REPORT

Corporate Banking API Strategies and Monetization

Aité

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IMPACT POINTS

- Open banking levels the playing field between traditional incumbent financial services providers and new disruptors, but corporate banks still lead in market expertise and business services delivery.
- Most banks have fixed compliance requests to open their bank accounts to retail customers. They now want to transfer the gained experience to corporate application programming interfaces (APIs) that address transactions with higher volume and profits.
- Banks are opening their systems to external partners and clients via APIs under the threat of losing control of the user interaction with their clients.
- In order to maintain the direct and captive relationship with their own corporate clients, banks are building their own API-based catalogs with high separation walls from other institutions.
- Corporate treasurers are continuously demanding a single point of entry to access the services from multiple banks without having to hop from one user interface to the other. Therefore, single-bank platforms are passing away.
- Aite Group anticipates that banks will partner together in consortia-based platforms to harmonize the different legacy and proprietary API standards, while regaining a collective control of the business relationship with the clients they are now at risk to lose. Banks will access new origination channels with the opportunity to grow existing and build new revenue streams.
- Competition between banks will shift from holding the individual relationship with the client to servicing the client by increasing the population of corporate users joining the platform and delivering API-based products and services that more closely adapt to its needs.

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INTRODUCTION

While open banking levels the playing field between traditional incumbent financial services providers and new disruptors, the fact is that corporate banks have long-time market expertise and services that fintech providers cannot deliver. APIs for real-time payments consume the attention of companies depending on app-using consumers, but the experience of wholesale or industrial businesses is quite different.

Banks struggle between the need to open their systems to external partners and clients via APIs, and the business imperative to not lose control of the user interaction with their clients. Banks are trying to accommodate both needs by opening APIs to clients while building high separation walls from other institutions in order to maintain the direct and captive relationship with their own corporate clients.

Corporate treasurers are interested not in how the data is provided but rather in what they can get from banks. So APIs are not really a topic of interest for them. Corporate treasurers are, however, continuously demanding a single point of entry to access multiple banks' services. Corporate treasurers don't want to spend time hopping from one interface to the other. Therefore, single-bank platforms are passing away. Banks should not hold proprietary solutions but should instead hold equal shares and be equal partners and contributors to the development of multibank platforms.

This report anticipates that bank consortia will represent the structure that banks will adopt to leverage and monetize an open banking strategy. By partnering together in consortia-based platforms, financial institutions can harmonize their different legacy and proprietary API standards, shifting competition from holding the relationship with the client to servicing the client by delivering API-based products and services—in close collaboration with third-party providers—to more closely adapt to the client's needs.

METHODOLOGY

Between January and February 2019, Aite Group reviewed documents and papers published by major international banks that described their open banking and API strategies and offerings. During the same time period, Aite Group analysts interviewed over 20 representatives from those banks and from other institutions, alongside fintech vendors and service providers, to capture their perspective on how the API market is evolving, the possible revenue models for APIs, and how their organizations are addressing the needs of corporate clients.

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THE MARKET

APIs are not a new subject in the banking industry. Yet the speed at which APIs are evolving in the corporate banking space requires specific attention to the appropriate business models to address corporate needs and identification of the proper pricing structures to monetize the significant effort spent in developing an API strategy in the commercial banking landscape.

Corporate treasurers do not feel the same urgency to interact with their banking partners through open banking and APIs, nor are regulators pressing these banks to implement open banking solutions with the same intensity as they are for the consumer side of the banks' business (Table A).

Table A: The Market

Market trends	Market implications
Multinational corporations have many banking relationships.	Treasurers need solutions that access and aggregate accounts from multiple sources.
Corporate treasurers need to free up time for more strategic activities.	Software applications are assessed based on their ability to enhance productivity and remove manually intensive operations.
Banks recognize fintech providers as partners.	Banks can focus on their core competencies, handing best-of-breed or mission-critical components to more capable hands.
"Uberization" is shaping the industry.	The value of the service is decoupled from the property of the asset.
Banks continue to make their systems accessible via APIs.	Banks are entering a platform-based economy.

Source: Aite Group

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A CORPORATE TREASURER'S VIEW OF THE API LANDSCAPE

Until recently, there has been a rich set of regulatory provisions, research material, and publications on the importance of open banking and the use of APIs as business enablers, mostly from the angle of banks and fintech providers. It is understandable given that the regulatory mandates that have accelerated the attention and resources to develop appropriate solutions were clearly directed at the execution of real-time payments services that correspond to facilitating and improving the experience of the consumer client. Regulators want to give consumers the advantage of competition by allowing third-party providers, fintech firms, or other players to offer services that before were solely provided by banks.

The same attention and regulatory pressure have not been put on APIs for corporate banking, although it can be expected that some solutions that banks adopt for their consumer line of business will ripple to their commercial counterparts. In fact, corporate executives appreciate payments in real time to reduce the collection time. However, the same urgency for immediate payments is not felt for outbound payments. There are other differences between the consumer and the business domains that shape decisions on how to think, develop, and then deploy APIs for banks that are trusted to look after their customers' money, identities, and data.

Retail customers' concerns about security and privacy outweigh the perceived benefits of open banking for retail payments, mainly because banks and regulators haven't been able to properly communicate the benefits. On the corporate side, risk and security defense lines in corporate banks are higher because the corporate users are more controlled by authorization and approval workflows within their own companies. The adoption of APIs is better appreciated after experiencing their use internally. Amazon, for instance, has an internal mandate that all data must be made available through an API to other parts of its organization. The move encouraged partnership across the company, as teams had to understand each other's needs in order to build useful APIs. Opening up these APIs to external developers led to a greater understanding of the needs of both the market and end users, enabling the company to make better strategic decisions about new products.

The barriers to adoption of open banking for corporate clients are less related to privacy and risk, and are more concentrated on the real differentiation a new channel (as an API is perceived from a corporate treasurer's eyes) will bring to the already convoluted plethora of bank proprietary portals and e-banking connections. Banks must answer "What's in it for me?" when presenting an API-based proposition to a corporate user.

In a live audience poll at the 2018 EuroFinance International Treasury Management conference in Geneva, approximately 60% of treasurers affirmed that open banking is not relevant to them. Treasurers are not interested in how the data is provided but rather in what they can get from banks. So APIs are not really a topic of interest for them. Other market data confirms that corporate treasurers are least concerned with information technology matters related to highly sophisticated and automated data analysis of their own system applications (Figure 1).

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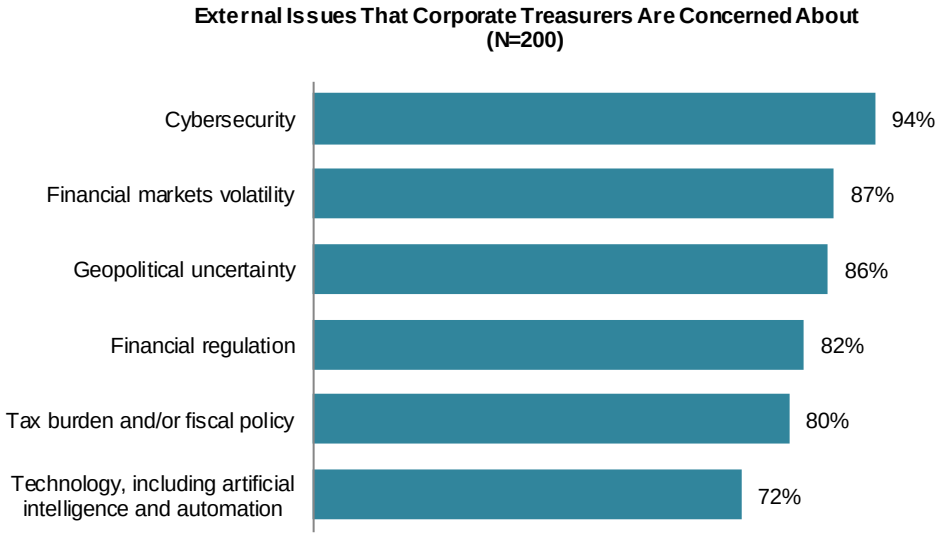
Figure 1: Information Technology Is Not a Major Concern for Corporate Treasurers



Source: Association of Corporate Treasurers, 2018

Corporate treasurers are expecting partner banks and fintech vendors to suggest what actions they need to take in the ramp up to open banking regulations and in the few years following. Looking across the world, open banking is growing at a global scale, moving away from being specific only to Europe, as it initially appeared with the introduction of the revised Payments Services Directive (PSD2). India has launched a payments scheme for bank-to-bank payments using a virtual address (usually a phone number). Australia is launching a bank-to-bank, real-time payment network. Canada, the United States, and Hong Kong are all talking about open banking.

THE API LANDSCAPE AT COMMERCIAL BANKS

Major international banks are already offering rich catalogs of APIs to both their retail and commercial banking business, with the former taking the lead in number and variety. As commercial banking APIs are the subject of this report, Aite Group conducted a thorough analysis of the APIs offered by 11 major banks,[1] categorizing corporate banking APIs under four major service areas: analytics and reporting, process automation, aggregation, and access to platforms (Figure 2).

1. These banks are Barclays, BBVA, BNP Paribas, Erste Group, Citi, Hellenic Bank, HSBC, Lloyds Bank, OCBC, Saxo Bank, and Standard Chartered. They publish their API catalogs, while other institutions require a permissioned access.

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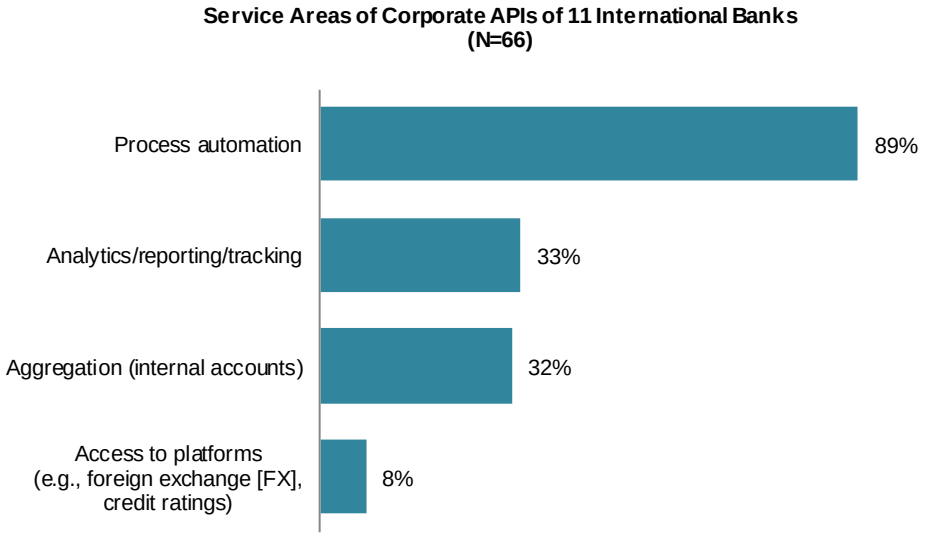
Figure 2: Corporate APIs Ensure Process Automation for Clients



Source: Aite Group analysis of corporate API catalogs of 11 international banks

It is important to assess how bank APIs are corresponding to the needs of the corporate user. One of the primary responsibilities of treasurers is to ensure they have the right amount of money in the right place at the right time. In a recent report, Aite Group found that corporate treasurers from companies of all sizes have a list of business priorities that span across cost reduction/operations, strategy, risk management, funding, reporting/compliance/governance, and cash/liquidity management/payments.[2] And each priority has a set of action items that treasurers have decided to implement (Figure 3).

2. See Aite Group's report *Digital Transformation in the Eyes of the Corporate User: The Treasurer*, November 2018.

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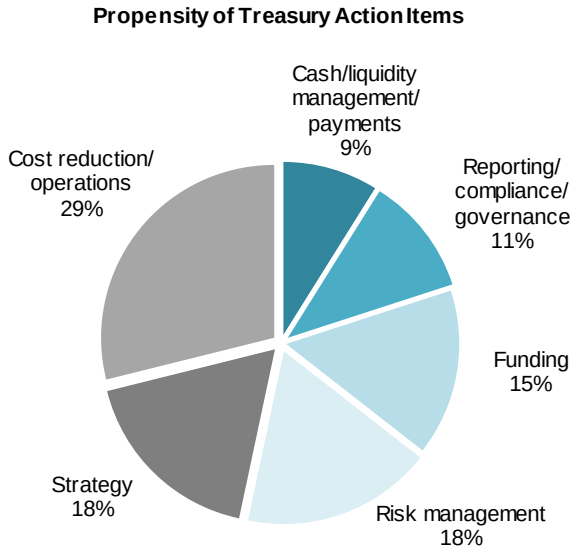
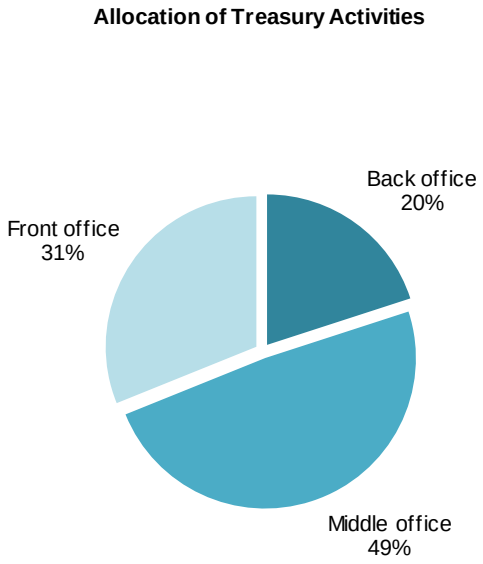
Figure 3: Corporate Treasurers' Priorities



Source: Aite Group estimates based on interviews with corporate treasurers and desktop research

The allocation of the priority tasks shows that corporate treasurers are taking their role seriously and are proactively focusing on front- and middle-office duties (Figure 4).

Figure 4: Corporate Treasuries Are Becoming More Proactive



Source: Aite Group estimates based on interviews with corporate treasurers and desktop research

To perform their duties, corporate treasury offices need software applications that extract data from multiple sources and repositories. APIs therefore represent excellent rails to access this richness of enterprise data, and—through them—banks can offer a tangible demonstration of

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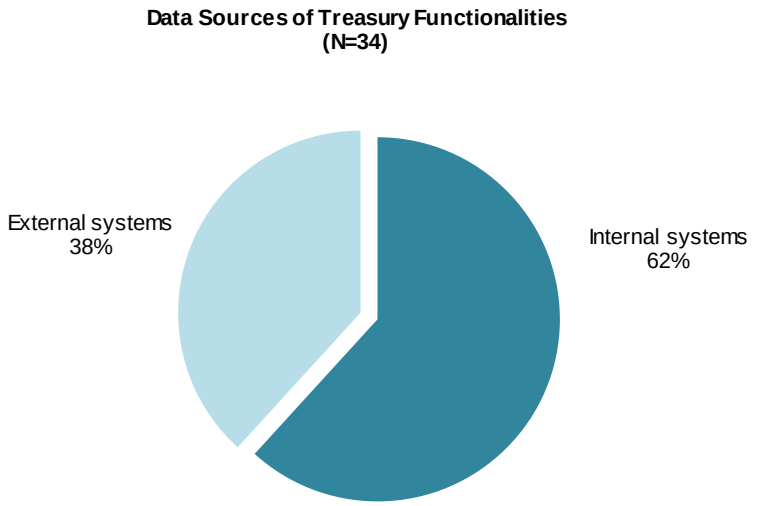
the value they bring to their corporate clients. An immediate API connectivity enables treasurers to access all of their bank accounts, cut the timing to receive information between banks, and see multiple accounts in an aggregated manner.

However, despite the perspective that APIs will make predicting cash flow and forecasting easier for treasurers (they will have a better handle on how people are paying, and where and when they're paying), corporate treasurers tell Aite Group that most data sources they manage are internal within the corporate IT systems. Software applications that access multiple external data sources (e.g., to other bank accounts) count for only 38% of a treasurer's required features (Figure 5).

Figure 5: Where Corporate Treasurers Get Data



Source: Aite Group, based on interviews with corporate treasurers

So banks must carefully consider this situation if they want to understand how best to succeed with corporate treasurers. Banks must ensure that their APIs contribute to support treasurers in achieving their own key objectives. Aite Group ran a test to check which functional areas corporate treasurers need for their key business priorities (Figure 3) could be covered by corporate banking APIs. Basic data analytics, reporting, and process automation represent the majority of corporate API-accessible services that banks can develop and expose in their catalogs (Figure 6).

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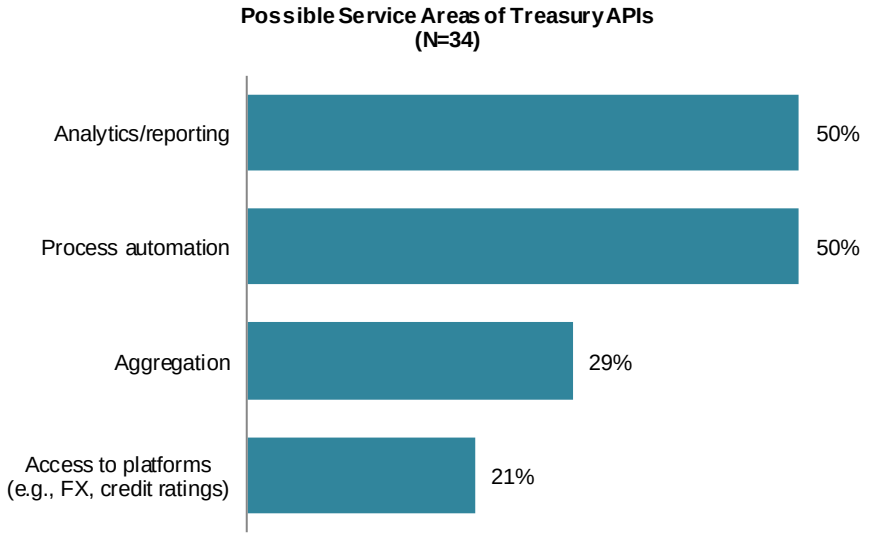
Figure 6: Analytics and Process Improvement Are Best Candidates for API-Based Services



Source: Aite Group

These API-enabled services support the corporate treasury department to become more efficient in reporting data and providing value-added information that the company can execute on. With APIs for process automation, treasurers can access services to reduce operational costs and eliminate inefficiencies. Corporate users are not entirely ignorant of the potential disruption from open banking and APIs, though they are unsure about how significant that disruption will be. They still have to understand what open banking APIs can bring to them. Given that open banking is not a hot topic for a good number of companies, multinational companies included, treasurers need to have a dialogue with their banks about the opportunities open banking provides.

This means that banks must review their API market strategy, which until now was largely concentrated on consumers and focused on promoting APIs as aggregating factors of multiple bank accounts on behalf of payment initiation service providers (PISPs) and account information service providers (AISPs). Although not negligible, it is apparent that this value proposition is not the priority for corporate users. Corporate treasurers look for applications that improve their operations and ability to analyze data, although not necessarily through sophisticated and automated artificial-intelligence-based features.

Treasury departments are flooded with information that open banking could use to give them better cash pooling, cash distribution, and spend analysis, as they would have access to all bank accounts in one environment. They are also aware that using open banking allows them to be on the front foot to provide their own clients with more services, as companies can see what balances they have in real time and can fund just in time. APIs give real-time information 24/7 rather than providing end-of-day or start-of-day information, which gives companies the ability to not only make payments just in time but to also consolidate liquidity or sweep funds just in time. Other benefits that corporate treasurers know, almost by heart, after hearing from their

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bank partners and fintech providers is that open banking APIs activate real-time multibank cash pooling and a real-time dashboard to manage FX risks and currency positions.

This over-exposure to the benefits of multibank accounts' API-based information and aggregation services is making treasurers urge for a "reality check." After all, the value that they attribute to corporate banking API-enabled services to aggregate external data sources (e.g., bank accounts, credit ratings, and FX platforms) comes only in third for likely utilization, at 26% (Figure 6).

Banks are becoming aware of this fact. As shown in Figure 2, which analyzes the service areas of APIs that international banks have developed for corporate use, process automation with an 89% level of API coverage has an unreachable position. Aggregation (in this case, of internal accounts within the bank or within the banking group) is distant, at 32%. Despite analytics and reporting being part of corporate treasury's priorities, and therefore an excellent area to service with APIs, treasurers are far more compelled to consume application services that improve their operational performance and free up resources that will dedicate more time and intelligence to analyze and report results. The option of getting APIs to elaborate these tasks—once the manual operations have been resolved with performance-related APIs— remains a "nice-to-have" feature but not an immediate need for any corporate treasurer. This explains the relatively low 33% of service areas for analytics and reporting in Figure 2.

Banks are taking giant steps to keep close attention on what their corporate clients need, and their preferred strategy to ensure that the APIs exposed correspond to real client needs is to work with client focus groups and to do substantial market research. This sets a de facto industry practice that was not so firmly established when Aite Group interacted with banks during a similar research campaign on APIs in 2017.[3] A "do-fast-fail-fast" strategy represents an alternative option: a mindset shift that leads the bank to think like a fintech startup—that is, a company short of money that acts quickly and goes to market quickly. Banks told Aite Group that once they had API-enabled their back-office applications, they preferred to develop and expose as many APIs as possible, counting on the fact that out of 10 APIs exposed, eight will inevitably fail, with the remaining two left to offset the development costs. As an example, Standard Chartered executives challenged the team to the point that it had no need to prepare a business case. It had no history to learn from, so it decided to just do it.[4]

This strategy, which typically belongs to fintech startups and which some banks are following in an effort to be faster to market, is apparently not preferred among the 11 banks analyzed. The results of Figure 2, in fact, manifest that corporate banking APIs are developed to cover the same service areas of treasury APIs based on corporate treasurers' expectations (Figure 6).

3. See Aite Group's report *Corporate Banking API Strategies*, May 2017.

4. Bhupendra Warathe, "Taming Flow Monsters in Real-Time Payments," finews.asia, October 10, 2018, accessed 20 February 2019, https://www.finews.asia/finance/27574-bhupendra-warathe-standard-chartered-payments-fintech-digital-real-time, accessed 20 February 2019.

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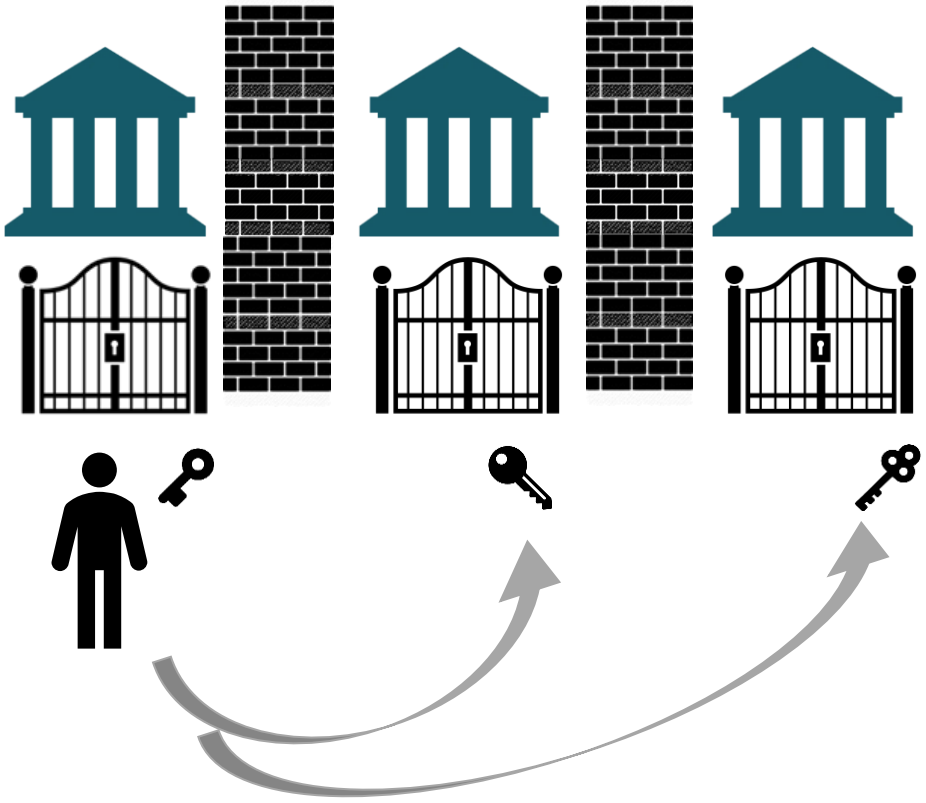
API ARCHITECTURES AND RELATED MONETIZATION SCHEMES

The results of the analyzed data in the previous sections show that for the vast majority of cases, banks are in a one-on-one relationship with their corporate clients, offering and exposing their APIs in a way that largely resembles the graphical illustration in Figure 7.

Figure 7: Single-Bank Access to APIs



Source: Aite Group

In most cases, the corporate user accesses a proprietary bank-to-corporate point-to-point portal. In this situation, the corporate client has to "open the gate," i.e., access the API gateway, using a different key each time (i.e., standards and protocols) to consume the APIs offered by each bank. This happens because every bank wants to own the user interaction and experience (UIX), and to maintain a direct and captive relationship with its corporate clients. To do so, banks also build high separation walls from other institutions.

To further create a direct channel that solidifies the client relationship, banks are intensifying the use of this single-access model by offering direct treasury features to their corporate client, with the clear intent to bypass treasury platforms that create an intermediate layer between the bank and the corporate user. Citi, for instance, announced the launch of its new global liquidity

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solution, CitiDirect BE Cash Concentration, which allows clients to digitally manage their cash pooling structures through Citi's online treasury management tool.[5]

Bank of America Merrill Lynch, on its side, introduced Business Advantage 360, a digital dashboard designed to help Bank of America clients manage the various financial aspects of their business by providing a complete view of business cash flow and access to real-time expertise and guidance.[6]

While corporate banks offer APIs that deliver the treasurers' expected services captured in Figure 6, on their side this separation of access does not facilitate, nor is the best solution for, the activities of a corporate treasurer who needs one point of access to the services. The scenario is further exacerbated by the fact that international businesses work with multiple bank partners, meaning that they have to host different proprietary banking platforms and systems. The need of clients goes against the bank-centric configuration typical of many banks' API portals. Banks, therefore, have to accommodate the corporate treasury imperative to access API-based services for analytics, reporting, and process automation (Figure 6) with a unique access to all the banks that the corporate treasurer works with.

The corporate user wants access using only one key. The problem is that there is not an API international standard—not even one across Europe, which moved swiftly into open banking. The standards are still being set given at the country level. The only viable option that banks have so far identified is to invest in a fintech firm that takes on the challenge of connecting all of these different systems that run on different standards and formats, and to do that mapping on behalf of the bank and the bank's corporate clients. This requires banks—many of which still have legacy-based IT architectures—to provide systems with 24/7 availability, real-time access, enhanced security, and authentication, as well as to scale to the expected rise in query volume and to respond to third-party requests in acceptable time frames in order to ensure a good experience for the end customer.

In Figure 8, Aite Group offers a configuration that represents the solution that any bank would aspire to, as it allows banks to maintain the one-to-one relationship with the clients while satisfying the need of the clients that want just one point of access to their multiple bank relationships.

5. Belinda Marks, "Citi Launches CitiDirect BE Cash Concentration," Global Banking & Finance Review, February 13, 2019, accessed February 15, 2019https://www.globalbankingandfinance.com/citi-launches-citidirect-be-cash-concentration/.

6. "BOFA Rolls Out Biz Banking Toolkit," Financial IT, February 8, 2019, accessed February 13, 2019, https://financialit.net/news/banking/bofa-rolls-out-biz-banking-toolkit.

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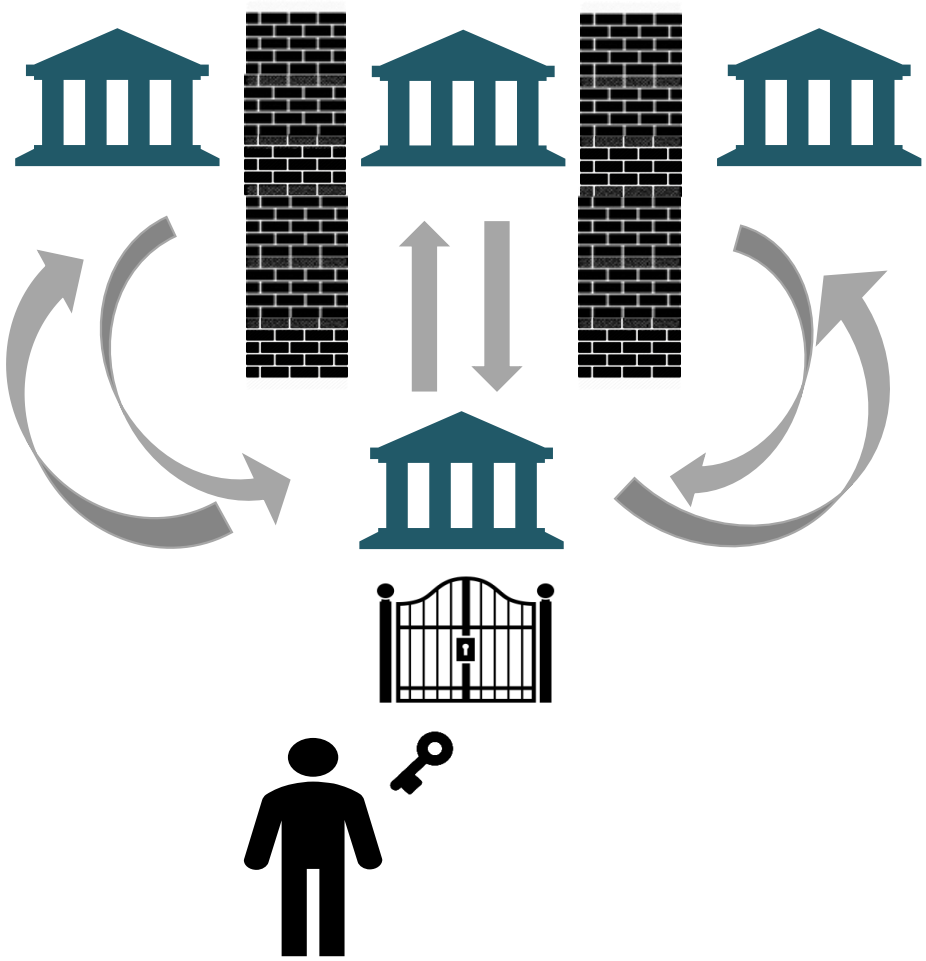
Figure 8: The One-Access-Point Model



Source: Aite Group

This model works only in principle, and it can hardly be managed in a profitable way by a bank. While the user experiences a single UIX, the interface bank must deal, in the background, with high separation walls represented by connectivity channels, definitions, nomenclature, access protocols, and authentication of multiple proprietary API formats, which is expensive to maintain and to manage. This is not a bank's business.

To resolve this problem, banks are seeking support from an intermediary, most likely an enterprise resource planning (ERP) company, a treasury management system (TMS), or a portal managed by one of the major core banking software providers (e.g., Finastra, Temenos, Infosys). These partners will ensure that the banks' client enters the portal via the one-key gateway and consumes the bank's services that the intermediary will make available by individually connecting the various bank proprietary APIs. It is the intermediary layer that connects the corporate system once and makes it interoperable with all the bank software modules to which the corporate client needs to connect. The intermediary will provide that single-access gate illustrated in Figure 8 and will then maintain all the connectivity channels with each bank's APIs

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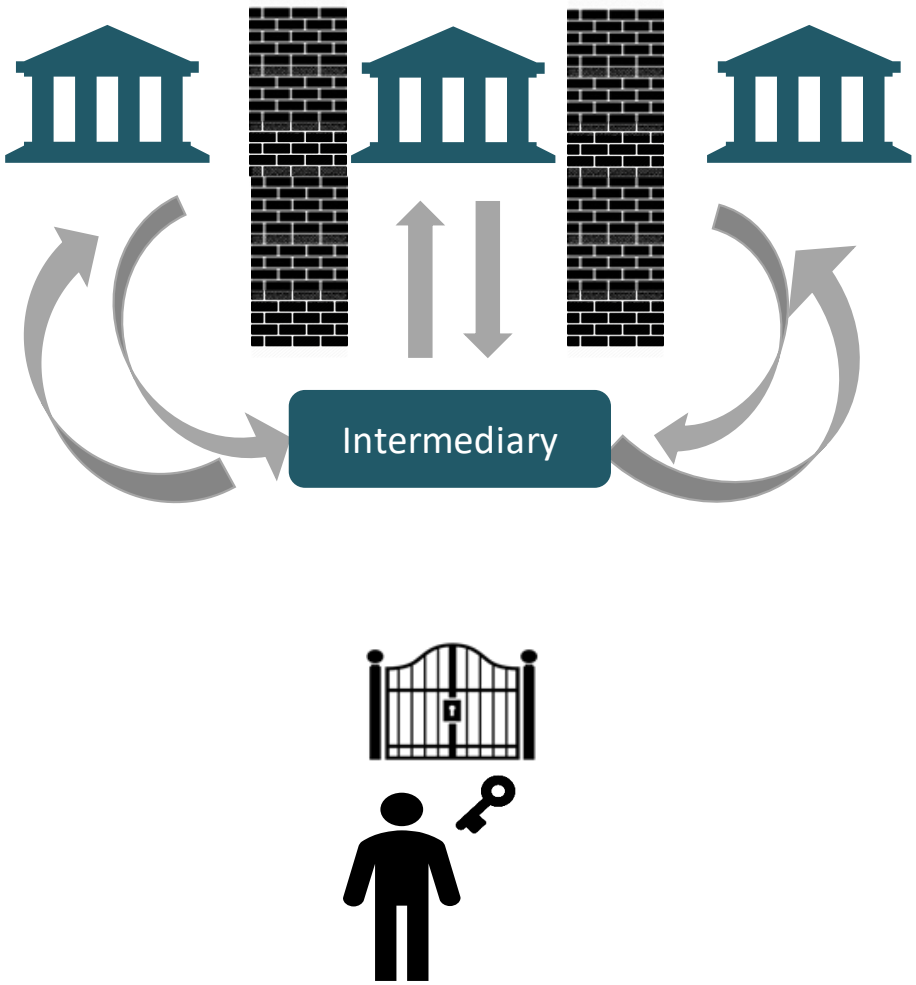
(Figure 9). The bank, on its side, connects with the intermediary's corporate clients and has a privileged channel to promote its services and compete with these clients' partner banks.

Figure 9: The Bank-as-a-Service (BaaS) Model



Source: Aite Group

This is already happening at U.K. banks that present an undisputed level of maturity in open banking innovation. Barclaycard Commercial Payments announced that it is integrating its business-to-business (B2B) product into SAP Ariba, a B2B marketplace. The integration will be further tightened to bring procurement (from SAP Ariba—the intermediary) and payment (from Barclays) together in one place, the Ariba Network. The tool is designed to help buyers pay suppliers much earlier in the procurement cycle and to take advantage of any prompt payment discounts. Ariba customers will also receive support from SAP's cloud tech to make smarter payment and procurement decisions.[7]

7. "Barclaycard Partners With SAP to Simplify Corporate Payments," Finextra, February 15, 2019, accessed February 18, 2019, https://www.finextra.com/newsarticle/33391.

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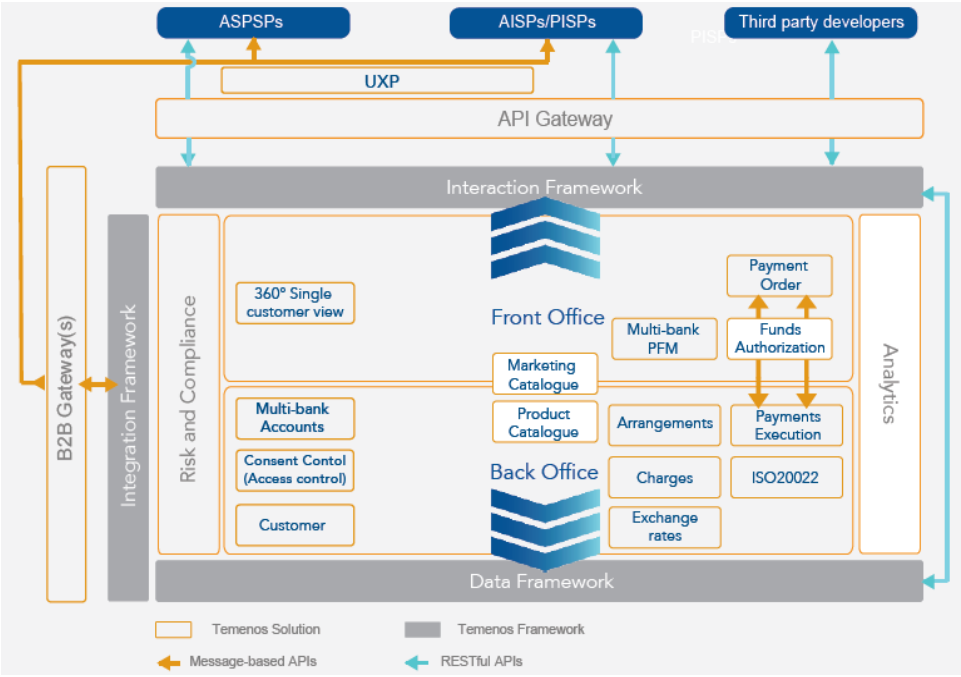
On the TMS front, Kyriba, one of the leading players globally, announced a new API integration with Citi. Joint clients have "access to a seamlessly integrated, fully digital experience accessing their Citi accounts instantly through their preferred treasury platform" and have new opportunities for real-time bank reporting, account management, and payments.[8]

Banks that want to go beyond the provision of financial instruments and services must take on a new role and become access facilitators or distributors of products and services to their own customers. Banks can become value aggregators of their own and third-party products and services, and can provide advice based on the information they have collected from a long-lasting relationship with their customers. By adding the availability and transparency of third-party information to existing customer data, banks can differentiate their offers against nontraditional competition (e.g., neobanks).

The proposition of Temenos (one of the leading core banking systems providers; Figure 10)[9] is the living evidence of a consolidating model that represents the anchor for banks tossed by the waves of a turbulent market (Table A)—the BaaS.

Figure 10: Temenos' BaaS Architecture



Source: Temenos

8. "Kyriba Unveils API Integration With Citi," Finextra, February 26, 2019, accessed February 27, 2019, https://www.finextra.com/pressarticle/77412/kyriba-unveils-api-integration-with-citi.

9. Kanika Hope and Prema Varadhan, "How Temenos Enables Open Banking and the Revised Payments Services Directive (PSD2)," Temenos, accessed February 18, 2019, https://www.temenos.com/contentassets/5f27a92c67db48e5bf02c5e2e7f77352/value_prop_open_banking_and_psd2.pdf.

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Temenos provides the necessary front-office components that enable a bank to become an AISP or a PISP. With both service strategies, a bank will capture customer and account information across multiple banks or financial services providers, use insights from its own and third parties' products and services, integrate with third-party applications to receive the required information via APIs or messages, and deliver value-added services to its customers, thus maintaining the direct relationship with its clients.

While the BaaS model satisfies the need of the corporate client to have a single point of entry and flexibility of choice, it inevitably reduces the possibility for banks to maintain that UIX, because every time the corporate system interacts with a different bank, it will go through the third-party layer that shields the corporate system from the complexity of moving the gate back and forth (Figure 9). When third-party intermediaries access bank data via APIs and standardize bank information, they are the ones that enable treasurers to finally get consistent analytics and bank information reporting.

Aite Group anticipates that, without appropriate "countermeasures" to the BaaS model, in the likely near future banks will completely lose the interaction with their clients because treasurers will find it normal—and the only available option—to access banking services through third-party providers instead of through their own banks. In fact, there is one element that all models described have in common: They are all bank-centric. Even in the most advanced BaaS architectures (e.g., Figure 10), there is no mention of the end client. The effort of every fintech intermediary to harmonize the standards, protocols, and channels of the multiple proprietary bank APIs enable one bank to funnel to the client multiple financial instruments and value-added services, either directly produced by the bank or distributed from other institutions or from third-party providers. Everything is directed to defend and preserve the bank-to-client communication.

BaaS contains the same inherent "original sin" of any bank-centric model: Every bank will want its own BaaS layout, and this will inevitably create a proliferation of BaaS ecosystems to the detriment of the corporate user, which will suffer the same business scenario as in Figure 7, with the only—and not negligible—difference being that the structures "behind the gate" will be more complex.

After all, corporate customers simply want to move across bank services and applications in a more agile way (Figure 11) and are totally agnostic about the system used to run the business.

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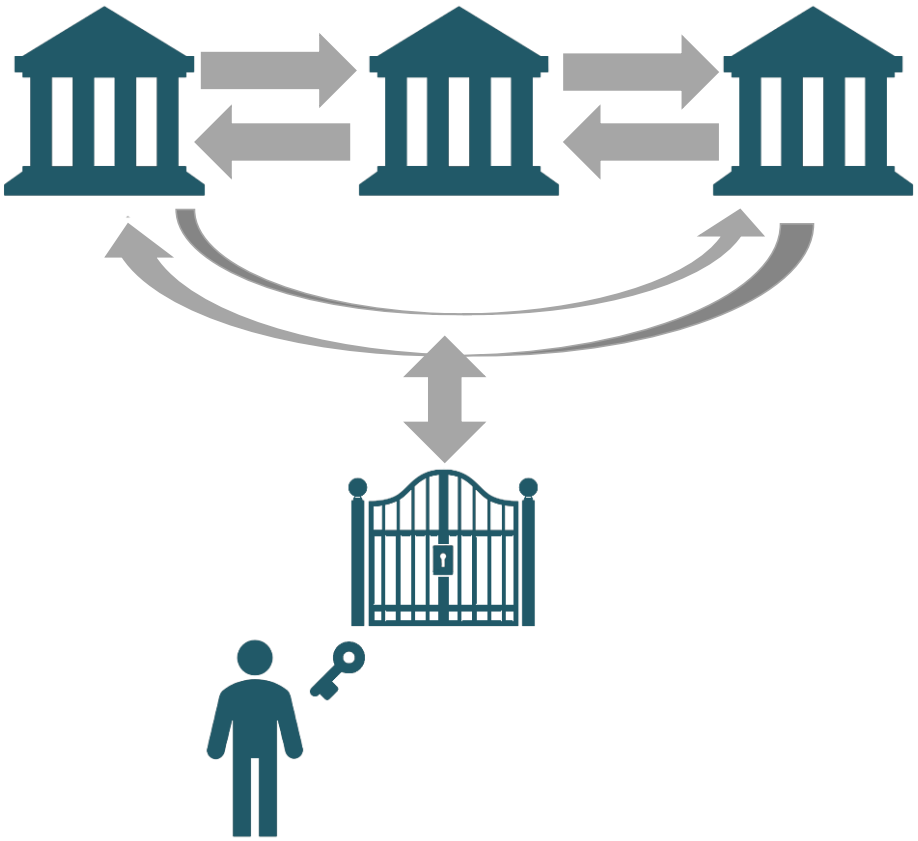
Figure 11: Platform-Based Access to APIs



Source: Aite Group

The problem is all on the banks: How can they satisfy the client's request without losing the client? Although the conundrum appears unsolvable, there is a solution.

SWIFT, the interbank payment network, provides a first possible answer with its recent "Pay Later" API, which offers an instant online payment facility, giving its customers the ability to pay for goods purchased online with traditional bank loan financing. Merchants have a single standard connection to member banks around the world, avoiding the need for multiple costly implementations. The possibility of adopting a single standard to connect with multiple banks is a great advantage to merchants that can provide instant loan approvals for customers at the point of sale. The benefit of the API will be even greater once it is made available to corporate users—especially small and midsize enterprises (SMEs)—that constantly need to access innovative sources of finance to support their daily operations. The opportunity for banks to offer more flexible and immediate funding options to SMEs is becoming an urgent strategic matter, as banks are failing to address opportunities in the financing of SMEs and are conceding that potentially lucrative ground to disruptive challengers.

The likely business model that Aite Group envisions for corporate open banking will be similar to platform-driven models such as Uber or Airbnb. The platform provider does not own the physical assets but retains the relationship with the client (i.e., the UIX). The individual asset owners (i.e.,

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in Uber, the car drivers) could never afford to operate the network that they need to run their business. They need the platform as much as the platform provider needs them: The car drivers "produce" the services (i.e., the rides) that consumers (i.e., the clients) purchase, both plugging into the platform for their user experience. Moreover, when the client consumes the service (i.e., the use of the vehicle and not its physical ownership), which is accessible only through the platform, the platform provider can complement the service with value-added features (e.g., playing the client's preferred music by connecting the Uber platform to the APIs of the partner platform Spotify). In addition, the platform can allow the client to access new and in-context services, such as booking a hotel, making reservations at a restaurant, or using any kind of features performed by the apps accessed by the platform via APIs. All of this is possible because the ride service is "dematerialized": The use of the asset is disconnected from its ownership. Finally, the consumer may become a "producer" by offering rides on the platform with his or her own asset, and vice versa for a driver.

ARE BANK CONSORTIA THE LIKELY FUTURE FOR OPEN BANKING?

Returning to corporate banking APIs, the analysis of the reviewed API-based models concludes that the more the banks will engage in developing and exposing their own open banking APIs, the more they will have to give up the direct one-on-one UIX connection with the client. If they don't want to lose that UIX forever, the option that banks are left with is to create a consortium.

Banks should partner together—first by harmonizing the different legacy and proprietary API standards. A consortium-led platform brings other technology providers onto the platform instead of having to retreat their proprietary technology assets. Banks will lose the direct one-to-one UIX connection, but they will regain control over the corporate client relationship because it is the bank consortium—and not the nonbank intermediary—that provides the layer and allows the client to access the system only once (Figure 11). Facebook, Google, and Amazon all figured out a while ago that "opening their systems" and providing external developer access to more of the plumbing of their core products was a great way to leverage their tech investment, reinforce their product portfolio, and expand partnership opportunities.

Banks will somehow maintain the relationship with the corporate client without directly possessing that relationship in a one-to-one fashion. Open banking will only take off if it creates tangible value for the end customer—greater relevance and personalization, more transparency on pricing terms and conditions, greater choice, and more convenience. Competition between banks will shift from holding the relationship with the client to servicing the client by delivering API-based products and services that more closely adapt to its needs—at the right price.

It is a new era for open banking: APIs "dematerialize" the banks and separate the asset (e.g., the bank account number, the payment channel, the loan contract) from the service (respectively, the most rewarding place to hold liquidity, the most efficient and cheapest rail to exchange a payment transaction, and the most economic option to access funding).

A consortium-based platform model in which the UIX is granted by the interaction between the customer and the bank services layer is possible. Banks have an asset they have grown throughout centuries of business relationships—trust. They must build the new consortium-

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based API corporate banking model on the solid foundation that only one-quarter of respondents state that they would feel comfortable sharing their account information with parties other than their main bank.[10]

Banks must immediately enable their corporate clients to access the platform without any barriers. The technological solution must connect existing platforms to the same collaborative ecosystem of fintech providers, third parties, logistics providers, and regulatory bodies. "Producers" plugged into the platform will save money for banks that will not have to deploy an internal developing team. In return, producers will be introduced to marketplaces that attract a large customer base offered by incumbent banks.

Banks must not fear that the openness of the system will make them lose clients. The consortium can be designed to ensure that participating banks have a distributed geographic coverage. Member banks may also decide to segment services by client business size, transaction volume, or industry sector. It is also possible for the participating banks to distribute their services based on industry knowledge and coverage of application expertise (e.g., some participating banks will be excellent at providing API-based FX services, other consortium banks will excel in their treasury and cash management services, and another group of participating banks might be competing for their ability to manage trade finance services for clients).

An illustrative example that is not directly connected to APIs but is illustrative of the change a platform-based economy can bring to banks comes from Germany's Commerzbank. It teamed up with mobility technologies company Continental and technology powerhouse Siemens to process a money market security between the two companies using blockchain technology. Continental was the issuer of the money market security, and Siemens subscribed to the money market security as an investor. Commerzbank provided the blockchain platform through its research and development unit and acted as a service partner. Continental, Commerzbank, and Siemens reported the following in a joint statement:

> Unlike with conventional transactions, Commerzbank was no longer acting as a broker between contracting parties for this particular transaction, but as a platform operator and service partner. It provided the platform and all the technical requirements for blockchain trading, the legal structure and the digital money for direct trading of the money market security.[11]

Aite Group is seeing the emergence of these forms of consortia-based platforms in another part of transaction banking—trade finance. Trade finance platforms, such as Marco Polo, we.trade, and Voltron, are but a few of the trade finance consortia that see banks cooperating either by geographical coverage or by distributing business process expertise using a common platform, harmonizing business processes, or integrating the clients' ERPs or TMS via commonly created APIs. These platforms ensure an immediate connectivity and UIX for the customer while allowing

10. "CEE PSD2 Survey: Voice of the Customer," Deloitte, accessed February 22, 2019, https://www2.deloitte.com/content/dam/Deloitte/cz/Documents/financial-services/Deloitte_CEE_PSD2_Voice_of_the_Customer_Survey_012018_Short.pdf.

11. "Continental, Commerzbank and Siemens Successfully Field-Tested Blockchain Technology on Money Market," Commerzbank, February 21, 2019, accessed March 5, 2019, http://tinyurl.com/y4lke8rj.

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the banks to enjoy the results as participants of the consortium platform. Banks will still maintain that relationship with the client that otherwise could be disintermediated by a platform owned by an external technology provider (Figure 9).

The BaaS model will be instrumental in running the business and managing the complexity, data handling, harmonization of transactions, and connectivity and interoperability with bank and corporate information management systems. Large fintech providers will compete to master these consortia and represent the "powered by" constituency and engine that runs the entire consortium ecosystem. As always, there will not be a one-size-fits-all solution, and the corporate banking API market is sufficiently vast—yet very demanding—to give room to everyone capable of seamlessly running the operations that is refraining from raising walls to protect an intellectual property that has become a common patrimony and asset of the entire consortium.

Now that Aite Group research has determined that the most likely reference model for corporate open banking API strategies is the platform-based model, it's important to define the criteria that determine a platform. Marketing literature abounds with multiple—and at times, diverging—descriptions of platform-based business models. Aite Group research has found a useful reference that properly defines the platform model:

> The fundamental purpose of the platform is to facilitate the core interaction between the producer and the consumer. Every interaction starts with an exchange of information that has value to participants: the value unit that the producer creates for the consumer. The platform creates an infrastructure in which value can be created and exchanged. To facilitate interactions producers must have easy tools to create and exchange products and services via the platform.[12]

Open banking platforms must therefore be designed to facilitate use and interactions for a large number of users. At the same time, an open banking platform must be open for unexpected discoveries, as users may find ways in which the design should evolve. As previously seen when illustrating the scope of the platform-based access to APIs (Figure 11), the most appropriate way to convert a product to a platform in a B2B ecosystem is to delink ownership of the physical asset from the value it creates. This allows the use of the asset to be independently traded and applied to its best use—the use that creates the greatest value to the user (Figure 12).

12. Geoffrey Parker, Marshall Van Alstyne, and Sangreet Choudary, "Platform Revolution: How Networked Markets Are Transforming the Economy—and How to Make Them Work for You," W. W. Norton & Company, 2016.

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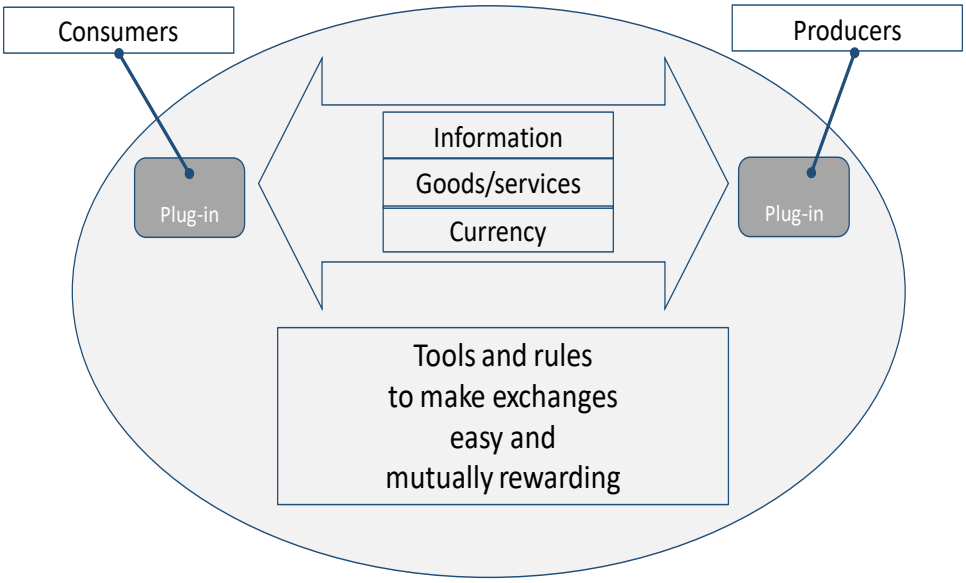
Figure 12: The Platform Model



Source: Aite Group, based on "Platform Revolution: How Networked Markets Are Transforming the Economy—and How to Make Them Work for You"

In a bank consortium configuration, the assets are represented by the banking products, which are accessed through the open APIs that the participating banks have harmonized using common standards. In handling payments, for instance, there's no added value, and it's too costly for an industry that has not changed for the past 100 years. So there's willingness to push for standardization in a bid to streamline costs. Consortium banks will compete by offering products and services freely accessible by users that can move within the platform governed and maintained by the consortium. The consortium is made up of the banks that will, somehow, keep the contact and the UIX with clients.

It is foreseeable that when the platform opens and all of its participating banks begin offering their products and services, the corporate users will prefer to keep working with those financial institutions that have been their main business partners. Banks can therefore be confident that by joining the consortium and releasing the captive one-to-one UIX with the corporate client, they will not lose the business relationship with that client. They will, instead, escalate the UIX to a higher level of interaction, thanks to the broader use of resources available in the platform community.

A consortium-based open banking platform brings another positive consequence to the participating parties: the user, who has been enabled to view the products and services exposed by the common-standard APIs of the various consortium banks (Figure 11), might be presented with interesting propositions from banks that were not part of its relationship pool prior to the creation of the consortium platform. This will require consortium banks to be competitive in terms of product pricing, risk pricing, market coverage, time to market, and delivery capabilities. The loss of the captive relationship with the client is counterbalanced in the platform-based ecosystem by the access to a wider community and network of prospective clients that are free to select and test new propositions and new services via the exposed APIs. Clients have one

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single point of easy access, controlled by the consortium, and indirectly by each participating bank. The corporate clients are free to engage with any bank given that the products and services have been decoupled from the proprietary channels and user interfaces.

Via the common APIs, clients are able to access, experience, and benefit from the key functionalities, the best-of-breed features, and the range and depth of capabilities that each bank offers to fulfill the client's business requirements in that particular circumstance, or for a particular business need. It is not unlikely that open APIs will create a plug-and-play market of applications that will be accessed, consumed, and released just like a vehicle is accessed, consumed, and released in Uber.

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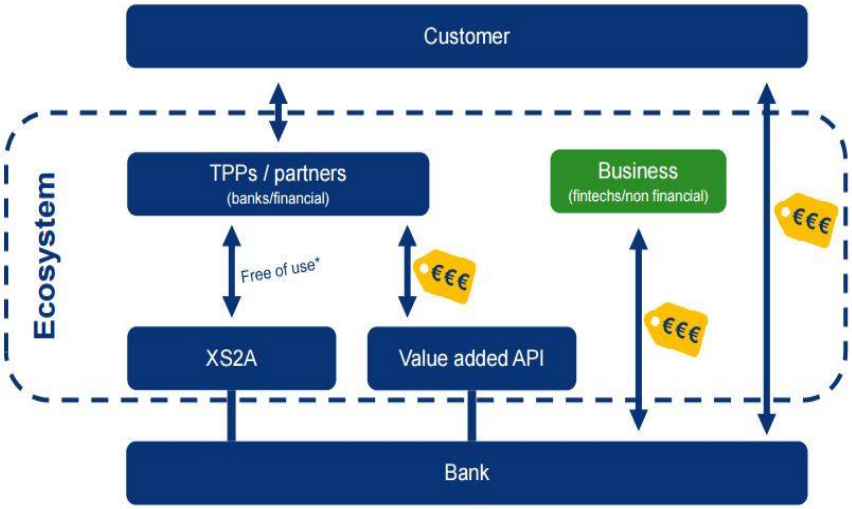
MONETIZATION STRATEGIES FOR CORPORATE BANKING APIS

All of this brings us to the real question: How can consortium banks monetize the value created through an open API platform? The basic rule of engagement for any platform monetization model is to charge users once the deal on the platform is completed, not when they join. Users must be charged only once they get the value (i.e., the product or the service) they need.

Monetization structures are already functioning when banks collaborate with their fintech counterparts. By providing access to data and insight—for instance, regarding nonpayment account data for loans, mortgages or savings, standing orders, and direct debit mandates—banks can charge fintech developers for it. The data could also be provided more frequently at an additional charge, e.g., balance updates for cash management provided hourly or each time the balance changes (Figure 13).

Figure 13: Monetizing APIs



Source: Deutsche Postbank

The arrow at the far right in Figure 13 appears optimistic considering the feedback received by interviewed banks. Charging corporate clients is more difficult to finalize. Banks find it difficult to justify charging implementation fees, monthly maintenance fees, subscription fees, or a fee for every call (including nonmonetary calls) to their corporate clients, so they might consider it a "cost of doing business." If bank platforms intend to offer free pricing as part of their strategy, they must ensure that the value they create and monetize is fully controlled by the platform: The consortium governance structure must ensure that people do not start the interaction on the platform and then use other systems of interaction. Participating banks must adhere to strict rules of conduct, and tight control mechanisms must be put in place to avoid any temptation to deviate from the norm.

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Corporate users accept to be charged when they get value on the consortium platform, and the notion of value may take different configurations in a platform-based model. While, in general, corporate users don't want to pay a ticket to enter the platform, for some the fact that they become part of a broader—and previously inaccessible—community may already bring value that they will pay for. One important element of any platform configuration is that it enables the exchange of value between producers on one side and consumers on the other. To exchange value, both parties use tools created, maintained, and made easily accessible by the platform. The value of the platform is fully leveraged when the consumers become producers and vice versa.

Banks have the opportunity to leverage the "landing page" characteristics that a platform offers to visitors that want to consume the banks' services. All banks have a large commercial network in their core market, so a platform represents a significant distribution channel in each local market. A well-engineered consortium platform architecture offers features and tools that enable visiting consumers to develop their own applications on top of the consortium bank's APIs. This enables banks—each one adopting its own sales model—to develop and leverage their API catalogs to generate new lines of business and to provide a new service. While the producers are the banks and the fintech partners develop programs and applications by accessing the APIs and the tools made available by the consortium, soon banks will be joined by corporate clients.

These corporate producers will be charged a fee because they are accessing a community or a market that will use their solutions to exchange goods and service transactions on the platform. The opportunity and tools to consume APIs to produce new applications that the consortium platform offers to corporate clients may justify the request to apply a charge fee.

Based on these findings, a short list of potential monetary sources that banks can charge to corporate producer clients follows:

- Providing data access to lending applications that can trigger "pay later" capabilities
- Selling identity verification as a byproduct of Know Your Customer (KYC) processing (car rental services may be candidate clients)
- Exposing rules, conditions, and protocols for payments transactions
- Offering best FX commission fees for faster and cheaper execution of cross-border payments
- Giving free APIs and charging for the product accessed via the API—fees for transactions handling services (e.g., payments) risk to be cannibalized by API-accessible services so the value to monetize moves from the channel to the services accessed via that channel

A monetization scheme that goes beyond the "usual suspects" and that is applicable to both consumers and producers—which means all participating banks, fintech providers, and corporate clients—is based on the acknowledgment that the consortium makes an available mechanism that enhances the quality of the interactions. These are also called "curation" mechanisms. In an open banking platform, these might be represented by harmonized KYC procedures, fraud detection algorithms, or anti-money-laundering mechanisms. The trade-

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finance-consortium-based platform we.trade offers a good example of this: Consumers join the platform through sophisticated and well-functioning curation mechanisms while producers create new applications by consuming the consortium's open APIs. This justifies charging a platform fee, and the consortium may further evolve to form an independent legal entity with its own business model and revenue sources that go beyond the members' participation fees. With member banks becoming shareholders of this new entity, the consortium company becomes a services utility. In that case, licensing fees from the blockchain platform are not seen as enough of a source of revenue for the banks. Shareholders will be happy to support up to a certain point, but they expect a fair return for their invested resources. The business entity has to, therefore, become profitable and continue growing its performance. The members' compensation derives from the additional business value added to their existing business portfolio.

Despite difficulties in finding the right monetization model, banks are already gaining value from APIs in terms of cost reduction and improved efficiency. Banks monetize the development of APIs using them to reduce operational costs, build one use multiple times, and leverage the adoption of microservices that can be "consumed" by traditionally siloed software suites in the back office. Cost reduction is the business case for APIs.

One last caveat is that the market does not need to be fully "API-ed"—for the lack of a better word. Aite Group has found that some banks have taken complaints from their corporate clients for pushing the digital agenda too much. Technology innovation is exciting and must be followed to understand its dynamics and potential outcomes, but not to the point that its supporters build solutions before the problem of the potential client is fully known.

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CONCLUSION

Banks:

- APIs quickly expose the inner complexity of the bank. Adapt the operating model in your bank to support APIs rather than following the way you have traditionally managed banking channels.
- Find the appropriate "countermeasures" to the BaaS model to avoid losing the interaction with clients. Treasurers will find it normal—and the only available option—to access banking services through third-party providers instead of through their own banks.
- Partner in consortia-based platforms to harmonize the different legacy and proprietary API standards and regain collective control of the business relationship with the clients, which is now at risk.
- Immediately enable corporate clients to access the platform without any barriers. Consider that you are already gaining value from APIs in terms of cost reduction and improved efficiency.
- Don't try to API-enable everything.

Fintech companies:

- Develop BaaS architectures and compete by mastering these consortia and monetizing the "powered by" constituency engine that runs the entire consortium ecosystem.
- Refrain from raising "intellectual property" walls.
- Connect existing platforms to the same collaborative ecosystem of fintech providers, third parties, logistics providers, and regulatory bodies.
- Enable direct access to bank APIs through corporate ERP or the TMS.

Corporate treasurers:

- Watch—with attention and a positive attitude—API-based consortium platforms that allow you to move across bank services and applications in a more agile way, and that are totally agnostic about the system used to run the business.
- Consider that through a consortium platform, you become part of a broader—and previously inaccessible—community. This value may be worth paying a ticket to enter the platform.

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RELATED AITE GROUP RESEARCH

Digital Transformation in the Eyes of the Corporate User: The Treasurer, November 2018.

Corporate Banking API Strategies, May 2017.

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