

# RISK REPORT

## RISK MANAGEMENT

### INTERNAL CONTROL AND ENTERPRISE RISK MANAGEMENT POLICY

ARM's risk management philosophy is committed to developing, embedding, cost-effectively implementing and continually reviewing systems of internal control and Enterprise Risk Management at all levels within the Company.

ARM's overriding policy and philosophy is that management of risk is the responsibility of management at every level in ARM. It forms an integral part of the process of managing resources and opportunities within our risk appetite in order to provide reasonable assurance regarding the achievements of our objectives.

To implement this policy, ARM:

- > strives to protect and improve the health, safety and well-being of everyone affected by its operations;
- > identifies, evaluates and regularly reviews the risks faced in achieving objectives;
- > develops and executes appropriate actions and controls through its formal management framework that supports the achievement of strategic objectives;
- > preserves and enhances ARM's assets and earnings potential to safeguard and optimise the Company assets and our shareholders' investment;
- > implements and maintains effective internal control and risk management programmes;
- > makes environmental management part of all our activities and operates in accordance with the principles and procedures of the Mineral and Petroleum Resources Development Act (MPRDA) and the National Environmental Management Act (NEMA);
- > ensures compliance with all applicable legislation;
- > retains risk to optimal capacity, in line with its conservative approach and commitment to protect shareholders' interests;
- > accepts, reduces or shares risk and ensures that the residual exposure is within its risk appetite or tolerance; and
- > uses secure insurance and re-insurance markets to insure against catastrophic incidents and losses beyond its risk retention capacity.

ARM's Board of Directors has committed ARM to a process of risk management and to sound and effective systems of internal control.

These are aligned with the principles of King III and comply with the Companies Act and all relevant codes and regulations. The objective of these systems and processes is the management and minimising of short-, medium- and long-term risk at all of ARM's operations.

ARM expects all subsidiaries, joint arrangements (including joint ventures and joint operations), strategic alliances, strategic and functional areas, business units, operations, projects and processes to be subject to this Internal Control and Enterprise Risk Management Policy.

## THE ENTERPRISE RISK MANAGEMENT PROCESS

ARM's annual Risk Management Plan is approved by the Audit and Risk Committee, on behalf of the Board, executed by management in collaboration with ARM Risk Management and monitored by the Management Risk and Compliance Committee, the Audit and Risk Committee and Social and Ethics Committee on a quarterly basis. This Plan ensures the implementation within the Company of the Enterprise Risk Management process.

ARM's Enterprise Risk Management (ERM) process uses a unitary framework of identification and quantification of risks (marginally amended to create focus on physical risks) at all levels within the Company. To meet and exceed the risk management standards, ARM measures, monitors and benchmarks the effectiveness of mitigation and control performance against its own and international best practice.

The ERM process, which is consistent with ARM's "We do it better" management style, is designed to achieve an ongoing improvement of risk preparedness and effective corporate governance.

ARM's risk profile requires that it adopts a prudent approach to corporate risk and ARM's decisions regarding risk tolerance and risk mitigation reflect this.

ARM selects its controls, mitigating actions and risk interventions, based on their potential to increase the likelihood of ARM fulfilling its stakeholder commitments. Sound management of risks provides ARM with the flexibility to anticipate and respond to changes in its business environment and make informed decisions in uncertain times.

To ensure ARM's responses to risk remain current and dynamic, ARM continues to embed ERM and internal control processes in business systems and processes.

### Mike Schmidt

Chief Executive Officer

12 October 2016

## ENTERPRISE RISK MANAGEMENT (ERM)

### ENTERPRISE RISK MANAGEMENT POLICY AND PROCEDURAL GUIDE

During the year, the ARM Risk Management and Compliance Committee developed an Enterprise Risk Management Policy, which codified existing practice, and a separate Enterprise Risk Management Procedural Guide to replace the previous Enterprise Risk Management Framework.

The approved Enterprise Risk Management Policy sets out the governance approach for risk management within ARM and includes the following:

- > Aims to provide a framework within which management can function in order to embed an informed and proactive Enterprise Risk Management culture throughout ARM which places significant emphasis on the integration of risk and assurance;
- > Enables competent management assurance of the control environment across risks/opportunities and processes throughout the Company;
- > Defines risk as “uncertainties that must be identified, understood and proactively managed to achieve its objectives and add value”;
- > Defines the governance structures around risk management from Corporate to Operational level;
- > Defines the roles and responsibilities of the Governance Structures and Management from Corporate to Operational level and emphasises that management of risk is the responsibility of management at every level in ARM;
- > Defines the process and integration of assurance providers with business and reporting processes performed by ARM's external auditors, internal auditors and specialist independent assurance providers to provide comprehensive (but balanced) combined assurance on ARM's preparedness to manage risks and challenges and to exploit opportunities;
- > Strives to provide guidance to inculcate an appropriate Enterprise Risk Management culture across the Company;
- > Promotes the optimisation of the enterprises' risk management efforts; and
- > Ensures that the risk management programme and processes are based on generally accepted risk management practices that enhance value for all stakeholders.

The revised Enterprise Risk Management Policy was approved by the Board of Directors.

### ENTERPRISE RISK MANAGEMENT PROCESS

The objective of ARM's ERM process is to ensure that ARM is proactive and appropriately prepared for potential risk, challenges and opportunities.

The ERM process (recorded in the diagram on pages 176 and 177) sets out ARM's risk management philosophy and policy; the management and reporting functions; processes, roles and responsibilities; provides standards and guidelines; and identifies risk appetite and risk tolerance levels (periodically reviewed by the Management Risk and Compliance Committee and approved by the Audit and Risk Committee) for operations, divisions and the Company.

The ERM process, which incorporates elements of the Committee of Sponsoring Organisations of the Treadway Commission (COSO) Framework, International Organisation for Standardisation (ISO) 31 000 and risk management requirements of South Africa's King III Code:

- > places significant emphasis on the integration of risk and assurance;
- > provides an effective and efficient management tool for continuous improvement of controls and mitigation strategies;
- > provides evidence of meaningful management assurance that can be relied on by all stakeholders;
- > facilitates the ongoing process of moving from exception reporting to performance of controls;
- > identifies risks (from long-term strategic planning to process level risks) with the specific objective of reviewing and ensuring that appropriate levels of control and mitigation are in place;
- > sets ARM performance standards and grading/rating performance of control and mitigation strategies (refer ARM Dashboard Standards on page 176);
- > constantly reassesses risk management initiatives to ensure that they are relevant and that they anticipate emerging risks and opportunities;
- > adds value to the efficiency and effectiveness of ARM's risk preparedness; and
- > continues to meet and exceed corporate governance requirements.

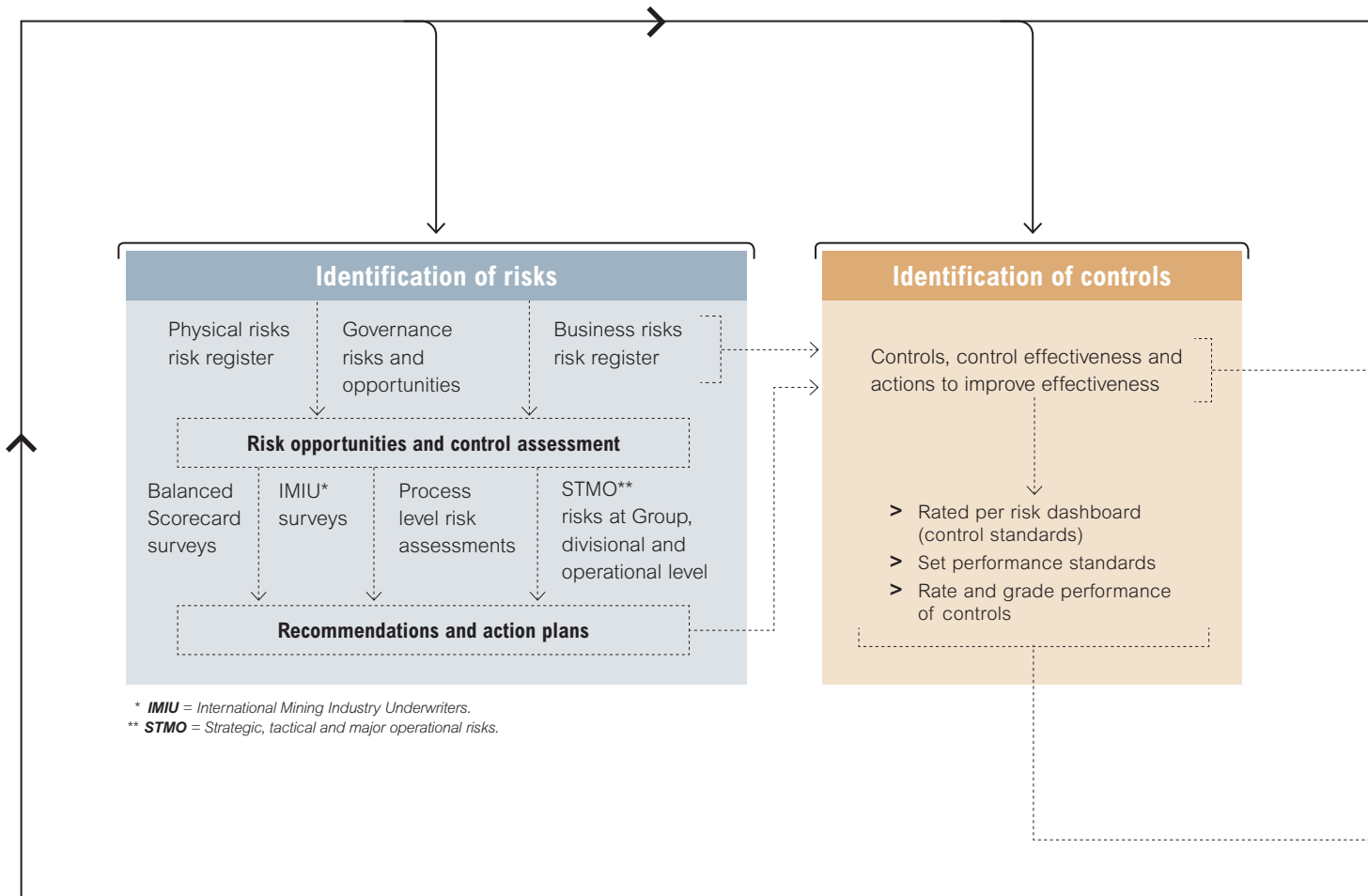
ARM recognises that the field of risk management is dynamic and thus ARM's Enterprise Risk Management Policy will continue to evolve to meet the challenges and changes faced by ARM, its divisions and operations.

**The ERM process, guided by the Internal Control and Enterprise Risk Management Policy, executed in terms of the annual Risk Management Plan and reported in terms of the formalised reporting structure, seeks to:**



CORPORATE GOVERNANCE continued

THE ERM PROCESS

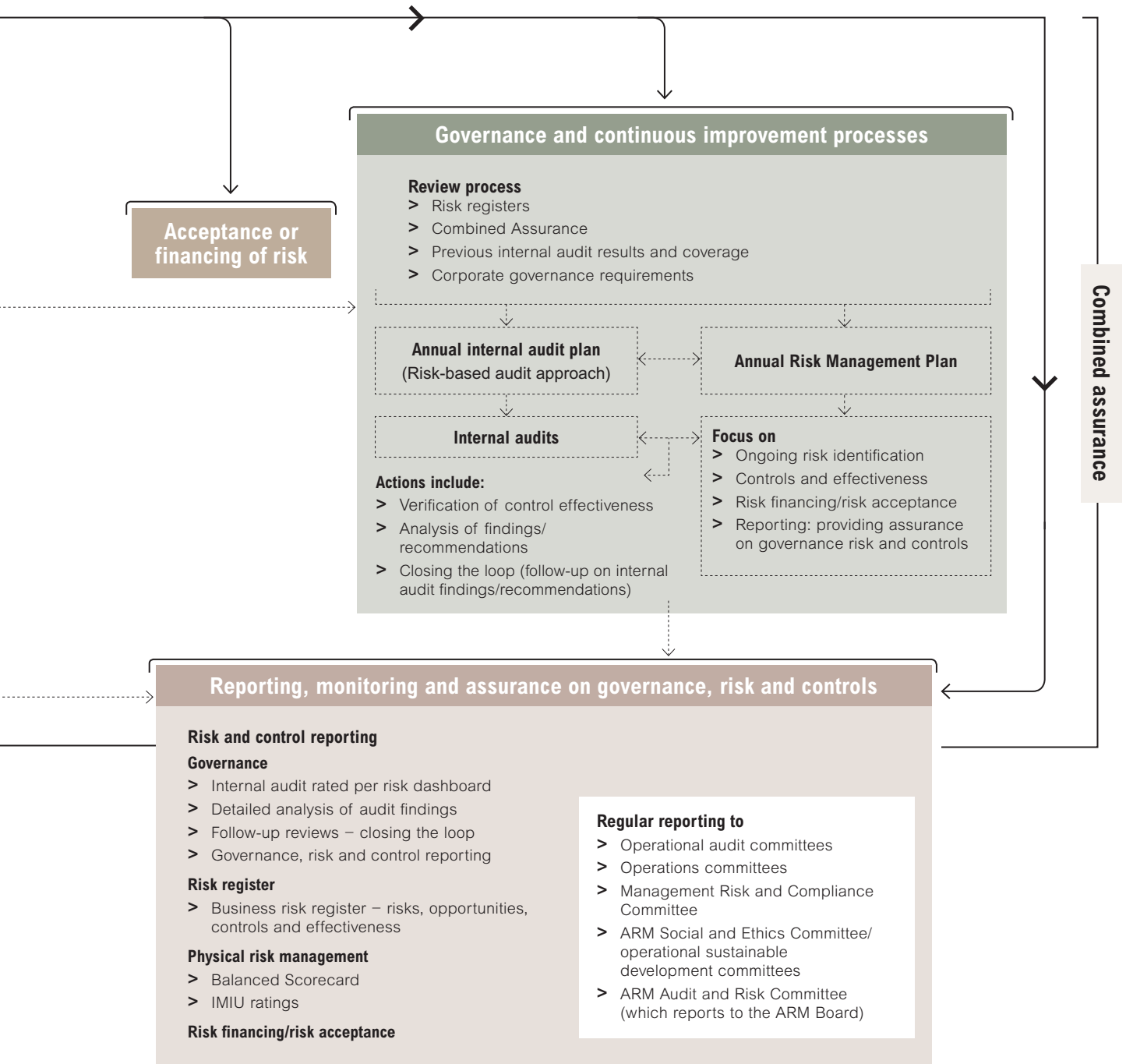


ARM DASHBOARD STANDARDS

USE OF RISK AND CONTROL DASHBOARD AND OTHER METRICS IN THE ERM PROCESS

ARM makes extensive use of risk and control dashboards and metrics with consistent rating criteria. These provide an appropriate and consistent approach to the presentation of performance of specific controls and the overall control environment.

ARM RATING %	CONTROL EFFECTIVENESS	DESCRIPTIONS
90 – 100	OPTIMAL	Adequate control framework, minor control effectiveness deficiencies, regarded as housekeeping
80 – 89	GOOD	Adequate control framework, controls regarded as effective, but improvements were identified (Group standard)
70 – 79	SATISFACTORY	Adequate control framework, but improvements required in the effectiveness of certain key control areas
60 – 69	INADEQUATE	Inadequate control framework, improvements required in the effectiveness of key control areas. If not addressed, may cause an exposure
BELOW 59	POOR/WEAK	Inadequate control framework, controls ineffective. If not addressed, may cause a material exposure. Urgent executive management attention



## CORPORATE GOVERNANCE continued

### MANAGEMENT OF RISK IN ARM

#### ACCOUNTABILITY STRUCTURE

The ARM Board tasks the Audit and Risk Committee with the oversight of risk management. In terms of the Board Charter, the Management Risk and Compliance Committee has been established as a sub-committee of the Audit and Risk Committee to assist it with the management of and reporting on risk management processes and procedures. The Audit and Risk Committee Chairman reports to the ARM Board.

The Chief Executive Officer chairs the Management Risk and Compliance Committee and its members include the divisional chief executives, the Financial Director, the Executive: Sustainable Development, the Chief Information Officer, the Group Risk Manager and members of the ARM Steering Committee.

The Group Risk Manager reports quarterly to the Management Risk and Compliance Committee, the Audit and Risk Committee and Social and Ethics Committee, as well as reporting quarterly to divisional and joint venture operational committees, divisional audit committees, and divisional social and ethics/sustainable development committees, with the exception of the ARM Coal audit committee.

#### ARM ANNUAL RISK MANAGEMENT PLAN

The Risk Management Plan, approved annually by the Audit and Risk Committee, provides emphasis for ARM's ERM initiatives for that financial year and ensures implementation of the Internal Control and Enterprise Risk Management Policy.

The Plan's initiatives and emphases are determined through an integrated combined assurance review. This review encompasses risk and assurance processes; discussions with internal audit, external audit and independent assurance providers; and is guided by any business imperatives and changes in governance and compliance requirements.

#### APPROACH TO INTEGRATED COMBINED ASSURANCE

ARM believes that the focused approach to the integration of risk and assurance, coupled with its ongoing ERM activities, ensures that a comprehensive integrated combined assurance base is established upon which relevant and appropriate analysis of the overall control environment can be assessed and reported.

In order to enhance the integration and alignment of management assurance, ARM developed its Combined Assurance Model providing clarity to its "three lines of defence" defining that which constitutes management assurance relative to these three lines of defence.

**The "three lines of defence" model (summarised here) defines formal assurance into that provided by:**

##### Management

Policies, procedures, systems, processes, strategies

##### Internal assurance

Assurance processes internal to ARM but external to the individual operation

##### External assurance

Assurance provided by external assurance providers, including specialists and subject matter experts

This combined assurance process assists in identifying potential gaps and duplication in assurance, providing further input into establishing a control environment that is appropriately related to ARM's risk appetite. The continuing development of integrated combined assurance enables comprehensive and appropriate management assurance reporting to the divisional and operational audit committees and to the Management Risk and Compliance Committee and, through the Audit and Risk Committee, to joint venture partners and Board structures.

ARM continues to refine its integrated combined management assurance approach and reporting to ensure that the approach is practical, cost-efficient and is effectively integrated with ARM's ERM and management assurance processes in order to provide a comprehensive risk-based and robust assurance process.

### REPORTING STRUCTURE

Risk management initiatives and emphases are incorporated into the annual Risk Management Plan and reported on within the structured reporting areas of the:

#### Risk register process

Addresses emerging and existing business risks, controls and action plans for improvement.

Refer to page 179.



IAR



#### Physical risk management

Addresses physical risks, controls and action plans/recommendations for improvement set against cost-effective international standards.

Refer to page 179.



IAR



#### Risk financing/insurance

Addresses the financing and/or insurance of risks retained.

Refer to page 180.



IAR



#### Risks, opportunities and challenges

Addresses risk issues arising out of corporate governance and the Code of Conduct.

Refer to page 180.



IAR

## RISK REGISTER PROCESS

The scope of ARM's risk register function extends from addressing strategic, tactical and major operational risks, challenges and opportunities to detailed risk assessments at a process level (including specialised functions) across ARM, its divisions, operations and individual processes.

The aim of the risk register process is to ensure the identification and recording of relevant risks, challenges and opportunities and in respect of each risk/opportunity to identify and record corresponding controls and mitigation strategies. The efficacy of these controls is considered and rated against ARM's Control Standards during the process.

The inclusion and consistent use of value drivers in the identification of risks, challenges and opportunities and their corresponding controls assists in ensuring focus and alignment with the independent assurance provided by ARM's internal audit function (outsourced to KPMG).

The Enterprise Risk Management specific software captures detailed risk information in a consistent manner and provides a powerful database to enable interrogation of risks, controls and actions captured through the risk register process.

### ACTION PLANS TO REDUCE RISK

Where improvement in the control environment is considered necessary, the risk register process requires that appropriate action plans or mitigation strategies be identified and implemented to reduce the risk profile and improve the control environment.

This approach to risk ties in with ARM's "We do it better" management approach, which incorporates the principle of continuous improvement.

### RATING OF CONTROL EFFECTIVENESS

ARM's focus on rating the effectiveness of controls and ensuring the implementation of appropriate mitigating actions and strategies corresponds with the move towards reporting on the performance of controls (measured in terms of risk and control dashboards) and the move away from exception reporting.

### USING THE RISK REGISTER AND DASHBOARD PROCESS TO ENSURE A FOCUSED ANNUAL INTERNAL AUDIT PLAN AND MAINTAIN THE FOCUS ON CONTINUOUS IMPROVEMENT

The detailed information in the risk registers, assurance results in the dashboard and assurance detail available in the Combined Assurance status reports are provided to and discussed at least annually with ARM's internal auditors to:

- > plan internal audit coverage to ensure that it is comprehensive and provides focus on considering identified high-risk areas for particular attention;
- > enhance the integration of the risk and internal audit functions by reviewing the process level risk assessments during the annual audit programme as well as the effectiveness of the controls and mitigation strategies associated with the identified risks; and

- > review the strategic, tactical and major operational (STMO) risks and their appropriate controls' relevancy and accuracy.

Inclusion and use of value drivers in the identification of risks and their appropriate controls is intended to further integrate and align the independent assurance by KPMG (ARM's outsourced internal auditors) on controls to the benefit of the control environment within ARM.

### USING THE RISK REGISTER TO EMBED ERM PROCESS

The consistent approach to the completion and updating of risk registers and the integration of appropriate management assurance and compliance reporting plays an integral part in the embedding of the ERM process. This process of embedding ERM includes:

- > quarterly risk workshops and reviews;
- > quarterly updates of risk registers;
- > quarterly presentations of risks and controls;
- > annual internal audit planning process;
- > use of external consultants' reports on risk, control and control effectiveness;
- > reviews by internal audit of the Enterprise Risk Management process and the Internal Control and Enterprise Risk Management Policy; and
- > incorporation of combined assurance processes into the ERM process.

## PHYSICAL RISK MANAGEMENT

ARM addresses and reports on physical risk, control and mitigation strategies separately from business risks to ensure specific and focused attention. These risks and controls are also captured in the risk register process.

It is through independent focused Balanced Scorecard and benchmarking processes implemented by ARM that the necessary emphasis is encouraged to ensure that physical risk and control initiatives are progressed, monitored and reported.

While ARM's risk management approach (recorded in the Internal Control and Enterprise Risk Management Policy) emphasises that ARM's general managers are directly accountable for the management of risk in the area under their individual control, ARM recognises that independent specialist expertise is necessary to guide and assist management in this area.

Appointed external consultants assist ARM's operations with objective independent reports which identify risks, rate and benchmark risk performance and provide appropriate risk improvement recommendations as follows:

### BALANCED SCORECARD PROGRAMME

The physical risk scorecard, developed from a strategic planning and general management application, grades operations against international best practice standards for risks associated with fire and explosion, flooding, mechanical engineering, electrical engineering, planned maintenance, security and risk management organisation.

## CORPORATE GOVERNANCE continued

The Balanced Scorecard is designed to meet ARM's risk management requirements, ensures alignment and consistency with the risk dashboard rating process and makes possible consistent monitoring and reporting of management assurance to all relevant internal and external stakeholders.

### BENCHMARKING PROGRAMME

The benchmarking surveys, conducted by the International Mining Industry Underwriters, measure each operation against an international benchmark of risk preparedness.

The value of the Balanced Scorecard surveys and benchmarking surveys to ARM's continuous improvement programme includes:

- > providing a reliable measurement of control performance, mitigation strategies and risk protection standards against which ARM can compare risk management performance;
- > allowing ARM and its operations to focus on high-risk areas;
- > helping to continually develop physical risk standards to international norms and ensures that ARM operations continue to meet and exceed international risk standards; and
- > focusing attention on risk protection systems – both automatic and manual – to promote consistency with recognised internationally accredited fire standards.

### RISK FINANCING/INSURANCE

ARM's risk financing strategy has remained constant over many years and continues to be aggressive in considering the extent of risk self-retained by both the operations and the Company as a whole.

This requires a mature approach to the management of controls and mitigation strategies in order to limit exposure to loss-producing events. This approach is both required and expected of management at all levels and is consistent with ARM's risk management philosophy.

The risk financing strategy focuses on delivering a cost-effective risk financing mechanism that will protect ARM (and its divisions and operating entities) against the financial consequences flowing from chance risk events.

Its aim is to increase the likelihood of ARM succeeding in reducing both the probability of failure and/or uncertainty around achieving its overall objectives.

ARM remains committed to mutually beneficial long-term relationships with its risk partners/underwriters and to continually developing relationships with responsible and financially sound risk carriers.

Processes and principles in place to achieve ARM's strategy:

- > identify and quantify each operation's Maximum Potential Loss (MPL) exposures and risk profiles (frequency and severity exposures);
- > ensure the availability of detailed and reliable risk and loss information;
- > use appropriate forecasting techniques to determine levels of predictability and optimal structure;
- > consider potential increased self-assumption of risk (by operations and ARM) to ensure efficient risk financing at all levels;
- > remove non-Group risk carriers from all but catastrophe exposures;
- > provide broad-based insurance protection with appropriate limits, to achieve a consistent approach to risk; and
- > use accumulated reserves (within captive and risk financing structures) with innovative structuring, to finance self-retained exposures and, where appropriate, to carry risks of a non-traditional nature.

### RISKS, OPPORTUNITIES AND CHALLENGES

In order to make informed decisions and take appropriate action, ARM and its stakeholders identify the issues material to the sustainability of the business. ARM determines these issues at board, executive and operational levels by considering financial and non-financial information, the issues driving the Company's sustainability and their possible impact on ARM and its stakeholders.

Having determined these material issues, ARM's comprehensive ERM process includes a detailed identification of risks ranging from process level risk assessments at individual operations, through to strategic, tactical and major operational risks at operational, divisional and Company level.

Quarterly reviews of strategic, tactical and major operational risks include a specific focus on the efficacy of controls (and mitigating strategies) relating to the identified risks; actions that may be required to improve the control effectiveness; record of any change to risk profiles; recognising new and emerging risks and any increased risk velocity (risks that require immediate management focus).

A graphical representation of risks regarded as principal risks, opportunities and challenges is presented on pages 181 to 184 providing ARM's view of Inherent Risk (before the application of controls), control effectiveness and the resultant Residual Risk profile (after application of controls/mitigation strategies).

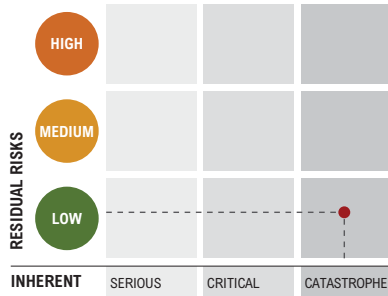
Also see Our Most Material Matters which are summarised on pages 10 to 13.



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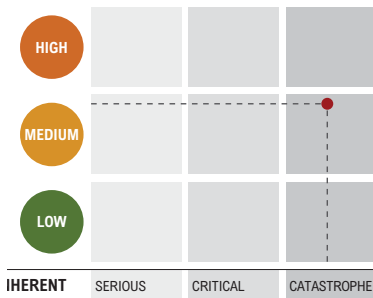
## PRINCIPAL RISKS FOR ARM

### SAFETY AND HEALTH CONTROL EFFECTIVENESS: GOOD



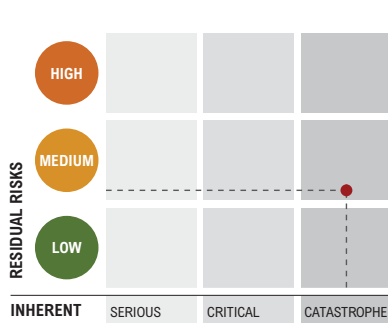
ARM is acutely aware of the risks associated with our mining and smelting operations. We value the health and wellbeing of all our employees, and the effectiveness of our safety and health management and reporting structures is paramount. Each divisional chief executive is tasked with ensuring the safety and health of all of our employees and that our contractors are appropriately managed. Leading the effectiveness of this function is our Executive: Sustainable Development, who reports directly to our Chief Executive Officer.

### LONG-TERM BUSINESS STRATEGY CONTROL EFFECTIVENESS: GOOD



To mitigate any risk that our long-term strategic planning may present, ARM has robust but flexible strategy and growth management processes in place. These include a Growth and Strategic Development Committee, whose members are all senior executives of ARM. Specialist consultants are periodically involved, where appropriate, to provide input, focus and assurance. The ARM Board reviews strategy at an annual Bosberaad and budget workshop and also reviews actual results against plans at each Board meeting.

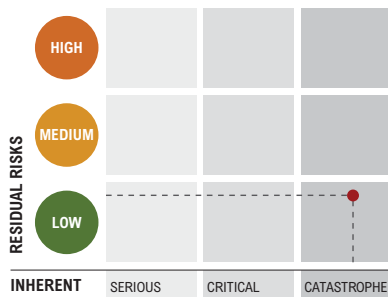
### REGULATORY AND LEGAL COMPLIANCE CONTROL EFFECTIVENESS: GOOD



ARM recognises that ensuring regulatory and legal compliance requires ongoing detailed attention in all areas. To formalise and improve monitoring and reporting of legal compliance, a legal compliance function is in place and is monitored by the Management Risk and Compliance Committee and the relevant areas of responsibility reported to the Audit and Risk Committee and Social and Ethics Committee. The Code of Conduct sets out the requirement of legal compliance for all employees and provides for the implementation of the Legal and Regulatory Compliance Policy.

A Combined Assurance Model is in place and various assurance providers are engaged to provide assurance on legal compliance.

### KEY SKILLS/EXPERIENCE CONTROL EFFECTIVENESS: GOOD



ARM recognises that its success depends on our ability to attract, retain and develop suitably skilled and qualified employees. To achieve this, we have attractive short-term and long-term incentive schemes which we regularly review and improve. We also have appropriate retention policies, graduate professional programmes and the focused training of artisans for the development of key technical skills we require. ARM continues to strive to be an employer of choice and has been acknowledged as a leading employer in the Global "Top Employer" awards. See pages 42 to 45 of the Sustainability Review.



CORPORATE GOVERNANCE continued

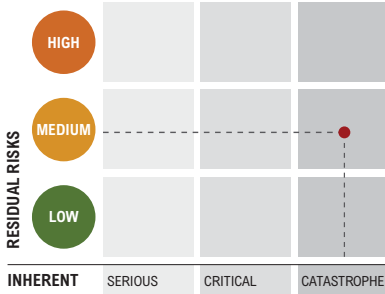
CLIMATE CHANGE				CONTROL EFFECTIVENESS: GOOD
RESIDUAL RISKS	HIGH			<p>The Executive: Sustainable Development monitors and provides guidance on SHEQ issues. Action plans include a strategic review of the Group's climate change risks, initiatives and approach. We are aligning our climate change policy with International Council on Mining and Metals climate change developments. In developing our climate change policy we are also considering the possible impact of climate change on ARM with the aim of developing a policy that will address its potential long-term impacts.</p> <p>The risk has reduced substantially due to the reduction in the number of furnaces operating at our smelting operations.</p>
	MEDIUM			
	LOW			
INHERENT	SERIOUS	CRITICAL	CATASTROPHE	

STAKEHOLDER RELATIONSHIPS				CONTROL EFFECTIVENESS: SATISFACTORY
RESIDUAL RISKS	HIGH			<p>ARM recognises the risk to its business environment of having ineffective relationships with our various stakeholders. We identify, develop and maintain multiple relationships with various stakeholders at all levels within ARM. See Our Key Stakeholders on pages 32 to 33.</p>
	MEDIUM			
	LOW			
INHERENT	SERIOUS	CRITICAL	CATASTROPHE	

LABOUR RELATIONS				CONTROL EFFECTIVENESS: SATISFACTORY
RESIDUAL RISKS	HIGH			<p>Stakeholder engagement processes associated with labour relations enjoy focused attention and this, together with our approach of regularly engaging with trade unions from national to branch level, has helped us foster positive labour relations. Specific actions we have taken that have contributed to sound labour relations include ensuring resolution of grievances and concerns; having employment practices that recognise and deliver on transformation imperatives; and providing well-structured competitive remuneration packages. ARM has multi-year wage agreements in place at most operations. See additional information regarding ARM's "Top Employer" status, on page 44 of the Sustainability Review.</p>
	MEDIUM			
	LOW			
INHERENT	SERIOUS	CRITICAL	CATASTROPHE	

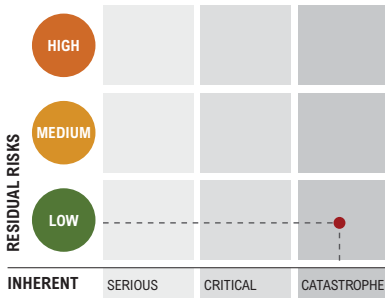
PRESSURE ON MARGINS/CONTINUED COST ESCALATION				CONTROL EFFECTIVENESS: SATISFACTORY
RESIDUAL RISKS	HIGH			<p>Continued cost escalation pressures place considerable pressure on margins. ARM counters this with productivity improvements, various cost reduction and efficiency initiatives and increased oversight by operational and executive management through ongoing review of production, costs and control initiatives. ARM's objective is that all operations should be below the 50th percentile of the global cost curve (based on steady-state production) and we benchmark our operations against the global cost curve. See pages 11 and 15 for additional information about the position of ARM's commodities on the cost curve.</p>
	MEDIUM			
	LOW			
INHERENT	SERIOUS	CRITICAL	CATASTROPHE	

**CAPITAL ALLOCATION** **CONTROL EFFECTIVENESS: GOOD**



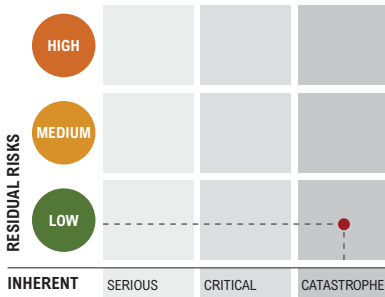
Capital expenditure across all operations continues to be reviewed with the aim of reducing or deferring capital expenditure. Due consideration is given to ensure that capital expenditure deferrals or reductions do not adversely affect operations or negatively impact value in the long term. ARM's Investment Committee considers substantial investments, including mining projects, acquisitions and disposals of assets and makes recommendations to the ARM Board.

**EFFECTIVE TRANSFORMATION** **CONTROL EFFECTIVENESS: GOOD**



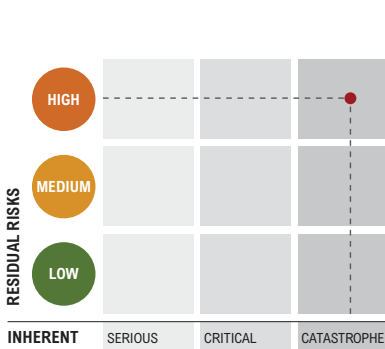
Transformation is one of ARM's core values and we actively strive to make a meaningful contribution to transformation in the South African mining industry. We have Social and Labour Plans (SLPs), Corporate Social Investment (CSI), Local Economic Development (LED) and enterprise development budgets in place as well as transformation plans and projects. We have introduced improved compliance monitoring of our SLPs. Our smelter operations have approved transformation plans and our mining operations have defined and submitted their SLPs as part of their mining licences. See Corporate Social Responsibility on pages 58 and 59 of the Sustainability Review.

**ETHICS AND REPUTATION** **CONTROL EFFECTIVENESS: GOOD**



ARM's strong commitment to ethical behaviour and the steps we take to encourage and monitor ethical behaviour throughout our operations are summarised on page 171 of the Corporate Governance Report.

**COMMODITY PRICES AND GLOBAL DEMAND** **CONTROL EFFECTIVENESS: LESS CONTROL**



Global commodity markets continue to be challenging as evidenced by low commodity prices which have persisted over the past couple of years. In recent months US Dollar prices for most commodities have been increasing, the benefit of which has been offset by the strengthening of the Rand versus the US Dollar. The recovery in commodity prices is expected to be relatively slow.

ARM manages the impact of lower commodity prices by proactively focusing on the areas within management's control. These include improving operational efficiencies and reducing unit costs, prudently deferring or reducing capital expenditure without negatively impacting the long-term value of operations, optimising working capital and restructuring loss-making operations.

CORPORATE GOVERNANCE continued

EXCHANGE RATE FLUCTUATION				CONTROL EFFECTIVENESS: LESS CONTROL
RESIDUAL RISKS	HIGH			<p>Changes in the Rand/US\$ exchange rate are a risk/opportunity affecting revenue. ARM does not engage in currency hedging other than for the purchase of long lead-time capital equipment and where necessary for project funding.</p>
	MEDIUM			
	LOW			
INHERENT	SERIOUS	CRITICAL	CATASTROPHE	

RESOURCE NATIONALISM, POLITICAL AND FISCAL RISKS				CONTROL EFFECTIVENESS: LESS CONTROL
RESIDUAL RISKS	HIGH			<p>The risk/opportunity associated with potential changes in legislation, regulations, taxes or royalties affecting the mining industry continue to be considered and monitored by ARM. We maintain relationships with key stakeholders, and are involved in initiatives and represented by the Chamber of Mines on issues associated with the mining industry. Our approach to our relationship with stakeholders associated with these risks is explained under Our Key Stakeholders on pages 32 and 33.</p>
	MEDIUM			
	LOW			
INHERENT	SERIOUS	CRITICAL	CATASTROPHE	

INFRASTRUCTURE ACCESS AND CAPACITY: RAIL AND PORT LOGISTICS				CONTROL EFFECTIVENESS: LESS CONTROL
RESIDUAL RISKS	HIGH			<p>Logistics constraints and access to rail and port capacity are challenges/opportunities which can affect our ability to meet demand for our commodities and may have a material impact on the timing of strategic export growth initiatives planned for our manganese, iron ore and coal operations. ARM is actively involved in commodity and logistics industry initiatives, including being an active member of a commodity-specific steering committee which regularly meets with Transnet on these issues.</p>
	MEDIUM			
	LOW			
INHERENT	SERIOUS	CRITICAL	CATASTROPHE	

SECURITY OF ENERGY SUPPLY				CONTROL EFFECTIVENESS: LESS CONTROL
RESIDUAL RISKS	HIGH			<p>The security of supply of electricity (both in respect of cost and current and future capacity) presents a challenge particularly in relation to our ferromanganese smelters which are intensive users of electricity albeit that many smelters have been placed on care and maintenance. Our operations continue to implement energy-efficiency plans and to explore co-generation opportunities and other alternative energy sources. The ARM Ferrous Division (Assmang) is a member of the Energy Intensive User Group.</p>
	MEDIUM			
	LOW			
INHERENT	SERIOUS	CRITICAL	CATASTROPHE	