

The image features a background of interlocking gears. The left side is a dark purple vertical band containing the Guggenheim logo and tagline. The right side shows a close-up of silver metal gears with a central hole, set against a dark background.

GUGGENHEIM

Innovative Solutions.
Enduring Values.®

**Team of
Investment Teams**

In his book, "Team of Teams: New Rules of Engagement for a Complex World," General Stanley McChrystal explained that resilience and adaptability are critical for an organization to successfully contend with complex challenges. As head of the U.S. Joint Special Operations Command (JSOC) operating in Iraq and Afghanistan, McChrystal had to create an organization that could contend with a new kind of unconventional adversary that was decentralized, fast-moving, and networked. He reorganized the traditional hierarchy of command and control in the military and transformed his command into a resilient, adaptive task force. McChrystal called the organizational structure that he developed "The Team of Teams."

This phrase also aptly describes the dynamics of the Guggenheim Investments¹ investment process. For an organization to respond to a complex system like the intertwined global economy and financial markets, our team-based investment process must be able to evaluate dense data patterns and a diverse array of linkages and connections to make investment decisions. The same process is followed for all of our actively managed fixed-income vehicles, from institutional separate accounts to packaged investment products such as mutual funds.

1. Please see Important Notices and Disclosures at the end of this material for more information about Guggenheim Investments.

Structured to Meet Unexpected Challenges

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The SEAL team in Abbottabad had not planned for the helicopter crash, just as Captain Sullenberger's crew had not planned for the bird strike, and the Carty-Caterson team had not planned for the [Boston] marathon bombing, but all were capable of adjusting to the unexpected with creative solutions on the spot, coherently and as a group.

Their structure—not their plan—was their strategy.

—Team of Teams: New Rules of Engagement for a Complex World, Stanley McChrystal et al.

A global pandemic was not on anyone's radar screen as 2020 began, but our people and the portfolios we manage were already prepared for the kind of market consequences it precipitated—a collapse in risk asset prices, spread widening, huge volatility, and a rising number of attractive investment opportunities for investors with liquid assets.

For much of 2019 we believed that market values were not compensating investors to take on additional risk. As a result, we had been selling into strength, upgrading credit quality, shortening spread duration, and building liquidity positions. We had strong conviction that the late-cycle economy would drive defaults and delinquencies higher, which would then cause spreads to widen and prices to fall. We did not know what the exact catalyst would be, but we believed an exogenous event would cause a market break.

As long-term investors, we were comfortable with the notion that our conservative portfolio decisions may contribute to a short period of underperformance relative to other strategies that took on more credit risk or spread duration. When our views were validated and the market break occurred, the strategy led to outperformance versus the broader market. Not only were clients able to avoid some of the negative effects of

the market dislocation, but our decision also positioned us to take advantage of opportunities that arose as a result.

In his book, “Team of Teams: New Rules of Engagement for a Complex World,” General Stanley McChrystal explained that resilience and adaptability are critical for an organization to successfully contend with complex challenges, both those they can predict and those that are unforeseen. As head of the U.S. Joint Special Operations Command (JSOC) operating in Iraq and Afghanistan, McChrystal had to create an organization that could match and defeat Al Qaeda, a new kind of unconventional enemy that was decentralized, fast-moving, and networked. He was compelled to reorganize the traditional hierarchy of command and control in the military and transform his command into a resilient, adaptive task force.

McChrystal called the organizational structure that he developed “The Team of Teams.” This phrase also aptly describes the Guggenheim investment process. The events generated by the COVID-19 pandemic served as a good opportunity to review how our process works on behalf of clients, and how that relates to performance.

Performance and Process

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We did not want all the teams to become generalists—SEALs are better at what they do than intel analysts would be and vice versa.... Our entire force needed to share a fundamental, holistic understanding of the operating environment and of our own organization, and we also needed to preserve each team's distinct skill sets.

—Team of Teams

Conducting due diligence on an asset manager's performance is a relatively straightforward exercise. Data and analytics on investment returns are readily available. But it is perhaps more important—and more difficult—to understand how the performance was achieved.

Is performance the result of one or two lucky market calls? How dependent are results on a “star” manager? What is the long-term track record? Is the process that generated the results repeatable? Predictable? Scalable? Is the process explainable? To meet the due diligence needs of our clients and potential clients, we work hard to ensure that these questions are addressed by the distinctive investment process at the heart of our approach to fixed-income investing.

At Guggenheim, we have segregated the primary components of investment management into four independent teams that manage these functions—Macroeconomic Research, Sector Teams, Portfolio Construction, and Portfolio Management.

By making our investment process team-based, our goal is to slow down the decision-making process and, in doing so, we make sure that every decision is thoughtful and minimizes biases. Our process is built on principles of two important bodies of work.

First, as Nobel Prize winner Daniel Kahneman and his colleague Amos Tversky demonstrated, human decision making is an inherently flawed process. Oftentimes we think we are making a rational decision based on experience or intuition, but these kinds of decisions are usually driven by fundamentally flawed logic caused by cognitive biases. Based on a series of groundbreaking experiments, Kahneman and Tversky used a metaphor of two systems of behavior that drive the way humans make decisions. System 1 behavior is automatic, rapid thinking, involuntary, intuitive, and emotional, like when we detect that one object is more distant than another. System 2 behavior is slower, deliberative, effortful, and logical, such as when we focus on the voice of a particular person in a noisy room, or fill out a tax form. Our investment process is designed to minimize bias and produce System 2 decisions. In this context, our process is designed to instill discipline in making investment decisions that are based on the deep credit and legal work that goes into security selection and the analytical rigor of our macroeconomic outlook, and to remove emotion or reflex from the process.

Second, in his seminal 18th century book “The Wealth of Nations,” Adam Smith observed that division of labor in any enterprise increases productivity and leads to greater prosperity. A major

goal in the disaggregation of our process is to foster expertise in separate areas of investment decision making. Each of the four groups has more time to focus on—and is the only group responsible for—its area of expertise.

In short, we created our team-based approach in order to make better decisions and express our best ideas in actively managed portfolios. We believe that our investment process is predictable, repeatable, and scalable. We also believe that the diagram we created to illustrate it helps make it explainable.

System 1 Behavior

- Quick
- Reflective
- Emotional
- Easy

System 1 decisions are typically helped by shortcuts of intuitive thinking that are vulnerable to cognitive biases.

System 2 Behavior

- Slow
- Deliberate
- Logical
- Effortful

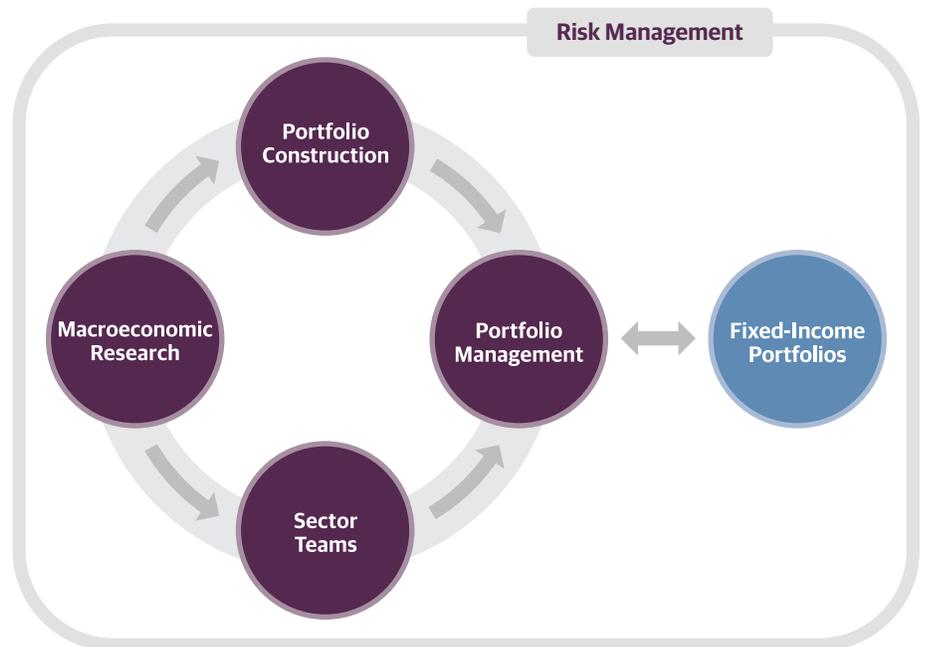
System 2 decisions take more time and diligence, remove the emotional component, and minimize cognitive biases.

A Dynamic Process

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The key lies not in the number of elements but in the nature of their integration—the wiring of trust and purpose. Parallel computing, joint cognition, and the oneness of a team all work toward the same goal: building a network that allows you to solve larger, more complex problems.

—Team of Teams



The simplicity of our investment process diagram effectively translates a complex process to make it clear in the mind of the reader. It shows how we organize our investment team into four groups, provides a sense of how our firm makes decisions, and it saves time in the telling. A picture, after all, is worth a thousand words.

As effective as our diagram may be in summarizing our process, however, it falls short in representing the most important elements of how our firm achieves its objectives. Our diagram may give an impression that the investment process is relatively static, with simple information flows that end up in security selection and asset allocations for the fixed-income portfolios we manage.

In fact, our investment team structure and process are as dynamic and complex as McChrystal's task force.

Our process has to be dynamic because, like the Special Operations Force, we are contending with a complex challenge. We are constantly evaluating new information on the domestic and global economy, the markets, individual securities, regulatory trends, political developments, and more. The environment is always shifting and, because we have different groups specializing in different aspects of the investment environment, the communication and sharing of information is critical. Critical, but also more difficult to accomplish than, say, a process that is completely

within the purview of one star trader or a small committee.

In order for an organization to respond to a complex system like the intertwined global economy and financial markets, it must be able to evaluate dense data patterns and a diverse array of linkages and connections between the different actors. In our world, this can include counterparties, regulators, policymakers, company management, and traders, both human and artificial. McChrystal discussed the difference between complicated and complex: "Things that are complicated may have many parts," he said, "but those parts are joined, one to the next, in relatively simple ways....Complexity, on the other hand, occurs when the number of interactions between components increases dramatically." As the number of interactions rises, so does the number of possible outcomes. Working to develop portfolio strategies that seek to generate compelling risk-adjusted returns in a complex system like this calls for an equally complex system.

The dynamism of this process is captured in many examples of the formal and informal interaction between the four teams.

Macroeconomic Research

As the primary research team within our investment process, the Macroeconomic and Investment Research Group (the Macro Group) provides the rest of the investment team with the outlook on the U.S. and global business cycle, market forecasts, and policy views. The data and analysis generated by the Macro Group is delivered in regularly released and updated reports, chart packs, dashboards, and databases, as well as in response to specific inquiries and assignments from the other teams. The Macro Group meets with each other several times a week, including with the CIOs and other investment teams.

Sector Teams

The Sector teams are responsible for picking the securities within their sector to buy and sell, not only sourcing the most compelling risk-adjusted investments, but analyzing them and providing ongoing risk monitoring. They take input from the Macro Group to use in their analysis and models, and they provide security recommendations to Portfolio Managers (PMs), who decide on asset allocation. The Sector teams focus on the following sectors: investment-grade and high-yield corporate bonds, bank loans, asset-backed securities, collateralized loan obligations, non-Agency residential mortgage-backed securities (MBS), commercial MBS, commercial real estate debt, municipal bonds, Agency MBS, and Treasury/Agency securities. Each sector team has frequent team meetings and also meets with other sectors and the Macro Group for specific information.

Portfolio Construction

The Portfolio Construction Group (PCG) is the risk-budgeting team in our team of teams. The PCG's main role is to work closely with the PMs and create the framework to execute on the strategic objectives of a portfolio. They do this by constructing model portfolios and performing scenario analysis for risk and return optimization. In this highly iterative process, the PCG conducts portfolio-level risk analysis to evaluate the appropriate risk positioning according to the investment guidelines for each client or fund strategy.

Portfolio Management

The PM team assembles portfolios according to its respective investment guidelines and based on input provided by the other teams. PMs are responsible for executing the investment strategy according to team inputs and portfolio guidelines. To accomplish this, the PM team meets frequently as a group and has many touch points outside the group, including the PCG, the Macro Group, and the Sector teams. PMs also are in frequent contact with the CIOs.

The Risk Group

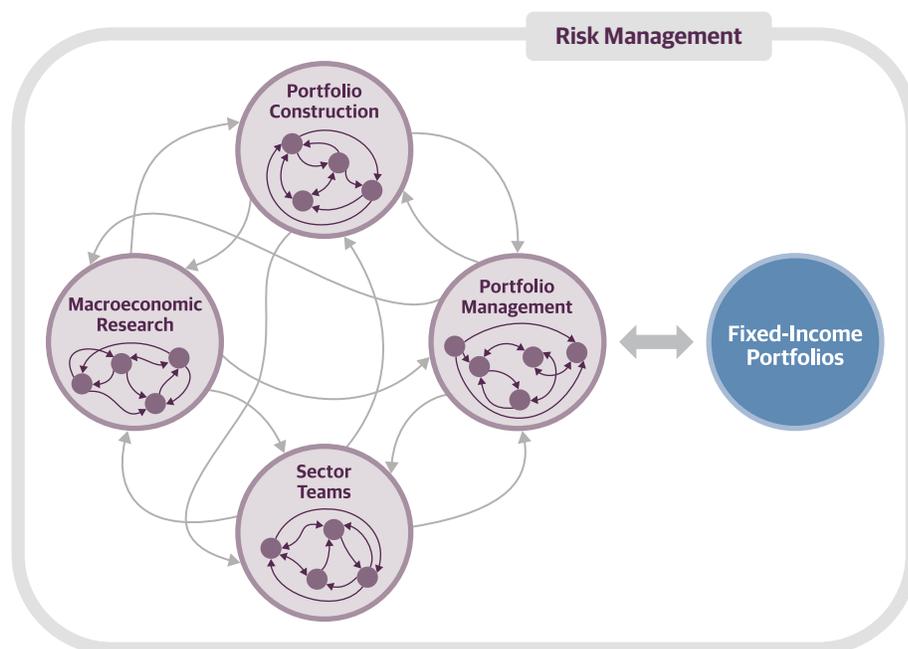
The Risk Group functions as a team around the teams. If the four groups in our investment process are akin to the team of teams in McChrystal's Task Force in Iraq and Afghanistan, then the Risk Group is like the oversight function served by JSOC headquarters in Ft. Bragg. Guggenheim Investments' risk management function is independent of our investment process, and provides an overlay of risk oversight that is an integral component in every investment and portfolio strategy allocation decision we make. The Risk Group has four distinct areas of focus: operational risk; market and liquidity risk; credit risk with an emphasis on structured ABS loan transactions; and model valuation risk, which provides surveillance and oversight of various initiatives related to model validation, pricing, and control.

An Investment Team of Teams

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The Task Force still had ranks and each member was still assigned a particular team and sub-sub-command, but we all understood that we were now part of a network; when we visualized our own force on the whiteboards, it now took the form of webs and nodes, not tiers and silos....To defeat a network, we had become a network. We had become a team of teams.

—Team of Teams



Our investment process is much more dynamic and complex than the simple diagram with four circles representing each of our four groups. There is a constant communication flow within each of the investment teams, as well as between and among the teams.

Every sector team has its own daily meetings, as well as constant interactions throughout the day. The PMs meet on a regular basis with all other groups. The formal process for making an investment, which involves the sector analyst making a presentation to the appropriate investment committee, is another way in which security selection and relative value is scrutinized. With all of these flows of information and sharing

of ideas, a more accurate diagram illustrating the dynamic nature of our team of investment teams would look something like the diagram above.

A powerful example of our process at work occurred during the volatile oil markets of the last few years. In 2014, when the price of oil declined from around \$100 per barrel to \$80, the Macro Group conducted an in-depth analysis of the market and concluded that the price of oil was in a far more precarious position than the market was anticipating. The Macro Group communicated its view to the investment team that oil could trade as low as \$25. Using this forecast as an input into their credit models, the Sector teams identified the securities

of those energy companies and other industries that would be vulnerable to a severe decline in the price of oil. The PCG used this outlook in its risk models to determine how this oil forecast could affect clients at the portfolio level. Informed by the work of the Sector teams and the PCG, the PMs were able to reduce the exposure to these companies and sectors, thereby minimizing losses during the selloff that followed. By the time oil prices bottomed near \$26 in early 2016, our teams were prepared to take advantage of investment opportunities that benefitted our clients as oil rebounded.

The same process has served our clients well through the current episode in the markets. In 2019, the economy was well into its 10th year of expansion, but different teams and groups were raising several red flags. The Macro Group was developing and refining its recession forecasting tools and calling for a turn in the business cycle by early 2020 absent any intervention from the Federal Reserve. Debt and leverage levels in corporate America were rising, thanks to the extended period of easy money and low rates. The investment-grade sector was becoming dominated by BBB securities that would be vulnerable to a downgrade in an economic slowdown. Our Sector teams were observing the tightening of spreads across many sectors to the kinds of levels that had

not been seen since before the financial crisis. The intensity of discussion at the Biweekly Portfolio Strategy Meeting and other meetings revolved around risks in the markets that were not being reflected in securities pricing.

Even after the Fed executed three mid-cycle rate cuts to extend the expansion, our asset allocation strategy did not materially change. Our PMs continued to upgrade the credit quality of our portfolios and maintain liquidity buffers even as spreads got tighter. We believed that the expansion was like a low and slow-flying airplane that would be easily buffeted by winds. Our investment process prepared us for whatever the exogenous force might be.

Our investment team adapted to the unexpected. To understand and anticipate the effects of the COVID-19 pandemic, we worked overtime studying the coronavirus infection growth curves around the world to create our own models, estimating the high-frequency and long-term impacts of the virus on overall economic activity, and assessed the potential effectiveness of policy responses. We analyzed companies, sectors, and industries for credit vulnerabilities to different economic shutdown scenarios, and carefully evaluated security values as prices cheapened and markets moved.

Following the selloff, our team selectively allocated to securities where we saw value, but we remained cautious. As part of its crisis response, the Fed has been trying everything in its power to alleviate the economic and market impact of the virtual shutdown. Most notably, its plan to buy high-yield debt and provide financing to companies resulted in credit spreads tightening dramatically. The market may like the Fed's actions, but Fed purchases cannot turn bad debt into good debt. Our investment team carefully reviews market conditions to avoid mistaking Fed liquidity for credit strength.

One thing is for sure: The same disciplined process is called upon to make investment decisions whether markets are moving quickly, as they have been during the pandemic, or when they are less volatile. Moreover, the same process is followed for all of our actively managed fixed-income vehicles, from institutional separate accounts to packaged investment products such as mutual funds. In our dynamic and complex process, our investment team of teams is constantly evaluating the investment risks and opportunities that arise in the market.

The Biweekly Portfolio Strategy Meeting

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The most critical element of our transformation—the heart muscle of the organism we sought to create and the pulse by which it would live or die—was our Operations and Intelligence brief. The O&I, as it was commonly called, is standard military practice: a regular meeting held by the leadership of a given command to integrate everything the command is doing with everything it knows....The daily O&I...pumped information about the entire scope of our operations out to all members of the Task Force and partner agencies, and also offered everyone the chance to contribute.

—Team of Teams

Once General McChrystal had broken down the walls between the historically siloed groups under his command, the biggest challenge he had to solve was communication. Intelligence about all aspects of enemy movement had to be shared in order for the appropriate steps to be taken swiftly and accurately.

A key component of this communication infrastructure was the O&I briefing. Our version of the O&I briefing is the Biweekly Portfolio Strategy Meeting (the Biweekly). Regardless of what else might be going on in the markets or with individual schedules, the Biweekly is a fixed date on the calendar for the entire team.

While different groups and sub-groups meet on their own or with each other, the Biweekly is when all of the firm's 250-plus investment professionals assemble—each office is connected via video conference—to present to each other, ask questions, test assumptions, share information, and formulate strategic ideas. The meeting begins with a presentation on the macroeconomic environment and a review of the firm's long-term outlook. Then each Sector team—such as investment-grade corporate bonds, bank loans, structured credit, commercial real estate lending, etc.—makes a brief presentation on their area of expertise.

The Biweekly plays a critical role in our investment process. It establishes a shared setting where the firm's house views can be tested, shaped, firmed up, and communicated. Every sector team makes a presentation, which enables all to have equal time and opportunity to disseminate information and ask others for their perspectives. While each sector group will discuss the investment dynamics and value dimensions in their markets, the Biweekly provides an opportunity to have a deep discussion on relative value across the whole fixed-income market. This is particularly valuable to the PMs and others who are allocating capital according to investment guidelines. The presence of the whole team also serves to allow junior members of the team to participate and get exposure to more senior professionals. Even as the different teams focus their energy and time on their own specialties, as a gathering of the whole group, the Biweekly emphasizes the importance of collaborating with and being visible to other team members.

Guggenheim Investments

Guggenheim Investments is the global asset management and investment advisory division of Guggenheim Partners, with more than \$217 billion¹ in total assets across fixed income, equity, and alternative strategies. We focus on the return and risk needs of insurance companies, corporate and public pension funds, sovereign wealth funds, endowments and foundations, consultants, wealth managers, and high-net-worth investors. Our 250+ investment professionals perform rigorous research to understand market trends and identify undervalued opportunities in areas that are often complex and underfollowed. This approach to investment management has enabled us to deliver innovative strategies providing diversification opportunities and attractive long-term results.

Guggenheim Partners

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