# Maersk Insurance A/S Solvency and Financial Condition Report Financial Year ended 31st December 2016

# **Executive Summary**

The new, harmonised EU-wide regulatory regime for Insurance Companies, known as Solvency II, came into force with effect from 1 January 2016. The regime requires new reporting and public disclosure arrangements to be put in place by insurers and some of that is required to be published on the Company's public website. This document is the first version of the Solvency and Financial Condition Report ("SFCR") that is required to be published by Maersk Insurance A/S (MIAS).

This report covers the Business and Performance of MIAS, its System of Governance, Risk Profile, Valuation for Solvency Purposes and Capital Management. The ultimate responsibility for all of these matters is with MIAS' Board of Directors with the support of various governance and control functions that has been put in place to monitor and manage the business.

MIAS is an active retention vehicle operated as a captive for the A. P. Moller – Maersk Group, and the focus of the Board and Management Team is the orderly management of the existing book of policies in line with their policy terms and conditions. MIAS's strategy is to insure own assets or assets under management control. MIAS is required to hold sufficient capital to match its policyholder liabilities at all times and a primary responsibility of the Board is to ensure that MIAS's capital is adequate to cover the required solvency for the nature and scale of the business and the expected operational requirements of the business. A number of mechanisms are in place to evaluate those levels and the outcome of those assessments indicate that MIAS's capital is adequate at this time and for the expected requirements in the short to medium term.

MIAS's management is composed of the Managing Director assisted by two employees, a Finance Manager and an Insurance Manager (both employed with APMM). In addition, four key functions (Actuarial, Compliance, Risks, and Intern Audit) are established and reporting to the Managing Director. The Finance Manager is responsible for Finance, including Investment, Accounting, Reporting, and Analysis. The Insurance Manager is responsible for Underwriting and Claims for Insurance and Reinsurance. The board of MIAS is involved in strategic decisions as well as significant decisions which fall outside the scope of the management.

The Risk Management function operates under the defined policies and guidelines, continuously monitoring the risk exposure and maintaining a risk register covering Strategic risks, Operational risks, Market risks, Underwriting risks and Default risks. MIAS' management is informed of any significant changes to the risk picture, on a regular basis. The insurance risks MIAS carries, i.e. Energy, Marine, Terminals and consolidated global programs within the A.P. Moller - Maersk Group, are aligned with the limits stated in the risk appetite and strategy, as established by the Board of Directors. MIAS protects itself against cumulative risk by capping its exposure at fixed maximum liability amounts through reinsurance. Once a year, MIAS performs and reports an Own Risk Solvency Assessment (ORSA) to the Danish FSA. MIAS' assets, technical provisions and other liabilities are valuated under Solvency II bases.

The management of own funds is governed by the Policy for Capital Structure where the overall responsibility and tasks are defined. According to this policy, the equity of the company must be sufficient to ensure the continued operation of the company and at the same time sufficient to meet all regulatory requirements. The company is constantly focusing on matters which might influence the capital structure, e.g. the company's investment policy. The value creation of the company is meant to primarily be generated from acceptance of insurance risk rather than by acceptance of investment risk. The time horizon for business planning including development of own funds is minimum 3 years.

MIAS' underwriting profit (Technical Profit) for 2016 was USD 24.4 million and the solvency ratio by end 2016 was 317%.

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# A. Business and Performance

## A.1 Business

Maersk Insurance A/S (MIAS) was established 28 February 2011 and started operation 1 January 2012. MIAS operates as a Captive for the A.P. Moller - Maersk Group, including entities where the Group has management control. MIAS provides insurance protection for selected risks world-wide:

- The Company name is: Maersk Insurance A/S
- The Company address is: Esplanaden 50, 1098 Copenhagen K, Denmark

MIAS is incorporated as a privately owned company with limited liability (A/S: Aktieselskab) and is a 100% owned subsidiary of A. P. Moller - Maersk A/S. MIAS has granted a loan to the parent company A.P. Moller - Maersk A/S according to permission from the Danish Financial Supervisory Authority (Finanstilsynet). The loan yields interest at arm's length basis. MIAS has entered into an agreement with A.P. Moller - Maersk A/S related to fees for risk management and other services for Captive operation.

MIAS is domiciled in Denmark and is under supervision from the Danish Financial Supervisory Authority (DFSA), Arhusgade 110, 2100 Copenhagen Q, and Maersk Insurance A/S' main contact person at DFSA is: Birgitta Nielsen.

MIAS has license to conduct direct insurance and reinsurance business for the below listed insurance classes:

- 6 (Fully comprehensive insurance for ships)
- 8 (Fire and natural forces)
- 9 (Other damage to property)
- 12 (Third party liability for ships)
- 13 (General liability)
- 16 (Miscellaneous financial losses)

MIAS is audited by PriceWaterhouseCoopers (PWC), Strandvejen 44, 2900 Hellerup, and Maersk Insurance A/S´ main contact person at PWC is: Jesper Otto Edelbo.

As per 1 January 2017, the MIAS's Board of Directors consists of:

- Jan Kjærvik (Chairman)
- Jesper Cramon
- Christian Kledal
- Bjarne Fabienke
- Fatiha Benali

MIAS has an audit committee, including two external independent members with accounting and audit qualifications:

- Bjarne Fabienke (external)
- Fatiha Benali (external)
- Jan Kjaevik (internal)

MIAS's management consists of two part time employees:

- Lars Henneberg (MD), who holds both the Actuarial, Risk Management and the Compliance key functions
- Peter Hansen, who holds the Intern Audit function

MIAS has to a large extent outsourced the operation, including Risk Management, Compliance, Actuarial Underwriting, Reinsurance, Claims handling, Legal, Tax, Accounting, Investment, Reporting, IT, etc. The Risk Management function and Underwriting, Reinsurance, Claims handling, Legal, Tax, Accounting, Investment, Reporting and IT are outsourced to the parent company. The Actuarial and the Compliance functions are outsourced to external parties.

Further, MIAS operates through fronting companies in order to reduce the operational tasks to a minimum and to benefit from the operational efficiencies of large global insurance carriers. The fronting activities consist predominately of lead underwriting, lead claims handling, and policy administration.

MIAS underwrites risks within the business areas of Marine, Energy and Terminals. MIAS underwrites non-life business such as Property and Casualty classes.

More specifically, MIAS underwrites Property Damage, Operator's Extra Expense, Loss of Production Income, Third Party Liability, Hull and Machinery, incl. Collision Liability, Owner Total Loss Interest, War coverage, Natural Catastrophe, Business Interruption, Construction All Risk, Umbrella Liability, Employment Practices Liability, Pension Trustee Liability, and Specialty Risk.

MIAS underwrites risk both as reinsurance and as direct insurance, following a lead underwriter and a lead claims handler. The insurance risk for MIAS is limited to risks within the insurance classes for which the company holds a license. MIAS's existing ultimate Insureds and Policyholders are located world-wide.

MIAS mitigates and protects the capital by procurement of reinsurance and retrocession. In accordance with MIAS's reinsurance policy, all reinsurers must have a minimum A- rating by Standard & Poors or similar. The reinsurance enables MIAS to operate as both a net line and a gross line captive in order to reduce volatility and create diversification as a response to a changing insurance market. Further, the use of reinsurance creates a platform for MIAS to respond to market dynamics, both when the market is softening through overcapacity of capital due to increased competition between insurance carriers with growth strategies, or when the market is hardening and the capital is withdrawn from the insurance market and the competition is less efficient.

The development during the reporting period has predominately been influenced by the implementation of Solvency II, including the governance structure of the 4 key functions and adequate policies, procedures and guidelines. Further, the reporting period has been influenced by an Insurance Tender of A. P. Moller – Maersk A/S's main insurance programmes for the Energy, Marine and Terminals activities, which for 2016 resulted in premium levels where zero retained underwriting risk on the programmes were evaluated to be the most beneficial for MIAS by reinsurance the risks 100%.

# A.2 Insurance Results

MIAS underwrites risks within the business areas of Marine, Energy and Terminals. Further, MIAS underwrites risk within the insurance classes Property and Casualty, of which MIAS holds a license.

Claims are limited per incident and for most programmes also on a yearly aggregate. As of the end of December 2016, MIAS's maximum net exposure is limited for Property to USD 30 million and for Casualty USD 12.5 million.

MIAS's gross written premium in 2016 was USD 50.2 million with a return on equity of 13%. MIAS's Underwriting profit (Technical Profit) for 2016 amounts to USD 24.4 million (2015: USD 13.4 million). The result is satisfactory:

Year (USD)	Total gross written premium	Total net earned premium	Total gross claims incurred	Total net claims incurred	Operating Expenses	Profit before tax	Combined ratio
2012	69,531,000	45,112,000	-30,768,000	-30,768,000	-2,736,000	12,121,000	74%
2013	49,919,000	50,797,000	-33,960,000	-33,960,000	-2,567,000	14,599,000	73%
2014	82,075,000	59,579,000	-28,360,000	-28,360,000	-1,557,000	30,365,000	59%
2015	76,445,000	54,239,000	-45,633,000	-40,458,000	-258,000	14,580,000	82%
2016	50,200,000	23,129,000	-3,360,000	-429,000	1,628,000	26,380,000	60%

The 2016 Underwriting results split per industry segment:

Segment (USD)	Total gross written premium	Total net premium earned	Total gross claims incurred	Total net claims incurred	Operating Expenses*	Technical Result**	Profit before tax
Energy	16,328,000	8,659,000	820,000	820,000	1,029,000	10,508,000	
Marine	19,718,000	8,034,000	-8,287,000	-219,000	488,000	8,303,000	
Terminals	11,067,000	3,406,000	6,761,000	1,624,000	271,000	5,301,000	
Others	3,087,000	3,030,000	-2,654,000	-2,654,000	-160,000	216,000	
Total	50,200,000	23,129,000	-3,360,000	429,000	1,628,000	24,328,000	26,380,000

<sup>\*</sup>including reinsurance commission

For 2017, MIAS expects profitable growth and further centralisation of the insurance procurement and deployment of MIAS accordingly. The continuing consolidation of Group risks to a centralised operation from local procurement, supports MIAS's strategy to underwrite additional risks and deploy the capital most efficiently. Budgets and projections have been made on the existing business model to further develop the captive to the benefit of the Group. The company expects a positive result for 2017.

# A.3 Investment Results

MIAS's investments comprises a low risk profile. MIAS is required to maintain assets to match the policyholder's liabilities at all times. MIAS invests in accordance with the investment policy approved by the Board of Directors.

The asset management is outsourced. MIAS's investment policy reflects MIAS's risk appetite. Investments are predominately made in government and mortgage bonds with short duration, in short-term deposits, and in a loan to the parent company.

The investment income is benchmarked up against an adequate index and is reported on a monthly basis to the management.

MIAS's investment portfolio and the result from Investment activities:

Instrument (US	SD)	2016	2015
Interest on Danish mortgage bonds		75,000	75,000
Interest on Government bonds		985,000	1,189,000
Interest loan APMM		973,000	391,000
Interest deposits (negative)	-115,000	6,000	
Value adjustments		188,000	-315,000
Total		2,106,000	1,346,000

The result of the investment activities was satisfactory.

# A.4 Results of Other Activities

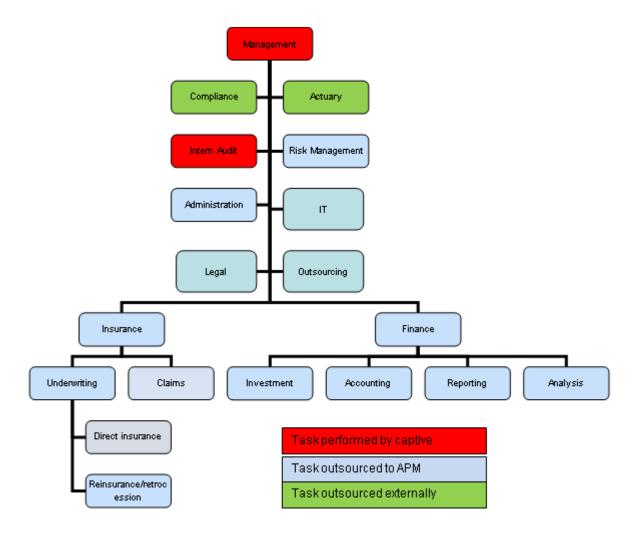
MIAS does not perform other activities generating other income or results.

# **B.** Management System

## **B.1** General Remarks

MIAS's management is composed of the Managing Director assisted by two employees, a Finance Manager and an Insurance Manager (both employed with APMM). In addition, four key functions (Actuarial, Compliance, Risks, and Intern Audit) are established and reporting to the Managing Director. The Finance Manager is responsible for Finance, including Investment, Accounting, Reporting, and Analysis. The Insurance Manager is responsible for Underwriting and Claims for Insurance and Reinsurance. The board of MIAS is involved in strategic decisions as well as significant decisions which fall outside the scope of the management.

<sup>\*\*</sup> excluding technical interests



The 4 key functions have the following key persons:

Intern audit function	Compliance function	Actuarial function	Risk management function
Peter Hansen	Lars Henneberg	Lars Henneberg	Lars Henneberg

Lars Henneberg is also Managing Director, and Lars Henneberg and Peter Hansen are the only employees of MIAS as all the other functions are outsourced.

# **B.2** Fitness and Propriety (Fit and Proper)

Legal requirement

- 1. FIL § 64 defines the requirements which individual members of the board and the management of financial companies must meet with regard to fit and proper requirements.
- 2. FIL § 71, paragraph 3, requires group 1 insurance companies to identify 4 key persons to perform specific responsibilities. According to § 64, paragraph 8, an assessment of integrity and Fit and Proper for the 4 key persons must be performed.

Individual requirements for suitability - Fit and Proper assessment

The requirements for Fit & Proper imply that members of the Board, the Management, and key persons on an individual basis must:

- have sufficient knowledge, skills, and experience to carry out the duties in the company
- have a good reputation
- not become subject to criminal liability
- not be in bankruptcy
- not have caused the company a loss or risk of loss

The above requirements must be fulfilled from the time of appointment of the key persons throughout the period of duties.

# B.3 Risk management and ORSA

MIAS's Managing Director must keep the Chairman of the Board informed of all issues of significant relevance to MIAS. The following issues must be presented to the Board for approval:

- loan agreements, guarantees, or security which are not part of the usual business
- significant changes in existing agreements with bank connections
- purchase, sale, or mortgaging of the most significant assets of MIAS, including properties or facilities
- making of significant changes in MIAS's structure, including the capital structure or type of business
- significant changes to the operating budgets
- start of significant new activities, including activities within new classes of insurance
- significant changes to the organisation of MIAS, including significant reductions and increases in the number of employees
- entering into settlements in larger trial cases or arbitrations
- entering into or changes to reinsurance agreements
- activities or matters that fall outside the description of MIAS's description of procedures and operational plan
- activities which fall outside the guidelines and policies

The Board follows the "Rules of procedure for the Board" and "Board meeting plan (arshjul)".

# Risk Management Function

MIAS requires that the risk management function must:

- assist the Board and other functions in the effective operation of the risk management system
- monitor the risk management system and the general risk profile of MIAS as a whole
- provide detailed reporting on risk exposures and advising the Board on risk management matters, including strategic affairs such as corporate strategy, mergers and acquisitions, major projects, and investments
- report to the Board at least on an annual basis
- identify and assess emerging risks
- ensure the effectiveness of the risk management system according to MIAS's risk appetite and overall risk tolerance limits, as well as manage the main risk management strategies and policies
- establish, implement and maintain a risk management system to be undertaken in the upcoming years when taking into account all activities and the complete system of governance of MIAS
- take a risk-based approach in deciding its priorities
- verify compliance with the decisions taken by the Board of the undertaking on the basis of the recommendations

- co-operate closely with the actuarial function
- provide self-assessment of the function and the processes and implement or monitor needed improvements

#### ORSA

The Risk management function must conduct MIAS's own risk and solvency assessment, ORSA. The ORSA must be an integrated part of the business strategy and must be taken into account in the strategic decisions of MIAS on an ongoing basis.

# **B.4** Compliance Function

MIAS requires that the compliance function must:

- establish, implement and maintain appropriate activities to identify, assess, report on key legal and regulatory obligations
- ensure MIAS monitors and has appropriate policies and controls in respect of key areas of legal and regulatory obligation
- hold regular training on key legal and regulatory obligations
- address compliance shortcomings and violations
- report the compliance plan to the Board of MIAS, including ensuring that adequate disciplinary actions are taken and any necessary reporting to the supervisor or other authorities is made
- issue a compliance report to the MIAS Board based on the results of work carried out including findings and recommendations to the Board
- submit the compliance report to the Board at least on an annual basis
- verify compliance with the decisions taken by the Board on the basis of the recommendations
- conduct regular self-assessments of the compliance function and the compliance processes and implement or monitor needed improvements

# **B.5** Intern Audit Function

MIAS's Intern Audit function must:

- review the adequacy and effectiveness of the main governance process installed by other governance functions on a regular basis
- ensure a fair exchange of information with other governance functions
- discuss with other governance functions risk categorisation, opinion parameters, reporting tools, materiality metrics, etc. and thus enable all governance functions to speak to the Board using the same language
- use the output from other governance functions to build independent risk-oriented audit plans. Intern Audit must proactively work to enhance effective collaboration, clear responsibilities, and peer acceptance with other governance functions in addition to obtain Board approval of the abovementioned topics

MIAS requires that the Intern Audit function must:

- establish, implement, and maintain an audit plan disclosing the audit work to be undertaken in the upcoming years when taking all activities and the complete system of governance into account
- take a risk-based approach in deciding its priorities
- report the audit plan to MIAS's Board of Directors of the undertaking
- issue an intern audit report to the Board of Directors based on the result of work carried out in accordance with point (a) including findings, recommendations, the appointed period of time to remedy the shortcomings as well as the persons responsible, and information on the achievement of audit recommendations
- submit the internal audit report to the Board of Directors of the undertaking at least on an annual basis

- verify compliance with the decisions taken by the Board of Directors of the undertaking on the basis of the recommendations
- provide self-assessment

## **B.6** Actuarial Function

The actuarial function contributes to the effective implementation of the risk management system, particularly with regard to the models that serve as a basis for the calculation of the solvency capital requirement and the minimum capital requirement, cf. Sections 126(c) and 126(d) of FIL, and the company's assessment of own risk and solvency. The actuarial function co-operates with the risk management function and contributes to solving that function's tasks whenever it is relevant. The actuarial function handles all the required technical tasks which fall on the function in accordance with the legislation in force from time to time. For completeness, the activities of the Actuarial Function are outlined in Article 48 of the Solvency II regulation as described below:

- 1. Insurance and reinsurance undertakings shall provide for an effective actuarial function to:
  - a) coordinate the calculation of technical provisions;
  - b) ensure the appropriateness of the methodologies and underlying models used as well as the assumptions made in the calculation of technical provisions;
  - c) asses the sufficiency and quality of the data used in the calculation of technical provisions;
  - d) compare best estimates against experience;
  - e) inform the administrative, management or supervisory body of the reliability and adequacy of the calculation of technical provisions;
  - f) oversee the calculation of technical provisions in the cases set out in Article 82;
  - g) express an opinion on the overall underwriting policy;
  - h) express an opinion on the adequacy of reinsurance arrangements; and
- 2. contribute to the effective implementation of the risk-management system referred to in Article 44, in particular with respect to the risk modelling underlying the calculation of the capital requirements set out in Chapter VI, Sections 4 and 5, and to the assessment referred to in Article 45. The actuarial function shall be carried out by persons who have knowledge of actuarial and financial mathematics, commensurate with the nature, scale and complexity of the risks inherent in the business of the insurance or reinsurance undertaking, and who are able to demonstrate their relevant experience with applicable professional and other standards.

## **B.7** Outsourcing

Outsourcing important areas of activity must be decided by the Board of Directors.

There must be regular reports to the Board of Directors to ensure compliance is followed. The Board of Directors must assess regularly whether activities are being carried out satisfactorily. The responsibilities of the MIAS Board of Directors for carrying out the activities may not be outsourced.

On establishment of the contract, the outsourcing undertaking must ensure that the service provider possesses the ability and capacity to carry out the outsourced activities satisfactorily and in this respect has the licenses required by the relevant legislation for the specific outsourcing area.

The outsourcing undertaking must regularly check that the service provider meets the obligations in the contract. The outsourcing undertaking must monitor whether, in carrying out the outsourced activities, the service provider is complying with the relevant regulations for the area.

If the service provider fails to meet the requirements of the contract and the relevant provisions for the specific outsourcing area, the outsourcing undertaking must take appropriate measures to ensure that the service provider meets these and, if necessary, the undertaking itself or through contracting with a new service provider must ensure that the requirements of the contract and the relevant provisions for the specific outsourcing area are met within an appropriate time limit given the circumstances.

The outsourcing undertaking must have adequate insight to ensure that the service provider and the service meet the requirements of the contract and the relevant provisions for the specific outsourcing area.

# **B.8** Remuneration/Salary

The Chairman of the Board of MIAS must submit the remuneration policy for the general assembly at the annual general meeting with regard to management's wages.

The Board carries out ongoing monitoring and verification of the wage policy and will perform review of the policy at least one yearly.

MIAS has fixed salary and no pension scheme.

# C. Risk Profile

MIAS's Board of Directors has identified and evaluated a register of risks.

#### C.1 Insurance Risks

The risks MIAS insures are analysed and approved by the Board in accordance with the company's concession, strategy, risk appetite, and procedure manual. MIAS estimates the desired and acceptable level of risk, overall and for each sub category. This assessment is made with respect to the company's capital, and MIAS may choose to take part in the risk under the lead of an external insurance company. MIAS engages in net risk retention throughout and retains up to USD 150 million on of gross basis. Risk appetite and other metrics for maximum exposure are expressed in net terms.

MIAS insures risks for Energy, Marine, Terminals and consolidated global programmes within the A.P. Moller - Maersk Group. The company participates in insurance programmes that are in line with the company's risk appetite, subject to approval by the Board of Directors. The risks the parent company wishes to insure through the captive are assessed in terms of the expected premium to the expected damage so only financially feasible risks are insured.

MIAS protects itself against cumulative risk by capping its exposure at fixed maximum liability amounts through reinsurance.

Geographically, the company can take risks worldwide, wherever there is no requirement for local insurance and where the A.P. Moller - Maersk Group's insurable interests are represented. MIAS uses an external insurance company for most risks and local fronting companies where local subscription is required.

# Risk appetite

MIAS's risk appetite is constituted by the maximum possible net exposures undertaken (net of reinsurance cover) and is defined by the Board of Directors as listed below:

Description	Threshold
Marine	USD 25 million per occurrence, and USD 50 million per year in the aggregate
Energy USD 50 million per occurrence, and USD 100 million per year in the aggregate	
Terminal	USD 20 million per occurrence, and USD 20 million per year in the aggregate
Casualty	USD 10 million per occurrence USD 20 million per year in the aggregate
Property	USD 30 million per occurrence
Umbrella Liability	USD 25 million per occurrence
Employment Practices Liability	USD 25 million per occurrence, and USD 25 million per year in the aggregate

Description	Threshold
Pension Trustee Liability	USD 25 million per occurrence, and USD 25 million per year in the aggregate
Special Risk	USD 25 million per occurrence, and USD 25 million per year in the aggregate

## Net risk retention

MIAS's current exposure is comprised of the difference between gross retention and the reinsurance or retrocession protection procured, and equals the net retention. Thus, the gross retention is mitigated by the use of reinsurance or retrocession. The current exposure is expected to be equal to, or less than, the risk appetite. MIAS's net retention (net of reinsurance cover) is for the policy period 2016/17:

Description	2015/16 exposure	2016/17 exposure
Marine	USD 9 million per occurrence, and USD 18 million per year in the aggregate	USD 0.0 million per occurrence, and USD 0.0 million per year in the aggregate
Energy	USD 17.5 million per occurrence, and USD 35 million per year in the aggregate	USD 0.0 million per occurrence, and USD 0.0 million per year in the aggregate
Terminal	USD 9 million per occurrence, and USD 18 million per year in the aggregate	USD 0.0 million per occurrence, and USD 0.0 million per year in the aggregate
Property	USD 30 million per occurrence USD 35 million per year in the aggregate	USD 30.0 million per occurrence
Umbrella Liability	USD 12.5 million per occurrence	USD 12.5 million per occurrence
Employment Practices Liability	USD 12.5 million per year in the aggregate	USD 12.5 million per occurrence, and USD 12.5 million per year in the aggregate
Pension Trustee Liability	USD 12.5 million per year in the aggregate	USD 12.5 million per occurrence, and USD 12.5 million per year in the aggregate
Special Risk	USD 10.0 million per occurrence, and	USD 10.0 million per occurrence, and USD 20.0 million per year in the aggregate

# C.2 Market Risks

MIAS is exposed to a selected range of market, counterparty, and credit risks which are summarised in the table below. All risks that MIAS is exposed to are approved by the Board of Directors.

Description	Limit	Actual exposure
Interest rate risk	5% of total assets on a 100 bp change in the interest rate	Limits are met
Products not allowed for trading	Geared investments, options or other exotic products, premium bonds, mutual funds or other types of pooled investments	Limits are met
Currencies allowed for trading	USD, DKK, EUR, SEK, NOK, CHF, GBP, JPY, AUD and CAD If not USD, the currency risk must be hedged	Limits are met
Other investments	Limit 5% of total assets for corporate bonds, stocks and capital shares	Limits are met

Further information can be found in appendix 1.

# C.3 Credit Risks

MIAS is exposed to a selected range of market, counterparty, and credit risks which are listed in the table below. All risks that MIAS is exposed to are approved by the Board of Directors.

Description	Limit	Actual exposure
Counterparty rating requirements	<ul> <li>Government bonds and mortgage bonds minimum rating of S&amp;P AA or equivalent. Exceptions are Danish or US government bonds</li> <li>All other investments have a minimum counterparty rating requirement of S&amp;P A- or equivalent</li> <li>No rating requirement for the parent company A. P. Moller - Maersk A/S</li> </ul>	Limits are met
Asset types allowed for trading*	<ul> <li>Loans to parent company A. P. Moller - Maersk A/S</li> <li>Cash at banks</li> <li>Bonds or debt instruments issued or guaranteed by governments or regional authorities in Zone A</li> <li>Bonds traded on regulated markets in countries within the European Union or in the US</li> <li>Danish mortgage bonds, mortgage covered bonds and covered bonds issued by mortgage banks, financial institutions or ship financing institutions</li> <li>Corporate bonds listed on a stock exchange in EU / EEA countries</li> <li>Stocks and capital shares listed on a stock exchange in EU / EEA countries</li> </ul>	Limits are met
Concentration risk** maximum per single counterparty	<ul> <li>15% of total assets in a single financial institution</li> <li>Total exposure to a financial counterparty, which operates both banking and mortgage business is limited at 30% of total assets, of which 15% to the bank and 15% to the mortgage business</li> <li>No limit for Danish or US government issued bonds</li> </ul>	Limits are met
Cumulative exposure	<ul> <li>Cash at banks limited to 50% of total assets</li> <li>Corporate bonds, stocks and equity accumulated limited 15% of total assets and each asset type is limited to 10% of total assets</li> </ul>	Limits are met

<sup>\*</sup> Exposure defined as loans, deposits, bonds and shares, and market-to-market of derivatives.

<sup>\*\*</sup>Concentration risk for the company's risks from excessive reliance on a particular asset class, investment market or a particular investment.

A.P. Moller - Maersk's reinsurers are selected in accordance with the following criteria:

- Minimum rating S&P A
- Good level of capital surplus which also takes into account the potential gross exposures and ratings
- MIAS has a large number of high quality reinsurers and therefore benefits from diversification

As of 1 June 2016, MIAS had procured USD 583.4 million in reinsurance protection from app. 45 reinsurers:

	Rating	Probability of default	Proportion of risk
Marine Risk			
Lloyd's	А	0.05%	48.7%
Great American Insurance Company	A	0.05%	5.6%
IRB-Brasil Resseguros SA	A	0.05%	5.6%
Korean Reinsurance Company	A	0.05%	1.1%
PICC	AA	0.01%	21.1%
Axa	A	0.05%	4.4%
Asia Capital Reinsurance Group	A	0.05%	0.8%
Lavaretus	A	0.05%	2.8%
First Capital Insurance Ltd	A	0.05%	7.2%
Emirates Insurance Company	A	0.05%	2.8%
Energy Risk			
Lloyd's	А	0.05%	58.3%
Allianz	AA	0.01%	8.6%
AIG	А	0.05%	5.7%
Gard	А	0.05%	2.9%
Zurich	AA	0.01%	11.4%
Hannover	AA	0.01%	1.4%
Partner Re	А	0.05%	2.9%
HCC	AA	0.01%	4.6%
SCOR	А	0.05%	1.4%
Dual	А	0.05%	2.9%
Terminals Risk			
XL Bermuda	А	0.05%	100.0%
Global Property Risk			
Swiss Re	AA	0.01%	100.0%

The spread of risk for both the energy and marine programmes limits the maximum exposure to 58% to any one insurer (Lloyd's which is backed by the Lloyd's centre fund). Meanwhile there is a 100% exposure to XLC Bermuda on the terminals reinsurance programmes with the corresponding concentration risk being mitigated by cut through clauses to XLC's reinsurers.

Reinsurance defaults: the minimum ratings (see above table) imply a low probability of default. There is a risk of systemic default in which the entire insurance market is affected. However, this is a risk that would be difficult to mitigate other than via applying minimum ratings to insurers and reviewing the panel of reinsurers on a regular basis.

Further information on risks can be found in appendix 1.

# C.4 Liquidity Risks

Due to the nature of the business model, the liabilities in MIAS are short termed as they are mainly consisting of claims which are onetime payments. In order to match the duration of the liabilities, the assets are short termed as well. Bonds have less than 1 year duration, the loan to the parent company can be withdrawn with 48 hours' notice, and all deposits are of few months duration. This ensures a balanced liquidity in MIAS where claims can be paid on time even with short notice.

# C.5 Operational Risks

The Board has assessed that the following types of events are a part of operational risks:

- losses due to administration errors to the extent they are not covered by the administrator (the supplier in the outsourcing agreement)
- costs resulting from fraud
- costs due to key staff severance
- losses due to the termination of the outsourcing agreement by the system administrator
- losses due to IT downtime, fire damage, etc.

The list is not exhaustive.

The policy for operational risk states that administrative tasks are outsourced to the parent company, which according to the outsourcing agreement is assumed to run administration and IT at a comfortable level.

Economic losses caused by reasons other than insurance events and developments in the financial market are continuously recorded based on booked loss values.

To ensure that management is aware of operational risks in MIAS, they review a quarterly written report containing the following:

- losses in excess of DKK 250,000 (must be recorded and reported)
- events that could have led to a loss of DKK 250,000 (must be recorded and reported)
- assessment of the company's current operational risks and the likelihood that a given event occurs
- description of the risk minimisation measures undertaken to avoid/minimise the recurrence of loss/risk of loss
- other relevant information

A specific operational risk assessment can be found in appendix 1.

# C.6 Strategic Risks

A recent strategic risk consideration has been the viability and future of the MIAS business model in light of the structural changes undertaken by the parent company. MIAS's existing business model rests on the size and diversity of the Group exposure and hence the restructuring initiative, may erode the original business case. As an ultimate consequence, MIAS may be reduced in relevance, potentially to a level of being entirely obsolete. As a response, new business models are being explored. See strategic risks in risk register - appendix 1 for more detail

## C.7 Additional Facts

Main Activities

# Fronting

MIAS operates through fronting companies in order to reduce the operational tasks to a desired minimum and to benefit from the operational efficiencies of large global insurance carriers.

The fronting activities consist predominately of lead underwriting, lead claims handling, and policy administration.

## Outsourcing

MIAS has to a large extent outsourced the operation, including underwriting, reinsurance, claims handling, actuarial services, legal, tax, accounting, investment, reporting, IT, risk management functions, etc.

Underwriting, reinsurance, claims handling, legal, risk management, tax, accounting, investment, reporting, IT are outsourced to the parent company.

The actuarial function and the compliance function are outsourced to external parties.

# D. Valuation for solvency purpose

# D.1 Assets

The table below sets out MIAS's assets under IFRS and Solvency II Bases as at 31 December 2016. The total assets reduce marginally from SI (\$273.12m) to Solvency II (\$272.71m) which reflects the balance sheet treatment under Solvency II.

The main area of difference between the two valuations is in the valuation of Reinsurers' technical provisions, as detailed in the table below.

Assets	Management accounting treatment	Solvency 2
Bond-Goverment and multilateral banks	39,903	40,199
Receivables	32,892	32,345
Cash and cash equivalent	1,768	1,768
Short-term bank deposits	46,271	46,255
Loan to APMM	106,000	106,368
Gross technical provisions - Reinsurance	31,085	30,575
Best Estimate - claim provision	9,982	9,848
Best Estimate - premium provision	21,103	20,727
Insurance debtors	15,197	15,197
Total assets	273,116	272,707

All monetary amounts in USD thousands

# Gross Technical Provisions

Solvency II class	Marine, Aviation & Transport	Fire & Other Damage to Property	General Liability Insurance	Miscellaneo us Financial Loss	Total
Best Estimate - claim provision	48,550	5,898	388	24	54,860
Outstanding claims	46,810	5,687	374	23	52,894
Run off expenses allocated	2,388	290	19	1	2,698
Discount Factor	(649)	(79)	(5)	(0)	(733)
Best Estimate - premium provision	16,669	6,650		236	23,555
UPR	16,221	6,657		239	23,117
Profit on unearned premium					-
Unpaid premium	670	81		0	752
Discount Factor	(223)	(89)		(3)	(315)
Risk Margin	2,380	380	19	19	2,798

The reinsurance share of technical provisions reduces accounting treatment from (\$31,09m) to SII (\$30,58m). Technical provisions are valued on a "best estimate" basis, taking account of the timing and likelihood of payments.

Likelihood of payment takes into account the credit ratings of reinsurers. The discounting takes into account the assumed settlement patterns (see liability valuation) and current interest rates.

Reinsurers' share of Technical Provisions as at 31/12/2016 - Expired Risk			
Reinsure	rs' share of claims outstanding	SolvencyI	SolvencyII
Outstand	ling claims	9.982	
SII Adj	Adjustment for probability of default		(6)
	Discount Factor		(127)
Reinsure Solvency	rs' share of Outstanding Claims under 'II		9.848

Reinsurers' share of Technical Provisions as at 31/12/2016 - Unexpired Risk			
Gross Un	expired Risk	SolvencyI	SolvencyII
Reinsure	rs' UPR	21.008	
SII Adj	Profit on unearned premium		-
	Unpaid premium		-
Run-off expenses allocated			-
Discount Factor (2		(281)	
Reinsurer Solvency	rs' share of Premium Provisions under II		20.727

## All other assets

All other assets have been retained as accounting values given their short-term and liquid nature.

# D.2 Technical provisions of insurance and reinsurance

The table below sets out the technical provisions (gross of reinsurance) by Solvency II line of business, including reconciliation between the Solvency I and Solvency II valuations.

All monetary amounts in USD thousands.

Best estimate provisions are valued at "best estimate" which reflects the timing and likelihood of payments.

Provisions are valued on a discounted cash-flow basis which utilises assumptions regarding the expected settlement patterns of claims. For MIAS, it is assumed that claims arising are paid in line with the following pattern (99% of claims settled within 5 years):

	Settlement Pattern
Year 1	57.91%
Year 2	34.86%
Year 3	4.33%
Year 4	1.36%
Year 5	0.78%
Year 6 and after	0.75%
Total	100%

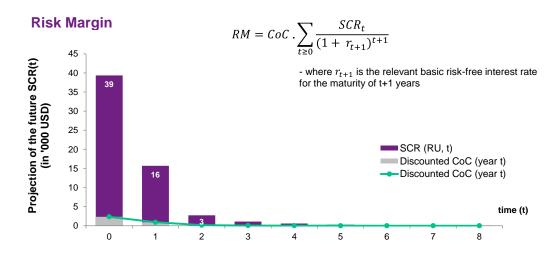
Administration expenses of approximately USD 2.5m per year are also included within the provisions in line with Solvency II guidance.

# Risk Margin

The risk margin is a function of the SCR and is calculated to be USD 2.8m.

Whilst liabilities under SII are measured at best estimate, these are inherently uncertain and the risk margin provides a margin to ensure liabilities are valued at fair value. It can also be described as the amount that an undertaking would require above the best estimate liabilities in order to take over and meet the obligations.

This is calculated by determining the cost of providing an amount of capital equal to the SCR necessary to support the obligations over their lifetime.



The calculation involves approximating the SCR for each future year (based on the assumed settlement of claims) and then valuing the risk margin on a discounted cash-flow basis (as shown by the diagram above)

A 6% Cost of Capital rate is assumed to determine the cost of providing the funds as defined in SII.

Areas of uncertainty within the Technical Provisions:

Settlement period: The risks being underwritten are mainly short-tailed. We have assumed that 99% of risk would run off within 5 years.

Discount rate: Current yields are very low and close to zero, which means that almost no discounting is applied to the Technical Provisions given the risks underwritten by MIAS are short-tailed.

Expenses: The total expense involved in the operation of the captive is small compared with other elements in the calculation of the technical provisions.

Claims provision: MIAS's classes of risk are low frequency, high severity and as such MIAS does not have a high volume of claims. MIAS's approach of applying loadings to known claim reserves to allow for adverse development is in line with industry practice. Historically, MIAS has not seen much adverse development so known case reserves are expected to be broadly reasonable. However, there is inherent uncertainty in the claims provisions.

Premium provision: As agreed with the DFSA, MIAS's Solvency II premium provision assumes a 100% loss ratio, i.e. no advance credit is taken for expected underwriting profits. This is prudent given MIAS's historical experience.

# Additional adjustments

MIAS has made no adjustments for matching adjustments, volatility adjustments, transitional measures or transitional deductions within its technical provisions.

Material changes in assumptions

MIAS has followed the same approach to the calculation of technical provisions since 2012 and as such there are no material changes to report.

# D.3 Other liabilities

The table below sets out MIAS's liabilities under IFRS and Solvency II Bases as at 31 December 2016.

Liabilities	Management accounting treatment	Solvency II
Gross technical provisions (non-Life)	78.729	81.213
Best Estimate - claim provision	52.894	54.860
Best Estimate - premium provision	23.037	23.555
Risk Margin	2.798	2.798
Payables	5.215	5.241
Reinsurance payables	19.502	19.502
Any other liabilties	-	-
Total liabilities	103.446	105.956

All monetary amounts in USD thousands.

Gross technical provisions (non-life)

The gross technical provisions increase from the management accounting treatment (\$76,01m) to SII (\$81,21m). Similarly to the asset valuation, the technical provisions are valued at "best estimate" which reflects the timing and likelihood of payments.

In addition, a 'risk margin' of \$2.8m is held to reflect the additional cost of capital that an alternative insurer would be required to hold to take over MIAS's liabilities.

All other liabilities

All other liabilities have been retained as accounting values given their short-term and liquid nature

# D.4 Alternative valuation method

The solvency and financial condition report must include information on the areas set out in Article 260 in complying with the disclosure requirements of the insurance or reinsurance undertaking as laid down in paragraphs 1 and 3 of this Article.

MIAS's risk management policies extend to the management of its assets and liabilities. In particular its investment policy states that:

- There is proper segregation of duties in the investment area (front, middle, back office)
- Interest rate risk is max 5% of assets at an interest change of 100 bp
- No geared investments, investment in options or other "exotic" instruments
- Investment can only be made in following currencies: USD, DKK, EUR, SEK, NOK, CHF, GBP, JPY, AUD. CAD.
- Investments in any other currency than USD must be covered by FX deals
- Only the following investments are permitted:
  - o Intercompany Loan to APMM
  - o Deposits (with pre-approved banks)
  - Government and mortgage bonds (from preapproved governments and mortgage institutions)
  - o Bonds guaranteed by governments in Zone A
- Maximum exposure against one counterpart of 15% of total assets
- No limit on Danish and American government bonds
- No limit on loan to APMM other than that prescribed by the Danish FSA
- For company bonds and shares, maximum investment of 5% of total assets
- Accumulated exposure
  - o Maximum 50% of total assets in banks
  - o Company bonds and shares may (accumulated) not exceed 15% of total assets
  - o Company bonds and shares may, for each asset type, not exceed 10% of total assets
- Rating:
  - o Government and mortgage bonds: rating of minimum S&P AA (except Danish and American government bonds)
  - o Other investments: counterpart rating of minimum S&P A
  - o No requirements re rating of APMM
- List of allowed counterparts is approved by the Board
- Benchmark
  - $\circ$  Average of 3 months USD Libor plus 20 bp (APMM loan)
  - o Citigroup index for US treasuries with duration of 1 3 years (Other financial assets)
  - o Above used in same proportion as APMM loan to total financial assets
- Adherence to Prudent Person principle is monitored by the risk function
- Detailed reporting to the Board about risks, targets and strategy
- All significant incidents will be reported immediately

In addition, MIAS manages its liquidity exposures by holding investments that are relatively short term and the loan to APMM can be called back with notice of 48 hours. Short term cash flow is estimated and cash held correspondingly.

# D.5 Other information

No other material information regarding the valuation of assets and liabilities for solvency purposes is deemed necessary.

# E. Capital Management

# E.1 Own Funds

The management of own funds is governed by the Policy for Capital Structure where the overall responsibility and tasks are defined. According to this policy, the equity of the company must be sufficient to ensure the continued operation of the company and at the same time sufficient to meet all regulatory requirements. The company is constantly focusing on matters which might influence the capital structure, e.g. the company's investment policy. The value creation of the company is meant to primarily be generated from acceptance of insurance risk rather than by acceptance of investment risk. The time horizon for business planning including development of own funds is minimum 3 years.

Own funds as at the reporting date consists only of tier 1 capital as follows:

Own funds (tUSD)	31.12.2016	31.12.2015	Development
Ordinary share capital	89,987	89,987	0
Accumulated profit	76,764	65,634	11,130
Total own funds	166,751	155,621	11,130

Total own funds as shown above are eligible for meeting both the SCR and MCR.

As at 31 December 2016, the equity according to statutory accounts is tUSD 169,670. The difference to own funds is primarily caused by the following:

Discounting of claims and premium provisions (assets) tUSD-415 Discounting of claims and premium provisions (liabilities),

including allowances for run off expenses tUSD -2,404

The expected development in own funds over the planning period of the company is as follows:

Own funds (tUSD)	31.12.2017	31.12.2018	31.12.2019
Ordinary share capital	89,987	89,987	89,987
Accumulated profit	84,412	89,964	95,504
Total own funds	174,399	179,951	185,491

The development of own funds is based on the assumption that dividend is not paid to shareholders during the planning period.

# E.2 Solvency capital requirement and Minimum Capital Requirement

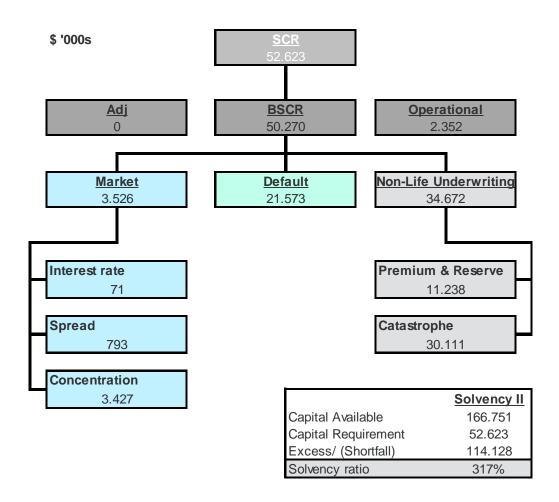
The company uses the standard formula for calculating the SCR and MCR.

As at 31 December 2016, the capital requirements of the company were as follows:

Solvency Capital Requirement: tUSD 52,623 Minimum capital requirement: tUSD 13,156

The SCR requirement split on risk modules is depicted below.

## Q4 2016



Simplified calculations are not used in any of the risk modules of the standard formula.

The MCR is calculated by multiplying the net best estimate technical provisions and net written premium by prescribed parameters for each SII class of business. As at 31 December 2016, this amounts to tUSD 5,242.

As the MCR floor is calculated as 25% of the SCR, corresponding to tUSD 13,156, this amount is the MCR of the company.

MCR

Minimum Capital Requirement	13.156
<b>A</b>	
Non-Life MCR (based on premiums and technical provisions)	5.242
MCR Cap (45% of SCR)	23.680
MCR Floor (25% of SCR)	13.156
Absolute minimum (EUR3.7m)	3.899

EURto USD 1,1

The SCR and MCR have during 2016 shown little variation. Over the last 4 years, the solvency ratio of the company has developed as shown below.



The expected development in SCR and MCR over the planning period of the company is as follows:

tUSD	31.12.2017	31.12.2018	31.12.2019
SCR	52,623	52,623	52,623
MCR	13,156	13,156	13,156

# E.3 Use of the duration-based equity risk sub-module in the calculation of the Solvency Capital Requirement

The company has not invested in shares and this section is therefore not relevant.

# **E.4** Differences between the standard formula and any internal model used The company does not make use of an internal model.

# E.5 Non-compliance with the Minimum Capital Requirement and non-compliance with the Solvency Capital Requirement

The Board of MIAS has decided that the solvency ratio of the company as a minimum target should be 1.40. This target is considered whenever new business opportunities are evaluated and when considering the future strategy of the company.

The actual solvency ratio is calculated by the company's actuaries on a quarterly basis and additionally in connection with assessing new significant risks. The future estimated solvency ratio is included in the company's budgets which are updated yearly and covers at least a three year period.

If a recalculation or reassessment of the company's individual solvency requirement shows that the Company's capital plan has changed to the effect that the capital base is less than 1.25 times the capital base (individual solvency requirement) of the Company, Management must inform the Board of Directors immediately. Management must, in coordination with the Chairman of the Board, convene a meeting of the entire Board of Directors as soon as possible and within one week. At this meeting, Management must:

- 1.1 Identify the material reasons for the increased capital requirement based on the model for determination of the individual solvency requirement, and/or the main reasons for the reduction in the capital base.
- 1.2 Provide a basis for the Board's assessment of the projected impact of the reduction, its timing and the requisite response time for actions aimed at restoring the Company's capital position to include the excess coverage of 1.4 as intended by Board of Directors.

Serving as basis of decision for the Board of Directors at the meeting, Management has prepared:

- 1.1 A statement of the individual solvency requirement
- 1.2 Proposals for measures that may restore excess coverage to the intended level. Proposals for changes to the writing of insurances or the structure of contracts with suppliers must be supplemented with reflections about the impact of limiting the writing of new or extending insurance policies. Furthermore, (additional) reinsurance for the entire or part of the insurance portfolio must be considered. And changes to the Company's investment policy may be included to the extent these may increase excess coverage.
- 1.3 Analysis of scope for restoring capital position by raising further capital in the form of share capital or other subordinate capital.

Based on such proposal, the Board of Directors will decide on action to be taken to quickly reduce the capital need or raise any requisite additional capital. If the Board of Directors deems that the proposals are not sufficient or that alternatives exist, such additional measures will be implemented.

If the Board of Directors finds that the excess coverage is critically low at 1.15 or below relative to the capital base (individual solvency requirement), Management must immediately inform the Board of Directors and, in coordination with the Chairman of the Board, convene a meeting of the entire Board of Directors as soon as possible and within one week. The purpose of the said meeting is to quickly restore the capital position.

Management is under a separate duty to oversee that the Company's excess coverage does not drop below 1.1 in the process. If this is the case, Management must immediately inform the Board of Directors and auditors thereof. The Board of Directors will notify the Danish Financial Supervisory Authority immediately.

If the Board establishes, in connection or continuation of this event, that the previous efforts do not have the expected effect quickly enough, Management must completely suspend the writing and renewal of

insurance policies. Such resolution is to be made by the Board of Directors based on the Board's consideration of the options for rapid capital increases.

The Board of Directors must make such resolution not later than four weeks after the Board meeting at which the capital plan will be adopted.

Concurrently with the complete suspension of the writing and extension of insurance policies, the Board of Directors will ensure that the Danish Financial Supervisory Authority is duly informed.

The MIAS Board of Directors has established the following capital emergency plan:

Solvency Ratio	Action
1.40	The targeted minimum ratio – no action required
1.30	The Board is summoned to decide if the solvency ratio needs to be strengthened
1.25	The Board is summoned and will meet within one week and will based on presentations from Management decide any actions which must be initiated
1.15	The Board is summoned and will meet within one week with the purpose of improving the solvency ratio quickly
1.10	The Board will immediately inform the Danish Financial Supervisory Authority

# E.6 Any other information

There is no other information in relation to capital management which is relevant to disclose.