# Manager Rating

2005-09-28

# **SGAM Alternative Investments**



# RCP & Partners GmbH

Risk rating of asset managers: the investor's measure of trust

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Risk rating of asset managers: the investor's measure of trust

#### Manager Rating

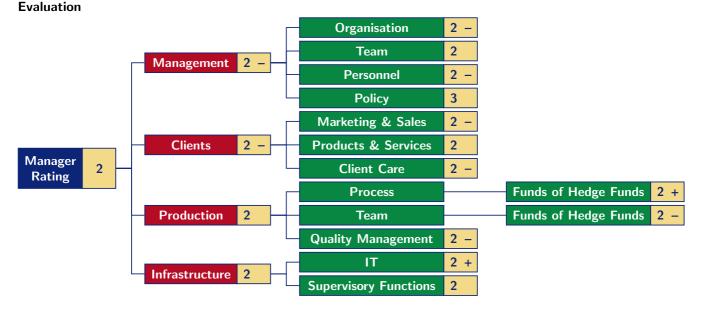
# **SG AM Alternative Investments**



# 2 Very good

Parameters	
Date	2005–09–28
Units	SG AM Alternative Investments, SG Asset Management, Inc., SG Asset Management Deutschland GmbH
Asset Classes	Funds of Hedge Funds
Contact	
Rated Party	Corinne André (Director Sales & Marketing SG AM AI), $\mathbf{r} + 33 - 1 - 5637 - 8785$ , corinne.andre@sgam.com, Christophe Lalo (Director Sales & Marketing SG AM AI), $\mathbf{r} + 33 - 1 - 5637 - 7597$ , christophe.lalo@sgam.com, Boris Rischow (Managing Director SG AM DE), $\mathbf{r} + 49 - 69 - 71042808 - 10$ , boris.rischow@sgam.com
Analysts	Dr. Uwe Kern (Chief Analyst, responsible), $\mathbf{r} + 49-611-9742-120$ , uwe.kern@rcp-partners.de Dr. Eckhard Weidner (Senior Analyst), $\mathbf{r} + 49-611-9742-116$ , eckhard.weidner@rcp-partners.de
Results	
Evaluation	





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# RCP & Partners GmbH

Risk rating of asset managers: the investor's measure of trust

#### **Manager Rating**

# **SG AM Alternative Investments**



# 2 Sehr gut

Befriedigend

Mangelhaft

Ungenügend

Parameter						Ratingskala
Datum	28.09.2005				+ 1	Exzellent
Einheiten	SG AM Alternative Inves SG Asset Management, SG Asset Management E	Inc.,			- + 2 -	Sehr gut
Assetklassen	Dach-Hedgefonds				+ 3 -	Gut
Kontakt					+ 4	Befriediger
Rated Party	<b>☎</b> +33-1-5637-8785, 6	Sales & Marketing SG AM A corinne.andre@sgam.com, r Sales & Marketing SG AM A			+ 5 -	Mangelhat
	Boris Rischow (Managing	christophe.lalo@sgam.com, g Director SG AM DE), L0, boris.rischow@sgam.com	,		+ 6 -	Ungenüger
Analysten	Dr. Eckhard Weidner (Se	uwe.kern@rcp-partners.de	s.de			
Ergebnisse						
Bewertung				1		
		Organisation	2 –			
	Management 2 –	Team	2			
		Personal	2 –			
		Grundsätze	3			



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# **Rated Party**

#### Units

This rating concerns the independent legal entities:

- ✗ SGAM Alternative Investments ("SGAMAI"), located in Paris, as well as
- ✗ SG Asset Management, Inc. ("SG AM Inc"), located in New York, and
- ✗ SG Asset Management Deutschland GmbH ("SG AM DE"), located in Frankfurt am Main.

All entities are subsidiaries of *Société Générale Asset Management S.A.* ("SG AM"), headquartered in Paris, which, in turn, is part of the *Société Générale Group* ("SG Group").

#### **Client Groups**

This rating does not focus on a particular client group as the processes under consideration do not vary with the product's tranches for different client groups.

#### Asset Classes

For the purposes of this rating, the asset class

#### **X** Funds of Hedge Funds (FoHF)

has been subject to analysis and evaluation.

#### **Effective Date**

Unless stated otherwise, all data contained in the present report refer to **2005–06–30**.

#### Comment:

→ SG AM AI has undergone the RCP manager rating process for the second time. The overall rating improved to 2 (very good), the previous rating having been 2-. All rated sections achieved the same or a higher score as in the previous rating.

Table 1: Companies

Company	SGAMAI — SGAM Alternative	SGAMInc — SG Asset Manage-	SGAMDE — SG Asset Manage-
	Investments	ment, Inc.	ment Deutschland GmbH
Address	170, place Henri Regnault	1221 Avenue of the Americas,	Mainzer Landstraße 36
		12th Floor	
	F–92043 Paris – La Défense	New York 10020, USA	D-60325 Frankfurt am Main
	cedex		
Phone	+33-1-5637-8000	+1-212-278-53-70	+49-69-71042808-0
Internet	www.sgam-ai.com	www.sgam-ai-hedge.com	www.sgam.com
Founded	1997 <sup>1</sup> /2003	1998 <sup>2</sup>	2005
Employees	210 (total), 61 (Hedge Funds)	19	4
AUM (EUR m)	23100 (total), 1700 (FoHF)	_	
Portfolios	9 (FoHF)	_	
Services	Management of Hedge Funds,	Advisory for Funds of Hedge Funds	Sales and distribution of SGAM
	Structured Products, Private Equity,		Group products
	and Real Estate Portfolios		

<sup>1</sup>as SG SAM <sup>2</sup>as SG Cowen AM

## Management

#### Organisation

Société Générale S.A. (SG) was founded in Paris in 1864. Today it employs more than 92 000 staff in 80 countries and is one of the largest European banks. Its asset management activities were launched in 1964 and at the end of 1996 transfered to a fully-owned subsidiary, *Société Générale Asset Management S.A.* (SG AM). Since then SG AM has acquired *Trust Company of the West* (TCW), a large independent fund manager in the USA, and SG Yamaichi AM in Japan and Singapore and created SG AM UK. Recently, SG AM has been expanding in Japan, China, South Korea and India through acquisitions, joint ventures and partnerships.

More information on *Société Générale S.A.* and SG AM are available at www.socgen.com and www.sgam.com, respectively.

SG AM's hedge fund activities were launched in 2000 and in 2003 joined with other alternative products (structured products, private equity, and later real estate) to form *SG AM Alternative Investments* (SG AM AI). During all these years SG AM AI has been growing its business carefully, focusing on the quality of its products. In June 2005 SG AM AI had EUR 28bn in *Assets under Management* of which EUR 3.4 bn were managed in hedge fund products.

SG AM AI is organised by (alternative) product lines with separate and distinct operational support, see also figure 2 on page 9. The portfolio management of external *Funds* of *Hedge Funds* is located in New York as part of *SG Asset Management, Inc.* (SG AM Inc) but is functionally managed by the global head of hedge funds, Arié Assayag.

SG AM AI is supported by its parent company in respect of the following functions or activities:

- **X** marketing
- **X** performance measurement
- **X** client reporting
- **✗** risk control
- **✗** audit
- **✗** legal affairs

*SG Asset Management Deutschland GmbH* (SG AM DE) is wholly owned by SG AM and was founded in May 2005 to distribute SG AM products and also supports SG AM AI in the distribution of its products in Germany.

More information on SG AM AI and its products is available at www.sgam-ai.com.

SG AM AI wants to be a leading actor in the alternative asset management industry. In order to meet its clearly defined business goals, it focuses on an increased global coverage by expanding its presence in Europe but also in the US and Asia, offering all product lines to interested clients. While it seeks to achieve financial stability through complementary businesses in a diversified portfolio of products, the individual product lines enjoy a high degree of entrepreneurial freedom. SG AM AI positions itself as a global alternative asset manager with a complete range of alternative products which feature diversification, absolute returns and non-correlation with traditional asset classes. The client groups targeted are institutions, high-net-worth individuals as well as retail clients. The main markets in Europe are France, the UK, Germany, Italy and Spain. In Asia the regional focus is on Japan, South-East Asia and Australia. For the envisioned asset growth SG AM AI leverages on the global SG AM distribution network and dedicated sales teams of SG AM AI which it is continuously strengthening.

#### Comment:

- → The hedge fund product line is highly profitable with strong potential for further growth.
- → The strategic goals are clearly defined and quantified.
- → The RP can rely on resources (e.g. marketing, reporting, IT, internal audit) from its parent company and focus on its core business.
- → Although Chinese walls are formally in place, a few key people have access to some information from several hedge fund areas. However, measures have been taken to keep confidential information separate.

#### Team

The management board and the management team for external *Funds of Hedge Funds* have longstanding experience in the global capital markets and have built up a track record on alternative investments. The team has been stable since the launch of SG AM's hedge fund activities in 2000.

#### Comment:

- → The management team has long-standing management experience, especially in capital markets, and has stayed in touch with day-to-day operations.
- The management has demonstrated prudence and commitment in building a sound business on successful products.

#### Personnel

Salary ranges are established across SGAM based on comparative compensation surveys, including dedicated research on the alternative asset management industry. Compared with the industry, the bonus element of SGAM AI's compensation has stronger emphasis whereas the fixed part is slightly below average.

The distribution of bonuses and the review of salaries follows an annual performance appraisal procedure as established within SG AM. The size of the bonus pool is determined by gross operating income but also has a strategic component. Bonuses for senior management, portfolio managers and senior research professionals are based on individual fund performance and qualitative aspects of individual contribution to business development as well as strategic goals.

SG AM AI expects senior recruits to have extensive professional experience in similar tasks. Junior positions are filled with graduates who are then trained internally.

SG AM encourages their employees to obtain professional qualification such as *Chartered Financial Analysts* (CFA), offering financial support and time-off for study and exam preparation.

Internal information is available on SGAM's intranet. Important decisions are communicated to the employees through an internal newsletter. There are also staff meetings organised three times a year.

#### Table 2: Personnel Hedge Funds

Year	SC	GAMAI	in	out	SG AM Inc		in	out
2005	51	(6.3%)	6	3	18	(38.5%)	6	0
2004	48	(17.1%)	12	5	13	(30.0%)	3	0
2003	41	(13.9%)	6	1	10	(150.0%)	6	0
2002	36	(63.6%)	15	1	4	(33.3%)	1	0
2001	22	(83.3%)	10	0	3			
2000	12							

All data as of year-end except 2005 (as of June)

#### Comment:

The bonus scheme has been aligned with the strategic goals of the firm.

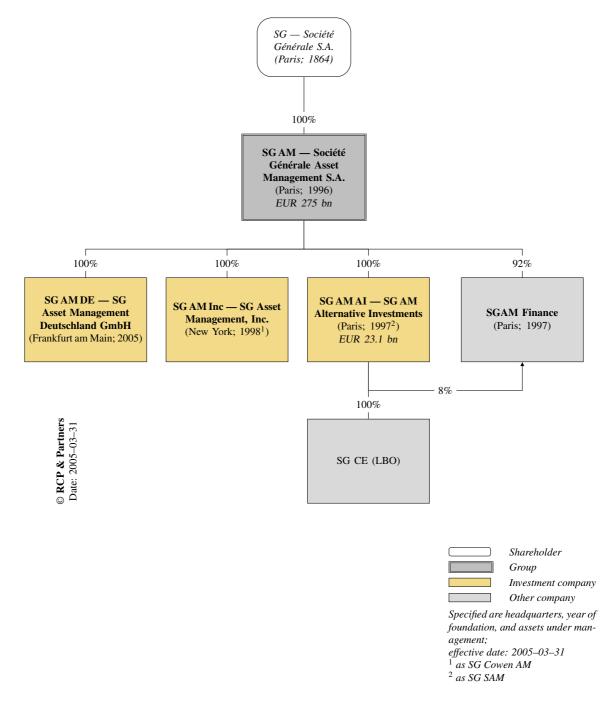
- → The RP has a strong corporate culture.
- → Staff training receives much attention.

#### Policy

Senior managers of SG AM as well as its CEO and deputy CEO are on the SG AM AI management board. There are no independent directors. The board meets twice a year, discussing past and future activities, budget issues and adequacy of resources. In 2004 the new CEO of SG AM joined the SG AM AI board.

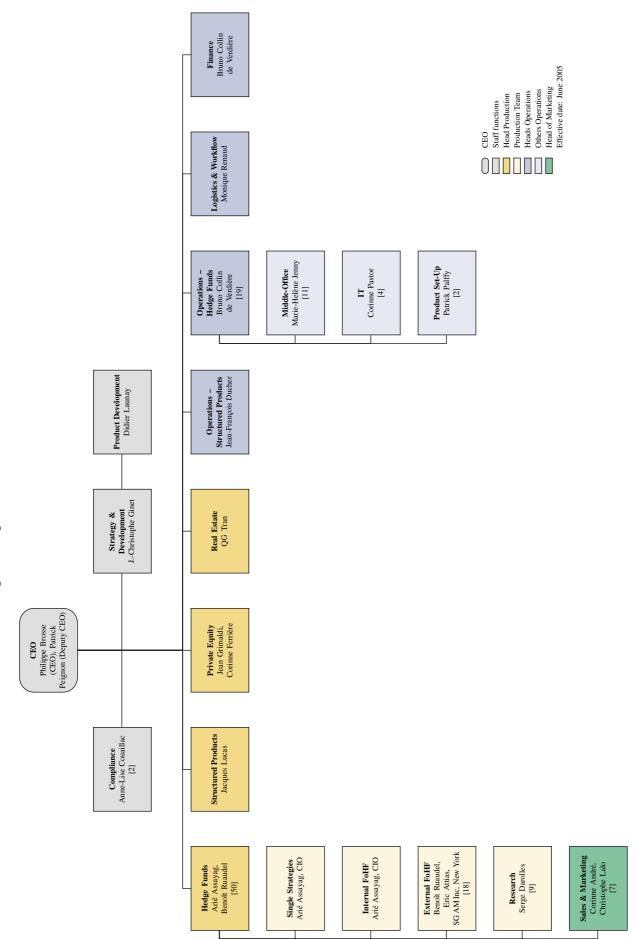
The four product lines of SGAMAI, the CEO and the deputy CEO are represented on its executive committee which meets at least weekly to discuss day-to-day activities. All employees of SGAM and SGAMInc work subject to a code of conduct which is available on the intranet and handed out to new employees. Violations of the code of conduct are sanctioned. SGAM and SGAMInc comply with the AFG (*Association Française de Gestion Financière*) code of conduct.

- There is an internal code of conduct which all staff has to comply with.
- → The RP is a member of the Association Française de Gestion Financière (AFG) and complies with the AFG code of conduct.
- There are no independent directors on SGAMAI's management body.
- There is no independent compensation or audit committee.



#### Figure 1: Group Structure (SG AM AI)

Figure 2: Organisational Structure (SG AM AI)



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## Clients

As of 2005–06–30, SG AM AI managed a total of EUR 28 bn in assets, EUR 3.4 bn of which in hedge fund products including EUR 1.7 bn in nine *Funds of Hedge Funds* (FoHFs).

#### **Marketing & Sales**

#### Marketing

In 2005 SG AM has created a dedicated marketing team to promote the group's alternative investments. The *Alternative Investment Marketing* team's mission is to provide all relevant action or material necessary to promote alternative investments among the institutional, retail, private banking and high net worth sales channels.

The *Alternative Investments Marketing* team is part of the SG AM *Marketing, Product Development and Reporting* department. This department is the global cross-selling platform of SG AM, actively promoting products to the SG AM sales force. For the organisational structure of this part of the department see figure 3 on page 12.

Marketing has particular importance for the hedge fund business, in that it often has to perform an educational role for the many clients new to this asset class, enhancing their understanding and improving transparency regarding the investment process and control of risk. SG AM AI can draw on all of these resources and guides them in respect of alternative investments and FoHFs in particular.

The *Hedge Funds* product line has a dedicated Sales & Marketing function, see figure 2 on the preceding page and figure 3 on page 12, to co-ordinate between the investment professionals and SGAM sales teams in their respective client segments. For this objective, the *Hedge Fund Sales & Marketing* team can draw on the *Alternative Investments Marketing* team which is integrated with the overall SG AM marketing structure.

In its marketing strategy, SG AM AI focuses on communicating products and services, describing their competitive edge, risk/reward profile, fees etc. Its branding strategy capitalises on its parent company, although the SG AM AI brand is increasingly used to emphasize the alternative aspect of the investments.

The processes in the marketing area are formalised and documented. They are supported by software tools including a contact database for consultants and an RFP/Marketing database.

#### Sales

SG AM AI utilises two distribution channels. Firstly, there are SG Group entities such as the global SG AM sales force, of which the newly founded SG AM DE in Germany is part of, where three staff are involved in the distribution of FoHFs and other SG AM products both to institutional and private investors. Secondly, there is also direct distribution by the SG AM AI *Hedge Funds Sales & Marketing* team targeting clients which are beyond the scope of the SG AM sales force.

The distribution channels are supported by five staff within the *Sales & Marketing* team of SG AM AI's *Hedge Funds* product line, see figure 2 on the preceding page.

#### Comment:

- → With the installation of a dedicated marketing team, the importance of alternative investment products has become evident in the organisational structure of the Institutional Marketing area.
- → The RP has acquired special know-how in the marketing of hedge fund products.
- → There are regular management reports regarding sales and marketing activities.
- → The RP's Marketing & Sales team directly sells products to prospective clients which are not in the focus of the SG AM salesforce, e.g. to external FoHF managers, making use of the growing SG AM AI salesforce around the world. At the same time, the co-ordination between sales channels, production process and central functions is increasingly supported by the Alternative Investments Marketing team, reducing the existing burden of the SG AM AI Marketing & Sales team.

#### **Products & Services**

#### Product Range

SG AM AI offers a wide range of alternative investment products, including investments in hedge funds, structured products, private equity and real estate. Within the hedge fund product line, single hedge funds, overlay strategies and internal multi-strategy hedge funds are offered, supplemented by nine external FoHFs (see table 3 on the next page). These external FoHF products cover multi-strategy as well as single-strategy diversified funds. The original offer was the *SGAM Alternative Diversified Fund* (SGAM ADF) fund created in October 2000.

Recently, the product range was expanded by two new products, one of them a hedge funds "incubation" program, the other a fund of funds investing in long-only managers while extracting the market risk ("portable alpha" approach).

Due to German transparency rules for hedge funds, the most feasible way to provide clients in Germany with SG AM AI's FoHF products is to repackage them into a certificate structure which is then issued by SG.

SG AM AI can offer strategic asset allocation services (including allocation to alternative investments) to clients and prospects via a dedicated SG AM team. Via dedicated indices and certificates it is also possible to offer taylor-made structures, participating in different FoHF's or even other SG AM products.

Product Name	AUM (EUR m)	Number of Managers	SG AM AI Classification	Return Target <sup>2</sup>	Volatility Target	Capacity	Inception
SGAM AI Premium Fund	888.8	20	Тор	L + 800	6%	limited	2003/09
SGAM AI Optimum	128.6	30	Hedge Funds	L + 700	6%	limited	2004/04
SGAM Alternatifs <sup>1</sup>	94.0	20-30		L + 500	4%	limited	2001/12
SGAM Alternative Diversified Fund	449.9	40-60	Experienced	L + 600	3%	medium	2000/10
SOGE Audace Alternatif <sup>1</sup>	29.2	20-30	Hedge Funds	L + 500	4%	medium	2003/02
SGAM Alternative Equity Strategies Diversified Fund	31.2	20-30		L + 700	6%	medium	2003/06
SGAM Alternative Relative Value Diversified Fund	25.9	15		L + 600	4%	medium	2003/06
SGAM Alternative Discovery Fund	51.6	30	High Potential	L + 1000	8%	limited	2004/05
SGAM AI Starway ("Incubation Platform")	0.0	10	Hedge Funds	16-17%		limited	to be launched

Table 3: Product Rang	e (Funds of Hedge Funds)
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<sup>1</sup> French regulation constraints apply <sup>2</sup> "L + 500" means "Libor + 500 bp" Return/volatility targets refer to annual periods

#### **Product Development**

Product development within SG AM AI is performed by senior investment professionals and the Sales & Marketing coheads. There are also dedicated resources for technically setting up new products.

The development of new products strictly follows SG AM's product creation procedures. These procedures require new product proposals to be reviewed by SG AM's *Product Committee*.

Taylor-made structures as mentioned above are being implemented by specialists within the *Structured Products* business line. As capacity of the underlying hedge funds is always an issue, such FoHF-based products are constructed with close contact to the portfolio managers.

#### Comment:

- → The product range has been expanded continuously, catering for different risk/return preference and accommodating the need for future hedge fund capacity.
- → The SGAM Product Committee oversees the development of new products, the latter having to follow Product Creation procedures.
- → Within the RP, there are designated resources for implementing new products.

#### **Client Care**

#### Reporting

Reports are considered to be a communication tool with clients, providing reliable and consistent information on a

regular basis. Reporting is provided by a dedicated team, see figure 3 on the following page, using proprietary software developed by equally dedicated IT resources. Reports are translated into various languages and can be customised according to client's requests. This latter process is also supported by suitable software.

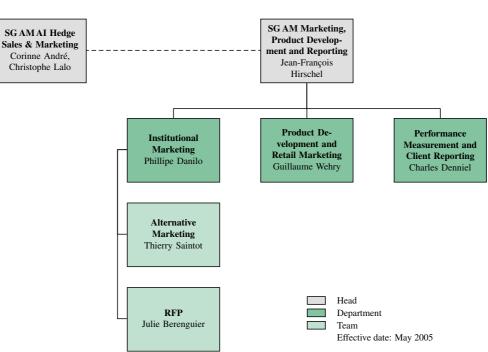
Procedures for creating reports are documented in detail. Reports are validated by fund managers before release.

#### **Client Relationship Management**

Client relationships are taken care of by the SG AM AI *Hedge Funds Sales & Marketing* team supported by the SG AM sales teams. For the German market, SG AM DE performs the task with three of its staff, supported by SG AM and SG AM AI where required.

There are internal education and training sessions to improve team knowledge regarding FoHFs with the aim of improving quality of client meetings and services. A client database is used to maintain contact information.

- → Procedures for client reporting have clearly defined deadlines.
- Proprietary reporting tools and dedicated IT resources allow for customised reporting.
- Extensive training of sales staff and good knowledge of hedge fund issues.
- → Specific CRM procedures and systems are not yet in place but currently under development.



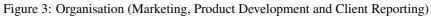
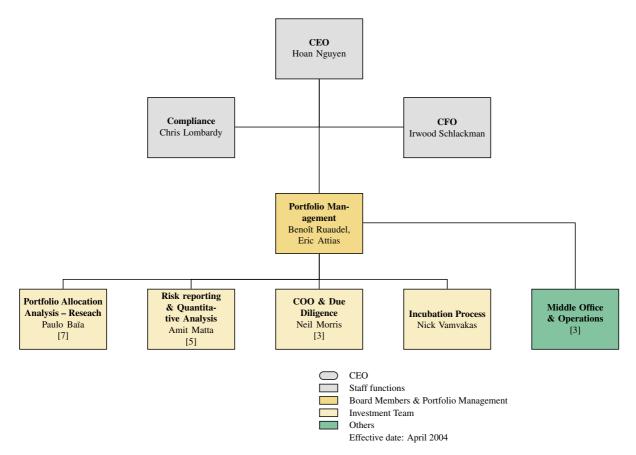


Figure 4: Organisational Structure (SG AM Inc)



# Production

#### Process

#### **Funds of Hedge Funds**

SG AM AI offers a range of *Funds of Hedge Funds* (FoHFs) investing in external hedge funds, see table 3 on page 11 for details. SG AM AI also offers single hedge funds and overlay strategies as well as multi-strategy products. Recently, SG AM AI has introduced a hedge fund incubation product which is supposed to invest in and take a stake in emerging hedge fund managers.

#### **Investment Process**

**Tasks & Organisation** The tasks within the investment process are handled by the investment team at SG AM Inc in New York, see figure 4 on the preceding page, with one dedicated analyst located in Paris. They are supported by quantitative research analysts at SG AM AI's *Research* department, see also figure 2 on page 9, which is now further integrated with the investment team. Theoretical research is conducted in co-operation with leading universities in France and the USA.

The investment process is supervised by and all investment decisions are taken in the *Investment Committee*. The *Investment Committee* is chaired by Arié Assayag, global head of hedge funds. Day-to-day decisions are taken by the two portfolio managers, guided by recommendations of the *Investment Committee*.

During the start-up of the hedge fund activities SG AM was supported by *Alpha Investment Managers*, Inc., USA. The co-operation expired in 2003.

**Resources & Tools** The investment process employs various proprietary software tools, ranging from a hedge fund database to tools for strategy allocation, sensitivity analysis and portfolio simulation. The tools have been developed and are maintained by the quantitative analysts.

**Philosophy** Key to the investment philosophy is a blend of quantitative and qualitative approaches where quantitative analysts validate qualitative observations of the investment team. The investment team keeps close contact with the hedge fund community as access to the best hedge fund managers is considered vital for successful FoHF management.

SG AM seeks to generate performance from both manager selection and strategy allocation. It follows a prudent approach regarding the capacity of underlying hedge funds for assets inflows not to have a negative impact on performance.

**Modus Operandi** The investment process is a combination of top-down strategy allocation and a bottom-up manager selection approach. The allocation between broad hedge fund strategies and their sub-strategies is based on the optimal solution of a quantitative model. Individual hedge funds are selected for inclusion in the portfolio by various stages of quantitative and qualitative analysis. After investment there is an on-going monitoring of these hedge funds.

**Strategic Decision-making** SG AM AI divides hedge fund strategies into three broad buckets:

- ★ equity hedge (long and short equity oriented investing)
- ✗ global macro/CTA (long and short positions throughout the asset class spectrum)
- **✗** relative value (benefit from trading anomalies)

The optimal allocation between the three broad strategy buckets is calculated using a proprietary quantitative model which does not rely on distribution assumptions. Instead it applies the concept of utility functions and the notion of risk aversion. The allocation model calculates optimal allocations as a function of risk aversion, providing directional guidance to the change in strategic allocation.

**Tactical Decision-making** The regular adjustment to the strategy allocation takes into account both short-term and long-term macroeconomic fundamentals of world financial markets. The *Investment Committee* defines qualitative market scenarios based on this macro view, interviews with hedge fund managers and their own market expertise.

The strategy and sub-strategy allocation is decided by the *Investment Committee* based on the results from the strategy allocation model and the market forecast, and is subject to further constraints such as the availability and liquidity of suitable investment opportunities.

**Portfolio Construction** After deciding upon adjusting the strategic and tactical allocations, the change in portfolio composition is simulated with regard to performance, volatility and drawdown. The capital is then allocated to selected funds based on the outcome of this analysis.

FoHF portfolios consist of between 20 and 60 hedge funds. All invested funds are constantly monitored and subjected to the same criteria as all other funds. There is a strict selldiscipline where the violation of any of those criteria can trigger the exit from a hedge fund.

Asset Selection SG AM Inc has developed a network of relationships with hedge fund managers, prime brokers and related service providers through which it can source hedge funds. Upcoming hedge funds are discussed briefly by the investment team and if selected for further consideration, preliminary fund information is collected. These hedge funds are at a first stage subject to a set of quantitative filters (return, volatility and drawdown, Sharpe ratio, three-year track record, minimum of USD 100m under management) and qualitative criteria (dedicated to emerging markets or mortgage-backed securities, high or increasing leverage according to strategy).

Hedge fund managers passing these filters and still perceived to be interesting are interviewed by the analysts and, if considered for investment, are subject to a pre-duediligence (various basic quality criteria, investment style, transparency, liquidity, capacity). The information gathered is input for a rating model which provides an overall assessment of the hedge fund. The pre-due-diligence findings are presented to the *Investment Committee*. If the fund is rated suitable for allocation, it is subjected to an in-depth due-diligence and further interviews with the portfolio managers, both covering the following aspects:

- **✗** strategy
- **X** risk management
- ✗ management background
- ✗ fund details
- **X** compliance
- **X** technical and operational controls
- **×** reporting

The due diligence process is in parts questionnaire-based. It is supplemented by extensive interviews with the hedge fund's portfolio managers and on-site visits by SG AM Inc's investment team, analysing risk management procedures and infrastructure, among other matters. References provided by the hedge fund serve to confirm or to answer questions raised during the process.

Hedge funds are finally presented to the monthly *Investment Committee* meeting where each member has a veto right on the investment decision for individual funds.

Around 200 hedge funds were subjected to this selection process last year. After investment, the hedge funds are subject to regular monitoring along the lines of the original due diligence.

**Risk Management** The principal means of controlling risk within the investment process is the careful hedge fund selection process, assuring quality and understanding investment strategies and the associated risks.

The volatility of portfolios is monitored on a daily basis. Stress tests are carried out to measure and control overall portfolio risk. The stress tests are independently calculated and monitored by the *Risk Control* department, see figure 6 on page 22.

For portfolio construction, the portfolio managers take preliminary stress test calculations and liquidity provisions into account.

The market risk of portfolios is measured by analysing their sensitivity to what is considered the main market drivers such as equity indices, interest rates, exchange rates, credit spread and volatility. The analysis is based on the relevant risk factors for each (sub-)strategy. In addition, the risk of the portfolios and underlying funds are evaluated in a VaR framework which provides further information to the investment team.

Table 4: Analytical approaches (Funds of Hedge Funds)

Method	Significance
Qualitative analysis	1
Quantitative analysis	2
Macro-economics	3
Micro-economics	3
Cycle analysis	3
Analysis of financial statements	3
Visits to issuers	1
Discussions with issuers	1
Rating	2
Factors, ratios	2
Price forecasts	2
Relative value	2
Regression analysis	3
Non-linear models	3
Portfolio optimisation	1
Artificial intelligence	5
Scenario playing	2
Chart analysis	2
Technical indicators	3
Others	5

*Significance:* 1 = high importance, 5 = no importance

**Research** The quantitative research team works in close co-operation with the investment professionals. The team provides tools for supporting the investment process and conducts research to improve the underlying methods. In particular, it maintains and supports the proprietary software tools TANIS and ANKHAMON. TANIS is a database of all portfolios and investee hedge funds, as well as containing related documents and information, analytical tools and data from other hedge fund databases. ANKHAMON provides a number of decision-making tools, in particular the allocation model and the sensitivity analysis as well as a back-testing facility.

The overall role of the quantitative research team has changed slightly and is now two-fold: day-to-day support to the investment process and on-going follow-up of the industry standards. Today's main effort concerns allocation and quantitative evaluation of each underlying fund. Not only can the research team rely on strong quantitative backgrounds, but they also keep up to date with the latest developments through links with academic research departments (e.g., EDHEC).

Information on investee and prospect hedge funds is gathered by the investment team. The information is then entered in TANIS and the research team performs on request various stages of quantitative screening and analysis on the data (performance versus peer group, sensitivity to market parameters, analysis of return sources).

The results are continuously incorporated in TANIS and available to all participants of the investment process, in parts also to the sales and marketing teams.

#### Comment:

- Proprietary, tailor-made tools for strategy allocation and portfolio simulation support the decision-making within the investment process very effectively.
- → The strategic allocation is based on a sophisticated quantitative model.
- → Tactical decisions are based on recognizable trends and developments relevant to the (hedge fund) market as well as experts' views on macro factors considered important for the performance of hedge fund strategies.
- Strict quantitative and qualitative hedge fund selection criteria are supplemented by analysis from quantitative research team to seek confirmation of the initial hedge fund assessment.
- → The thorough due diligence process includes interviews and on-site visits by several team members.
- Risk management is based on mitigating risk by strict selection criteria and thorough understanding of the risks contributed by each hedge fund's investment strategy. VaR calculations are performed on the hedge fund level and are also aggregated to the portfolio level, providing useful guidance in respect of the dynamics of the risk of each position and the portfolio as a whole.
- The continuing validity of model assumptions is vital for the success of the investment process. This issue is addressed by following the latest academic research closely.
- The investment process has been documented, also formalising the roles and responsibilities of the investment team members.

→ The RP has taken measures to avoid conflicts of interest. However, there could be clearer separation of functions regarding the business lines of internal hedge funds and external FoHFs, as far as responsibilities and involvement in investment decision processes are concerned. This line of separation has been further blurred by the development of new products such as the hedge fund incubator and the portable alpha fund.

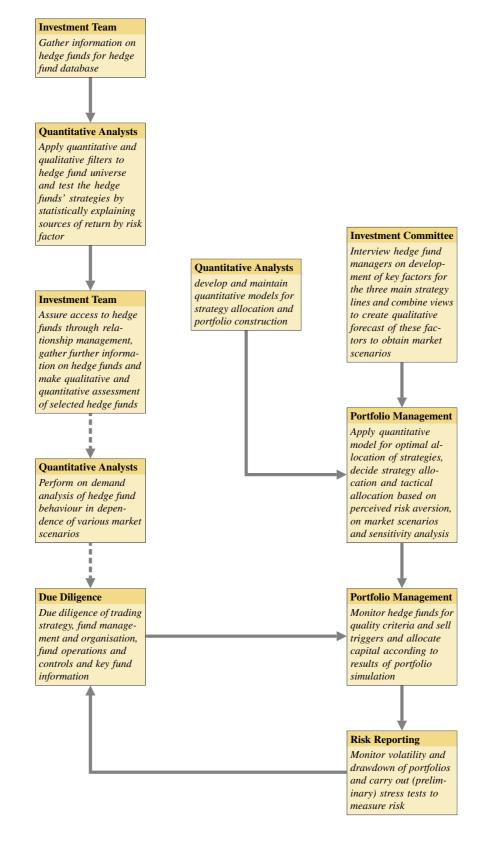
#### Execution

The *Middle Office* team has two employees dedicated to FoHFs. SG AM AI uses a proprietary system, FOLIA, for FoHF administration.

The *Middle Office* team receives all subscription and redemption orders from the transfer agent and the new portfolio structure from the portfolio management team and enters them in FOLIA. The resulting line-up is then fed back to the portfolio management for review.

The trade blotters are created automatically from the data and are then forwarded to the external parties involved in the execution process: depository bank, transfer agent and fund administrator, all of which are part of SG Group except for one provider based in the USA.

- → SGAMAI uses a proprietary web-based tool for fundof-funds administration.
- → Administration procedures are documented and audited. They are available to all staff.
- Straight-Through Processing is not in place but some parts have been implemented and others are under development.



#### Figure 5: Process (Funds of Hedge Funds)

Investment Profile	Funds of Hedge F	unds					
investment focus	Hedge funds (equity hedge, global macro/CTA and relative value strategies)						
unit(s) involved	SG AM AI, SG AM Inc						
Responsibility	Name		In charge since	With RP since			
chairman of the Investment Committee	Arié Assayag		12/1999	12/1999			
portfolio managers/team responsi- bility	Benoît Ruaudel		05/2000	05/2000			
	Eric Attias		03/2002	03/2002			
Investment Process		Objectives					
implemented since	10/2000	Performance					
last significant change	10/2000	absolute		***			
benchmark	no vs. benchmark		rk	no			
<b>T</b> ( ) <b>(</b>		vs. peer grou	ıp	no			
Investment horizon	0.04.34	others		no			
strategic	9–24 M	Risk					
tactical	3–12 M	volatility	volatility				
portfolio rebalancing	monthly	tracking erro	r	no			

portiono rebuilding	monuny
	T T
Hedging/derivatives	Use
Field	
currency hedging	yes
synthetisation	no
covered call writing	no
leveraging	no
others	no
Instruments	
currency forwards	yes
swaps	yes
options	no
futures	no
short selling	no

Investment professionals	Number/years
Total (RP)	11
portfolio managers	2
analysts	8
academic degree	11
CEFA/CFA etc.	1
Team	
age (Ø)	37
investment experience (Ø)	12
with RP since( $\emptyset$ )	3
other resources	—

Performance	
absolute	***
vs. benchmark	no
vs. peer group	no
others	no
Risk	
volatility	***
tracking error	no
beta	no
drawdown	yes
Value at Risk	yes
others	no
Risk-adjusted performance	
Sharpe ratio	yes
Information ratio	no
others	no
Characteristics	
invested to (degree)	Ø 120%
cash	n.a.
number of individual names	***
weighting of individual names	n.a.
others	no

Documentation	
marketing presentation	yes
directives	yes
others	no

Characteristics	
portfolio turnover p.a. **	43-55% %
total share top ten names **	48-67%

Assets under Management	# Portfolios	AUM (EUR m)	
Overall	9	1700	
dedicated	1	29.1	
pooled	8	1670.9	Effe
managed	-	-	* cf. a ** fiv
managed for third parties	9	1700	produ
represented in PPS composites	9	1700	*** c1

<b>Effective date:</b> 2005–06–30
* cf. also details in body ** five-years average, varies from product to product *** cf. table 3 on page 11

#### Team

#### **Funds of Hedge Funds**

The investment team for external FoHFs has been expanding since the launch of SG AM's hedge fund activities in 2000, starting with the addition of a second portfolio manager in 2002. In 2003, the investment team was enlarged by one person now responsible for *Risk Reporting & Quantitative Analysis*. In 2004, a further person was added holding responsibility for *Due Diligence*. Since then, further analysts have been added.

However, there have been some changes in the quantitative research team very recently, triggered by a restructuring process which allocated analysts to the different SG AM AI product lines and re-defined the overall role of the research. As a result, the head of quantitative research left the company. He was succeeded by a member of the quantitative research team.

All investment decisions are taken by the now enlarged *Investment Committee*, thereby avoiding dependence on a single decision-maker who may be absent on occasion. Tasks and responsibilities have also been formalised, providing for both substitution and possible succession.

For new staff joining the investment team SG AM AI has clear and focused requirements regarding education and experience. All investment professionals have relevant education and experience.

#### Comment:

- → The investment team has built up considerable knowledge of the hedge fund industry, in particular regarding those firms located in New York.
- The enlarged team and the committee structures allow more easily for substitution and succession than before, as day-to-day responsibilities have been shifted from the two portfolio managers to senior investment team members.
- → With the addition of new team members, the range of professional backgrounds has been widened.
- → The selection of new team members was conducted extremely carefully, hiring only new staff with whom team members have worked together before.
- → Portfolio managers are invested in the funds they manage, aligning their interest with those of investors.
- The departure of the head of quantitative research appears to have no impact on the FoHF investment process and its day-to-day tasks.

#### **Quality Management**

#### **Quality Assurance**

Quality assurance within SG AM AI consists of controlling the implementation of all processes related to FoHF products. This responsibility is assumed by the respective functional heads. To do so, there is a strong emphasis on team work and procedures which have to be followed strictly but also on the sustainability of the processes. The investment process is supervised by the *Investment Committee* and the reliability of information is improved through dedicated tools.

Estimated performance is available weekly and stored in TANIS. The performance is then analysed against hedge fund and market indices. At the strategy and sub-strategy level the actual allocation is evaluated against the optimal allocation as calculated by the model.

The risk of the portfolios is measured on a monthly basis by stress tests, calculated and monitored by the *Risk Control* team which is also represented in the *Investment Committee* meetings.

In a quarterly *Performance Committee* meeting the results of all of SG AM's different investment strategies are presented to the management and action plans put in place as necessary.

#### **Investment Controlling**

Regulatory investment restrictions are taken into account by the *Risk Reporting* team while constructing the portfolio. Compliance with these investment restrictions is monitored on a monthly basis by the respective custodian of the fund. Any breach is reported to the portfolio management team and the *Risk Control* team. SG AM AI's compliance officer would also receive such a breach report. An escalation procedure is defined in case breaches are not corrected in due course.

If clients give specific investment guidelines, compliance is ensured by *Compliance* and *Risk Control*.

#### **Performance Measurement**

Performance measurement is conducted by a separate, dedicated team, see figure 3 on page 12.

The performance of funds is evaluated as often as daily for monitoring purposes, through an *Instant Valuation* process. The latter is based on performance information obtained from regular communication with hedge fund managers.

SG AM uses proprietary software, SIPRA, for monthly performance measurement. Performance is initially calculated based on estimated NAVs until audited numbers become available (25 days after end of month).

The performance presentation of SG AM has complied with AIMR-PPS or GIPS since 1999, the certified track record starts at 1994–01–01. For FoHFs, performance presentation is GIPS-compliant as certified by an external auditor. The track record starts at inception of a FoHF.

- → Performance measurement is carried out by a separate team within SG AM using proprietary tools.
- → Attribution analysis for FoHFs is not yet developed; there is still only a basic evaluation available.
- → Performance of FoHFs is followed closely with respect to target return, peer group and indices.

- → Investment risk is monitored by the investment team and independently by a dedicated resource within the SG AM Risk Control department.
- → Quality of investment decisions is supervised by the Investment Committee rather than having truly independent checks and balances.
- → As the order process is not fully automated, investment

restrictions are monitoring using a separate tool.

- Breaches of investment restrictions have to be corrected without delay.
- → Hedge fund composites are certified annually according to AIMR-GIPS.
- → Procedures for AIMR-GIPS-compliance are documented and validated by external auditors.

## Infrastructure

#### **IT & Operations**

#### **IT Organisation**

Within SG AM AI, two teams are involved with IT issues regarding hedge funds. Firstly, there is a small IT team in the *Operations* department dedicated to the hedge fund middle office and supported by external consultants. Secondly, the *Research* team is involved in developing and maintaining specific software for the investment process.

There is regular reporting on project progress and quarterly reporting on software architecture as well as an annual budget report.

#### **IT Infrastructure**

The IT infrastructure is in general operated and supported by SGAM. SGAM AI only runs two servers with specific applications which have to match the software provider's requirements.

Within SGAM, internal procedures for purchasing hardware are defined to ensure compatibility with the existing architecture.

SG AM's workstations run standard software and operating systems. Specific applications within SG AM AI are either browser-based or are client/server applications accessed with a modification-proof client installed on each workstation.

Apart from the specific SG AM AI applications TANIS and ANKHAMON, SG AM AI uses a number of software tools developed in-house. For FoHFs, an application for the administration of funds of funds, FOLIA, is employed.

#### Back-up Procedures & Disaster Recovery

Back-ups are stored daily on tape and in real-time on servers in the disaster recovery data centre. In the case of FoHFs, specific data is stored on a redundant server which allows for instantaneous recovery in the event of breakdown in the main system. As the applications in New York are browserbased, the investment team is largely covered by the Paris disaster recovery plans.

In a separate location, emergency offices are available, both for SG AM AI and SG AM Inc. The disaster recovery plans were successfully tested last autumn.

#### Security

SG Group Security Instructions require two levels of firewall. Furthermore, different types of access (Internet, subsidiaries, market data, mobile users, etc.) are separated by demilitarised zones. Internally, servers are protected by access controls and switch ports use physical addresses to prevent unknown hardware from accessing the network through existing connections. SG AM employs three different anti-virus systems for Internet proxy, mail server and workstations, all of them updated automatically and in real-time.

Mobile users have access to the internal network through a VPN connection. In addition, hard disks of notebook computers are encrypted.

#### Comment:

- → SG AM provides IT infrastructure and sets IT standards within the group.
- → Back-up procedures include real-time mirroring of data on back-up servers with immediate recovery.
- → Disaster recovery centres are available; contingency plans have been tested successfully.

#### **Supervisory Functions**

Organisationally, SG AM's major supervisory functions (risk management, compliance, internal audit) are bundled within one department, headed by Stéphane Ruby. Although there was already a functional separation in place, SG AM has recently begun to implement a clearer organisational separation between risk management and internal audit.

#### **Risk Management**

In general, risk management is understood to cover different kinds of risks such as market risk, operational risk, reputation risk, credit risk, counterparty risk and structuration risk. For operational risk, there is a standard SG Group-wide definition in accordance with Basel II constraints as far as they are available. Measurement of operational risk is largely confined to risk assessment missions and the reporting of incidents. Measures to mitigate operational risk are taken, e.g. in respect of system risk (disaster recovery plans) or client risk (money laundering prevention).

There are several parties involved in risk management. The SG AM Inc investment team evaluates *a priori* the impact of each investment by means of a stress test. On a monthly basis, the investment risk is evaluated by the risk managers in the *Risk Control* team, see figure 6 on page 22, again using stress tests. Stress test are calculated according to a group-wide methodology.

For Operational Risk there is a dedicated person in the *Operations* department of SG AM AI. Operational Risk is also monitored by the *Risk Control* team.

Risk Management within SG AM starts by identifying in cooperation with local staff and first-level risk managers the risk checks which should be carried out in each entity. These checks are regularly performed by first-level risk managers, their results being consolidated in a monthly report communicated to senior management of the respective entity and to the risk management department. The monthly reports of each entity are consolidated to a global report on SG AM group level which includes validations of risk checks as well as results of specific risk assessment missions, both conducted by second-level risk managers.

#### Comment:

- → The Risk Control team has been enlarged and assigned a specific responsibility for Funds of Hedge Funds.
- → Operational risk is mitigated through audit missions and validation of new products as well as disaster recovery plans.
- → There is a clear understanding of operational risk, although it is not yet extensively measured.
- → The monthly risk reporting includes follow-up of audit issues.

#### Compliance

Within SG AM, *Compliance* is a central function with the *Risk Control & Compliance* department, see figure 6 on the following page, supported by dedicated compliance officers in each legal entity such as SG AM Inc or SG AM AI – focusing on local regulations – as well as by risk managers and internal audit.

The compliance rules are focused on client interests and market integrity. All staff are trained on compliance issues at entry to the firm and have to certify that they read and understood these rules and also that they are in compliance with their requirements.

Most personnel can only invest in a very limited range of securities such as mutual funds. All personal transactions have to be disclosed at least annually to the compliance officer.

The compliance manual contains detailed guidelines in respect of insider trading and Chinese walls. Conflicts of interests are clearly defined and best execution is part of the requirements. Listed securities can only be traded with affiliates if authorised by the client in writing. There are no kick-backs or soft-dollar agreements, the latter being prohibited within SG AM. Annually, a compliance report is issued to the management of SG AM, containing the findings of the compliance officers, risk managers and auditors. Monthly, compliance issues are reported to the SG AM and SG AM AI management as part of the risk reporting.

#### **Comment:**

- → There are no soft-dollar or kick-back agreements.
- Personal trading by executives is not allowed; there are far-reaching restrictions for investment professionals.
- → A detailed compliance manual is available on the intranet. The New York compliance manual has been adapted to local regulatory requirements.

#### Audits

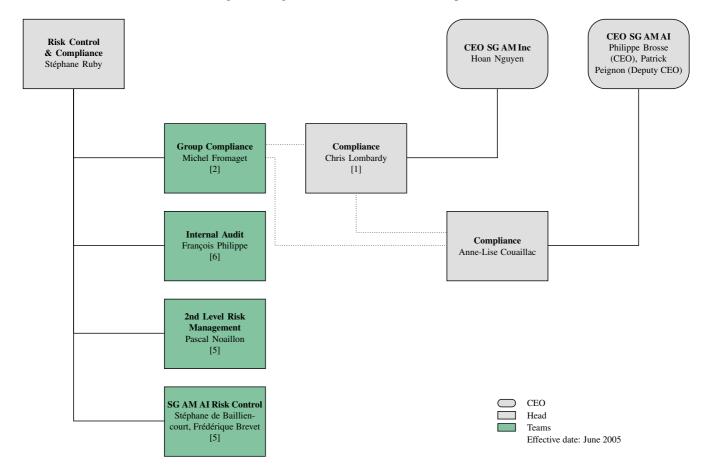
The audit function is centralised in the *Internal Control* team, part of the SG AM *Risk Control & Compliance* department, see figure 6 on the next page. Within SG AM AI, two employees of the *Compliance* team are involved.

The SG AM approach to audit is organisation-oriented and risk-based. The scope is comparatively broad, ranging from control of the adequacy of operations to the structure of portfolios regarding regulatory and client restrictions. The risk related to the activities is identified and followed.

The audit methodology is based on a repository of procedures and documents which are revised against the current processes and organisation. Audit reports contain an assessment of the organisation, the level of risk management and recommendations to strengthen both. The implementation of recommendations is followed-up on a monthly basis.

- The organisational separation between internal audit and risk management will clarify roles and responsibilities in these areas.
- All audit missions are conducted without previous announcement.

#### Figure 6: Organisation (Risk Control & Compliance)



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