

# Allianz Global Investors GmbH

## Risk Management Overlay Rating



### Rating rationale

**Scope rates Allianz Global Investors GmbH as AAA (AMR) for excellent quality and expertise in management overlay services for institutional clients.**

Allianz Global Investors ("AllianzGI") is considered a pioneer in the development of risk management overlay (RMO), an integrated approach that offers institutional investors risk mitigation while preserving the upside. The RMO manager uses derivatives to manage the market risk of assets, which allows the alpha generation of the asset manager's underlying sub-fund to remain unaffected. Risk management solutions are especially in demand among pension funds, family offices, foundations and corporate clients.

Assets under overlay (AuO) have grown steadily since 2006 and reached approximately EUR 48bn as of March 2018. This makes AllianzGI the market leader by means of AuO in risk management overlay in Germany. The team also has mandates in Switzerland, France and the Netherlands – with ambitions for further internationalisation. The recent acquisition of a large EUR 10.5bn mandate in France, despite wide-spread competition, shows AllianzGI is on the right track. The rating agency Scope has performed an Investment Team Rating based on extensive interviews and comprehensive documentation.

The main results:

#### Seniority and level of education

The two senior managers, Dr. Henrik Büscher and Prof. Dr. Thomas Stephan, have worked in the multi-asset sector for more than 20 years. Together they have been instrumental in the shaping and continuous development of the RMO's current range of services for institutional clients.

The twelve-strong RMO team has an average of 12 years of relevant experience each. An above-average proportion five employees hold a Ph.D. –, which Scope considers to be excellent. The high academic standards of the RMO team are further reflected via numerous, relevant supplementary qualifications like the CFA and university degrees.

#### Investment and decision-making processes

Central to the investment process is the integrated approach to managing market risks by accounting for pro- and countercyclical components to reduce opportunity costs. The overlay is opportunity-oriented, meaning there are no predefined lower value limits. Instead it provides the flexibility to exploit opportunities. The investment and decision-making processes are predominantly rules-based.

The goal is to consistently minimise downside risks in the short term and to achieve robust growth in long term potential for returns. Specifically, the strategy seeks to mitigate downside risks by up to 50% against the benchmark over a 12-month rolling basis in very weak markets, while meeting or exceeding the expected return of the benchmark over a full market cycle.

The customised, highly flexible approach allows the RMO team to incorporate the client's specific requirements and investment policies. In Scope's opinion, AllianzGI can fully provide the necessary staff for this purpose. Approximately 30 mandates are assigned throughout the RMO team, resulting in each lead portfolio manager being responsible for fewer than three mandates which represents excellent value and shows significant potential for economies of scale.

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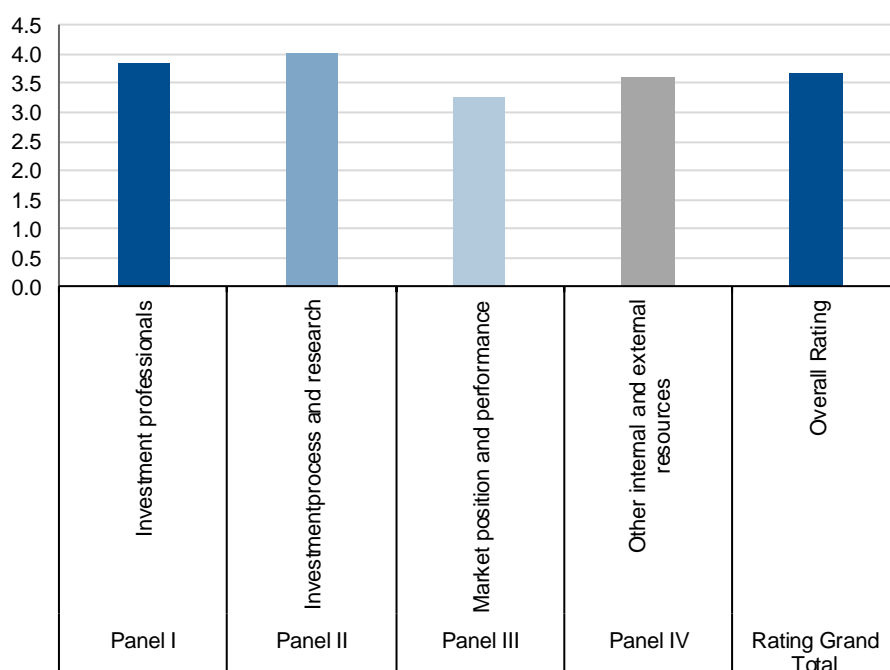
Bloomberg: SCOP

### Track record – risk management overlay composite 2017

Performance was strong in 2017: the realised gross return of the composite outperformed the corresponding benchmark by 94 bps, with a tracking error of just 0.32%. The risk-adjusted return (Sharpe ratio) for 2017 was 8% above the benchmark.

Scope's impression of the performance in 2008 is very positive, as markets at the time were exceedingly volatile and heavy losses were suffered in the wake of the financial crisis. While the benchmark over the period fell by -13.2%, the composite limited losses to -2.4% before costs. (Note: in the years prior to 2017, the DMAP composite was used as an indicator of the RMO strategy's performance. The results cannot be compared directly, but still provide a good indication.)

### Rating-Scorecard-Summary



### Rating drivers

- + AllianzGI's long, successful history and pioneering role in risk overlay.
- + Both senior managers have spent more than 20 years at the company and have been instrumental in the shaping and continuous advancement of the RMO division (including the predecessor division).
- + Market leader in risk overlay in Germany, with a steady growth of AuO.
- + The team benefits from AllianzGI's excellent set-up in the risk-managed multi-asset sector, especially the successful Dynamic Multi-Asset Portfolio process upon which the RMO team's investment approach is based.
- Despite having largely efficient data processing systems, manual intervention and system breaks have not been fully eliminated.

### Panel – Investment professionals

#### Industry experience

Averaging 12 years of work experience each, the RMO team demonstrates above-average and extensive industry experience. Senior management consists of Dr. Henrik Büscher and Prof. Dr. Thomas Stephan, who have both worked in the multi-asset sector for more than 20 years. Together they shaped and continuously fostered the development of the RMO's current range of services for institutional clients.

Daniel Ziegler and Rudolf Rabe, each with 16 years of relevant experience, are among the team's senior members. Sven Treu and Dr. Alexander Schäfer have 13 years of experience in the investment sector each. The professional experience of the remaining six employees ranges between three and 12 years, resulting in a balanced proportion of senior and junior staff.

#### Proportion of employees with additional qualifications

The academic standards of the RMO team are high with five of the 12 team members holding a Ph.D. Additionally, Prof. Dr. Thomas Stephan is a university professor and three employees are also qualified Chartered Financial Analysts.

Furthermore, several employees have more than one university degree: Fayssal Mofatiché earned a postgraduate diploma in management after gaining a master's in information systems. The junior in the team, Lukas Kredler, has two master's degrees in information systems and physics.

Due to the highly complex nature of allocation and risk management, along with a constant need to refine the approach, Scope considers the employees' education to be appropriate and target-oriented.

#### Team history

Since 1997, the predecessor of today's RMO team successfully managed downside risk for institutional mandates. According to AllianzGI, senior management considers itself as a pioneer in the development of risk management overlays for the German-speaking market. At the end of the 1990s, allocation management in mixed-fund mandates was an innovative concept which was largely developed by Prof. Dr. Thomas Stephan and Dr. Henrik Büscher.

The approach was steadily improved in the years that followed, moving away from the classic 70/30 mandates, towards dynamic adjustments using current research. At the start of the new millennium, the new concept was positioned as risk management overlay and introduced to potential customers.

The first RMO mandate was secured in 2005; it was aimed at minimising downside risks and determining the optimal point to enter the market to limit potential opportunity costs. The approach was valued by customers and contributed to a steady increase in mandates with managed assets currently amounting to EUR 48bn.

During 2005-11, the multi-asset team, led by Dr. Thomas Stephan, managed the risk overlay mandates. In 2011, the Investment & Risk Management Strategies team, led by Dr. Henrik Büscher, was created to specialise in RMO mandates.

In 2013, the team was named the "Risk Management Overlay" team and given its current structure in 2016 after the merger of two entities including Risklab, with Dr. Büscher placed in charge.

High share of team members with relevant additional qualifications

AllianzGI, a pioneer in risk overlay, has a long history

**Stable core team – although with many adjustments over the years**

### Team organisation and employee turnover rate

Dr. Henrik Büscher is the head of the team, which he built up together with Prof. Dr. Thomas Stephan. The core RMO team comprises 12 employees, who are familiar with the infrastructure of AllianzGI's multi-asset platform and are supported through the shared group services (e.g. legal/compliance).

The institutional sales team and key account managers also assist sales, therefore in numbers, over 80 employees support the risk-managed multi-asset business.

No further hierarchical levels exist within the team. Each employee is part of the portfolio management team and has an area of focus.

The numerous adjustments and organisational restructurings in the team in recent years (see Team History section) have impacted employee turnover. However, the core team with Dr. Büscher and Dr. Thomas has remained largely unchanged.

### Remuneration

The monetary incentive system for the RMO team is based on specifications applying to the entire investment platform. Remuneration includes both a fixed and performance-driven element, which contains cash and long-term-oriented deferred components.

The deferred component consists of the Long-Term Incentive Programme Award (LTIP), and the Deferral into Funds programme (DIF) which requires employees to invest a portion of their bonus in AllianzGI investment strategies. Variable remuneration is based on individual performance and goal-attainment measures, both qualitative and quantitative.

Quantitative measures for portfolio managers include investment performance achieved over a rolling three-year period relative to a benchmark or target return agreed with the client. Qualitative criteria include, among other things, the contribution to the ongoing development of the product range and how well the employee's behaviour aligns with general company values.

Scope regards the RMO team's incentive system to be highly appropriate and comprehensive.

**Comprehensive and reasonable incentive system**

Robust and strong rule-based investment process

50% of downside risks to achieve target returns

## Panel – Investment process and research

### Investment and decision-making process

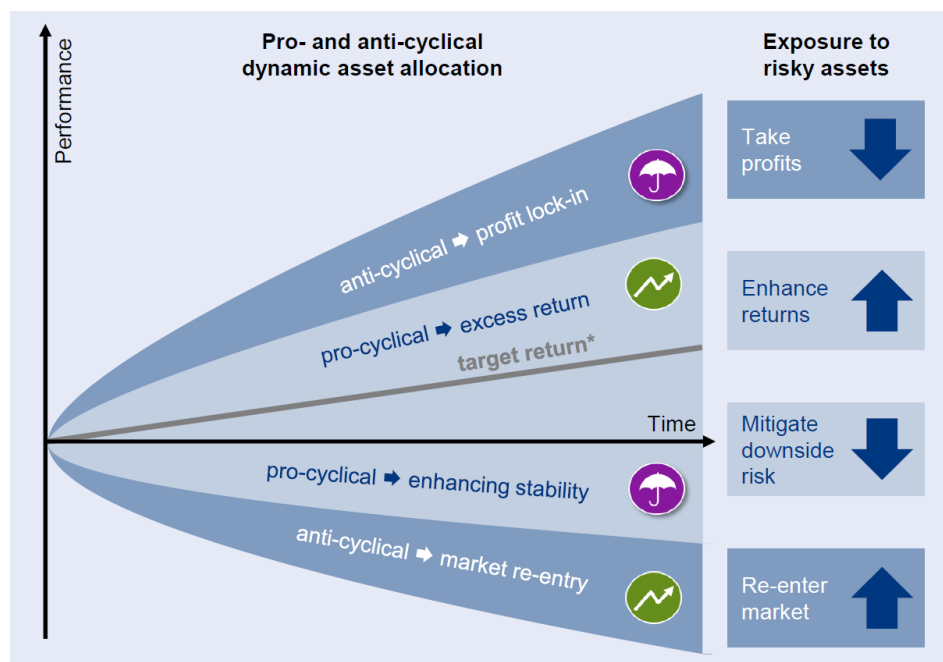
Central to the investment process is the rules-based, integrated approach of managing market risks by accounting for pro- and countercyclical components to reduce opportunity costs. This differs to discretionary or static risk management (like stop loss or protective puts) and simple pro-cyclical allocation strategies like CPPI.

The goal is to consistently minimise downside risks in the short term and to achieve robust growth in long term potential for returns. Specifically, the strategy seeks to mitigate downside risks by up to 50% against the benchmark over a 12-month rolling basis in very weak markets, while meeting or even exceeding the expected return of the strategic asset allocation (SAA) / benchmark or target return over a market cycle. The management and monitoring of each risk budget is based upon a CVAR (99% confidence interval every month), which is calculated and checked daily. A degree of flexibility is ensured because there is no guarantee over value preservation or risk budgets.

Alpha risk (5-10% of total risk) remains with the respective manager of the underlying fund, while market risk (90-95% of total risk) is managed by the RMO team. Each risk overlay mandate therefore distinguishes clearly between market risk and tracking-error risk.

The RMO team's approach is based on the Dynamic Multi Asset Portfolio (DMAP) process developed by AllianzGI, whose pro- and countercyclical components are most effectively explained via the following visual representation:

**Figure 1: Schematic diagram of proprietary AllianzGI DMAP strategy**



Source: Allianz Global Investors

The approach relates on the one hand to a quantitative trend-tracking model that uses a proprietary "engine" and creates signals for active asset allocation. Alongside this pro-cyclical trend indicator, which evaluates the risk-adjusted trend direction and stability for each asset class, the model includes a countercyclical component: a trend reversion indicator that seeks to identify exaggerated trends (mean-reversion-adjusted).

Both pro- and countercyclical components flow into a market cycle indicator, which forms the basis for the signals and reflects the direction and manifestation of trends in an asset class.

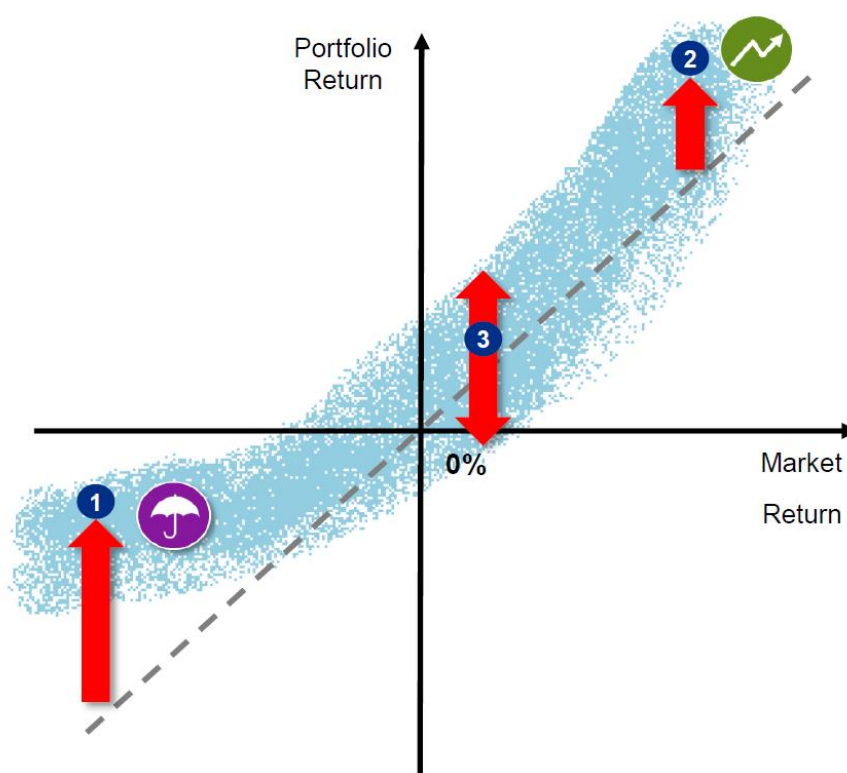
Inputs used for calculating the signals include the SAA, as specified by the client or generated from an ALM study, as well as returns and volatilities over a rolling 12-month period.

Quantitative results are tested against a qualitative fundamental assessment. This step is performed at the regular multi-asset meetings: The Tactical Multi Asset Forum (TMAF) and the Tactical Multi Asset Committee (TMAC).

The final optimised allocation is determined within predefined risk budgets, which also ensures seamless integration into the client's investment process.

DMAP's targeted asymmetric return profile is shown below:

**Figure 2: Target return profile of the AllianzGI DMAP strategy**



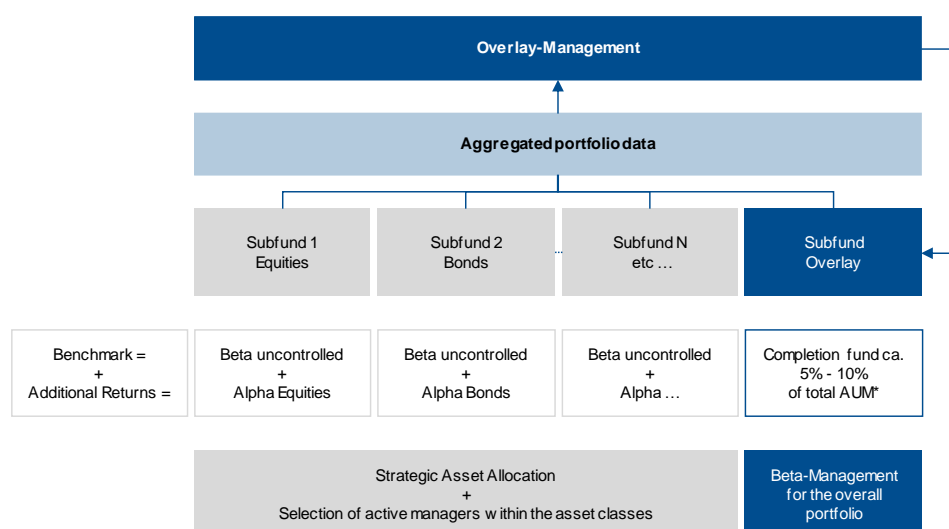
Source: Allianz Global Investors

The three figures in the chart refer to the following aspects of the DMAP strategy:

- (1) Reduction of downside risk
- (2) Participation in rising markets
- (3) Tracking error versus benchmark: the strategy can significantly underperform against the benchmark in volatile sideways markets.

For RMO, the whole process is 90-95% method-based and thus clearly rule-bound. Discretionary interventions, if any, are initiated only when requested by the client and must be approved by the portfolio manager in charge, who gives the final approval.

**Figure 3: Ideal structure of overlay management**



Source: Allianz Global Investors

Derivatives used in overlay management are managed in a “subfund overlay” whereby the management of the whole fund’s cash instruments remains independent and untouched (see above). The subfund overlay seeks to manage the whole fund’s beta in line with the RMO investment philosophy, which also means there is no interference with the investment decisions of active segment managers.

The acquisition process involves portfolio modelling based upon the client's portfolio data, and a simulation of historical results for a theoretical RMO, with the help of backtesting. Along with the use of DMAP, this phase incorporates and evaluates further qualitative aspects, considering the global multi-asset research of AllianzGI.

A dedicated R&D team continuously refines DMAP. The permanent members of this team, which also includes four RMO team members, aim to permanently improve the scientifically sound approach and adapt it to current research.

The group is led by Dr. Stamos, a founder of DMAP. On top of quantitative refinements, an IT investment team also supports and guides computer-based implementations of new approaches.

Scope considers the approach to be very robust, in part because the model is nearly forecast-free, minimising estimation risks. Regarding transaction cost management, Scope is convinced by AllianzGI's size, bargaining power and use of highly liquid derivatives, which, through effective execution, are traded in a cost-efficient and meticulous way. Already during the simulation of a mandate, a 5-bps upper limit for transaction costs is applied and adhered to.

### Investment risk management

The RMO process includes various, integrated risk management components, mainly to ensure generated portfolio data is accurate and complies with the investment guidelines previously agreed with the client.

As mandates are usually worth several-hundred millions of euros, tiny errors in data for processing can lead to an event of loss. As a result, the team has implemented, together with AllianzGI's global risk management, among other things, the following processes:

- A four-eye check is applied for almost all sub-processes.

- Portfolio-relevant data from the client or custodian bank are reviewed via a "control sheet" by lead and deputy portfolio managers prior to further processing and checked against the trade-relevant content in the "management sheet".
- A fully automated pre- and post-trade compliance process is in place to ensure adherence to investment guidelines.
- Clear responsibilities via a "data owner" process: each key account manager is responsible for the mandates they brought in by ensuring accurate data delivery and ensues the position of liaison between the RMO team and clients for those mandates.
- Daily "portfolio health check" (see below)

Each portfolio manager performs a daily "portfolio health check", an almost fully automated process whereby current portfolio data (e.g. NAV and holdings) are fed into a proprietary interface (management sheet) and checked as to whether futures need extending or forex hedges need adjusting, among other things. Cash positions or possible credit events will also be considered if required by the mandate.

Process refinement aimed at higher quality also plays a meaningful role and is supported by in-house projects if necessary.

Thanks to sophisticated measures and process refinements over the years, Scope considers the investment risk management to be exemplary and pioneering.



**Risk-positioning and loss-avoidance strategies**
**Assets under overlay have grown by more than 20% since launch**
**Convincing performance in downside markets**
**Panel – Market position and performance**
**Unique selling points of the team's strategy**

AllianzGI considers its current RMO approach to be the result of years of evolution, culminating in today's integrated approach. This approach defines the management of risks and opportunities and the use of pro- and countercyclical components. While in initial phases, the CPPI approach incorporated the first pro-cyclical elements, focusing on diversification and the first value-preservation strategies (e.g. protective puts).

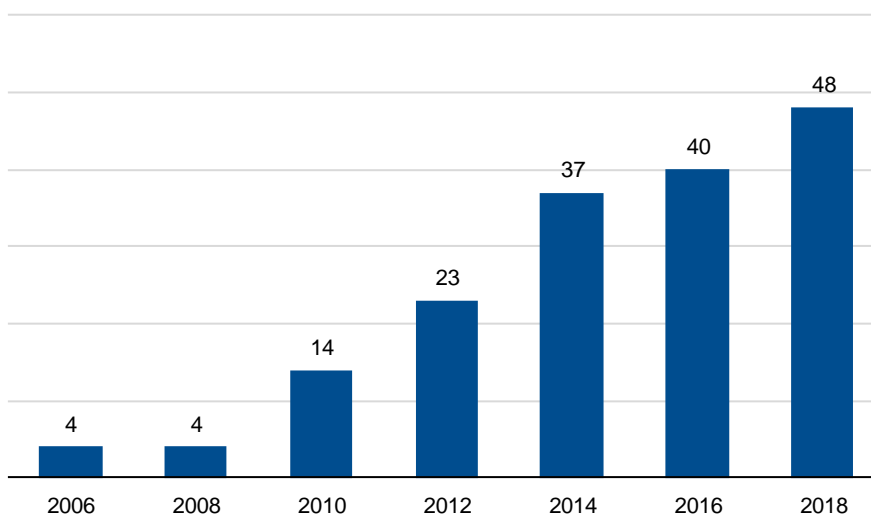
In recent years, investors have increasingly sought risk overlay solutions that incorporate risk-positioning and loss-avoidance of which AllianzGI's RMO process meets those aims.

The goal is to reduce downside risk by up to 50% against the benchmark while meeting or exceeding the expected return on the SAA/benchmark over a market cycle. Flexibility is supported by the fact that lower value limits are neither targeted nor offered.

The RMO strategy expressly does not allow for (proxy) hedging of alternative investment allocations within the SAA.

**Assets under overlay – development**

Since 2006, the assets managed by the RMO team (AuO) have risen steadily and reached around EUR 48bn as of March 2018. According to the research of Scope Analysis, this makes AllianzGI the market leader by means of AuO in risk management overlay in Germany. The average annual growth rate of AuO is more than 20%. During 2014-2018 growth weakened to 6.7%; however, Scope still considers this to be respectable in view of the rising markets and accordingly high opportunity costs in the short term. The increase in AuO after 2008 is notable, driven by a sharp increase in demand for risk overlay concepts in the wake of the financial crisis.

**Figure 4: Development of assets under overlay**


Source: AllianzGI, as of March 2018

The RMO team currently manages approximately 30 mandates. Dividing this across the 12 lead portfolio managers results in fewer than three mandates each. This represents excellent value and shows the significant potential for economies of scale.

**Investment track record**

According to AllianzGI's RMO team, an RMO-specific composite has only existed since January 2017. It should be noted that the temporary GIPS guidelines in place for overlay concepts are likely to take effect in January 2019.

**Table 1: AllianzGI DMAP – risk management overlay composite 2017**

Figures	Composite RMO	Benchmark*
Returns 2017	5.66%	4.72%
Standard deviation 2017	2.74%	2.49%
Sharpe ratio 2017	2.18	2.03
Tracking error 2017	0.32%	-
Number of mandates	14	-

In euros before expenses – \*disclaimer in appendix

In 2017, gross returns were strong: the composite's realised return outperformed the benchmark at 94 bps. Volatility was also only slightly above the benchmark, with a tracking error of well below 0.5%. This resulted in the 2017 risk-adjusted return (Sharpe ratio) exceeding the benchmark return by 8%. However, in terms of volatility and tracking errors, this time horizon is insufficient for assessing the strategy's quality. Therefore, Scope has been provided with a composite for the underlying DMAP strategy (AllianzGI Dynamic Multi Asset Plus Asymmetric Total Return EUR) as an indication for performance in previous years

**Table 2: AllianzGI DMAP Asymmetric Total Return EUR – returns**

Figures	DMAP composite	Benchmark	Delta
Returns 3 years p.a.	4.94%	4.63%	0.31%
Returns 5 years p.a.	6.74%	6.10%	0.64%
Returns 10 years p.a.	6.30%	4.64%	1.65%
Since launch April 2005 p.a.	7.03%	5.19%	1.84%

In euros before expenses – as of 31.12.2017

Since its launch, the composite has had an active return of 1.84% p.a. before expenses. The short- to medium-term periods (3-5 years) contributed less to this due to negative active returns of -0.47% and -0.44% in 2015 and 2016 respectively.

### Strong loss mitigation in 2008

Scope views the results in 2008 very positively, during which markets were highly volatile and heavy losses were suffered in the wake of the financial crisis. While the benchmark lost -13.2% over the period, the composite limited losses to -2.4% before expenses.

Furthermore, volatility in 2008 was 4.5% for the composite compared to 7.1% for the benchmark – the deviation for the composite was more than 35% lower than for the benchmark. During the recovery in the following year, the AllianzGI strategy also had a positive active return of 72bp before expenses.

**Table 3: AllianzGI DMAP Asymmetric Total Return EUR - volatility**

Figures	DMAP composite	Benchmark
Standard deviation 3 years p.a.	4.84%	4.75%
Standard deviation 5 years p.a.	4.42%	4.18%
Standard deviation 10 years p.a.	4.91%	5.54%
Standard deviation since launch	5.04%	5.36%

Note: In euros before expenses – as of 31.12.2017

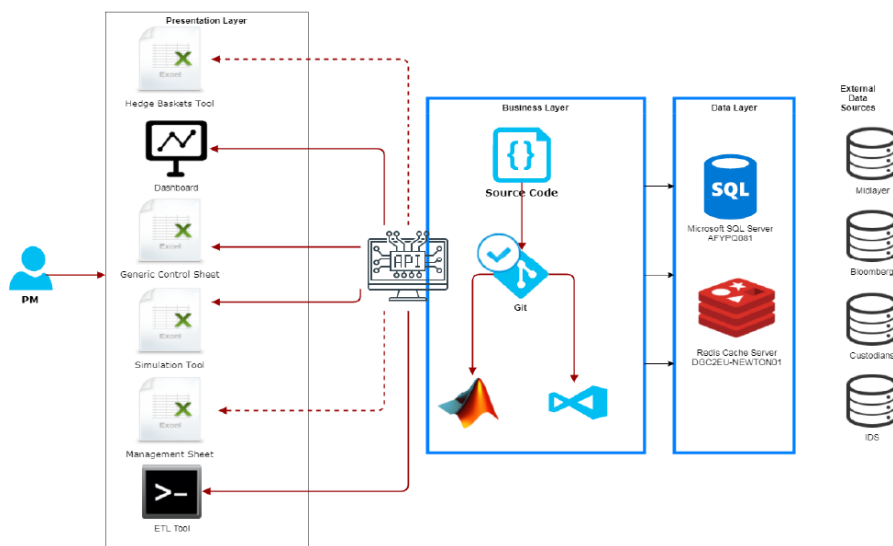
Again, Scope notes that the DMAP composite is only an indication of the RMO strategy's performance in previous years and cannot serve as a direct comparison.

**Strong automation based on a multi-tier approach**
**Panel – Other internal and external resources**
**Connectivity: IT/technical support and external service providers**

Underlying portfolio data are essential inputs for the services provided by the RMO team, both for internally and externally managed mandates. A major challenge here is the technical connection with the custodian banks that prepare and provide portfolio data. Especially with "managed-out" mandates, i.e. portfolios managed by an external German capital management company (KVG), smooth data delivery from custodian banks is crucial.

AllianzGI has created a process that facilitates fast connection with numerous custodian banks (managed-out mandates). In a multi-month project, AllianzGI implemented automated data connections with selected custodian banks (State Street, BNP, JPMorgan, etc.) to reduce system breaks and error-prone manual intervention. The data supplied by custodian banks are sent to IDS GmbH and validated. IDS GmbH is a wholly owned subsidiary of Allianz SE and is AllianzGI's outsourcing partner for portfolio and performance data. The data are then fed into AllianzGI's data warehouse and made available to portfolio management systems such as the control sheet. The RMO team and IDS GmbH have service level agreements with each other that clearly regulate responsibilities on the validation and plausibility of delivered data.

Despite the strong automation, portfolio data for several mandates are still sent as email attachments. For this purpose, the RMO team has developed proprietary tools to partially automate the data feed.

**Figure 5: Overview of IT architecture**


Source: Source

The IT architecture consists of independent units to enable high scalability and interchangeability of individual modules – the so-called "multi-tier" approach. The "data level", where data is fed and retrieved, is the basis of this concept. It involves a synchronised SQL database and cache server (Redis). Data processing in line with the RMO team's investment logic occurs in the "middle level". The "presentation layer" includes all tools and applications needed by portfolio managers on a daily basis, such as the aforementioned control sheet and the simulation tool for new mandates.

All units have clear documentation as well as process and operational flow descriptions, which are regularly updated by a team member and refined when necessary.

IT services also include a chief software architect or second-level support, as well as sequential programmes for potential technical events. Such features strongly enhance the system's stability and reliability.

In addition to IDS GmbH, an essential external service provider is Bloomberg, which supplies AllianzGI with a diverse range of market data. The trading system and pre- and post-trade compliance coding are also implemented via Bloomberg applications. Both providers are managed and monitored by AllianzGI's IT and operations team, independent of the RMO team, as other investment units also use most of these services.

Overall Scope rates the efficient data-processing process very positively – however considers that manual interventions and system breaks have not been fully eliminated. The RMO team also has excellent technical capacity and support at its disposal – internally via IT officer Mr. Mofatiché, and externally via the group's IT department. A robust basis has been created gradually, enabling portfolio managers to focus as much as possible on their core business.

### Collaboration with legal/compliance

Risk management overlay is a complex topic requiring relevant specialist expertise, especially when drafting client contracts. In particular, liability risks must be accounted for without overly restricting the freedom in exercising the mandate.

As a result, the AllianzGI legal team is involved from the start of the RMO business origination process and provides qualified personnel with deep knowledge of the legal judgement needed for the financial instruments and strategies used in RMO.

The standardisation of various contractual clauses also minimises risks. In a project with the legal department, the RMO team has formulated standard clauses to structure and customise investment management agreements (IMA). These can be implemented in a modular fashion and aligned with individual client requirements.

The IMAs form the basis for the investment guidelines, which, thanks to the automated data-delivery process (see IT/Technical Support and External Service Providers), can be coded almost fully automatically and retrieved from systems such as Bloomberg for the purpose of pre- and post-trade compliance.

Optimised collaboration between legal/compliance supported by strong automation

### I. Rating scorecard

Panel			weighting
<b>Panel I - Investment professionals</b> <i>Subtotal</i>	<b>25%</b> <i>0.96</i>	<b>Industry experience</b> <i>Subtotal</i>	<b>20%</b> 0.80
		<b>Additional qualifications</b> <i>Subtotal</i>	<b>15%</b> 0.60
		<b>Team history</b> <i>Subtotal</i>	<b>20%</b> 0.80
		<b>Team organization/key person risk</b> <i>Subtotal</i>	<b>15%</b> 0.60
		<b>Employee turnover rate</b> <i>Subtotal</i>	<b>15%</b> 0.45
		<b>Remuneration</b> <i>Subtotal</i>	<b>15%</b> 0.60
	<b>Panel II - Investmentprocess and research</b> <i>Subtotal</i>	<b>30%</b> <i>1.2</i>	<b>Investment process</b> <i>Subtotal</i>
		<b>Research</b> <i>Subtotal</i>	<b>33.3%</b> 1.33
		<b>Investment risk management</b> <i>Subtotal</i>	<b>33.3%</b> 1.33
<b>Panel III - Market position and performance</b> <i>Subtotal</i>	<b>30%</b> <i>1.0</i>	<b>USP</b> <i>Subtotal</i>	<b>25%</b> 0.75
		<b>AuM development</b> <i>Subtotal</i>	<b>25%</b> 1.00
		<b>Investment track record</b> <i>Subtotal</i>	<b>50%</b> 1.50
<b>Panel IV - Other internal and external resources</b> <i>Subtotal</i>	<b>15%</b> <i>0.5</i>	<b>IT / technical support</b> <i>Subtotal</i>	<b>40%</b> 1.20
		<b>External service providers</b> <i>Subtotal</i>	<b>20%</b> 0.80
		<b>Risk management</b> <i>Subtotal</i>	<b>40%</b> 1.60
		Score	3.68
		Rating	AAA

NB: Panel II did not apply the ESG criterion normally incorporated in Scope's Investment Team Ratings for asset managers of liquid investments, as this is irrelevant for overlay strategies. The 10% weighting was distributed equally to the other three criteria in the panel.

## II. Rating scale

<b>AAA</b> <sub>AMR</sub>	Excellent quality and competence	4.00	Meets institutional standards
		3.60	
<b>AA</b> <sub>AMR</sub>	+	3.30	
	Very good quality and competence		
	-	2.70	
<b>A</b> <sub>AMR</sub>		2.40	
	+	2.10	
	Good quality and competence		
	-	1.50	
<b>BBB</b> <sub>AMR</sub>		1.20	
	+	0.90	
	Satisfactory quality and competence		
	-	0.30	
<b>C</b> <sub>AMR</sub>	Does not meet institutional standards		



## Composite disclaimer Allianz Global Investors

The AllianzGI DMAP – Risk Management Overlay (DMAP – RMO) approach is an investment approach to manage the overall risks of aggregated portfolios using derivative and cash instruments. The DMAP – RMO approach follows the Dynamic Multi Asset Plus (DMAP) investment strategy and is characterized by an active approach to asset allocation and risk management that combines both pro-cyclical and anti-cyclical elements and uses signals that describe the relative attractiveness of single asset classes. Other active allocation components may be applied. For that matter, a sub-portfolio (so-called completion fund) must be funded with cash. The funds within the composite may apply hedging and leverage strategies. Besides linear instruments, non-linear instruments may be used. The strategy was established for overlay portfolios in 2016. This composite set up in January 2017, with an inception date of 01 January 2017, includes all fee-paying, discretionary portfolios denominated in EUR that follow the DMAP-RMO approach and are measured against asset-only or liability-related benchmarks.

## Important notes and information

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The publisher responsible for preparing and distributing this management rating is Scope Analysis GmbH, Berlin, Germany, Local Court of Berlin (Charlottenburg) HRB 97933 B, Registered Office: Lennéstraße 5, 10785 Berlin, Germany, Managing Director: Dr Sven Janssen.

The present management rating was generated and written by Harald Berlinicke, CFA, Director, Lead Analyst.

## Management rating history

This management rating is the first rating of the quality of this asset management company by Scope Analysis.

## Information on interests and conflicts of interest

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## Principal sources of the management rating

The following principal information sources were used to produce the management rating: website of the asset management company - detailed information provided on request - annual financial statements - interim financial statements - data supplied by external data providers - interview with the asset management company - external market reports - press reports/other published data.

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Before publication, the client had an opportunity to review the rating and the key factors leading to the rating decision (rating drivers), including a summary of the underlying rating rationale. The rating was not revised following this review.

## Methodology

The management rating relates to an evaluation of the quality of the asset management company in its function as a product manager and issuer of financial instruments within the meaning of the methodologies published by Scope Analysis. The applicable methodology can be viewed at <https://www.scopeanalysis.com/#rating-and-research/asset-management-rating/methodologies>. Information on the meaning of the rating scale used for the rating can be viewed on the website of Scope Analysis GmbH at <https://www.scopeanalysis.com/#methodology/rating-scales>.



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