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Technology-fueled Breakthroughs Enabled by Policy Environment Developments

SPEAKERS FROM:

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Today's Speakers



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Agenda

- I. Introduction
- II. Overview
- III. Fintech Licensing Options
- IV. Bank-Fintech Partnerships
- V. Applying Technology to Highlight Financial Risk

Key Attributes of Main Fintech Licensing Options

Factors	Traditional Options		Emerging Possibilities	
	<u>Conventional Bank</u>	<u>State Non-Bank Licenses</u>	<u>OCC Fintech</u>	<u>ILC</u>
BHC Applicability	Y	N	N	N
Licenses Needed	Single	State-by-State	Single	Single
Geographic Scope	Nationwide	State-by-State	Nationwide	Nationwide
Deposit Funding	Y	N	N	Mostly
Preemption from State Laws	Y	N	Y	Moderate
Rate Exportation	Y	N	Y	Y
Capital Expectations	Based on U.S. Basel III rule	Much less than for conventional banks	Greater than for conventional banks	Greater than for conventional banks
Approval Likelihood	Known	Known	Very Uncertain	Uncertain

Select ILC and Fintech Charter Details

Emerging Possibilities		
<u>Factors</u>	<u>OCC Fintech</u>	<u>ILC</u>
Deposit Funding	<p>Not allowed</p> <p>Reliant on wholesale funding, posing liquidity risk</p>	<p>May accept any type of deposit except demand deposits</p> <p>Viable option for raising deposits online</p> <p><i>Caveat:</i> FDIC resistance to heavy reliance on non-core deposits</p>
Approval Prospects	<p>No applications submitted yet</p> <p>OCC has no track record of approving or setting conditions of approval</p> <p>Legal uncertainty of pending state regulator lawsuits</p>	<p>Historically very controversial, due primarily to risks and perceived unfairness of BHC exemption</p> <p>None approved since 2008</p> <p>Last formal moratorium expired 2013</p> <p><i>Caveat:</i> Opposition traditionally fiercest to purely commercial firms (e.g., Walmart); may be blunted for fintech firms like Square</p>

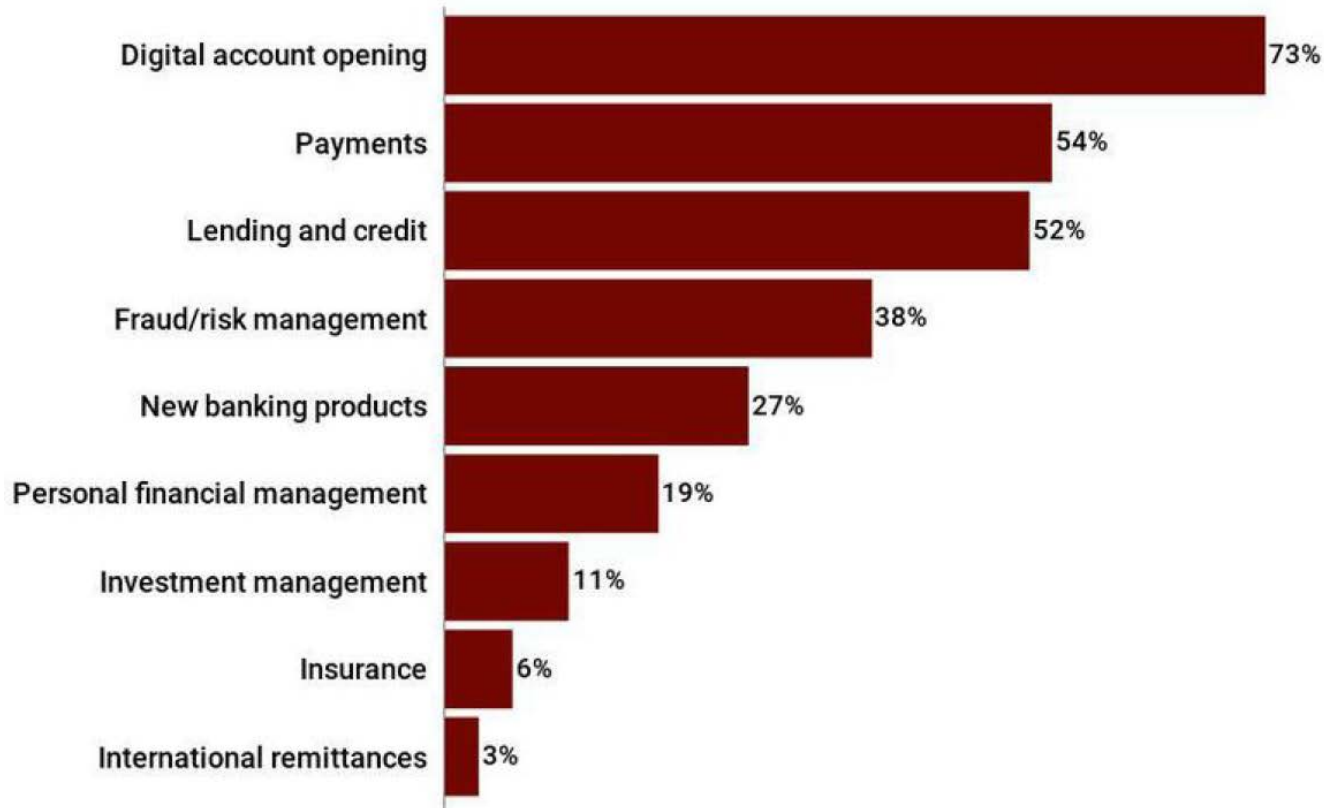
Select Regulatory Impacts of OCC fintech/ILC charters

- Bank Capital
 - Regulators (OCC or FDIC) expected to require banks with OCC fintech or ILC charter to maintain even more capital than typical de novo conventional banks
 - De novos typically expected to hold somewhat more than the effective minimum capital requirements for U.S. banks (CET1 capital ratio of 7%, T1 capital of 8.5%, Total capital of 10.5%, T1 leverage ratio of 4%)
 - Open question: How will regulators determine capital expectations for fintechs whose primary risk is operational, not balance sheet risks (credit, market, liquidity)?
- Corporate Group Impacts
 - Volcker Rule restrictions on proprietary trading and owning/sponsoring hedge or PE funds
 - Bank's parent expected to serve as source of financial and managerial strength, and provide capital and liquidity support if needed
 - Bank's parent expected to build an enterprise-wide infrastructure to support global compliance (e.g., regulatory and risk reporting)
 - Parent and affiliates exposed to bank regulatory enforcement actions

Bank-Fintech Partnerships – Areas of Focus

Top Bank/Fintech Partnerships Areas of Focus

(% of banks citing area of focus as "very important" to their fintech partnership strategies)

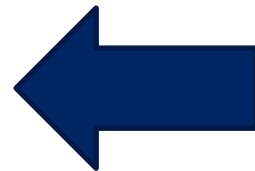
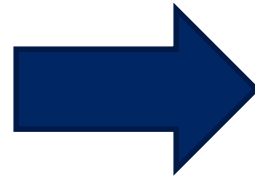


Source: Cornerstone Advisors, *What's Going On in Banking*, 2019

Bank-Fintech Partnerships - Rationale

Fintechs

- Ability to offer banking products and services without obtaining bank licenses or maintaining required bank capital, liquidity, and risk infrastructure
- Enhanced visibility and legitimacy through association with established brand name
- Access to bank distribution networks and customer bases, creating opportunity to achieve economies of scale
- Access to bank expertise on banking markets, regulations, and risk



Banks

- Specialized technology expertise and cultures of innovation
- Ability to deploy cutting-edge solutions to:
 - Expand product and service offerings
 - Streamline processes
 - Enhance customer experience
 - Improve risk management
 - Increase revenues

Bank-Fintech Partnerships – Regulatory Environment

Past Perceptions

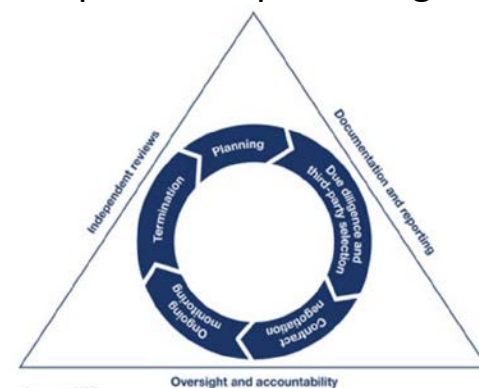
- Bank view that regulatory posture and guidance prohibited bank-fintech partnerships
- Similar perception from bank examination staff

Current Expectations

- Regulators have clarified that fintech partnerships are like any other partnership – subject to risk-based third-party risk management (“TPRM”)
- TPRM is more extensive for more risky relationships, such as those involving critical activities
 - E.g., Payments, clearing, settlements, custody, and information technology
- Expectation that banks will perform oversight during all stages of the fintech partnership lifecycle
- Clarified regulatory expectations result in an easier path for bank-fintech partnerships moving forward

Remaining Challenges

- TPRM dynamic limits the fintech’s ability to innovate
- Lack of resources and expertise within banks to conduct TPRM activities



Source: OCC

Bank-Fintech Partnerships – Lending Partnerships

Key Features

- Non-bank lender solicits borrowers, collects application information, conducts underwriting, and provides a complete loan application to the bank
- Bank makes the final credit decision and originates the loan
- Bank sells the loans to the non-bank, who may then collect interest income in excess of otherwise applicable usury limitations

Recent Developments

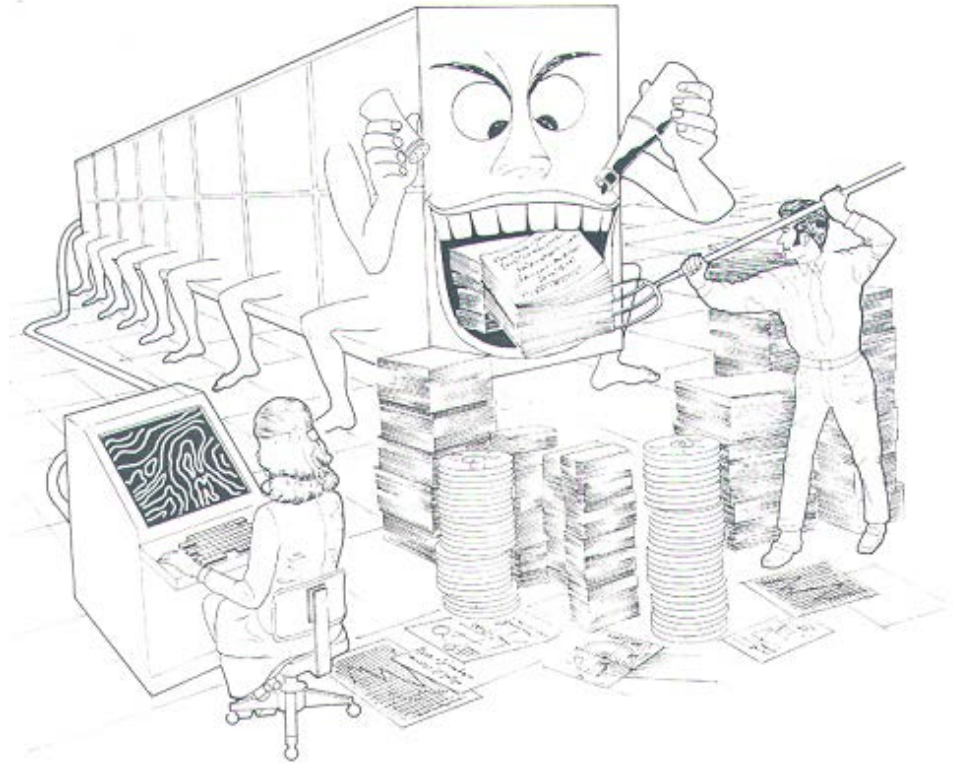
- Federal court decisions in *Madden v. Midland Funding, LLC*
 - Questions viability of traditional lending partnerships, despite other federal jurisdictions upholding the practice
- Regulators have expressed concerns over lending partnerships designed primarily to evade state licensing and usury laws, resulting in heightened pressure and scrutiny
- Protecting Consumers' Access to Credit Act
 - Congress attempting to alleviate uncertainty by codifying “valid-when-made” doctrine

"AI" – Find what a human cannot

- Artificial Intelligence
- Machine Learning
- "Cognitive"



- Speed
- Math
- Data



Data Analysis Example of computers interpreting changes in datasets:

Edge Detection – Find the edges and create an outline



Keep in mind the use of these algorithms to show trends and patterns to help magnify risk

Data Analysis Example of computers interpreting changes in datasets:

Edge Detection – Find the edges and create an outline

$$\frac{\partial^2}{\partial^2 y} G_\sigma(x, y) = \frac{y^2 - \sigma^2}{\sigma^4} e^{-(x^2 + y^2)/2\sigma^2}$$

Data Analysis Example: Edge Detection



Data Analytics Example: Edge Detection



Emerging Tech

Now that you're going to buy Color TV.. why not get the best

Chances are, this is the year you're going to buy a Color TV. How can you be sure the Color TV you buy will give your family years of trouble-free performance? Insist on Zenith quality. Don't settle for less than Zenith Handcrafted Color TV.

Every connection in the famous Zenith Color Chassis is carefully Handcrafted for unrivaled dependability and fewer service problems. There are no printed circuits, no production shortcuts.

Zenith's exclusive Super Gold Video Guard Tuner—with over a hundred corrosion-resist-

ant 15-carat gold-filled contacts—provides ultra-sensitive reception and longer TV life.

And Zenith Color cabinetry is authentically styled in exquisite period designs, crafted from fine veneers and hardwood solids, to create the enduring beauty of fine furniture.

But don't just take our word for it. Ask anyone about Zenith. You'll discover we have the reputation for making the finest Color TV you can buy. For at Zenith, *the quality goes in before the name goes on.*

Featuring above, the Stockbridge, Early American styling, Model X6347M. Lower left, the Lagan, Danish Modern styling, Model X6641M.

ZENITH The Handcrafted Color TV

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THANK YOU!