WEBINAR: COVID-19 AND IMPACT ON THE US FINANCIAL SYSTEM – PAYMENTS

Changes in consumer spending, the impact on payments and card issuers, and the rise of BNPL (“Buy Now, Pay Later”)

June 3rd, 2020

Please note that this session was held at a particular point in time (Wednesday June 3, 2020, 4pm-5pm EDT), and in light of the rapidly evolving Covid-19 situation, it is possible these discussions are no longer accurate after that date.
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<td>Macroeconomic outlook</td>
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<td>Pulse on consumer spending – insights from Oliver Wyman’s weekly Shopping Outlook Survey</td>
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<td>COVID-19’s impact on payments and card issuers</td>
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<td>Buy Now, Pay Later landscape and perspectives</td>
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<td>Q&amp;A</td>
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OUR PANELISTS

Til Schuermann
Partner & Co-Head – Risk & Public Policy
New York

Beth Costa
Partner, Americas Payments Platform Lead
Pittsburgh

Howard Lapsley
Partner, Health and Life Sciences
Boston

Tony Hayes
Partner, Payments Team Leader
Boston

Russell Jones
Partner, Payments and Retail Banking
New York
EPIDEMIOLOGICAL UPDATE

Howard Lapsley
Partner, Health and Life Sciences
COVID-19 SPREAD GLOBALLY

As of June 1st, 2020
- >6.2 MM cases reported in 200 countries and territories
- ~374 K reported deaths

First reported in Wuhan, China, on December 31, 2019
Declared a global pandemic by the World Health Organization on March 11, 2020

1. Countries included: All Countries in “European Region” Sub-region in WHO Situation Report
Source: Map from CDC (link), Numbers from John Hopkins University & Medicine (link)
## AT A GLANCE: SUMMARY FACTS

<table>
<thead>
<tr>
<th>Key facts</th>
<th>Implications</th>
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<tbody>
<tr>
<td><strong>Contagion</strong></td>
<td></td>
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<tr>
<td>Initial estimates suggested COVID-19 R0 is between 2 and 3 (with edge of range estimates closer to 1.4 and 3.6), which means each person infects 2–3 others(^1); R0 for the seasonal flu is around 1.3(^4).</td>
<td>COVID-19 is at least twice as contagious as the seasonal flu.</td>
</tr>
<tr>
<td>New emerging estimates suggest R0 may be closer to 5.7 (edge of range 3.8–8.9)(^14).</td>
<td></td>
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<tr>
<td>Early evidence suggests COVID-19’s transmission is highly variable, with most infections resulting in no subsequent infections and a few resulting in many, which should color response(^17).</td>
<td></td>
</tr>
<tr>
<td><strong>Current human immunity</strong></td>
<td></td>
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<tr>
<td>No herd immunity exists yet as the virus is novel in humans.</td>
<td>Social distancing (quarantines, WFH, school closures) is the only “brake” to slow spread.</td>
</tr>
<tr>
<td><strong>Incubation period</strong></td>
<td></td>
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<tr>
<td>The incubation period is a median of 5.5 days (up to 14 days)(^1, 10); data suggests that viral shedding continues beyond symptom resolution(^6).</td>
<td>People are contagious for longer periods than the flu or other illnesses, requiring longer bouts of quarantine to suppress spread.</td>
</tr>
<tr>
<td><strong>Fatality</strong></td>
<td></td>
</tr>
<tr>
<td>Case fatality rates are trending at 6.0% globally(^2) (vs. 0.1% for flu)(^9).</td>
<td>Fatality is orders of magnitude higher than typical influenzas.</td>
</tr>
<tr>
<td>Estimates for infected fatality rate are 0.3%–1.3% based on assumptions around the number of undiagnosed individuals(^13).</td>
<td></td>
</tr>
<tr>
<td><strong>Portion of cases asymptomatic but contagious</strong></td>
<td></td>
</tr>
<tr>
<td>COVID-19 can be spread asymptomatically(^4).</td>
<td>People who feel “fine” are capable of – and are – transmitting COVID-19 to others.</td>
</tr>
<tr>
<td>In retrospective studies of those people tested and confirmed positive for COVID-19, experts estimate 18–30% are asymptomatic, with another 10–20% with mild enough symptoms to not suspect COVID-19(^11).</td>
<td></td>
</tr>
<tr>
<td>Early indicators from point in time comprehensive testing of small populations (e.g. Vo, Italy; Iceland) suggest as many as 50% of cases could be asymptomatic(^12).</td>
<td></td>
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<tr>
<td>In cohorts of younger individuals (e.g. pregnant woman, sailors on USS Theodore) the proportion of asymptomatics exceeded 60%(^15, 16).</td>
<td></td>
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<tr>
<td><strong>Portion of cases reaching “critical/”severe” infection</strong></td>
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<tr>
<td>Approximately 19% of confirmed cases are considered “severe” or “critical”, requiring hospitalization; 1/4th of those need ICU beds(^7).</td>
<td>Hospital systems risk being overtaxed (ICU beds, ventilators, PPE) meaning case fatality rates could rise further.</td>
</tr>
</tbody>
</table>

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### RECENT DEVELOPMENTS

#### Epidemiologic perspectives

- **Epicenter Shift:** Latin America has surpassed Europe and the United States in the daily number of reported COVID-19 infections; India is growing rapidly as well.
- **Infectious cycle:** Multiple new studies have helped to clarify the infectious cycle; supporting prior studies on asymptomatic transmission, but demonstrating that despite a long tail of RNA detection post symptom resolution, live virus cannot be cultured after day 11 of illness.
- **Protective immunity:** While multiple studies in recent weeks have documented seroconversion and presence of protective antibodies post infection, a recent study of other coronaviruses suggest protective immunity may only last ~6 months.

#### Suppression and road to reopening

- **Testing:** FDA issues multiple EUAs for at home collection kits this week and more new diagnostic technology is in development (e.g., University of Maryland ‘naked eye’ test); likely the tip of the iceberg of a new wave of tests that will come to market carrying the promise of faster and cheaper testing at scale.

#### Re-opening approach

- **Global reopening:** Reopening is proceeding across Europe and Asia, but not without bumps in the road – several countries have seen new case growth (Israel, S. Korea) requiring additional measures and re-closures; even ones that are proceeding smoothly (e.g., Germany) are remaining hyper vigilant and have plans in place for new measures if case growth exceeds thresholds.
- **US reopening:** All states have now reopened at least to some extent, though the hardest hit, densest MSAs remain closed. Several states are seeing renewed growth that cannot be solely explained by expanded testing; these areas must be watched closely and are at risk for further disruption.
- **US Protests:** Wide-spread protests surrounding the death of George Floyd risk becoming super-spreader events; dense MSAs that have been the sites of these protests are already high risk areas; new case growth must be monitored closely over the course of the coming 2 weeks.

#### Vaccines and therapeutics

- **Chloroquine:** WHO temporarily paused the Chloroquine arm of its Solidarity study following a key publication suggesting increased risk of death and heart arrhythmia associated with the drug.
- **Vaccines:** As manufacturers race to find a vaccine, a recent survey suggests that getting wide-spread uptake may pose a challenge; only 40% of adults under 60 said they plan to get vaccinated, with 35% unsure and 23% saying no. Particularly concerning is the fact that among those surveyed, individuals of Black and Hispanic ethnicity were much less likely to plan to get vaccinated (25% and 37% respectively vs 56% of White respondents) despite the fact that ethnic communities have been significantly more impacted by COVID-19.
AS GEOGRAPHIES RE-OPEN, WE ARE MONITORING A BROAD ARRAY OF DATA POINTS TO PREDICT REGIONS AT HIGHEST RISK OF FURTHER DISRUPTION

<table>
<thead>
<tr>
<th>1</th>
<th>Initial peak experience</th>
<th>2</th>
<th>Reopening policy</th>
<th>3</th>
<th>Public health infrastructure</th>
<th>4</th>
<th>Leading indicators</th>
<th>5</th>
<th>Population dynamics</th>
</tr>
</thead>
<tbody>
<tr>
<td>• How hard has the region been hit?</td>
<td>• How broadly and how quickly are businesses being allowed to re-open?</td>
<td>• Is there sufficient testing capacity to detect patients early?</td>
<td>• How are mobility and social distancing indicators changing?</td>
<td>• Is the region higher-risk due to age, population density, comorbid conditions, socioeconomic factors?</td>
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<tr>
<td>• Where is the region on its first outbreak curve (emerging, stabilizing, recovering)?</td>
<td>• How stringent are PPE and social distancing requirements?</td>
<td>• Is there sufficient contact tracing capability to identify potential infections early?</td>
<td>• How is transmission rate increasing?</td>
<td>• Is there a cultural bias toward social distancing, or multi-gen households?</td>
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<tr>
<td>• How well have hospitals been able to manage the first surge?</td>
<td>• What increased capacity is being planned?</td>
<td>• Using OW’s boots-on-the-ground Global Sensing Network, how are individuals and businesses behaving and complying?</td>
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</tbody>
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<table>
<thead>
<tr>
<th>New cases trajectory</th>
<th>Reopening timing, policy, stringency, seq.</th>
<th>Testing % positive</th>
<th>Mobility indices (Apple, Google, etc.)</th>
<th>Age, density, % urban</th>
</tr>
</thead>
<tbody>
<tr>
<td>Case fatality rate</td>
<td>PPE/distancing mandate</td>
<td>Tests per day</td>
<td>PPE compliance</td>
<td>Chronic conditions</td>
</tr>
<tr>
<td>Cases per capita</td>
<td>Reopening restrictions</td>
<td>Contact tracing</td>
<td>OW transmission rate</td>
<td>% essential, % WFH</td>
</tr>
<tr>
<td>Impact on hospitals, PPE, vents, workforce</td>
<td>Travel restrictions</td>
<td>Surveillance</td>
<td>Anecdotal compliance</td>
<td>Household size, x-gen</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Travel exposure</td>
</tr>
</tbody>
</table>
INITIAL ASSESSMENT OF RISK TOWARDS FURTHER DISRUPTION WAS BASED ON A STATE’S EXPERIENCE WITH THE INITIAL OUTBREAK AND SUBSEQUENT POSTURE TOWARDS RE-OPENING; THE SITUATION IS EVOLVING RAPIDLY

<table>
<thead>
<tr>
<th>Surviving and recovering</th>
<th>Managing the surge</th>
<th>Eager Reopening</th>
<th>Spared and reopened</th>
</tr>
</thead>
</table>
| • Dense urban populations severely affected, leading to highest case fatality and cases per capita  
• All have reopened to some extent, but are proceeding gradually and regionally  
• All require face masks in public | • Less affected states that opened prior to peak with strong testing in place  
• Reopening policies vary: some reopened broadly, while others are taking regional and/or staged approaches | • Less affected states that reopened as new cases were rising or in the midst of a plateau without sufficient testing in place  
• Reopening policies vary: some reopened broadly, while others are taking regional and/or staged approaches | • Least affected by the pandemic to-date  
• Most reopened state-wide, but those with denser cities are taking a regional approach  
• Testing was strong at re-opening |

- All states in this category are seeing stable or declining growth  
- Major cities remain at risk despite cautious approach to reopening – watch for new cases due to wide-spread protests

- Many states are managing well, though several are seeing new case growth – none are alarming yet, but must be monitored

- While many states have improved testing and are managing, several are seeing renewed growth – none are alarming yet, but must be monitored

- Several of these states are seeing significant new growth that cannot entirely be explained by expanded testing – must be watched closely for second peak and potential additional disruption
APPROPRIATENESS OF POLICY RESPONSE DEPENDS ON WHAT YOU BELIEVE ABOUT DURATION OF THE CRISIS AND STATE OF AC (AFTER COVID) VS. BC

If **short** duration and AC **largely same** as BC...

- Quick recovery
- Keep employees in place
- Finance through employers
- Liquidity concerns
- Short term financing
- Avoid bankruptcy

Better suited for debt financing

If **long** duration and AC **quite different** than BC...

- Slow, choppy recovery
- Provide flexibility for labour reallocation
- Finance through unemployment insurance
- Solvency concerns
- Longer term financing
- Make bankruptcy/restructuring easier

Better suited for equity financing

Unemployment (February to April)

- **3.8%** (UK) vs. **4.0%** (US)
- **5.0%** (Canada) vs. **5.8%** (Germany)
- **14.7%** (US)
FEDERAL RESERVE TOTAL ASSETS HAVE INCREASED SHARPLY TO OVER $7TN

Federal Reserve Balance Sheet
2003–27 May 2020

- 67% increase in total assets since March 4th 2020
- Other central banks’ balance sheets have increased 20–30%
  - Bank of England: £759B (~$951B)\(^1\)
  - ECB: €5.6T (~$6.3T)\(^2\)
  - Bank of Japan: ¥639T (~$5.9T)\(^3\)

2. European Central Bank Weekly Financial Statements
3. Balance Sheets of the Bank of Japan
Drawdown on bank lines has been massive

Commercial & Industrial Loans
Jan 2007 – April 2020

- 25% increase since February 2020
- Driven mostly by client drawdowns of committed lines
- Banks acting as shock absorber for the system, “liquidity provider of 2nd to last resort”
LATEST GDP FORECASTS INDICATE A SEVERE SHOCK IN THE U.S. ECONOMY

The escalation of the COVID-19 crisis has lead to significant downward revisions in GDP forecasts globally

U.S. Real GDP Growth Forecasts – Q1, Q2, Q3, Q4, and annual
Annualized growth rate, by select economic analysts (9)\(^1,2\)

<table>
<thead>
<tr>
<th></th>
<th>Median</th>
<th>Average</th>
<th>Max/Min</th>
<th>Actuals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1 2020</td>
<td>-3.9%</td>
<td>-5.2%</td>
<td>-2.3%/ -9.9%</td>
<td>-5.0%</td>
</tr>
<tr>
<td>Q2 2020</td>
<td>-38.2%</td>
<td>-36.4%</td>
<td>-28.8%/-41.4%</td>
<td>-4.5%/-8.0%</td>
</tr>
<tr>
<td>Q3 2020</td>
<td>18.3%</td>
<td>16.2%</td>
<td>29.0%/-1.0%</td>
<td>25.0%/5.5%</td>
</tr>
<tr>
<td>Q4 2020</td>
<td>10.2%</td>
<td>11.5%</td>
<td>25.0%/5.5%</td>
<td>25.0%/5.5%</td>
</tr>
<tr>
<td>2020 (annual)</td>
<td>-6.6%</td>
<td>-6.5%</td>
<td>-4.5%/-8.0%</td>
<td>-4.5%/-8.0%</td>
</tr>
</tbody>
</table>

Key observations from estimates

- Forecast updates have been frequent and sizable – Consensus is that bad news on the virus continues to outweigh good news on policy actions
- Forecasted Q2 qoq annualized growth rate in the US (~30–40% drop) will be the worst since we have quarterly data available
- Key indicators to track include:
  - Trend for percent of U.S. population infected (scenarios ranging up to 80%)\(^3\)
  - Reliance on “smart” mitigation strategies (e.g., mass testing, use of analytics)

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1. Sources: Bank of America (May 15), Moody’s (May 15), UBS (May 15), Goldman Sachs (May 12), TD (May 15), JP Morgan (May 29), CBO (May 19), Deutsche Bank (May 15), FRBNY Nowcast (May 1, May 29, Nowcast not included in table calculations), Q1 estimates based on latest forecast before release of Q1 GDP Actual
2. Quarterly estimates in terms of qoq% seasonally adjusted annual rate (saar)
3. Imperial College COVID-19 response team
**THE DOWNWARD SHOCK TO GDP IS MIRRORED IN UNEMPLOYMENT**

The escalation of the Covid-19 crisis has lead to significant bearish revisions unemployment forecasts globally.

### U.S. Unemployment Forecasts – Q1, Q2, Q3, and Q4

Quarterly unemployment rate, by select economic analysts (5)\(^1\)

<table>
<thead>
<tr>
<th></th>
<th>Q1 2020</th>
<th>Q2 2020</th>
<th>Q3 2020</th>
<th>Q4 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Median</td>
<td>3.8%</td>
<td>15.5%</td>
<td>13.3%</td>
<td>11.0%</td>
</tr>
<tr>
<td>Average</td>
<td>3.8%</td>
<td>16.7%</td>
<td>13.6%</td>
<td>10.7%</td>
</tr>
<tr>
<td>Min/Max</td>
<td>3.8%/3.8%</td>
<td>13.7%/25.0%</td>
<td>9.1%/18.5%</td>
<td>7.1%/14.0%</td>
</tr>
<tr>
<td>Actuals(^2)</td>
<td>4.4% (Mar)</td>
<td>14.7% (Apr)</td>
<td></td>
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</table>

**Key insights**

- Most annual unemployment forecasts assume a steady economic recovery starting in June, and do not account for the possibility of subsequent significant waves of infection.
- 36.5 million unemployment claims filed since start of the COVID-19 lockdown, wiping out the last eleven years of job gains\(^2,3\).
- Congressional Budget Office forecasts a slower employment recovery than most major banks.
- The CARES Act has allocated ~$660B in forgivable loans to cover small business payroll expenses, padding against additional job losses in the short term.

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1. Sources: 1. Sources: Bank of America (May 15), Moody’s (May 15), UBS (May 15), Goldman Sachs (May 12), TD (May 15), JP Morgan (May 29), CBO (May 19), Deutsche Bank (May 15), FRBNY Nowcast (May 1, May 29)
2. Sources: U.S. Bureau of Labour Statistics
3. Tracking unemployment forecasts against unemployment reports may be misleading – unemployment reports only record jobless workers actively searching for employment.
THERE ARE SEVERAL POTENTIAL PATTERNS FOR ECONOMIC RECOVERY

- **V-shaped recovery**: Economy recovers relatively quickly.
- **U-shaped recovery**: Economy recovers slower than V-shape.
- **W-shaped recovery**: Economy ‘re-opened’ too quickly. Increase in cases causes GDP to suffer.
- **Swoosh-shaped recovery**: Recovery slower than V-shape, but faster than U-shape.
- **L-shaped recovery**: Economy never fully recovers.
GDP PROJECTIONS ASSUME A RETURN TO PRE-COVID LEVELS BY EARLY 2022
We continue observing downward adjustments: as of last week, the expectation was to recover by early 2022

U.S. Real GDP relative to Q4 2019 (100) and compared to CCAR and Financial crisis
Estimates as of May-20\(^1\) US GDP Indexed to P0 (CCAR 2020)\(^2\) and 4Q07 (Financial Crisis)\(^3\)

1. Consensus as the average of Bank of America (May 15), Moody’s (May 15), UBS (May 15), Goldman Sachs (May 12), TD (May 15), JP Morgan (May 29), Deutsche Bank (May 15), Q1 estimates based on latest forecast before release of Q1 GDP Actual
3. Source: Federal Reserve Economic Data
UNEMPLOYMENT PROJECTIONS ASSUME A RETURN TO PRE-COVID LEVELS BY EARLY 2022

U.S. Unemployment Forecasts compared to CCAR 2020 and Financial Crisis
Q1 2020 – Q4 2021

1. Consensus as the average of Bank of America (May 15), Moody’s (May 15), UBS (May 15), Goldman Sachs (May 12), TD (May 15), JP Morgan (May 29), Deutsche Bank (May 15), FRBNY Nowcast (May 1, May 29, Nowcast not included in table calculations), Q1 estimates based on latest forecast before release of Q1 GDP Actual
2. Source: “CCAR 2020 data release” - Federal Reserve
3. Source “Unemployment Rate” – Federal Reserve Bank of St Louis

Last updated: 06/02/2020
LATEST GDP ESTIMATES IN SELECT REGIONS
The escalation of COVID-19 crisis has lead to significant downward revisions in GDP forecasts globally

Consensus 2020 Real GDP Growth Forecasts, Nov 2019\(^1\) vs May 2020\(^2\)
% growth YoY, median

<table>
<thead>
<tr>
<th>Region</th>
<th>Global</th>
<th>US</th>
<th>Canada</th>
<th>U.K.</th>
<th>Euro</th>
<th>Germany</th>
<th>China</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020 Q1 GDP(^3)</td>
<td>-5.0%</td>
<td>-10.0%(^4)</td>
<td>-7.7%</td>
<td>-14.2%</td>
<td>-8.6%</td>
<td>-34.7%</td>
<td></td>
</tr>
</tbody>
</table>

-5.0% -10.0%4 -7.7% -14.2% -8.6% -34.7%

1 Source: OECD.
2 Sources, date of latest update: Bank of America (May 15), Moody’s (May 20), Goldman Sachs (May 12), Morgan Stanley (May 15), Deutsche (May 26), JP Morgan (May 22).
GDP growth forecasts obtained as the median of estimates.
3 Q1 GDP results in terms of qoq annualized rates
4 Estimate from novel ‘flash estimate’ measure from Statistics Canada
PULSE ON CONSUMER SPENDING
Insights from Oliver Wyman’s weekly shopping outlook survey

Beth Costa
Partner, Americas
Payments Platform Lead
SHOPPING OUTLOOK SURVEY
The Shopping Outlook Survey measures consumers’ shopping-related attitudes and moods

Each week, we survey ~20 questions, a subset of which is used to derive the COVID-19 Shopping Confidence Index

- **Shopping sentiment**: Plans for routine as well as discretionary shopping
- **Financial outlook**: Confidence around job and personal finances
- **COVID-19 effects**: Pandemic factors impacting consumers
- **Demographics**: Standard demographics such as age and income

The COVID-19 Shopping Confidence Index (SCI)
- Is an Oliver Wyman proprietary measure of consumer shopping propensity and financial confidence. The SCI detects weekly shifts in confidence impacting commerce as countries navigate COVID-19

The Shopping Outlook Survey was first launched in the US, and is now expanding to Canada, Mexico and Brazil.
CONSUMER SENTIMENT HAS IMPROVED IN MAY...

Americans are showing increasing financial confidence and a gradual comfort in returning to public life

The SCI is on an upwards trajectory
The SCI considers shopping plans, financial confidence, and willingness to return to public life; based on external benchmarks, the SCI would be ~700 in a normal environment

Confidence in job and personal finances is correlated and improving
% of respondents confident in personal finances and job/level of income

Many are ready to return to public life
Do you feel comfortable in restaurants or other public areas such as sporting venues?

Source: Oliver Wyman Shopping Outlook Survey, April 13 2020 - May 25 2020
... BUT SHOPPING INDICATORS ARE STILL LAGGING
Discretionary spending, big ticket purchases, and flying intentions remain largely flat

Propensity for discretionary spending remains relatively low
Are you planning shopping besides food, medicine, household necessities next week?

<table>
<thead>
<tr>
<th>Yes</th>
<th>Maybe</th>
<th>No</th>
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<tbody>
<tr>
<td>46%</td>
<td>47%</td>
<td>44%</td>
</tr>
</tbody>
</table>

| 39% | 35% | 32% | 32% | 34% | 30% | 33% |
| 46% | 47% | 44% | 50% | 42% | 45% | 46% |

Flying intentions have not rebounded
How soon would you feel comfortable traveling by plane?

<table>
<thead>
<tr>
<th>Yes</th>
<th>Maybe</th>
<th>No</th>
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<tbody>
<tr>
<td>9%</td>
<td>11%</td>
<td>14%</td>
</tr>
</tbody>
</table>

| 57% | 57% | 58% | 59% | 60% | 55% | 60% |
| 27% | 22% | 27% | 21% | 20% | 20% | 22% |

Big ticket spending has remained infrequent
Are you planning any large purchases (over $500) in the next month?

<table>
<thead>
<tr>
<th>Yes</th>
<th>Maybe</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>23%</td>
<td>25%</td>
<td>23%</td>
</tr>
</tbody>
</table>

| 68% | 63% | 62% | 68% | 64% | 61% | 64% |
| 9% | 11% | 14% | 10% | 14% | 13% | 12% |

Despite looser restrictions, many still choosing to stay home
Do you currently have shelter in place restrictions?

<table>
<thead>
<tr>
<th>Yes, we have restrictions</th>
<th>No, we do not have restrictions, but I am staying home anyway</th>
<th>No, we do not have restrictions and I am not sheltering-in-place</th>
</tr>
</thead>
<tbody>
<tr>
<td>100%</td>
<td>85%</td>
<td>50%</td>
</tr>
</tbody>
</table>

Source: Oliver Wyman Shopping Outlook Survey, April 13 2020 - May 25 2020
CERTAIN SEGMENTS SHOWING MORE CONFIDENCE ...

Increasing confidence from lower income and furloughed workers as well as suburban consumers

Confidence among lower household income respondents is rising
% of respondents confident in their job/level of income by income group

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</thead>
<tbody>
<tr>
<td>&lt;$50K</td>
<td>55%</td>
<td>55%</td>
<td>58%</td>
<td>65%</td>
<td>71%</td>
<td>78%</td>
<td>93%</td>
</tr>
<tr>
<td>$50-200K</td>
<td>65%</td>
<td>68%</td>
<td>73%</td>
<td>79%</td>
<td>83%</td>
<td>87%</td>
<td>95%</td>
</tr>
<tr>
<td>$200K+</td>
<td>75%</td>
<td>78%</td>
<td>85%</td>
<td>92%</td>
<td>95%</td>
<td>97%</td>
<td>99%</td>
</tr>
</tbody>
</table>

Suburban respondents have quickly become comfortable re-entering public life
% of respondents comfortable in restaurants or other public spaces by area

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban</td>
<td>20%</td>
<td>24%</td>
<td>35%</td>
<td>40%</td>
<td>37%</td>
<td>39%</td>
<td>39%</td>
</tr>
<tr>
<td>Suburban</td>
<td>25%</td>
<td>26%</td>
<td>32%</td>
<td>37%</td>
<td>39%</td>
<td>37%</td>
<td>37%</td>
</tr>
<tr>
<td>Rural</td>
<td>30%</td>
<td>34%</td>
<td>40%</td>
<td>45%</td>
<td>47%</td>
<td>49%</td>
<td>49%</td>
</tr>
</tbody>
</table>

Laid off and furloughed workers show growing confidence
% of laid off/furloughed respondents confident in their job/level of income

<table>
<thead>
<tr>
<th>Date</th>
<th>&lt;$50K</th>
<th>$50-200K</th>
<th>$200K+</th>
</tr>
</thead>
<tbody>
<tr>
<td>4/13</td>
<td>33%</td>
<td>29%</td>
<td>73%</td>
</tr>
<tr>
<td>4/20</td>
<td>37%</td>
<td>49%</td>
<td>49%</td>
</tr>
<tr>
<td>4/27</td>
<td>43%</td>
<td>56%</td>
<td>49%</td>
</tr>
<tr>
<td>5/4</td>
<td>43%</td>
<td>56%</td>
<td>49%</td>
</tr>
<tr>
<td>5/11</td>
<td>43%</td>
<td>56%</td>
<td>49%</td>
</tr>
<tr>
<td>5/18</td>
<td>56%</td>
<td>56%</td>
<td>56%</td>
</tr>
<tr>
<td>5/25</td>
<td>56%</td>
<td>56%</td>
<td>56%</td>
</tr>
</tbody>
</table>

Californians less likely than New Yorkers to voluntarily stay home
Shelter in place restrictions by state, 5/25/20

<table>
<thead>
<tr>
<th>State</th>
<th>Have Restrictions</th>
<th>No restrictions But staying home</th>
<th>No restrictions And going out</th>
</tr>
</thead>
<tbody>
<tr>
<td>CA</td>
<td>83%</td>
<td>32%</td>
<td>15%</td>
</tr>
<tr>
<td>Midwest</td>
<td>59%</td>
<td>9%</td>
<td>15%</td>
</tr>
<tr>
<td>NY</td>
<td>82%</td>
<td>32%</td>
<td>15%</td>
</tr>
</tbody>
</table>

Source: Oliver Wyman Shopping Outlook Survey, April 13 2020 - May 25 2020
... AS WELL AS SPENDING AND SAVING ASPIRATIONS

More online shopping from younger consumers and those most affected by the virus

Younger consumers more likely to shop online and purchase non-necessities
Online and discretionary spending behaviour by age, 5/25/20

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Doing more shopping online compared to before the pandemic</th>
<th>Planning on buying non-necessities in the next week</th>
</tr>
</thead>
<tbody>
<tr>
<td>18–24</td>
<td>60%</td>
<td>24%</td>
</tr>
<tr>
<td>25–34</td>
<td>72%</td>
<td>37%</td>
</tr>
<tr>
<td>35–44</td>
<td>58%</td>
<td>23%</td>
</tr>
<tr>
<td>45–54</td>
<td>42%</td>
<td>24%</td>
</tr>
<tr>
<td>55–64</td>
<td>45%</td>
<td>7%</td>
</tr>
<tr>
<td>65+</td>
<td>43%</td>
<td>17%</td>
</tr>
</tbody>
</table>

Younger respondents are planning to save more after the pandemic
Savings intentions after the pandemic compared to before the pandemic, 5/25/20

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Save more</th>
<th>Save about the same</th>
<th>Save less</th>
<th>Save less</th>
</tr>
</thead>
<tbody>
<tr>
<td>18 – 24</td>
<td>32%</td>
<td>35%</td>
<td>6%</td>
<td>6%</td>
</tr>
<tr>
<td>25 – 34</td>
<td>4%</td>
<td>50%</td>
<td>68%</td>
<td>31%</td>
</tr>
<tr>
<td>35 – 44</td>
<td>31%</td>
<td>45%</td>
<td>62%</td>
<td>24%</td>
</tr>
<tr>
<td>45 – 54</td>
<td>24%</td>
<td>62%</td>
<td>14%</td>
<td>1%</td>
</tr>
<tr>
<td>55 – 64</td>
<td>6%</td>
<td>3%</td>
<td>6%</td>
<td>3%</td>
</tr>
<tr>
<td>65 or older</td>
<td>64%</td>
<td>61%</td>
<td>45%</td>
<td>31%</td>
</tr>
</tbody>
</table>

Spending on essentials has held steady in the Midwest but dropped in NY & CA
% of respondents who purchased food or medicine in the past week by state/region

Individuals affected by COVID-19 are shopping more online and plan to save more
Those affected have had COVID-19 or had family/close friend with virus, 5/25/20

Source: Oliver Wyman Shopping Outlook Survey, April 13 2020 - May 25 2020
For additional survey results, please visit us online.

Results from the Shopping Outlook Survey will be shared regularly as we continue the study #OWPayments

Questions? Please reach out to us at payments@oliverwyman.com
IMPACT ON PAYMENTS AND CARD ISSUERS

Tony Hayes
Partner, Payments Team Leader
COVID-19’S IMPACT ON CARD ISSUERS

• Oliver Wyman works closely with a number of leading credit and debit card issuers on strategic initiatives and risk management

• Every year, Oliver Wyman conducts the definitive analysis of the US card market. Data from:

1. Key macro developments and emerging “green shoots”

2. Implications for credit and debit card issuers

What a difference a month makes!

• Our work gives us a ring-side seat for understanding how COVID-19 is impacting US card issuers and how issuers are responding to the new environment

157 MM  Payment cards
55       Financial institutions
AT THE BEGINNING OF MAY, THE OUTLOOK FOR CARD ISSUERS WAS GLOOMY...

- “Shelter-in-place” orders announced
- Non-essential businesses shuttered
- Rapid rise in unemployment

Unemployment spiked...

- Sports and large events cancelled
- Retail stores and restaurants closed
- Travel halted; TSA volume down 95%

...as commerce ground to a halt...

- New US COVID cases reach ~35K/day
- Rate of case count growth increasing
- Terrifying news stories proliferate

...and consumer confidence plummeted

- Precipitous decline in card volume, down ~25–35% YoY

Source: FRED, US Census Bureau, The Conference Board
...AS WE ENTER JUNE, GREEN SHOOTS ARE EMERGING

Commerce is gaining momentum...
- All 50 states have started to reopen
- Merchants reopening (with restrictions)
- Delicate return to work underway

...money is flowing again...
- Stimulus disbursed and being put to use
- Enhanced unemployment benefits deployed
- Rate of unemployment growth slowing

...and confidence has stabilized
- New daily US COVID cases decreasing
- Multiple vaccine prospects emerging
- Stock market has rebounded

Total card spend by metropolitan area

% change, YoY, Week ending 5/23

<table>
<thead>
<tr>
<th></th>
<th>0%</th>
<th>(5%)</th>
<th>(10%)</th>
<th>(15%)</th>
<th>(20%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NYC</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Atlanta</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dallas</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

GA and TX began reopening earlier than NY

Card spend has rebounded and is now down just ~5% from pre-COVID levels

Source: Bank of America, Oliver Wyman COVID-19 Navigator
CARD SPEND IS REBOUNDING – BUT UNEVENLY

Card spend is rebounding

% change in weekly card volume, y/y

<table>
<thead>
<tr>
<th>April</th>
<th>May</th>
</tr>
</thead>
<tbody>
<tr>
<td>0%</td>
<td>10%</td>
</tr>
<tr>
<td>-20%</td>
<td>-10%</td>
</tr>
<tr>
<td>-40%</td>
<td>-30%</td>
</tr>
<tr>
<td>0%</td>
<td>20%</td>
</tr>
<tr>
<td>0%</td>
<td>40%</td>
</tr>
</tbody>
</table>

Debit vs. Credit
Debit has recovered faster than Credit

Discretionary vs. Non-Discretionary verticals
Discretionary spend has been hit hard

Card-Present vs. Card-Not-Present transactions
Card-Not-Present share gains have accelerated

Source: Mastercard operating metrics, Visa operating metrics, Womply COVID-19 data dashboard
### Implications for Credit Card Issuers

<table>
<thead>
<tr>
<th>Category</th>
<th>Impact (%)</th>
<th>Action for Issuers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acquisition</td>
<td>(~50%)</td>
<td>- Update underwriting models to ensure new applicants are risk-scored appropriately</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Adjust total spend and marketing mix to better reflect the new opportunity</td>
</tr>
<tr>
<td>Cardholder use and servicing</td>
<td>(~90%)</td>
<td>- Adjust card benefits to ensure customer value proposition remains relevant and compelling</td>
</tr>
<tr>
<td>Risk management</td>
<td>~100%</td>
<td>- Develop mechanisms to handle cardholder forbearance requests on a consistent, sustainable basis</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Update CECL forecasts based on revised outlook</td>
</tr>
</tbody>
</table>

Source: American Banker, Equifax, Issuer Filings, KBW Research
# IMPLICATIONS FOR DEBIT CARD ISSUERS

<table>
<thead>
<tr>
<th>Area</th>
<th>Impact</th>
<th>Actions for Issuers</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Acquisition</strong></td>
<td>~90%</td>
<td>• Strengthen digital account opening capabilities</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Enhance self-service tools for card provisioning (e.g., for lost/stolen or compromised cards)</td>
</tr>
<tr>
<td><strong>Cardholder use and servicing</strong></td>
<td>~30%</td>
<td>• Re-double efforts to ensure your FI’s card is the card that customers enroll in card-on-file programs</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Accelerate migration to dual-interface contactless cards to support cardholder preferences</td>
</tr>
<tr>
<td><strong>Risk management</strong></td>
<td>~700%</td>
<td>• Re-calibrate risk tools and capabilities since everything is now “out of pattern”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Increase resourcing to manage disputes and chargebacks, with early detection of bad actors</td>
</tr>
</tbody>
</table>

Source: Oliver Wyman analysis
WHERE DO WE GO FROM HERE?

1

Over the past two months, we’ve seen a sharp decline and now a sharp rebound in payment card transactions. What will happen over the next two months in terms of overall transaction activity?

A  Overall growth continues as more businesses re-open

B  Credit accelerates and debit decelerates as consumers resume their old spending habits

C  Credit decelerates as issuers tighten lines and delinquencies increase

D  Pull back in both credit and debit spending, tied to a reduction in disposable income
WHERE DO WE GO FROM HERE?

2

COVID-19 has forced issuers to reprioritize their 2020 strategic agendas. What is the single most important action issuers should take in response to the current environment?

A  Proactively and regularly communicate with existing cardholders

B  Increase reserves to prepare for potential losses

C  Strengthen fraud prevention and detection models and capabilities

D  Invest in customer-facing digital and mobile capabilities
05

BUY NOW, PAY LATER LANDSCAPE AND PERSPECTIVES

Russell Jones
Partner, Payments and Retail Banking
EXAMPLES OF ‘BUY NOW, PAY LATER’ (BNPL) SOLUTIONS
US MARKET CONTINUES TO SEE NEW ENTRANTS... INCLUDING IN THE PAST 2 MONTHS

**Shopify – “Shop Pay Installments”**

- Will enable any of their 1MM+ merchants to offer option for customers
- Product splits payments into four equal installments without interest or late fees
- Terms
  - Loan amounts from $50-1,100
  - Merchants still paid upfront in full
  - Other terms not yet disclosed

**Goldman Sachs – “MarcusPay”**

- Goldman Sachs launched “MarcusPay” in April 2020, an instalment loan product
- Only merchant supported at launch in travel space (JetBlue)
- Terms
  - $750–10,000 loan amount
  - 12 or 18 month terms
  - No upfront deposit (in contrast to e.g., Afterpay)
  - No late fees, but loan does carry interest
  - 10.99-25.99% APR at fixed rate

Note: dates represent US market entry for international players
Source: Company press releases, PYMNTS, TechCrunch, VentureBeat, CrunchBase
## Valuations of Public Players Are Well Off Covid Bottoms

<table>
<thead>
<tr>
<th>Solution</th>
<th>Markets</th>
<th>Market cap (latest$^1$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 installments</td>
<td>AUS, NZ, US, UK</td>
<td>$9.0 BN</td>
</tr>
<tr>
<td>4 installments</td>
<td>US, CAN</td>
<td>$186 MM</td>
</tr>
<tr>
<td>4 installments</td>
<td>AUS, NZ, UK, SA</td>
<td>$1.7 BN</td>
</tr>
<tr>
<td>up to 48 months</td>
<td></td>
<td>$748 MM</td>
</tr>
<tr>
<td>up to 96 months</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Solution

- **4 installments over 6 weeks**
- **4 installments over 6 weeks**
- **Installments up to 48 months**
- **Installments up to 96 months**

### Markets

- **AUS, NZ, US, UK**
- **US, CAN**
- **AUS, NZ, UK, SA**
- **US**

### Market cap (latest$^1$)

- **$9.0 BN**
- **$186 MM**
- **$1.7 BN**
- **$748 MM**

### Percentage of Change

- **S&P500**
  - **-77%**
  - **-81%**
  - **-65%**
  - **-68%**

- **Dow Jones Financials Index**
  - **-31%**
  - **-5%**
  - **-41%**
  - **-18%**

---

1, 2. Market cap and stock price shown for ASX-listed players (Afterpay, Sezzle, Zip) as of June 3rd COB; shown as of June 2nd COB for all others.
WHY THE CONTINUED MOMENTUM?

Key constituents

Merchant

Consumer

Risk holder
KEY US PLAYERS ORIGINATED ~$15BN IN 2019

Estimated size of fintech-centric POS financing market
2019; by origination volume for key players

Fintech-centric POS financing volume

<table>
<thead>
<tr>
<th>Company</th>
<th>Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>GreenSky</td>
<td>~$24 BN</td>
</tr>
<tr>
<td>Klarna</td>
<td>~$15 BN</td>
</tr>
<tr>
<td>Other (e.g. Sezzle, Splitit, QuadPay)</td>
<td>~$12 BN</td>
</tr>
<tr>
<td>Total</td>
<td>~$10 BN</td>
</tr>
</tbody>
</table>

Selected comparison points

<table>
<thead>
<tr>
<th>Company</th>
<th>Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>Synchrony (POS consumer financing)</td>
<td>~$24 BN</td>
</tr>
<tr>
<td>LendingClub²</td>
<td>~$12 BN</td>
</tr>
<tr>
<td>PayPal Credit</td>
<td>~$10 BN</td>
</tr>
</tbody>
</table>

Growth varies among publicly-traded examples
~20% YoY volume growth for GreenSky, 150%+ YoY growth for Afterpay US

1. Includes installment loans and private label credit cards
2. Represents all loan origination

Source: Company annual reports and press releases, RBC Capital Markets research, Second Measure, Oliver Wyman analysis
$100BN ORIGINATION MARKET IF US REACHES AUSTRALIA’S 2019 PENETRATION

Australia BNPL volumes
2019, USD BN

- AfterPay: 61.4% of total BNPL
- ZIP: 16.1%
- Others: 22.5%

BNPL volume accounts for...
2019, USD

- 8% of the $33 BN Australian e-commerce market = $76BN
- 0.3% of the $623 BN Australian in-store retail market = $28BN

Source: Company filings; FIS Worldpay Global Payments Report; RBC analyst coverage; Oliver Wyman analysis

1. US market sizes are 2019 estimates from 2020 FIS Worldpay Global Payments Report. Gross estimates are: $944BN (desktop + mobile), $9,401 (POS)
## CLOSING THOUGHTS

### For Merchants

Offering a BNPL option is moving to “table stakes” in some verticals

For merchants without a BNPL provider, it is time to evaluate options – particularly for e-commerce

For merchants with a provider, it may be time to reassess. The quantity and quality of options has changed markedly

### For Financial Institutions

A number of roles/options:

<table>
<thead>
<tr>
<th>Role</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct</td>
<td>Marcus: Pay</td>
</tr>
<tr>
<td>Balance sheet partner</td>
<td>GreenSky, SYNOVUS, Fifth Third Bank</td>
</tr>
<tr>
<td>Wholesale funding provider</td>
<td>afterpay, citi, nab</td>
</tr>
<tr>
<td>Mimic the capability</td>
<td>Pay It Plan It, My Chase Plan</td>
</tr>
</tbody>
</table>

*Loaded debit card*

(Afterpay and others turn 1 debit transaction into 4+)
THANK YOU; POST-WEBINAR LOGISTICS; Q&A

Contact us

Til Schuermann
Til.Schuermann@oliverwyman.com

Howard Lapsley
Howard.Lapsley@oliverwyman.com

Beth Costa
Elizabeth.Costa@oliverwyman.com

Tony Hayes
Tony.Hayes@oliverwyman.com

Russell Jones
Russell.Jones@oliverwyman.com

Next webinar

Next webinar on COVID and FS Impacts on June 10 at 4pm EST
Oliver Wyman and our parent company Marsh & McLennan (MMC) have been monitoring the latest events and are putting forth our perspectives to support our clients and the industries they serve around the world. Our dedicated COVID-19 digital destination will be updated daily as the situation evolves.

Visit our dedicated COVID-19 website:
https://www.oliverwyman.com/coronavirus
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