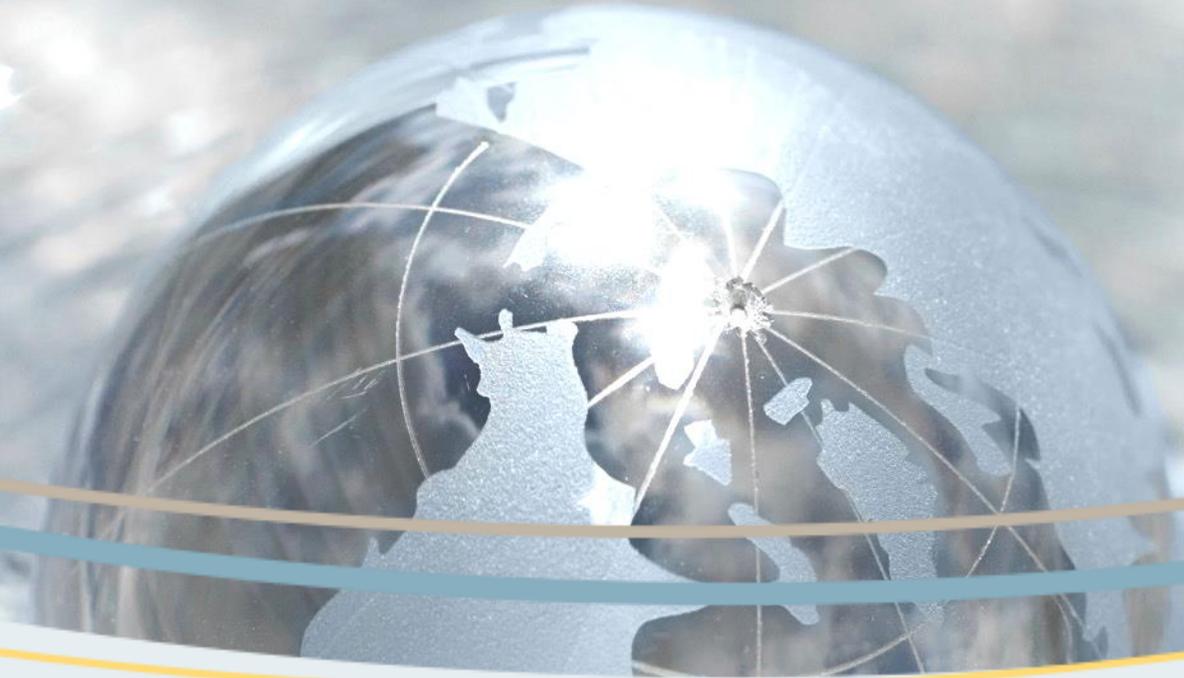


# Global Economic Update

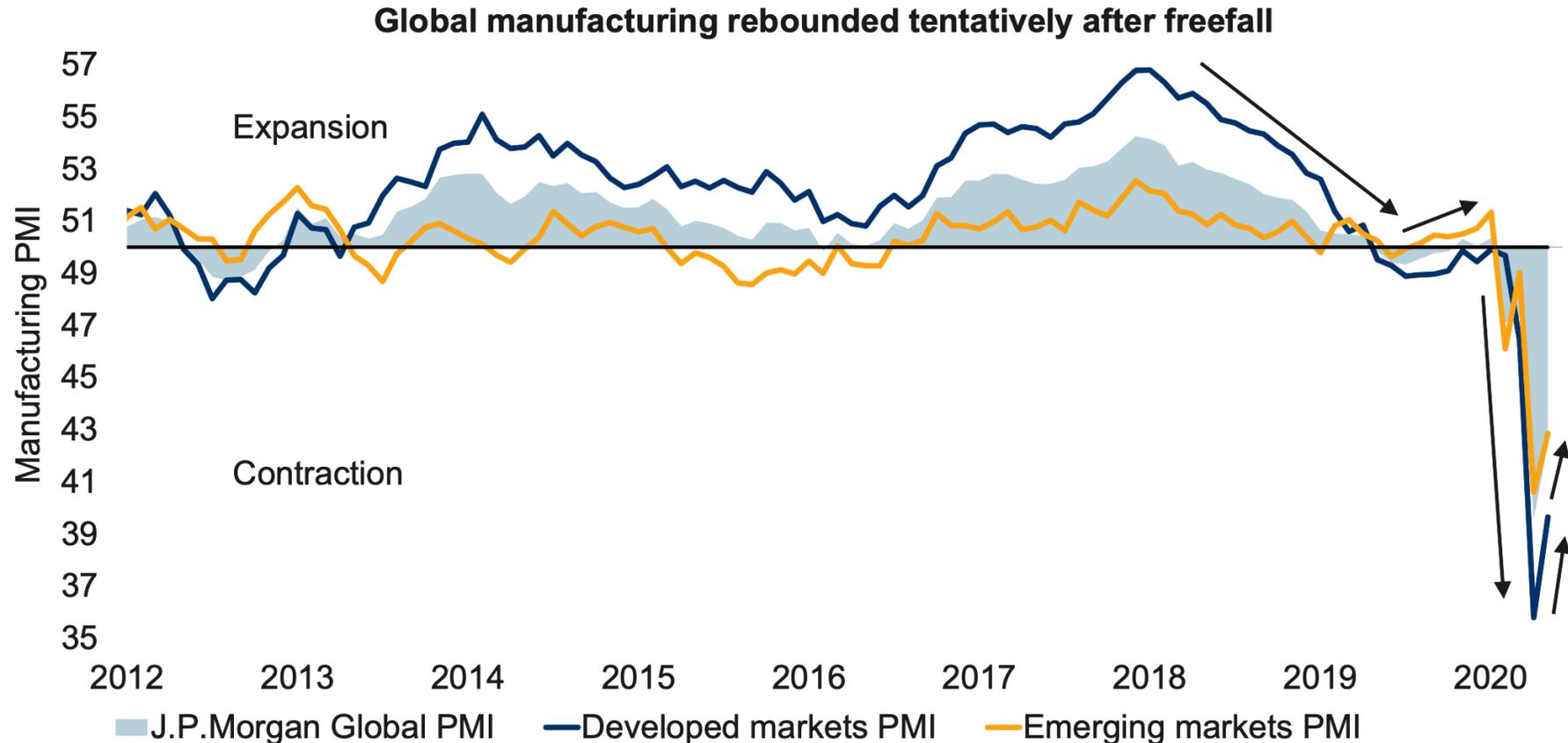
## June 2020



Rick Mackenzie, VP Advisor Support, Enterprise Distribution Strategy



# Global economic activity being significantly affected



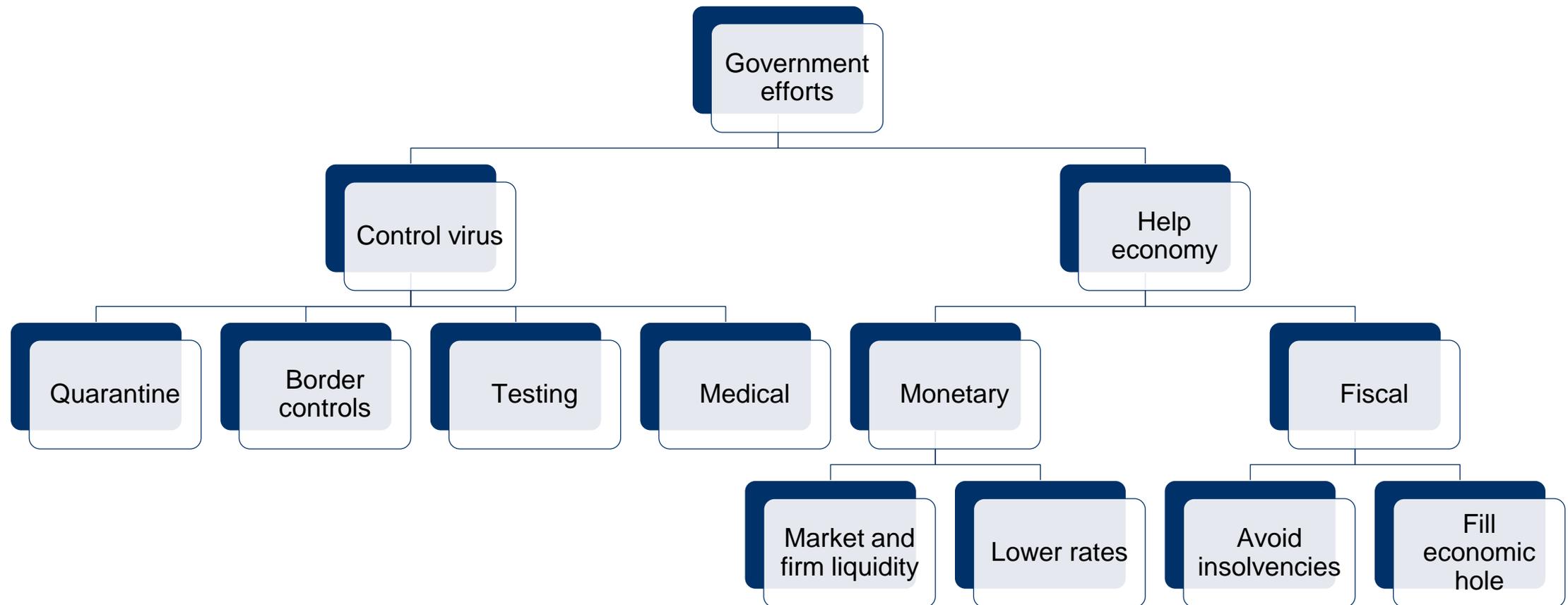
Note: As of May 2020. PMI refers to Purchasing Managers Index for manufacturing sector, a measure for economic activity.  
Source: Haver Analytics, RBC GAM

# Recovery checklist: several boxes being ticked

Recovery checklist	Achieved?
Significant disease containment efforts	Yes
Major government stimulus	Yes
Decline in Italian new cases / day	Yes
Decline in U.S. new cases / day	Yes
Decline in global new cases / day	Maybe
Decline in global new fatalities / day	Maybe
Credible plan to end quarantine	Maybe
Quarantining significantly reduced	In progress
Return to economic growth	Yes
Development of important therapeutic	No
Development of vaccine	No
Achievement of herd immunity	No
Return to prior level of output	No

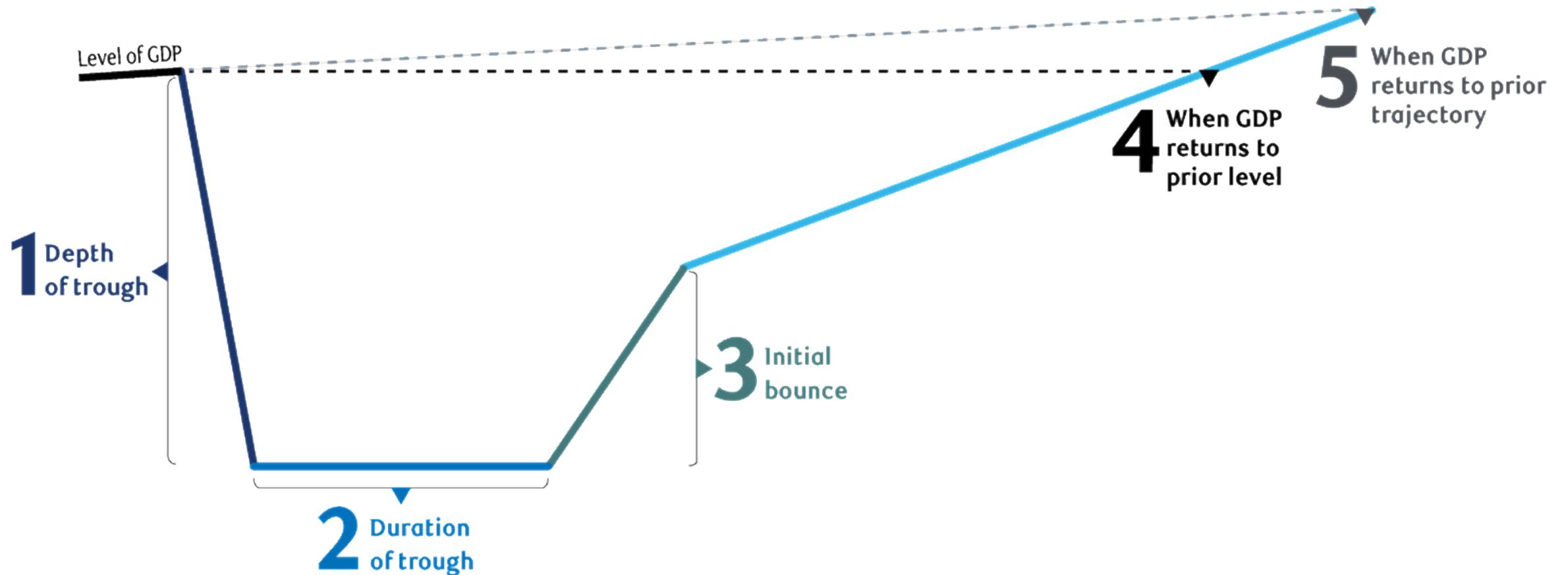
As at 2020-05-20. Source: RBC GAM

# Massive government efforts to address COVID-19 – reduces risk of uncontrollable spread, of long-lasting recession



Source: RBC GAM

# Five key economic questions



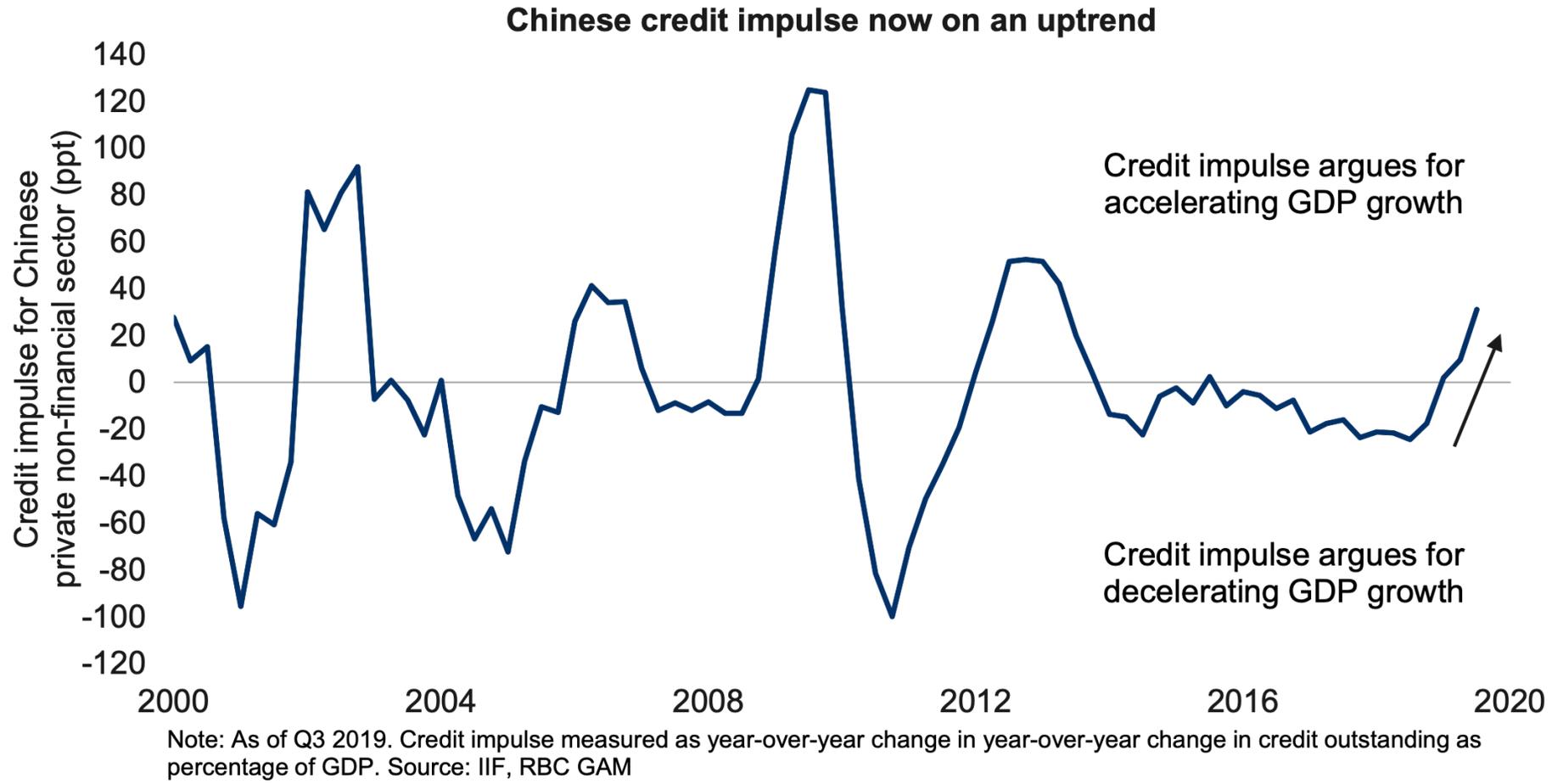
# Sluggish economic rebound

## Three reasons the economic recovery should be gradual:

<b>1</b>	<b>Incremental re-opening</b>	<ul style="list-style-type: none"><li>• Government plans incremental restart</li><li>• Limited by disease transmission</li><li>• Cannot fully re-open until one of the following:<ul style="list-style-type: none"><li>• Mass testing &amp; tracing</li><li>• Effective therapeutic</li><li>• Vaccine</li><li>• Herd immunity</li></ul></li></ul>
<b>2</b>	<b>Limited demand</b>	<ul style="list-style-type: none"><li>• Diminished income</li><li>• Diminished wealth</li><li>• Limited pent-up demand (virus hit services)</li><li>• Generalized risk aversion</li><li>• Specific aversion to social activities</li></ul>
<b>3</b>	<b>Limited supply</b>	<ul style="list-style-type: none"><li>• Supply chain issues</li><li>• Re-hiring workers could be challenging given generous government benefits</li></ul>

Source: RBC GAM

# Positive credit impulse attempting to support Chinese economic growth amid COVID-19 and structural challenges



# Markets turned optimistic



Note: As of 6/1/2020. Source: WSJ, Haver Analytics, RBC GAM

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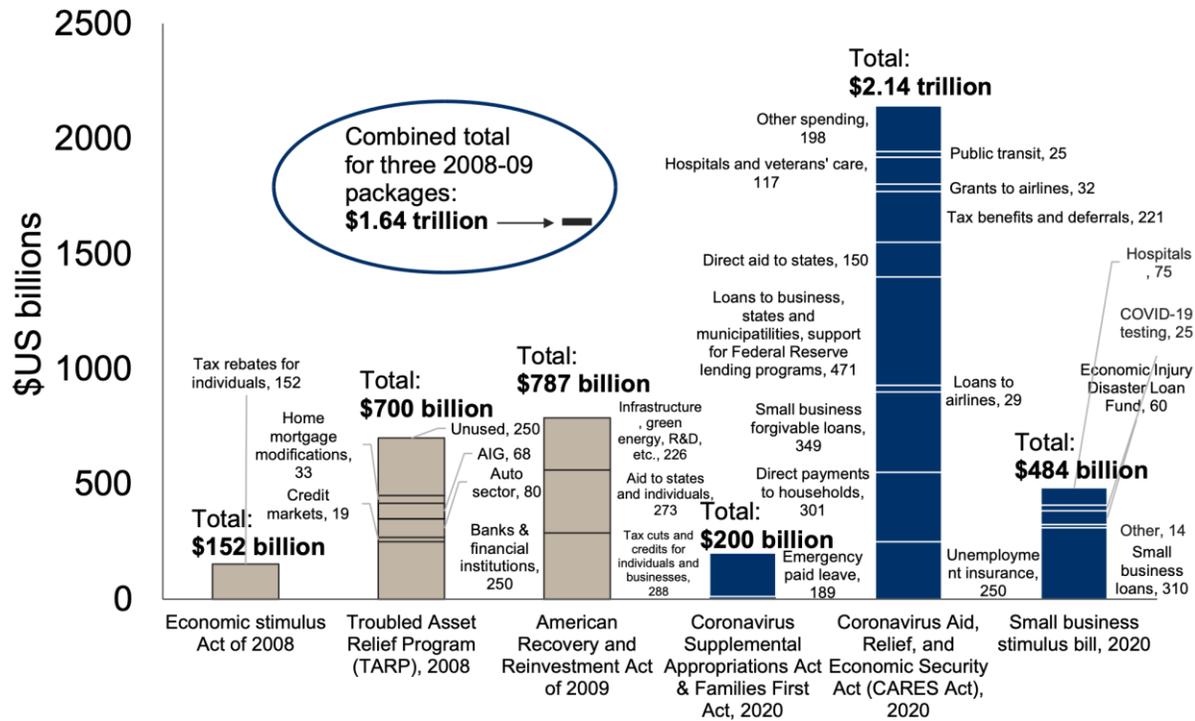
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# Policymakers are delivering massive stimulus

## U.S. fiscal stimulus comparison Financial crisis versus COVID-19 crisis



Note: As of May 19, 2020. Source: Wall Street Journal, RBC GAM

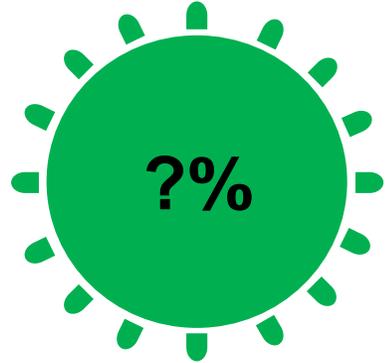
## Global COVID-19 stimulus packages

Country/Region	Monetary stimulus		Fiscal stimulus	Relief package
	Policy rate cut (bps)	Asset purchase (% of GDP)	Government outlay (% of GDP)	Outlay and others (% of GDP)
U.S.	150	22.1	11.3	15.0
Canada	150	17.0	6.5	11.8
Germany	0	7.3	13.7	45.4
France	0	7.3	2.3	16.3
Italy	0	7.3	6.3	49.3
Spain	0	7.3	5.5	18.2
Netherlands	0	7.3	4.1	8.5
Sweden	0	6.0	4.8	12.6
U.K.	65	9.0	4.7	20.5
Switzerland	0	0.0	3.3	9.3
Japan	0	18.6	14.5	42.2
Australia	50	0.0	10.8	16.1
China	30	0.0	4.8	6.1
India	75	0.0	5.4	12.9
South Korea	75	0.1	2.1	24.2
Mexico	175	0.0	0.0	3.4
Brazil	150	0.0	4.8	8.0
Russia	50	0.0	2.1	2.9

Note: As of 5/29/2020. RBA has implemented yield curve control in place of asset purchase. Asset purchase estimated for BoC, BoJ and Federal Reserve which have open-ended QE, based on an assumption of a duration of 1 year. Monetary stimulus carried out by ECB shown for Euro Area member countries. Fiscal stimulus estimates for Greece, Italy, Portugal and Spain include funding from €750 billion EU package announced on 5/27/2020. Fiscal stimulus only includes spending, tax cuts and non-repayable portion of loans and does not include relief measures such as tax and fee deferral, repayable loans, loan guarantees, and equity investment, etc. Source: National central banks, national government websites, Bruegel, IMF, ING, UBS, RBC GAM



# COVID-19 virus assessment – transmission is main problem

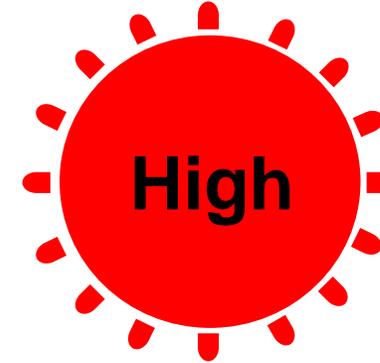


## Case fatality rate

- Lower than raw case data suggests
- Lower than SARS (10%), MERS
- But far higher than flu (0.1%)
- Highly discriminatory by age

### Easing of social distancing requires:

- Sharply reduced new cases
- Enhanced testing and screening
- Sufficient medical capacity



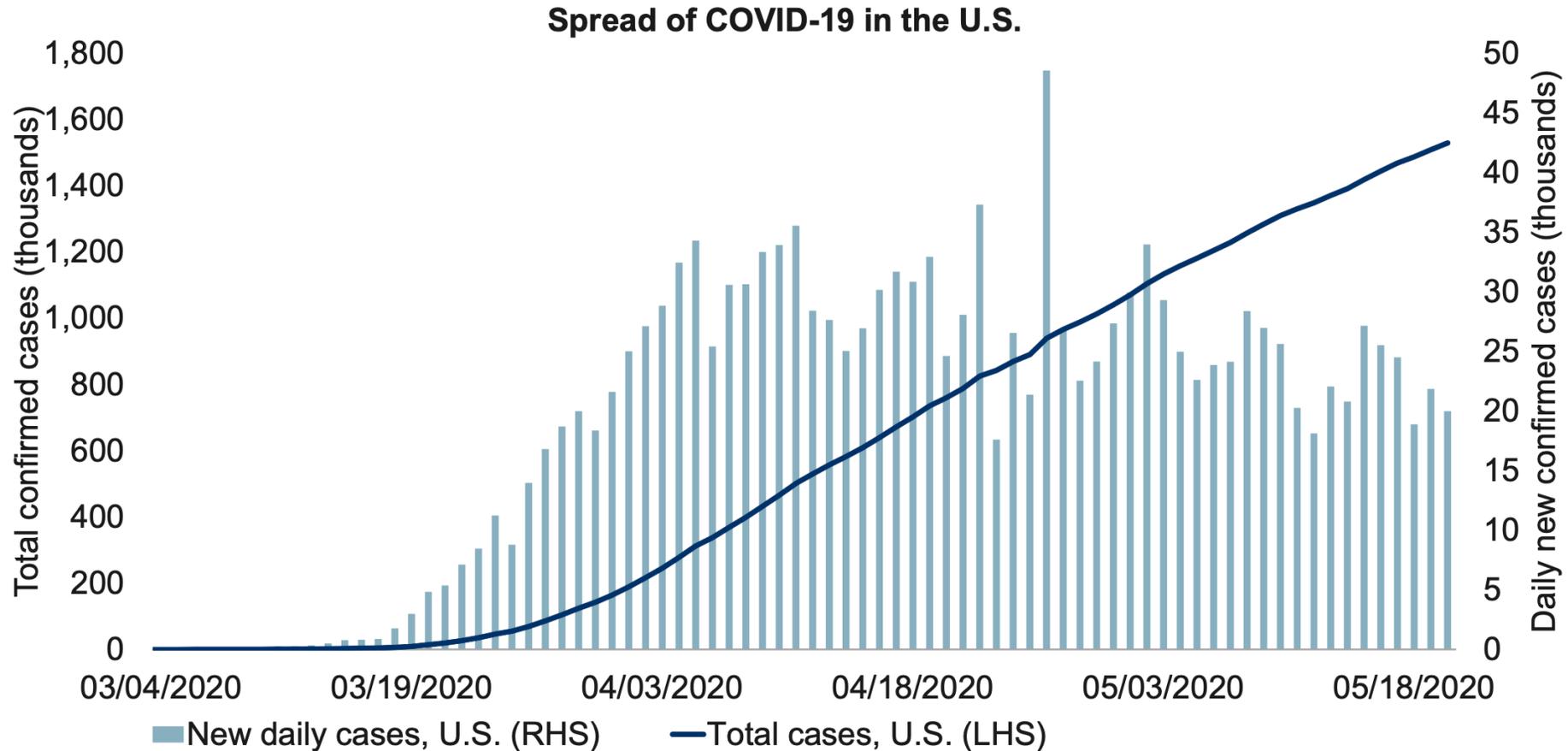
## Ease of transmission

- Far more cases than SARS
- Akin to Spanish Flu in ease of transmission
- Social distancing seems to successfully tame

### Full resolution requires either:

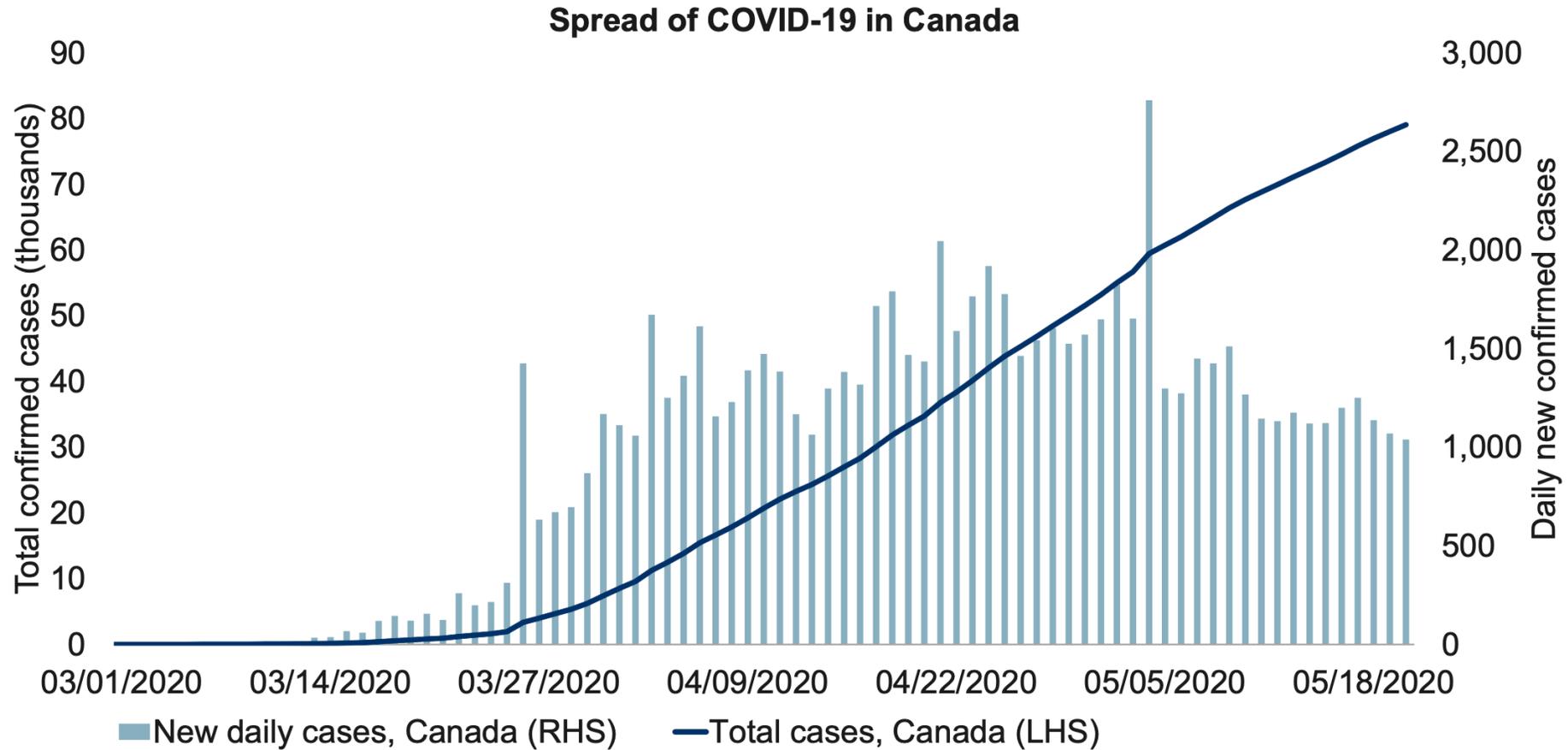
- Vaccine / highly effective therapeutic
- Herd immunity

# U.S. caseload has stabilized – still highest number of cases in world



Note: As of 5/20/2020. Source: ECDC, Macrobond, RBC GAM

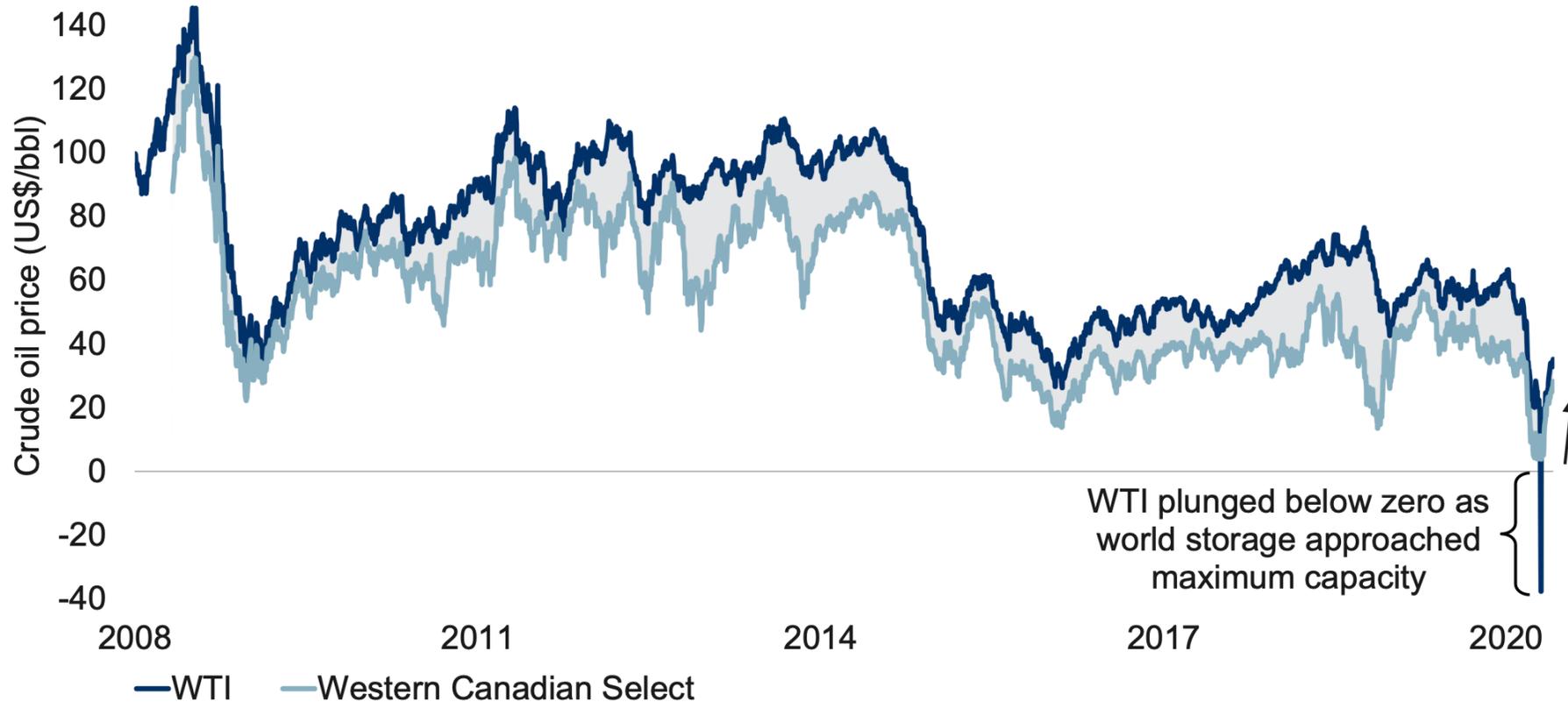
# COVID-19 cases declining in Canada



Note: As of 5/20/2020. Source: ECDC, Macrobond, RBC GAM

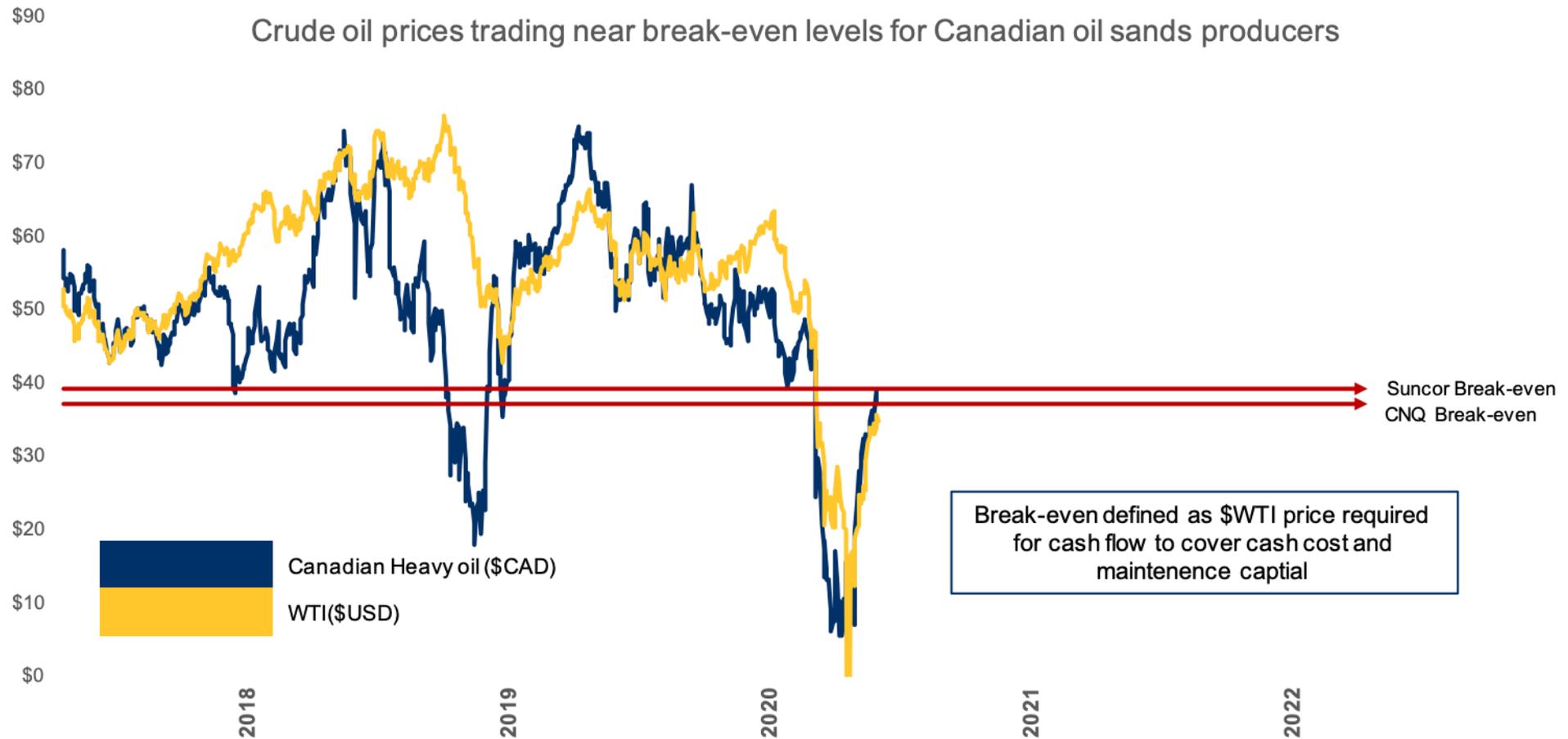
# Oil-producing countries to be hurt more by the pandemic

Oil prices recovered lost ground after unprecedented collapse



Note: As of 5/29/2020. Source: Bloomberg, Haver Analytics, RBC GAM

# Energy – demand slowdown, full inventory has crushed near-term pricing



Source: Bloomberg, RBC GAM. As of May 31, 2020.



# How we're estimating international growth differentials:

- 1) Scorecard, 2) sector composition, 3) Google Mobility, 4) Stimulus

## COVID-19 impact on GDP

Country	Scorecard-based (5 is lowest impact)	Sector-based (% of GDP)	Mobility-based (% of GDP)	= Peak-to-trough decline (% of GDP)	Monetary and fiscal stimulus (% of GDP)	= GDP growth forecast (%)	
						2020	2021
Italy	2.7	-25.1	-31.8	-28.6	6.7	-13.2	2.8
Spain	2.7	-27.0	-32.8	-30.0	5.9	-13.0	2.3
France	2.9	-23.4	-27.9	-25.7	2.7	-11.4	1.8
U.K.	2.7	-23.8	-27.5	-25.8	5.5	-11.0	3.1
Eurozone	2.8	-24.4	-25.5	-25.0	7.0	-10.6	3.6
Canada	3.9	-23.2	-22.0	-22.2	8.1	-8.8	3.8
Germany	3.2	-23.9	-17.8	-20.7	14.1	-9.4	7.2
U.S.	3.2	-22.5	-18.0	-20.1	13.1	-7.1	5.7
Japan	3.4	-24.7	-7.7	-16.0	15.5	-7.9	1.8

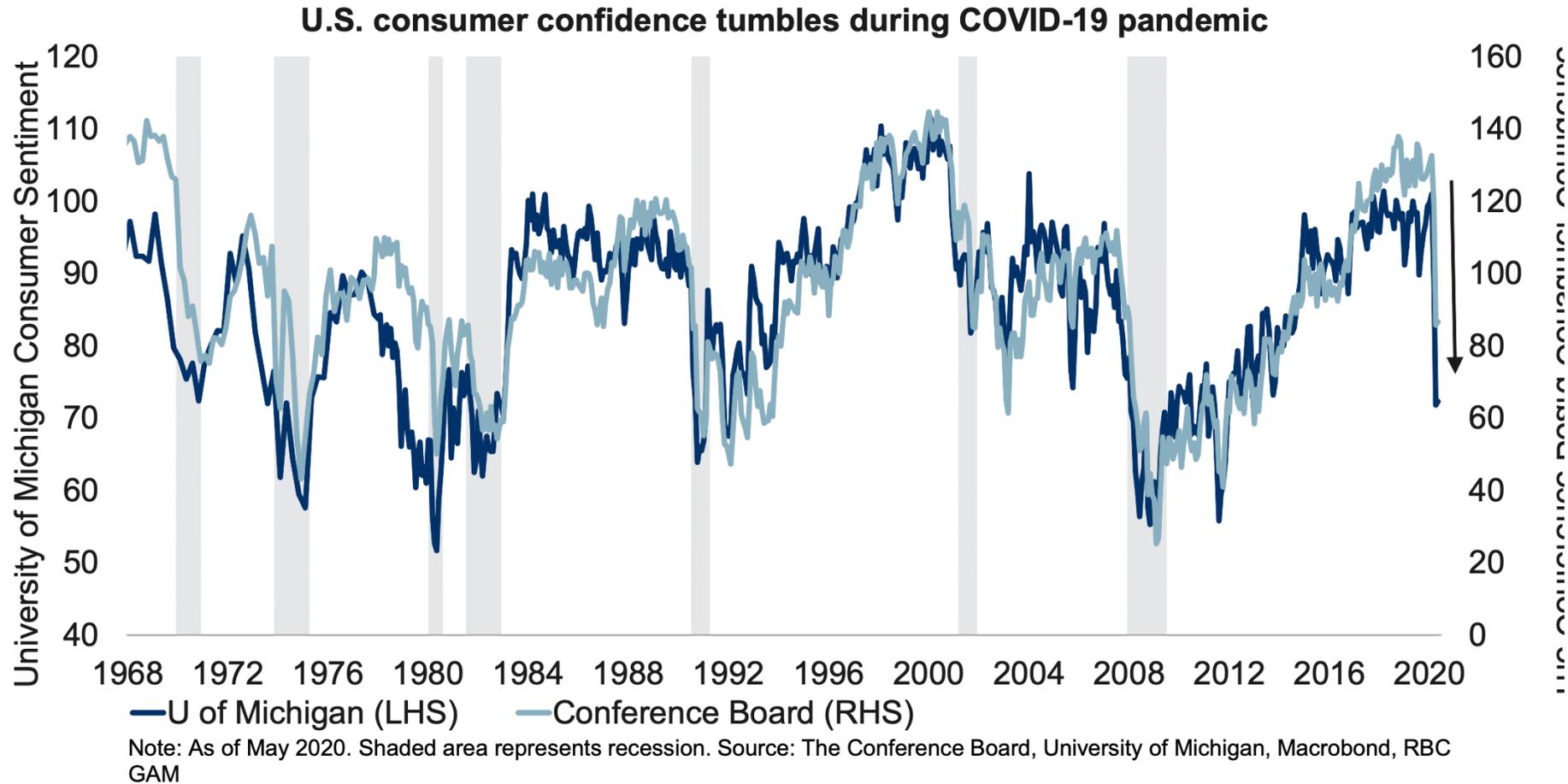
Note: As of 5/23/2020. Scorecard estimates based on factors including transmission rate, testing, containment, health care system, education, demographics, globalization, labour market flexibility, public debt and government policy response. Peak-to-trough decline in GDP combines assessment via scorecard, sector-based and mobility-based methodology. 2020 and 2021 GDP growth forecast based on medium depth and duration assumptions. Source: CIA, Google COVID-19 Community Mobility Report, kita.org, Knoema, Our World in Data, national government and central bank websites, Bruegel, ING, UBS, Haver Analytics, Macrobond, RBC GAM

# Weekly US jobless claims – massive frontloaded job losses argues economic hit has been huge



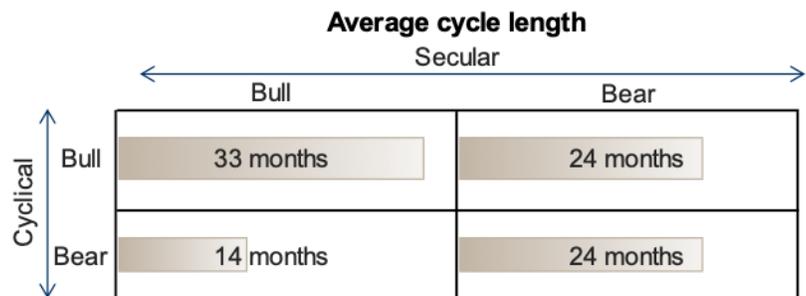
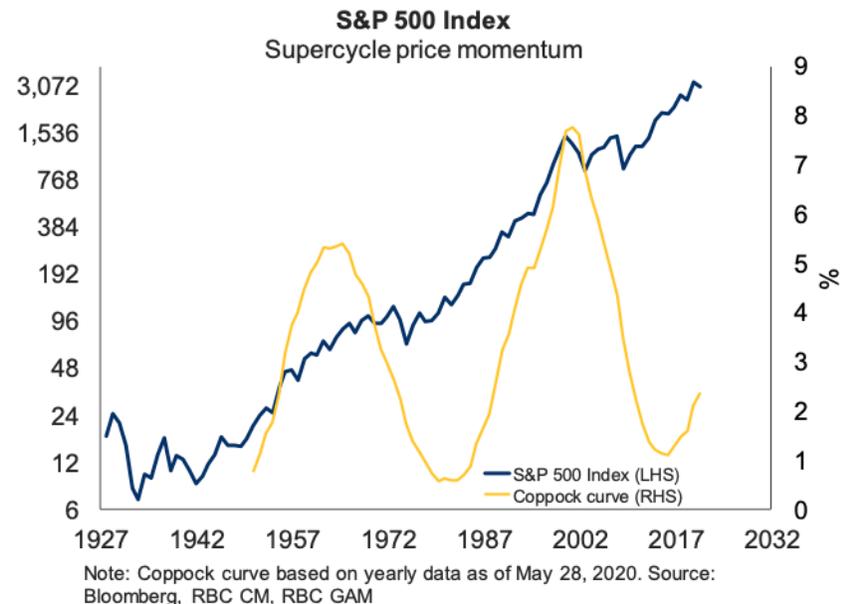
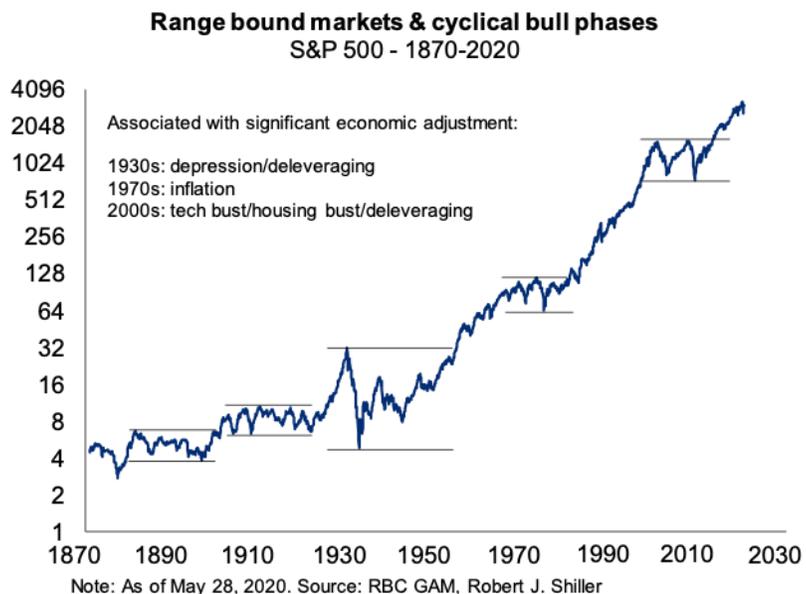
Note: As of the week ending May 23, 2020. Shaded area represents recession. Source: DOL, Haver Analytics, RBC GAM

# U.S. consumer confidence plunged, with tentative rebound?

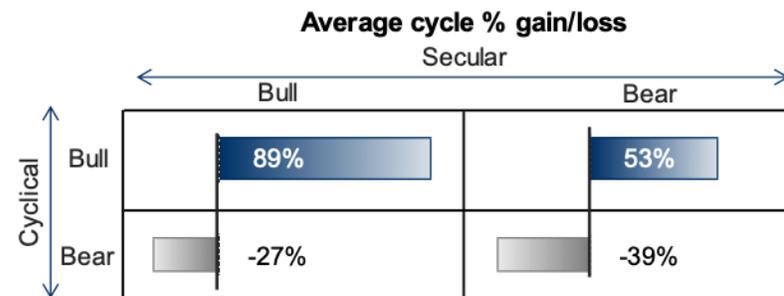


# The markets and COVID-19

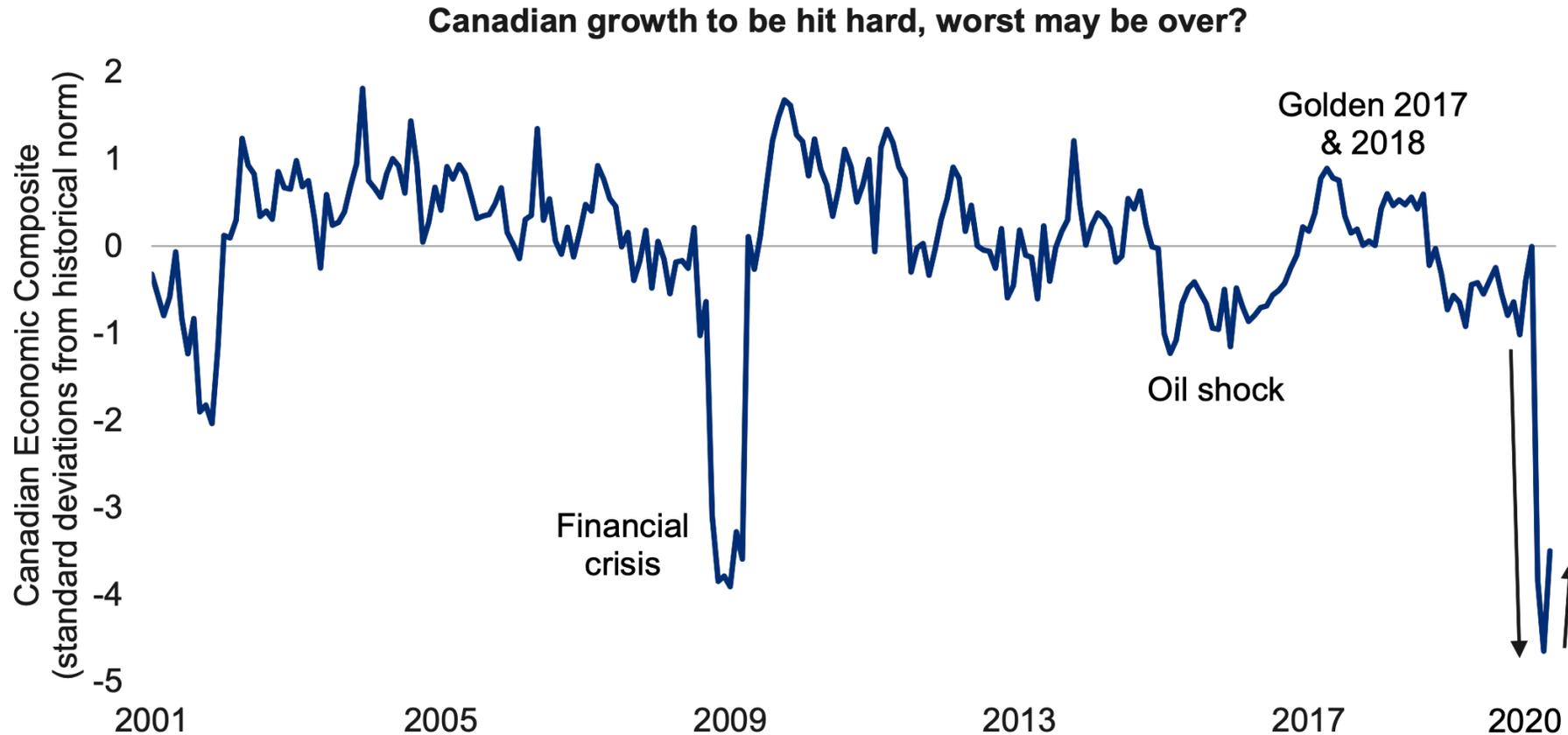
## Bear market tracker: overlaying the supercycle



Note: uses Robert Shiller's historical U.S. stock market data since January 1870. Data based on monthly closing prices.  
Source: Robert J. Shiller, RBC CM, RBC GAM

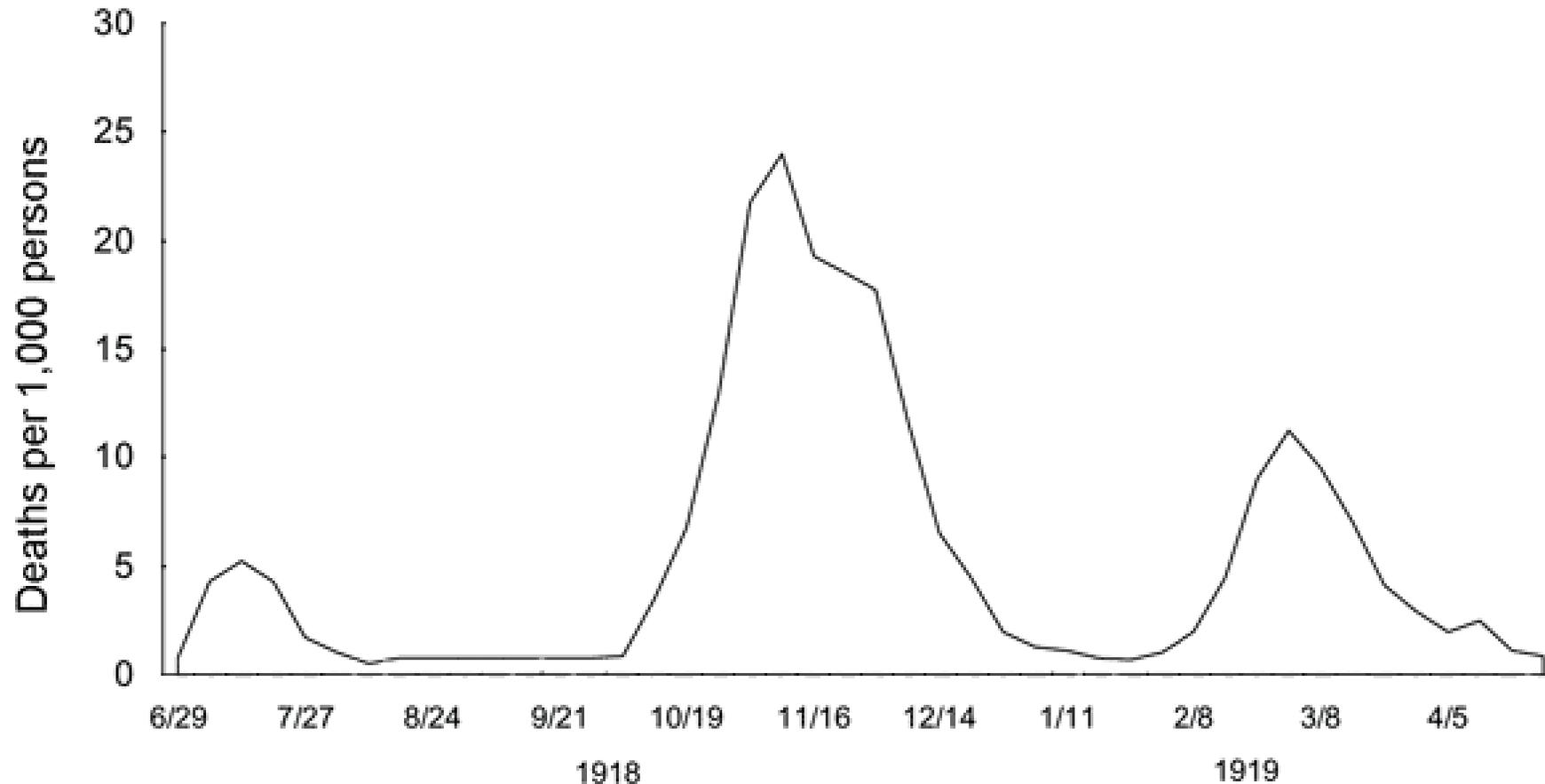


# Canadian economy suffers double whammy of COVID-19 and oil shock



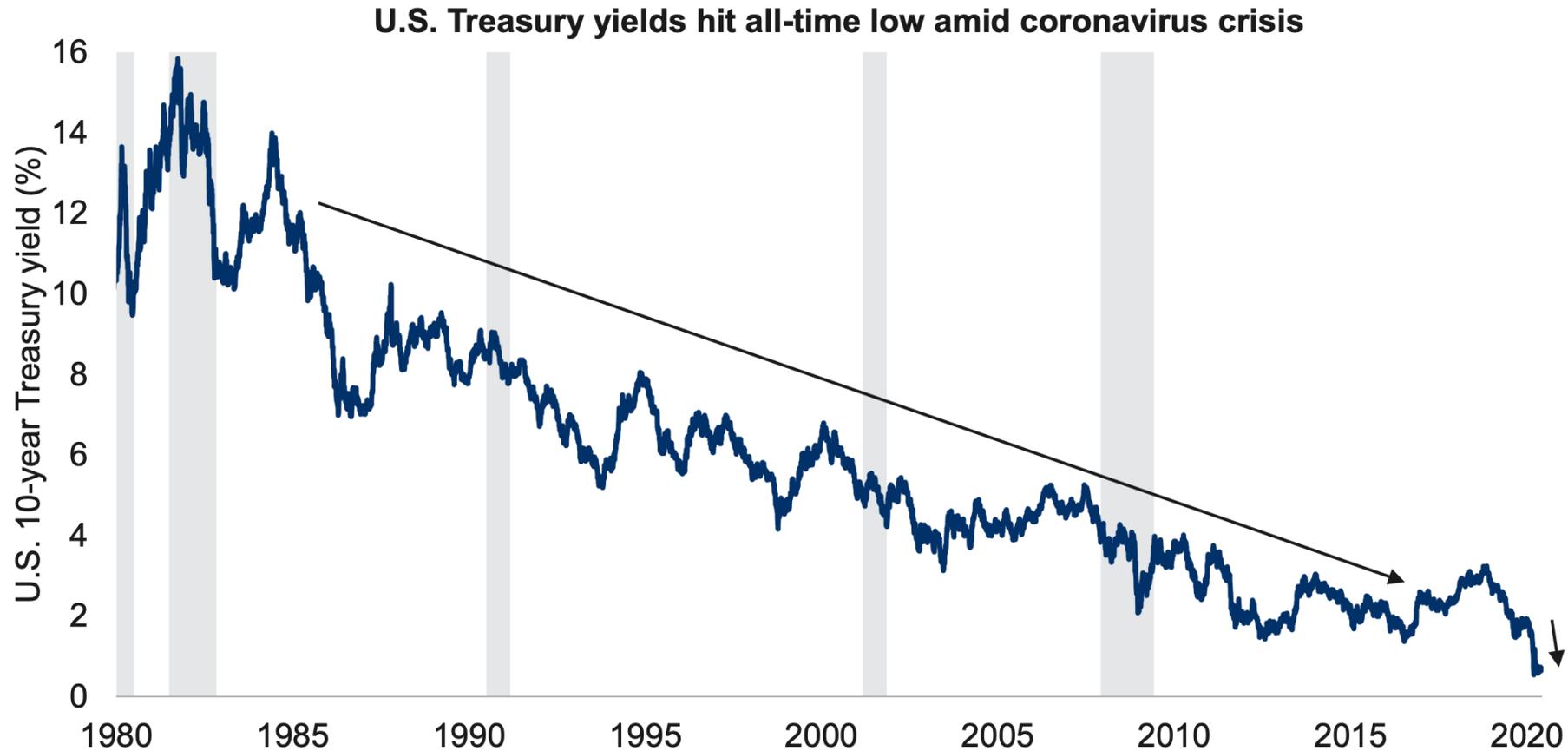
Note: As of May 2020. Composite constructed using four leading indicators from surveys on Canadian businesses.  
Source: CFIB, Macrobond, RBC GAM

# 1918 Spanish flu mortality, England & Wales



Note: Weekly combined influenza and pneumonia mortality, England and Wales. Source: Jordan, E. O., Epidemic Influenza: A Survey, American Medical Association, 1927. CDC.

# Bond yields fall to record lows due to risk aversion, recession, monetary stimulus



Note: As of 6/1/2020. Shaded area represents recession. Source: U.S. Treasury, Haver Analytics, RBC GAM