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    - Enter participant code 6353 8019#

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**Need to update with correct information.**
Today’s speakers

Nancy Donahue

Catherine Thaliath
Retail Payments Risk Forum mission

*Detect and identify, assist and encourage*

- Identify what?
  - Risk in existing and emerging retail payments

- Help how?
  - Contribute to mitigating payment risks by:
    - Researching products, services, and systems
    - Collaborating with the industry
    - Convening

- **Take On Payments weekly blog**

- **Talk About Payments webinar series**

- **Retail Payments Risk Forum website**
In a given month, how many checks do you write?

A. 1-3  
B. 4-6  
C. 7-9  
D. 10 or more  
E. Who writes checks these days?
Consumer check use continues to decline in the U.S.

Source: 2009–18 Survey of Consumer Payment Choice
Have your check writing habits changed as a result of the coronavirus pandemic?

A. Yes
B. No
What did the payments landscape look like in 2018?

<table>
<thead>
<tr>
<th>Payment type</th>
<th>CAGR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Credit</td>
<td>9.9%</td>
</tr>
<tr>
<td>Nonprepaid debit</td>
<td>8.4%</td>
</tr>
<tr>
<td>Prepaid debit</td>
<td>7.1%</td>
</tr>
<tr>
<td>ACH</td>
<td>6.0%</td>
</tr>
<tr>
<td>Check</td>
<td>-7.2%</td>
</tr>
</tbody>
</table>

Trends based on annual number of payments from 2000 - 2018

Source: Federal Reserve Payments Study
2018 payments landscape (cont.)

Source: Federal Reserve Payments Study
2018 payments landscape (cont.)

Source: Federal Reserve Payments Study
CSS results at a glance

**Shares by number**

- 46.5% Payer checks paid, 53.5% Payee checks paid
- 34.0% Payer checks returned, 66.0% Payee checks returned

- 32.6% Payer checks paid, 67.4% Payee checks paid
- 30.3% Payer checks returned, 69.7% Payee checks returned

**Shares by value**

- 75.1% Payer checks paid, 24.9% Payee checks paid
- 75.8% Payer checks returned, 24.2% Payee checks returned

- 65.9% Payer checks paid, 34.1% Payee checks paid
- 76.1% Payer checks returned, 23.9% Payee checks returned

*Source: 2018 Check Sample Survey*
Results at a glance (cont.)

Average value

<table>
<thead>
<tr>
<th></th>
<th>Payer Checks paid</th>
<th>Payee Checks paid</th>
<th>Payer Checks returned</th>
<th>Payee Checks returned</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumer</td>
<td>$745</td>
<td>$1,136</td>
<td>$878</td>
<td>$1,368</td>
</tr>
<tr>
<td>Business</td>
<td>$2,577</td>
<td>$1,836</td>
<td>$3,507</td>
<td>$1,895</td>
</tr>
</tbody>
</table>

Median value

<table>
<thead>
<tr>
<th></th>
<th>Payer Checks paid</th>
<th>Payee Checks paid</th>
<th>Payer Checks returned</th>
<th>Payee Checks returned</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumer</td>
<td>$116</td>
<td>$165</td>
<td>$154</td>
<td>$174</td>
</tr>
<tr>
<td>Business</td>
<td>$357</td>
<td>$236</td>
<td>$504</td>
<td>$355</td>
</tr>
</tbody>
</table>

Source: 2018 Check Sample Survey
What is the CSS?

- Conducted since 2001
- Seeks to understand check use by U.S. businesses and consumers and for what purpose
- Based on forward and return checks processed in 2018 by the Federal Reserve
- 2018 study included return checks for the first time
How was the CSS conducted?

**Sample selection**

**Forward: 3-step process**

1. On each business day, 20 cash letter files were randomly selected.
2. Checks were randomly selected each month from the daily set-asides, yielding 21,500 items monthly.
3. At the end of the 12-month period, a random sample of 55,000 checks was then selected for analysis.

**Return: 2-step process**

1. On each business day, 4 return cash letter files were randomly selected.
2. At the end of the 12-month period, a random sample of 10,000 checks was then selected for analysis.
How was the CSS conducted?

*Check interrogation*

Each check is reviewed by up to three investigators who answer objective and subjective questions about the content of the checks through survey questionnaires.

**Long survey:**
- 26 questions
- Seeks objective facts about the check
- Asks for investigator’s subjective opinion of the payer, payee, and purpose

**Short survey:**
- 4 questions, which are also included in long form
- Asks for investigator’s subjective opinion of the payer, payee, and purpose

**Reconcile survey:**
- Same questionnaire as short survey
- Only used *if any* of the answers to the common questions between the long and short survey do not match
How was the CSS conducted?

Check categorization

<table>
<thead>
<tr>
<th>Purpose</th>
<th>Counterparty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bill</td>
<td>B2B</td>
</tr>
<tr>
<td>Point of sale (POS)</td>
<td>B2B, C2B</td>
</tr>
<tr>
<td>Indeterminate</td>
<td>B2B, C2B</td>
</tr>
<tr>
<td>Income</td>
<td>B2C</td>
</tr>
<tr>
<td>Casual</td>
<td>C2C</td>
</tr>
</tbody>
</table>
Checks paid

- Checks written, collected, and paid as checks
- Also known as forward checks
Nearly 60 percent of forward checks were for bill payments

**Shares by number**

- **C2B**
  - Bill, 33.9%
  - POS, 2.9%
  - Indeterminate, 2.9%

- **B2B**
  - Bill, 24.3%
  - POS, 1.1%
  - Indeterminate, 0.8%

- **B2C**
  - Income, 20.3%

- **C2C**
  - Casual, 13.7%

Source: 2018 Check Sample Survey
By value, bill payment checks represented three-fourths

**Shares by value**

<table>
<thead>
<tr>
<th>To Consumer</th>
<th>To Business</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>B2C</strong></td>
<td><strong>C2B</strong></td>
</tr>
<tr>
<td>Income, 17.7%</td>
<td>Bill, 17.2%</td>
</tr>
<tr>
<td>Casual, 6.5%</td>
<td>Indeterminate, 0.9%</td>
</tr>
<tr>
<td>POS, 0.3%</td>
<td>POS, 0.3%</td>
</tr>
</tbody>
</table>

**B2B**

Bill, 55.8%
Indeterminate, 1.3%

Source: 2018 Check Sample Survey
Casual payments have the highest median value of checks written by individuals

**Business is payer**

- Bill: Average $3,673, Median $420
- POS: Average $455, Median $23
- Indeterminate: Average $2,377, Median $362
- Income (B2C): Average $1,389, Median $328

**Consumer is payer**

- Bill: Average $809, Median $119
- POS: Average $165, Median $45
- Indeterminate: Average $510, Median $72
- Casual (C2C): Average $760, Median $140

Source: 2018 Check Sample Survey
Checks returned

- Unpaid checks the paying bank returns to the depositing bank
Much like checks paid, bill checks represented the majority of returns…

*Shares by number*

<table>
<thead>
<tr>
<th>To business</th>
<th>C2B</th>
<th>B2B</th>
<th>Indeterminate, 1.5%</th>
<th>POS, 1.0%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bill, 15.5%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>To consumer</th>
<th>C2C</th>
<th>B2C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Casual, 15.7%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Source: 2018 Check Sample Survey*
…and also by value

**Shares by value**

- **B2B**
  - Bill, 48.0%
  - POS, 1.6%
  - Indeterminate, 3.7%

- **C2B**
  - Bill, 21.1%
  - POS, 0.9%
  - Indeterminate, 1.0%

- **B2C**
  - Income, 12.7%

- **C2C**
  - Casual, 11.2%

Source: 2018 Check Sample Survey
The median value of a casual returned check is nearly double that of bill

<table>
<thead>
<tr>
<th></th>
<th>Bill</th>
<th>POS</th>
<th>Indeterminate</th>
<th>Income (B2C)</th>
<th>Bill (POS)</th>
<th>Indeterminate</th>
<th>Income (B2C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Casual (C2C)</td>
<td>$5,366</td>
<td>$2,652</td>
<td>$4,329</td>
<td>$1,506</td>
<td>$863</td>
<td>$277</td>
<td>$436</td>
</tr>
<tr>
<td>Average</td>
<td>$692</td>
<td>$257</td>
<td>$680</td>
<td>$410</td>
<td>$149</td>
<td>$58</td>
<td>$88</td>
</tr>
<tr>
<td>Median</td>
<td>$692</td>
<td>$257</td>
<td>$680</td>
<td>$410</td>
<td>$149</td>
<td>$58</td>
<td>$88</td>
</tr>
</tbody>
</table>

Source: 2018 Check Sample Survey
Why do checks get returned?  
Mostly, it’s NSF

**Shares by number**

- NSF: 67.2%
- Stop payment and similar: 21.2%
- Possible fraud: 10.2%
- All other: 0.8%

**Shares by value**

- NSF: 50.7%
- Stop payment and similar: 24.9%
- Possible fraud: 15.1%
- All other: 9.3%

*Source: 2018 Check Sample Survey*
Have you ever been a victim of check fraud?

A. Yes
B. No
“Refer to maker” was the most common reason for checks returned as possible fraud

*Shares by number*

- Refer to maker: 51.1%
- Altered/fictitious/suspected counterfeit: 21.2%
- Duplicate presentment: 15.1%
- Not authorized: 6.7%
- Suspected forgery
- Forged and counterfeit warranty breach
- Forged
- RCC warranty breach
- Warranty breach

*Source: 2018 Check Sample Survey*
Similar case by value

Shares by value

- Refer to maker: 43.5%
- Altered/fictitious/suspected counterfeit: 20.4%
- Duplicate presentment: 23.5%
- Not authorized: 9.9%
- Suspected forgery
- Forged and counterfeit warranty breach
- Forgery
- RCC warranty breach
- Warranty breach

Source: 2018 Check Sample Survey
Possible fraudulent income checks written by businesses to consumers were the most prevalent

Shares by number

- **B2B**: Bill, 14.2%; POS, 0.3%; Indeterminate, 0.2%
- **C2B**: Bill, 22.2%; POS, 1.9%; Indeterminate, 0.9%
- **B2C**: Income, 43.2%
- **C2C**: Casual, 17.2%

Source: 2018 Check Sample Survey
However, by value, almost two-thirds were bill

*Source: 2018 Check Sample Survey*
The average value of possible fraudulent bill checks written by businesses dwarfed others.

**Average value**

<table>
<thead>
<tr>
<th>Category</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bill</td>
<td>$10,084</td>
</tr>
<tr>
<td>POS</td>
<td>$147</td>
</tr>
<tr>
<td>Indeterminate</td>
<td>$277</td>
</tr>
<tr>
<td>Income (B2C)</td>
<td>$1,571</td>
</tr>
</tbody>
</table>

**Median value**

<table>
<thead>
<tr>
<th>Category</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bill</td>
<td>$409</td>
</tr>
<tr>
<td>POS</td>
<td>$110</td>
</tr>
<tr>
<td>Indeterminate</td>
<td>$113</td>
</tr>
<tr>
<td>Income (B2C)</td>
<td>$417</td>
</tr>
</tbody>
</table>

*Source: 2018 Check Sample Survey*
The median value of possible fraudulent consumer casual checks is nearly three times that of bill

**Average value**

- **Bill**: $840
- **POS**: $590
- **Indeterminate**: $2,492
- **Casual (C2C)**: $1,406

**Median value**

- **Bill**: $151
- **POS**: $61
- **Indeterminate**: $74
- **Casual (C2C)**: $445

*Source: 2018 Check Sample Survey*
Does your organization use Refer to Maker as a return reason for potentially fraudulent checks?
A. Yes
B. No
C. Unsure
What defines a remotely created check (RCC)?

**Shares by number**

- 6 in the MICR line: RCCs paid 1.0%, RCCs returned 3.3%
- 6 and signature authorization: RCCs paid 2.3%, RCCs returned 6.2%
- Signature authorization only: RCCs paid 96.7%, RCCs returned 90.4%

**Shares by value**

- 6 in the MICR line: RCCs paid 0.7%, RCCs returned 2.3%
- 6 and signature authorization: RCCs paid 2.9%, RCCs returned 4.9%
- Signature authorization only: RCCs paid 96.4%, RCCs returned 92.8%

*Source: 2018 Check Sample Survey*
By both number and value, consumer payers generate the lion’s share of RCCs.

**Shares by number**

- **C2B**: 78.9% returned, 76.1% paid
- **B2B**: 16.1% returned, 14.4% paid
- **C2C**: 4.3% returned, 6.7% paid
- **B2C**: 0.7% returned, 2.8% paid

**Shares by value**

- **C2B**: 58.6% returned, 52.3% paid
- **B2B**: 23.9% returned, 37.5% paid
- **C2C**: 15.4% returned, 4.5% paid
- **B2C**: 2.1% returned, 5.8% paid

Source: 2018 Check Sample Survey
The average and median values of C2C RCCs returned are four times that of forward items

**Average value**

<table>
<thead>
<tr>
<th>To consumer</th>
<th>RCCs returned</th>
<th>RCCs paid</th>
</tr>
</thead>
<tbody>
<tr>
<td>C2C</td>
<td>$422</td>
<td>$1,447</td>
</tr>
<tr>
<td>B2C</td>
<td>$436</td>
<td>$1,335</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>To business</th>
<th>RCCs returned</th>
<th>RCCs paid</th>
</tr>
</thead>
<tbody>
<tr>
<td>C2B</td>
<td>$382</td>
<td>$765</td>
</tr>
<tr>
<td>B2B</td>
<td>$1,650</td>
<td>$1,859</td>
</tr>
</tbody>
</table>

**Median value**

<table>
<thead>
<tr>
<th>To consumer</th>
<th>RCCs returned</th>
<th>RCCs paid</th>
</tr>
</thead>
<tbody>
<tr>
<td>C2C</td>
<td>$150</td>
<td>$656</td>
</tr>
<tr>
<td>B2C</td>
<td>$394</td>
<td>$401</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>To business</th>
<th>RCCs returned</th>
<th>RCCs paid</th>
</tr>
</thead>
<tbody>
<tr>
<td>C2B</td>
<td>$104</td>
<td>$104</td>
</tr>
<tr>
<td>B2B</td>
<td>$94</td>
<td>$366</td>
</tr>
</tbody>
</table>

Source: 2018 Check Sample Survey
RCCs represented a small share of possible fraudulent checks returned overall

**Shares by number**

- Conventional: 89.7%
- Remotely created: 10.3%

**Shares by value**

- Conventional: 98.0%
- Remotely created: 2.0%

*Source: 2018 Check Sample Survey*
Which of the following characteristics do you think best identifies an RCC?

A. #6  
B. #6 and signature  
C. Signature only  
D. A or B  
E. A or C  
F. All of the above
How is the CSS different this year compared to previous years?

**2018 study**

- Based on checks processed by the Federal Reserve System
  - This includes credit unions, savings institutions, and commercial banks, of all sizes and geographic locations
- Included transit items only; does not include “on-us” items
- Employed metadata produced through Fed check-processing for each item sampled
- All check analysis was performed by Fed consultants

**Previous studies**

- Based on checks processed by approximately 12 large commercial banks
- Included both transit and “on-us” items
- Likely included a greater number of corporate customers
- Metadata was employed when provided, although not fully available
- Some banks elected to perform their own check analysis
Questions or comments

- **Ask a question**
  - Click the **Ask Question** button in the webinar tool.

- **Email a question**
  - [rapid@stls.frb.org](mailto:rapid@stls.frb.org)

- **Contact today’s speakers**
  - [Nancy Donahue](mailto:Nancy.Donahue@stls.frb.org)
  - [Catherine Thaliath](mailto:Catherine.Thaliath@stls.frb.org)
Resources

- Check Sample Survey

- 2019 Federal Reserve Payments Study

- 2019 Survey of Consumer Payment Choice
Thank you for participating in today’s webinar

Please take a moment to complete the post-session participant survey, which will be sent via email.