app for free iOS apps in the US in its second week after launch (Sensor Tower). At the same time, we believe scaling agentic commerce experiences requires overcoming meaningful challenges around account connectivity, permissions, and cross-platform integrations – as highlighted by different approaches taken by ecosystem participants, including Shopify's integration with Muse versus Amazon's restriction. Broadly, we see these differences in approach as underscoring the significance of 3P participation (across merchants, platforms, and payment networks) in enabling end-to-end experiences.

**GOOGL** is similarly advantaged through its full-stack AI strategy in combination with its extensive distribution. As consumer search behavior continues to evolves from traditional queries toward conversational and multimodal interactions, we believe that the company remains uniquely positioned to aggregate commercial intent (and connect consumers with relevant information, merchants, and advertisers) especially given its expanding integration of Gemini, AI Overviews, and AI Mode. We would also highlight Alphabet's structural advantages (incl. AI infrastructure, compute capacity, and model intelligence) position the company well to capture increasing AI usage while supporting attractive long-term monetization and margin expansion.

## Retailers and Marketplaces: Amazon, Shopify Ecosystem, Merchants

While AI in commerce remains in the early innings, we see **six themes** that will define which retailers & CPG manufacturers are best positioned to compete as adoption of agentic commerce rises. In the near term, we believe AI tools at retailers will drive more personalized product recommendations. In the longer term, we expect agentic commerce to shift how consumers transact, rewarding retailers with scale and price competitiveness while potentially pressuring those most exposed to commoditization. In this vein, we believe Consumer Staples companies with a greater exposure to low-involvement commoditized categories such as household care and center-of-store food are likely to see more tangible disruption, while more personalized high-involvement categories such as prestige skincare/beauty are likely to remain relatively more resilient. We believe agentic commerce could ultimately represent one of the most meaningful changes to digital commerce since the emergence of mobile shopping, with AI agents increasingly acting as the interface layer between consumers and merchants.

1. **In the near term, we expect retailers who leverage AI shopping tools in their direct channels to remain competitive** as consumers increasingly adopt AI given their ability to create highly personalized recommendations while maintaining a brand-powered experience. We highlight WMT, which identified four primary use cases for agent-based shopping (replenishment, mission-based, spearfishing, and inspiration/discovery) and launched its commerce agent Sparky in Jun'25. Sparky is able to help with customer service, proactively wake up upon a customer opening the app, and offer to build a cart with the same items a customer frequently purchases. For example, Daniel Danker (EVP AI Acceleration, Product, and Design at WMT) highlighted Sparky's ability to identify which spices need to be replenished in a customer's kitchen and offer the opportunity to purchase them either one at a time or all at once. Other capabilities of the agent today include synthesizing reviews and offering recommendations, along with helping customers plan, compare, and purchase items. Customers are also using Sparky to solve complex, multi-item shopping journeys (e.g., party planning). Notably, Sparky has seen rapid adoption (weekly active customers doubled y/y, with 60% growth q/q) and drives a 40% higher AOV. Per Walmart, customers tend to buy items that they purchase less frequently and require more exploration when using agent-based shopping tools. As a result, we believe we will see a notable change in categories that have room for inspiration and benefit from conversation (e.g., fashion, baby, beauty, auto care, and electronics).
2. **We expect large scale eCommerce providers who can offer compelling prices (WMT, AMZN) to be best positioned to win customers as agentic commerce adoption increases.** Third party AI agents are often programmed to optimize for retail metrics such as the lowest price, fastest speed, and broadest assortment. Given Walmart's scale, supply chain, and EDLP model, it often wins on these metrics and emerges as the recommended solution for customers that leverage the brand's partnership with OpenAI, which allows consumers to complete purchases from Walmart directly within ChatGPT. While the agreement between OpenAI and

Walmart is not exclusive, we believe other retailers would have to beat Walmart in terms of price and speed to successfully compete. In terms of Amazon, we believe the company is similarly well positioned to benefit from a shift toward agentic commerce given its broad assortment, fulfillment scale, and industry-leading delivery speeds. While Amazon may not have the same direct integration with OpenAI today, its extensive product catalog, Prime ecosystem, and logistics network often allow it to compete favorably on the same decision variables that many AI agents are likely to optimize for, namely price, speed, availability, and selection. Over time, we would expect Amazon to participate through a combination of direct partnerships, AI-native shopping experiences such as Alexa for Shopping, and broader agent integrations. More broadly, we believe agentic commerce could further consolidate share among market-leading digital commerce platforms, as AI agents may naturally gravitate toward merchants offering the highest probability of successful transactions, reliable fulfillment, deep inventory availability, and consistent pricing.

3. **We see bifurcated potential impact for Consumer Staples and other Softlines / Apparel brands companies as agentic AI adoption rises over time with commoditized low-involvement categories likely to see more tangible disruption at one end, while more personalized high-involvement categories remain relatively more resilient.** In terms of consumer purchase behavior, we expect the impact from agentic AI adoption to be bifurcated. At one end, we believe agents could take over the entire purchase cycle for certain commoditized products/categories such as toilet paper, floor cleaners, center-of-store food, and commoditized apparel basics, where agents could automatically reorder these products based on prior history with minimal human involvement. In such cases, we believe that even in case the original product or SKU is unavailable, agents could decide on behalf of consumers to either buy a different SKU or an alternate brand/private label product, especially where the value offering is more attractive and brand loyalty is relatively low. We view companies with high private label exposure such CLX and KHC potentially at risk in this scenario. However, at the other end for more personalized product categories such as prestige skincare/beauty, agents could be used for providing recommendation to consumers who can then take final purchase decisions. As such, we expect such product categories to be relatively more resilient and see EL well positioned in that regard, with the company recently partnering with Shopify to enhance its DTC experience, and with Profound toward AI-native brand discovery and optimization. We also expect branded apparel names to increase their focus on differentiation to ensure personalized product category decisions. Contrary to consumers' manual search process (either via search engines like Google or on marketplaces like Amazon) where there is often a broader list of products/recommendations to choose from (i.e., page-1 of search results), AI chatbots/agents are usually much more limited in the number of products they recommend. Therefore, with AI involvement increasing in consumer purchase decisions, it is paramount for companies/brands to ensure that their key attributes/benefits are easily accessible by agentic AI, such that these brands/products readily solve for consumer/agentic queries toward personalized solutions, e.g., suggest the best face cream for dry skin or foods tailored to diet

preferences. Furthermore, we believe the shift to agent-led purchases can also limit companies/brands that have relied on their large database of first-party data and used it for more effective consumer targeting/marketing programs so far; we see ODD at risk in this regard.

4. **We also see multiple areas of focus for Staples companies and other consumer brands to optimize for evolving agentic AI landscape.** As we think about shifting purchase dynamics due to agentic AI's adoption, we believe there are several areas that Staples companies can address to optimize for this evolving agentic AI landscape. First, as we discussed, it's becoming increasingly important for companies/brands to adapt their SEO (search engine optimization) to agentic AI. We believe this transition represents a broader shift from Search Engine Optimization (SEO) toward Generative Engine Optimization (GEO), where success is increasingly determined by whether AI systems can accurately ingest, understand, and recommend a brand's products. In that vein, companies are working toward making sure that their websites including key product/brand attributes are easily readable by AI agents, which is in contrast to their legacy approach where such information was either hidden or not easily machine-readable (e.g., embedded in PDFs). For instance, MDLZ previously highlighted that Oreos were only cited in 10% of AI chatbot cookie recommendations, which was likely attributable to blocked bot crawlers and has since been working toward an agentic commerce strategy to better position itself for an evolving digital commerce environment. Similarly, PG is working toward understanding the decision criteria used by agents to make purchases and actively looking at Generative Engine Optimization (GEO) search to ensure its product information is cleanly and accurately presented to AI engines (which can then be used for recommendations/purchases). As such, we believe established brands may have an advantage in this environment owing to an abundance of reliable information, though smaller brands could also benefit from this shift by ensuring their brand/product characteristics are easily available. Notably, as agents gain even more relevance in making purchase decisions, we believe CPG marketing ROIs/budgets could shift towards more personalized categories in order to develop greater brand loyalty where consumers are still making the final decisions and can potentially override agentic recommendations, away from more commoditized categories where consumer involvement is likely to go down even further as agents take over. Outside of these, Staples companies are leveraging AI more broadly (incl. agentic AI) to optimize their marketing campaigns & innovation pipelines for greater cost-effectiveness and faster execution. In addition, companies like PG and HSY are leveraging AI to make their supply chains more efficient, incl. touchless operations at manufacturing facilities and running platforms autonomously to react to demand signals among other factors. We are also seeing brands adapt to this in softlines and apparel. For example, Tapestry has discussed investments around AI engine optimization and generative search, reflecting a growing focus on ensuring brands remain discoverable, accurately represented, and recommended as consumers increasingly rely on AI-powered agents throughout the shopping journey.

5. **We view Shopify as one of the best-positioned beneficiaries of the shift toward agentic commerce, supported by both product momentum and an increasingly**

**strategic role in AI-driven shopping**. In our view, the debate is often overly focused on the consumer discovery layer and underappreciates Shopify's growing role as the infrastructure layer underpinning digital commerce. Over the past year, Shopify has emerged as a leader in standardizing agentic commerce, co-developing the Universal Commerce Protocol (UCP) with Google and launching Agentic Storefronts, which allow merchants to share product catalog information and transact across major AI surfaces from a centralized Shopify integration. As commerce becomes more fragmented across AI interfaces, we believe merchant complexity rises and the value of Shopify's integrated platform increases, positioning the company to benefit regardless of whether demand originates from traditional storefronts, search, social, marketplaces, or AI agents.

- **We believe Shopify's position in agentic commerce is often misunderstood, with investors underestimating the breadth of its commerce infrastructure.** While some investors view Shopify primarily as a website-building tool that could be disintermediated if consumer shopping agents such as Muse become the primary shopping interface, we believe Shopify's value increasingly resides in the underlying commerce stack. Shopify today powers merchant catalog management, inventory synchronization, checkout, payments (Shop Pay), fulfillment, customer data, order management, identity, and post-purchase workflows, all of which remain necessary regardless of where discovery originates. In an agentic commerce environment, merchants will still need infrastructure to expose products to AI agents, maintain real-time inventory availability, facilitate transactions, process payments, and manage fulfillment and returns. In our view, AI may alter the consumer-facing discovery layer, but it does not remove the need for the commerce operating system beneath it. As agentic commerce scales, we believe Shopify's role as the merchant infrastructure layer could become more important, not less, positioning the company as a key enabler of commerce irrespective of whether traffic originates from search, social, marketplaces, or consumer agents.
- **We believe agentic commerce could strengthen Shopify's merchant ecosystem by helping consumers discover smaller and emerging brands.** Historically, consumer discovery has been heavily influenced by marketing budgets, search rankings, and marketplace positioning, often favoring larger retailers and brands. By contrast, AI agents are designed to optimize for consumer intent, relevance, price, and product fit, creating the potential for high-quality merchants to surface regardless of size. We therefore see a scenario where agentic commerce expands the long tail of commerce by reducing discovery barriers and directing consumers toward lesser-known merchants that best satisfy a given need. In our view, this dynamic aligns with Shopify's merchant base and could further accelerate the shift toward independent brands that has already contributed to Shopify's share gains within eCommerce.
- **We believe agentic commerce could accelerate Shopify's share gains versus legacy commerce platforms as AI increases the value of innovation**

**velocity.** We believe agentic commerce is increasing the urgency for enterprises to move away from older commerce platforms and that Shopify has been the main beneficiary of this. Shopify's faster pace of innovation, role in shaping the agentic commerce ecosystem, and Shopify's pace of product innovation has already contributed to share gains against legacy commerce platforms, and agentic commerce could further widen that gap over time.

6. **We think marketing spend as a percent of sales could increase as brands seek to strengthen emotional connections with consumers beyond agentic optimization, ensuring they remain top-of-mind rather than competing solely on product attributes, price, or availability.** As agentic discovery becomes more prevalent, we believe brand equity and customer connection will become increasingly important differentiators, particularly in categories where AI agents can easily compare alternatives and recommend substitutes. As a result, companies may invest more heavily in brand-building and customer engagement to influence consumer preference before purchase decisions are delegated to AI-driven recommendations. Storytelling is becoming even more critical. We also expect to see broader bifurcation of outcomes between brands that are technology-forward in optimizing for the agentic landscape and new consumer trends (which channels the consumer spends their time on) vs. the average brand. We believe SN and TPR are well-positioned here.

# Payments and FinTech: We see Networks and Modern Credit Issuers as Well-positioned for Agentic Commerce



We view agentic commerce as a potential catalyst to accelerate eCommerce volumes, which we see benefiting several areas of the payments and fintech ecosystem. First, we see the card networks potentially benefiting from 1) faster eCommerce growth, 2) yield enhancement from higher value added services (VAS) attach, and 3) yield enhancement from consumer basket fragmentation as a result of the distribution of agentic volumes across smaller merchants. Second, we see agentic commerce raising the technical bar for payment processing, and believe this will reinforce existing competitive dynamics that have led to a small number of eCommerce native processors taking a large share of incremental eCommerce processing. Finally, we see modern consumer finance issuers as benefiting from consumers opting for more flexible, cheaper, and simpler financing options, making BNPL companies clear winners.

1. **Card Networks**: **we see transaction yield opportunities, driven by network-linked VAS, cyber security, and the potential for basket fragmentation / lower AOVs**: We believe the global card networks (**V**, **MA**) are well positioned to benefit, as we believe the network effects behind global card payments will make carded payments the easiest way to catalyze agentic commerce (with both Muse and Instinct as early proof points). In addition to participating in the growth of these volumes, we see numerous opportunities for improved transactions yields on agentic transactions. First, we see a potential for a greater number of smaller ticket sized transactions as agents complete more single item transactions and fragment shopping behavior across a wider range of online merchants. Thus we believe transaction yields could increase due to the networks' fixed fee per transaction pricing. Second, we see numerous opportunities for higher value added services (VAS) attach on volume in an agentic world, as online transactions typically carry higher VAS attach. In particular, longer term, we expect the vast majority of agentic transactions to ride on network tokenization services (Visa tokenization services, VTS, and Mastercard Digital Enablement Suite, MDES). Finally, we see the broader threat environment resulting in higher demand for fraud and identity verification services, where we believe Mastercard in particular is well positioned to benefit given its product investments and acquisitions in this area.
2. **Payment Processors**: We believe that agentic commerce will incrementally add to the complexity of eCommerce payment processing, creating a new lens to measure authorization rates and the quality of technical integrations. We believe this is likely to reinforce existing competitive dynamics, which has historically favored modern eCommerce processors such as **Stripe** and **Adyen** over incumbent processors (i.e. **GPN**/**FISV**) that have built their platforms through numerous acquisition and have lost share in eCommerce payments over the long run. While we don't see agentic commerce as intrinsically negative for PayPal, as we believe that consumer choice of wallet will likely drive volumes (just as they do currently in eCommerce), **we do not see competitive dynamics improving for PayPal in an agentic world**, absent structural changes in the company's competitive positioning and merchant/consumer value proposition. However, we acknowledge the importance of

tying agents and the associated payment credentials to the end consumer, and while we believe these linkages will likely be handled at the card network level (through agentic tokens) longer term, in the near term, **PayPal's two-sided ecosystem likely has strategic value** in agentic commerce. We view PYPL's recent enablement within Muse AI by Meta as consistent with this view.

3. **Consumer Fintech**: We believe consumer choice will continue to dictate the payment method at checkout, meaning that consumers that typically spend on their preferred rewards credit card (or their choice of debit card) will mostly continue to do so for agentic commerce payments. However, on the margin, we believe that consumers (and their agents) may elect to choose cheaper and simpler forms of financing at the point of sale when faced with the need for financing to complete a purchase. As such, **we believe BNPL providers (AFRM and KLAR in particular) could be beneficiaries of consumer having greater ability to optimize financing at the point of sale. We expect BNPL companies to be available through agentic surfaces over time, leading with their existing wallet integrations as well as direct integrations.**

**Spotlight on Network Risk and Cybersecurity product portfolios**

We believe value-added services offered by the payment networks (V and MA) will be key products that support fraud prevention when agentic transaction adoption accelerates. Visa has invested billions over the last several years to lay the foundational layer of 'Visa as a Service' while Mastercard indicates that a key differentiator of its business is that it can drive 40% more fraud detection from its AI-powered Decision Intelligence. Both are positioned to provide valuable insights to clients based on unique data sets. We believe the scale of the networks gives V and MA the right to sell products in these markets and provides an optimal solution to their acquiring and issuing clients, creating a suite of sticky mission critical products. **We estimate that a 5% acceleration of V/MA's cybersecurity related value added services would drive a 90bps/ 200bps acceleration VAS growth and 20bps / 80bps acceleration in total net revenue respectively.**

## Exhibit 27: Overview of Visa Value-Added Services revenue mix

| Risk & Security Solutions | Brief Description |
|---|---|
| **Transaction Risk** | |
| Visa Advanced Authorization (VAA) | Network-agnostic, AI-driven risk scoring solution to identify and prevent potential fraud across both Visa and non-Visa payment networks |
| Visa Risk Manager (VRM) | Comprehensive issuer decisioning platform working alongside VAA to mitigate fraud risk while maximizing legitimate transaction authorizations |
| Decision Manager | Enterprise transaction risk solution using real-time AI analytics to assist sellers and acquirers in detecting and preventing payment acceptance fraud |
| Visa Deep Authorization (VDA) | AI-powered risk scoring tool designed specifically for card-not-present (CNP) ecommerce payments, utilizing deep learning models to improve fraud detection |
| Visa Protect for A2A | Real-time fraud prevention engine tailored for non-card payment rails (A2A, P2P wallets, RTP) that automotically blocks fraudulent transfers |
| Featurespace | Leverages adaptive ML and real-time behavioral analytics to monitor transaction risk and protect FIs from complex fraud, scams, and financial crime |
| Agent Score* | Evaluate merchant's digital storefronts for agentic commerce readiness to ensure AI agents can navigate sites and complete purchases independently |
| Visa AR Manager Integration* | AI-powered B2B payment reconciliation that automatically matches incoming payments with open invoices to minimize processing exceptions |
| **Authentication** | |
| Cardinal Commerce | Payment authentication services, identity verification, and EMV 3-D Secure orchestration across rails to help merchants confirm legitimate online buyers |
| Visa Secure | Global authentication framework powered by the EMV 3-D Secure protocol enabling real-time risk data exchange between merchants and issuers |
| Visa Trusted Agent Protocol (VTAP)* | Agentic commerce framework to authenticate AI agents and distinguish between legitimate agents and malicious bots |
| Agentic Directory* | Centralized registry of authenticated, verified AI agents and participating merchants to engage in trusted transactions |
| **Cybersecurity** | |
| Enumeration | Cybersecurity suite incorporating tools designed to detect and block automated, programmatic testing of payment data elements |
| Device Protection | Utilizing device-based biometrics and passkeys to secure endpoints and streamline user authentication experiences. |
| BioCatch | Specializes in behavioral biometrics, analyzing over 3,000 data points to distinguish legitimate users from fraudsters even before the transaction is initiated |
| Visa Vulnerability Agentic Harness (VVAH)* | Open-source, AI powered framework that identifies code vulnerabilities and automatically generates validated remediation steps |

Source: Company data, Goldman Sachs Global Investment Research

## Exhibit 28: Overview of Mastercard Value-Added Services revenue mix

| Security Solutions | Brief Description |
|---|---|
| **Cybersecurity and Risk Management** | |
| Mastercard Threat Intelligence | Network visibility and cyber threat intelligence to help issuers and acquirers detect attacks using dedicated fraud prevention teams and map attack surfaces |
| RiskRecon | Automated TPRM platform that continuously monitors public-facing IP assets to deliver passive security ratings and vulnerability assessments |
| Recorded Future | Threat intelligence platform leveraging real-time threat data, open-source intelligence, and technical telemetry to automate threat detection |
| Cyber Front | Breach and Attack Simulation (BAS) framework executing continuous threat emulations to quantitatively evaluate security control efficacy |
| Cyber Quant | Quantitative risk assessment engine that models breach probability and financial loss vectors aligned with NIST and ISO security standards |
| Baffin Bay Networks | Cloud-native threat protection platform providing automated mitigation of Distributed Denial of Service (DDoS) and application-layer attacks |
| **Identity and Authentication Solutions** | |
| Ekata | Identity verification API engine analyzing dynamic global telemetry (email, phone, address, IP) to calculate identity risk scores during customer onboarding |
| NuData Security | Analytics system evaluating biometric signals - such as keystroke dynamics and touch interaction - to block botnets and account takeover attacks |
| Verifiable Intent | Co-developed with GOOG to deliver cryptographic credentials for AI agent purchases |
| Mastercard Identity Check | MV 3-D Secure (3DS) authentication solution leveraging contextual risk scoring, biometrics, and dynamic multi-factor authentication |
| Scam Protect | AI-driven suite combining open banking connectivity, behavioral biometrics, and network telemetry to detect fraud |
| **AI Decisioning, Risk Scoring and Network Protection** | |
| Decision Intelligence / Decision Intelligence Pro | Fraud scoring engine utilizing recurrent neural networks (RNNs) to evaluate transaction context |
| Brighterion | AI / ML for fraud decisioning, AML monitoring, and credit risk scoring |
| SafetyNet | Autonomous network defense layer evaluating real-time transaction anomalies and distributed BIN attack surges |
| Consumer Risk Fraud (CFR) | ML routing model deployed on real-time A2A rails to identify fraudulent transfers prior to settlement |
| Rules Cartridges and Rules Discovery | Risk cartridges and visual data discovery tools that provide rules and pattern identification to augment neural network decisioning |
| **Merchant and Portfolio Control Platforms** | |
| Mastercard Merchant Trust Services | Merchant monitoring combining web scraping, transaction anomaly detection, and risk intelligence to evaluate merchant integrity |
| Mastercard Credit Intelligence | Credit decisioning engine integrating open banking data, network txn history, and predictive modeling for dynamic credit risk underwriting |
| Mastercard in Control | Authorization in real-time rule enforcement for spending caps, MCC restrictions, and geographic boundaries at the card or token level |
| Onboard Risk Check | Acquirer underwriting tool analyzing merchant domain riskand regulatory compliance flags to expedite onboarding |
| **Dispute Mitigation and Resiliency Services** | |
| Ethoca | Dual-purpose dispute platform delivering Ethoca Alerts for pre-chargeback merchant deflection and Ethoca |
| Consumer Clarity | Embedding merchant receipts into banking channels |
| Mastercom | Centralized dispute management platform automating claim lifecycles, chargeback processing, and inter-bank evidence exchange via RESTful APIs |
| First-Party Trust Program | Standardized protocol enabling merchants to pass detailed delivery and identity telemetry into authorization flows to combat first-party friendly fraud |
| Stand-in-Processing (SITP) | Backup authorization engine that evaluates and approves transactions using issuer-configured parameters during primary host outages |

Source: Company data, Goldman Sachs Global Investment Research

## Business Services: Identity, Fraud and Credit Infrastructure: EFX, TRU, FICO

Agentic commerce represents longer-duration optionality rather than a quantified earnings driver for identity, fraud and credit infrastructure providers, with the strongest potential tied to incremental verification and decision activity. We see the most identifiable potential monetization path in FICO Software if agent-led financing and payment activity increases the number and complexity of automated decisions. EFX has the broadest potential exposure across consumer identity, merchant verification, employment, income and credit data, and TRU offers differentiated capabilities in persistent identity resolution and digital identity and network risk. Payment networks, issuers, wallets and agent platforms will continue to control agent credentials, tokenization and transaction authorization, limiting the need for outside verification on lower-risk tokenized purchases. The opportunity for EFX, TRU and FICO should therefore concentrate around higher-risk events such as new account linkages, unfamiliar merchants, financing requests or material changes in an agent's delegated authority. The central investor question is whether these events create incremental paid decisions or shift verification and decisioning already occurring through existing digital workflows.

1. **EFX has the broadest exposure across identity, merchant verification and underwriting data.** Kount 360 and the company's identity-proofing, digital identity and synthetic-fraud capabilities could help issuers, wallets, platforms and lenders evaluate the consumer behind an agent credential when higher-risk changes occur. EFX also has the most direct merchant-verification exposure among the three companies through its business, principal, taxpayer and payment-account verification capabilities, which could support transactions involving unfamiliar counterparties. Consumer credit data and The Work Number provide additional exposure if agents generate more prequalification and financing decisions during product discovery. This breadth gives EFX exposure across multiple identity, fraud and credit decision points. Revenue contribution will depend on whether clients purchase incremental checks or use existing products more frequently, as opposed to shifting current verification activity into a new channel.
2. **TRU is best positioned in persistent identity linkage and digital-network risk.** TruValidate, the company's identity graph and Neustar-derived capabilities can connect consumers across physical and digital identifiers, with document, device, IP and fraud signals providing additional context when account relationships or identity attributes change. This context could become more valuable as authorized agents operate through shared cloud infrastructure and at machine speed, reducing the standalone usefulness of IP location, navigation patterns, session velocity and other traditional browser signals. TRU could also help identify common digital infrastructure connecting apparently unrelated merchants, although this represents a narrower opportunity than conventional business verification. We believe TRU has differentiated capabilities where agentic commerce requires institutions to connect the underlying consumer with surrounding accounts, devices and digital activity. Revenue contribution will depend on whether this additional context generates new paid decisions or greater product attachment instead of remaining embedded within existing fraud workflows.

3. **FICO could benefit primarily through Software as automated fraud and financing decisions increase.** Agents may eventually evaluate financing together with product prices and merchant terms, but lenders will continue to determine eligibility, credit limits, pricing and approval. FICO Scores would remain a standardized borrower-risk input, with FICO Platform allowing lenders to combine scores, bureau attributes, predictive models, business rules and pricing strategies within governed decisioning workflows. Agent-led shopping could generate more eligibility, pricing and offer decisions before the consumer selects a financing option, increasing demand for automated underwriting, strategy testing, optimization, monitoring and explainability. Falcon Fraud Manager and Enterprise Fraud Solution provide additional exposure if automated payment activity increases the need to identify anomalies across transactions, customers, products and channels. We see greater potential in decisioning and fraud Software than in incremental Scores volumes, with revenue contribution dependent on greater decision activity, additional module adoption or deeper deployment of FICO Platform.

**Exhibit 29: EFX, TRU and FICO address different layers of agentic identity, fraud and credit decisions**

| Potential decision | EFX | TRU | FICO | Potential buyer | Revenue question |
|---|---|---|---|---|---|
| **Is the consumer legitimate?** | Identity proofing, synthetic-identity detection and Kount digital-risk signals | Identity graph, document verification, device intelligence and IP signals | Limited direct exposure; can apply third-party identity inputs within fraud decisions | Issuer, wallet, agent platform or lender | Incremental verification or existing workflow? |
| **Is the merchant legitimate?** | Business, principal, taxpayer and payment-account verification | Device, IP and relationship analysis across digital storefronts | Limited direct exposure | Acquirer, network, commerce platform or agent operator | New verification at discovery or reliance on existing KYB controls? |
| **Is the transaction anomalous?** | Consumer, account and digital-risk signals | Persistent identity and digital-network context | Falcon and Enterprise Fraud decisioning | Issuer, processor or financial institution | Greater decision activity or additional product adoption? |
| **Should financing be offered?** | Credit, income, employment, identity and affordability data | Credit, affordability, identity and fraud data | Scores, Platform, business rules, pricing and decision governance | Lender or financing provider | Greater data and decisioning activity per completed purchase? |

Source: Goldman Sachs Global Investment Research

### EFX and TRU: Identity and risk inputs

EFX and TRU provide complementary identity and risk capabilities that could support agentic commerce. TRU's TruValidate suite combines identity verification, document verification, device and IP intelligence, fraud analytics and identity-resolution capabilities supported by the company's identity graph and Neustar assets. EFX's Kount 360 platform combines identity proofing, digital identity trust, document verification, synthetic-identity detection and digital-risk signals derived from devices, email addresses, payment history and other attributes. The companies have differentiated merchant-risk capabilities, with EFX providing business, principal, taxpayer and

payment-account verification and TRU providing device, IP and relationship intelligence around digital storefronts. These capabilities could help clients assess the consumer behind an agent credential, identify changes in identity or account risk and evaluate unfamiliar counterparties when higher-risk events occur. Agentic commerce could therefore expand the application of existing EFX and TRU products beyond traditional onboarding and account-access workflows.

**Exhibit 30: Existing EFX and TRU capabilities could support agentic identity and fraud decisions**

| Company and capability | Existing function | Potential agentic application |
|---|---|---|
| **TransUnion** | | |
| **TRU Identity Verification** | Verifies consumer-provided information using credit, non-credit, public and digital identity data | Assess the consumer behind an agent credential when higher-risk changes occur |
| **TRU Identity Graph / Neustar OneID** | Connects physical and digital identifiers into a persistent identity view | Link consumers with accounts, devices and digital activity surrounding agent-led transactions |
| **TRU Document Verification** | Authenticates government-issued identification | Support step-up verification for higher-risk changes or financing requests |
| **TRU Synthetic Fraud Model / Fraud Alerts** | Identifies synthetic, altered or high-risk identities | Detect synthetic-identity risk in agent provisioning, account linkage or financing |
| **TRU Device Risk / IP Intelligence** | Assesses device reputation, account linkages and network characteristics | Provide context when legitimate agents operate through shared cloud infrastructure |
| **TRU Fraud Analytics** | Identifies relationships across identities, devices and transactions | Detect connected risks across consumers, accounts and digital storefronts |
| **Equifax** | | |
| **EFX Kount 360** | Combines identity, payment-fraud data, analytics and decision workflows | Support identity and digital-risk assessment around agent-led activity |
| **EFX Identity Proofing / Digital Identity Trust** | Assesses whether identity information belongs to the represented consumer | Evaluate the underlying consumer behind an authenticated agent |
| **EFX Document Verification** | Authenticates government-issued identification | Support selective step-up verification |
| **EFX Synthetic Identity Risk** | Identifies synthetic-identity risk across the customer lifecycle | Assess higher-risk account linkages and financing requests |
| **EFX Digital Risk Screening** | Uses device, email and digital-interaction signals | Identify account-opening, access and account-takeover risk |
| **EFX Business / Account Verification** | Validates businesses, principals, taxpayer information and commercial accounts | Assess unfamiliar merchants and match payment destinations to verified entities |

Source: Company data, Goldman Sachs Global Investment Research

### FICO: Fraud and credit decisioning

FICO provides fraud and credit decisioning capabilities that could support a larger number of automated interactions in agentic commerce. FICO Scores provide lenders

with a standardized measure of borrower risk, and FICO Platform combines credit data, predictive models, business rules, pricing strategies and governance within real-time decisioning workflows. Falcon Fraud Manager supports transaction monitoring and fraud decisioning across cards, account-to-account payments, card-not-present eCommerce and other payment channels. Enterprise Fraud Solution connects fraud intelligence across customer interactions, accounts, products and channels, allowing institutions to assess risk beyond an individual event. These capabilities could become more relevant if agents generate financing requests and payment activity across multiple merchants, products and channels, increasing the need to apply lender policies, evaluate borrower risk and identify anomalous transactions in real time. We therefore see greater potential in FICO's decisioning and fraud Software than in incremental Scores volumes.

**Exhibit 31: Existing FICO capabilities could support agentic fraud and credit decisions**

| Company and capability | Existing function | Potential agentic application |
|---|---|---|
| **FICO Scores** | Standardized measures of consumer credit risk used by lenders to support underwriting, pricing and account-management decisions | Support borrower-risk assessment when agents initiate financing comparisons or applications |
| **FICO Platform** | Enterprise platform combining data, predictive models, business rules, optimization and orchestration across credit and fraud decisions | Govern and execute a larger number of real-time fraud, eligibility, pricing and offer decisions |
| **Credit Decisioning and Optimization** | Automates eligibility, underwriting, pricing and offer decisions under lender-defined policies and constraints | Evaluate and optimize lender-approved financing alternatives generated through agent-led commerce |
| **FICO Falcon Fraud Manager** | Provides real-time fraud detection, behavioral profiling and case management across cards, account-to-account payments and other transaction channels | Identify anomalous automated payment activity using transaction, customer and channel context |
| **FICO Enterprise Fraud Solution** | Connects fraud intelligence across customer interactions, accounts, products and channels | Assess agent-led activity using a broader customer view instead of evaluating each transaction independently |

Source: Company data, Goldman Sachs Global Investment Research

## Live event ticketing: Live Nation, StubHub, and Other 3rd Party Ticketing Platforms

**Agentic commerce has the potential to reshape discovery, purchasing behavior, and distribution economics across live-event ticketing, but the impact is likely to differ materially between primary and secondary ticketing platforms.** In our view, the main beneficiaries of agentic commerce are likely to be primary ticketing platforms, while secondary marketplaces face a more mixed outcome. In terms of opportunities, we expect agentic commerce to improve the efficiency and effectiveness around how ticketing platforms recommend inventory to customers, improving discovery and conversion rates. In terms of risks, agentic commerce could i) lead to increased pricing transparency, resulting in the commoditization of platforms and inventory, resulting in service fee pressure, and ii) limit the opportunity around ancillary services and advertising monetization. On net, we believe primary ticketing platforms are best positioned to benefit from the opportunities around agentic commerce due to their access to differentiated inventory, while secondary ticketing platforms could be more exposed to the risks due to their commoditized inventory.

**We see this dynamic driven by the following puts & takes:**

- **(+) Agentic commerce could improve the ease of ticket discovery for both primary and secondary ticketing platforms.** A near-term benefit of agentic commerce may be that it offers customers a simpler, more personalized discovery experience for consumers. Rather than navigating multiple websites, marketplaces, and search results, consumers can increasingly rely on AI assistants to identify relevant events, compare inventory, and surface ticket options based on factors such as price, location, artist, or venue preference. For example, Ticketmaster's integration with Meta's Muse illustrates how AI-powered discovery can be layered on top of existing ticketing infrastructure (link). At the 2026 Goldman Sachs Communacopia conference, StubHub similarly described AI as an incremental customer acquisition channel, noting that it is already working with LLM providers and can leverage marketplace data, such as pricing preferences, seating preferences, and historical purchasing behavior, to deliver more relevant recommendations. In our view, agentic commerce has the potential to reduce friction in the ticket-buying journey and make event discovery more efficient for consumers.
- **(+) Agentic buying could increase sell-through of tickets and venue utilization**. As a result of improving discovery, agentic commerce could help ticketing platforms, promoters, and venue operators increase attendance and sell-through for events that have excess capacity. Live Nation has previously stated that 95% of concerts do not sell out, with 60-70% sell through at amphitheaters and 65-75% at theaters. Especially for smaller venues and artists, AI assistants could help surface these events to consumers who are actively looking for things to do in a given city or time window, even if they are not searching for a specific artist. In this way, agentic commerce would better service the currently outsized demand without the need for incremental concert supply, which also improves the fan experience (where fans are currently frustrated when they can't get live concert tickets). We believe agentic commerce has the potential to be net additive to event sell-through by reducing friction in the ticket-buying journey, expanding top-of-funnel discovery, and helping

connect consumers with relevant events they may not have otherwise found.

- **(+/-) Opportunities & risks for customer acquisition and search optimization costs,** particularly for secondary ticketing platforms. Secondary ticketing marketplaces operate in a competitive customer acquisition environment driven by strong purchase intent but also fairly commoditized inventory. As a result, customer acquisition costs represent a meaningful expense for many secondary operators, including companies such as StubHub, SeatGeek, and Vivid Seats, which have historically invested heavily in performance marketing and paid search to drive traffic. Primary ticketing platforms like Ticketmaster, on the other hand, generally secure differentiated inventory through contractual relationships with artists and venues who help promote the events, reducing their reliance on paid customer acquisition.
  - **(+ Near-term) Customer acquisition efficiency could represent a near-term margin opportunity**. As agentic discovery gains adoption, consumers may increasingly bypass traditional search (e.g., Google) and navigate directly through AI-powered assistants. If agentic channels can deliver consumers at a lower cost than today's paid-search ecosystem, secondary marketplaces could benefit from meaningful reductions in customer-acquisition expense, resulting in margin expansion. We note that agentic commerce would not increase the number of concerts, games, or tickets available for sale, but instead, we believe it has the potential to improve sell-through for the long-tail of events that do not sell out by improving discovery via personalized recommendations. The key question is whether agent-based distribution proves less expensive (i.e. lower take rates) than the current search-driven model, or simply replaces one distribution intermediary with another.
  - **(- Long-term) Rising AI platform pricing power could offset customer acquisition cost savings.** Agentic commerce could reduce reliance on traditional paid search, but the key question is whether those savings flow through to ticketing platforms over the long-term. As AI assistants increasingly become the starting point for ticket discovery, platforms may need to pay OpenAI, Google, Meta, Perplexity, or other agent ecosystems to promote their inventory, similar to how they bid for visibility in search today. While these channels could initially offer a lower-cost source of customer acquisition, we believe AI platforms are likely to gain pricing power as consumer usage grows and dependence on agent-driven discovery increases. As a result, what begins as a customer acquisition cost benefit could evolve into a new distribution toll, with ticketing platforms paying referral fees, placement fees, or commissions to secure visibility within AI-generated recommendations. In our view, the long-term debate is less about whether paid search is disrupted and more about whether AI platforms ultimately capture a greater share of ticketing economics than today's search ecosystem.

- **(-) Agentic price comparison could accelerate the commoditization of undifferentiated inventory.** The combination of all-in pricing and AI-driven

comparison allows agents to evaluate identical inventory across marketplaces with minimal friction, making it easier for consumers to identify the lowest-priced option regardless of platform. As price transparency increases, marketplace differentiation may shift away from brand and marketing, and toward measurable factors such as price and fulfillment reliability. This dynamic could be particularly impactful in secondary ticketing, where inventory is often highly commoditized and the same seat type may be listed across multiple marketplaces, ultimately pressuring the platform's ability to sustain service fees. In our view, platforms that control inventory and exclusive supply relationships like Ticketmaster are likely to better positioned, while secondary platforms that compete for consumer traffic like Stubhub could face greater pressure.

- **(-) Ancillary and advertising monetization could face incremental pressure from agentic commerce.** Ancillary products such as VIP upgrades, parking, ticket insurance, food & beverage pre-orders, merchandise bundles, and seat upgrades are typically sold throughout the checkout journey and benefit from consumers actively navigating a merchandised purchase funnel. As agentic commerce gains adoption, however, consumers may increasingly delegate ticket purchases to agents operating against a specific set of parameters. In that scenario, the agent's objective is to fulfill the user's request rather than browse incremental offers, which could result in lower ancillary attach rates, particularly when add-on purchases increase total spend beyond a user's pre-defined budget. While more sophisticated agents may eventually surface personalized upsell opportunities, we believe the near-term risk is that agentic transactions bypass portions of the funnel that have historically supported high-margin ancillary revenue. On the sponsorship & advertising piece, sponsored listings and promoted inventory have historically been high-margin revenue streams because consumers browse ranked search results and marketplaces can monetize in-platform ad placement. If agents increasingly rank inventory based on factors such as price, availability, and user preferences (and users do not view the platform ads), the value of paid placement on ticketing platforms could be pressured.

## Valuation

**GOOGL**: We are Buy rated on GOOGL. Our $435 12-month price target is based on an equal blend of (1) EV/GAAP EBIT applied to our NTM + 1 year estimates and (2) a modified DCF using EV/FCF-SBC multiple applied to our NTM + 4 years estimates discounted back 3 years.

Risks to our Buy rating include: a) competition of product utility levels and advertising dollars; b) headwinds to monetizable (product) search from industry disruption; c) shifting media consumption habits; d) heavy investments depress operating margins for longer than our forecasts; e) no/low levels of incremental shareholder returns going forward; & f) regulatory scrutiny and industry practices altering the business model's prospects. In addition, Alphabet is exposed to the volatility caused by the global macroeconomic environment and investor risk appetite for growth stocks.

**AMZN**: Our 12m PT of $375 is based on a sum-of-the-parts methodology: a) 16x EV/GAAP EBIT multiple applied to our North America segment NTM + 1 estimates; b) a 1.25x EV/Sales multiple applied to our International segment NTM + 1 estimates; & c) a 29.0x EV/GAAP EBIT multiple applied to our AWS segment NTM + 1 estimates.

Key risks include: (-) Any impact to eCommerce or Cloud growth from competition; lack of success in scaling high margin businesses including Advertising, Cloud, third-party selling and the subscription business; investments across any array of initiatives creating a headwind to gross or operating margin; any product or platform changes necessary to comply with changes to the global regulatory environment; exposure to the volatility caused by the global macroeconomic environment and investor risk appetite for growth stocks.

**META**: We reiterate our Buy rating and 12-month price target of $725. Our $725, 12-month price target is based on an equal blend of (1) 26.0x EV/GAAP EBIT applied to our NTM + 1 year estimates and (2) a modified DCF using 45.0x EV/FCF-SBC multiple applied to our NTM + 4 years estimates discounted back 3 years. Risks to our Buy rating include: a) competition for user growth, user engagement & advertising dollars across an array of incumbent and emerging Internet, media and commerce companies; b) large investments in long-tailed initiatives depress operating margins for longer than our forecasts; c) no/low levels of incremental shareholder returns going forward; d) regulatory scrutiny and industry practices altering the business model's prospects; e) potential antitrust scrutiny could prove to be a headwind to M&A aspiration (to add talent and product innovation inorganically) and/or result in a break-up or dis-synergies of prior period M&A activity; & f) inability to monetize upside optionality opportunities (messaging layer, social commerce/shopping, Oculus/Metaverse). In addition, Meta is exposed to the volatility caused by the global macroeconomic environment and investor risk appetite for growth stocks.

**EFX**: Our $199 12-m price target is based on 17.5x NTM + 1YR EPS of $11.40. The target multiple comes at a premium to the Info Services peer group median in the context of government tailwinds partially mitigated by consumer credit uncertainty and decelerating mortgage revenue growth post FICO score distribution changes. Risks include macro and interest rate risk, subprime consumer credit origination headwinds and mortgage origination volume volatility. Potential positives include a rebound in

mortgage origination volumes, expansion in non-mortgage credit inquiries, rapid product introductions, further adoption of EWS offerings and healthy international expansion.

**FICO**: Our $1,548 12-m price target is based on 24.0x NTM + 1YR EPS of $64.51. The target multiple comes at a premium to the Info Services peer median to reflect FICO's stronger growth and margin profile resulting from its pricing power in the Scores business. Risks include an inability to sustain elevated pricing increases in the Scores business, competitive threats, a macro and credit market downturn, and a lack of traction with FICO's decision management software transformation.

**TRU**: Our $89 12-m price target is based on 10.0x NTM + 1YR EPS of $18.10. The target multiple comes below the Info Services peer median to reflect near-term uncertainty around CV growth trends and competitive risks from AI. Risks include AI-based competitive threats, softening client demand in response to macro headwinds, tech vendor renewal challenges, reduced federal government spending, budget pressures in tariff-affected industries, financial leverage and FX risk. Potential positives include an improving client spending environment, healthier renewal and pricing dynamics, and steadier government demand.

**V**: Our 12-month price target is $438 based on a 27x Q5-Q8 P/E multiple. Key downside risks include weaker macro environment, slower than expected cross border recovery, competition, and unfavorable regulation.

**MA**: Our 12-month price target is $701 based on a ~28x multiple on our Q5-Q8 EPS estimates. Key downside risks include weaker macro environment, slower than expected cross border recovery, competition, and regulation.

**SHOP**: We are Buy rated. Our 12-month target of $194 is based on 63x our Q5-Q8 uFCF estimates. Key risks include a worsening consumer landscape, increased investments not translating to higher durable growth, potential margin dilution from higher investments and higher competition.

**LYV**: We maintain our Buy rating and our 12-m price target of $210. Our price target remains based on an equal-weighted average of three valuation methodologies: 21.0x 2027E EV/GSe Adjusted EBITDA, 60.0x 2027E P/GSe Free Cash Flow, and a DCF using a 9.5% WACC and a 5.7% TGR. Risks: A weaker economic and consumer spending backdrop, change in consumer preferences in out of home entertainment, increased competition for talent from promoters, and higher interest rates.

**STUB**: We maintain our Buy rating and our 12-month price target of $16 which is based on an equal blend of: (1) EV/GAAP EBITDA applied to our NTM +1 estimates; and (2) a modified DCF using an EV/FCF-SBC multiple applied to our NTM +4 estimates discounted back 3 years.

Downside risks include: Industry growth (slower than expected), elevated levels of competition, rate of execution against key growth initiatives, the regulatory environment, interest rate risk & capital structure, and STUB's ownership concentration. In addition, StubHub is exposed to broader macroeconomic conditions which could adversely impact the business.

**WMT**: We are Buy rated on WMT. Our 12-month price target is $132, based on our risk-reward framework with downside/base/upside relative P/E multiples of

160%/165%/170%.

Downside risks: slowdown in economic activity; more intense pricing environment; global macro/fx volatility; inability to use expense leverage to offset investments in e-commerce/pricing; pressure from wages or transportation costs; impact from tariffs

**SN**: We are Buy rated on SN with a $204, 12-month price target based on 17.5x Q5-Q8 EV/EBITDA valuation methodology. Key downside risks include; (1) Wholesale concentration; (2) Slowing innovation; and (3) Corporate structure.

**TPR**: We are Buy rated on TPR with a $169, 12-month price target based on 14.25x Q5-Q8 EV/EBITDA valuation methodology. Key downside risks include (1) Weaker top line momentum; (2) Higher levels of industry promotionality; (3) Volatility / disruptions in China's consumer backdrop.

# Disclosure Appendix

## Reg AC

We, Eric Sheridan, Will Nance, George K. Tong, CFA, Kate McShane, CFA, Bonnie Herzog, Brooke Roach, CFA, Leah Jordan, CFA, Gabriela Borges, CFA and Stephen Laszczyk, hereby certify that all of the views expressed in this report accurately reflect our personal views about the subject company or companies and its or their securities. We also certify that no part of our compensation was, is or will be, directly or indirectly, related to the specific recommendations or views expressed in this report.

Unless otherwise stated, the individuals listed on the cover page of this report are analysts in Goldman Sachs' Global Investment Research division.

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**Growth** is based on a stock's forward-looking sales growth, EBITDA growth and EPS growth (for financial stocks, only EPS and sales growth), with a higher percentile indicating a higher growth company. **Financial Returns** is based on a stock's forward-looking ROE, ROCE and CROCI (for financial stocks, only ROE), with a higher percentile indicating a company with higher financial returns. **Multiple** is based on a stock's forward-looking P/E, P/B, price/dividend (P/D), EV/EBITDA, EV/FCF and EV/Debt Adjusted Cash Flow (DACF) (for financial stocks, only P/E, P/B and P/D), with a higher percentile indicating a stock trading at a higher multiple. The **Integrated** percentile is calculated as the average of the Growth percentile, Financial Returns percentile and (100% - Multiple percentile).

Financial Returns and Multiple use the Goldman Sachs analyst forecasts at the fiscal year-end at least three quarters in the future. Growth uses inputs for the fiscal year at least seven quarters in the future compared with the year at least three quarters in the future (on a per-share basis for all metrics).

For a more detailed description of how we calculate the GS Factor Profile, please contact your GS representative.

## M&A Rank

Across our global coverage, we examine stocks using an M&A framework, considering both qualitative factors and quantitative factors (which may vary across sectors and regions) to incorporate the potential that certain companies could be acquired. We then assign a M&A rank as a means of scoring companies under our rated coverage from 1 to 3, with 1 representing high (30%-50%) probability of the company becoming an acquisition target, 2 representing medium (15%-30%) probability and 3 representing low (0%-15%) probability. For companies ranked 1 or 2, in line with our standard departmental guidelines we incorporate an M&A component into our target price. M&A rank of 3 is considered immaterial and therefore does not factor into our price target, and may or may not be discussed in research.

## Quantum

Quantum is Goldman Sachs' proprietary database providing access to detailed financial statement histories, forecasts and ratios. It can be used for in-depth analysis of a single company, or to make comparisons between companies in different sectors and markets.

## Disclosures

**The rating(s) for Live Nation Entertainment Inc. is/are relative to the other companies in its/their coverage universe:** Cinemark Holdings, Funko Inc., Hasbro Inc., IMAX Corp., Liberty Formula One, Live Nation Entertainment Inc., Madison Square Garden Entertainment Corp., Mattel Inc., Sirius XM Holdings, Sphere Entertainment Co, TKO Group, Universal Music Group, Warner Music Group, iHeartMedia Inc.

**The rating(s) for SharkNinja, Inc. and Tapestry Inc. is/are relative to the other companies in its/their coverage universe:** Amer Sports Inc., Burlington Stores Inc., Canada Goose Holdings, Capri Holdings, Crocs Inc., Deckers Outdoor Corp., FIGS Inc., Gap Inc., Kohl's Corp., Kontoor Brands Inc., Levi Strauss & Co., Lululemon Athletica Inc., Macy's Inc., Nike Inc., PVH Corp., Ralph Lauren Corp., Ross Stores Inc., Savers Value Village Inc., SharkNinja, Inc., TJX Cos., Tapestry Inc., Torrid Holdings Inc., Under Armour Inc., Urban Outfitters Inc., VF Corp., Victoria's Secret & Co., Warby Parker Inc., YETI Holdings

**The rating(s) for Alphabet Inc., Amazon.com Inc., Meta Platforms Inc. and StubHub Holdings is/are relative to the other companies in its/their coverage universe:** Airbnb Inc., Alphabet Inc., Amazon.com Inc., Angi Inc., AppLovin Corp., Bending Spoons S.p.A., Booking Holdings Inc., Bumble Inc., Chewy Inc., Clear Secure Inc., Coursera Inc., DoorDash Inc., DraftKings Inc., Duolingo Inc., Ethos Technologies Inc., Etsy Inc., Expedia Group, Fiverr International Ltd., Frontdoor Inc., Genius Sports Ltd., GoodRx Holdings Inc., Grindr Inc., Groupon Inc., Ibotta Inc., Instacart, Liftoff Mobile Inc., Lyft Inc., Match Group, MediaAlpha Inc., Meta Platforms Inc., Netflix Inc., Neutron Holdings Inc., Nextdoor Holdings, Opera Ltd., Pattern Group Inc., Peloton Interactive Inc., People Inc., Pinterest Inc., Playtika, Reddit Inc., Roblox, Snap Inc., Space Exploration Technologies Corp., Sportradar Group, Spotify Technology S.A., StubHub Holdings, Take-Two Interactive Software Inc., Tripadvisor Inc., Uber Technologies Inc., Unity Software Inc., Upwork Inc., Wayfair Inc., Webtoon Entertainment Inc., Xometry Inc., Yelp Inc., ZipRecruiter Inc.

**The rating(s) for Adyen NV is/are relative to the other companies in its/their coverage universe:** Adyen NV, Capgemini, Dassault Systemes, Indra, Nemetschek, Nexi, Ovh Groupe, SAP, SECO, Sage Group, Sinch AB, TeamViewer, Temenos, TietoEVRY, Wise Group, Worldline

**The rating(s) for Walmart Inc. is/are relative to the other companies in its/their coverage universe:** Academy Sports & Outdoors Inc., Advance Auto Parts Inc., AutoZone Inc., BJ's Wholesale Club Holdings, Bath & Body Works Inc., Best Buy Co., Bob's Discount Furniture Inc., Boyd Group, Costco Wholesale, Dick's Sporting Goods, Dollar General Corp., Dollar Tree Stores Inc., Driven Brands Holdings, Five Below Inc., Floor & Decor Holdings, Genuine Parts Co., Home Depot Inc., Lithia Motors Inc., Lowe's Cos., National Vision Holdings, O'Reilly Automotive Inc., Ollie's Bargain Outlet Inc., Petco Health and Wellness Co., RH, Target Corp., Tractor Supply Co., Ulta Beauty Inc., Valvoline Inc., Walmart Inc., Williams-Sonoma Inc.

**The rating(s) for Equifax Inc., Fair Isaac Corp. and TransUnion is/are relative to the other companies in its/their coverage universe:** ADT Inc., Bright Horizons Family, BrightView Holdings, Cintas Corp., Clarivate, CoStar Group, Equifax Inc., FactSet Research Systems Inc., Fair Isaac Corp., Gartner

Inc., H&R Block Inc., Iron Mountain Inc., KinderCare Learning Cos., Korn Ferry, MSCI Inc., Manpower Group, McGraw Hill, Moody's Corp., Phoenix Education Partners, Pitney Bowes, Robert Half International Inc., Rollins Inc., S&P Global Inc., The Brink's Co., Thomson Reuters Corp., TransUnion, UL Solutions, Verisk Analytics Inc., Vestis Corp.

**The rating(s) for Mastercard Inc. and Visa Inc. is/are relative to the other companies in its/their coverage universe:** Affirm Holdings, Bill.com Holdings, Block Inc., Chime Financial Inc., Fidelity National Information Services, Fiserv Inc., Flywire Corp., Global Payments Inc., Global-E Online Ltd., Jack Henry & Associates Inc., Klarna Group Plc., Marqeta Inc., Mastercard Inc., NCR Voyix Corp., PAR Technology Corp., PayPal Holdings, Paymentus Holdings, Remitly Global Inc., Riskified Ltd., Shift4 Payments, SoFi Technologies Inc., Toast Inc., Upstart Holdings, Visa Inc., Western Union Co.

**The rating(s) for Shopify Inc. is/are relative to the other companies in its/their coverage universe:** Adobe Inc., Akamai Technologies Inc., AvePoint, Braze Inc., Check Point, Cloudflare, Commerce.com Inc., CoreWeave Inc., CrowdStrike, Datadog Inc., DigitalOcean Holdings, EverCommerce Inc., Figma Inc., Fortinet, HubSpot Inc., Intuit Inc., Klaviyo, Microsoft Corp., Navan Inc., Octave Intelligence, Okta, Oracle Corp., Palantir Technologies, Palo Alto Networks, SailPoint Inc., Salesforce Inc., SentinelOne, ServiceNow Inc., Shopify Inc., Snowflake Inc., Twilio Inc., Tyler Technologies Inc., Veeva Systems Inc., Workday Inc., Zeta Global, Zscaler

## Company-specific regulatory disclosures

Compendium report: please see disclosures at https://www.gs.com/research/hedge.html. Disclosures applicable to the companies included in this compendium can be found in the latest relevant published research

## Distribution of ratings/investment banking relationships

Goldman Sachs Investment Research global Equity coverage universe

| | Rating Distribution | | | Investment Banking Relationships | | |
|---|---|---|---|---|---|---|
| | Buy | Hold | Sell | Buy | Hold | Sell |
| Global | 50% | 34% | 16% | 65% | 59% | 43% |

As of July 1, 2026, Goldman Sachs Global Investment Research had investment ratings on 3,104 equity securities. Goldman Sachs assigns stocks as Buys and Sells on various regional Investment Lists; stocks not so assigned are deemed Neutral. Such assignments equate to Buy, Hold and Sell for the purposes of the above disclosure required by the FINRA Rules. See 'Ratings, Coverage universe and related definitions' below. The Investment Banking Relationships chart reflects the percentage of subject companies within each rating category for whom Goldman Sachs has provided investment banking services within the previous twelve months.

## Price target and rating history chart(s)

Compendium report: please see disclosures at https://www.gs.com/research/hedge.html. Disclosures applicable to the companies included in this compendium can be found in the latest relevant published research

## Target price history table(s)

### StubHub Holdings (STUB)

| Date of report | Target price ($) | Closing price ($) |
|---|---|---|
| 14-May-26 | 16.00 | 8.55 |
| 05-Mar-26 | 15.00 | 8.91 |
| 14-Nov-25 | 45.00 | 14.87 |
| 13-Oct-25 | 46.00 | 19.61 |

### SharkNinja, Inc. (SN)

| Date of report | Target price ($) | Closing price ($) |
|---|---|---|
| 06-Aug-26 | 204.00 | 179.93 |
| 29-Jul-26 | 165.00 | 159.22 |
| 12-Feb-26 | 144.00 | 129.02 |
| 04-Feb-26 | 135.00 | 116.18 |
| 07-Nov-25 | 129.00 | 92.44 |
| 20-Oct-25 | 127.00 | 92.81 |
| 08-Aug-25 | 132.00 | 116.06 |
| 21-Jul-25 | 126.00 | 114.81 |
| 09-May-25 | 112.00 | 92.25 |
| 22-Apr-25 | 100.00 | 74.47 |
| 14-Feb-25 | 133.00 | 110.31 |
| 01-Nov-24 | 116.00 | 89.12 |
| 21-Oct-24 | 123.00 | 109.86 |
| 09-Aug-24 | 102.00 | 87.64 |
| 10-May-24 | 83.00 | 71.84 |
| 25-Apr-24 | 74.00 | 62.79 |
| 16-Feb-24 | 59.00 | 52.51 |
| 25-Oct-23 | 52.00 | 40.68 |

### Mastercard Inc. (MA)

| Date of report | Target price ($) | Closing price ($) |
|---|---|---|
| 30-Jul-26 | 701.00 | 577.35 |
| 30-Apr-26 | 674.00 | 502.92 |
| 13-Apr-26 | 713.00 | 508.58 |
| 29-Jan-26 | 739.00 | 543.73 |
| 06-Jan-26 | 710.00 | 580.34 |
| 30-Oct-25 | 713.00 | 553.68 |
| 13-Oct-25 | 665.00 | 559.24 |

### Amazon.com Inc. (AMZN)

| Date of report | Target price ($) | Closing price ($) |
|---|---|---|
| 31-Jul-26 | 375.00 | 271.58 |
| 08-Jul-26 | 335.00 | 243.62 |
| 30-Apr-26 | 325.00 | 265.06 |
| 13-Apr-26 | 275.00 | 239.89 |
| 06-Feb-26 | 280.00 | 210.32 |
| 13-Jan-26 | 300.00 | 242.60 |
| 31-Oct-25 | 290.00 | 244.22 |

### Mastercard Inc. (MA)

| Date of report | Target price ($) | Closing price ($) |
|---|---|---|
| 31-Jul-25 | 688.00 | 566.47 |
| 14-Jul-25 | 674.00 | 553.02 |
| 01-May-25 | 644.00 | 546.63 |
| 08-Apr-25 | 613.00 | 479.92 |
| 02-Apr-25 | 633.00 | 547.38 |
| 30-Jan-25 | 628.00 | 566.01 |
| 09-Jan-25 | 572.00 | 516.40 |
| 02-Dec-24 | 557.00 | 531.36 |
| 31-Oct-24 | 563.00 | 499.59 |
| 14-Oct-24 | 578.00 | 506.66 |
| 31-Jul-24 | 540.00 | 463.71 |
| 12-Jul-24 | 519.00 | 440.11 |
| 10-Jul-24 | 520.00 | 433.64 |
| 01-May-24 | 517.00 | 442.07 |
| 15-Apr-24 | 534.00 | 459.79 |
| 31-Jan-24 | 514.00 | 449.23 |
| 10-Jan-24 | 482.00 | 428.27 |
| 26-Oct-23 | 433.00 | 364.59 |

### Amazon.com Inc. (AMZN)

| Date of report | Target price ($) | Closing price ($) |
|---|---|---|
| 03-Oct-25 | 275.00 | 219.51 |
| 01-Aug-25 | 240.00 | 214.75 |
| 21-Apr-25 | 220.00 | 167.32 |
| 07-Feb-25 | 255.00 | 229.15 |
| 01-Nov-24 | 240.00 | 197.93 |
| 02-Aug-24 | 230.00 | 167.90 |
| 15-Jul-24 | 250.00 | 192.72 |
| 01-May-24 | 225.00 | 179.00 |
| 02-Feb-24 | 220.00 | 171.81 |
| 10-Jan-24 | 200.00 | 153.73 |
| 27-Oct-23 | 190.00 | 127.74 |
| 12-Oct-23 | 175.00 | 132.33 |

### Live Nation Entertainment Inc. (LYV)

| Date of report | Target price ($) | Closing price ($) |
|---|---|---|
| 31-Jul-26 | 210.00 | 174.13 |
| 08-Jul-26 | 202.00 | 182.14 |
| 06-May-26 | 192.00 | 167.82 |
| 11-Mar-26 | 190.00 | 165.83 |
| 20-Feb-26 | 175.00 | 162.67 |
| 01-Jan-26 | 165.00 | 142.50 |
| 08-Dec-25 | 160.00 | 138.08 |
| 05-Nov-25 | 162.00 | 134.79 |
| 02-Oct-25 | 170.00 | 156.67 |
| 08-Aug-25 | 168.00 | 153.13 |
| 17-Jun-25 | 162.00 | 145.59 |
| 02-May-25 | 157.00 | 133.77 |
| 17-Apr-25 | 155.00 | 127.22 |
| 21-Feb-25 | 170.00 | 149.40 |
| 13-Feb-25 | 166.00 | 152.58 |
| 12-Nov-24 | 148.00 | 129.67 |
| 24-Oct-24 | 132.00 | 116.45 |
| 03-May-24 | 128.00 | 94.66 |
| 23-Feb-24 | 125.00 | 95.32 |
| 03-Nov-23 | 122.00 | 85.36 |

### Shopify Inc. (SHOP)

| Date of report | Target price ($) | Closing price ($) |
|---|---|---|
| 05-Aug-26 | 194.00 | 144.24 |
| 06-May-26 | 170.00 | 105.44 |
| 12-Feb-26 | 168.00 | 110.66 |
| 04-Nov-25 | 193.00 | 160.94 |
| 06-Aug-25 | 176.00 | 154.90 |
| 08-May-25 | 120.00 | 94.00 |
| 21-Apr-25 | 130.00 | 81.64 |
| 11-Feb-25 | 150.00 | 123.59 |
| 12-Nov-24 | 135.00 | 108.92 |
| 28-Oct-24 | 88.00 | 79.87 |
| 07-Aug-24 | 78.00 | 63.89 |
| 22-May-24 | 74.00 | 58.70 |
| 09-May-24 | 67.00 | 62.45 |
| 14-Feb-24 | 75.00 | 80.67 |
| 02-Nov-23 | 67.00 | 59.70 |

### Equifax Inc. (EFX)

| Date of report | Target price ($) | Closing price ($) |
|---|---|---|
| 04-Sep-26 | 199.00 | 177.05 |
| 21-Jul-26 | 182.00 | 173.00 |
| 26-Jun-26 | 173.00 | 158.48 |
| 21-Apr-26 | 200.00 | 192.42 |
| 02-Apr-26 | 192.00 | 182.39 |
| 06-Feb-26 | 208.00 | 195.62 |
| 09-Jan-26 | 235.00 | 226.96 |
| 21-Oct-25 | 239.00 | 229.93 |
| 02-Oct-25 | 243.00 | 232.35 |
| 22-Jul-25 | 253.00 | 238.41 |
| 04-Apr-25 | 255.00 | 210.07 |
| 07-Feb-25 | 264.00 | 248.28 |
| 03-Jan-25 | 273.00 | 253.39 |
| 05-Dec-24 | 278.00 | 260.78 |

### Alphabet Inc. (GOOGL)

| Date of report | Target price ($) | Closing price ($) |
|---|---|---|
| 23-Jul-26 | 435.00 | 317.69 |
| 08-Jul-26 | 440.00 | 361.92 |
| 30-Apr-26 | 450.00 | 384.80 |
| 05-Feb-26 | 400.00 | 331.25 |
| 12-Jan-26 | 375.00 | 331.86 |
| 30-Oct-25 | 330.00 | 281.48 |
| 14-Oct-25 | 288.00 | 245.45 |
| 24-Jul-25 | 234.00 | 192.17 |
| 10-Jul-25 | 225.00 | 177.62 |
| 25-Apr-25 | 220.00 | 161.96 |
| 11-Apr-25 | 205.00 | 157.14 |
| 05-Feb-25 | 220.00 | 191.33 |
| 13-Jan-25 | 215.00 | 191.01 |
| 30-Oct-24 | 210.00 | 174.46 |

### Equifax Inc. (EFX)

| Date of report | Target price ($) | Closing price ($) |
|---|---|---|
| 17-Oct-24 | 293.00 | 280.30 |
| 02-Oct-24 | 312.00 | 293.33 |
| 20-Aug-24 | 307.00 | 296.58 |
| 18-Jul-24 | 277.00 | 264.19 |
| 31-May-24 | 246.00 | 231.39 |
| 19-Apr-24 | 241.00 | 216.20 |
| 01-Mar-24 | 276.00 | 270.98 |
| 08-Feb-24 | 252.00 | 252.06 |
| 26-Jan-24 | 241.00 | 246.12 |
| 29-Dec-23 | 222.00 | 247.29 |
| 01-Dec-23 | 195.00 | 222.12 |
| 30-Oct-23 | 173.00 | 164.02 |
| 19-Oct-23 | 188.00 | 178.98 |
| 29-Sep-23 | 208.00 | 183.18 |

### Alphabet Inc. (GOOGL)

| Date of report | Target price ($) | Closing price ($) |
|---|---|---|
| 14-Oct-24 | 208.00 | 164.96 |
| 24-Jul-24 | 217.00 | 172.63 |
| 08-Jul-24 | 211.00 | 189.03 |
| 26-Apr-24 | 195.00 | 171.95 |
| 15-Apr-24 | 185.00 | 154.86 |
| 31-Jan-24 | 171.00 | 140.10 |
| 10-Jan-24 | 164.00 | 142.28 |
| 04-Oct-23 | 154.00 | 135.24 |

### TransUnion (TRU)

| Date of report | Target price ($) | Closing price ($) |
|---|---|---|
| 04-Sep-26 | 89.00 | 79.88 |
| 28-Jul-26 | 82.00 | 83.80 |
| 26-Jun-26 | 72.00 | 70.35 |
| 29-Apr-26 | 75.00 | 70.47 |
| 02-Apr-26 | 74.00 | 69.32 |
| 13-Feb-26 | 80.00 | 73.92 |
| 05-Dec-25 | 92.00 | 84.47 |
| 23-Oct-25 | 86.00 | 83.48 |
| 03-Oct-25 | 78.00 | 77.34 |
| 02-Oct-25 | 83.00 | 73.51 |
| 29-Aug-25 | 96.00 | 88.40 |
| 24-Jul-25 | 102.00 | 98.43 |
| 25-Apr-25 | 90.00 | 82.09 |
| 04-Apr-25 | 87.00 | 71.10 |
| 28-Feb-25 | 102.00 | 92.43 |
| 14-Feb-25 | 107.00 | 99.74 |
| 03-Jan-25 | 101.00 | 92.27 |
| 05-Dec-24 | 111.00 | 98.42 |
| 23-Oct-24 | 118.00 | 108.67 |
| 02-Oct-24 | 109.00 | 105.90 |
| 20-Aug-24 | 97.00 | 93.30 |
| 26-Jul-24 | 87.00 | 86.46 |
| 01-Mar-24 | 81.00 | 78.71 |
| 14-Feb-24 | 78.00 | 77.53 |
| 29-Dec-23 | 72.00 | 68.71 |
| 30-Oct-23 | 63.00 | 43.30 |
| 25-Oct-23 | 73.00 | 46.23 |
| 29-Sep-23 | 85.00 | 71.79 |

### Visa Inc. (V)

| Date of report | Target price ($) | Closing price ($) |
|---|---|---|
| 29-Jul-26 | 438.00 | 368.73 |
| 29-Apr-26 | 420.00 | 334.86 |
| 13-Apr-26 | 394.00 | 309.39 |
| 30-Jan-26 | 408.00 | 321.83 |
| 29-Oct-25 | 417.00 | 341.28 |
| 30-Jul-25 | 406.00 | 350.91 |
| 14-Jul-25 | 416.00 | 350.50 |
| 30-Apr-25 | 390.00 | 345.50 |
| 08-Apr-25 | 386.00 | 308.27 |
| 02-Apr-25 | 392.00 | 346.33 |
| 31-Jan-25 | 384.00 | 341.80 |
| 09-Jan-25 | 346.00 | 312.60 |
| 02-Dec-24 | 347.00 | 316.65 |
| 30-Oct-24 | 324.00 | 290.16 |
| 14-Oct-24 | 325.00 | 280.68 |
| 24-Jul-24 | 317.00 | 254.17 |
| 12-Jul-24 | 334.00 | 265.74 |
| 24-Apr-24 | 335.00 | 275.02 |
| 15-Apr-24 | 328.00 | 271.28 |
| 26-Jan-24 | 318.00 | 267.94 |
| 10-Jan-24 | 312.00 | 264.56 |
| 25-Oct-23 | 285.00 | 236.85 |
| 12-Oct-23 | 289.00 | 236.78 |

### Fair Isaac Corp. (FICO)

| Date of report | Target price ($) | Closing price ($) |
|---|---|---|
| 30-Jul-26 | 1,548.00 | 1,139.54 |
| 26-Jun-26 | 1,424.00 | 1,182.79 |
| 29-Apr-26 | 1,543.00 | 1,043.57 |
| 02-Apr-26 | 1,528.00 | 1,089.76 |
| 02-Feb-26 | 1,770.00 | 1,450.91 |
| 06-Nov-25 | 2,070.00 | 1,674.80 |
| 03-Oct-25 | 2,074.00 | 1,850.65 |
| 31-Jul-25 | 1,915.00 | 1,436.72 |
| 30-Apr-25 | 2,244.00 | 1,989.68 |
| 04-Apr-25 | 2,144.00 | 1,673.98 |

### Walmart Inc. (WMT)

| Date of report | Target price ($) | Closing price ($) |
|---|---|---|
| 08-Sep-26 | 132.00 | 106.05 |
| 21-Aug-26 | 130.00 | 103.70 |
| 20-Jul-26 | 141.00 | 112.20 |
| 21-May-26 | 154.00 | 121.34 |
| 20-Feb-26 | 138.00 | 122.99 |
| 21-Nov-25 | 121.00 | 105.32 |
| 21-Aug-25 | 114.00 | 97.96 |
| 16-May-25 | 101.00 | 98.24 |
| 16-Apr-25 | 99.00 | 91.19 |
| 21-Feb-25 | 106.00 | 94.78 |

### Fair Isaac Corp. (FICO)

| Date of report | Target price ($) | Closing price ($) |
|---|---|---|
| 05-Feb-25 | 2,287.00 | 1,847.80 |
| 05-Dec-24 | 2,661.00 | 2,367.16 |
| 07-Nov-24 | 2,374.00 | 2,176.10 |
| 02-Oct-24 | 2,130.00 | 1,938.16 |
| 20-Aug-24 | 1,879.00 | 1,750.00 |
| 01-Aug-24 | 1,722.00 | 1,578.95 |
| 02-Jul-24 | 1,652.00 | 1,529.38 |
| 31-May-24 | 1,502.00 | 1,289.93 |
| 26-Apr-24 | 1,442.00 | 1,110.85 |
| 01-Mar-24 | 1,448.00 | 1,295.20 |
| 26-Jan-24 | 1,337.00 | 1,196.36 |
| 04-Dec-23 | 1,289.00 | 1,122.43 |
| 01-Dec-23 | 1,156.00 | 1,127.71 |
| 09-Nov-23 | 1,058.00 | 962.70 |

### Walmart Inc. (WMT)

| Date of report | Target price ($) | Closing price ($) |
|---|---|---|
| 29-Jan-25 | 101.00 | 97.50 |
| 19-Nov-24 | 93.00 | 86.60 |
| 15-Aug-24 | 81.00 | 73.18 |
| 17-May-24 | 73.00 | 64.65 |
| 20-Feb-24 | 193.00 | 58.62 |
| 16-Nov-23 | 180.00 | 52.01 |

### Adyen NV (ADYEN.AS)

| Date of report | Target price (€) | Closing price (€) |
|---|---|---|
| 14-Aug-26 | 1,850.00 | 1,061.60 |
| 24-Mar-26 | 1,800.00 | 888.50 |
| 12-Feb-26 | 1,900.00 | 903.30 |
| 30-Oct-25 | 2,225.00 | 1,516.40 |
| 01-Oct-25 | 2,100.00 | 1,368.00 |
| 15-Aug-25 | 2,200.00 | 1,396.40 |
| 02-May-25 | 2,300.00 | 1,468.00 |
| 11-Apr-25 | 2,200.00 | 1,330.60 |
| 24-Mar-25 | 2,300.00 | 1,507.00 |
| 17-Feb-25 | 2,400.00 | 1,841.20 |
| 30-Jan-25 | 2,200.00 | 1,563.00 |
| 11-Nov-24 | 2,100.00 | 1,303.20 |
| 19-Aug-24 | 1,950.00 | 1,313.60 |
| 13-May-24 | 1,900.00 | 1,258.00 |
| 13-Feb-24 | 2,000.00 | 1,444.20 |
| 11-Jan-24 | 1,600.00 | 1,164.20 |
| 24-Nov-23 | 1,425.00 | 1,073.60 |

### Meta Platforms Inc. (META)

| Date of report | Target price ($) | Closing price ($) |
|---|---|---|
| 30-Jul-26 | 725.00 | 539.03 |
| 08-Jul-26 | 815.00 | 603.12 |
| 30-Apr-26 | 830.00 | 611.91 |
| 13-Apr-26 | 840.00 | 634.53 |
| 29-Jan-26 | 835.00 | 738.31 |
| 30-Oct-25 | 815.00 | 666.47 |
| 14-Oct-25 | 870.00 | 708.65 |
| 31-Jul-25 | 830.00 | 773.44 |
| 10-Jul-25 | 775.00 | 727.24 |
| 01-May-25 | 690.00 | 572.21 |
| 11-Apr-25 | 685.00 | 543.57 |
| 30-Jan-25 | 765.00 | 687.00 |
| 13-Jan-25 | 688.00 | 608.33 |
| 31-Oct-24 | 630.00 | 567.58 |
| 14-Oct-24 | 636.00 | 590.42 |
| 01-Aug-24 | 555.00 | 497.74 |
| 08-Jul-24 | 522.00 | 529.32 |
| 25-Apr-24 | 500.00 | 441.38 |
| 15-Apr-24 | 555.00 | 500.23 |
| 02-Feb-24 | 500.00 | 474.99 |
| 10-Jan-24 | 414.00 | 370.47 |

### Tapestry Inc. (TPR)

| Date of report | Target price ($) | Closing price ($) |
|---|---|---|
| 28-Apr-26 | 169.00 | 143.84 |
| 06-Feb-26 | 166.00 | 152.10 |
| 29-Jan-26 | 146.00 | 127.33 |
| 07-Nov-25 | 129.00 | 103.68 |
| 03-Oct-25 | 130.00 | 114.92 |
| 14-Aug-25 | 116.00 | 95.69 |
| 21-Jul-25 | 118.00 | 106.41 |
| 09-May-25 | 93.00 | 78.01 |
| 22-Apr-25 | 84.00 | 64.92 |
| 07-Feb-25 | 98.00 | 80.38 |
| 10-Dec-24 | 72.00 | 61.39 |
| 14-Nov-24 | 66.00 | 57.82 |
| 08-Nov-24 | 58.00 | 52.22 |
| 21-Oct-24 | 52.00 | 44.51 |
| 09-Feb-24 | 47.00 | 42.00 |
| 10-Nov-23 | 41.00 | 28.12 |

Price targets shown in table(s) are unadjusted for corporate actions.

## Regulatory disclosures

### Disclosures required by United States laws and regulations

See company-specific regulatory disclosures above for any of the following disclosures required as to companies referred to in this report: manager or co-manager in a pending transaction; 1% or other ownership; compensation for certain services; types of client relationships; managed/co-managed public offerings in prior periods; directorships; registered market maker. Goldman Sachs trades or may trade as a principal in debt securities (or in related derivatives) of issuers discussed in this report.

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