CELENT

OPEN BANKING: TRENDS AND OPPORTUNITIES



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Colin Kerr, Principal Advisor

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Who we are

- An **independent global research and advisory firm** offering unbiased information and advice on financial services technology
- A division of Oliver Wyman, the leading global management consultancy, and part of Marsh McLennan, a global professional services firm



Our clients

- The entire **financial services ecosystem:** financial institutions, their technology and service providers, consultants, investors
- Technology and strategy leaders, including CIOs, IT architects, heads of lines of business, strategy, innovation, and more



Their needs

Make faster and more informed technology decisions and respond to emerging IT trends



How we help

- Research and advisory: best practice case studies, technology primers, IT spending, trends analysis, vendor solution evaluation, analyst access
- Extensive databases of best practice technology initiatives and vendor solutions
- Consulting: bespoke advisory, speaking engagements





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KEY TAKE-AWAYS OF THIS SESSION

Open Banking Trends and Opportunities

The financial services ecosystem is becoming increasingly open. Each institution needs to determine what role they want to play within that ecosystem - and what the right strategy is for them.

Open banking and open finance are not going away – but the models will morph



Data is the under-appreciated asset



Choose partners carefully



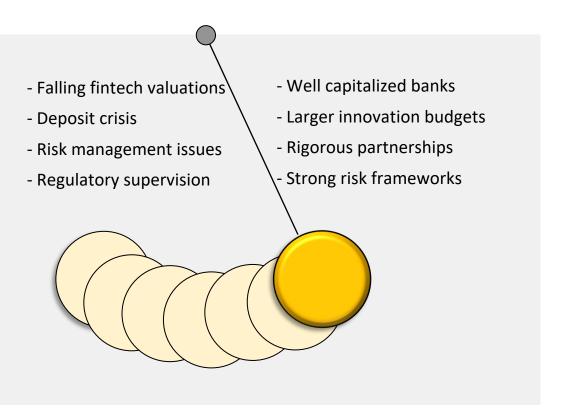
The buck stops with banks – always





FUTURE SUCCESS IN BANKING RESTS ON FASTER, SAFER, SMARTER INNOVATION

The innovation pendulum is swinging









of banks say that
"it is more
challenging to win
and retain customers
than it was 12
months ago"

of banks say
"the competitive
threat from fintechs
is increasing"

Of banks rank
"increased speed
and agility as the
top technology spend
driver"

Base: All Retail Banking respondents (sample: 228)
Source: Celent Technology Insight and Strategy Survey 2023



Regulation in Europe provided banks and vendors with an opportunity to innovate

North America is Market-Driven

Provides opportunities and challenges!

- Innovative use cases vs ambiguity
- Risk considerations are increasing
- "1033" will drive more consistency
- Influence of major transaction banks

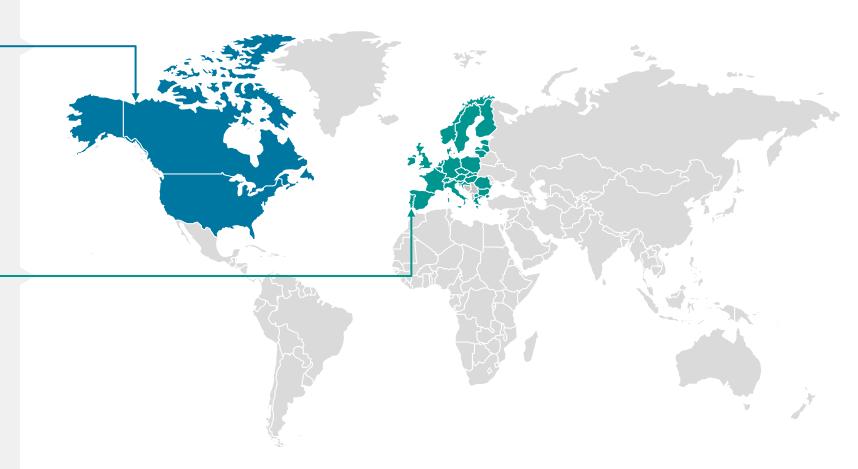
Europe is Regulatory-Driven

PSD2 and Open Banking.

Philosophical choice when considering the use of API-enabled capabilities.

- Most banks opted for minimum compliance, only basic API services in regulated regions
- Few saw opportunity for growth to deliver new solutions and services

A TALE OF TWO CONTINENTS THE GENESIS OPEN BANKING AND FINANCE



MANY OF THE LARGEST BANKS ARE NOW LIVE WITH OPEN BANKING PROPOSITIONS

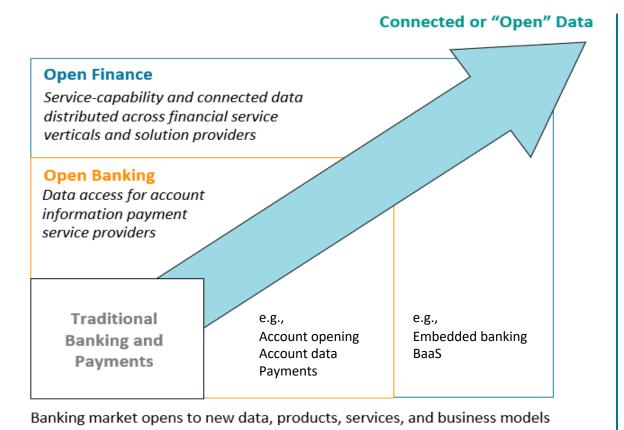
Selected Use Cases	Example banks with live products/services		Exa	ample propositions
Digital banking (Retail and SME)	ABN·AMRO	♣ NatWest		Account aggregation PFM/financial insights
Customer onboarding	AMERICAN EXPRESS	mastercard.	• 1	Customer and account verification Digital verification of account history (removes need for document upload)
Invoice and bill payments	NatWest ■	J.P.Morgan		Bill payments via ACH/other domestic payment infrastructure Invoice workflow for business customers
B2C/B2B payments	5/3	Synovus [°]	HSBC	Payment acceptance services for digital or physical merchants Payment products embedded in Oracle NetSuite ERP
Lending and credit	Rabobank	♦ Santander		Digital loan applications Credit risk or affordability assessments
Business and Corporate Banking/Transaction Services	cîti	BANK OF AMERICA 🎾	PNC ·	Balances, reporting, payments API Developer portals Apps Stores/Marketplaces

Source: Celent

THE OPEN ECOSYSTEM IS ULTIMATELY ABOUT "OPEN DATA"

Banking has always relied on strategic ecosystems to deliver value to its customers.

The novelty today is the **fragmentation of the value chain**



Beyond the use of APIs to access banking services, open banking and open finance implicitly requires a connected data strategy and highly-available data capability at scale.

In other words...

- Product strategy requires a data strategy and technical capability
- The API is the glue the data service is the value
- But remember your data also becomes monetizable by others

Source: Celent

WHY CONSIDER OPEN BANKING (AND BAAS)?

Competitive differentiation will be driven in part by an ecosystem strategy

2/3

of consumers in the U.S. have used a digital bank

84%

of millennials and Gen Z have used FinTech banking services

Sources:

Pymnts.com and Treasury Prime survey of 2,124 US consumers for the "How Consumers Use Digital Banks" report.

1 S&P Global.

Celent research.

Do community banks have a choice?



Growth Options

- Deposit share falls for banks <\$10 BN 1
- BaaS banks out-pace peers in deposit growth ¹

Competition

- Big banks have already waded into Open Banking and BaaS
- Exacerbates competition for deposits

They certainly have an opportunity!



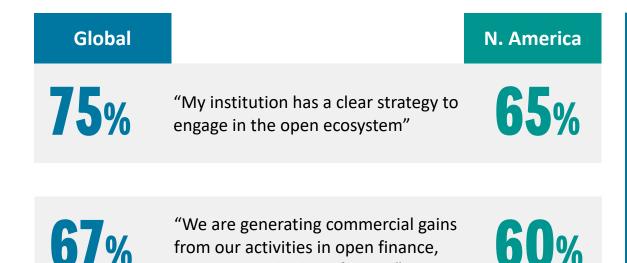
believe that "integrating 3rd party services is a significant opportunity"

Data-led services

- Account aggregation, insights and PFM, personalization
 Efficiency
- A/C opening, loan origination, risk/credit scoring
 New products & markets
- Payments, small business services, loyalty and rewards

BARRIERS TO ADOPTION OF OPEN BANKING AND FINANCE

The industry is moving from strategy to execution, but monetization challenges persist



• Regulatory clarity vs amorphous entrepreneurship

BaaS, and embedded finance"

- An ecosystem is only as good as its participants!
- However, the open ecosystem—and the technology investment to get there—is a long game to be played

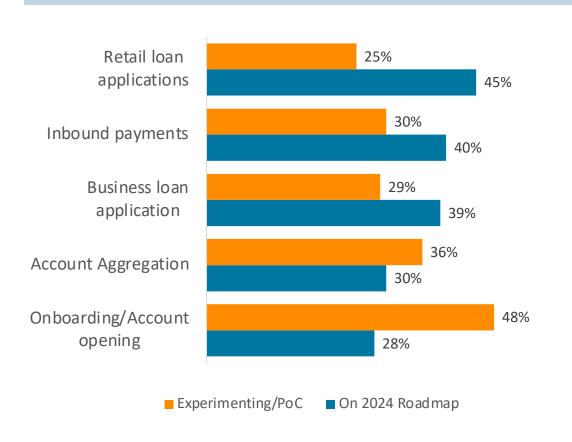
Base: All Retail Banking respondents (sample: 228)
Question: Which of the following are your leading investment priorities in the next 18 months from a product perspective?
Source: Celent Technology Insight and Strategy Survey 2023

Barriers to Open Banking and Finance



THE INDUSTRY PLANS TO INNOVATE ACROSS A RANGE OF USE CASES IN 2024/2025

Use Cases and Product Development relating to Open Banking and Finance



Base: All Retail Banking respondents (sample: 228)

Question: Which of the following best describes your thinking or activity around use cases for open banking/finance? Source: Celent Technology Insight and Strategy Survey 2023

Key priorities in 2024 – Lending and Payments

>40% of banks plans to bring enhancements to areas such as loan origination and payment processes

Areas to watch in 2024/25 - Customer Acquisition

~50% are exploring use cases around customer onboarding and digital account opening processes

36% are looking at payment acceptance services for businesses

ENABLING TECHNOLOGY

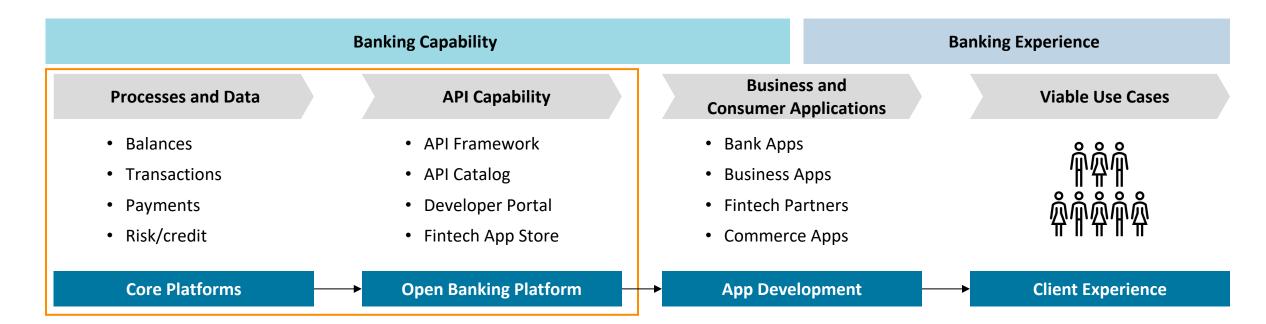
What can be learned from corporate use cases?

API - always on, business process integration

- Fast
- On-demand
- Precise function

Balance and transaction inquiry leads the pack for API use*

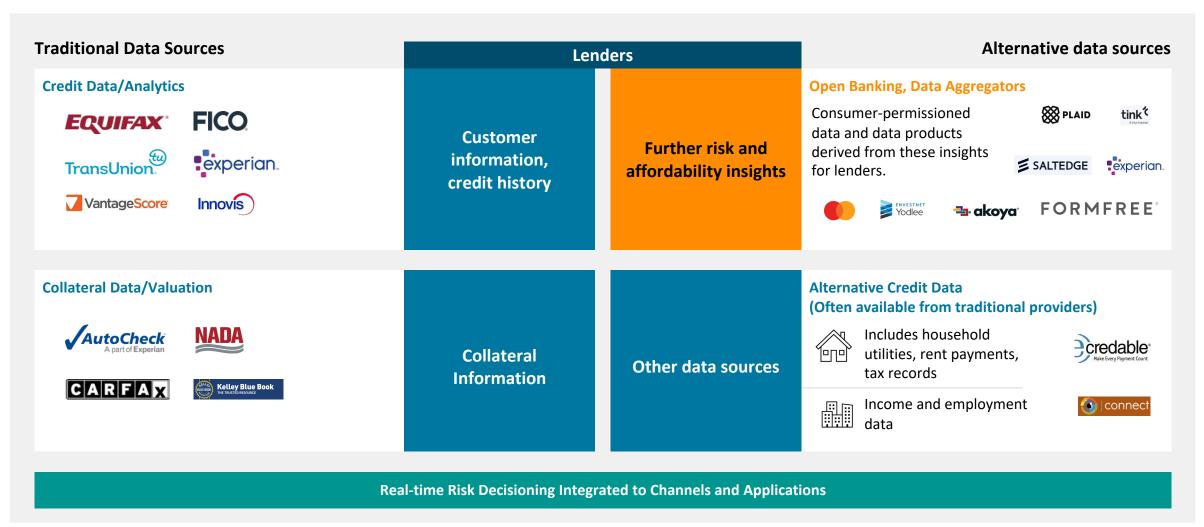
- 56% For connecting to banks balances/transaction detail
- 37% For connecting to banks for payments
- 19% To connect to information/data providers



Source: *Treasury Technology Survey Report, Strategic Treasurer, Celent research

ALTERNATIVE DATA LANDSCAPE FOR CONSUMER PERMISSIONED DATA IN LENDING

AND INTEGRATED REAL-TIME RISK DECISIONING



Source: Celent

IMPACT OF OPEN MARKET, THEN SUPERVISION, NOW POLICY

Regulators catch up to market-driven ecosystem innovation

Regulators looking over the shoulders of U.S. banks

- September 2022 OCC "Office of Innovation" to ensure that ecosystem innovation occurs within a framework overseen by the OCC
- August 2023 The Federal Reserve announced the <u>Novel</u>
 <u>Activities Supervision Program</u> includes "complex,
 technology-driven partnerships with non-banks...."

Personal Financial Data Right







By expanding our aperture, engaging more substantively with nonbank technology firms, and mapping out bank—fintech relationships and risks, we can help ensure that banking remains trusted and safe, sound, and fair as the system evolves."

Michael Hsu, Acting Comptroller, OCC, 2022¹

Commonly referred to as "1033"

- Deliver a mandatory framework for open banking in the U.S.
- Require fee-free access to a range of data fields
- Focus fintech solutions on new "open banking" standards intended to benefit smaller banks
- Big banks are pushing back asking for tighter data standards for fintechs

CULTURAL CONSIDERATIONS IN A FINTECH PARTNERSHIP PRODUCT MANAGERS MUST ALSO BE PARTNER MANAGERS

Ask some tough questions... Adopt a "partnership mindset"... **Cultural Alignment Business Development Client Servicing Technology and Operations** Licensing and commercial terms Client onboarding Technical capabilities/skills Product roadmap obligations Help and support services IP ownership Issue triage and resolution Operational service level agreements Marketing expectations

Source: Celent

Sales coordination

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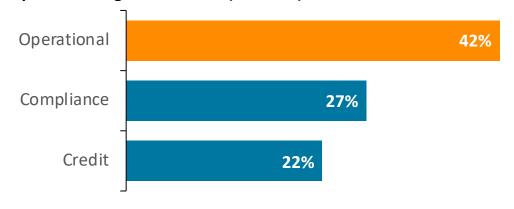
Risk and compliance responsibilities

BANKS NEED TO REMAIN DILIGENT IN APPROACHING FINTECH PARTNERSHIPS...

The OCC highlights the need for increased risk management across open banking operations:

- Cybersecurity
- Innovation
- Third Party Risk

Top three categories of MRA (Q3 2023)



Source: Celent analysis, OCC Semi-annual Risk Perspective, Fall 2023

Strengthening fintech partner strategies:

New risks have emerged in addition to a continued high-scrutiny regulatory backdrop

Risks	Fintechs come and go, bought and sold	Fintech partner concentration risk	Partnerships vs. vendor management
Best Practices	Inspection of funding, cash horizon, growth, path to profit	Regularly model an unwind event to evaluate client impact	Support risk partners with knowledge and benefit-focus

Source: Celent's Navigating Turbulence Symposium, conversations with three tier-1 banks, May 2023

Fintech-related questions are taking up a greater share of auditor focus than many other risk categories now. For smaller FIs, fintech partnership questions could be a greater focus than interest rate risk.

FASTER, SAFER, SMARTER

Four keys to open banking innovation



Banking technology has changed – perhaps forever

The ecosystem is becoming increasingly open. Each bank needs to determine what role they want to play, and what the **right strategy** is for them.



Connected data is a competitive advantage

APIs are the connective glue. Enhance data richness, quality, and accessibility to maximize data value and use of AI.



Use cases and partnerships

Identify priority use cases and choose partners carefully. Cultural fit and soundness matter.



Banks must still behave like banks!

Third party partnerships extend banking capability – but do not replace operational and compliance accountability.





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RETAIL BANKS WILL INNOVATE ACROSS A RANGE OF USE CASES IN 2023-24



Example banks with live products/services	Example propositions	
ABN·AMRO Nordeo BARCLAYS	Account aggregationPFM/financial insights	
AMERICAN mastercard	Customer and account verificationDigital verification of account history	
NatWest JPMorgan Chase & Co.	 Bill payments via ACH/ domestic payment infra Invoice workflow for business clients 	
BNY MELLON BNP PARIBAS HSBC	 Payment acceptance for digital or physical merchants 	
& Santander	Digital loan applicationsCredit risk or affordability assessments	
standard BBVA DBS	 Capabilities for partners to embed bank services Full partnership model/capabilities 	

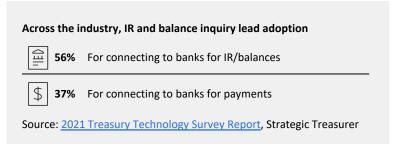
Emerging Use Cases for Open Banking/Finance



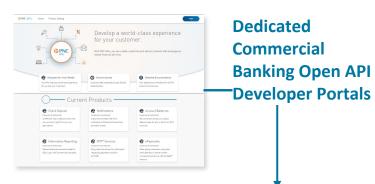
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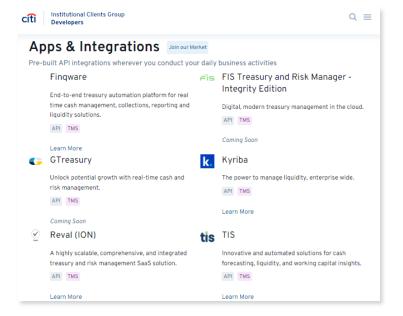
THE EVOLUTION OF CORPORATE BANKING APIS



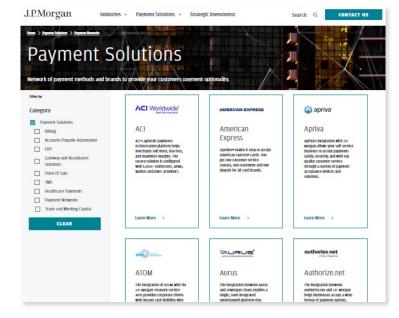




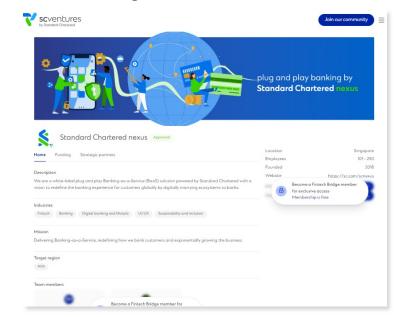
For Corporate Clients: Prebuilt ERP/TMS Integration



For Partners: Third Party App Store



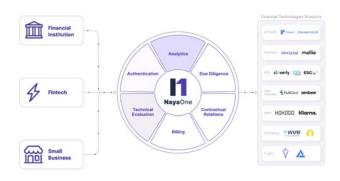
For Marketplaces: B2B2C Banking as a Service



... AND SHOULD EXPLORE A GROWING RANGE OF SOLUTIONS AIMED AT HELPING SCALE EMBEDDED FINANCE

NayaOne

- · Digital transformation platform
- Discover fintech marketplace
- Evaluate digital sandbox to try out APIs
- Scale connect once to access multiple capabilities



weavr

- Embedded finance cloud: unified orchestration platform to support multiple programs between banks and brands
- Financial plug-ins for "embedders", "compliance-as-aservice"

Embedded Finance Cloud

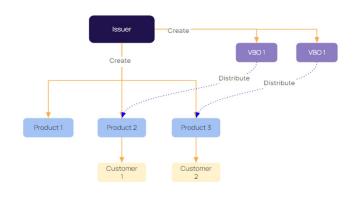
Supercharge your bank's digital distribution

Our proven embedded finance technology for banks offers product and innovation teams controlled access to new markets. With a safe and transparent platform, your financial institution can create embeddable financial products for any digital business to deploy.



zeta

- Zeta Tachyon offers multilevel, multi-tenant construct called Virtual Bank Operators (VBOs)
- Issuers can assign a preconfigured product to a VBO and enable them to distribute and embed this product within their apps and experiences



VESTIGO

CARDS & PAYMENTS

- Configurable system enabling customization of partnership relationships
- New partner can be onboarded within hours
- Automated handling of commercial relationship with partners, e.g., revenue sharing

Core products

- Revolving credit card
- Debit card
- Prepaid card
- BNPL
- Consumer loan
- Bank account product
- Account-to-account payments
- .

Partner-level configurations

(Roles & Responsibilities)

Partner Group and sub-partner structure

Core products in scope and their configuration if required (fees, interest,

Commercials between bank and partner: .

Key partnership contract terms + reminders:

Onboarding process:

KYC (performed by bank or partner)

Risk assessment (bank or partner)

Risk allocation (partner guarantee)

r tion anocation (par

Servicing process:

Contact management (bank or partner)

Managing customer contract details (bank or partner)

Outhound communication:

Partner employees (commission plan, user rights, etc.): .. Integration model (APIs): ...

Source: company websites, Celent research