The Glenbrook Team

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Survey Methodology
The Faster Payments Barometer is an annual quantitative survey

- Designed as a longitudinal study – anchor questions year over year + new questions annually
- Wide distribution – Glenbrook, FPC and FPC-Member organizations; active social media campaigns by Glenbrook and the FPC
- Survey has received broad coverage across industry stakeholder groups including those deeply involved in “faster” as well as the general payments professional

<table>
<thead>
<tr>
<th>Fall 2019</th>
<th>Fall 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Foundational.</strong> Established a baseline “state of the industry” perspective</td>
<td><strong>Exploratory.</strong> Measure industry progress and perceptions, and delve into specific use cases and trends</td>
</tr>
<tr>
<td><strong>Components.</strong> Criteria and features for a U.S. based faster payments system, barriers to adoption and market adoption progress</td>
<td><strong>Components.</strong> Use case applications, their systems and challenges, as well as industry challenges preventing broader market adoption</td>
</tr>
</tbody>
</table>
Survey Demographics
Survey drew similar response rates by segment in 2019 and 2020

How would you describe the organization that you work for?

<table>
<thead>
<tr>
<th>Segment</th>
<th>2019 (n = 735)</th>
<th>2020 (n = 606)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FI</td>
<td>27%</td>
<td>26%</td>
</tr>
<tr>
<td>Network</td>
<td>11%</td>
<td>10%</td>
</tr>
<tr>
<td>Business</td>
<td>14%</td>
<td>16%</td>
</tr>
<tr>
<td>Facilitator</td>
<td>22%</td>
<td>19%</td>
</tr>
<tr>
<td>Association</td>
<td>6%</td>
<td>6%</td>
</tr>
<tr>
<td>Consultant</td>
<td>14%</td>
<td>16%</td>
</tr>
<tr>
<td>Other</td>
<td>7%</td>
<td>6%</td>
</tr>
</tbody>
</table>

@Glenbrook Partners 2020
Balanced representation of FPC membership segments among FIs

What type of financial institution do you work for?

- Bank: 93%
- Credit Union: 7%

Please select which of the following is closest to your organization’s gross annual revenue.

- N/A
- > $5B: 36%
- $100M - $5B: 25%
- < $100M: 38%

n = 160
Majority of business end-user respondents represent retail, consumer-focused segments

Which of the following best describes the principal industry of your organization?

- Retail & Consumer Durables: 38%
- Food & Beverages: 14%
- Telecommunications, Technology, Internet & Electronics: 11%
- Entertainment & Leisure: 8%
- Finance & Financial Services: 5%
- Government: 3%
- Transportation & Delivery: 3%
- Other: 18%

n = 96
Survey Results: Current State
Time in market and adoption continue to be strongly correlated

What faster payments system(s) does your organization use/enable today in the U.S. market? Select all that apply.

- Same Day ACH
- Digital wallets (e.g. Venmo, PayPal, Google Pay)
- Zelle®
- Push-to-card (e.g. Mastercard Send, Visa Direct)
- The Clearing House RTP
- Other
- None

n = 500
Adoption momentum is evident – among FIs at a greater rate than businesses

What faster payments system(s) does your organization use/enable today in the U.S. market? Select all that apply.

- Same Day ACH: 82% (FI), 31% (Business)
- Digital wallets: 45% (FI), 48% (Business)
- Zelle®: 51% (FI), 6% (Business)
- Push-to-card: 32% (FI), 17% (Business)
- The Clearing House RTP: 39% (FI), 7% (Business)
- None: 33% (FI), 4% (Business)

*Top 3 YoY increase

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Respondents that have not yet implemented the following faster payments systems show interest in adoption moving forward

Is your organization currently planning to implement each of the following faster payments systems?*

- FedNow™ (n = 403) 38%
- Same Day ACH (n = 193) 34%
- Digital wallets (n = 236) 32%
- Push-to-card (n = 307) 26%
- The Clearing House RTP (n = 322) 25%
- Zelle® (n = 281) 18%

*Respondents were only asked about faster payments systems not already implemented

@Glenbrook Partners 2020
Not surprisingly, FI and business preferences differ by system.

Is your organization currently planning to implement each of the following faster payments systems?*

<table>
<thead>
<tr>
<th></th>
<th>FI (n = 124)</th>
<th>Business (n = 75)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FedNow℠</td>
<td>68%</td>
<td>15%</td>
</tr>
<tr>
<td>Same Day ACH</td>
<td>14%</td>
<td>20%</td>
</tr>
<tr>
<td>Digital wallets</td>
<td>18%</td>
<td>24%</td>
</tr>
<tr>
<td>Push-to-card</td>
<td>25%</td>
<td>12%</td>
</tr>
<tr>
<td>The Clearing House RTP</td>
<td>27%</td>
<td>12%</td>
</tr>
<tr>
<td>Zelle®</td>
<td>20%</td>
<td>9%</td>
</tr>
</tbody>
</table>

*Respondents were only asked about faster payments systems not already implemented.
Among respondents planning to implement at least one (new) system, implementation is expected within a relatively short timeframe

<table>
<thead>
<tr>
<th>System</th>
<th>Less than 1 year</th>
<th>1-2 years</th>
<th>3-4 years</th>
<th>5 or more years</th>
<th>I'm not sure</th>
</tr>
</thead>
<tbody>
<tr>
<td>FedNowSM</td>
<td>9%</td>
<td>37%</td>
<td>41%</td>
<td>11%</td>
<td>6%</td>
</tr>
<tr>
<td>Same Day ACH</td>
<td>9%</td>
<td>37%</td>
<td>49%</td>
<td>11%</td>
<td>6%</td>
</tr>
<tr>
<td>Digital wallets</td>
<td>11%</td>
<td>47%</td>
<td>49%</td>
<td>6%</td>
<td>9%</td>
</tr>
<tr>
<td>Push-to-card</td>
<td>6%</td>
<td>36%</td>
<td>49%</td>
<td>5%</td>
<td>6%</td>
</tr>
<tr>
<td>The Clearing House RTP</td>
<td>6%</td>
<td>30%</td>
<td>58%</td>
<td>5%</td>
<td>5%</td>
</tr>
<tr>
<td>Zelle®</td>
<td>43%</td>
<td>52%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

n = 224

@Glenbrook Partners 2020
Despite the challenges of the pandemic, more than half of all respondents intend to move forward with implementation.

How has COVID-19 impacted your organization’s decision to pursue implementation of faster payments?

- It has delayed my organization’s plans
- It has accelerated my organization’s plans
- It has had no impact on my organization’s plans

n = 375
75% of respondents view faster payments as important, but we observe differences in relative priority among stakeholder groups...

Do you consider faster payments to be a “must have” for your organization?

<table>
<thead>
<tr>
<th>Stakeholder Group</th>
<th>Yes (%)</th>
<th>No (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FI</td>
<td>90%</td>
<td>10%</td>
</tr>
<tr>
<td>Network</td>
<td>95%</td>
<td>5%</td>
</tr>
<tr>
<td>Business</td>
<td>63%</td>
<td>37%</td>
</tr>
<tr>
<td>Facilitator</td>
<td>83%</td>
<td>17%</td>
</tr>
<tr>
<td>Association</td>
<td>60%</td>
<td>40%</td>
</tr>
</tbody>
</table>

n = 353
...FIs are driven by customer and competitive demands, whereas businesses view faster payments as a “nice to have,” but not urgent

- “We need to implement fast payments to maintain relevance.”
- “It's past time banking catch up to today's technology and consumer expectations established by Amazon, Apple, Netflix, etc.”
- “Traditional payment lifecycles are no longer acceptable and fintech growth demonstrates the market's appetite.”
- “Banks cannot let Google and Amazon become payment processors.”

- “Important and useful, but not essential.”
- “We can operate fine without it, but it would be nice to have.”
- “We do not yet have the customer need or internal urgency for faster payments.”
- “Our business is focused on convenience, so when it's ubiquitous, then we may consider additional implementations.”
Today’s use cases

<table>
<thead>
<tr>
<th>System</th>
<th>Financial Institutions</th>
<th>Businesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Same Day ACH</td>
<td>Payroll</td>
<td>Disbursements</td>
</tr>
<tr>
<td></td>
<td>Disbursements</td>
<td>Bill payment</td>
</tr>
<tr>
<td></td>
<td>Treasury</td>
<td>Payroll</td>
</tr>
<tr>
<td>TCH RTP</td>
<td>Disbursements</td>
<td>Disbursements</td>
</tr>
<tr>
<td></td>
<td>Payroll</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Treasury</td>
<td></td>
</tr>
<tr>
<td>Zelle®</td>
<td>P2P</td>
<td>[Insufficient data]</td>
</tr>
<tr>
<td></td>
<td>Disbursements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>A2A</td>
<td></td>
</tr>
<tr>
<td>Push-to-card</td>
<td>Disbursements</td>
<td>Disbursements</td>
</tr>
<tr>
<td></td>
<td>P2P</td>
<td>eCommerce</td>
</tr>
<tr>
<td></td>
<td>Refunds</td>
<td>Bill payment</td>
</tr>
<tr>
<td>Digital wallets</td>
<td>POS</td>
<td>eCommerce</td>
</tr>
<tr>
<td></td>
<td>eCommerce</td>
<td>POS</td>
</tr>
<tr>
<td></td>
<td>P2P</td>
<td>Merchant settlement</td>
</tr>
</tbody>
</table>

Which of the following use cases is your organization using/enabling each faster payments system for today? Select the top three.
## Tomorrow’s use cases

<table>
<thead>
<tr>
<th>System</th>
<th>Financial Institutions</th>
<th>Businesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Same Day ACH</td>
<td>Bill payment&lt;br&gt;Payroll&lt;br&gt;P2P / A2A</td>
<td>Bill payment&lt;br&gt;POS&lt;br&gt;eCommerce / Treasury</td>
</tr>
<tr>
<td>TCH RTP</td>
<td>Disbursements&lt;br&gt;Payroll&lt;br&gt;Bill payment</td>
<td>Disbursements&lt;br&gt;Bill payment</td>
</tr>
<tr>
<td>Zelle®</td>
<td>P2P&lt;br&gt;Disbursements&lt;br&gt;eCommerce / A2A</td>
<td>Refunds&lt;br&gt;Disbursements / eCommerce</td>
</tr>
<tr>
<td>Push-to-card</td>
<td>Disbursements&lt;br&gt;Refunds&lt;br&gt;POS</td>
<td>Disbursements&lt;br&gt;Payroll</td>
</tr>
<tr>
<td>Digital wallets</td>
<td>P2P&lt;br&gt;Bill payment&lt;br&gt;POS</td>
<td>POS&lt;br&gt;eCommerce&lt;br&gt;Bill payment</td>
</tr>
<tr>
<td>FedNow℠</td>
<td>Disbursements&lt;br&gt;Payroll&lt;br&gt;Bill payment</td>
<td>B2B&lt;br&gt;eCommerce&lt;br&gt;Disbursements</td>
</tr>
</tbody>
</table>

Which of the following use cases is your organization using/enabling each faster payments system for today? Select the top three.
Survey Results: Adoption Barriers
The top three challenges to faster payments adoption remain largely unchanged since last year

<table>
<thead>
<tr>
<th>Challenge</th>
<th>Financial Institution (n = 103)</th>
<th>Business (n = 65)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Existing faster payments systems have not yet reached ubiquity and do not interoperate with one another</td>
<td>55%</td>
<td>35%</td>
</tr>
<tr>
<td>High upfront costs and complexity to implement (resources, operational changes, staffing, etc.)</td>
<td>55%</td>
<td>49%</td>
</tr>
<tr>
<td>Insufficient organizational buy-in / business justification / lack of end user demand</td>
<td>37%</td>
<td>49%</td>
</tr>
<tr>
<td>Insufficient readiness to manage risks in real-time transfers / operating environment</td>
<td>27%</td>
<td></td>
</tr>
<tr>
<td>Lack of common rules and standards</td>
<td>19%</td>
<td>18%</td>
</tr>
<tr>
<td>Lack of directory service(s)</td>
<td>17%</td>
<td>14%</td>
</tr>
<tr>
<td>Lack of support by providers (cores, facilitators, banks, etc.)</td>
<td>19%</td>
<td></td>
</tr>
<tr>
<td>Lack of educational materials on faster payment options</td>
<td>9%</td>
<td>17%</td>
</tr>
<tr>
<td>Challenges in maintaining accurate directory data</td>
<td>7%</td>
<td>9%</td>
</tr>
</tbody>
</table>

n = 375
Complexity and cost of integration remains a challenge for adoption and growth

Having implemented faster payments, what challenges or roadblocks have you faced (if any) as you try to scale the service?

- “{...} has an extended wait to get in their queue with our core provider.”
- “Our only roadblock to implementing {...} was that our core service provider was not ready.”
- “Integration and/or availability through bank vendor applications.”
- “As a payments aggregator, the biggest challenge is core systems integration with multiple providers.”
- “Technology costs and implementation prioritization.”
- “Technical lift required to get the faster payment up and running.”
- “Getting our IT staff knowledgeable in implementation and benefits of faster payments.”
- “Difficulty is doing the work to implement, which can mean a new POS integration. Once implemented, scaling is relatively easy.”
General agreement on fraud concerns among FIs and businesses

What types of fraud concern you the most in faster payments? Select up to three.

- **Synthetic identity / application fraud**: 37% (FI), 35% (Business)
- **Account takeover fraud**: 58% (FI), 52% (Business)
- **Transaction fraud (e.g. invoice fraud)**: 40% (FI), 43% (Business)
- **Money mule network fraud**: 37% (FI), 2% (Business)
- **Authorized push payment fraud (e.g. “granny” scams, fraud in the inducement)**: 38% (FI), 20% (Business)

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Strong alignment on effectiveness of multi-factor authentication for fraud prevention

Of the types of fraud your organization is most worried about, which of the following security practices are most effective in combating fraud in faster payments? Select all that apply.

- Multi-factor authentication
- Behavioral analytics
- Risk-based transaction limit
- Tokenization
- Analytics (e.g., velocity checks)
- Transactional level encryption
- Other
- I'm not sure

@Glenbrook Partners 2020
Those that have implemented faster payments are not seeing an overwhelming spike in fraud

Are you seeing an increase in fraud as a result of implementing faster payments?*

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
<th>I’m not sure</th>
</tr>
</thead>
<tbody>
<tr>
<td>FI</td>
<td>28%</td>
<td>53%</td>
<td>19%</td>
</tr>
<tr>
<td>Business</td>
<td>40%</td>
<td>58%</td>
<td>16%</td>
</tr>
<tr>
<td>Facilitator</td>
<td>26%</td>
<td>58%</td>
<td>16%</td>
</tr>
<tr>
<td>Association</td>
<td>46%</td>
<td>46%</td>
<td>8%</td>
</tr>
</tbody>
</table>

n = 248
*Question was only asked of respondents currently using faster payments
Survey Results: Concluding Thoughts
Cross-border faster payments strongly viewed as a priority use case
Larger FIs tend to be more interested in implementing cross-border faster payments than smaller ones

When should the U.S. implement cross-border faster payments beyond the existing cross-border models?

- Immediately, it's important to my organization
- In 2 years from now given growth opportunity
- In 5 years, there are more pressing priorities
- Within 10 years, not that important to my organization
- No need, my business is domestic only
- No need, my existing cross-border capability works in real time

<table>
<thead>
<tr>
<th></th>
<th>Total (n = 353)</th>
<th>FI (n = 99)</th>
<th>Business (n = 60)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Immediate</td>
<td>23%</td>
<td>12%</td>
<td>20%</td>
</tr>
<tr>
<td>In 2 years</td>
<td>35%</td>
<td>44%</td>
<td>28%</td>
</tr>
<tr>
<td>In 5 years</td>
<td>20%</td>
<td>26%</td>
<td>17%</td>
</tr>
<tr>
<td>Not important</td>
<td>7%</td>
<td>7%</td>
<td>13%</td>
</tr>
<tr>
<td>Domestic only</td>
<td>11%</td>
<td>10%</td>
<td>17%</td>
</tr>
<tr>
<td>Real time capability</td>
<td>4%</td>
<td>5%</td>
<td>5%</td>
</tr>
</tbody>
</table>
Solid increase in share of respondents that think U.S. is making progress towards faster payments adoption

In your opinion, is the U.S. making satisfactory progress toward faster payments adoption?

- "...Lack of universality and the various systems to settle payments really makes the goal of same day payments very difficult."
- “Merchants need a stronger voice to help formulate protocols.”
- “…the options that become ‘commercially viable’ must interoperate, even if it means leaving some revenue on the table.”
- “Although it could move faster, it is likely moving as quickly as it can given the demands on the various stakeholders.”
- “It's slow, but it is moving forward.”
- “While great progress ... there is still opportunity for the industry to work together to drive ubiquity and nationwide reach.”

n = 353
Progress is being made yet tempered by barriers

• There is strong interest in faster payments adoption across all U.S. systems
• Use cases are growing, with a clear desire to leverage faster payments for a broader set of use cases in future
• However, momentum requires an unrelenting focus on implementation and stakeholder collaboration
• Motivations and system preferences differ by stakeholder groups
• It takes a village...
Q&A

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Nicole Pinto | nicole@glenbrook.com
Thank You!

A recording of today’s webinar will be available in our FPC Member Portal and a survey about today’s event will be distributed this week.

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