

## COVID-19: MACRO PERSPECTIVES ON THE NEXT 18 MONTHS FOR THE GLOBAL INSURANCE INDUSTRY

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#### **WEBINAR AGENDA**

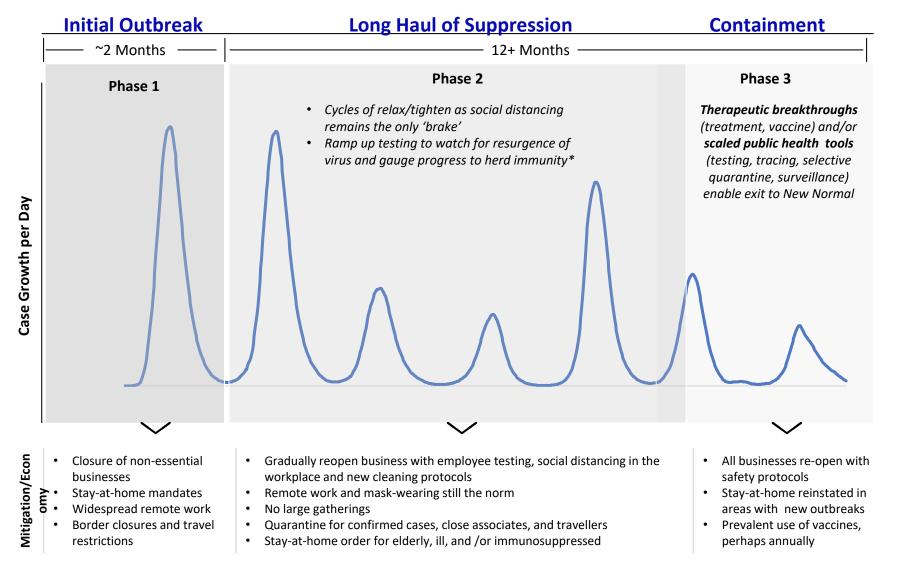
01	Epidemiology
02	Macroeconomic outlook
03	Challenges & Opportunities for Insurers
04	Q&A

# O1 EPIDEMIOLOGY



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#### **WE EXPECT >12 MORE MONTHS OF SOCIAL DISTANCING 'CYCLES'**



<sup>\*</sup>Note that we do not yet have full evidence whether natural infection confers immunity, or for how long.

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## OUR PANDEMIC NAVIGATOR CONNECTS COVID-19 SCENARIOS TO ECONOMIC AND BUSINESS IMPACTS – COVERING 90+ COUNTRIES, 50 US STATES, 3000+ COUNTIES

#### PANDEMIC NAVIGATOR

Epidemiology and Govt health response

#### **Lockdown Patterns**

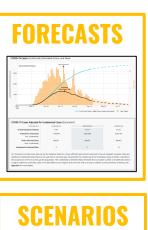
- Timing and frequency
- Severity (sophisticated vs blunt)

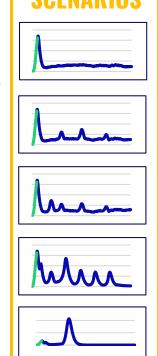
#### Macro overlay and recovery

- Industry capacity and earnings by sector
- Fiscal/Monetary Stimulus

#### Outlook, earnings, liquidity

- Demand/supply/operations
- · Cash flow
- · Loss-bearing capacity, funding
- Risk/Loss Transmission



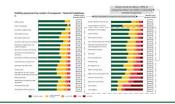


#### **BUSINESS USE CASES**



Granular challenge to macroeconomic views

- Unemployment, GDP
- Sector level cashflows
- Demand/supply





**Decision support tools** *Control tower* 

- Workplace and workforce management
- Customer behaviour





Covid strategy operational delivery

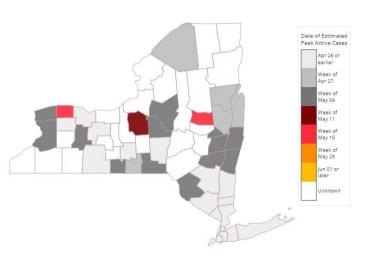
- Models (e.g. credit)
- Processes
- Capacity

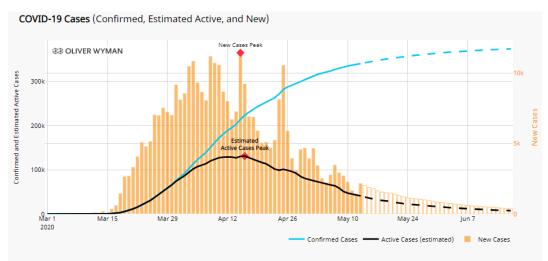


## PANDEMIC NAVIGATOR'S CORE MODEL ESTIMATES BOTH REPORTED AND UNDETECTED CASES

#### **Example outputs for New York**







COVID-19 Cases Adjusted fo	COVID-19 Cases Adjusted for Undetected Cases (Estimated)										
AS OF 2020-05-13	LOWER BOUND	BEST ESTIMATE	UPPER BOUND								
% Total Population Infected	8.9%	17.8%	31.5%								
Estimate for Total Cases (incl. Undetected)	1,789,494	3,601,809	6,357,418								
Total Confirmed Cases (excl. Undetected)	340,661	340,661	340,661								
Undetected to Detected Ratio	5	11	19								

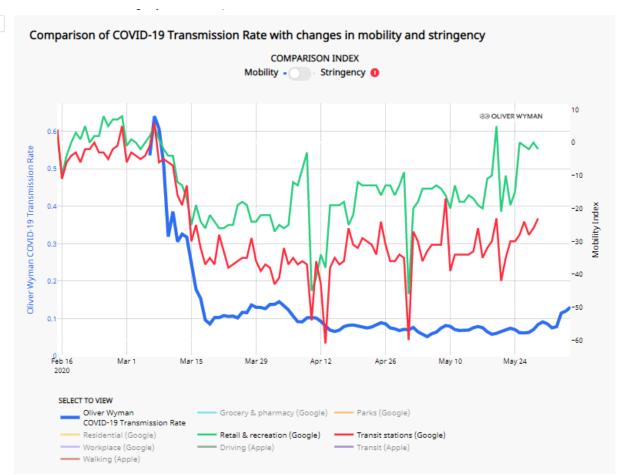
Our forecasts currently show case counts for Detected Cases (i.e., those officially captured and reported in the JHU dataset). However, there are additional Undetected Cases that are not captured in reported data. We estimate the magnitude of the Undetected Cases to better understand the progression of the virus through the population. The Undetected to Detected Ratio estimates the cumulative number of Undetected Cases in a region relative to Confirmed Cases. This ratio differs across regions and over time, with a strong correlation to the prevalence of testing. See Approach for more details.

Explore this view and more on our website <a href="https://pandemicnavigator.oliverwyman.com/">https://pandemicnavigator.oliverwyman.com/</a>

## OUR TRANSMISSON RATE MODEL IS LINKED TO INDEPENDENT, OBSERVABLE METRICS FOR HUMAN INTERACTION FOR EACH REGION: GOOGLE'S MOBILITY INDICES

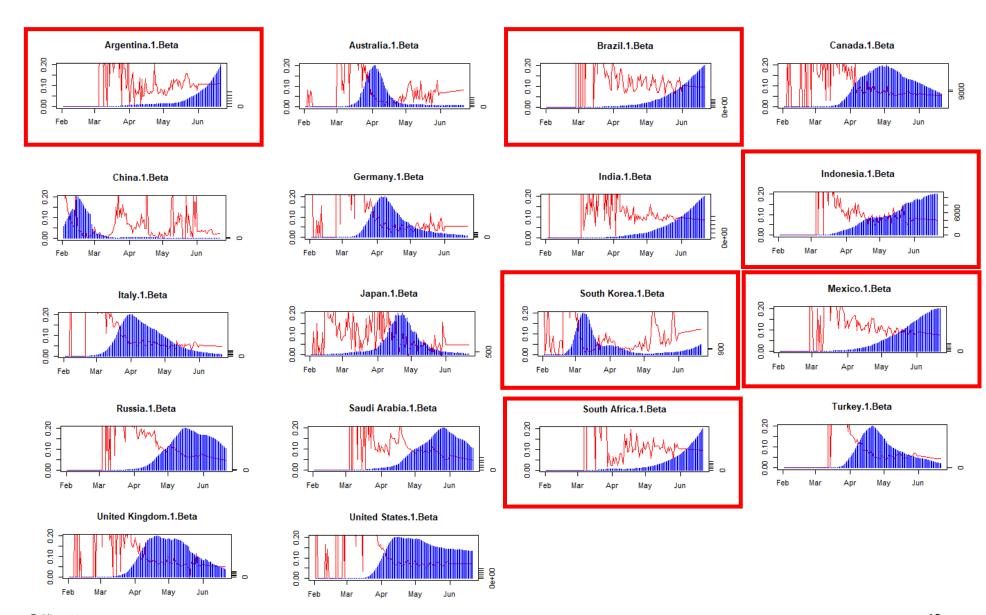
#### **Example outputs for Sweden**

Sweden \*



Explore this view and more on our website <a href="https://pandemicnavigator.oliverwyman.com/">https://pandemicnavigator.oliverwyman.com/</a>

#### A VERY COMPLEX JIGSAW PUZZLE IS EMERGING GLOBALLY

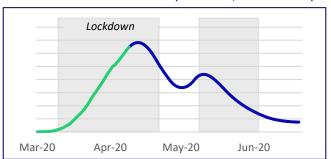


#### WE HAVE BEEN ANALYZING VARIOUS RE-OPENING SCENARIOS ...

#### Opening #1: Too Fast / Too Soon

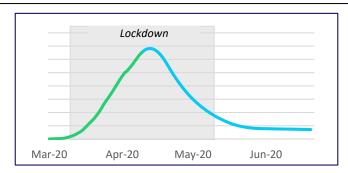
- Open too fast, too soon, and too broadly, while case loads are still high and before sufficient preventative and detective measures (e.g. testing) is in place
- All else equal, this could produce a rapid increase in transmission rates in certain regions, which could require further actions (e.g. lockdowns) to bring them back down

#### **Active Confirmed Cases** (US Total, Thousands)



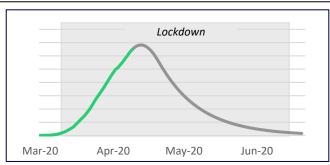
#### Opening #2: Timely Open

- Staged open in a timely manner, once active case loads have decreased substantially and additional measures put in place
- Transmission rates rise gradually, allowing for a smooth transition to a "managed range" of new and active cases counts without major policy changes in the near-term



#### Opening #3: Too Slow / Too Late

- Continued lockdowns through mid-June in attempt to "squash the bug" (e.g. similar to Nordic experience), followed by gradual easing of restrictions
- Transmission rates continue to fall (though with diminishing returns) before rising gradually

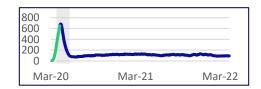


### ... AND HAVE DEVELOPED A SET OF PLAUSIBLE SCENARIOS THAT ADDRESS THE HIGH DEGREE OF UNCERTAINTY IN THE PATH AHEAD

**Active Confirmed Cases** (E.g. United States)

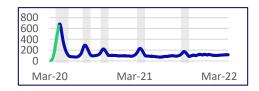
Scenario shortlist

#### Smart and also lucky



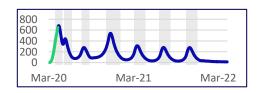
- Daily new cases and active cases remain within a target range of about 10K and 100K, respectively, for the foreseeable future
- No major outbreaks (single peak)

#### Plausible but pessimistic



- We open successfully but daily new and active cases grow through the summer; we experience a second peak at the end of July, prompting a lockdown in August
- Future outbreaks are localized

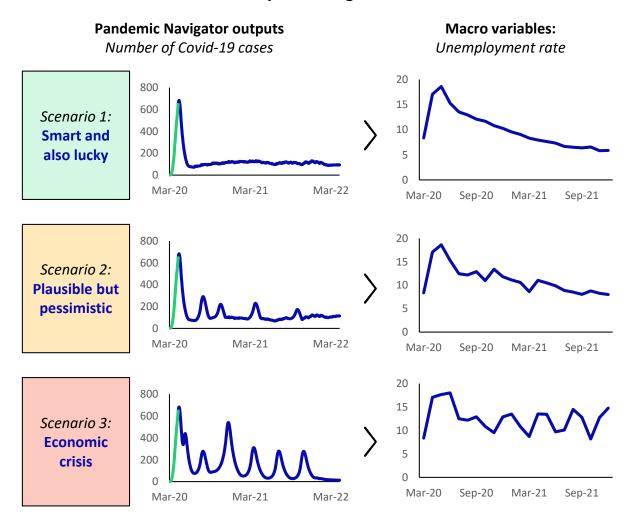
#### Blunt lockdowns



- We open too fast and too soon, prompting a spike in daily new cases (above recent peak) and subsequent lockdown
- Multiple peaks, some as high as or even exceeding the first peak

## EACH PANDEMIC SCENARIO IS THEN LINKED TO MACRO ECONOMY BASED ON MOST RECENT DATA AND ECONOMIC APPROACHES ...

#### Macro scenarios derived from epidemiological scenarios



#### Macro-scenario methodology

The Pandemic Navigator enables defining archetypical pandemic scenarios that are translated into macro- projections using

- Connections of pandemic to economic variables – e.g. sector shocks, unemployment
- Economic theory and statistical models to translate these into GDP, household indebtedness, real disposable income, ...
- Structural approaches and historical events studies to project interest rates, foreign exchange rates and equity performance

## ... THESE ARE THEN TRANSLATED TO VIABILITY OF SELECT COMPANIES BY SECTOR AND SCENARIO FOR THEIR LIQUIDITY NEEDS AND CREDIT RISK — US EXAMPLE



Human health and social work activities

Manufacture of computer products and electronic equipment

Scientific research and development

Computer programming, consultancy and related activities

Manufacture of air and spacecraft and related machinery

Manufacturing of plastic and metallic products

Manufacturing (tobacco, textiles and wearing apparel, furniture etc.)

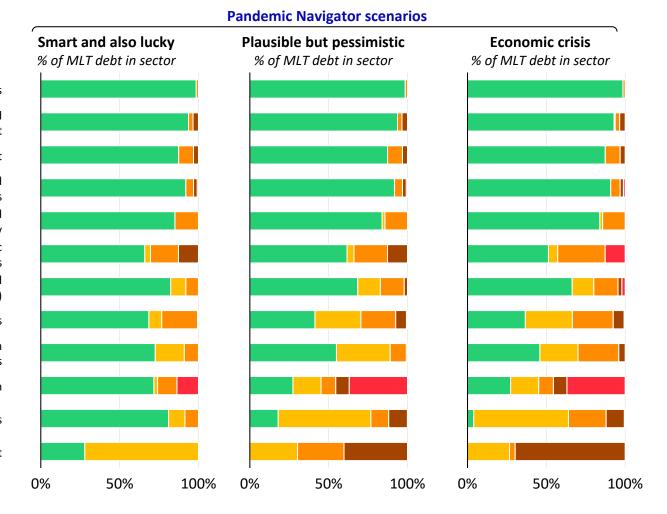
Land transport and transport via pipelines

Manufacture of coke, refined petroleum products and chemicals

Arts, entertainment and recreation

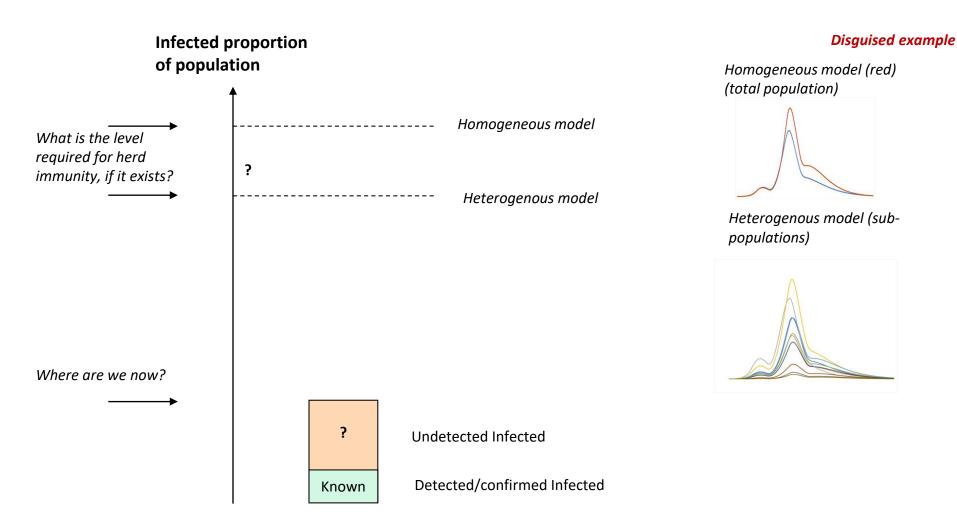
Food service activities

Air transport



Source: Company filings; Capital IQ; Oliver Wyman analysis

#### WE HAVE ADAPTED OUR APPROACH TO INCORPORATE HETEROGENEITY IN SUB-POPULATIONS AND NON-STATIONARITY TO ESTIMATE REQUIRED HERD IMMUNITY LEVEL



<sup>\*</sup>Note that we do not yet have full evidence whether natural infection confers immunity, or for how long. © Oliver Wyman

## OUR MATRIX APPROACH INCORPORATES VARIATIONS IN EXPOSURE, SUSCEPTIBILITY AND OVER TIME AMONG SUBPOPULATIONS TO MODEL HETEROGENEITY AND NON-STATIONARITY

Disguised example

#### 1. No large scale gathering

	0 to 18	18 to 22	22 to 30	30 to 40	40 to 50	50 to 60	60 to 70	70 to 80	80 to 90	90+
0 to 18	190	10	24	48	24	10	10	10	10	5
18 to 22	10	190	48	24	24	10	10	10	5	5
22 to 30	24	48	333	48	24	29	19	10	5	5
30 to 40	48	24	48	95	24	19	48	19	5	5
40 to 50	24	24	24	24	48	10	10	19	19	19
50 to 60	10	10	29	19	10	19	10	19	19	19
60 to 70	10	10	19	48	10	10	19	10	5	10
70 to 80	10	10	10	19	19	19	10	24	19	5
80 to 90	10	5	5	5	19	19	5	19	24	10
90+	5	5	5	5	19	19	10	5	10	19

#### 2. Colleges closing

	0 to 18	18 to 22	22 to 30	30 to 40	40 to 50	50 to 60	60 to 70	70 to 80	80 to 90	90+
0 to 18	190	10	24	48	24	10	10	10	10	5
18 to 22	10	76	48	29	29	11	10	10	5	5
22 to 30	24	48		48	24	29	19	10	5	5
30 to 40	48	29	48	95	24	19	48	19	5	5
40 to 50	24	29	24	24	48	10	10	19	19	19
50 to 60	10	11	29	19	10	19	10	19	19	19
60 to 70	10	10	19	48	10	10	19	10	5	10
70 to 80	10	10	10	19	19	19	10	24	19	5
80 to 90	10	5	5	5	19	19	5	19	24	10
90+	5	5	5	5	19	19	10	5	10	19

#### 3. Schools closing

	0 to 18	18 to 22	22 to 30	30 to 40	40 to 50	50 to 60	60 to 70	70 to 80	80 to 90	90+
0 to 18	19	1	2	5	2	1	1	1	1	0
18 to 22	1	76	48	29	29	11	10	10	5	5
22 to 30	2	48	333	48	24	29	19	10	5	5
30 to 40	5	29	48	86	21	17	48	19	5	5
40 to 50	2	29	24	21	43	9	10	19	19	19
50 to 60	1	11	29	17	9	17	10	19	19	19
60 to 70	1	10	19	48	10	10	19	10	5	10
70 to 80	1	10	10	19	19	19	10	24	19	5
80 to 90	1	5	5	5	19	19	5	19	24	10
90+	0	5	5	5	19	19	10	5	10	19

#### 4. Workplace closing

	0 to 18	18 to 22	22 to 30	30 to 40	40 to 50	50 to 60	60 to 70	70 to 80	80 to 90	90+
0 to 18	19	1	2	5	2	1	1	1	1	0
18 to 22	1	76	48	29	29	11	10	10	5	5
22 to 30	2	48	100	14	7	9	19	10	5	5
30 to 40	5	29	14	26	6	5	48	19	5	5
40 to 50	2	29	7	6	13	3	10	19	19	19
50 to 60	1	11	9	5	3	5	10	19	19	19
60 to 70	1	10	19	48	10	10	19	10	5	10
70 to 80	1	10	10	19	19	19	10	24	19	5
80 to 90	1	5	5	5	19	19	5	19	24	10
90+	0	5	5	5	19	19	10	5	10	19

#### 5. Workplace re-opens

	0 to 18	18 to 22	22 to 30	30 to 40	40 to 50	50 to 60	60 to 70	70 to 80	80 to 90	90+
0 to 18	19	1	2	5	2	1	1	1	1	0
18 to 22	1	76	48	29	29	11	10	10	5	5
22 to 30	2	48	333	48	24	29	19	10	5	5
30 to 40	5	29	48	86	21	17	48	19	5	5
40 to 50	2	29	24	21	43	9	10	19	19	19
50 to 60	1	11	29	17	9	17	10	19	19	19
60 to 70	1	10	19	48	10	10	19	10	5	10
70 to 80	1	10	10	19	19	19	10	24	19	5
80 to 90	1	5	5	5	19	19	5	19	24	10
90+	0	5	5	5	19	19	10	5	10	19

#### 6. Schools re-open

	0 to 18	18 to 22	22 to 30	30 to 40	40 to 50	50 to 60	60 to 70	70 to 80	80 to 90	90+
0 to 18	190	10	24	48	24	10	10	10	10	5
18 to 22	10	76	48	29	29	11	10	10	5	5
22 to 30	24	48	333	48	24	29	19	10	5	5
30 to 40	48	29	48	95	24	19	48	19	5	5
40 to 50	24	29	24	24	48	10	10	19	19	19
50 to 60	10	11	29	19	10	19	10	19	19	19
60 to 70	10	10	19	48	10	10	19	10	5	10
70 to 80	10	10	10	19	19	19	10	24	19	5
80 to 90	10	5	5	5	19	19	5	19	24	10
90+	5	5	5	5	19	19	10	5	10	19

#### 7. Colleges re-open

	0 to 18	18 to 22	22 to 30	30 to 40	40 to 50	50 to 60	60 to 70	70 to 80	80 to 90	90+
0 to 18	190	10	24	48	24	10	10	10	10	5
18 to 22	10	190	48	24	24	10	10	10	5	5
22 to 30	24	48	333	48	24	29	19	10	5	5
30 to 40	48	24	48	95	24	19	48	19	5	5
40 to 50	24	24	24	24	48	10	10	19	19	19
50 to 60	10	10	29	19	10	19	10	19	19	19
60 to 70	10	10	19	48	10	10	19	10	5	10
70 to 80	10	10	10	19	19	19	10	24	19	5
80 to 90	10	5	5	5	19	19	5	19	24	10
90+	5	5	5	5	19	19	10	5	10	19

#### 8. Limited large scale gatherings

	0 to 18	18 to 22	22 to 30	30 to 40	40 to 50	50 to 60	60 to 70	70 to 80	80 to 90	90+
0 to 18	196	10	24	49	24	10	10	10	10	5
18 to 22	10	196	49	24	24	10	10	10	5	5
22 to 30	24	49	343	49	24	29	20	10	5	5
30 to 40	49	24	49	98	24	20	49	20	5	5
40 to 50	24	24	24	24	49	10	10	20	20	20
50 to 60	10	10	29	20	10	20	10	20	20	20
60 to 70	10	10	20	49	10	10	20	10	5	10
70 to 80	10	10	10	20	20	20	10	24	20	5
80 to 90	10	5	5	5	20	20	5	20	24	10
90+	5	5	5	5	20	20	10	5	10	20

Contacts changed due to change in suppression measure

## 02

## MACROECONOMIC OUTLOOK



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## 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...

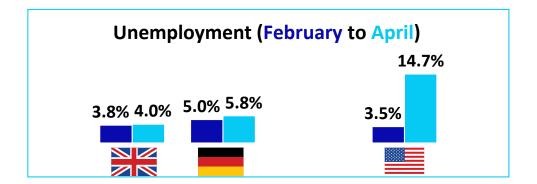
- Quick recovery
- Keep employees in place
- Finance through employers
- Liquidity concerns
- Short term financing
- Avoid bankruptcy

Better suited for debt financing

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

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

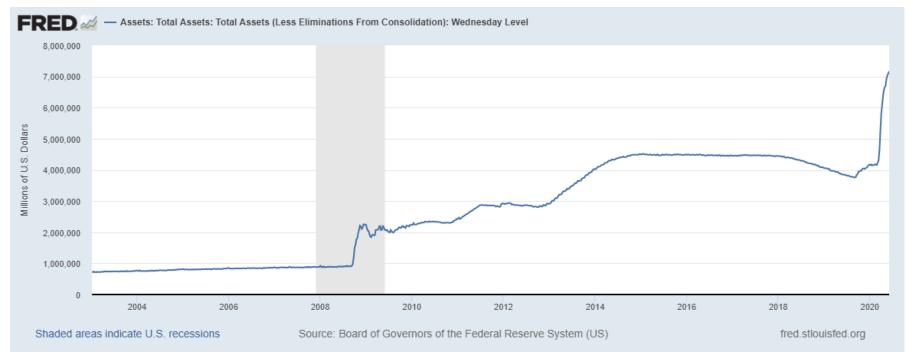
Better suited for equity financing



#### FEDERAL RESERVE TOTAL ASSETS HAVE INCREASED SHARPLY TO \$7.2TN

#### **Federal Reserve Balance Sheet**

2003 - 3 June 2020



- 69% increase in total assets since March 4<sup>th</sup> 2020
- Other central banks' balance sheets have increased 30+%

Bank of England: £759B (~\$951B)1

ECB: €5.6T (~\$6.3T)<sup>2</sup>

Bank of Japan: ¥639T (~\$5.9T)3

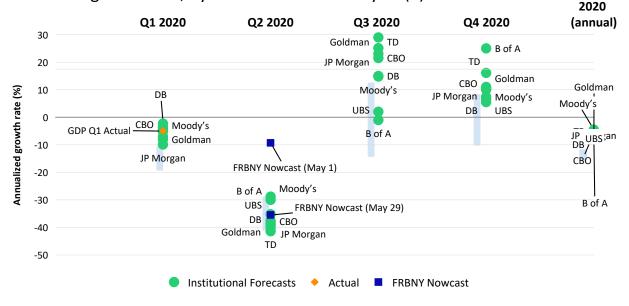
- 1. Bank of England Weekly Report and Balance Sheet
- 2. European Central Bank Weekly Financial Statements
- 3. Balance Sheets of the Bank of Japan

#### 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



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

#### **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
  - Actual Q1 has been revised downwards (-4.8% to -5%)
- 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%)<sup>3</sup>
  - Reliance on "smart" mitigation strategies (e.g., mass testing, use of analytics)

<sup>1.</sup> 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

<sup>2.</sup> Quarterly estimates in terms of gog% seasonally adjusted annual rate (saar)

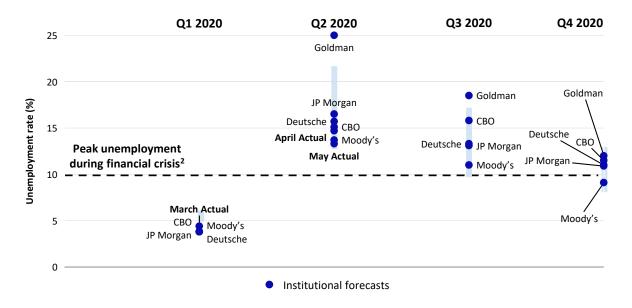
<sup>3.</sup> Imperial College COVID-19 response team

#### 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



	Q1 2020	Q2 2020	Q3 2020	Q4 2020
Median	3.8%	15.5%	13.3%	11.0%
Average	3.8%	16.7%	13.6%	10.7%
Min/Max	3.8%/3.8%	13.7%/25.0%	9.1%/18.5%	7.1%/14.0%
Actuals <sup>2</sup>	4.4% (Mar)	14.7% (Apr) 13.3 %May)		

#### **Key insights**

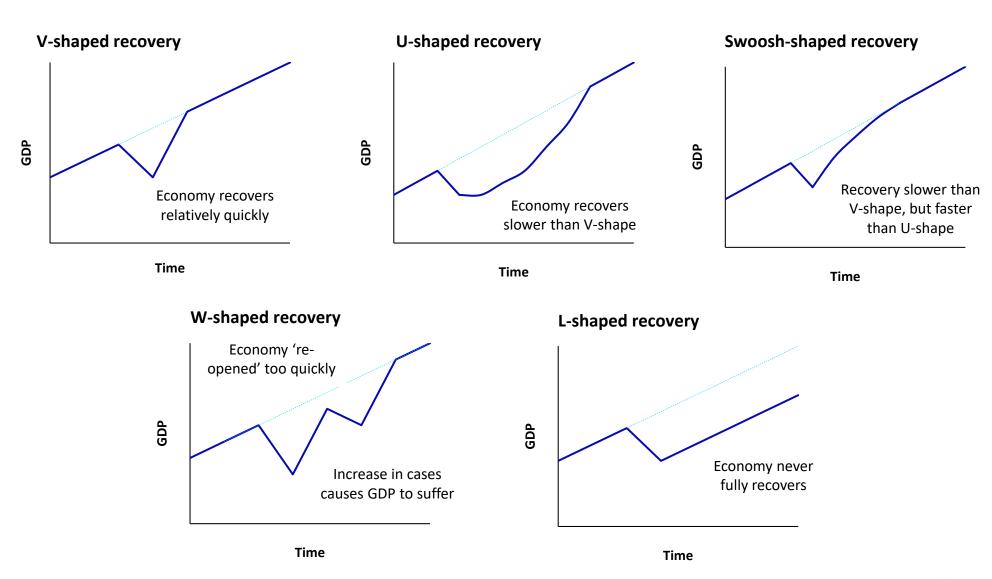
- Most annual unemployment forecasts assume a steady economic recovery starting in June, and appear not account for the possibility of subsequent significant waves of infection
- 41.1 million unemployment claims filed since start of the COVID-19 lockdown, wiping out the last eleven years of job gains<sup>2, 3</sup>
- Actual unemployment estimates will likely be quite noisy for a while
- 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

<sup>1.</sup> 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)

<sup>2.</sup> Sources: U.S. Bureau of Labour Statistics

<sup>3.</sup> 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

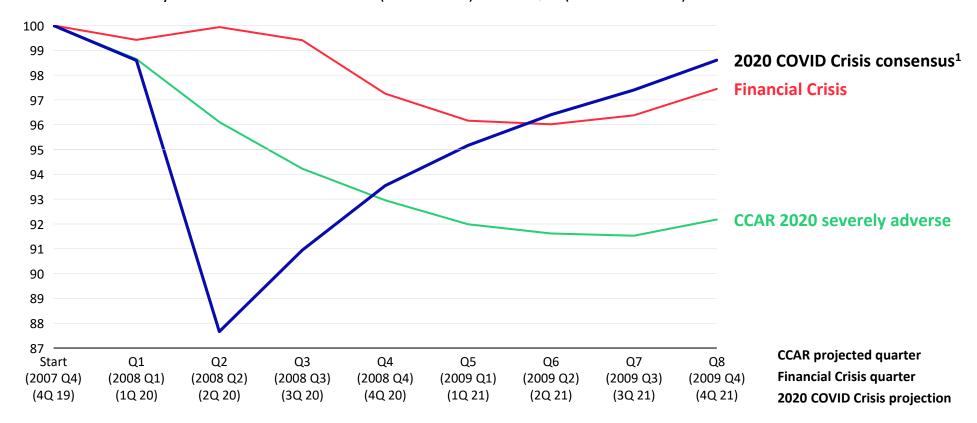


#### GDP PROJECTIONS ASSUME A RETURN TO PRE-COVID LEVELS BY EARLY 2022

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<sup>1</sup> US GDP Indexed to P0 (CCAR 2020)<sup>2</sup> and 4Q07 (Financial Crisis)<sup>3</sup>



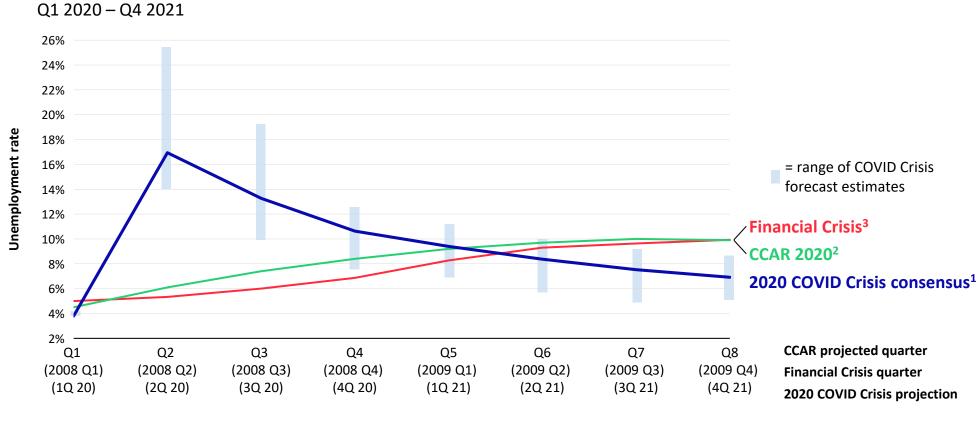
<sup>1.</sup> Consensus as the average of Bank of America (May 15), Moody's (May 15), UBS (May 15), Goldman Sachs (May 12), TD (May 15), JP Morgan (May 29), Deutsche Bank (May 15), Q1 estimates based on latest forecast before release of Q1 GDP Actual

<sup>2.</sup> Source: "CCAR 2020 data release". "CCAR 2019 data release" - Federal Reserve

<sup>3.</sup> 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



<sup>1.</sup> 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

<sup>2.</sup> Source: "CCAR 2020 data release" - Federal Reserve

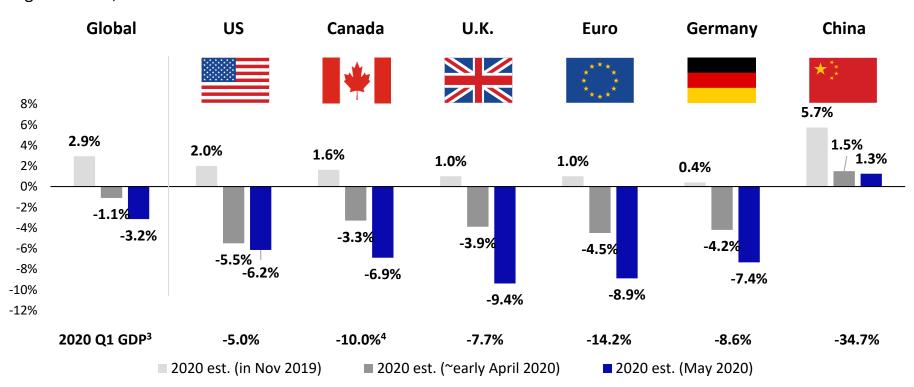
<sup>3.</sup> Source "Unemployment Rate" – Federal Reserve Bank of St Louis

#### 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<sup>1</sup> vs May 2020<sup>2</sup>

% growth YoY, median



<sup>1</sup> Source: OECD.

<sup>2.</sup> 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.

<sup>3.</sup> Q1 GDP results in terms of gog annualized rates

<sup>4.</sup> Estimate from novel 'flash estimate' measure from Statistics Canada

# CHALLENGES & OPPORTUNITIES FOR INSURERS

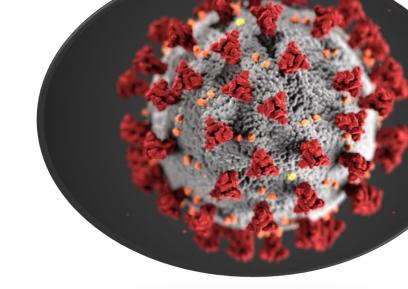


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#### FOR INSURERS, THE PANDEMIC HAS......

## **Exacerbated an already acute problem for developed Life markets**

Low rates, balance sheet exposures to heightened defaults



## Caused disruption for distribution models which may persist

.... accelerating a need for digitization

## Prompted a 'zero-based cost' mindset

"We've achieved things in 6 weeks that would have taken years otherwise"

#### Heightened risk awareness

Asset side: Credit risk, liquidity risk, equity risk, valuation risk

Life & health: mortality, morbidity P&C: Business interruption insurance

Individuals: Need for coverages which persist beyond

employment relationship

#### **Undermined long-held beliefs**

e.g. physical presence is required for operational efficiency

#### WHILE STILL EARLY DAYS, WE ARE SEEING ATTENTION FOCUSING IN THREE AREAS

#### **ACCELERATION**



- Cost
- Simplification

#### REINVENTION



- Role
- Customer First
- Capabilities

#### **RESILIENCY**



- Culture
- Cyber

#### **CHALLENGES AHEAD**

- Ability to remain resilient through multiple waves
- Organizational energy to capitalize on transformational opportunities
- Leadership to tackle chronic problems of customer value
- Imagination and determination to realize an alternative path forward
- Shareholder permission to 'fund the future'
- Credit risks in asset portfolio



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