2020 Healthcare Investment Diagnostic

Observations from leading healthcare systems and hospitals
Insights from 42 leading US-based healthcare systems and hospitals representing over $350 billion in investments.¹

COVID-19 has meaningfully impacted hospital systems both operationally and financially. The pandemic has exposed challenges to hospital systems that are being addressed through a refined focus on liquidity management, dynamic investment decisions, and collaboration across the governance structure.

Despite this disruption, we have observed an acceleration in three healthcare investment trends: Scale, Alignment, and Risk Management. While uncertainty remains, our 2020 GSAM Healthcare Diagnostic highlights how healthcare systems are planning for 2021 and beyond.

1 | Scale
Within a persistent environment of mergers and acquisitions (M&A), larger healthcare organizations may benefit from certain efficiencies. Despite requiring more employees, larger healthcare investment portfolios may have a lower cost per employee. Additionally, the largest portfolios may be able to more efficiently access alternatives and other high-fee assets.

2 | Alignment
Hospitals are increasingly taking into consideration the return objectives, operating margins, and liquidity profile within the investment portfolio. In addition, many seek to align their investment portfolio with their mission through Environment, Social, and Governance (ESG) and impact investment strategies.

3 | Risk Management
COVID-19 has underscored the need for enterprise risk management analyses that consider a wide range of outcomes, as well as the need for nimbleness. Due to strong liquidity management throughout the crisis, hospital systems may be well-positioned to seek higher expected returns from private assets.

¹ As of November 2020.
Key Highlights

**Market Outlook**
Private assets remain the most likely asset classes to see increased allocations, while cash and short-term securities are expected to decrease. Respondents may be looking to deploy or return capital following pandemic-related cash inflows.

**Investment Strategy**
Average asset allocations remained largely consistent with the prior year, and are similar across long-term and pension plan investments. Within alternatives, hedge funds continued to represent the largest allocation.

**Liquidity Management**
Fewer respondents see liquidity shortfall as a top concern relative to last year, possibly reflecting inflows from federal funding and credit facilities. Organizations use a wide range of internal and third-party systems to manage their liquidity.

**Environment, Social, and Governance**
Around half of respondents have implemented ESG approaches. The majority of those who have implemented ESG approaches chose to do so by integrating ESG factors into the investment process in search of better performance.

**Enterprise Risk Management**
30% responded that they were “very worried” about operational pressures, although only 25% have altered their operating risk based on an enterprise risk management analysis.
Overview
Participant Summary

Type of System
- Academic Medical System: 29%
- Multi-State Hospital System: 33%
- Single-State Hospital System: 17%
- Children’s Hospital: 21%

Role of Professional
- Investments: 55%
- Treasury: 33%
- Other: 12%

Number of Investment Pools by Size and Type

<table>
<thead>
<tr>
<th>Pool Type</th>
<th>&gt;$5 billion</th>
<th>$1–5 billion</th>
<th>$500 million–1 billion</th>
<th>$250–500 million</th>
<th>&lt;250 million</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unrestricted Cash and Investments</td>
<td>9</td>
<td>17</td>
<td>6</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>Defined Benefit Pension(s)</td>
<td>5</td>
<td>10</td>
<td>4</td>
<td>9</td>
<td>2</td>
</tr>
<tr>
<td>Defined Contribution Pension(s)</td>
<td>9</td>
<td>11</td>
<td>8</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>Self-Insurance (e.g., malpractice, worker’s comp)</td>
<td>3</td>
<td>5</td>
<td>3</td>
<td>19</td>
<td>4</td>
</tr>
<tr>
<td>Health Insurance Plan</td>
<td>3</td>
<td>2</td>
<td>7</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Other (e.g., restricted assets)</td>
<td>4</td>
<td>5</td>
<td>4</td>
<td>4</td>
<td>17</td>
</tr>
</tbody>
</table>

Source: GSAM.
Asset allocation differs by investment pool, but unrestricted cash & investments (UCI) and defined benefit (DB) plans have remarkably similar average allocations despite their very different strategic objectives.

Source: GSAM.
Despite a challenging operating environment in 2020, healthcare organizations remain bullish on private markets and risk assets broadly as they seek to generate long-term investment returns.

Please rank how worried you are about the following risks in the next 12 months on a scale of 1 to 5:

- Operational Pressures: 17% 1, 17% 2, 30% 3, 37% 4, 40% 5
- Geopolitical Turmoil: 13% 1, 20% 2, 40% 3, 27% 4, 20% 5
- Recession: 7% 1, 33% 2, 40% 3, 20% 4, 20% 5
- Not Achieving Return Targets: 10% 1, 30% 2, 53% 3, 7% 4, 7% 5
- Regulatory Change (e.g., reimbursement risk): 10% 1, 27% 2, 23% 3, 33% 4, 7% 5
- Path Of Interest Rates: 7% 1, 20% 2, 47% 3, 13% 4, 13% 5
- Unexpected Inflation: 17% 1, 20% 2, 40% 3, 20% 4, 2% 5
- Liquidity Shortfall: 17% 1, 50% 2, 23% 3, 7% 4, 3% 5

Respondents appear more bearish than last year on a range of risks; at least 50% of respondents ranked 4 out of 8 risks as a 4 or 5, compared to only 2 out of 7 risks in 2019. However, concern around a liquidity shortfall has decreased slightly, potentially because some systems improved their liquidity during the crisis and now have excess cash on hand. Meanwhile, concern around the path of interest rates has increased.

Over the next 12 months, do you plan to decrease, keep relatively constant, or increase the following investment strategies?

- Private Equity: Decrease 3%, Keep Constant 40%, Increase 57%
- Private Credit: Decrease 10%, Keep Constant 57%, Increase 33%
- Equities: Decrease 21%, Keep Constant 47%, Increase 30%
- Hedge Funds: Decrease 23%, Keep Constant 47%, Increase 30%
- Private Real Estate: Decrease 3%, Keep Constant 77%, Increase 23%
- Infrastructure: Decrease 7%, Keep Constant 80%, Increase 13%
- Cash and Short-Term Securities: Decrease 33%, Keep Constant 53%, Increase 13%
- Other Fixed Income: Decrease 33%, Keep Constant 93%, Increase 7%
- Investment Grade Fixed Income: Decrease 17%, Keep Constant 80%, Increase 3%

Similar to 2019, private markets remain a key focus and one of the most likely asset classes to see increases. Investors are notably more bullish on equities as 30% indicate they will increase exposure in the year ahead versus 18% in 2019. Cash and short-term securities are the most likely to decrease, potentially reflecting cash buffers and inflows following the CARES Act. Respondents also appear more bullish on hedge funds with 76% indicating they will maintain or increase exposure compared to 61% in 2019.

Source: GSAM. Left hand side chart notes: the answers are sorted in decreasing order by percent of “4” and “5” responses. Right hand side chart notes: the answers are sorted in decreasing order by percent of “Increase” responses.
Investments
Expected Return on Assets

A higher expected return on assets (EROA) unsurprisingly corresponds to lower amounts of fixed income and higher amounts of equities. Respondents with the highest EROAs had a lower average allocation to alternatives, potentially because alternatives allocations are largely comprised of hedge funds, which tend to have a lower expected return.

**Average Asset Allocation by EROA**

Source: GSAM. The expected return on assets presented herein have been provided by Survey respondents and are for informational purposes only, as of the date of this presentation. There can be no assurance that the expected returns will be achieved.
Investments

Expected Return on Assets

Expected Return for the Long-Term Investment Pool and Defined Benefit Plans

<table>
<thead>
<tr>
<th>Long-Term Investment Pool</th>
<th>Defined Benefit Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;5%</td>
<td>6%</td>
</tr>
<tr>
<td>5-6%</td>
<td>17%</td>
</tr>
<tr>
<td>6-7%</td>
<td>25%</td>
</tr>
<tr>
<td>7-8%</td>
<td>8%</td>
</tr>
<tr>
<td>50%</td>
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</table>

Expected returns are generally higher for defined benefit plans than for long-term investment pools, possibly reflecting a higher allocation to equities among select larger plans and the inclusion of expected returns in pension expense.

Allocating Capital

Which of the following strategies do you employ in an effort to allocate capital in a timely and/or nimble manner?

- Over/underweight existing line items: 70%
- Tactical asset allocation manager (e.g., GTAA, Tactical Tilts): 40%
- Derivatives for purposes of capital efficiency and/or risk management: 33%
- Opportunistic sleeve within the portfolio: 27%
- Co-investments: 20%
- Exchange Traded Funds: 20%

Organizations often tilt their portfolio by over- and underweighting existing line items, but some may outsource tactical asset allocation or employ derivatives.

Source: GSAM. The expected return on assets presented herein have been provided by Survey respondents and are for informational purposes only, as of the date of this presentation. There can be no assurance that the expected returns will be achieved.
Investments
Healthcare Innovation Programs

Of the 55% of respondents who have a captive healthcare innovation program, the majority have a captive healthcare innovation team with oversight responsibility of the program. However, a range of stakeholders may also be involved.

### Groups with Oversight of Healthcare Innovation Program

<table>
<thead>
<tr>
<th>Group</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Captive Healthcare Innovation Team</td>
<td>59%</td>
</tr>
<tr>
<td>Investment Office</td>
<td>41%</td>
</tr>
<tr>
<td>CEO/GFO</td>
<td>29%</td>
</tr>
<tr>
<td>Other</td>
<td>18%</td>
</tr>
</tbody>
</table>

### Capital Deployed

- 85% $0-50 million
- 23% $50-100 million
- 12% $100-300 million
- 8% Other

Source: GSAM.
Index funds are the most common form of passive management among respondents. Consistent with broader trends in asset management, developed equities see significantly higher use of passive management, with 93% of respondents using at least one of the above options. In both emerging markets equities and fixed income, only 53% of respondents use at least one form of passive management.

Most respondents monitor portfolio liquidity with internal systems, but organizations also use a wide range of manual systems and third party resources.
Implementation
Scale and Resources

Scale and resourcing of investment offices is notable among organizations with $5 billion or more in unrestricted cash and investments. While larger organizations often require more employees, they are able to achieve a lower cost per employee. Additionally, larger organizations see wider dispersion in the cost of external advice, potentially driven by the degree of complexity in asset allocation. Larger organizations also tend to have higher investment manager costs, likely stemming from increased allocations to alternatives. However, organizations with at least $5 billion in unrestricted cash and investments may be able to negotiate lower fees than those with $1–5 billion.

- **Number of Full-Time Employees**
  - >$5 billion
  - $1–5 billion
  - <$1 billion

- **Cost Per Full-Time Employee ($ thousands / FTE)**
  - >$5 billion
  - $1–5 billion
  - <$1 billion

- **Cost of External Advice ($ thousands)**
  - >$5 billion
  - $1–5 billion
  - <$1 billion

- **Cost of Investment Managers (bps)**
  - >$5 billion
  - $1–5 billion
  - <$1 billion

Source: GSAM.
Implementation
Environmental, Social, Governance Measures (“ESG”)

Half of respondents have implemented ESG into their investment program, a significant increase from 29% two years ago. 53% screen out objectionable exposures (“Alignment”) and 67% combine ESG practices into the investment process (“Integration”). Additionally, around one-third of respondents plan to offer ESG options on their Defined Contribution platform, although over half have not considered the possibility.

For respondents that have implemented ESG approaches, which of the following have you implemented?

- **Alignment**: 53%
- **Integration**: 57%
- **Impact**: 33%
- **Other**: 13%

**Have you considered including ESG options on your DC platform?**

- Yes, currently offer: 30%
- Yes, and plan to offer: 4%
- Yes, but decided against offering: 11%
- No, have not considered: 55%

**Alignment**: ESG criteria are used to screen out companies and issuers

**Integration**: ESG analysis may inform how we evaluate companies and issuers

**Impact**: Capital is invested to seek to benefit from or accelerate specific ESG trends

Source: GSAM. This does not constitute investment advice regarding any defined contribution program. ERISA considerations may apply.

Goldman Sachs Asset Management
Implementation

Enterprise Risk Management

Based upon an enterprise risk management (ERM) analysis, respondents have taken selected actions, with the majority modifying the liquidity profile of their investments. Other common actions include restructuring or issuing new debt, and changing balance sheet or pension investment risk. Despite operational pressures being a top concern for respondents, only 25% have altered operating risk based on an ERM analysis. Enterprise risk management continues to be top-of-mind, with 60% of respondents planning to run an ERM analysis within the next year, and 91% within the next 2 years.

**Actions Taken Based on ERM Analysis**

- Changed the liquidity profile of investments (i.e., increased/decreased allocation to privates or the liquidity pool): 59%
- Restructured/issued new debt: 50%
- Changed pension investment risk*: 48%
- Changed balance sheet investment risk: 44%
- Altered operating risk: 25%
- Other: 28%

**Timeline to Generate Next ERM Analysis**

- Within the next 6 months: 8%
- Within the next 6 to 12 months: 22%
- Within the next 1 to 2 years: 31%
- Longer than 2 years: 38%

Source: GSAM. *Percent of survey participants who responded “changed pension investment risk” was measured against the total number of respondents who provided a response to this question and had a defined benefit pension. All other responses were measured against the total number of respondents who provided a response to this question.
Risk Disclosures

Hedge funds and other private investment funds (collectively, “Alternative Investments”) are subject to less regulation than other types of pooled investment vehicles such as mutual funds. Alternative Investments may impose significant fees, including incentive fees that are based upon a percentage of the realized and unrealized gains and an individual’s net returns may differ significantly from actual returns. Such fees may offset all or a significant portion of such Alternative Investment’s trading profits. Alternative Investments are not required to provide periodic pricing or valuation information. Investors may have limited rights with respect to their investments, including limited voting rights and participation in the management of such Alternative Investments.

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Equity securities are more volatile than fixed income securities and subject to greater risks. Small and mid-sized company stocks involve greater risks than those customarily associated with larger companies.

Bonds are subject to interest rate, price and credit risks. Prices tend to be inversely affected by changes in interest rates.

International securities entail special risks such as currency, political, economic, and market risks.

Emerging markets securities may be less liquid and more volatile and are subject to a number of additional risks, including but not limited to currency fluctuations and political instability.

An investment in real estate securities is subject to greater price volatility and the special risks associated with direct ownership of real estate.

Investments in fixed-income securities are subject to credit and interest rate risks. Bond prices fluctuate inversely to changes in interest rates. Therefore, a general rise in interest rates can result in the decline in the bond’s price. Credit risk is the risk that an issuer will default on payments of interest and principal. This risk is higher when investing in high yield bonds, also known as junk bonds, which have lower ratings and are subject to greater volatility. All fixed income investments may be worth less than their original cost upon redemption or maturity.

Although Treasuries are considered free from credit risk, they are subject to interest rate risk, which may cause the underlying value of the security to fluctuate.

Income from municipal securities is generally free from federal taxes and state taxes for residents of the issuing state. While the interest income is tax-free, capital gains, if any, will be subject to taxes. Income for some investors may be subject to the federal Alternative Minimum Tax (AMT).

Concentration in infrastructure-related securities involves sector risk and concentration risk, particularly greater exposure to adverse economic, regulatory, political, legal, liquidity, and tax risks associated with MLPs and REITs.

Investments in master limited partnerships (“MLPs”) are subject to certain risks, including risks related to limited control and limited rights to vote, potential conflicts of interest, cash flow risks, dilution risks, limited liquidity and risks related to the general partner’s right to force sales at undesirable times or prices.

Investing in REITs involves certain unique risks in addition to those risks associated with investing in the real estate industry in general. REITs whose underlying properties are concentrated in a particular industry or geographic region are also subject to risks affecting such industries and regions. The securities of REITs involve greater risks than those associated with larger, more established companies and may be subject to more abrupt or erratic price movements because of interest rate changes, economic conditions and other factors.

Environmental, Social, and Governance (“ESG”) strategies may take risks or eliminate exposures found in other strategies or broad market benchmarks that may cause performance to diverge from the performance of these other strategies or market benchmarks. ESG strategies will be subject to the risks associated with their underlying investments’ asset classes. Further, the demand within certain markets or sectors that an ESG strategy targets may not develop as forecasted or may develop more slowly than anticipated.

There may be additional risks that are not currently foreseen or considered.