Some events, like oil shocks, have clear and well-defined implications. Other events change the rules and force a rethink of everything. COVID-19 is a rule changing event. Disruption has come to mean new tech building new companies and destroying old ones, but events like COVID-19 can also drive new business models and destroy old ones. Navigating the business and investing landscape post-COVID-19 will require understanding the complex and shifting currents of changes that COVID-19 has set off. The temptation to try to simplify that complex morass into something more easily explained is almost irresistible. Why not take a few of today’s investment trends and turn them into long term investment themes? The problem is that long term investment themes and trends, particularly short term trends, are not the same things. In many cases, today’s trend will be tomorrow’s overshoot. Rather, we need a deeper understanding of the forces driving those changes and the structure within which they are occurring.

COVID-19 is the type of event that resets the entire economy. For investors and companies, this is an existential event where capital needs to find new homes and where yesterday’s strategies will work only by accident the way the stopped clock sometimes tells the right time. This is where markets excel—looking at the companies whose models no longer work and moving that capital to new companies whose business models show more promise. And then as the rules continue to change, doing it again. Public policy quite rightly is focused on minimizing the damage, which is only a small distance from a policy of reducing change. Markets, in contrast, need to embrace change. Supporting business models that work, and starving those that don’t, is how economies adapt to new circumstances. Such change is inherently chaotic, for as each thing changes, it enables and incentivizes a dozen others. The economic cure to the disruption of COVID-19 will not be resurrecting yesterday’s economy. It will be a combination of consolidating and expanding the success of some of today’s winners and retooling failing companies and funding new entrants who will replace those who cannot make the needed changes.

How can we make such assessments? The framework we think can help is breaking the post-COVID-19 investing environment into three phases that capture the structural dynamics of the competitive environment and four key themes that are driving changes across those phases. The idea is to separate the consistent drivers of change from the structural environment that determines the best way to change at a given moment. To take a simple example that we look at in more depth later, businesses will clearly need to develop more resilient supply and distribution systems. Today, that means shifting supply relationships to the firms that happened to be in the best position for this problem in this moment. This will create serious pressures for consolidation driven by incumbency as firms will shift their supply and distribution systems to the firms that have been able to deliver in these difficult times. But in many cases, that success will be a matter of “circumstance” and as the problems are better understood, new solutions will be found and incumbents and their customers will be at serious risk if they do not change again. Resilience will be an ongoing competitive theme. The superiority of today’s resilient incumbents is likely to prove temporary and will be deeply at risk as we

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go forward, unless those companies are truly designed for resilience. The point is that
today these firms happened to be the most resilient at a moment when resiliency
increased in value; as the need for resiliency brings focus, capital and innovation to that
theme, it will endanger the very incumbents it helped.

**Three phases to navigate after COVID-19**

The phases of investing for the post-COVID-19 economy will fall into three overlapping
periods: preservation, consolidation and innovation.

Preservation is the period where uncertainty is so high that the best thing you can do is
preserve what you have to see if it provides a useful base for tomorrow. In this phase
both investors and governments tend to focus on funding and balance sheet repair. The
point is quite simple—during this phase the range of outcomes is so wide that simply
surviving until tomorrow with as much financial reserves as possible maximizes future
returns. This is also one of those strategies that is completely appropriate until it isn’t
and then as the situation clarifies becomes very wrong going forward. Either because it
has become time to grasp the opportunity as quickly as possible or simply due to a
stubborn waste of capital that would be better invested somewhere more productive.

The second phase is consolidation. Here, the companies whose business models fit the
moment and are able to demonstrate that they can in fact perform well in a
post-COVID-19 world begin to pull away from the rest. During this phase, customers are
quite willing to shift to the local winners even if it means too narrow a supply base. To
put it simply, the logic becomes reduced to “we need to use solutions we know work”
while subtle longer term strategic business needs stay on the back burner. As a result,
during consolidation, we tend to see significant momentum and narrow breadth both in
capital flows and physical investing as a crisis borne conservatism causes success to
breed success. While we will see much change during the consolidation periods, much
of that success will be reshuffling share among existing technologies and companies
rather than actual new things.

The third phase will be innovation. At the beginning of the innovation phase not all
aspects of the post COVID-19 world will be clear, but they will become so. Companies
and customers will now have a clearer grasp of their new needs and the nature of what
they expect in a new vendor or product. More importantly, business problems will have
changed in a deeply substantive way and thus the need for and the potential value of
new solutions will be high. Further, with change already underway, the normal costs of
change are lower, thus making disruption easier. This creates the potential for massive
disruption and superior investment returns, which should attract significant capital. This
should scare the early consolidation winners even as they are rushing to consolidate
their early advantage. For the investor, this is when momentum breaks and breadth
expands as a new group of solutions and companies come forward.

From an investing standpoint, the key in navigating these phases will be to distinguish
between competitive advantages that are sustainable and those that are a matter of
circumstance. During the consolidation phase we will see competitive advantages be
self-reinforcing. At some level, it will simply be enough to be ahead. In the innovation
phase, those advantages will come under attack and it will be critical to understand how sustainable those competitive advantages really are.

The sustainability of those advantages will hinge on the answers to two questions. First, “Are those companies creating real value in the post-COVID-19 new world?” And second, “Can those companies sustainably monetize the value they are creating?” We address the first question in detail below, as it really defines the nature of the big post-COVID-19 investment themes. The second question is a broader question that applies well beyond COVID-19 and for that, we refer the reader to a prior publication on this topic, *A Survivor’s Guide to Disruption*, which analyzed the structural drivers of sustainable competitive advantages in some detail. The key point of that publication is how specialization rather than vertical integration is able to create more flexible and sustainable business models. COVID-19 will only reinforce this conclusion as the COVID-19 experience has shown how vulnerable vertically integrated firms were to any internal disruptions in non-core functions, while more specialized firms that used external vendors for non-core functions found it easier moving between vendors and technologies and were better able to adapt to changing circumstances.

**Four themes that will shape businesses & investing post-COVID-19**

The key themes we think will drive change in the post-COVID-19 environment are: 1) resiliency, 2) sticky learning, 3) risk based market segmentation, and 4) regulatory resets.

**Resiliency**

Resiliency reflects that the old system was too cost optimized and not sufficiently optimized for reliability under stress. Supply lines could be long, complex and rife with single points of failure as long as they were cheap. After COVID-19, firms and consumers will place greater value on reliability. This will mean simpler systems capable of load balancing away from stress. These could be systems as new as cloud-based computing or as old as the global petrochemical supply chain where the need to minimize transport costs keeps the system both local and global, with suppliers constantly rebalancing the global system to meet local demand as locally as possible.

There has been a lot of discussion of whether COVID-19 will push supply chains to be local. The answer is both a resounding “NO” and an obvious “yes.” In distributed platforms, more of the supply delivered anywhere is more local, but the system only works because it is global. “Local only” would be too fragile with respect to local events and very expensive. Resilience requires redundancy and the ability to rebalance load away from stressed or failing systems. Such rebalancing is easy for companies that run large multi-user geographically distributed platforms and companies that use those platforms rather than run their own. In general, local suppliers cannot afford the type of systems redundancies, either geographically or locally, that are needed to provide resilient service efficiently.

The deeper question is about consolidation. Platforms tend to work better when they are very large. This tends to create concentration, but depending on a single platform or a single supplier (or country of supply) creates highly concentrated risk. The general
solution to such situation is to have “few” platform so that there is both competition and efficiency. The practical reality often precludes this answer and more complex arrangements of corporate structure and behaviors can allow companies to become comfortable with their supply chain risk (see A Survivor’s Guide to Disruption, Chapter 3: Perfecting Platforms).

The trickiest aspect of this theme for investors is a fairly stark difference between the competitive dynamics during the consolidation and innovation phases. During the consolidation phase, success will largely be driven by track record—if you were able to perform during COVID-19, you are clearly resilient. The very special nature of those stoppages and the likely rebalancing between the drive for efficiency and the need for reliability means that in some cases, there will be openings for new entrants. A supplier who just happened to be in a less COVID-19 impacted area is not actually resilient and an impacted supplier will develop new strategies both to be resilient and to demonstrate resiliency going forward.

Thus, we will likely see a period of intense consolidation to the recent winners followed by massive disruption as new entrants and some of the surviving “losers” specially structure for cost effective resiliency. The key will be the extent to which the “lucky” winners use their position to evolve into what the post-COVID-19 world actually needs or simply try to use their temporary advantage for short term gains.

Broadly as noted above, we would expect to see global networks of supply systems, such as those we see in cloud computing and petrochemicals, come to dominate in more industries. These global, but local-everywhere systems, have the advantage of being able to deal with global disruptions by going local and dealing with local disruptions by load balancing in other regions in ways that extended global supply chains and local suppliers cannot. It is worth noting that both the global and local aspect are subject to significant variations in design and could differ by part of the supply chain. One of the many reasons that vertical integration will likely continue to decline post-COVID-19 is that the optimal geographic load-balancing design for trucking and local delivery is not the same as for warehousing and storage of perishable goods as for non-perishables as for services. Global could easily end up being regional and local is clearly subject to many definitions. The key is the combination of relatively short supply lines and the ability to rebalance away from local disruptions when those short supply lines break or become overburdened.

**Sticky learning**

Sticky learning is the reality that companies and individuals have learned to do things now that they didn’t know how to do previously and this new state will be the new base from which to make new choices. You no longer have to teach customers how to use tele-medicine—it just has to work better than the office. This is a different test. It doesn’t mean that all the changes we are observing are permanent, but it does mean that many transitions that might have taken decades to take place before, may now only take years. It also means that the notion of early adopter has become far less relevant for many technologies. Much of tech followed the path of adoption rather than incremental value. Companies pursued the customer base easiest to capture even if the value
created and the ability for the company to monetize that value was limited. The idea was that having a user base would create forward opportunity regardless of the immediate profits. Now with many user bases having made the transition, it makes sense to pursue the user base where firms’ ability to create and capture value is highest. This actually makes the early adopter a poor target as they tend to continue to follow the new and makes the stickier slow adopters the clearly superior target, particularly high income, slow adopters. This shift from fast to slow adopter could fundamentally change that shape of forward consumer digital tech. To take a simple example, in fintech it would suggest that deposit platforms (older investors) rather than loan platforms (younger dis-savers) may be the leading edge.

The consolidation phase and innovation phase dynamics for sticky learning contains a bit of irony. The key is obviously the users who don’t like change and who have been moved by circumstance into new learning. COVID-19 will have forced that learning, but it will have also created a new default user standard. The winners’ interfaces will become the new standards for new entrants to use as a base and to attract that change-hostile user base. This is a pattern we have seen before with spreadsheets and many other applications. What was once an innovation and a barrier to entry, becomes a standard and a bridge allowing new entrants to compete more easily. The more successful the winners are during the consolidating phase, the deeper and more entrenched that standard becomes, the more attractive and the easier it becomes to attack those winners during the innovation phase.

For the corporate market, the dynamic is similar, but goes deeper. Firms have been forced to experiment massively with work processes, including work from home, tele-everything, rapid cloud adoption, new supply chains, new distribution channels and new global alliances. This will not only change their purchasing patterns, but will likely change their very structure. In *A Survivor’s Guide to Disruption*, we discussed the nature of specialization and the use of platform and servicers to boost efficiency and reduce capital usage. The major pushback within corporations against these trends was their management’s belief that they needed to control those functions to maintain quality and enable innovation. COVID-19 has taught those corporations that in many cases, the control they thought they had was an illusion and that their vendors were in a better position to innovate than they themselves were. Any company that was using a globally distributed vendor to do payroll, computing, distribution, logistics, etc., had an easier time adapting to COVID-19 than one that was trying to run those functions for itself. This sticky learning will likely drive a fairly rapid and massive simplification of corporate structure as companies seek capital and operating efficiency in the post-COVID-19 world. Companies have been forced to understand what actually is core to their business, which has turned out to be a much shorter list than they thought pre-COVID-19. Again the more successful those vendors are, the more attractive and better defined the competitive target is for new entrants in the innovation phase, unless there is a deeper source of competitive advantage.

**Risk based segmentation**
Risk based segmentation is the fact that different groups will now base much of their expenditure on new risk preferences. A lot has already been written about how people
post-COVID-19 will be unwilling to fly, eat in crowded restaurants, go to sporting events or even live in cities. The broad behavior of consumers in early openings has already shown this type of speculation will prove too simple a summary of what will be a complex social shift based on real learning, actual risk and a lot of emotion. We will almost certainly see a lot of changes in the types of risk people are willing to take, but those changes are also unlikely to follow any simple patterns.

After the Spanish flu of 1918-1919, we saw both the Prohibition and the Jazz Age emerge simultaneously. At the simplest level, we are likely to see highly risk-averse behaviors in vulnerable groups—particularly medically vulnerable individuals and the legally vulnerable companies. On the other hand, much of the population is not at high risk and those less vulnerable groups are concentrated in demographic groups already predisposed to risky behaviors (the young). These groups are likely to engage in very different consumption patterns than the vulnerable groups.

Businesses face an even more complex set of choices as they need to weigh the risks of both their employees and their customers and the ways in which governments and courts may assess their culpability in the future. We are likely to see both consumption and corporate behavior reset to reflect those realities. Youth based businesses may not change and young adults may even embrace a “you only live once” risk attraction. In contrast, consumer businesses with significantly older customer bases may be able to gain significant share by offering risk based accommodations. Even more significant from an investment standpoint, firms with high legal exposures may need to actively manage those exposures. We may even see liability risky business functions move to smaller more lightly capitalized entities, creating a variety of opportunities for new companies, much like the financial crisis moved subprime lending from banks to consumer finance companies.

For risk-based segmentation, the consolidation and innovation phases could end up seeming more like a hamster’s wheel than a two-phase process. This is because unless we see both a rapid and nearly complete solution to the COVID-19 medical problems, the specific nature of the risk problem being solved is likely to keep changing (this will also likely be complicated by the regulatory reset described below as we may see an ever-changing set of risk related rules). Larger firms will be in a position to create and experiment with relatively complex and expensive risk solutions and smaller firms will then be in a position to simplify and copy the more successful solutions on the cheap. This could easily lead to an ongoing cycle of consolidation and fragmentation based on those risk parameters. For the businesses focused on risk averse populations, this will be a fairly obvious process. For the businesses serving the less risk adverse population, it will be less so, but will likely focus on re-segmenting the market to re-engage with more of the risk averse population as risk either declines or is more easily managed.

If the risk problems become more stable, but are still well-defined and significant, there is a possibility of a clear two-phase process. In the consolidating phase, the two populations will split along risk preference between vendors who are naturally more aligned with those risk preferences and create two sets of consolidating business groups. For instance, a shift to an older suburban population and a younger city population reshaping all of the supporting businesses geographically. After the
consolidation, the two populations will provide more distinct and better defined targets and we should then see a group of businesses seek to target those groups both on risk preference and on other secondary characteristics. This should lead to narrowly targeted, but intense competition in these areas.

It is also worth noting that this entire theme could evaporate or become entirely redefined because of a single medical discovery. Thus, the capital applied to it will always be high risk. In fact, while the risk and social distancing aspect of COVID-19 has gotten a great deal of attention as an investment theme, that conclusion is quite fragile. Resiliency and sticky learning will outlast a change in medical technology and their implication for capital investing is quite clear. The nature of the risk preference segmentation shock and its implications are easily shifted by medical technology or by technological change in other aspects of the system. As we will discuss later, even the simplest risk segmentation questions such as, “will urban density rise or fall?,” turn out to not to be clear at all as competing forces and technologies may push the market either way.

**Regulatory reset**

Regulatory reset is the idea that we will see large change in legal and regulatory structure that will create many new business opportunities and kill others as well. Healthcare is an obvious example of this complexity. Hospitals are likely to see rules that resemble utilities with requirement for excess capacity and regulated returns. Drug development on the other hand may see an easing of regulatory restrictions and maybe even the emergence of litigation shields to help spur new developments of technologies. In both cases, this would suggest fairly radical changes in the structure of these organizations to avoid various cross subsidy and liability issues. The health network may need a new format to survive. Banking, transport, telecommunications and retail services at the very least will likely see whole new structures of regulations that will create new business models and destroy old ones. Such expansions of regulation almost always initially favor large firms and help drive consolidation as regulation almost always has a significant fixed cost. Once the rules are set, we tend to see both cheaper responses and the desire of large firms to exit riskier activities drive a wave of innovations and new entrants. The net is usually not to displace the consolidators, but to narrow their market focus away for the most regulated activities.

Here the difference between the consolidating and innovation phases are even more distinct. In the early days, regulation and legal change will be about the COVID-19 crisis itself—what worked, what didn’t and who got blamed. This will almost certainly act to further reinforce the consolidation process as it pushes the system to reinforce what had worked and punish the failures. In the second phase, the regulation shift will largely be about the consolidation itself—the power concentration, the lack of competition, the economic imbalances that will accompany that increase in concentration. This will likely kick off a regulatory wave of supporting new entry and holding back the consolidators.
Outcomes are not themes

It is important to distinguish between the themes that are driving changes and the results. A simple example is density. It would be easy to suggest that COVID-19 will generate a reduced density in real estate. However, as noted above, the reality will be the result of a complex balance between the forces we have been discussing and the eventual medical reality.

Social distancing would raise real estate demand particularly for companies that face significant liability or whose clients require it. On the other hand, the sticky learning about work-from-home and various other technologies will make it easier to shift both employees and customer service away from offices and stores to remote services. In terms of housing, lower density areas such as suburbs or rural areas have a somewhat lower risk of COVID-19 exposure, but do not, in general, have the same quality or immediacy of complex healthcare. Even for risk-averse populations with choice, this will be a subtle calculation. For less at-risk populations, this will largely be a question of opportunity and cost, not a pure shift in taste for less density. In the near term, until there is greater medical and legal certainty, the more relevant theme is probably resiliency in that being able to shift operations to reflect new knowledge of either risk or liability is likely to be the better business choice for businesses that have that option.

As we ponder the future of urban density, it is worth noting that while New York City, the densest city in the U.S., had major problems with COVID-19, we have not seen similar events in the super dense first-tier cities of China, nor in Hong Kong or Seoul. The question of density, like many others, will not only depend critically on what we learn both about the virus and its medical treatment, but also about the costs and nature of various adaptations. Masks, for instance, are much cheaper than new real estate, but today we do not know the absolute or relative effectiveness of various types of masks.

Empty spaces

As a side note, it is useful to dispel one non-theme—empty spaces. One of the characteristics of the post-COVID-19 stoppage will be the ongoing issues of empty spaces created by failed businesses and the gaps created by shifts in the supply and demand channels. While this will undoubtedly become a major part of the narrative around the post-COVID-19 economy, particularly around discussion of consolidation, it is not in truth a separate theme. Large numbers of small and medium size businesses will fail—some because they were not prepared for the moment, and others because they are no longer good businesses. From an economic and jobs perspective, these failures will create a significant part of ongoing hardship within the economy. However, those failures are not likely in themselves to create an investable opportunity. The real problem with such missing businesses from a policy and investing standpoint, is that they tend to be thousands of special stories—each of which can represent either a new opportunity going forward or an opportunity gone with COVID-19. The investment and the policy question is how to empower incumbents and entrants to explore these empty spaces along the themes we have been discussing, not to just fill them. The fact that a business fails in this type of environment just really doesn’t tell you very much about the opportunities going forward in that empty space.
or distancing strategies. Also, vaccine-based medical solutions will have different consequences for urban density depending on their medical effectiveness and adoption rates. In addition, if the best medical answers end up being treatments rather than vaccines, but often end up involving complex ICU regimens requiring access to tertiary care centers, we may find risk averse populations preferring high density urban areas rather than rural isolation.

Unless the medical technologies make risk segmentation a non-theme, companies will face especially complex real estate choices as they will need to maintain contact with both very diverse risk choices of employees and customers. Many of these large corporates have set up high cost urban campuses, specifically to be able to attract young talent. These younger high talent populations are unlikely to be at-risk populations. In restarted economies, we have certainly seen these populations be the first to return in force to cities and engage in high density activities (crowded restaurants, sports, etc.). On the other hand, the senior population of these firms may have many more at-risk individuals who will need protection. One can imagine, for instance, a situation where hybrid structures with dense offices and significant tele-presence end up a long term feature of the market. Universities, for example, could end up with students in high density classes, taught by a senior tele-presence faculty. Even with a vaccine, such arrangements might be necessary until the vaccine has proven safe for the at-risk populations and the number of vaccinated individuals becomes a high enough percentage to provide a high degree of safety.

Thus, we would argue that many of the density and safety “themes” that are being discussed are likely to end up being a complex and dynamic trade-off between resiliency and sticky learning optimized across risk groups rather than the direct implication of those “outcome based themes.” But perhaps the easiest outcome to predict is that flexibility, resilience, and specialization will win out in the end. Complex problems usually require complex solutions. Dynamic problems almost always require dynamic solutions. This combination means that firms will need to evolve quickly to the new best answer. The companies that can provide those solutions to other companies (the hosting and servicer companies we describe in A Survivor’s Guide to Disruption) and the companies that are adept at using those solutions will win out in the end, while those that stand still or attempt to maintain control as a response to uncertainty will lose.

Lastly, we would note that governments will inevitably codify some of the safety issues. To the extent that codification matches reality, its impact will be relatively small, but to the extent that the government seeks to change that reality, it will inevitably generate significant costs and opportunities. The two most likely business outcomes are 1) that the government will require excess capacity in some areas and that will generate regulatory based structural segmentation, where the highly regulated activities are separated from others; and 2) that the government may make some activities legally risky from a liability standpoint and that will create incentives to separate these activities from deeper capital pools to isolate that legal risk. Both of these will speed the structural changes discussed in A Survivor’s Guide to Disruption (see Chapter 5 for a health business example) as we have already seen in drug development and consumer finance. From an investment standpoint, such government actions are important but
typically very hard to predict. Even when the intent of legislation is quite clear, the
details of implementation can often cause the actual impact to differ significantly from
the original intent. Thus, while we would actively review regulatory action carefully and
treat such actions as significant risks, we would caution against proactively investing
based on future intent since politics have a way of disappointing. We would also note
that regulators and politicians are likely to view the “winning” firms as problems in
themselves and the regulatory response to that may be part of what kicks off the
innovation phase.
Disclosure Appendix

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