Coronavirus SITREP Index

The Bain Macro Trends Group

Level changed as of: **April 13, 2020**

BAIN & COMPANY

The Coronavirus SITREP Index is NOT intended to replace or modify any official government guidance or directives regarding the coronavirus.
The index is intended to assist business leaders in planning and coordinating a gradient of business-contingency policies in response to a rapidly evolving situation.

Coronavirus SITREP Index

Situational Threat Report Index

The SITREP Index represents MTG's assessment of the epidemic's likely impact on the business environment, based on all available information about epidemiological, economic and social conditions.

Raised as of:
April 13, 2020

10

7

Second-level contingency procedures should be activated

0

		Macro conditions
Highest	10	Severe global recessionary conditions lasting for a prolonged period
	9	Widespread cascading business failures imminent or ongoing
	8	Solvency risk broadly spreading across economies
	7	Severe multiquarter economic impacts in multiple markets likely
	6	Markets and public in multiple major nations reacting strongly
	5	Sustained transmission likely in multiple nations
	4	Sustained transmission occurring in multiple areas in country of origin
	3	Sporadic cases appearing outside of region of origin
	2	Large-scale epidemic in single region
	1	Identified contagion, local origin, little information known
All clear	0	Threat is negligible or has passed

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Source: Bain Macro Trends Group analysis, 2020

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- **The MTG Coronavirus SITREP Index is a composite assessment based on quantitative and qualitative information** across three classes of data.
  - **Scientific/epidemiological**: information about the virulence and transmissivity characteristics of the COVID-19 "coronavirus" that provides objective data about how the virus may spread
  - **Economic**: information about the direct and indirect effects of the epidemic on consumer and business behavior, including potential for supply-chain disruptions
  - **Social**: information about government actions and public reactions, including social distancing and quarantines
- We are combining official data with our own modeling to generate a holistic appraisal. This modeling relies on our experience with data triangulation, which is especially relevant today in light of the diversity and irregularity of the data sources surrounding this rapidly changing situation.
  - In cases where official data appears to require directional adjustments to account for inadequacies or limitations in data collection, we rely on triangulation across multiple data sources and modeling to generate an adjusted assessment
  - To assess economic and social conditions, we are relying on a combination of high-frequency anecdotal reports and more conventional macroeconomic data. We are also monitoring social media and other unconventional data sources, discounting appropriately based on relative assessments of credibility and reliability
- Based on our real-time monitoring of the progression of the epidemic, **the Coronavirus SITREP Index is adjusted to reflect a continuum of milestone events that reflect the increasing severity of the epidemic's effects** on the business operating environment.
  - Example: extension of the Hubei/Wuhan-area quarantine past the Lunar New Year holiday week warranted raising the index, due to the likelihood of supply chain disruptions not normally associated with the seasonal holiday
  - Example: appearance of sustained community transmission in multiple nations—including Italy, South Korea and Iran — warranted increasing the index because it demonstrated that containment efforts within China were not successful, raising the eventual likelihood of global-scale impacts
- **The index is scaled to facilitate the calibration of business-contingency policies along a stepped continuum—**from normal operations (level 0) to severe global recession with global-scale operational disruptions (level 10).
- **Adjustments to the scale are based on current or imminent conditions.** When appropriate based on changes in factors like viral spread and economic activity, a projected trajectory of index increases is also added to support forward-looking preparations.
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	Level	Macro conditions	Contingency-plan level	
Highest	10	Severe global recessionary conditions lasting for a prolonged period	**Third-level** contingency procedures activated	Aggressively triage to protect minimum viable operations and implement operational and financial actions consistent with a severe protracted recession
	9	Widespread cascading business failures imminent or ongoing		
	8	Solvency risk broadly spreading across economies		
	7	Severe multiquarter economic impacts in multiple markets likely	**Second-level** contingency procedures activated	Additionally, focus on separating essential operations and services, high-priority customers/clients, and implementing operational and financial preparations consistent with a 2 to 3 quarter recession
	6	Markets and public in multiple major nations reacting strongly		
	5	Sustained transmission likely in multiple nations	**First-level** contingency procedures activated	Focus on mitigating immediate threats to staff (e.g., travel), review/defer non-strategic investments, and institute planning consistent with a one-quarter recession
	4	Sustained transmission occurring in multiple areas in country of origin		
	3	Sporadic cases appearing outside of region of origin	Daily situational monitoring	
	2	Large-scale epidemic in single region		
	1	Identified contagion, local origin, little information known		
All clear	0	Threat is negligible or has passed	Fully normal operations	

Source: Bain Macro Trends Group analysis, 2020

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SITREP Text updated as of: April 13, 2020

As of:
April 13, 2020

10

7

Second-level contingency procedures should be activated

0

SITREP (1 of 2)

As of April 13, 2020, there are more than 1.9 million confirmed cases of Covid-19 around the world and more than 118,000 fatalities.

We are raising the Coronavirus SITREP Index to level 7, consistent with our earlier statements that we expected to increase the index in early April. Most of the initial adjustments to this index were based on rapid shifts in our assessment of how the epidemiology of the pandemic was likely to affect the broader social and economic environment. Although certain public-health factors are still the principal determinants of the massive global dislocation to date, many of the unknowns surrounding the Covid-19 pandemic are far more bounded today than they were last month.

Going forward, the most significant unknown is how governments will respond to the macroeconomic damage resulting from the pandemic. One key policy question is now resolved. It was unclear whether central banks would move quickly enough and far enough to get ahead of the dislocations cascading through the global financial system. In 2008, they did not, and the damage was profound and long-lasting. This time, the world's central banks, including the Federal Reserve, almost immediately implemented "quantitative everything unlimited" (QE-U). It worked.

The other key policy question is trending less favorably for the macroeconomy. In general, fiscal policymakers don't seem prepared, at least not yet, to manage the scale of the structural macroeconomic damage that has occurred in most nations around the world. Heavy disease-suppression policies have resulted in a 40% to 50% decline in economic activity. Light mitigation appears to exert at least a 5% drag on economic activity. It is inappropriate to refer to these percentages as contractions in the usual sense of the word. The effects are more akin to a power blackout. Turning the lights back on after about two weeks of outages would likely result in only minor damage. Outside of a few specific sectors (e.g., travel and leisure), the pandemic's economic damage could likely be contained and moderated with fiscal stimulus. But two months of heavy mitigation could result, for example, in the permanent loss of one-quarter of all US business establishments and $4 trillion of revenue. It would be extremely challenging to design traditional, after-the-fact stimulus measures that could contain and moderate that type of shock to the country's economic structure.

Most advanced economies have legislated basic emergency provisions in the form of cash payments or modified unemployment insurance benefits, which currently function largely as grocery vouchers since most discretionary spending is limited. But beyond that, policymakers are drawing on modified tools for fighting cyclical recessions, although they have tweaked those tools to maintain workers' attachments to their jobs. While these policies may have been an appropriate response to a two-week, temporary shutdown—the equivalent of a short power blackout—they are insufficient to address the structural damage that will occur when a two-week shutdown morphs into something much longer. Because of that, businesses that initially faced liquidity crises (i.e., they needed cash) now face solvency questions (i.e., closures).

The last major solvency event of this scale was the European sovereign debt crisis. When European Central Bank (ECB) President Mario Draghi said the bank would do "whatever it takes" to respond, the crisis quickly settled. The ECB essentially took failure off the table so business plans and operations could go forward. To substantially upgrade our economic outlook (and, by extension, lower the SITREP Index from level 7), we would need to see fiscal policy actions that reflected a better understanding of this liquidity vs. solvency distinction. Policymakers would need to take failure off the table.

Barring that, the best-case scenario for most advanced economies is now the 2009 global recession path. We caution that our macroeconomic view for emerging economies remains much cloudier than for advanced economies, as the epidemiological impact of coronavirus in developing markets remains an open question. As a result, the coronavirus pandemic's effect on the weighted global average gross world product may differ from the financial crisis.

Source: Bain Macro Trends Group analysis, 2020

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SITREP (2 of 2)

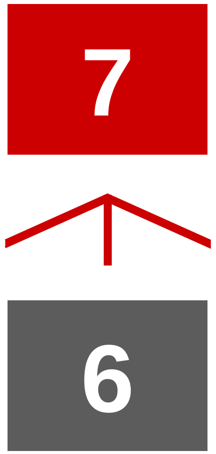
Looking ahead

We may increase the SITREP Index further, although the current mix of upside and downside uncertainties is more balanced than in the past. The downside risks are generally correlated with time—the longer the status quo holds, the more adverse the situation will be. However, several possible developments could tilt conditions in a more favorable direction. Among the more concrete possibilities is a shift in policymakers' fiscal approach to a strategy focused on backstopping frozen economies to prevent widespread business failures. If one country executes such a strategy successfully, others are likely to follow suit. A variety of epidemiological developments could also improve the macroeconomic environment. We cannot dimensionalize the likelihood that any one of these occurs, but we note that the more potential positive developments there are in the pipeline, the more likely it is that one will occur.

Businesses should now begin enacting second-level (in a three-tier plan) contingency procedures. These are procedures and plans consistent with a downturn equivalent to the 2009 global financial crisis and recession but not necessarily of the same duration. Travel across national borders is likely to be impaired for an extended period of time.

Source: Bain Macro Trends Group analysis, 2020

As of:
April 13, 2020



RATIONALE FOR RAISING INDEX TO: 7

We raised the index from 6 to 7 on April 13, 2020.

Two factors led us to raise the index. In contrast to previous adjustments, the overriding considerations were economic and policy oriented vs. epidemiological or social.

Since our last adjustment to the index, there has been a broad rollout of extended lockdown or shelter-in-place disease-mitigation policies in most population centers across Western Europe, North America and the major emerging markets, including India. Based on our analysis, these policies started a ticking clock for structural economic damage. A two- to three-week period of heavy mitigation would likely result in minor, permanent economic harm, akin to a short power blackout. But once the policies are in place for longer than one month, the spread of structural damage, including defaults and business failures, is likely to accelerate sharply. At this time, it appears most economies will be subject to at least a month of heavy disease mitigation. As a result, we expect to see serious macroeconomic harm.

The other consideration in our decision was the shape of governments' fiscal policy responses. As we discussed earlier in this update, the fiscal policy response to date has primarily consisted of either truly emergency measures—like ensuring citizens have the cash to buy groceries—or fiscal stimulus consistent with fighting a typical business-cycle recession, albeit at an unprecedented size and scale. Each country has a slightly different approach, but we have not seen any nation implement a comprehensive strategy to assure solvency, such as some sort of modified catastrophic-insurance approach. In our judgment, regardless of size, the existing policies are not well calibrated to the scope of the business interruptions resulting from the pandemic.

Based on our analysis, two months of heavy mitigation could result in the US permanently losing up to one-quarter of all business establishments, accounting for $4 trillion of revenue (about 10% of total national revenue). We expect other advanced economies to suffer disruption on that scale as well. Traditional, after-the-fact stimulus likely won't be capable of containing and moderating that type of shock to a country's economic structure once it occurs. Barring a significant change in governments' models for backstopping their respective economies, a global recession that is worse than the Great Recession is now the upper bound.

Source: Bain Macro Trends Group analysis, 2020

As of:
March 12, 2020

6

5

RATIONALE FOR RAISING INDEX TO: 6

We raised the index from 5 to 6 on March 12, 2020.

A rapid increase in the number of businesses in Western Europe and the United States announcing various measures this week to combat the spread of coronavirus was an especially prominent factor in our decision to raise the level at this time. In particular, many large employers moved to partial or full work-from-home policies. Countless prominent public events have been canceled throughout the US and Western Europe due to a combination of governing authority declarations and private business decisions.

The other critical factor in our decision is the apparent insensitivity of the US financial markets to sizable emergency Federal Reserve interventions. Two weeks ago, it seemed likely that breaks would appear in the financial system, but they were not yet present. Today, these breaks are present but still nascent.

Additional data from our Bain/Dynata survey of US households indicates that almost one-in-five Americans took at least one concrete action last week, such as avoiding public spaces like restaurants and theaters, due to their concerns about the coronavirus. Anecdotal reports of changing public behavior have spiked this week, and a midweek snapshot of real-time polling suggests the level of behavior change by concerned individuals is increasing.

Finally, the quickening pace of announcements that prominent public figures have been exposed to or may be infected with coronavirus—including possible exposures among members of the US Congress and the possible infection of Prime Minister Justin Trudeau of Canada and Health Minister Nadine Dorries of the UK—are likely mobilizing portions of the population that had previously viewed the coronavirus pandemic with more circumspection. Particularly for democratic countries, this upward inflection in public perception about the urgency of the coronavirus pandemic is a critical development on the path to a more intense phase of the crisis.

Source: Bain Macro Trends Group analysis, 2020

As of:
February 25, 2020

5

4

RATIONALE FOR RAISING INDEX TO: 5

We raised the index from 4 to 5 on February 25, 2020.

A key milestone was a notable inflection in the official guidance from the CDC indicating rising certainty that COVID-19 will become a large-scale epidemic in the United States and result in serious disruptions to daily life. The CDC's guidance further indicates that the epidemic is progressing to the point at which the need for public preparations now outweighs the risk of creating social panic. At present, however, there are no reports of store stockouts or other indications of panic behavior, suggesting that the social environment in the US remains stable.

The pattern of increasing "first reports" from more countries—including Kuwait, Bahrain, Algeria, Brazil, Austria, Croatia and Switzerland—indicates that the virus is now widely circulating across the globe. In light of the virus's unusually long incubation period and sometimes mild symptoms (which make it difficult to identify all cases), the large number of confirmed cases indicates that sustained transmission is already occurring in multiple countries.

The significant growth in the number of confirmed cases in South Korea is further confirmation that rapid spread and sustained transmission is occurring outside of China. It also confirms that there were not unique conditions—conditions that might not be present in a more developed country like South Korea—in China that materially exacerbated the spread of the virus (such as the unprecedented quarantine procedures).

Looking forward, we are watching for an acceleration in the number of confirmed cases, reports of unexplained illnesses spreading in major developed nations, and subsequent panic raids of stores that result in sporadic stockouts. Similarly, if major stock markets—currently adjusting in increments of 2% to 3% per day—begin to exhibit free fall-like conditions that trigger market circuit breakers, we will increase the index to a higher level. We do expect that conditions will warrant raising the index level as the virus continues to spread.

Source: Bain Macro Trends Group analysis, 2020

ADDITIONAL COMMENTARY REGARDING ADJUSTMENT TO INDEX DESCRIPTIONS AS OF 3/23/2020

Since we first published the Coronavirus SITREP Index in February, observable patterns have helped resolve some unknowns, but significant uncertainty still surrounds other critical determinants of the virus's ultimate effects. We originally constructed the index to encompass the broadest possible range of potential developments across three dimensions: the epidemiological progression of the virus, governments' policy responses to the pandemic and the epidemic's macroeconomic impact. We believe that our original range (from 0 to 10) still encompasses the full range of possible outcomes.

Encouragingly, developments along all three dimensions have reduced the likelihood we will ever utilize the upper-most range of outcomes. That said, we remain cautious about ruling out more extreme possibilities in a situation as multifaceted and fluid as the global coronavirus pandemic.

In light of our evolving understanding of the contours of the pandemic, we are making minor clarifying adjustments to the descriptions of the index's upper levels (levels 7 through 10). These adjustments have not changed the meaning of those levels, nor do they imply a change to the relationship between index level and recommended business response.

We believe these changes enhance readability and transparency about how we are calibrating judgments on the current global situation surrounding the coronavirus pandemic. Specifically, the language now focuses more on the macroeconomic impacts of the epidemic, although these effects are intertwined with both government policies and the epidemiological situation.

To provide additional context, we also offer the following commentary about the two sets of ranges in the upper part of the index:

- Levels 7 and 8 imply that enough macroeconomic damage has occurred or is likely to occur to transform a one-time shock into a more severe, broad-based, multiquarter recession comparable to other severe recessions of the post-World War II period. In particular, if solvency risk concerns spread beyond the initial set of frontline industries most directly impacted by social distancing, the resulting economic contractions are likely to be more severe and long-lasting.

- Levels 9 and 10 imply that macroeconomic conditions are adverse enough to produce business failures far beyond the scope of typical contractions unless the government implements adequate backstops. For example, if governments mandate extremely strict social distancing for over a year, many normal market activities would likely be severely impaired.

We continue to maintain the index at level 6 at this time. Barring unexpected developments, we will consider raising the index to level 7 in early April but offer no prejudgments about the likelihood of an increase at that time. We are closely monitoring several factors that will affect the pandemic's course: the progress of disease-mitigation efforts in places like Italy and Washington state, which provide useful

Source: Bain Macro Trends Group analysis, 2020