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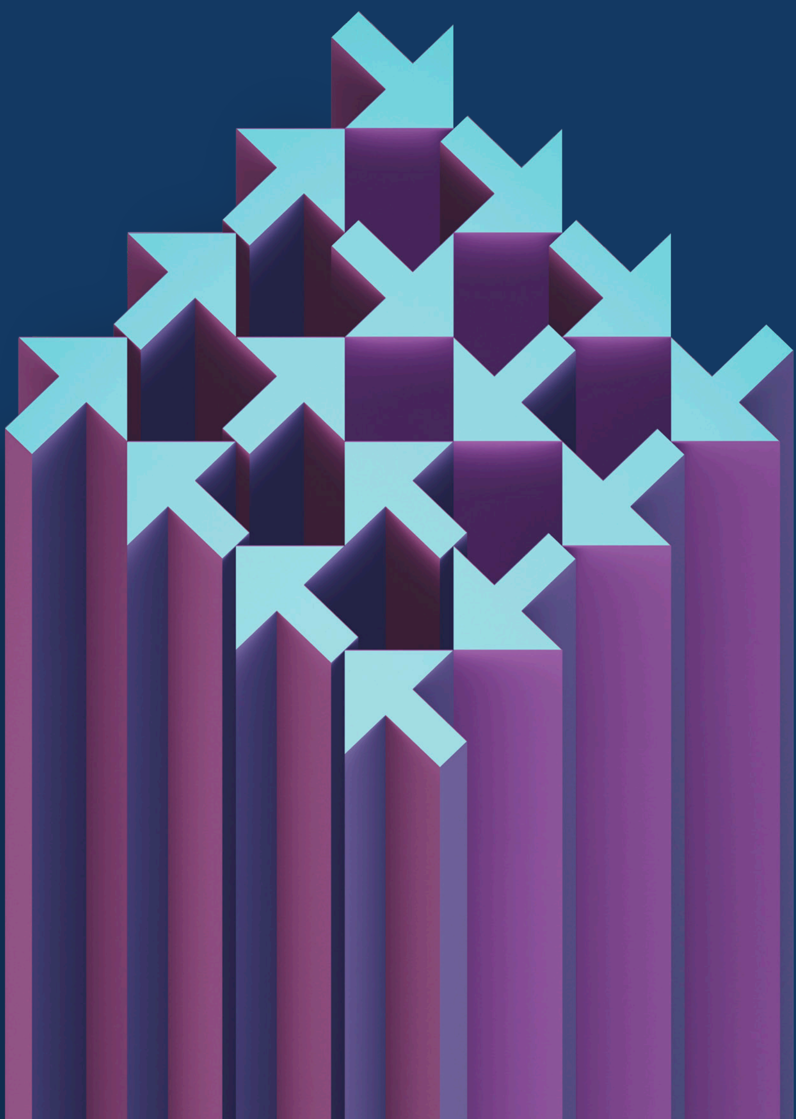
Navigating a pandemic-driven market crisis

Investment governance and strategy

May 2020



welcome to brighter

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Introduction

We believe good governance adds value to investment programs and that this is especially true during market corrections and crises. This paper evaluates how large, diversified asset owners are applying their governance policies to the current pandemic-driven crisis associated with COVID-19. Our thesis is that leading asset owners are finding ways to pursue attractive risk-adjusted investment returns while also taking investment actions to help mitigate and address the impact of the pandemic.

The COVID-19 pandemic is one of the most transformational events affecting the global economy within the working lifetimes of most current investment professionals and asset owner fiduciaries. The direct capital market effects of the pandemic include liquidity challenges, a sustained spike in actual and implied volatility, valuation adjustments across asset classes and significant changes to forward-looking return expectations across asset classes. The pandemic has helped drive long-term nominal and real interest rates lower. It has contributed to a sharp downward adjustment in oil prices, with the risk of supply exceeding not just demand but, potentially, physical storage capacity.

At the same time, the pandemic has directly affected the fiscal solvency of governments, the financial stability — and in some cases, the solvency — of individual corporations and entire industries, and the balance sheets of insurance companies. All of these entities — governments, corporations and insurers — are also often the "funding entities" for long-term, diversified investment programs. Challenges to their financial standing have therefore altered the liquidity budgets, risk tolerance and investment time horizons of many of the world's largest asset owners.

At a human level, the pandemic has affected the individual beneficiaries of these programs — separate from its impact on the investment returns of these programs — either directly, through sickness or indirectly through employment status, near- and long-term individual earnings expectations, and long-term tax payment expectations. At the time of this writing in early May 2020, many fundamental questions about the virus itself, the course of the pandemic, and its economic, societal and capital markets impact remain unanswered. Nonetheless, we believe the framework recently developed through a collaborative study between the World Economic Forum and Mercer for evaluating and incorporating global systemic risks into investment programs provides useful insight for asset owners on addressing the risks and opportunities created by the pandemic.

Specifically, the World Economic Forum and Mercer recently completed the first part of a multi-year investigation into investment and governance practices regarding global systemic risks (see page 5). The framework created during this investigation can be applied to the COVID-19 pandemic. In this context, this report has two objectives:

1. Evaluate the usefulness of governance strategies developed to address more gradual but equally destabilizing systemic trends in addressing the COVID-19 pandemic-driven market crisis.
2. Consider practical investment actions by long-term investors that support economic recovery and seek to generate attractive risk-adjusted returns. We reference such investments as "transformational."

Transformational investment:
Converting global systemic risks into sustainable returns[1]

As part of a multi-year initiative, the World Economic Forum and Mercer have conducted a collaborative study to understand global systemic trends and associated opportunities and risks. This study has brought together leading investors from around the globe to evaluate progress in identifying transformational investment to address some of society's greatest challenges — with climate change, water security, geopolitics, technological evolution, demographics and low interest rates as the initial focus.

1	2	3	4	5	6
Understand the overall impact on the funding entity, objectives and beneficiaries.	**Collaborate** with similarly situated organizations who are concerned about the same risks and opporuntities.	**Design** governance, policies, deleflation and accountabilities for material systemic risks.	**Invest** to manage the portfolio's exposure to the global systemic risks.	**Transform** through driving investment strategy that aims to deliver change.	**Monitor** and revisit. Apply learnings to improve policies and processes.

[1] World Economic Forum. *Transformational Investment Converting Global Systemic Risks Into Sustainable Returns*, May 2020, available at https://www.weforum.org/whitepapers/transformational-investment-converting-global-systemic-risks-into-sustainable-returns.

Long-term investor agility

Before COVID-19, studies on the possibility of an unspecified pandemic estimated potential costs to society at both a human and capital level (see inset). Recognizing the potential risks, governments developed action plans based on advice from infectious disease experts. To some extent, governments have activated these protocols for COVID-19. Many government administrations reinvented these action plans in real time as they sought to address this specific pandemic.

In time, we will have a better understanding of the magnitude of losses caused by COVID-19. We will be able to apply learnings from this pandemic to future events and adapt our investment programs in an effort to better address such events. The benefit of hindsight will likely help us. However, this paper focuses on what asset owners can do now.

Investment policies create discipline based on governance practices that have helped manage across multiple market cycles and myriad crises. During a market correction or crisis, we believe discipline helps investors overcome the human behavioral tendency to reduce risk exposure in times of adversity (selling at the bottom). Without discipline, investors may also fail to rebalance portfolios to capture market opportunity at more attractive price entry points — abandoning governance when it's needed most. In our opinion, effective investors rely on governance and policy to guide strategy for managing future outcomes. Even as they provide discipline to mitigate against extreme reactions, such policies must also be agile enough to respond to threats and pursue opportunities.

Investors generally respond to unpredictable market environments by diversifying exposure and employing rebalancing strategies. Major system shocks such as the current crisis typically lead to dislocations, creating potential opportunities that investors will miss unless they have the agility to opportunistically shift into attractively repriced market segments.

Estimated pandemic costs[2]

- **2–6 million** additional lives lost
- **5%** gross domestic product lost
- Human costs in anxiety, fear and depression

[2] Fan VY, Jamison DT and Summers LH. "Pandemic Risk: How Large Are the Expected Losses?", *Bulletin of the World Health Organization,* December 2018, available at https://www.who.int/bulletin/volumes/96/2/17-199588/en/.

Governance considerations for navigating a market crisis

During a crisis, reliable governance policies help address shortcomings in an investment program's implementation with forward-looking strategy, enhanced decision-making and collaboration of key stakeholders.

Governance considerations and actionable responses to COVID-19

Governance steps	Application for market crisis (pandemics)
01 **Understand** the overall impact on the funding entity, objectives and beneficiaries.	• Determine the impact on objectives, including: — Scope for funding entity intervention, whether positive (accelerating funding) or negative (delaying funding or requiring liquidity) and implications for covenant strength between entity and fund: - Actual and potential changes to fund contributions, distributions and withdrawals — This includes fund policies, supervisory and regulatory requirements, and exogenous interventions. For example, does the funding entity suddenly have a deficit/ require cash for expenditure, superseding previous assumptions of net-neutral or positive funding? — Current and future fund liquidity and ability to accommodate interruptions to expected cash flows — Determine the amount of "dry powder" available to take advantage of opportunities and market dislocations. — Risk tolerance — can stakeholders and beneficiaries weather short-term losses to pursue longer-term benefits? • Be aware of exogenous interventions, which could include: — Government withdrawals for sovereign wealth funds — For example, withdrawals might be made for healthcare needs or economic relief, or because of fiscal deficits driven by the decline in oil prices. — Regulatory changes for pension funds — This includes contribution holidays for defined benefit sponsors and tax-free early withdrawal windows for defined contribution participants. • Evaluate beneficiaries' well-being, including any impact on health, employment or other circumstances.

Governance steps	Application for market crisis (pandemics)
02 **Collaborate** with similarly situated organizations concerned about the same risks and opportunities.	• Identify and engage peers facing similar cash flow, liquidity and supervisory concerns. • Engage organizations focused on research and action, such as the World Health Organization or the UN Principles for Responsible Investment. • Identify industries and systems facing a breaking point — those most in need of capital injection (for example, healthcare or distribution and supply chain networks) — and determine how to estimate the impact of the crisis on these systems: — Evaluate the collective dollar amount required to support industries and systems at risk. • Map the stakeholder landscape, and determine where each stakeholder sits in the value chain for the fund.
03 **Design** governance, policies, delegation and accountabilities for material systemic risks.	• Align policies with government, regulator and other compliance changes. • Consider current and future requirements for cash-flow scenarios and potential opportunities. Increase testing of tail-risk scenarios to capture implications of an extended infection period. • Identify and evaluate valuation policies for both listed and unlisted investments, which may have a material impact on the overall portfolio. • Identify areas at risk of breaching allocation ranges, and evaluate existing rebalancing ranges. • Establish or refine a policy for raising liquidity to fund withdrawals and create "dry powder" to seize opportunities; for example, take profits from recently high-performing assets, such as government bonds. • Define position review and trade frequency. • Emphasize a long-term focus on decision-making.
04 **Invest** to manage the portfolio's exposure to the global systemic risk.	**Prioritize understanding the major risk factors in the portfolio to help estimate performance. For example:** • Equity beta • Interest-rate exposure • Credit-spread exposure • Illiquidity allocation **Decide on actions; for example, from those requiring least to most resources:** • Rebalance regularly. • Tilt portfolio exposures in an effort to reduce risk and capture market dislocations, across and within asset classes. • Capitalize by identifying opportunistic styles, managers and direct investments expected to outperform, such as (depending on portfolio circumstance and objectives): — Flexible mandates — Distressed — Private equity

Governance steps	Application for market crisis (pandemics)
05 **Transform** through driving investment strategy that aims to deliver change.	• Allocate to investments that alleviate the negative impact of COVID-19 or increase the speed of recovery, such as those supporting remote working and schooling, healthcare research and delivery, and other sectors or themes. • Prioritize engagement with investment managers and portfolio companies: — Determine the success of business resiliency plans. — Assess those most exposed to the impact of a pandemic — for example, demand and supply chain disruptions. — Address workforce challenges, such as pay and human rights. • Revisit engagement with portfolio companies on other topics (such as climate change), and align actions with supervisory and regulatory changes.
06 **Monitor** and revisit. Apply learnings to improve policies and processes.	• Assess and analyze impact as well as the capacity for agility in practice: — Compare portfolio valuations to policy and target ranges. — Assess current liquidity and future requirements. — Identify breaches to fund policies or mandates. — Minimize impact of trading costs. • Document findings of variations or adjustments. • Monitor evolution and development of the risk factors most likely to cause further disruption to existing policies and processes. • Report regularly to fund executives and overarching bodies. • Revisit analysis based on findings in any of the preceding steps. • Implement changes from learnings of new experiences.

In concrete terms, entire industries are facing acute bankruptcy risk either because of the short-term effects of the response to the pandemic or because of potential longer-term behavior changes. Such industries include travel, real estate and the energy sector. In most cases, the underlying physical assets still have substantial long-term value. The current equity holders may experience value destruction, and the surviving operators may need to recapitalize. At the same time, other sectors and companies are benefitting from the crisis, starting with most things digital.

Asset owners that practice transformational investment — though not explicitly aimed at pandemics — tend to have higher allocations to private markets. These practices include innovative venture capital investments, the ability in some cases to make direct investments, and the investment time horizon, risk tolerance and sophistication to pursue opportunities created by the crisis. Through such practices, these asset owners will collectively help redeploy assets and talent that retain value in distressed sectors and smooth the process of economic and societal transition as the crisis accelerates certain aspects of creative destruction. Although these transformational investors are motivated mainly by the pursuit of attractive risk-adjusted returns, their actions will help bolster a resilient global economy.

At this early stage of the COVID-19 pandemic, concrete examples in the public domain are still relatively limited; however, we already see evidence that investors are taking action. For example, Mubadala is considering developing a venture capital fund focused on life sciences and healthcare on the assumption that this sector will accelerate following the coronavirus outbreak.[3] Temasek, a 55% owner in Singapore Airlines, recently supported a shareholder-approved issuance of US$6.2 billion in equity to boost employment and the local economy.[4] Caisse de dépôt et placement du Québec (CDPQ) has reportedly established a US$2.8 trillion fund to provide liquidity to Quebec businesses temporarily affected by the COVID-19 pandemic; this is part of a collective effort related to CDPQ's dual mission of seeking attractive risk-adjusted returns and supporting the Quebec economy.[5] Meanwhile, Norway's Government Pension Fund Global is set to become a large buyer of listed equities as it rebalances its portfolio, which returned -14.6% in the first quarter of 2020 (with equity investments returning -21.1% and fixed income investments 1.3%).[6]

[3] Azhar S. "Abu Dhabi's Mubadala Ventures Plans Health Fund as Coronavirus Drives Demand," *Reuters,* April 2, 2020, available at https://www.reuters.com/article/mubadala-inv-healthcare-fund/abu-dhabis-mubadala-ventures-plans-health-fund-as-coronavirus-drives-demand-idUSL4N2BP364.

[4] "SIA Shareholders Vote in Favour of $15 Billion Fund Raising," *The Straits Times,* April 30, 2020, available at https://www.straitstimes.com/business/companies-markets/sia-shareholders-vote-in-favour-of-15-billion-fund-raising.

[5] Katz M. "CDPQ Creates Fund to Support Quebec Firms Affected by Pandemic," *Chief Investment Officer,* April 6, 2020, available at https://www.ai-cio.com/news/cdpq-creates-fund-support-quebec-firms-affected-pandemic/.

[6] Norge Bank Investment Management. "Negative Return in a Volatile Market," April 2, 2020, available at https://www.nbim.no/en/the-fund/news-list/2020/negative-return-in-a-volatile-market/.

Investing through a market crisis

Even among asset owners that haven't yet addressed the long-term global systemic trends identified in the collaborative study by the World Economic Forum and Mercer, there are common governance best practices that we believe are working well during the current crisis. We outline these practices below.

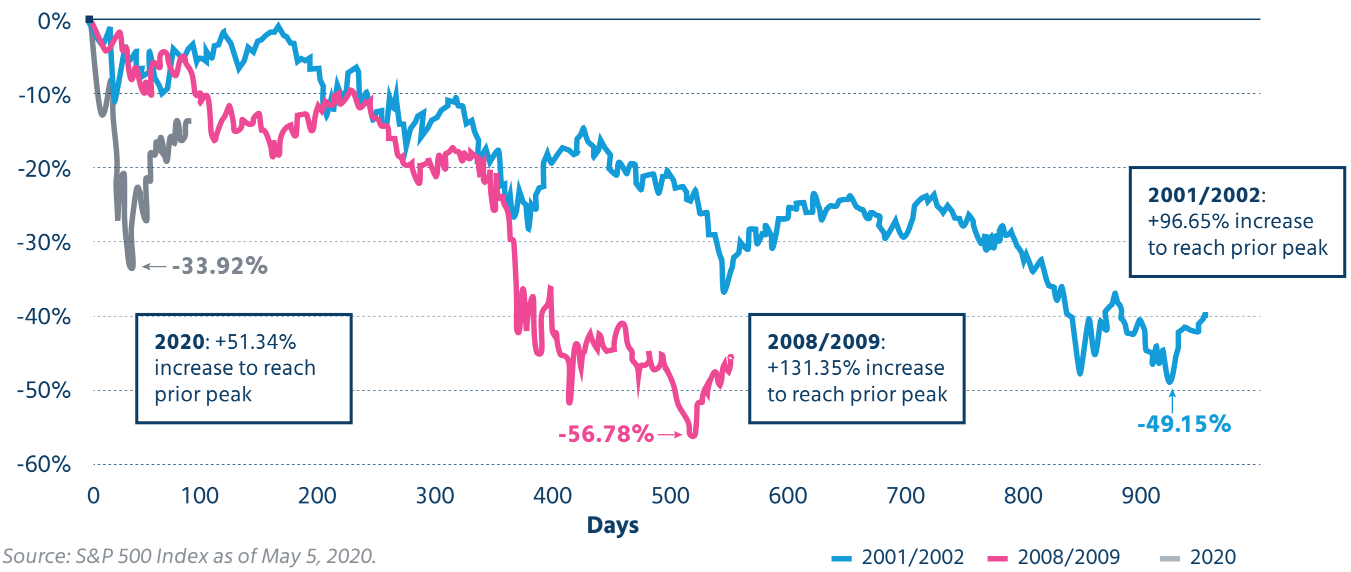
Rebalance regularly

Some common governance weaknesses show up within investor portfolios during market crises. These include lack of agility and failure to rebalance or rotate into dislocated market segments, trying to time the bottom of the cycle, and retaining capital in low-risk investments well past the market trough.

To avoid falling prey to these weaknesses, long-term investors must be agile in responding to crisis. This applies to disciplined rebalancing as well as rotating into heavily repriced public market segments and allocating to illiquid segments likely to benefit from new capital. Rebalancing goes hand in hand with astute liquidity management that addresses ongoing obligations (such as benefit payments, spending obligations and capital calls) and maintains flexibility to deploy capital into dislocated market segments.

Recently, the COVID-19 pandemic tested investors by producing greater losses at a faster pace, at least over specific short-term time horizons, than either the 2001/2002 or 2008/2009 market crises. Figure 1 below illustrates how the magnitude of aggregate losses has yet to match the 2001/2002 or 2008/2009 contractions. However, the magnitude of collapse and volatile reversals since the market peak were more severe and drove substantial dislocations over just a few weeks. This was because market participants (including investors and businesses) tried to adjust complicated financial transactions across capital markets — for business-related hedging, investment speculation, risk management, etc.

Figure 1. Markets in crisis (S&P 500)
2020 versus 2001/2002 and 2008/2009

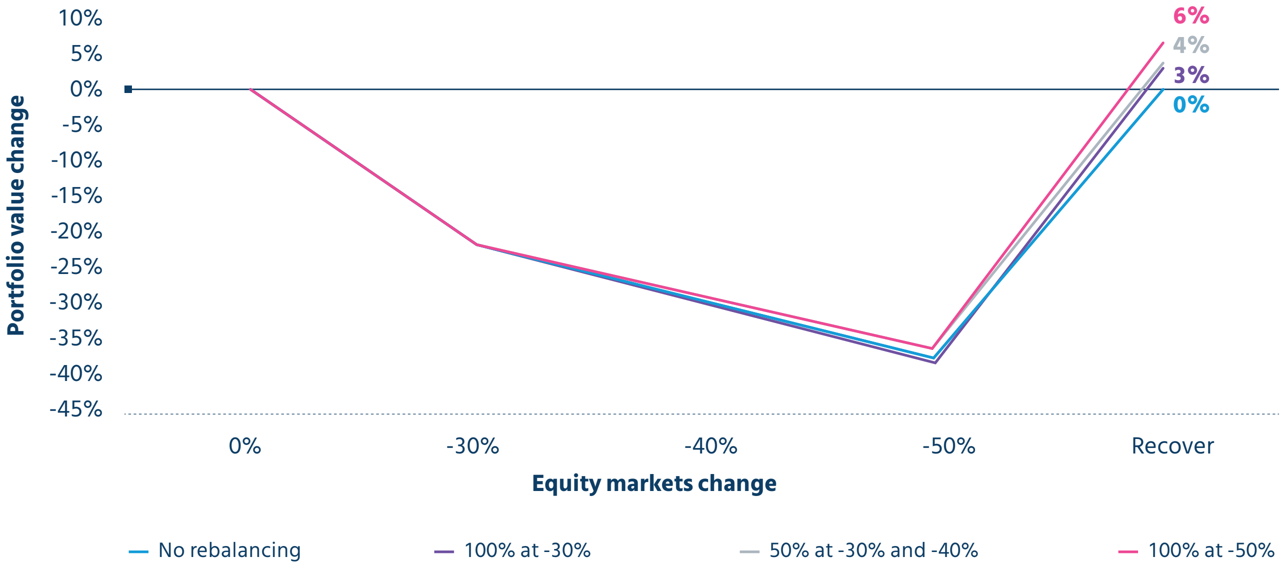


Source: S&P 500 Index as of May 5, 2020.

These three market corrections, along with other market shocks — such as the Wall Street crash of 1929 and Black Monday in 1987, rapidly destroyed tremendous capital wealth, followed by eventual market recovery to new highs in the case of the first two corrections. Effective investors take advantage of such corrections, using them as opportunities to rebalance from risk-reducing to return-generating investments (for example, move fixed or hedge fund exposure to equity) or to move new capital into distressed assets. For each contraction, Figure 1 illustrates the percentage increase needed for the market to recover to the prior peak.

Rebalancing is intended to take advantage of this price recovery, and the potential benefits are material. Figure 2 illustrates a 3%–6% return gain compared to no rebalancing for three hypothetical approaches that move exposure from fixed income to equity within a diversified investment portfolio.[7] The approaches vary by the amount of rebalancing (from 50% of the amount underweight) and the magnitude of the equity decline.

Figure 2. Rebalancing comparison for sample client portfolio
(65% public/private equity, 35% diversified fixed and hedge assets)



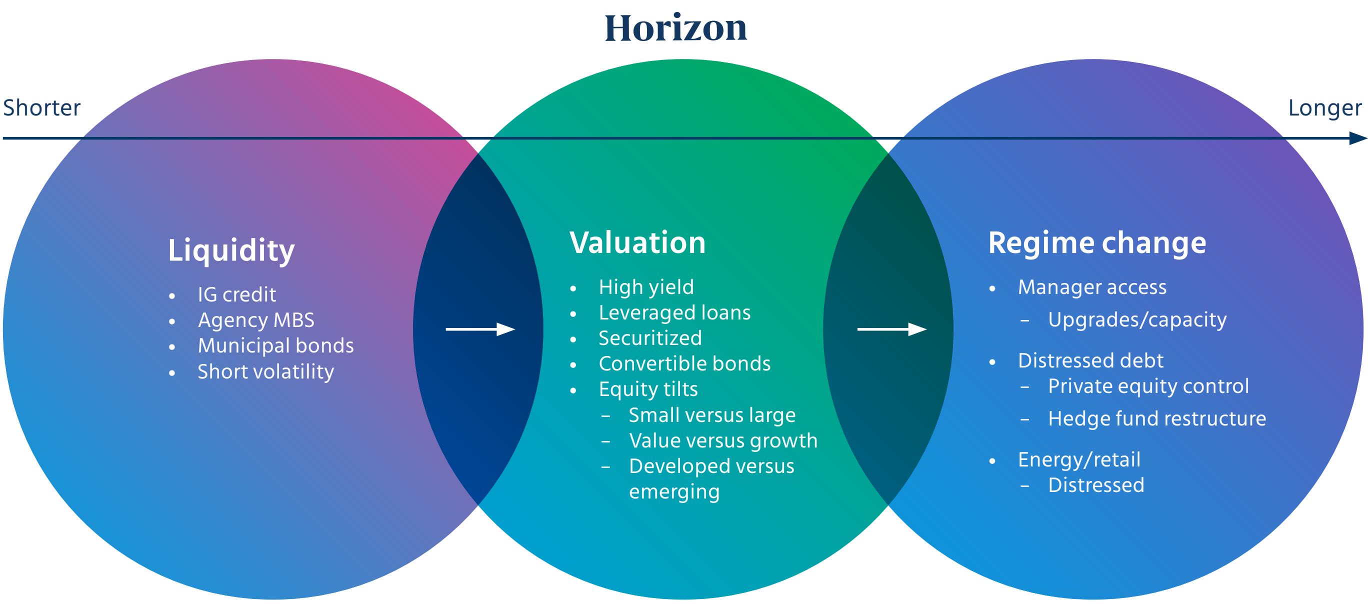
Rebalancing is only one of multiple strategies employed by effective investors, but it is often inconsistently implemented due to various factors: lack of discipline, inadequate pricing frequency, timing mismatch between oversight reviews and implementation decision-making, etc.

[7] Information presented for informational and illustrative purposes only and does not contain investment advice. Returns are presented net of all fees and include the reinvestment of dividends and other earnings as at April 30, 2020. Asset allocations and investment selections are customized based on the unique needs of the client and their portfolio, including investment objectives, risk tolerance and specific goals for the portfolio. There are inherent limitations of the sample portfolio, as it does not represent actual trading and assumes that asset allocations would not have changed over time and in response to market conditions. The sample portfolio includes a 70% equity/30% fixed-income allocation, inclusive of modest exposure to less-liquid investments, such as hedge funds, real estate and private equity. Three rebalancing approaches are modeled: 1) 100% rebalance back to targets at -30% equity market return, 2) 50% rebalance back to targets at -30% and -40%, and 3) 100% at -50%. Past performance is no guarantee of future results. Actual results could differ materially. Investing in securities products involves risk, including possible loss of principal as the value of investments fluctuates. There are substantial risks associated with investments classified as alternatives investments. Investors should have the ability, investing sophistication and experience to bear the risks associated with such investments.

Identifying opportunistic investments

Being opportunistic with investment portfolios can mean a variety of things. Investors need to prioritize the opportunities they wish to pursue based on their own investment objectives, governance and implementation capabilities — as opposed to those that should be delegated to external investment managers that may be better equipped to take advantage of mispricing. Opportunities can arise through different phases of a crisis — whether providing liquidity, investing in mispriced assets or positioning for recovery. Some of these opportunities, such as providing liquidity to a market of forced sellers of illiquid assets, may be fleeting. Other, longer-term opportunities arising from the recovery will require thoughtful consideration.

Figure 3. Investment opportunities



For shorter-term opportunities, investors might use active managers with flexible mandates. For example, concentrated long-only, long/short, event-driven and global macro strategies are able to consider non-benchmark positioning and to shift quickly when opportunities not captured in market benchmarks arise.

When not subject to liquidity constraints, investors can access opportunities that may be unique to private markets, such as private lending and distressed investing in capital-starved industries. Developing economies, where public markets are either inefficient or virtually nonexistent, present special risks but also particular opportunities arising from a crisis like COVID-19.

Consider long-term future opportunities: What's on the other side?

Beyond the short-term opportunities arising from the immediate market crisis, investors are contemplating the transformation COVID-19 might impose on long-term economic growth and profitability across sectors. Healthcare systems and delivery, consumer services, energy systems and critical infrastructure are just a few of the fundamentals that will have major ramifications for governments, economies and investors. Some transformations are simply accelerating trends already in progress. Others are requiring new ways of thinking or doing business. Developing a governance process to evaluate implications of sustained changes — or a "new normal" — and considering the investment ramifications should be part of a successful investment program.

Conclusion

Although many questions remain regarding the impact of the current crisis, we believe two things are clear:

1. The same disciplined, agile governance and implementation arrangements that sophisticated asset owners have developed and adopted following past crises are working well during the current crisis.
2. The framework transformational investors are adopting to deal with other global risks can be used to develop an investment policy that addresses the risk of future pandemics.

Good governance, when applied to the recent COVID-19 market experience, illustrates how investment practices can potentially benefit the economy and broader society throughout market volatility and economic uncertainty. This highlights investors' ability to influence systemic risk outcomes — which is fortunate, as the world continues to face numerous systemic challenges, such as climate change, water security, geopolitics, technological change, demographic shifts and the low real interest rate environment. (For more on this topic, see our recent point of view, *Transformational Investment: Converting Global Systemic Risks into Sustainable Returns.*[8])

Contributors

Rich Nuzum, President, Investments & Retirement

Fiona Dunsire, Senior Partner, Investments & Retirement Leader of Growth Markets

Peter Grant, Partner, Senior Investment Consultant

Richard Silvan, Senior Associate, Investment Consultant

[8] World Economic Forum. *Transformational Investment Converting Global Systemic Risks Into Sustainable Returns*, May 2020, available at https://www.weforum.org/whitepapers/transformational-investment-converting-global-systemic-risks-into-sustainable-returns.

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