INTEGRATED ANNUAL REPORT

for the year ended 31 December 2021

JSE

CONTENTS

Page reference for additional reading in this report.
Reference to online data at https://www.jse.co.za/investor-relations/results.
00 Indicates the relevant King IV principle, which is summarised on page 141.

MATERIAL MATTERS

OUR MATERIAL MATTERS SHAPE OUR GROUP STRATEGY AND SERVE AS A FILTER FOR DETERMINING THE MATERIAL INFORMATION TO BE INCLUDED IN THIS REPORT.

JSE Limited (the Group or the JSE) revisits material matters annually in the fourth quarter of the year. The material matters are workshopped by senior management and approved by the Board of Directors (Board). This process considers stakeholder needs, the macro-environment and the Group's business drivers, risks and opportunities. Our 2021 assessment refined the 2020 material matters with the following changes:

- Material matters were renamed to clarify intent.
- Calibre of oversight and regulation and regulatory compliance were incorporated in attractiveness of the JSE as a capital raising destination due to its impact on how the JSE is perceived in this regard.
- Market concentration was incorporated in attractiveness of the JSE as a capital raising destination and the level of trading activity as it directly impacts both.
- Interdependency of the capital market ecosystem was incorporated in enabling technology to provide innovative solutions as these matters are interlinked.
- Transformation and socio-economic advancement is no longer a material matter as it is part of the JSE's approach to business, enshrined in its mission, purpose and strategy to create a diverse group over time to support value creation. Refer to the business model (page 11), the JSE's strategy (page 27) and the transformation and socio-economic advancement chapter (page 76).

Level of our control over the matter

H high **M** medium **L** low

Change in level of impact since 2020

Increased impact ▲ Unchanged impact ▶

1

M ▲

Attractiveness of the JSE as a capital raising destination

The JSE's sustainability depends on a healthy Primary Market where the Exchange is seen as an attractive venue for raising capital. Perceptions about the Exchange's attractiveness are impacted by its:

- ability to provide and oversee an effective regulatory environment;
- own compliance to regulations;
- approach to environmental, social and governance (ESG) matters, both through its regulations and its advocacy role; and
- high local market concentration.

pages 3 and 4

2

M ▲

Level of trading activity

The value of and number of transactions directly impact financial performance. The level of trading activity and market quality are assessed through measuring liquidity, transparency, price discovery and transaction costs, among others. Trading activity is impacted by:

- the local and global macro-economic environment. The South African market is also highly event driven, impacting volatility;
- the influence of the South African political environment and fiscal stability;
- emerging markets sentiment and our relevance in financial markets; and
- the Capital Markets' client concentration in number of investors and depth of capital available.

pages18 to 19, 34 to 35 and 55 to 61

3

H ▲

Operational availability and stability

The JSE's ability to operate trusted markets depends on its ability to provide a reliable, stable and secure trading and clearing environment that is competitive and meets its clients' requirements. The reliability, effectiveness and efficiency of systems, processes, controls and employees have a direct impact (positive or negative) on the JSE's reputation and earnings.

In addition, the JSE's complex operating ecosystem and dependency on third parties can impact strategic project execution, or the speed thereof.

pages 21 and 69 to 71

4

H ▲

Enabling technology to provide innovative solutions

Future value creation is impacted by the extent to which the JSE can be nimble and agile in adopting or deploying relevant new technology that is cost effective and aligned with clients' requirements. The interdependency with key stakeholders, including suppliers and clients, impacts the JSE's ability to deliver these solutions and their time to market.

pages 72 to 75

5

H ▲

Attractiveness of the JSE as an employer

The JSE needs to attract, retain and develop a motivated, skilled and diverse workforce that is suited to its current and future needs. This includes scarce and specialised skills in regulation, operations, technology and futuristic thinking. Being an attractive employer requires progressive policies considering the changing work landscape.

pages 81 to 92

6

H ▲

Robust clearing and settlement for all transactions

The JSE's systems and processes must ensure that cash equities transactions are settled within three days while achieving simultaneous, final and irrevocable delivery versus payment.

Regulation requires the JSE to provide settlement assurance for trades executed on the central order book. It means the JSE has to maintain sufficient capital on its balance sheet to protect against a default event.

pages 52 and 62 to 63

7

M ▶

Competition and disruptors

The JSE faces local and global competition as an investment destination, and competes against organisations that provide alternative capital raising, trading, clearing or settlement platforms and data functions. The traditional stock exchange business lines are impacted by technological and behavioural disruption and changes in regulation.

page 22

CHAIRMAN'S REPORT 2021

Nonkululeko Nyembezi
Chairman

The forces shaping the operating environment, performance and outlook

While the impact of the COVID-19 pandemic was the defining feature of global markets in 2020, vaccinations have been the headline feature of 2021. Thanks to large-scale vaccine rollouts, pandemic waves are becoming more predictable and manageable. The world experienced a quicker than expected rebound with significant growth in major economies. We have seen rising inflation, continued stimulus, renewed consumer demand and high commodity prices which buoyed strong company earnings in several sectors.

Many emerging markets underperformed in 2021 due to regulatory action in China, concerns regarding Evergrande, electricity shortages in several markets,

We operate in an era of disruption and disintermediation, driven by advances in technology, while our markets are becoming increasingly fragmented, with competition from traditional and non-traditional participants. This underlines the need for revenue diversification at a faster and more responsive pace. I am pleased to see the contribution to these results from our most recent acquisition of JSE Investor Services, and I am sure that JIS and the Globacap investment will be important contributors to the Group's future growth – in much the same way that the Safex and BESA acquisitions in the 2000s served as a step-change in our early growth.

supply chain disruptions and the lingering effects of COVID-19. However, I believe the outlook for 2022 is brighter. Strong global growth is positive for emerging market equity, which tends to fare better when demand for commodities and exported goods is robust. The World Bank predicts that sub-Saharan Africa will grow by 3.6% and 3.8% in 2022 and 2023, respectively. This growth relies in part on vaccine rollouts gaining momentum. At present, vaccination rates are low, reflecting Africa's relatively poor access to vaccines compared to the developed world.

South Africa benefited from the recent commodity boom driven by re-opening economies and stimulus-induced demand. Solid agricultural and mining production led to higher-than-anticipated tax revenues and support for social spending. Unfortunately, this recovery was almost entirely driven by external factors with no meaningful change in the structural weaknesses that continued to weigh down the country's growth prospects.

According to the International Monetary Fund, the South African economy grew by 5% in 2021 after contracting by 6.4% in 2020. Our economy is still smaller than it was in 2019. In 2022, growth is expected to slow to 2.2%. Given prevailing macro-economic pressures, growth predictions beyond 2022 are within a range of 1% to 1.55%. This is in line with a longer-term stagnation trend, which needs to be addressed to transform South Africa for the better. Unemployment, particularly among the youth, remains persistently and unacceptably high.

Our society has not effectively provided for the economic needs of a large proportion of the population. South Africa's socio-economic challenges have created an environment ripe for social unrest. In July, South Africa experienced a deeply unsettling outbreak of violence in KwaZulu-Natal and Gauteng. While political events provided the spark, the unrest is rooted in crippling levels of poverty and unemployment. The physical damage of the riots was estimated between 0.5% and 1% of gross domestic product.

South African businesses face continued challenges, including uncertain power supply, continued load shedding and the possibility of a country-wide blackout.

This requires resilience, risk management and planning for the worst-case scenario. While a blackout remains an improbable event, the Financial Sector Contingency Forum, of which the JSE is a member, has plans in place to oversee an orderly shutdown and restart of capital markets. In March 2021, the JSE participated in a country-wide, multi-sector simulation exercise alongside other financial sector players.

The JSE's performance and outlook are inextricably linked to South Africa's macro-economic environment. We know that markets with high new listings activity typically have supportive economic growth and supportive policy. In South Africa, significant policy reforms and a step-change in economic growth remain the most potent tools to grow the market.

The JSE is an attractive capital raising destination

A perennial challenge for exchanges is remaining relevant and appealing as a capital raising destination. While our operating conditions have changed significantly over the last two years, disruption in the exchange environment is not new. Like the JSE, our global peers face similar questions on responding to critical challenges. The JSE is concerned about the current delisting trend and slow listings environment. It should be noted that globally most initial public offerings have been technology stocks; South Africa's operating environment appears not to be conducive to technology listings.

Significant policy reforms and a step-change in economic growth remain the most potent tools to grow the market.

CHAIRMAN'S REPORT 2021 continued

The JSE has several initiatives to ensure the success and growth of the Group.

Addressing the demand for non-traditional asset classes

The JSE is exploring a **private market solution** with leading fintech company Globacap Technology to address the growing demand for non-traditional asset classes. This meets the needs of companies, which need to raise capital but wish to remain private. JSE Private Placements (JPP), a 100% JSE-owned subsidiary, will develop and operate this solution.

Growing and supporting the local SME segment

High potential small and medium-sized enterprises (SMEs) form tomorrow's listings pipeline. We have launched the **JSE Ignite Accelerator Programme**, an initiative to fast-track SME growth by addressing funding readiness and market access. Once scaled, the programme will contribute to the growth of this crucial segment of our economy.

The JSE kicked off the first steering committee meeting for the **SME Convener Association** in the Western Cape. The association aims to facilitate an ecosystem partnership between government institutions, large corporates and the SME development sector. Together, the accelerator programme and private market solution will drive the sustainable growth of the SME sector and the JSE.

Ensuring regulatory requirements add value

The JSE published a consultation paper titled ***Cutting Red Tape*** to gather stakeholder views on effective regulation. Our objective is not to lower standards but rather to amend or remove requirements where little regulatory value is added. This paper was well-received, with positive comments from various respondents. Feedback will be incorporated in the new JSE Listings Requirements (Listings Requirements).

Facilitating responsible investing

The JSE's **Sustainability Segment** provides a platform for companies to raise funding for green, social and sustainable initiatives. The JSE aims to expand its Sustainability Segment offering and introduce a new Transition Segment. The **Transition Segment**, to be launched in 2022, will cater for companies raising funds for climate transition related purposes.

Attracting new foreign listings

We are proactively pursuing **inward listing** opportunities with several African and international exchanges. We have the existing fast-track secondary listings regime with selected stock exchanges placed on an approved list to simplify secondary listings.

Supporting SA Inc

We expanded the **SA Tomorrow** conference to investors in the United Kingdom, Middle East and South-East Asia. At this meeting, the private and public sectors collaborated to promote South Africa as an attractive investment destination. Feedback has been highly positive, especially from international investors who engaged with policy makers and corporate leaders.

Leading the ESG conversation

As we have seen globally, ESG considerations have become a top priority for investors. An analysis by Bloomberg Intelligence[1] reveals that global ESG assets are on track to exceed $53 trillion by 2025, representing more than a third of the $141 trillion in projected total assets under management. Ultimately, we foresee a day when all investing will be ESG investing, and it will no longer be considered a separate discipline.

Stock exchanges can encourage a shift towards sustainable behaviour by advising on a systematic approach to ESG in corporate reporting, promoting global corporate governance codes and standards and offering products and services that support responsible investing.

As a regulator, our current approach to ESG is to incorporate King IV into our Listings Requirements. This aims to ensure that boards identify all material matters, including ESG matters. The JSE's future approach to climate change reporting will be influenced by critical national decisions and progress made by the International Financial Reporting Standards (IFRS) Foundation on sustainability standards and the direction taken by the International Organization of Securities Commissions.

The JSE takes a leadership position on ESG matters on local and global advocacy and engagement platforms. We lead on the national agenda by influencing policy and providing guidance on greenhouse gas (GHG) emissions and environmental reporting.

Our approach to ESG is shaped by market needs. We guide our clients on the importance of incorporating ESG metrics in investment considerations and providing products and services, including our Sustainability Segment, that facilitate responsible investing. We collaborate with the market to increase our passive responsible investment products suite and provide ESG-related training.

Within our sphere of influence, we can contribute to emissions reductions by engaging with listed companies, clients, and suppliers regarding adopting the Science Based Targets Initiative and the importance of setting GHG emission targets. The JSE is preparing a guidance document for listed companies premised on the Task Force on Climate-related Financial Disclosures (TCFD) framework and based on the Sustainable Stock Exchange Initiative's Climate Disclosure Model Guidance.

Shareholder engagement in 2021

In May 2021, the JSE hosted a roadshow to understand our institutional shareholders' views on important governance and remuneration matters.

While shareholders broadly support our Remuneration policy, some raised concerns that the remuneration structure remains too short-term-focused. Shareholders would like a greater emphasis on long-term variable pay and clear metrics for the short-term incentive scheme and have some concerns regarding the weighting of the strategic metric in the 2018 long-term incentive scheme. These are essential conversations and will foster a comprehensive review of our Remuneration policy, focusing on long-term incentives and stretch targets. For more information, refer to page 87 and the online renumeration report.

Shareholders welcomed the carefully considered approach to my succession and the choice of incoming Chairman. They were interested in learning more about the Board's diversity targets and the process to appoint new directors. In general, they were supportive of the JSE's approach to Board diversity and new director appointments.

Shareholders were also keen to see the JSE incorporate ESG targets more explicitly in the corporate scorecard while providing detailed reporting on the targets and metrics used to arrive at short-term incentive outcomes. For more information, refer to pages 31 and the online remuneration report.

[1] https://www.bloomberg.com/professional/blog/esg-assets-may-hit-53-trillion-by-2025-a-third-of-global-aum/

Working towards the JSE of tomorrow

We operate in an era of disruption. Technological and behavioural changes continually disrupt traditional stock exchange business lines. This underlines the need for revenue diversification at a faster and more responsive pace.

Markets are increasingly fragmented, with competition from traditional and non-traditional participants. Off-exchange flows and alternative venues continue to gain momentum. In South Africa, we see more investment flows being directed offshore. Technology continues to open up more opportunities and considerations. COVID-19 has further accelerated automation and other technology solutions. The demand for big data, open application interfaces, and distributed ledger technology are key themes in financial markets.

Emerging exchange trends include the digitisation of assets, service-enhancing acquisitions, growing data capability and new solutions for Post-Trade Services.

The JSE constantly scans the marketplace for threats and opportunities and endeavours to have a deliberate rather than reactive response to them. To win in a highly competitive and changing environment, the JSE's strategy is built around increasing scale, protecting core assets, continued digital transformation, diversifying its revenue sources, and ensuring cost-effective products and services. This growth strategy includes providing flexible and highly customisable market data services, using new technologies to give clients exactly the data mix that they require. This environment demands that we adopt an open innovation mindset that considers global technology companies and fintech start-ups as possible partners.

I believe the JSE of tomorrow will be less of a traditional stock exchange and more of a digital platform provider that provides direct access to a broader asset range. It is hard to predict precisely how this will look like: disruption can come from anywhere, and market forces may shape the JSE in unpredictable ways. What is certain is that the JSE will be truly collaborative. We are embracing an extensive ecosystem strategy and an open-platform approach to third-party content and service providers. Through organic and acquisitive growth, diversification will continue to be a key theme. Here, the emphasis will be on annuity rather than transactional revenues.

Appreciation and welcome to the new Chairman

I want to thank my fellow Board members for their sound counsel during the past few turbulent years. I have enjoyed our engagements and the relationships we have built. I thank my JSE colleagues for their dedication, energy and innovative thinking. This is a unique organisation thanks to the high calibre of its employees.

As announced in May 2021, Phuthuma Nhleko, the former CEO and executive chairman of MTN Group, joined the Board as an independent non-executive director and chairman-designate. At the annual general meeting in May 2022, Phuthuma will assume the role of Chairman.

Phuthuma has extensive experience, both in South Africa and globally, in telecommunications, organisational strategy development, operations, mergers and acquisitions, corporate finance and executive leadership. He has also served on the boards of several listed companies, including Nedbank, Anglo American and BP. On behalf of the Board, I welcome him to his new role and look forward to the new perspectives and energy that he is sure to bring. I am confident that the JSE will continue to advance our vision of growing shared prosperity.

Reflecting on seven years as the JSE Chairman

I joined the Board in June 2009, as the JSE was emerging from the global financial crisis, and took over the reins as Chairman in June 2014. Group revenue has grown from R1.255 billion in 2010 to R2.577 billion this year. This revenue is increasingly diversified. In 2010, 64% of our revenue was attributed to Capital Markets, while today, this percentage is 44%. Both Post-Trade Services and Information Services have experienced healthy growth rates.

Acquisitions have been critical to our growth and diversification. These include Globacap Technology, Link Market Services South Africa (rebranded as JIS), and the Investec Share Plan Service. In 2009, the JSE acquired the Bond Exchange of South Africa. This transaction demanded regulatory approval, intensive market engagement, and the exchange's integration into the JSE Group. It was a challenging but worthwhile transition.

During my tenure, I have overseen the JSE deliver large-scale integrated technology projects to enhance trading and clearing while reducing the end-to-end cost of trading. This included developing the new colocation data centres, implementing the new equity trading platform, and implementing the integrated clearing and settlement project. The move towards the globally accepted T+3, or the settlement of cash equities transactions within three days was a highlight. The success of these projects is due in large measure to Board support, unwavering commitment from JSE team members and strong collaboration with clients.

In these years, I have seen the continued rise of exchange-traded funds, first introduced on the JSE in 2000, a growing appreciation of ESG in investing and a steady heartbeat of product and service launches. I also witnessed the entry of local exchange competition and was involved in navigating our response to the change to the twin peaks model of financial regulation in South Africa. Two highlights include the successful CEO succession from Nicky Newton-King to Dr Leila Fourie and presiding over the JSE's evolution to becoming a highly dependable dividend stock.

During my time on the Board, I have worked with three exceptional and very different group chief executive officers. Russell Loubser played an important role in laying the strategic foundation for the exchange, including spearheading the JSE's listing in 2006. Nicky modernised the JSE by overseeing the implementation of major projects including T+3 and the implementation of integrated trading and clearing software. Leila is leading the JSE's diversification strategy to take the business into the future.

Leila was appointed to her position in October 2019, a few months away from the COVID-19 outbreak. She has made steady progress on our strategy execution in this difficult time. Her leadership throughout COVID-19 has been exemplary.

Nonkululeko Nyembezi
Chairman

Welcoming the new Chairman

Financial markets and the exchanges that serve them continue to experience profound change, driven by innovation and advances in technology. The JSE is not immune to such forces. Having embarked on a growth strategy, the Exchange now stands at an inflexion point as it considers how best to advance its growth ambitions. I am excited, and honoured, to join the JSE at this stage in its journey.

Nonkululeko has guided the organisation and the Board with great skill, deftly navigating the challenges of the past decade. We pay tribute to her leadership and look forward with anticipation to the next chapter in our story.

(Phuthuma Nhleko joined the Board as an independent non-executive director on 1 July 2021, and assumes the Chairmanship of the Board on 4 May 2022)

Board approval 05 15

The directors of the JSE acknowledge responsibility for the integrity of this integrated annual report (report). The Board, supported by the Group Audit Committee (GAC) endorsed the reporting frameworks utilised in this report and approved the material matters determined by management.

The directors have applied their minds to the report and believe that it covers all material matters, that the information contained in this report is reliable and that it fairly presents the integrated performance of the Group.

Nonkululeko Nyembezi
Independent non-executive Chairman

Phuthuma Nhleko
Independent non-executive Chairman-designate

Dr Suresh Kana
Lead independent director

Zarina Bassa
Independent non-executive director

Siobhan Cleary
Independent non-executive director

Nolitha Fakude
Independent non-executive director

Faith Khanyile
Independent non-executive director

Ian Kirk
Independent non-executive director

Ben Kruger
Independent non-executive director

Dr Mantsika Matooane
Independent non-executive director

Dr Leila Fourie
Executive director (Group Chief Executive Officer)

Aarti Takoordeen
Executive director (Chief Financial Officer)

HOW THE JSE CREATES VALUE

Our value creation process is embedded in our vision of growing shared prosperity and driven by our strategy.

The JSE is a self-regulatory[1] multi-asset class stock exchange that offers listings, trading, clearing and settlement (post-trade), and information services, as well as issuer services. The JSE is based in South Africa and is the largest stock exchange by market capitalisation in Africa and the 16th largest stock exchange in the world. It has been operating as a marketplace for the trading of financial products for 135 years.

Our purpose	Our vision	Our mission	Our values	Our ethical culture
People with passion, powering a trusted marketplace for an inclusive and prosperous future.	Growing shared prosperity.	To be the best globally connected platform for inclusive and sustainable value creation that enriches lives and enables a positive future.	We deliver on our purpose through our core values of servant leadership, connecting for co-creation and growing together.	We remain focused on adhering to the applicable legislation and being an ethical, environmentally responsible business.

R9.7 bn **Market capitalisation (JSE Limited)**
(2020: R9.8 billion)

1 108 **Securities available on the JSE**
(2020: 1 003)

61% **Average liquidity[2] (JSE Limited)**
(2020: 61%)

288 **Companies listed on the Main Board (2020: 300), including 62 foreign domiciled companies**
(2020: 69)

The JSE is uniquely positioned as a:

- **critical product and service provider to South Africa's financial market;**
- **facilitator between those who provide capital, those who need capital to fund their businesses and those who rely on returns for short, medium or long-term purposes; and**
- **frontline regulator of the financial markets that it operates.**

[1] *The JSE is a self-regulatory organisation (SRO), licensed in terms of section 8 of the Financial Markets Act, 19 of 2012 and responsible for regulating the financial markets that it operates.*
[2] *Liquidity is the ratio between total value traded and market capitalisation annualised.*

HOW THE JSE CREATES VALUE continued

The need for financial markets

Exchanges and clearing houses are critical role-players in a market economy, fostering economic growth and strengthening market integrity. As market infrastructures, they enable the efficient allocation of capital by providing the marketplaces for raising capital and to connect buyers and sellers.

South Africa is a developing country with a number of social and economic challenges:

- low growth, high unemployment and high levels of inequality;
- high and increasing dependence on social welfare payments for income;
- increasing government debt and a growing account deficit; and
- low levels of domestic savings.

The solution to all of these challenges lies directly or indirectly in financing.

The JSE's role

The JSE's integral function is to:

- provide facilities for the listing of securities (including securities and debt securities issued by domestic or foreign companies); and
- provide the JSE's users with an orderly marketplace for trading in such securities and to regulate the market accordingly.

1. **As a critical service provider to South Africa's financial markets**, the JSE provides a cost-effective, efficient, well-regulated, transparent and trusted platform for financial transactions to take place. These contributions are among the tools needed to spur growth and deal with the challenges South Africa faces and to enable value creation.

2. **As an interface between those who provide capital and those who need capital,** the JSE actively promotes sustainable, transparent business and responsible investment, including:

   - being a global thought leader in the field of governance and sustainability and the related standards and disclosure;
   - evolving and expanding our responsible investment product offering through indices, bonds and other initiatives; and
   - continued enhancement of regulatory regimes and disclosure to ensure that investors are equipped with transparent information to make informed investment decisions.

We connect buyers and sellers through financial products, supported by world-class technology and regulatory oversight.

ISSUER SERVICES

- Venue hire
- Training
- Annual general meeting facilitation
- Secretarial and registry services

JSE INVESTOR SERVICES

- Share registry, custody and investor service provider, maintaining the registers of listed and unlisted companies

LISTING SERVICES

Primary Market

TRADING SERVICES

Secondary Market

- Equity Market
- Equity Derivatives Market
- Currency Derivatives Market
- Interest Rate Market
- Commodity Derivatives Market

INFORMATION SERVICES

Promotion, licensing and sale of data and statistics

POST-TRADE SERVICES (equity and bond market)

- Clearing and settlement services
- Broker-Dealer Accounting services

JSE CLEAR

CCP for Derivatives Market only

REGULATORY OVERSIGHT OF MARKET ACTIVITIES | The JSE is an SRO and a frontline regulator of issuers and trading and clearing members through the Issuer Regulation and Market Regulation divisions (pages 64 to 65).

- The Issuer Regulation division owns the Listings Requirements and their interpretation, application and enforcement (page 66).
- The Market Regulation division oversees trading in the JSE's markets to identify potential market abuse, including insider trading and market manipulation (page 65).

TECHNOLOGY INFRASTRUCTURE | Fully electronic, efficient and secure market with world-class regulation, trading and clearing systems, settlement assurance and risk management (pages 72 to 75).

Operational enablers | Services/activities | Asset classes

Our products and services

CAPITAL MARKETS (page 55)

Capital Markets operates the markets under the JSE's exchange licence.

Primary Market

Seeks new equity and debt listings on the JSE's Equity and Interest Rate Markets.

Secondary Market

Provides trading, colocation and client support services in the Equity, Bonds, Financial Derivatives and Commodity Derivatives Markets.

The Equity Market provides trading in equities. Products include primary and dual-listed ordinary shares, preference shares, depository receipts, property entities like real estate investment trusts, special-purpose acquisition companies, warrants, structured products and exchange-traded products (exchange-traded funds (ETFs) and exchange-traded notes (ETNs)).

The Equity Derivatives Market includes index and single-stock futures and options, can-do futures and options, exchange-traded contracts for difference and other sophisticated derivative instruments.

The Currency Derivatives Market offers derivative instruments on a range of currencies.

The Interest Rate Market provides cash bonds, floating rate notes, commercial paper and hybrid instruments, interest rate derivatives and a green bond segment.

The Commodity Derivatives Market offers a range of cash-settled rand denominated derivatives on various local and international benchmark commodities, including softs, energy and various metals, as well as beef carcass, Mexican white maize, lamb carcass and wool futures contracts.

How money is made (Primary Market)

Fees for new issuances, annual listing fees for existing issuers and documentation fees for dealing with specific corporate actions that companies undertake.

How money is made (Equity Market)

Trading fees* are charged for value traded on a tiered basis:

- Six cascading tiers with a trade cap of R525.93 for central order book trades (range: 0.48 to 0.37 bps)
- Complex order suite: 0.48 bps, with a R525.93 cap
- Rest of reported trades: 0.48 bps, with a R525.93 cap.

Rental is charged for colocation racks across all markets, not just the Equity Market.

How money is made (Equity Derivatives, Currency Derivatives and Interest Rate Markets)

Revenue is generated through a range of fee models based on the number of contracts traded, the market value of transactions or the value of the applicable index.

In order to promote on-screen trading, the fee associated with on-screen trading is normally lower than that for reported trades.

How money is made (Commodity Derivatives Market)

A fee per contract traded, based on the underlying instrument.

A fee per ton of grain physically delivered.

* *Pricing for 2022, VAT inclusive.*

Our products and services (continued)

POST-TRADE SERVICES

(page 59)

Responsible for the risk management, clearing and settlement assurance of markets operated by the JSE. The JSE acts as the settlement authority for the exchange-traded Equity Market and as the clearing house for the exchange-traded Derivatives Market (via the central counterparty (CCP), JSE Clear Proprietary Limited (JSE Clear)).

Post-Trade Services

- Manages key risks, particularly counterparty credit risk, credit contingent market risk and liquidity risk, through a comprehensive risk management framework. It provides accurate measurement, control and appropriate protection from all identifiable risks arising in the markets cleared.
- Manages the broker dealer accounting back-office services (BDA) for the Equity Market. BDA provides the JSE with surveillance capabilities, allowing the JSE to see certain transactions to client level in real time. Equity members are mandated to use the system, which keeps the securities records and books of individual broking firms and their clients. The system enables the JSE to provide settlement assurance for central order book equity transactions.

How money is made

A clearing and settlement fee* is charged on equity trades, set at a 0.0036% value-based charge, with a maximum fee per transaction leg of R225.18.

In the Derivatives Markets, the clearing and settlement fee is incorporated into a single bundled contract fee (including a trading fee), and is accounted for in the Capital Markets division. A risk management fee is derived based on the margin collected for derivatives transactions (a percentage of the interest earned on the investment of the margin).

BDA revenues are somewhat linked to the number of equity transactions that take place on the Cash Equity Market. BDA transaction fees are mostly charged on a per BDA transaction basis, while connectivity, subscription and dissemination fees are charged separately.

* *Pricing for 2022, VAT inclusive.*

HOW THE JSE CREATES VALUE continued

Our products and services (continued)

COMPANY SERVICES

(page 59)

Provides the following services for our listed companies:

- Venue hire for results presentations and investor engagements.
- The JSE Training Academy assists stakeholders on their JSE journey, including corporate governance training.
- Annual general meeting (AGM) facilitation, which includes proxy solicitation, electronic voting and minute-taking services.

How money is made

Company Services provides the above services for JSE-listed companies and charges a fee for these services.

JIS

(page 59)

JIS – transfer secretarial services to issuers, including share register maintenance, issuer communication, the handling of corporate actions, share scheme management as well as a central securities depository participant offering.

How money is made

JIS charges fees for:

- registry services and share plan administration;
- corporate actions and margin income; and
- shareholder analytics, financial management for trusts, asset reunification and director's board apps.

INFORMATION SERVICES

(page 61)

Provides market data, reference data, corporate actions, client data, indices, valuations, business intelligence and statistics. Information Services is responsible for the promotion, licensing and sale of all JSE information products and services across all JSE markets, currently weighted towards the Equity Market.

How money is made

Selling data products across the JSE's markets and licensing the distribution and use of these data products.

Licensing fees include end-user terminal fees, non-display use fees and fees for passively tracking products on indices.

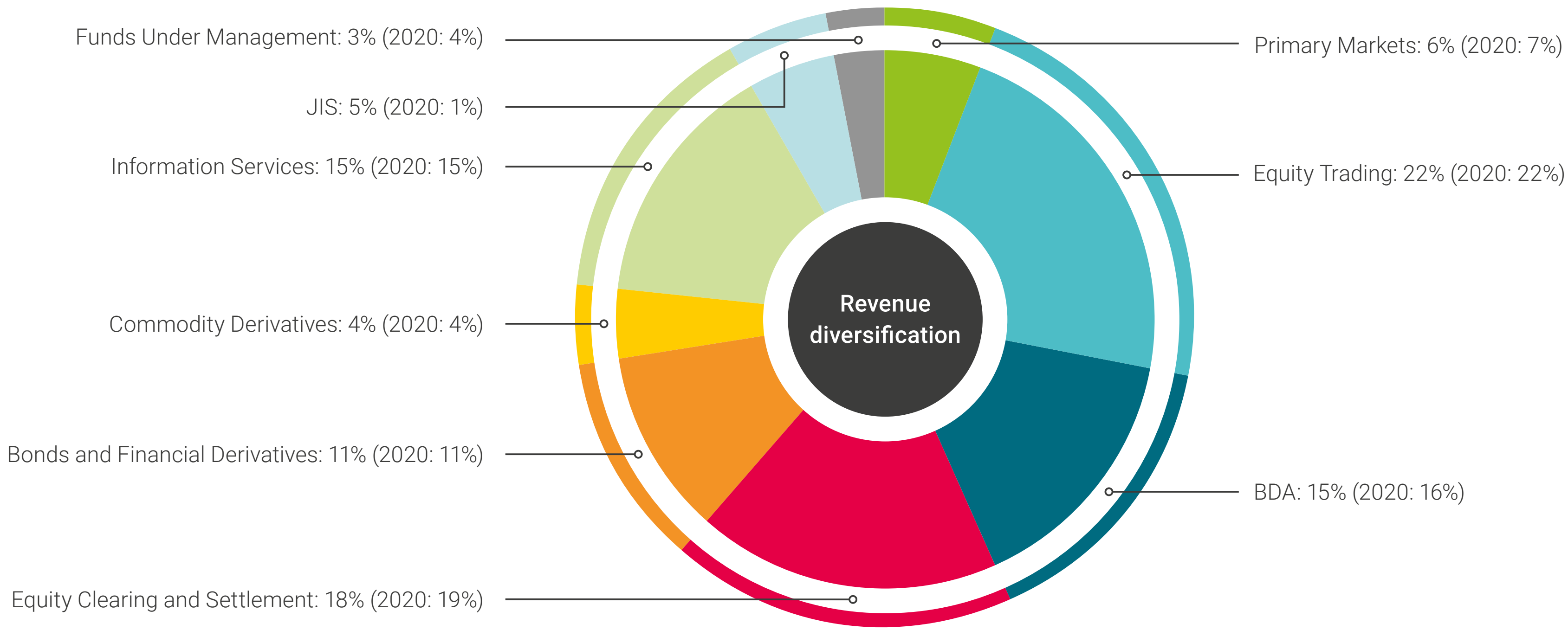
The JSE is a member of the World Federation of Exchanges (WFE), the Committee of SADC Stock Exchanges and the African Securities Exchanges Association.

We are also a founding member of the Sustainable Stock Exchanges Initiative (SSEI).

The JSE's key differentiating factors

- Largest stock exchange by market capitalisation in Africa
- Robust regulation
- Market quality (liquidity, price, speed)
- Highly cash generative
- Growing diversified revenue stream
- Thought leader in the economic, social and governance space

Revenue mix is primarily driven by equity trading and diversifying towards annuity revenue.



Factors impacting our ability to create value

We need to use our inputs responsibly and manage certain key dependencies and resource constraints while delivering our products and services. We also need to proactively consider and manage material trade-offs between the various resources we rely on. Refer to material matters on IFC.

WHAT WE REQUIRE TO DELIVER OUR PRODUCTS AND SERVICES

- Financial resources to operate the business and support growth, expansion and innovation.
- Technology that enables the delivery of products and services in a secure, stable environment.
- Clients who view the JSE and South Africa as an investment destination of choice.
- Skilled employees who can deliver on the JSE's strategy.

KEY DEPENDENCIES AND RESOURCE CONSTRAINTS

Economic environment

We need an economic environment that is conducive to Capital Market activity, a licence to operate a market infrastructure and the participation of a range of clients (issuers and the broader investor community).

Healthy markets

Our viability depends on a healthy primary market in which the JSE is an attractive venue for raising capital. The liquidity and quality of our Secondary Market trading directly impacts our financial performance.

The JSE brand relies on technology delivery and positive relations with our stakeholders.

Skills

This includes scarce and specialised skills in regulation, operations, technology and new futuristic thinking.

HOW WE CONSIDER MATERIAL TRADE-OFFS

The JSE aims to balance the interests of stakeholders, particularly in relation to the following:

- Achieving efficiencies for clients.
- Optimising shareholder value.
- Reinvesting internally in people and technology.

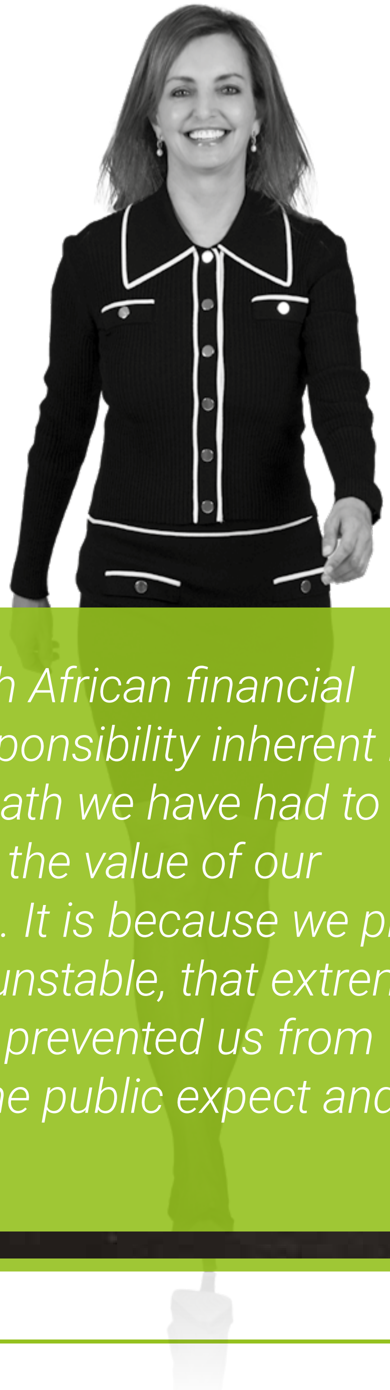
This means balancing prices to clients, dividends to shareholders and rewards to employees.

Examples of material trade-offs include:

- Keeping prices stable or reducing them to remain competitive and to provide clients with the benefits of scale when the JSE attracts increasing activity.
- Optimising personnel expenditure while ensuring remuneration is kept sufficiently competitive to attract and retain appropriately qualified and experienced people.

OUR STRATEGIC POSITIONING

GROUP CEO'S REVIEW



Leila Fourie
Group CEO

The JSE is an essential part of the South African financial system. All of us at the JSE take the responsibility inherent in that role very seriously. The unfamiliar path we have had to travel through the pandemic has shown the value of our planning and investment in our systems. It is because we plan and invest, whether times are stable or unstable, that extreme market events and uncertainty have not prevented us from delivering the services our clients and the public expect and need from us.

As a business deeply embedded in the economy in which we operate, we have a tremendous responsibility to the long-term sustainability of our markets. Our systemic role in markets has never been clearer. We enable capital formation and price discovery. We ensure investor protection through sound regulation. We provide clearing and settlement as well as vital data services to market participants.

Of course, we cannot let our guard down. Our country and the global financial system – of which we are a part – continues to face considerable challenges.

What we do is important, but how we do it is equally important. The social contract between our employees and our organisation has been rewritten and our corporate identity has been reformulated around principles of resilience, responsiveness, and flexibility. Internally, our leadership team has prioritised wellbeing, adjusting the way we respond and deal with each new challenge.

The JSE has delivered robust performance under a challenging macro-economic and trading environment. Our resilience while navigating an unfamiliar route through the pandemic has confirmed the value of the investments we have made in our technology platforms over an extended period. I am pleased that the JSE has been able to deliver a high level of service to its clients and the broader public while managing extreme market events and uncertainty.

Our financial performance was also achieved while maintaining a solid yield return to our shareholders, which we achieved through cash generation and a progressive dividend.

KEY HIGHLIGHTS FROM THE YEAR

- **Cash generative business model and stable EBITDA under challenging conditions**
- **Operating expenditure was well contained, up 4%, with the JIS acquisition fully consolidated (down 2% on a like for like basis)**
- **Unencumbered balance sheet, well-positioned to support growth ambitions**
- **Targeted investment in technology to drive growth and maintain operational resilience**
- **Maintained market availability uptime of more than 99.8%. Market availability has exceeded our service level agreement (SLA) for more than a decade**
- **Successful migration and upgrade of the BDA system**
- **Expanded service offering supported by acquisitions (JIS and Globacap)**
- **Client satisfaction and employee engagement at an all-time high, reflected by a record net promoter score (NPS)**
- **Advanced our ESG strategy and growth in our sustainability segment**

Unpacking the year's market activity

FINANCIAL MARKETS RECORDED A STRONG PERFORMANCE GLOBALLY AND OUR EQUITY MARKET TRACKED THIS PERFORMANCE. IN DOMESTIC TERMS, THE JALSH INDEX GAINED 24% THROUGH THE YEAR. THIS PERFORMANCE WAS KEY IN SUPPORTING SOUTH AFRICAN COMPANIES IN THE FACE OF CONSIDERABLE ECONOMIC UNCERTAINTY. IT WAS ALSO A REFLECTION OF THE GLOBALLY COORDINATED MONETARY POLICY RESPONSE TO THE SHOCK OF THE PANDEMIC.

Market performance in 2021

Equity Market billable value traded was up 5% (2020: up 7%), although transaction volumes were down 12% (2020: up 21%) in 2021. This was a good outcome considering the very high base set as a result of the volatility in the immediate wake of the COVID-19 pandemic in 2020. Several initiatives support volumes and the JSE complex order suite has become a key differentiator in large-in-size trades, with trade activity up 50% to R437 billion (R291 billion, 2020) and block trade and central order book cross activity increasing by 51% and 75% respectively. Colocation activity continues to increase. More racks have been taken up and 46 racks (2020: 40) were occupied at the end of the year. Colocation activity contributed 58% (2020: 50%) of overall value traded. We see colocation as an important enabler to growing trade activity. We have therefore built additional colocation racks in our data centre to allow for further client uptake.

> **Record activity**
>
> August 2021 saw record activity owing to the Naspers/Prosus corporate action and the associated trading activity. Consequently, value traded on 17 August 2021 hit a record high of R160 billion.

Foreign investors continued to be net sellers in the Equity Market, a trend that has persisted for a few years. South Africa's reduced weighting in several global market indices influenced this trend, as did a weaker macro-economic outlook. Foreigners remained net sellers of equities, with R153 billion in outflows (2020: R128 billion).

There was a strong rebound in **equity derivatives** trading, fuelled by higher activity across the delta one products, primarily driven by index futures contracts. Overall, value traded increased by 7% to R5.8 trillion driven by greater activity across delta one products, primarily driven by index future contracts. The value traded growth was driven by a higher market capitalisation and the JSE Top 40 index increased by 23.3% in 2021. We saw a modest uptick in H2 in the options market while activity in international and exotic derivatives remained steady.

In the **Bond Market** we have seen a 6% increase in nominal bond value traded. The increase in bond market volumes was largely attributed to tighter spreads and attractive South Africa real yields. The Repos Market, which is predominantly a funding market and a reflection of longer-term market sentiment, saw greater activity in 2021, with a 15% increase in nominal value traded YoY. The real yield on South African bonds remains attractive in the global context, with net inflows of R12.4 billion in 2021 compared with R15.2 billion in net outflows in settled trades last year.

On the **Interest Rate Derivatives Market**, the number of contracts traded declined by 5% YoY. This was driven by a decrease in open interest and trading activity on expectations that the South African Reserve Bank (SARB) will enter a rate hiking cycle early in 2022.

The number of **currency derivatives** contracts traded declined by 13%. The currency market activity remains subdued, primarily owing to a reduction in hedge-related activity.

In the **Commodity Market**, the number of contracts traded was up 2% for the year, owing to higher volatility in global grains commodity prices. The year also saw the Commodity Derivatives Market reach an all-time high in the number of contracts traded (3 559 741 contracts), versus the previous record in 2019 (3 510 696 contracts). South Africa recorded an excellent harvest in the 2020/2021 season, in which higher crop prices and strong exports were maintained. The exceptional crops led to a substantial increase in physical deliveries through the Exchange (up 40% to 3.6 million tonnes).

New listings and delistings

There were eight new listings in the Equity Market. Market sentiment suggests a possible recovery in the pipeline of inward listings for 2022, which largely depends on stable capital market conditions to justify listing.

The number of listed ETFs increased by 9 to 85, with market capitalisation exceeding R114 billion. The range of ETFs available on the JSE enables investors to combine equity, debt, property and commodity exposure at a fairly low cost.

In 2021, 26 new ETNs were listed, bringing the total number to 87 and overall market capitalisation to R18 billion. The range of ETNs offers investors exposure to single big-brand equity names, commodities, major currency pairs and foreign indices.

There were 25 delistings (2020: 20), which were largely the result of mergers and acquisitions, and schemes of arrangement in mostly small to mid-sized counters. Although the number of listed entities declined, the aggregate market capitalisation of all entities listed on the JSE continues to grow, up 15% (from R17.9 trillion to R20.5 trillion) during 2021.

The Sustainability Segment

The Sustainability Segment represented a positive development in the fixed income market in 2021. Issuances tripled YoY, from 12 in 2020 to 36 in 2021. Although this segment currently makes up just under 2% of the broader debt market, 24 of the 36 new issuances in the Bond Market were in the Sustainability Segment in 2021.

The growth of this segment since its inception in 2020 looks set to continue and it could be a significant market driver over the next few years.

Advancing our ESG strategy

Effecting lasting change requires our commitment, both with regard to our patronage and our actions. The JSE is committed to progressing ESG awareness and action through a range of mechanisms, including disclosure, data and investable products. Together, these constitute a comprehensive ESG strategy.

Internally we integrate sustainability considerations into our business operations. Externally – as an exchange and a frontline regulator – we promote access to capital and responsible investment. Our sustainability strategy reflects this, with a focus on local and global leadership and on creating opportunities to grow our product base with sustainable investment products.

OUR STRATEGIC POSITIONING continued

2002
FTSE and JSE enter a joint venture for indices

2004
Socially Responsible Investment (SRI) Index launched: 51 out of 74 assessed companies included

2008
The Government Employee Pension Fund endorses the SRI index and live calculation of the index commences

2010
A climate change theme is introduced to the ESG rating model

2013
Entire FTSE/JSE All Share Index assessed for inclusion in the SRI index for the first time

2015
JSE partners with FTSE Russell and the Responsible Investment (RI) Index replaces the SRI index, based on the FTSE4Good model

2018
Futures contract on RI Top 30 index introduced

2020
Sustainability Segment introduced by adding social and sustainability bonds to the green bond segment

The first ESG ETFs are listed: Emerging and Developed Markets ESG metrics exposure based off global ESG indices

2021
Sustainability Segment expanded to include transition bonds and sustainability/KPI-linked bonds

Published the draft JSE ESG Disclosure Guidance, tailored for the South African context, for public comment

The importance of ESG advocacy

Stock exchanges have an opportunity to play a leading role in how business navigates the shift towards more sustainable business practices. The JSE has taken a leading role in advancing the topic and shaping the framework, locally and abroad.

I co-chaired the United Nations GISD initiative and served as co-chair of the Sustainable Stock Exchanges Climate Disclosure Guidance project alongside the London Stock Exchange Group.

Locally, the JSE is part of the National Treasury's Financial Sector Climate Risk Forum and chairs the Sustainable Finance Working Group.

I represented the JSE on the CEO Champion group of the Just Transition Pathways initiative, with the aim of expediting a green stimulus strategy.

The JSE's commitment to Net Zero

At the COP26 summit in Glasgow, the JSE announced its commitment to joining the Race to Zero Partner Initiative. Together with the Net Zero Financial Service Providers Alliance and the Global Finance Alliance for Net Zero, the JSE will promote and champion sustainability measures domestically and internationally.

Operational robustness

THE TURBULENCE UNLEASHED BY THE GLOBAL PANDEMIC HAS REINFORCED HOW IMPORTANT IT IS TO OPERATE RESILIENT, FAIR AND ORDERLY MARKETS. FOR SEVERAL YEARS, THE JSE HAS BUILT ITS ROBUSTNESS. WE HAVE KEPT INVESTING IN TECHNOLOGY, RESILIENCE, LATENCY AND SECURITY AS WELL AS OUR PEOPLE. THE REAL-WORLD STRESS TESTS OF THE PAST TWO YEARS HAVE PROVED THE VALUE OF THOSE INVESTMENTS.

Market availability

As a financial market infrastructure (FMI) provider, it is imperative that the JSE remains open, operational, and responsive to fluctuations and risks in the market. Consistent investment in technology prepared us to withstand the COVID-19 pandemic and ensured that we maintained operational resilience and uninterrupted systems during several highly volatile periods.

Market availability was 99.85% in 2021 (2020: 99.97%). It was lower than the prior year owing to an Equity Market outage in August during a day of unprecedented volumes. The JSE has remained above its market availability SLA for more than a decade.

Technology initiatives

The COVID-19 pandemic has sped up the pace at which systems must change to adapt to a changed operating environment, in which we spend much more of our lives working online and remotely. It has also shifted capital globally toward companies that are using technology to drive their competitive proposition.

Owing to these factors and the importance of continually improving the robustness of our systems, the JSE will continue to invest extensively in technology. Several important projects were implemented during 2021. We successfully migrated the BDA system onto JSE IaaS, hosted at the JSE data centre. This migration is an example of the constant targeted improvements we make to build system resilience and mitigate potentially disruptive events.

We launched the first phase of our market data and trade analytics platforms and delivered high-profile rejuvenation and upgrade projects, including the MillenniumIT (MIT) upgrade and the real-time clearing (RTC) hardware replacement – a crucial piece of work to upgrade existing hardware in the clearing system. We continue to focus resources on cybersecurity and build resilience against ransomware and malicious attacks.

Attracting new listings

Attracting new listings is one of the key objectives of my team. While volumes and value traded are not directly related to the number of listings, new entrants improve the diversity of opportunity for investors and ensure the Exchange adds value to more of the economy. They also improve the Exchange's resilience to future shocks by ensuring that the Exchange supports tomorrow's winning companies through their evolution.

The global initial public offering (IPO) market recorded a stellar performance in 2021. However, that momentum failed to gain ground in South Africa under the influence of the constrained macro-economic environment, consolidation and the low cost of debt relative to equity.

As an exchange, we are focused on the factors we can influence, such as maintaining fit-for-purpose regulation and promoting the country as an attractive destination for foreign capital with deep and liquid markets. Therefore, we are working on:

- exploring private placements;
- growing and supporting SMEs;
- ensuring value-adding regulatory requirements;
- advancing the JSE's Sustainability Segment;
- attracting inward listings; and
- supporting SA Inc.

These initiatives are described in more detail in the Chairperson's report on page 2.

Competing for the future

New entrants, regulatory reforms and the disappearance of physical and technological barriers have led to an increasing focus on latency, depth and fees as key differentiators for marketplaces. This has changed the face of competition for stock exchanges.

International competition for dual-listed issuers is increasing as companies look to expand offshore and seek deeper pools of capital, liquidity, and investor exposure. The JSE maintains a high level of market share in some markets, but market share is dominated by offshore venues in others.

Despite the emergence of new local entrants, the JSE has retained 99.9% of value traded on average since 2017. The JSE's market share is not accidental. We have focused intently on the quality of our markets. Market participants value the safe hands of the JSE and our collective experience in monitoring and regulating markets effectively.

We have introduced improvements to our existing capabilities and new functionalities that support depth of market, provide tight bid-offer spreads and enable us to execute large orders. We are concentrating on:

- product development (transitions bonds, actively managed certificates/funds, structured products);
- enhanced order execution capabilities (new trade types);
- enhanced trade functionalities (iceberg orders, delayed publication of block trades);
- additional services from newly acquired entities (JIS, Investec Share Plan Services);
- the introduction of JPP, for which we have received a financial services provider licence; and
- improved market quality with lower quoted spreads (divided by 3x on average since 2019).

Over the years, we have introduced several price cuts and billing changes, including:

- tiered billing model significantly reduced the cost of on-screen trading since 2018;
- all on-screen trades contributed towards cumulative value traded throughout the month; and
- fee adjustments in equity (cash and derivatives) were limited to inflation.

The JSE will continue to closely monitor its pricing, and to take a pragmatic approach to it.

Delivering on our strategic priorities

My team and I have a clear mandate from our Board that was approved in February 2021. We will deliver on a vision for the Exchange that sees it playing a critical function in developing the South African economy by connecting issuers with investors across the world in a highly efficient and cost-effective way that is technologically robust and well regulated.

Our 2021 corporate scorecard is structured around five strategic elements that support value creation. Together, these elements constitute an intentional strategy that balances the needs of shareholders, market participants, employees, and our wider stakeholders.

Our detailed 2021 scorecard and our performance against each deliverable is set out on pages 42 to 43.

Foundational elements of our strategy are underpinned by common principles that remain consistent and responsive over time.

PARTNERSHIP FOR GROWTH

- Closed the Globacap transaction, bought out JIS minorities, and integrated Investec Share Plans Services into JIS.
- Obtained a financial services provider licence for JPP, which will facilitate private capital raising in both equity and debt.
- Delivered new products, including iceberg functionality, transition bonds and actively managed certificates.
- Launched new market data products (see below).

STAKEHOLDER EXPERIENCE

- Achieved highest employee engagement and net promoter score from our clients to date.
- Solid relationships with the Financial Services Conduct Authority and Prudential Authority.

NATIONAL AGENDA

- Extensive local and international engagement on the sustainability agenda and commitment to Net Zero and introduced transition bonds.
- Gender Equality Strategy and our contribution to the GBFV fund.
- Maintained the JSE's Level 2 BBBEE score.
- Introduced a new SA Tomorrow roadshow.

TRUSTED MARKETPLACE

- Operated markets remotely in line with SLA, despite two outages in the Cash Equities and Derivatives Markets.
- Significantly improved information security.
- Implemented improvements for the BDA system that rejuvenated the hardware platform and reduced systemic risk.
- Applied for licensing of the independent clearing house.

TALENT

- Improved ethics barometer results.
- Implemented the hybrid working model, subject to the National Disaster Protocol.
- The employee wellbeing programme was further enhanced to support and enable employee wellness and effectiveness.
- JSE remains committed to attracting, developing and retaining a diverse workforce.

Revenue diversification

Quality earnings, inorganic growth and new approaches to capital formation are key themes that underpin our strategy. Over the past two years, we have taken decisive steps towards growing the share of annuity revenue through diversification. While we have executed on acquisitions that support this strategic direction, we remain laser-focused on driving efficiencies and growing those businesses to continue to unlock shareholder value.

During 2021, we fully incorporated JIS as a wholly owned subsidiary. We also finalised an agreement with Investec Share Plan Services (ISPS) to acquire a portion of its business, including a licensing and support services agreement for a share plan services administration platform. As JIS increases its suite of offerings and attracts more clients, we expect it to contribute more significantly to Group revenue.

Information Services growth

The Information Services growth strategy is formulated with a five-year horizon and with three core focus areas:

- Sustain operational effectiveness.
- Modernise data architecture and expand the range of data services.
- Support Group initiatives focusing on digitalisation and new market opportunities.

Together with our index partner, FTSE Russell, we launched the FTSE/JSE Multi Asset Index, which allows clients to combine local and international fixed income, property and equity indices in a single benchmark. Our index data is now also being distributed in Asia through our partnership with The China Investment Information Services Limited, a subsidiary of the Shanghai Stock Exchange.

During the past year, we explored technology solutions, including data lake storage, the delivery of real-time feed data through the cloud, and the data foundry – a cloud-based delivery of data products to clients with modern data access protocols.

We delivered the first phase of the JSE Market Data Connect platform and the Equity Market data analytics platform, which will provide clients with digital contracting and analytics services respectively.

In the medium term, the objective is to transition new data products and services into a cloud-based solution. This will enable us to unlock new product opportunities and support evolving client needs.

Our client service and employee engagement

Relationships with people – both employees and customers – are the vital force of the exchange business. In a digital world, where technology enables us to be faster and more efficient, our business needs to provide matching responsive, quality interactions.

Our customer satisfaction score, which this year reached an all-time high, reflects the JSE's effectiveness as a regulator and service provider. This score creates a fresh waterline from which we can aim for better service, support and communication. Our focus remains on upgrading our platforms and systems and adding strategic value to our clients. We are conducting further divisional analysis to determine which drivers of customer satisfaction we need to prioritise in 2022.

Our employee engagement has also improved steadily in 2021, supported by the launch of several targeted initiatives aimed at supporting and empowering employees on psychological safety and trust in the workplace. As discussed above, we have endeavoured to ensure we are also a caring employer by supporting our employees in coping with the challenges presented by the pandemic.

We maintained our Level 2 BBBEE status for the second consecutive year.

Evolving how we operate in light of COVID-19

- The advent of the virtual workspace prompted us to reimagine our work environment and some of the changes we made are likely to remain. The workplace will become less about which technology we use, and more about how we use it to enable collaborative engagements, knowledge sharing and a culture of creative thinking.
- Our employee engagement illustrated that employees are eager to explore a more flexible workplace regime. We are responding with a comprehensive plan that ensures existing policies and employee contracts are aligned with a hybrid working model.
- We made several upgrades to our premises to enable new ways of working, along with significant improvements to client-facing facilities.
- As we begin to reintroduce in-person engagements, we are focused on equipping senior leaders with the tools to support this new era and identify colleagues who are struggling.

I am confident, as we enter 2022, that the JSE is able to deliver sustainable long-term value for clients, employees, shareholders and the broader economy. Our business is well capitalised, cash generative and growing on target and as promised. Our clients are secure in the steadiness of our operations and our people are engaged and supported.

Well positioned for success in 2022

THE JSE CONTINUES TO REMAIN HIGHLY CAPITALISED, WELL REGULATED, COST-EFFECTIVE, DEEP AND LIQUID, AND TECHNOLOGICALLY ROBUST.

The JSE delivered a sound performance in line with a number of objectives despite a very difficult trading and macro-economic environment. We have made strides in our diversification strategy and in improving the resilience of our technology and systems. A relentless focus on execution, in addition to a few high-impact priorities, will underpin business activities in 2022.

The Group strategy for 2022 was presented to the Board for endorsement in 2021. We created a new structure for the 2022 corporate scorecard, which more accurately reflects these strategic priorities. The scorecard, which is discussed in more detail on page 27, focuses on:

- generating sustained, high-quality earnings;
- protecting and growing our core business;
- transforming the business;
- partnering for a sustainable marketplace; and
- leading in sustainability.

One of our key considerations was balancing initiative demand with resource capacity. Simultaneously, the business needs to address legacy system rejuvenation. Upgrading legacy systems and ensuring resilience is imperative to protect and grow core products and services and advance new growth opportunities.

The JSE will continue to embed and extract value from recent acquisitions. In the coming months, we expect to launch JPP and broaden the JIS offering and client base.

Expressing my appreciation

I am grateful to all my colleagues for their energy, resilience and dedication throughout the year. We delivered on our objectives against unprecedented challenges and our people have remained enthused, engaged and focused on making a contribution, all while operating from home.

I would like to give special thanks to our outgoing Chairman, Nonkululeko Nyembezi. We are grateful for her invaluable counsel and support since she joined the Board in 2009. During the last 12 years she has been a part of significant change at the JSE, and in our industry. Nonkululeko will step down at the JSE's AGM in May 2022, where we will welcome our incoming Chairman, Phuthuma Nhleko.

Thank you to the Board and my executive team for their support and commitment. I also extend my appreciation to our regulators and policy makers for their collaboration, partnership and support.

My thanks also go to our market participants and other stakeholders for supporting the JSE. We look forward to continuing our collaboration in the year ahead.

Leila Fourie
Group CEO

OUR STRATEGY AND 2022 CORPORATE SCORECARD

It is imperative to continuously evolve our strategy to address changes in our industry.

Our strategy considers our purpose, vision, mission and core values, which remain entrenched in the business.

Purpose: People with passion powering a trusted marketplace for an inclusive and prosperous future

Vision: Growing shared prosperity

Mission: To be the best globally connected platform for inclusive and sustainable value creation that enriches lives and enables a positive future

Core values: Growing together, connecting for co-creation, servant leadership

Our strategy

The financial market infrastructure landscape continues to adapt to disruptive externalities, which have led to structural changes in the market. These externalities include increased competition, disintermediation in the market, the fragmentation of markets away from primary exchanges to alternative trading venues, new asset classes, regulatory reform, and technological developments. As a result of this disruption, we need to continuously review and adapt our strategy to ensure we appropriately manage the risks and leverage the opportunities arising from the changing landscape.

Our organic strategy has been focused on expanding our existing suite of products and services into new markets, asset classes, or clients, whereas our inorganic strategy hinges on growth into new adjacent products, services or markets.

Our overall strategy strives to return high-quality earnings while protecting and growing our core business to ensure the Group's growth and sustainability.

OUR STRATEGIC POSITIONING continued

Our 2022 strategic priorities must address:

- market disruptions to the JSE's core business and diversifying into or acquiring new growth market segments and leveraging opportunities;
- operational resilience in relation to building robust and scalable systems, operations and a competitive business model; and
- operational stability and efficiencies in our cost base, knowledge management and systems.

The JSE has revised the structure for the 2022 strategy, which more accurately reflects its strategic priorities:

Strategic priorities from 2020 and 2021	2022 Strategic objectives and delivery	Focus areas
• **Partner to co-create** for inclusive and sustainable growth and diversify our value chain. • **Run trusted markets,** products and services by ensuring stability, security, quality execution, good governance and settlement assurance.	**Generate sustained, high-quality earnings** • Deliver headline earnings per share (HEPS) growth • Deliver returns on equity within the target range	As a market infrastructure provider, we continue to invest in technology and cybersecurity. As a result, several upgrades were completed in 2021. Such investments will continue in 2022 and beyond to ensure stability and security for our clients and other stakeholders. Pages 72 to 75
• **Enhance the stakeholder experience** by co-creating with stakeholders, engaging regularly with clients, and understanding the challenges that our stakeholders face.	**Protect and grow our core business** • Invest in core assets to sustain operations • Maintain operational stability and resilience • Continue investing in cybersecurity	Our continued investment into technology will enable us to transform our business digitally.
• **Attract and retain diverse top talent** that supports the evolution of the business, its future fitness and its relevance.	**Transform our business** • Progress our digital transformation journey • Support growth initiatives • Advance our inorganic strategy • Progress our SME strategy	We continue to drive our inorganic strategy, which will enable us to transform our business model without impacting our core business. The JSE continues to look for acquisitions that will diversify its revenue base and add value to stakeholders. Our strategy is to build a modern data business that complements our existing FMI-type wholesale market data approach, which is pivotal to our future evolution. Page 30
• **Lead by example on the national agenda** by promoting the country as a desirable place to invest and partnering with the public and private sectors to further the cause of #SAInc.	**Partner for a sustainable marketplace** • Attract and retain top talent • Strengthen stakeholder relations • Contribute to the global sustainability agenda • Maintain the JSE's BBBEE rating	We aim to further advance sustainability through continuous stakeholder engagement, by advocating for South Africa as an investment destination, by spearheading making ESG a key market component and participating in the resulting market segment, and by attracting and nurturing top talent. Our role as a core market infrastructure provider and regulator implies we need to lead by promoting the country as a desirable investment destination and partnering to diversify our value chain while running a trusted marketplace. This can only be achieved through ongoing stakeholder engagement and by ensuring that the JSE evolves as the market evolves. Pages 20, 62 to 66, 76 to 80 and 128 to 133

Reformulated Information Services growth strategy on a five-year horizon

The JSE has reformulated its growth strategy for information services on a five-year horizon. There are several core areas of focus, aimed at sustaining high operational effectiveness, modernising data architecture, expanding the range of data services, and supporting Group initiatives through market digitalisation or new market opportunities.

The medium-term objectives are to transition the new data products and services into a cloud-based solution to better serve clients, unlock new product opportunities and support evolving client needs.

INFORMATION SERVICES TODAY

- **Growing contributor to Group revenue:**
  - +200 bps to 13.5% in 2021 (11.5% in 2015)
- **7.6% CAGR 2015–2021, underpinned by:**
  - significant investments (data operations, mature data delivery);
  - entrenched relationships with clients, data distributors and partners;
  - expert understanding of evolving market data use cases; and
  - successful prototyping of cutting-edge technology.

THREE CORE FUTURE FOCUS AREAS

- **Sustain operational effectiveness**
- **Modernise data architecture and expand range of data services**
- **Support Group initiatives focusing on digitalisation and new market opportunities**

Medium-term objectives

- Transition new data products and services into cloud-based solutions to support evolving client needs and unlock new opportunities.
- Expand geographical consumption of JSE market data through new partnerships.
- Regular expansion of analytics services and new data assets.

OUR STRATEGIC POSITIONING continued

Inorganic growth strategy to position the JSE in high growth areas

At present, we are pursuing a growth strategy from M&A. The ongoing focus of the team is to monitor market opportunities that generate long-term value for all JSE stakeholders. All internal processes are in place to ensure we find the right opportunities, conduct appropriate due diligence, negotiate effectively and, if a deal is signed, successfully integrate newly acquired businesses into the JSE Group.

We have made strides in executing our inorganic growth strategy during the year.

STRATEGIC GUIDELINES

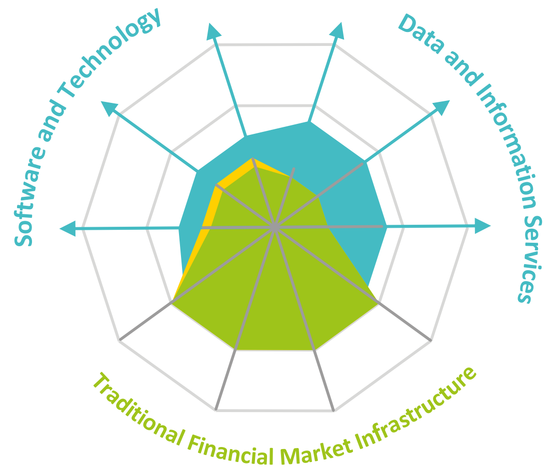
- Strong fit with capital markets growth areas.
- Increase contribution of non-trading and annuity business.
- Strengthen international footprint and add new client groups.
- Value creation for shareholders via clear post-merger integration and synergy realisation plans.
- Majority stakes and joint ventures to allow for financial consolidation and strategic control.

FINANCIAL GUIDELINES

- Diversify revenues and profits.
- Cash earnings and margin accretive over the mid-term.
- Group growth rate accretive.
- Selective targeting for diversification and ensure price is based on reasonable valuation.

FUTURE FOCUS AREAS

- Capital Markets workflow
- AI/ML tools and analytics
- RegTech
- Issuer Services
- Index data and analytics
- Private markets data
- Alternative data
- ESG



OUR M&A JOURNEY

JSE SAFEX → strate South Africa's Central Securities Depository → BOND EXCHANGE OF SOUTH AFRICA → LINK Market Services / Investec Share Plan Services → globacap →

The 2022 corporate scorecard

Our scorecard for 2022 includes initiatives that address all our material matters. The Group scorecard for 2022 was approved by the Board in November 2021 and is articulated in the table below. We have assigned weightings as well as on-target deliverables, above-target deliverables, and performance moderators to FY2022 metrics for the various categories.

Strategic priorities 2022	The Group scorecard[1] 2022
Generate sustained, high-quality earnings (weighting: 45%)	On-target deliverables for FY2022: 1. Balanced operating leverage on reported results. 2. Reported HEPS growth over the prior reporting year. 3. Reported NPAT margin of 26% to 28%. 4. Reported return on equity (ROE) range of 17% to 18%.
Protect and grow our core business (weighting: 20%)	On-target deliverables for FY2022: 1. Overall annual operational/systems stability of 99.7% (SLA to the market). 2. Overall number of material P1 incidents (whether technology, business or data related).[2] 3. Commence the asset class migration in line with the project plan approved by the Board (excludes BDA).
Transform our business (weighting: 20%)	On-target deliverables for FY2022: 1. Meet the acquisition business case targets for JIS and Globacap and the proposed business targets for 2022. 2. Drive the 2026 market data strategy: • Finalise execution plan, architecture, and operating model for the 2026 market data strategy. • Deliver phase 1 of the market data lake in the cloud with all Equity Market data sets. • Launch the Equity Market execution analytics platform. 3. Progress core products and services. 4. Implement the SME Accelerator platform.
Partner for a sustainable marketplace (weighting: 15%, split equally between talent/stakeholders and sustainability)	On-target deliverables for FY2022: 1. Talent and stakeholders: • Achieve an employee culture engagement score in line with the financial services industry average for 2022. • Maintain or improve the customer NPS compared with the 2021 score. • Operate successfully using a hybrid working model (measured through an employee engagement survey). • Minimise attrition rate for critical talent as agreed by the Board. 2. Sustainability: • Maintain a Level 2 BBBEE scorecard rating.

[1] *The Group CEO is assessed by the Group Remuneration Committee (GRC) based on both the performance of the JSE against the 2022 corporate scorecard and on the impact of the Group CEO's leadership on the JSE.*
[2] *The GRC agreed on the number of priority 1 incidents and the precise definition of a priority 1 incident in 2022.*

FACTORS IMPACTING VALUE CREATION

THE JSE'S ONGOING COVID-19 RESPONSE

The JSE has remained open for business, and has provided a robust trading, clearing and settlement environment for all asset classes listed on the Exchange.

The JSE's COVID-19 response is underpinned by a focus on the health and safety of employees, support for our clients and the operational resilience of our platforms and infrastructure.

During 2021 the JSE continued to focus on employee safety and wellness (pages 83 to 84) and maintained trading, clearing and settlement with market availability of 99.85% (page 21). We are also nearing the completion of our building upgrades that include significant improvements to client-facing facilities and will support our new ways of working (page 24).

Business continuity and recovery plans, as set out below, were also focus areas. Also refer to responsible market infrastructure on pages 62 to 66 for more information.

BUSINESS CONTINUITY MANAGEMENT STRATEGY

In 2020 we formalised a long-term strategy incorporating pandemic lockdown scenarios and socio-economic impacts.

During 2021 we have continued to manage the impact of COVID-19 as part of daily operations as underpinned by the response plan drawn up in 2020.

IMPROVE LEVELS OF READINESS

We continually review and enhance business recovery plans and IT disaster recovery plan processes to ensure readiness and response agility to any crisis.

We held two planned disaster recovery tests in 2021. The market facing test was deemed successful.

We also conducted business continuity tests in some of the operational areas aimed at simulating determined scenarios and testing our response capability.

COVID-19 governance approach

Board	**The JSE's Board leads the COVID-19 response by directing senior leadership, reviewing and considering potential response options, and setting the tone for the JSE's approach with each of its stakeholders and the community at large.**
Pandemic Monitoring Committee	This committee is composed of the executive management team with the chief risk officer (CRO) as the chairman. Its main objective is to monitor, review and coordinate the pandemic situations or potential pandemics in order to drive prevention activities, minimise impact and respond timeously.
Crisis Management Committee	This cross-functional crisis committee consists of executive management and the CRO, with the Group CEO as the chairman. Its main objective is to ensure that the business reacts to crisis in a timely manner.
Return to Office Working Group	This working group consists of three members from the executive management team and oversees the JSE's adherence to COVID-19 standards of hygiene and health protocols at its office.

OPERATING ENVIRONMENT

The world we operate in is rapidly evolving.

The JSE is affected by global economic conditions, including the appetite for emerging markets and the local economy's health and business sentiment. With this in mind, the following market drivers and trends have a continuing impact on our business and performance. These matters, and how the JSE responds to them, are discussed throughout the integrated annual report, most notable in the Group CEO's review (pages 17 to 26), our 2022 strategy (pages 27 to 31) and material matters (IFC).

1. The economic environment and market activity in 2021

Overview

The macro-economy impacts market activity and the JSE's revenue performance in the long term. Revenue performance is largely driven by higher activity in the market. The business is often countercyclical in nature. Local and global economic growth impacts the trade environment and business activities that generate revenue for the JSE. The JSE is also exposed to emerging markets sentiment, and the influence of the South African political environment, policy uncertainty and utility constraints (electricity and water), which impact financial market activity. In 2021 there were specific events that drove volatility, including COVID-19.

Globally

- A large rebound in economically sensitive, pro-cyclical investments in the year to date has resulted in significant growth in major markets across the globe.
- The World Bank expects the global economy to grow by 4.1% in 2022 (5.5 percent in 2021). Emerging markets are expected to lead the global recovery, particularly in Asia.
- Rising inflation levels, supply chain disruptions, and global political risk (US and China) present risks to global growth.
- Development of private markets and enablement mechanisms (blockchain) continue to gain traction globally and are an attractive alternate method of funding and transacting.
- IPOs have rebounded in 2021 globally, dominated by IPOs in technology, healthcare and industrials. Overall, 2021 saw a total of 2 388 deals raising USD453.3 billion in proceeds, a 64% and 67% respective increase YoY.*
- WFE members value traded has increased by 15.5%** in 2021 (USD).
- There has been a decline in number of active market participants globally.
- There has been a move towards over-the-counter markets and split liquidity between trading venues.

Locally

- COVID-19 has caused a shift toward different ways of working and the South African economy has proven more resilient than expected.
- The World Bank expects South Africa's economy to grow by 2.1% in 2022. Other factors influencing the bearish view are a low growth environment, looming fiscal cliff and record unemployment.
- Interest rates at record lows (6.5% January 2020 to 4.0% as at December 2021).
- The outlook for commodity producers has improved due to higher commodity prices and global demand, however prices are not expected to remain high.

* *2021 EY Global IPO Trends Report.*
** *Includes electronic order book, negotiated trades and reported trades.*

- Improvement in local vaccine rollout with 26% of the population having been vaccinated at least once.
- Eight IPOs in 2021 compared to four in 2020.
- There has been a net decline in JSE-listed companies compared to the same time in 2020, with 25 delistings in 2021, mostly in the small cap space vs 20 in 2020.
- There has been greater activity in the Equity, Equity Derivatives, Commodities and Bonds Markets and less activity in Interest Rate Derivatives and Forex YTD 2021.
- The JSE's billable value traded has increased by 5%.
- ZAR has been stronger against the USD in 2021 (avg. 2020: R16.68, 2021: R14.79).
- There have been net foreign outflows in the Equity Market of R153 billion (2020: R128 billion).
- Activity has increased in 2021, on the back of index rebalances and corporate action driven by Naspers and Prosus trading.
- The JSE has a smaller weighting in world indices.
- Higher commodity prices have also been influential.

Additional information

- Group CEO's review, pages 17 to 26
- CFO's financial review, pages 44 to 54
- Our operational performance, pages 55 to 61

2. Current market structure influences

Overview

The exchange landscape continues to evolve, with disruption coming from new entrants, market fragmentation, regulatory reforms and technological developments. These developing features have contributed to increasing margin pressure for the JSE. Emerging exchange trends include the digitisation of assets, service-enhancing acquisitions, growing data capability and new solutions for Post-Trade Services.

- **Regulatory and policy reform:** Evolving regulatory environment, increased appetite for non-traditional assets and new ways of transacting.
- **Technology:** Rise in digital platforms and capabilities, increased need for security and technology as an enabler.
- **Disintermediation:** Access models and structures evolving to allow participants to access markets and data directly without the need for an intermediary.
- **Market flows and fragmentation:** New mechanisms and participants competing for flows; fragmentation of markets driving innovative change.
- **Data/Information:** Expansion of data services into smart analytics, artificial intelligence, machine learning, modern data platforms, execution analysis and strategy testing.
- **Margin compression:** Margin compression, concentration of flows and shrinking commission.

Additional information

- Group CEO's review, pages 17 to 26
- CFO's financial review, pages 44 to 54
- Our operational performance, pages 55 to 61

3. Sustainability trends

Overview

The challenges experienced during 2021 and the hardships caused by COVID-19 accelerated certain sustainability trends aimed at achieving greater cooperation between social partners on sustainability matters. In December 2021 the JSE launched its Sustainability and Climate Disclosure Guidance consultation papers to promote transparency and good governance and guide listed companies on best practice in ESG disclosure. The JSE recognises the need to create an enabling environment for better disclosure practices to thrive. The Disclosure Guidance is intended to be helpful to companies to align with recent changes in global standards and international best practice regardless of their experience in ESG reporting.

- Growing focus on climate change with net zero target-setting and systemic and financial risks dominating the discourse.
- Greater acknowledgement of the "just" element of transition.
- Increasing alignment and consolidation of sustainability standards, frameworks and definitions.
- Sustainable finance instruments showing high growth levels, as investors are looking for more products that are sustainability focused.
- Investors, activists and civil society continue to ask more sustainability-related questions of companies.
- Private sector is more visible and active as demonstrated by Global Investors for Sustainable Development (GISD) Alliance and CEO round-table commitments.
- Noticeable increase in local company interest in sustainability and wanting guidance and training.

Additional information

- Online sustainability report

FACTORS IMPACTING VALUE CREATION continued

OUR TOP RISKS

Risk appetite

The JSE's risk appetite statements are linked to the Group's strategic priorities and associated key risks and aim to facilitate informed decision-making that is based on risk appetite and tolerance thresholds.

The JSE defines its risk appetite as the measure and allocation of the amount of risk that the Group is willing to accept in pursuit of its strategy. The JSE will only tolerate risks that permit us to:

- achieve our strategic business objectives;
- comply with all applicable laws and regulations;
- conduct our business in a safe and sound manner; and
- protect and/or enhance stakeholder value.

Risk appetite statements

The Group is committed to delivering on its purpose of being people with passion powering a trusted marketplace for an inclusive and prosperous future while living our mission to be the best globally-connected platform for inclusive and sustainable value creation.

	Overall risk appetite statement	Strategic alignment
Financial	• The Group is committed to maintaining a healthy balance sheet, profitability and cash flow position to ensure sustainable commercial viability of its operations.	
Capital requirements	• The Group is committed to having sufficient eligible capital to cover regulatory and economic capital requirements, including a buffer to accommodate stress events. • The Group is committed to maintaining liquidity sufficient to cover Cash Equities and/or Derivatives Market participant/s default.	
Operational resilience	• The Group's operational losses will be minimised to be within an expected target range. • The Group is committed to providing reliable and accessible markets and services and aims to minimise material business disruption.	
Cybersecurity	• The Group is committed to managing and protecting our digital assets and detecting and isolating significant breaches to minimise business impact.	
Fraud and corruption	• The Group is committed to minimising fraud and corruption and is committed to take timely action to prevent, detect, investigate and remediate incidents and recover losses arising from such activities.	

Partner to co-create *for inclusive and sustainable growth and diversify our value chain.*

Run trusted markets*, products and services by ensuring stability, security, quality execution, good governance and settlement assurance.*

Enhance the stakeholder experience *by co-creating with stakeholders, engaging regularly with clients, and understanding the challenges that our stakeholders face.*

Attract and retain diverse top talent *that supports the evolution of the business, its future fitness and its relevance.*

Lead by example on the national agenda *by promoting the country as a desirable place to invest and partnering with the public and private sectors to further the cause of #SAInc.*

Overall risk appetite statement		Strategic alignment
Legal and compliance	• The Group is committed to minimising non-compliance with regulatory requirements and constantly enhancing our control environment to mitigate against possible breaches.	
Social	• The Group is committed to contributing to the National agenda and maintaining a BBBEE score of at least Level 4, especially given the impact on our clients with us being their largest service provider.	
HR	• The Group is committed to developing, attracting and retaining the necessary and relevant skills; and will strive to maintain an acceptable employee turnover level. • The Group adopts a zero tolerance stance on inequality, discrimination and unethical behaviour. • The Group is committed to providing a business environment that safeguards the health and safety of employees and visitors.	
Reputation	• The Group has a low tolerance for any risk that could negatively impact its brand and reputation and is committed to protecting its brand through service delivery, client satisfaction and effective stakeholder management.	

Global peer top risks

The WFE, the global industry group for exchanges and CCPs, continued to host focus groups virtually during the course of the year. The group connects ERM and ORM leadership and thinking at the world's financial exchanges and clearing houses. The JSE is an active member of the WFE and serves on various committees, including being vice chair of the Enterprise Risk Working Group, a structure which provides a platform for ERM and ORM leaders to share experiences and perspectives in the interests of developing and enhancing risk management practices that are specific to market infrastructure operators.

The JSE also maps its top 10 risks against a number of leading and international sources and monitors these on an ongoing basis as part of developing its risk foresight.

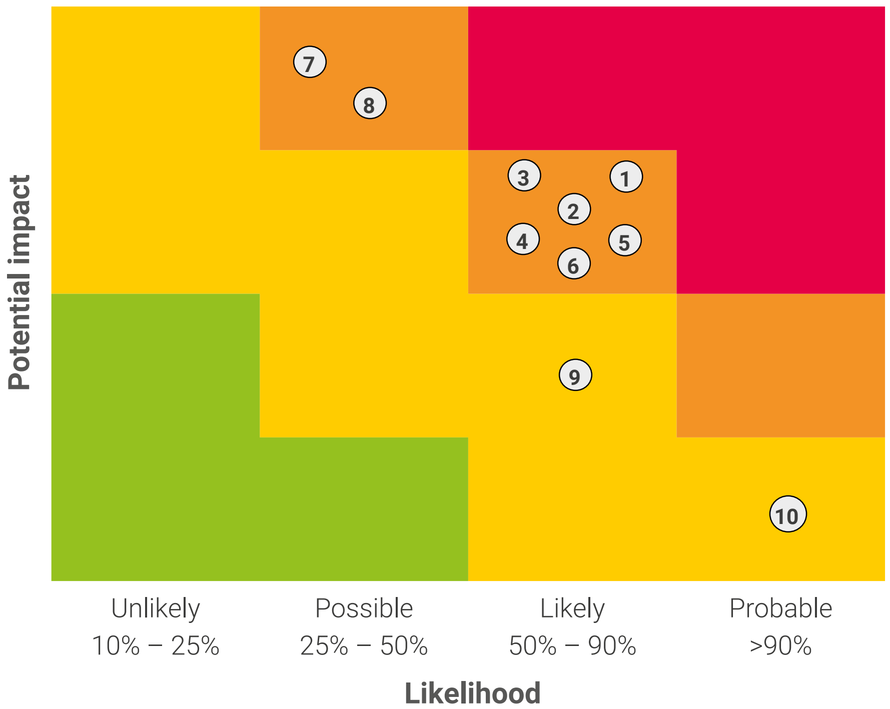
Our top risks

OUR TOP RISKS REFLECT THE CHALLENGES AND OPPORTUNITIES POSED BY OUR OPERATING CONTEXT AND THOSE ELEMENTS THAT COULD IMPACT OUR LONG-TERM SUSTAINABILITY.

The JSE Group's risk and resilience programme enables the Group to proactively anticipate risks and opportunities and to ensure that appropriate responses are developed and implemented within our risk appetite. Our risk management approach is outlined on pages 123 to 127.

The JSE's risks are mapped against strategic priorities and are interdependent and interrelated. There is also a close correlation of our material matters on IFC. Our risks and mitigation strategy is set out below for the six risks in which the residual risk rating reflects a high likelihood and high potential impact. For the other four risks in our top 10 risks, we provide a reference to where more information is included.

Residual risk rating



1. Evolving business sustainability
2. Cybersecurity
3. Business model disruption (partly outside the JSE's control)
4. Technology
5. Operational vulnerability
6. Talent
7. Default/counterparty risk
8. Critical third-party failure
9. Reputation and stakeholder (refer to pages 128 to 133)
10. Information governance (refer to pages 72 to 75)

Movements in our top risks reflect changes in the JSE's operational context, the evolving strategy and an increased focus in specific aspects of certain risks, which have been split out to facilitate increased focus. We have continued to monitor the impact of COVID-19 on our business resilience, more notably on the critical third-party failure risk, operational vulnerability risk and talent risk.

- Financial performance risk and evolving business model risk have been encapsulated under the *evolving business sustainability risk.*
- Professional skills risk (the risk relating to inadequate skills/loss of critical skills and institutional memory to other exchanges or due to emigration) was outside of the top risks. With an expanded definition, this risk was renamed to *talent risk* and included in the top risks.
- *Technology risk* was elevated to the top risks due to the growing importance of technology and the disruptions seen in this space. It highlights the need for the JSE to transform its technology to stay ahead of the curve and leverage opportunities which position it to compete effectively in global markets.

FACTORS IMPACTING VALUE CREATION continued

1. EVOLVING BUSINESS SUSTAINABILITY

Inability to sustain business growth, meet financial targets and transform the JSE in tandem with the evolving business model.

Root cause: The JSE has variable revenue, highly dependent on the equity market, and a fixed cost base. A low global economic growth environment impacts this risk, in addition to trading activity migrating to larger equity pools offshore. Climate change and its impact on the JSE and the market is another consideration.

Impact: Long-term viability of the JSE across a number of metrics.

Mitigation: Revenue and geographic diversification in addition to strategic cost management and development of ESG products and services. Initial climate risk assessment conducted and Sustainability Disclosure Guidance launched.

Risk movement: Unchanged

Risk appetite: Operated within risk appetite limits

Strategic priority impacted: Partner to co-create for inclusive and sustainable growth

More information: Page 24

2. CYBERSECURITY

JSE digital assets compromised through breaches and/or unauthorised access.

Root cause: Increased vulnerability due to amplified opportunities and alertness of criminals, geographic dispersion of employees, clients and suppliers; as well as a lack of adequate specialised skills and resources.

Impact: Compromises and theft and/or loss of assets, operational disruption and reputational damage with potential regulatory sanctions and/or legal ramifications.

Mitigation: An information security roadmap is set to improve the cybersecurity maturity level and we have co-sourced resources to bolster capability and monitoring.

Risk movement: No movement

Risk appetite: Operated within risk appetite limits

Strategic priority impacted: Run trusted markets, products and services

More information: Page 74

3. BUSINESS MODEL DISRUPTION

Risk of the JSE business model becoming obsolete.

Root cause: Innovations by new and existing competitors, regulatory changes and the advent of disruptive technology.

Impact: Inability to sustain business growth, meet financial targets and transform the JSE business model. This can potentially lead to the JSE becoming irrelevant due to its inability to compete on a global scale.

Mitigation: Execution of the competition response strategy.

Risk movement: Increased since 2020

Risk appetite: Operated within the risk appetite limits

Strategic priority impacted: Partner to co-create for inclusive and sustainable growth

More information: Page 22

FACTORS IMPACTING VALUE CREATION continued

4. TECHNOLOGY

Inability to deliver reliable, performing and secure platforms with flexible architecture to ensure the pace of business transformation is enabled with technology.

Root cause: Increasing backlog of aging applications and infrastructure coupled with diminishing capacity for change from an IT resources perspective.

Impact: Business interruption possibly with longer resolution times, limiting business expansion/growth/diversification rendering the JSE unable to compete effectively in the global market.

Mitigation: IT Rejuvenation roadmap developed and project kick-started along with appropriate capital expenditure allocation and prioritisation of IT projects.

Risk movement: Increased since 2020

Risk appetite: Operated within the risk appetite limits

Strategic priority impacted: Run trusted markets, products and services

More information: Pages 72 to 75

5. OPERATIONAL VULNERABILITY

Operational disruption and incidents resulting in system downtime and impacting service delivery.

Root cause: Operational instability of JSE markets and systems, manual processes, human error, remote working fatigue and burnout, and low maturity level of an embedded enterprise control framework. Insufficient response plans or organisational resilience.

Impact: Operational availability and reliability with reputational, financial, operational and regulatory implications.

Mitigation: Implementation of the control management and operational resilience frameworks, supported by business continuity, crisis and incident management response plans. Regular disaster recovery and business continuity tests and extensive employee wellness programmes.

Risk movement: Increased since 2020

Risk appetite: Two priority one incidents in June and August 2021 resulted in the halt of some markets and the delayed opening of the equity market, respectively

Strategic priority impacted: Run trusted markets, products and services

More information: Pages 21, 72 to 75

6. TALENT

Inadequate capabilities and skills and/or the loss of critical skills and institutional memory to other exchanges or due to emigration.

Root cause: Evolving skills and capabilities for an exchange of the future, especially in the risk, data and regulatory areas. Increasing attrition risk due to growing competition and the distributed workforce phenomenon, along with overall mental wellbeing of employees given the impact of the pandemic and the lean nature of the JSE's organisational structure.

Impact: Impact operational availability and reliability, strategy execution and inability to build the resource requirements for the exchange of the future.

Mitigation: A robust employee value proposition and succession planning. Ongoing evaluation of employee satisfaction levels and implementing progressive policies suited to the new ways of work.

Risk movement: Increased since 2020

Risk appetite: Operated within the risk appetite limits

Strategic priority impacted: Attract and retain diverse top talent

More information: Pages 81 to 88

2021 PERFORMANCE

2021 PERFORMANCE AGAINST SCORECARD

2021 strategic performance

Our corporate scorecard for 2021 includes initiatives that address all our material matters. Our strategic priorities for 2021 were firmly tied to our 2021 corporate scorecard and approved by the Board. A self-assessment of our strategic delivery was undertaken by Exco and interrogated by the Group Remuneration Committee (GRC). For 2021, each scorecard element was assessed as achieved by the Board.

Although we did not assign specific weightings to these deliverables in 2021, financial performance does contribute materially to the scorecard assessment and the self-assessment directly informs the size of the discretionary bonus pool for 2021. For further information, please refer to the online remuneration report.

2021 PERFORMANCE continued

Our detailed 2021 scorecard and our performance against each deliverable are set out below.

Strategic priorities for 2021	Corporate scorecard[1] for 2021	Summary self-assessment and comment	Performance metrics
Partner to co-create for inclusive and sustainable growth and reduce equity market dependence.	• Deliver financial performance in line with the 2021 budget. • Progress our inorganic growth strategy. • Progress relevant products and services across the value chain. • Complete onboarding of acquisitions.	• Delivered financial performance in line with budget. • Globacap transaction delivered in 2020, JIS minorities bought out, and Investec Share Plans unit acquired and integrated into JIS. • Various new products delivered, including iceberg functionality; delayed publication on block trades; transition bonds; and actively managed certificates. • JIS well integrated in the Group.	**ON-TARGET to ABOVE-TARGET PERFORMANCE** Refer to the CEO's review on pages 17 to 19 and 23 for performance highlights and the CFO's review on page 44 for performance metrics.
Run trusted markets, products and services by ensuring market quality, settlement assurance, governance, operational availability and resilience.	• Maintain our operational resilience and invest in information security readiness. • Migrate BDA mainframe. • Implement independent clearing house (ICH) operating model, subject to any regulatory delays.	• Operated our markets remotely throughout 2021 in line with SLAs while delivering significant improvements. This was achieved despite two outages in the Cash Equities and Derivatives Markets. • Implemented improvements for the BDA system that rejuvenated the hardware platform and reduced systemic risk. • Submitted JSE Clear's application for licensing as an ICH to the regulator.	**ON-TARGET PERFORMANCE (moderated by two outages)** Refer to the technology chapter on pages 72 to 75.
Enhance the stakeholder experience through collaborative value creation and the highest quality of service delivery.	• Maintain or improve our customer NPS. • Maintain our regulatory relationships.	• Fundamental positive shift in client engagement reflected in highest NPS to date. • Solid relationships with the Financial Services Conduct Authority and Prudential Authority. There were extensive onsite engagements throughout 2021 and no unresolved regulatory matters.	**WELL-ABOVE-TARGET PERFORMANCE** Refer to the NPS details on pages 24 and 128 to 133.

[1] *The Group CEO is assessed by the GRC based on both the performance of the JSE against the 2021 corporate scorecard and on the impact of the Group CEO's leadership on the JSE.*

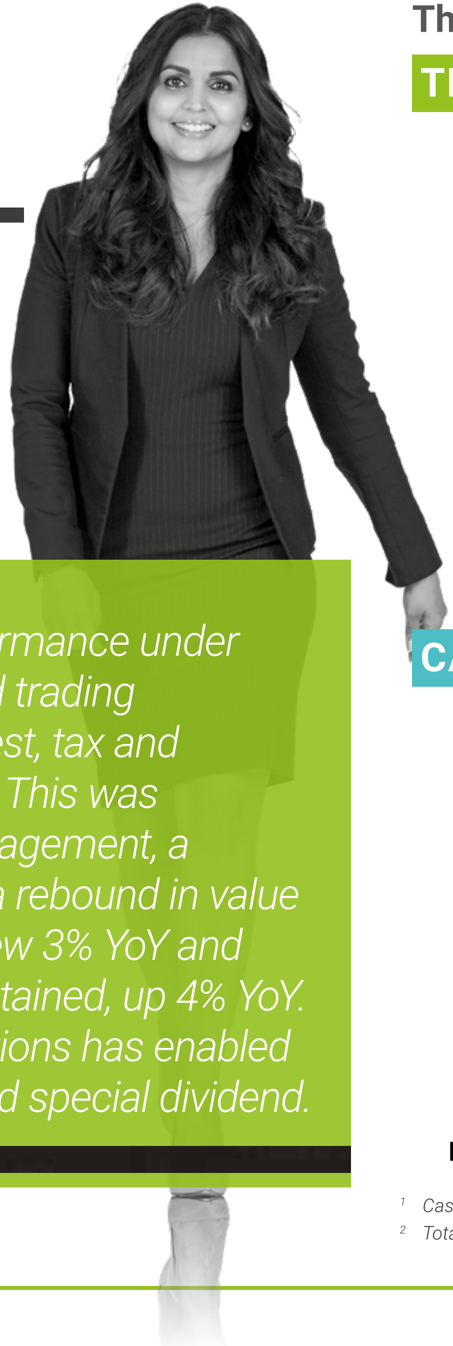
2021 PERFORMANCE continued

Strategic priorities for 2021	Corporate scorecard[1] for 2021	Summary self-assessment and comment	Performance metrics
Attract and retain diverse top talent that enables an exchange of knowledge to support a transition from the markets of today to the markets of tomorrow.	• Maintain or improve our GIBS Ethics Barometer rating. • Build our bench strength. • Implement hybrid working model (subject to National Disaster Protocol).	• Significant improvement in Ethics Barometer scores across all dimensions. • Clear progress in strengthening key talent pipeline, with action plans delivered. • Core building renovations complete, and core technology installed to support hybrid working.	**ABOVE-TARGET PERFORMANCE** Refer to the employee engagement survey on page 131.
Lead by example on the national agenda and promote South Africa as a global investment destination by partnering with the public and the private sector.	• Lead on the sustainability agenda. • Broaden SA Tomorrow's reach. • Maintain a Level 2 BBBEE score.	• Extensive engagement locally and internationally through the Financial Sector Climate Risk Forum, the United Nations GISD co-chair role, the SSE Climate Disclosure co-chair role, and the JSE's sustainability showcase days. Commitment to net zero announced and the JSE's ESG and climate disclosure guidance published in November. • A virtual SA Tomorrow programme delivered to South-East Asia, the Middle East and the United Kingdom for the first time in 2021, together with the traditional New York programme.	**WELL-ABOVE-TARGET PERFORMANCE** Refer to the online sustainability report.

[1] *The Group CEO is assessed by the GRC based on both the performance of the JSE against the 2021 corporate scorecard and on the impact of the Group CEO's leadership on the JSE.*

2021 PERFORMANCE continued

CFO'S FINANCIAL REVIEW



Aarti Takoordeen
CFO

The JSE has delivered robust performance under a challenging macro-economic and trading environment. Earnings before interest, tax and depreciation (EBITDA) was flat YoY. This was attributable to disciplined cost management, a positive contribution from JIS and a rebound in value traded in H2. Operating revenue grew 3% YoY and operating expenditure was well contained, up 4% YoY. Strong cash generated from operations has enabled the Board to declare an ordinary and special dividend.

The year in review

TRADING AND PROFITABILITY

Operating revenue
+3%
to R2.5 billion
(2020: R2.4 billion)

Total operating expenditure (OPEX)
+4%
to R1.8 billion
(2020: R1.7 billion)

EBITDA
Flat
at R1.06 billion
(2020: R1.06 billion)

EBIT margin
31%
(2020: 32%)

Net finance income
-27%
to R146 million
(2020: R200 million)

EPS and HEPS
-7% and -6%
to 874.1 and 878.9 cents respectively
(2020: 936.7 cents)

CASH AND CAPITAL ALLOCATION

Operating cash conversion ratio[1]
101%
(2020: 104%)

CAPEX
R165 million
(2020: R89 million)

Inorganic investment
R159 million
(2020: R225 million)

Regulatory capital solvency
R1.1 billion
Supported by R789 million in cash

Cash balance (December 2021)
R2.4 billion
(December 2020: R2.5 billion)

Ordinary dividend pay-out ratio[2]
92%
(2020: 83%)

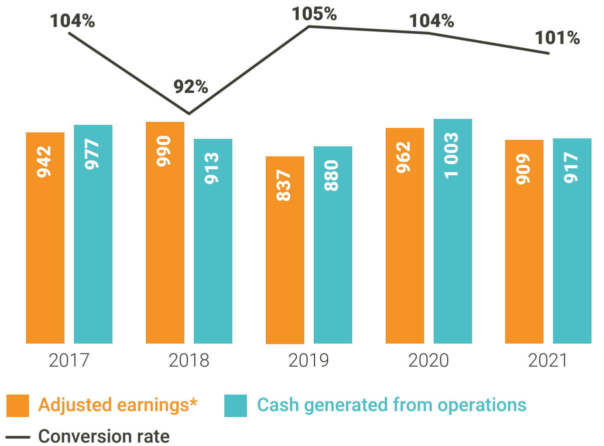
[1] *Cash conversion ratio defined as cash generated from operations reported to adjusted NPAT.*
[2] *Total dividend pay-out ration of 104%, includes special dividend.*

2021 PERFORMANCE continued

In the context of a challenging operating environment, we are pleased to share a sound set of financial results for 2021. These results indicate the following:

- Revenue growth from higher value traded in H2 2021 and full year contribution from JIS.
- Strong cost discipline with OPEX growth below inflation.
- EBITDA in excess of R1 billion, stable YoY and growing double digit YoY in H2.
- Successfully integrated new entities, JIS gaining traction.
- All-time low interest rates impacting net finance income.
- Continued high cash generation and increased dividend payout.
- Well capitalised Group and healthy balance sheet.

Continued high cash conversion of earnings



* NPAT has been adjusted for non-cash items (depreciation, amortisation, Forex profit/loss, impairments, goodwill write-down).

Mix of external factors impacting 2021 performance

- Event driven activity: Higher base from COVID-related market activity in H1 2020; H2 2021 spike driven by corporate actions.
- Stronger rand in H1: Negatively impacting USD-denominated revenue in Information Services.
- Interest rates at record lows: Net finance income down 27% YoY and 32% vs 2019.

Key themes

1 **Revenue growth from higher value traded in H2 2021 and full year contribution from JIS**

2 **Strong cost discipline with OPEX growth below inflation**

3 **Higher investment in rejuvenation of systems and building**

4 **Inorganic growth**

5 **Continued high cash generation and increased dividend payout**

6 **Soundly capitalised Group**

1 Revenue growth from higher value traded in H2 2021 and full year contribution from JIS

OPERATING REVENUE INCREASED BY 3% TO R2.5 BILLION (2020: R2.4 BILLION).

This performance was achieved through the following:

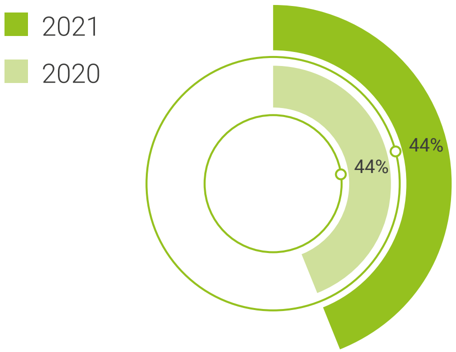
- A 1% increase in Capital Markets revenue as a result of the higher value traded in H2 2021 owing to a spike in corporate actions. This offset a strong base effect in H1 2020.
- A 5% decline in Post-Trade Services revenue owing to the high base effect from scrip lending and penalties in 2020.
- A 2% decline in Information Services revenue, as a stronger ZAR impacted USD-denominated revenue. However, there was 4% underlying growth.
- The revenue performance of JIS improved in H2 2021, driven by higher annuity income from new share plans and corporate actions.
- The full-year consolidation of JIS in 2021, which was consolidated from November 2020.

Total revenue, which includes other income, increased by 2%. Other income decreased to R59 million (2020: R82 million), as 2020 income included R30 million in regulatory fines to issuers (not distributable). The JSE held USD 6.8 million in cash at the end of December 2021, which is stable compared with December 2020.

2021 PERFORMANCE continued

Value traded and JIS driving revenue growth

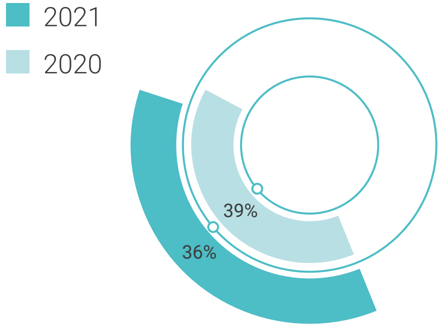
Capital Markets



+1% YoY

- Equity Market revenue -1%. Corporate actions in H2 2021 led to higher value traded offsetting the strong H1 2020 base effect.
- Positive contributions from Colocation, Equity Derivatives and Commodity Derivatives.
- Currency Derivatives down on lower hedging activity.

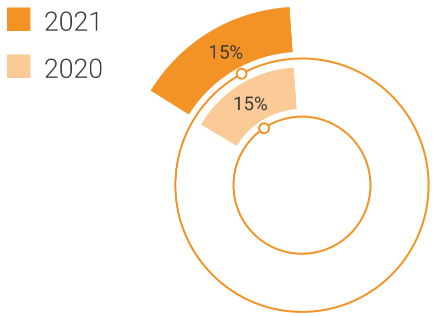
Post-Trade Services



-5% YoY

- Clearing and Settlement revenue -5% owing to the high base effect from scrip lending and penalties in 2020.
- BDA: 7% decline in Equity Market transactions, following two years of double-digit growth in transactions.
- Funds under management -1%.

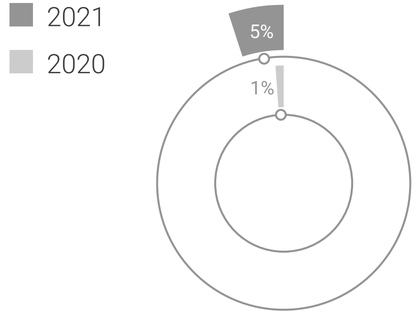
Information Services



-2% YoY

- 4% underlying growth.
- Negative FX impact from stronger ZAR/USD conversion.

JIS



n/a YoY

- First full-year consolidation.
- Stronger H2 total revenue performance at R74 million (H1: R52 million) driven by revenue related to new share plans and corporate actions.

Figures contain rounding differences.

MARKET DRIVERS

Number of IPOs[1]

8

(2020: 4)

Equity market capitalisation[2]

+15%

(2020: R17.9 trillion)

Number of delistings[3]

25

(2020: 20)

Billable equity value traded[4]

+5%

(2020: +7%)

Equity transactions

-12%

(2020: +21%)

Bond nominal value traded

+6%

(2020: -7%)

Equity derivatives value traded

+7%

(2020: -7%)

Currency derivatives contracts traded

-13%

(2020: -8%)

Commodity derivatives contracts traded

+2%

(2020: 0%)

Interest rate derivatives contracts traded

-5%

(2020: +14%)

[1] *Initial public offerings – 8. Debt instruments – 2.*

[2] *Market capitalisation of all equity listed instruments on the JSE. Market capitalisation at the end of the year, 31 December 2021.*

[3] *Ordinary shares – 22. Preference shares – 3.*

[4] *Published trading statistics 5% (2020: 13%); Published ADV 6% to R24 billion (2020: R23 billion), Billable ADV 7% to R30 billion (2020: R28 billion).*

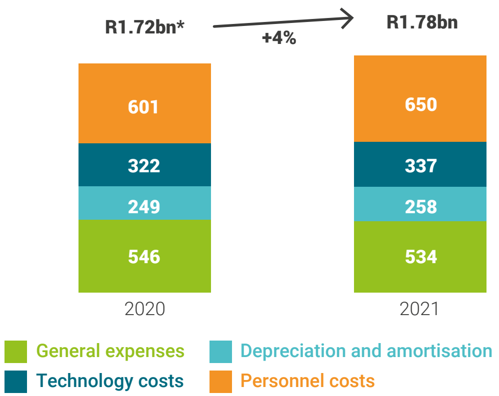
2 Strong cost discipline with OPEX growth below inflation

Total operating cost growth was well-contained to 4% YoY, with JIS fully consolidated. Excluding JIS, operating costs declined by 2% owing to lower one-off costs.

- Personnel costs increased by 8% to R650 million (2020: R601 million), primarily owing to the full-year consolidation of JIS. Gross remuneration was up 15% to R507 million (2020: R440 million).
- The discretionary bonus decreased to R72.3 million or 10% of NPAT (2020: R76 million or 9.8% of NPAT).
- Technology costs increased by 5% to R337 million (2020: R320 million), driven by JIS costs and risk mitigation spend.
- General expenses decreased by 2% to R534 million (2020: R546 million), owing to a decline in acquisition-linked costs to R1 million (2020: R29 million).
- Depreciation and amortisation increased by 3% to R258 million (2020: R249 million), also owing to the full-year consolidation of JIS.

Further detail on OPEX is unpacked below:

Cost discipline with OPEX growth below inflation

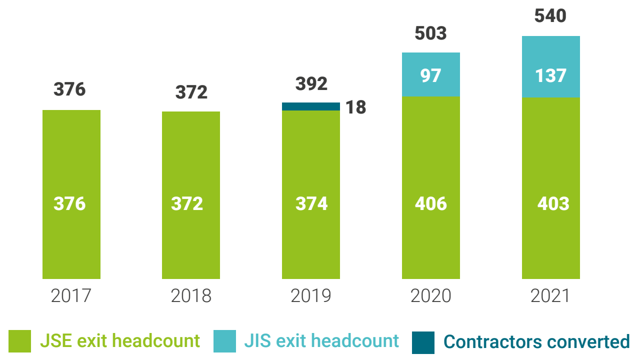


* *FY20, JIS and JSE Empowerment Fund were disclosed separately.*

Personnel costs

PERSONNEL COSTS UP 8% (R49 MILLION) TO R650 MILLION OWING TO THE FOLLOWING:

Headcount



- Gross remuneration up R68 million to R507 million (2020: R440 million), largely due to full-year consolidation of JIS.
- Average headcount of 519 (2020: 500): 408 at JSE (2020: 402) and 111 at JIS (2020: 98).
- Increase partly offset by lower retention and other payments down R14 million to R4 million (2020: R19 million) and leave pay down R5 million to R9 million (2020: R13 million).
- Discretionary bonus at R72 million or 10% of NPAT (2020: R76 million or 9.8% of NPAT).

2021 PERFORMANCE continued

Outlook

Salaries are benchmarked against local peers according to the PwC Remchannel database. There are no current plans to change headcount structure.

In 2021 and 2022, average salary increases were limited to inflation estimates.

Technology costs

TECHNOLOGY COSTS INCREASED BY 5% (R15 MILLION) TO R337 MILLION OWING TO THE FOLLOWING:

- JIS costs were up R11 million to R13 million.

Outlook

The bulk of costs are contractual, with annual inflationary increases.

Cybersecurity spend is typically in excess of inflation.

Depreciation and amortisation

DEPRECIATION AND AMORTISATION INCREASED BY 3% (R9 MILLION) TO R258 MILLION.

The increased depreciation and amortisation can largely be attributed to amortisation for JIS customer contracts (up R8 million to R9 million).

Outlook

We have provided a multi-year depreciation profile of known CAPEX in the graph below for 2022 and 2023.

General expenses

GENERAL EXPENSES DECREASED BY 2% (DOWN R12 MILLION) TO R534 MILLION OWING TO THE FOLLOWING:

- Significant decline in deal acquisition costs lower by R28 million to R1 million (2020: R29 million) due to JIS and Globacap costs incurred in the prior year.

Outlook

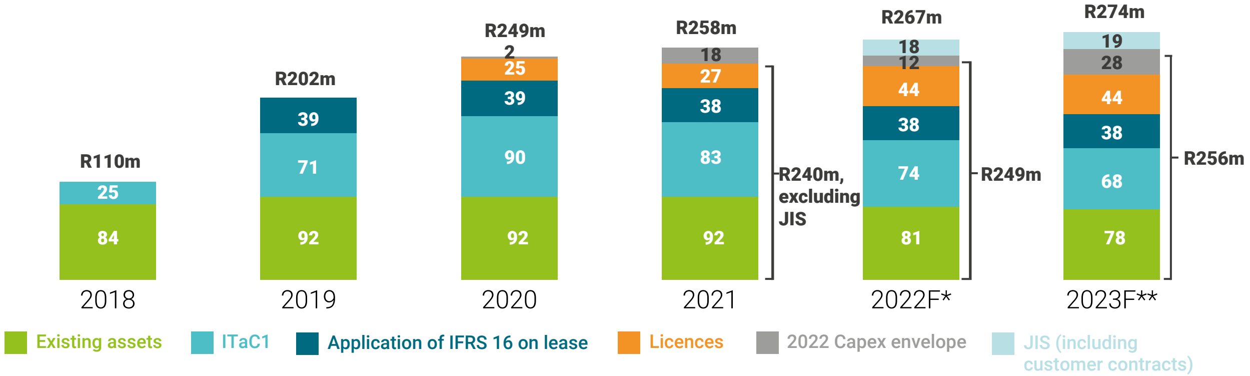
We manage general expenses growth tightly, and for many cost lines, growth is contained below inflation. Transaction costs are reported in this cost category.

Managing the cost growth trajectory remains a key priority.

JIS annualised impact adds 6% to cost growth at R106 million** (2020: R15 million).

*** Includes amortisation of customer contracts at Group level.*

2021 depreciation and amortisation expense as expected



Figures contain rounding differences.
** Forecast*
*** Forecast (excluding 2023 CAPEX envelope)*

3 Higher investment in rejuvenation of systems and building

THE JSE ANNUAL CAPEX ENVELOPE IS EMBODIED IN THE CAPITAL ALLOCATION PHILOSOPHY OF THE GROUP.

Capital allocation is divided into the following three pillars, namely:

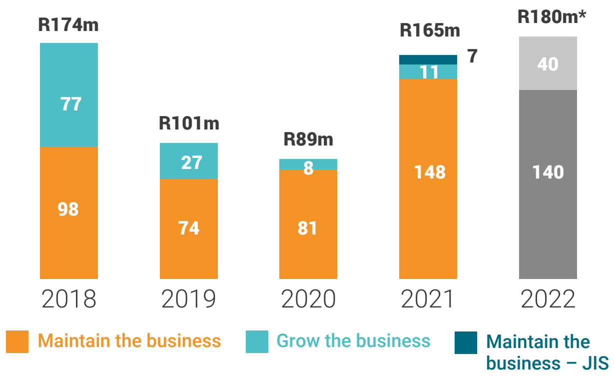
1) regulatory capital held for the Exchange and clearing house;
2) CAPEX for the maintenance and upgrade of infrastructure and systems, as well as organic growth initiatives; and
3) capital retained for inorganic growth initiatives and capital to be returned to shareholders.

The sizing of the CAPEX envelope, is determined by the JSE's capital intensity policy, which is linked to affordability. The JSE prioritises CAPEX for the maintenance and upgrade of infrastructure and systems as technological robustness is key to our business. A portion of CAPEX is also allocated for organic growth initiatives.

IN 2021, CAPEX INCREASED TO R165 MILLION (2020: R89 MILLION).

CAPEX in 2021 is largely owed to investment in new ways of work, system rejuvenation and upgrades.

Capital expenditure



Figures contain rounding differences.

2021 Grow the business – R11 million

- Securities collateral
- Commodity derivatives: New diesel contract
- Colocation

2021 Maintain the business – R148 million

- Leasehold improvements to support new ways of work as well as client service
- Rejuvenation of infrastructure and systems

2021 JIS – R7 million

Indicative spend for FY 2022: R140 million – R180 million*

2022 Grow the business

- Information services organic growth strategy
- Securities collateral

2022 Maintain the business

- Rejuvenation of infrastructure and systems
- Risk mitigation

2021 PERFORMANCE continued

4 Inorganic growth

Our recent inorganic growth strategy has focused on the following areas:

- Corporate/issuer services
- Post-trade services
- Trade matching
- Primary market and financing

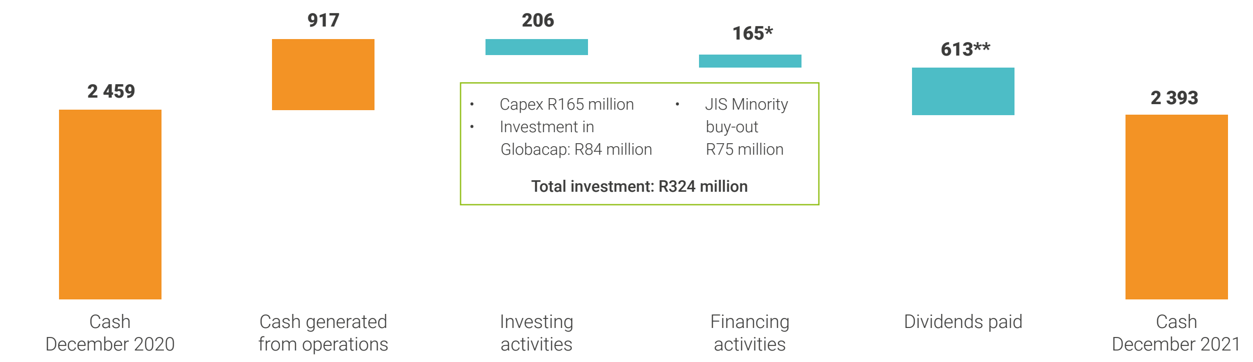
Our future short-to-medium-term focus is on Information Services to grow and diversify revenue, consistent with industry and peer trends and the JSE's own gap analysis. Specific focus will be on areas such as data management and distribution, data assets, and analytics and solutions.

The Group continued to be highly cash generative, with a cash balance of R2.4 billion at the end of December 2021 (2020: R2.5 billion) held in cash and cash equivalents. Net cash generated from operations declined by 9% to R917 million (2020: R1.03 million) following the 7% reduction in NPAT.

Total investment of R324 million comprised of R165 million (2020: R89 million) in capital expenditure and R159 million in inorganic investments. Capital expenditure focused mainly on investment in new ways of work, system rejuvenation and upgrades. Inorganic investment centred on the minority investment in Globacap and the minority buy-out in JIS.

All planned investments and 2022 capital requirements can be funded from the Group's own resources.

Cash investments of R324 million for resilience and growth



Figures contain rounding differences.
* *Including effect of exchange rate fluctuations on foreign-denominated cash and proceeds from sale of treasury shares.*
** *Excluding dividends paid to JSE Empowerment Fund Trust (inter-group).*

2021 PERFORMANCE continued

5 Continued high cash generation and increased dividend payout

PROGRESSIVE ORDINARY DIVIDEND.

The JSE's practice has been to return distributable cash to shareholders after ring-fencing cash for regulatory capital requirements and investments (both capital expenditure and inorganic opportunities).

The ordinary dividend of 754 cents per share represent a 4% increase on the 725 cents per share paid in 2020. In addition a special dividend of 100 cents per share for 2021 has been declared.

This is congruent with the Group's policy of progressively growing the nominal value of the ordinary dividend over time, subject to retaining cash for regulatory capital and investments, including acquisitions. The ordinary dividend pay-out ratio corresponds to 92% of distributable profits in 2021 (2020: 83%). The total dividend pay-out ratio is 104%.

The Group's dividend policy is to maintain a dividend cover ratio of 1.5x–1x earnings (a pay-out ratio of 67%–100% of current earnings). This pay-out range reflects the fact that cash generated exceeds NPAT, largely as a consequence of the amortisation of technology investments in previous years.

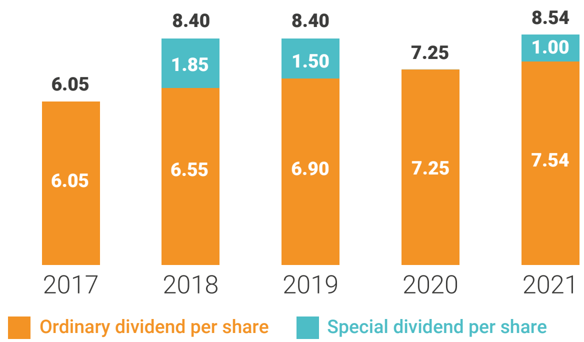
This trend is expected to continue for the next few years, and will be influenced by changes in the depreciation and amortisation profile of the Group.

The Board is confident that the existing dividend policy is congruent with the Group's inorganic growth strategy over the near term.

The dividends have been declared from retained earnings.

The graph below shows our progressive ordinary dividend payments over the past five years.

Ordinary dividend up 4%, special dividend declared



	2017	2018	2019	2020	2021
Total dividend	**R526 million**	**R730 million**	**R730 million**	**R630 million**	**R741 million**
Ordinary dividend payout ratio	65%	62%	87%	83%	92%
Total dividend payout ratio	**65%**	**80%**	**101%**	**83%**	**104%**

Dividends: Guiding principles

In considering the payment of the dividends, the Board will, with the assistance of the GAC, take the following into account:

- The current financial results of the Company and the solvency and liquidity test as set out in the Companies Act.
- The future funding and investment needs, as well as the regulatory capital requirements of the Company.

The Board reviewed the recommendations of the GAC in respect of the Company's dividend policy and reaffirmed that the Company aims for a progressive increase in the nominal value of the ordinary dividend over time, subject to affordability and taking into account the regulatory capital and investment requirements of the Group, including possible acquisitions.

6 Soundly capitalised Group

THE JSE AND JSE CLEAR ARE SUFFICIENTLY CAPITALISED.

JSE Group calculates and holds regulatory capital in the form of equity

R1.13 billion in equity held for JSE Limited and JSE Clear as at 31 December 2021

R789 million is held in the form of restricted cash and cash equivalents

Appreciation and farewell

I write this note with mixed emotions as I have resigned from my position and will be leaving the JSE in May 2022. During my nine-year tenure, I have played a role in the JSE's growth and diversification. It has been a rewarding and immensely career-enhancing experience. I have been privileged to work with exceptional colleagues, including Leila, and a highly engaged Board. I am especially grateful to my finance team for their diligence and excellent standards. As I start my new venture, I am proud of what we have achieved and confident that the JSE will build on its sound financial footing.

Income statement performance

NPAT REFLECTING STABLE OPERATING PERFORMANCE AND HISTORICALLY LOW INTEREST RATES

R million	2021	2020	% change
Operating revenue	**2 517**	2 446	3
Other income	**59**	82	(28)
Total revenue	**2 576**	2 528	2
Personnel expenses	**650**	601	8
Other operating expenses	**871**	868	0
EBITDA	**1 055**	1 060	0
EBITDA (%)	**41%**	42%	(1 pt)
Depreciation and amortisation	**258**	249	3
Total operating expenses	**1 779**	1 718	3
EBIT	**798***	811	(1)
EBIT (%)	**31%**	32%	(1 pt)
Net finance income	**146**	200	(27)
Share of profit from associate	**52**	54	(6)
Profit before tax	**995**	1 065	(6)
Income tax expense	**272**	283	(3)
Loss after tax for the year from discontinued operations	**–**	3	(100)
NPAT	**723**	779	(7)
Attributable to JSE minority shareholders	**1**	0.3	>100%
Attributable to JSE Group	**722**	778	(7%)
NPAT (%)	**28%**	31%	(3 pts)

Distributable earnings (excluding fines and Investor Protection funds) down 6% YoY.

* *Figure contains rounding differences.*

2021 PERFORMANCE continued

Robust balance sheet

R million	**2021**	2020	30 June 2021
Assets			
Non-current assets	**1 967**	1 871	1 874
Property and equipment	**176**	140	120
Intangible assets	**727**	821	779
Investment in associate	**328**	320	303
Other non-current assets	**736**	590	672
Current assets	**59 071**	49 754	49 032
Margin deposits	**55 413**	46 308	45 959
JSE Clear Derivatives Default Fund deposit	**500**	500	500
Trade and other receivables	**593**	475	499
Cash and cash equivalents	**2 393**	2 459	2 056
Other current assets	**172**	12	19
Total assets	**61 038**	51 625	50 906
Total equity	**4 218**	4 154	3 787
Stated capital	**(68)**	(33)	(87)
Reserves	**757**	677	720
Retained earnings	**3 529**	3 473	3 154
Non-controlling interest	**–**	38	–
Non-current liabilities	**258**	274	247
Current liabilities	**56 561**	47 197	46 872
Margin deposits	**55 413**	46 308	45 959
JSE Clear Derivatives Default Fund contribution	**400**	400	400
Other current liabilities	**748**	488	513
Total equity and liabilities	**61 038**	51 625	50 906

Figures contain rounding differences.

OUR OPERATIONAL PERFORMANCE

Listing → Trading → Clearing → Settlement

Capital Markets | **Post-Trade Services** | **Information Services** | **Company Services**

This section focuses on the revenue elements in the business and is not a complete operating view. More detail on our products and services is on pages 11 to 16. More information on JSE initiatives and operational performance can be found throughout this report, in addition to the Group CEO's and CFO's reviews (pages 17 and 44 respectively) and the strategy section (page 27).

Capital Markets insights

Valdene Reddy, Director: Capital Markets

Q What forces are shaping capital markets?

A Markets remain highly interconnected with global and local factors influencing it. Over the past two years we have seen the ebbs and flows in markets fuelled by the heightened concerns and impact of COVID-19, geopolitical events, significant bullishness in commodity cycles, regulatory changes, particularly amplified by uncertainty in China, and political shifts. All of this has been underpinned by a global focus of continental regrowth and economic recovery in a sustainable manner.

Q How is the JSE positioning itself for the future?

WE ARE WORKING THROUGH EXCITING AND CONTINUOUSLY EVOLVING TERRITORY FOR CAPITAL MARKETS. THE PACE OF CHANGE IS SUPER-FAST, AND WE MUST ADAPT TO INCREASED FRAGMENTATION, DISRUPTION AND TECHNOLOGICAL INNOVATION.

A Globally, capital markets are facing exponential levels of disruption and change. The makeup and structure of our markets have changed dramatically over the past decade. Market participants connect with the market and access information in new ways. Stock exchanges of the future will be characterised by their flexibility and responsiveness in fluid markets, pursuing streamlined operations, new business areas and growth initiatives, enabled through increased collaboration with ecosystem partners.

This presents exciting times for the JSE, and we are responding in several ways. We are looking to reinvigorate our appeal as a capital raising venue. We launched the Sustainability Segment and are developing a private placements solution as an alternative way to raise funds for infrastructure and small business development. We are collaborating with market players on new products and functionality, including policy reform, to open up the opportunities the South African capital markets can offer. In addition, we look to technology to remain relevant in an increasingly complex and digital environment.

Our investor landscape is also changing, not just by style and nature of the investor, but also by geography. Where previously South Africa had a larger interest from developed market participants out of Europe and the United States, recent trends show a shift to diverse geographies, with an increasing mix of investors.

Q What stands out in the last year?

A Three things stand out. Firstly, the past year has underlined the importance of being adaptable. The South African financial ecosystem coped well with the high volatility around COVID-19 and other major events. As a marketplace, this resilience is testament to an ecosystem that continues to punch above its weight with a high degree of innovation and flexibility. The JSE, despite some challenges, continues and remains committed to run trusted, high integrity markets.

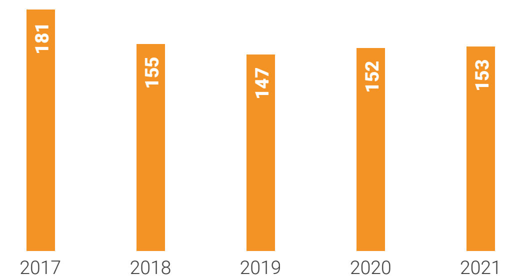
Secondly, our capital markets have offered value and strength for investors. Our overall market capitalisation grew with solid performances from several major counters. The commodities boom and defensiveness in areas of our market presented safe-haven opportunities and value. The South African bond market experienced decent activity levels, driven by its attractive yields.

Lastly, the pandemic has exacerbated inequality and social need in our society. It has also strengthened the collaboration and deliberate efforts between the public and private sectors to solve these challenges. There is an appreciation and unified effort, that we need to work together to deliver on the ambitious growth path that is needed for South Africa.

Primary Market

6% of total Group revenue (2020: 7%)

Revenue (R million)



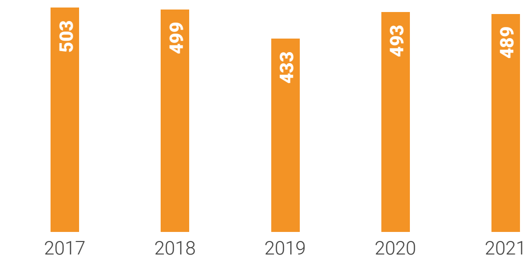
Performance

- Higher number of IPOs in 2021, at eight (2020: 4).
- 25 company de-listings (2020: 20) largely through M&A and/or corporate action in the small to mid-cap space.
- Aggregate market capitalisation of all equity listed instruments on the JSE increased by 15% from last year's close to 31 December 2021.
- 706 new bond listings (2020: 566) for a nominal value of R4.0 trillion (2020: R3.3 trillion).
  - Positive development in the Sustainability Segment with the listing of first social and sustainability-linked products.
- Other products:
  - Nine new ETFs (2020: 5), three ESG focused.
  - 26 new ETNs (2020: 40).
  - 323 warrants and structured products (2020: 241).

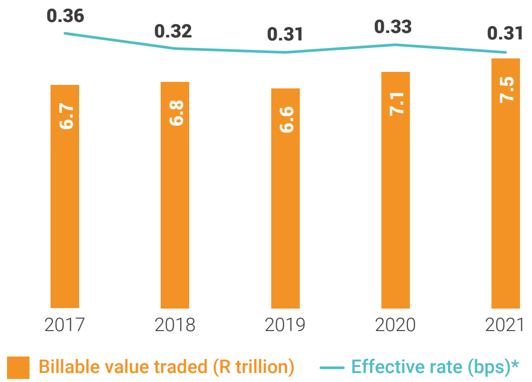
Secondary Market: Equity Trading

22% of total Group revenue (2020: 21%)

Equity Trading revenue (R million)



Billable value traded (Rtr) and effective rate (bps)*



* *Effective rate: Revenue divided billable value traded*

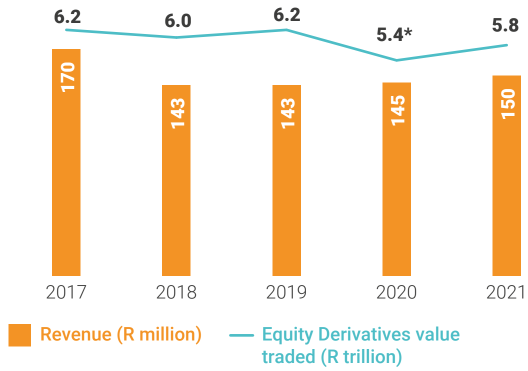
Performance

- Billable value traded up 5% (2020: up 7%), ADV up 7% (2020: 5%).
- Number of transactions/deals down 12% (2020: up 21%), after two consecutive years of double-digit growth.
- Complex Order Suite activity increased by 50% with Block Trades (up 51%) and Central Order Book Cross (up 75%) most active.
- Record activity in August 2021 linked to the Naspers/Prosus corporate action.
  - Value traded on 17 August 2021 reached a record high of R160 billion, 7x higher than any average daily value traded recorded.
- Foreign investors remained net sellers of equities, with R153 billion in outflows (2020: R128 billion).
- Colocation activity contributed 58% to overall value traded (2020: 50%), with 46 racks (2020: 40) – colocation an important enabler to growing trade activity.

Secondary Market: Bonds and Financial Derivatives Trading

11% of total Group revenue (2020: 11%)

Equity Derivatives revenue and value traded



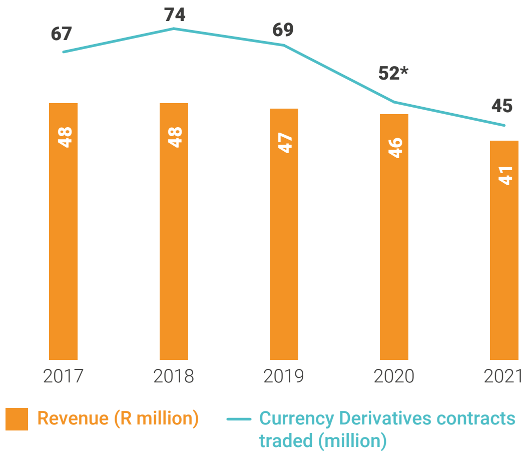
* *Recalculation of statistics to obtain alignment between equity derivatives and currency derivatives markets*

Performance

- Value traded up 7% to R5.8 trillion, driven by greater activity across delta one products, primarily driven by index future contracts.
- Value traded growth driven by higher market capitalisation – JSE Top 40 index up 23.3% in 2021.
- Modest uptick in H2 in the options market while activity in international and exotic derivatives remained steady.

2021 PERFORMANCE continued

Currency Derivatives revenue and contracts traded

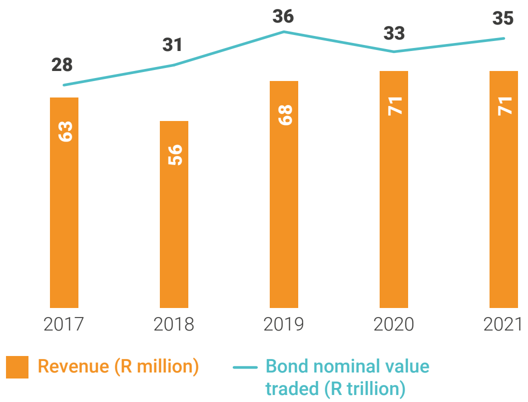


* *Recalculation of statistics to obtain alignment between equity derivatives and currency derivatives markets*

Performance

- Contracts traded down 13% to 45 million, due to subdued hedge-related activity.

Interest Rate revenue and bond nominal value



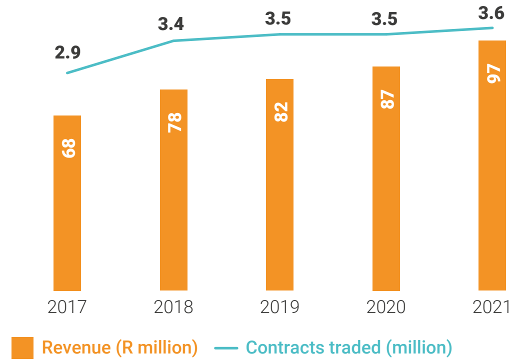
Performance

- Increase in Bond nominal value traded (up 6% to R35 trillion). Growth largely attributed to tighter bid offer spreads and an improvement in emerging markets' risk appetite.
- Lower number of Interest Rate Derivative contracts traded (down 5% YoY), due to lower open interest and uncertainty around the interest rate outlook into 2022.
- Foreign trade in bonds has seen good inflows.

Secondary Market: Commodity Derivatives Trading

4% of total Group revenue (2020: 4%)

Commodity Derivatives revenue and contracts traded



Note: Revenue % changes calculated on unrounded figures.

Performance

- Value traded up 21% owing to higher commodity prices and volumes traded.
- Number of contracts traded up 2% to 3.6 million, largely owing to global grains commodity prices.
- Physical deliveries: 40% increase in tonnages owing to a significant crop in 2021.
- Cash-settled diesel contracts under way.
- 9.3% CAGR since 2017.

Company Services

Revenue remained flat at R6 million (2020: R6 million).

* *This figure does not include JIS.*

Performance

In-person events and training remained cautious owing to COVID-19. Revenue was largely driven by the JSE's new virtual annual general meeting (AGM) service and virtual training in 2021.

JSE Investor Services

Revenue amounted to R125 million (2020: R17 million) for the first full-year consolidation of the business.

Performance

The revenue performance of JIS improved in H2 2021, driven by higher annuity income from new share plans and corporate actions.

Post-Trade Services insights

Dr Alicia Greenwood, CEO of JSE Clear; Director of Post-Trade Services

Q How has Post-Trade Services fared during the pandemic?

A COVID-19 resulted in significant periods of volatility and market stress, both globally and in South Africa. Successful execution of risk management, clearing and settlement is critical in promoting stability and retaining confidence in the South African capital markets.

Post-Trade Services successfully navigated two difficult years, notwithstanding the need to work remotely. Our systems, processes and technical architectures proved to be robust and effective, and provided the necessary stability despite record high volumes and volatility. Effective risk management and proactive risk mitigants provided additional safety mechanisms to ensure that the heightened risk of settlement failures and counterparty defaults was appropriately planned for and managed.

We were also able to enhance our operating model through major system changes and upgrades to promote operational and technical resilience. Our ongoing investment into developing our people and our technical toolset has paid off, and the Post-Trade Services team has proven to be resilient and highly capable.

Q How are you positioning Post-Trade Services for the future?

A We are developing a strategy to improve the sophistication and global relevance of Post-Trade Services, which will enhance the safety, efficiency and appeal of South Africa's markets, particularly to international investors. We want to adopt the central counterparty (CCP) risk management model in the JSE's equity and bond markets, and in over-the-counter (OTC) derivatives. This will leverage the globally-recognised CCP we already have in JSE Clear (which currently caters for the listed Derivatives Markets), and will introduce best-in-class, transparent and robust risk management in the South African cash and OTC markets. A superior risk management offering will also improve capital and cost efficiency for investors, thereby making South African markets more attractive and will result in higher levels of liquidity and trade activity.

Q What stands out for you over the past two years?

THE JSE AND THE FINANCIAL ECOSYSTEM HAVE HONED THEIR COLLECTIVE CRISIS MANAGEMENT AND FLEXIBLE THINKING SKILLS.

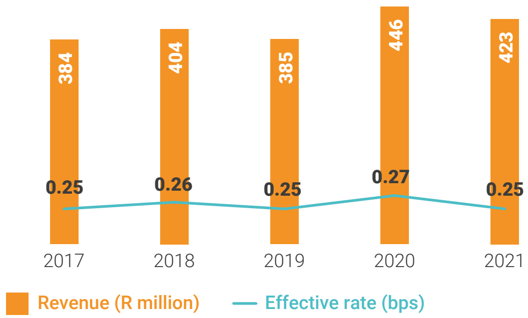
A The South African capital markets environment has proven itself to be exceptionally resilient. In March 2020, some international stock exchanges closed for a number of days to process additional volumes during tumultuous times. In addition, some global markets required material changes in their risk management protocols to manage the very high levels of volatility. By contrast, the stability and operational resilience of the South African markets during this time is a testament to the solid foundation on which we run our business at all times.

I am proud of the successful collaboration we had with our stakeholders in the Capital Markets ecosystem, with everyone working together effectively to achieve the ultimate goal of protecting the stability of the South African markets.

Clearing and Settlement

18% of total Group revenue (2020: 19%)

Clearing and Settlement revenue* and effective rate**



Revenue % changes calculated on unrounded figures.

* *Clearing and Settlement revenue only reflects equity market clearing fees.*
** *Effective rate: revenue divided by billable value traded.*

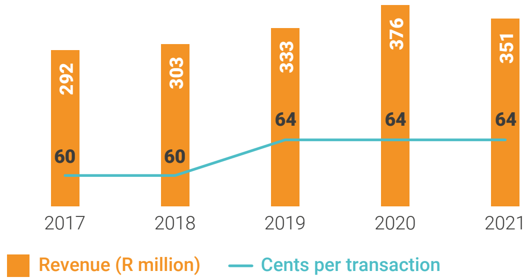
Performance

- Clearing and Settlement revenue down owing to the high base effect from scrip lending and penalties in 2020.
- Value traded up 5% YoY to R15 trillion.
- Upgraded system infrastructure for all markets, including Real-Time Clearing (RTC), Nutron/ Nuclears, and the Equities Clearing System (ECS).
- Implemented new functionality to further improve operational resilience and ability to deal with problematic trades.
- Submitted JSE Clear's application to the regulator to be licensed as an independent clearing house.

BDA

15% of total Group revenue (2020: 16%)

BDA revenue and cents per transaction



Revenue % changes calculated on unrounded figures.

Performance

- Kept effective pricing stable.
- Decline owing to lower number of equity transactions (down 12%), following two consecutive years of double-digit growth.
- Implemented improvements for the BDA system that rejuvenated the hardware platform and reduced systemic risk.

Information Services insights

Mark Randall, Director of Information Services

Q What drove 2021's revenue?

A As we earn about 60% of Information Services' revenue in dollars, the rand to dollar exchange rate is a key revenue driver. Given the rand's weakness in 2020, we had anticipated a similar trend for 2021. We recognised dollar billing at an average rate of R14.70 in 2021, more than two rand lower than our forecast, creating a gap between our budget and revenue achieved.

To compound this, many of our clients have been under pressure to rationalise their market data costs due to the poor macro-economic environment, leading to cancellations and consolidations. Fortunately, we offset some of this activity by securing new business. We onboarded 27 new clients, bringing our client base to 572. We have more than 20 types of clients, including asset managers, tracking funds, high-frequency trading firms and listed companies looking for business intelligence.

While our revenue is lower than 2020, it is not dramatically lower, demonstrating resilient demand for JSE data. Clients increasingly use our data in new ways and we see increased demand for richer information and a deeper analysis of our data. Our new strategy is responding to that need.

Q Could you expand on the new strategy for Information Services?

WE THINK THAT WE CAN BETTER HELP OUR CLIENTS ANSWER THEIR OWN BUSINESS QUESTIONS USING OUR DATA, AND THAT IS THE NEXT CHAPTER IN THE INFORMATION SERVICES STORY.

A In 2021, we developed a clear picture of where we want to take Information Services over the next five years. This vision has received strong support from the Board, executive management, and our people on the ground. Our traditional business lines focus on the provision of wholesale data. Clients buy data in big blocks and massage it into their required format, often through data intermediaries. This is anticipated to grow slowly, off a high base.

Our new strategy is built around flexibility and providing highly customisable data services. Clients want to use different formats, access historical data on demand and integrate easily into their own systems. Flexible formats, new technologies and different delivery mechanisms will reduce the barriers to entry for new client segments while making it easier for existing clients to get the information they need. This strategy will rely on cloud services to build a modern data platform that unlocks efficient data operations as well as analytics. 2022 will see the first meaningful investment into the strategy as we begin to put the required building blocks into place.

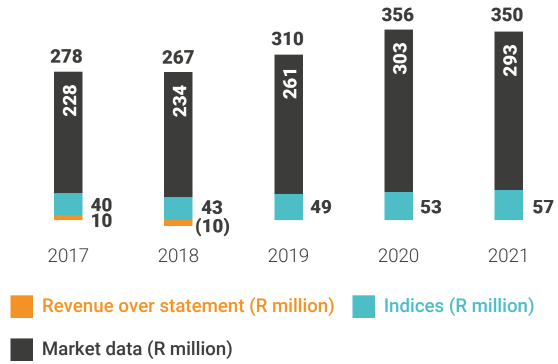
Q What excites you the most about the next five years?

A I am excited to see a complete reinvention of the JSE's role in the market data space. As we unlock the technical capabilities inherent in a modern data platform, this will simultaneously unlock solutions for our clients that are just not possible at present. I look forward to working even more closely with our clients as we start to see JSE data services make a meaningful contribution to their business. We will continue to maintain the high quality of our FMI-focused data products and services.

There is a hunger for innovation in the team and I am excited to be a part of this evolution. Many of the new offerings will require a more innovative approach to product design, and a different risk appetite with respect to product development cycles. This is also a great opportunity to bring some new skills into the team to unlock the deep market experience that we already have.

Information Services

15% of total Group revenue (2020: 16%)



Performance

- Reported revenue decline (-2% YoY) as stronger ZAR impacted USD-denominated revenue.
- 4% underlying growth.

2021 PERFORMANCE continued

RESPONSIBLE MARKET INFRASTRUCTURE

The JSE is both a frontline regulator of the markets that it operates and a commercial entity.

FMIs are key components of any financial system and are responsible for delivering services that are critical to the smooth and secure functioning of financial markets.

As a licensed FMI the JSE has statutory responsibility to ensure that it:

- provide facilities for listing of securities (including securities and debt securities issued by domestic or foreign companies;
- provides the JSE's users with an orderly and secure marketplace for trading, clearing and settling transactions in those listed securities; and
- regulates both the listing of securities and the trading, clearing and settling of transactions in a fair, transparent and consistent manner.

FMI

In discharging our responsibilities as an FMI and pursuing our strategic objectives as a commercial entity, the JSE seeks to maintain an appropriate balance between the regulation of the markets that it operates and the pursuit of shareholder returns.

We have adopted practices, norms and procedures to strengthen the responsible management of our business. This includes providing reliable and scalable technology platforms for our users, maintaining rigorous operating protocols, ensuring the integrity and security of company and customer information, remaining compliant with financial market legislation and regulations, and adhering to rulings issued by our regulators.

Frontline regulator

WITHIN THE JSE GROUP THE JSE IS LICENSED AS AN EXCHANGE WHILE JSE CLEAR (A WHOLLY OWNED SUBSIDIARY) IS LICENSED AS A CLEARING HOUSE.

The JSE

The JSE is a licensed exchange in terms of the FMA. The FMA circumscribes the JSE's regulatory duties, powers and functions. This includes the JSE's obligation to make listings requirements and enforce them, and to regulate the trading, clearing and settlement of transactions in those listed securities through the Exchange.

For the Cash Equities Market, the JSE rules provide for a range of measures to ensure that settlement takes place. These include the payment of a margin on unsettled transactions by member firms, and the ongoing monitoring of the regulatory capital of members of the Exchange to ensure they can meet settlement obligations.

For the Derivatives Markets, the JSE rules prescribe how transactions in listed derivative instruments are cleared through our clearing house, JSE Clear.

JSE Clear

The JSE appointed JSE Clear as a licensed clearing house (in terms of the FMA) to clear transactions in listed derivatives effected through the Exchange. It is a CCP for trades executed on the JSE's Derivatives Markets.

JSE Clear manages counterparty credit risk, liquidity risk, operational risk and regulatory compliance risk. One of its critical processes is an annual clearing member default simulation to ensure that JSE Clear and the clearing members have the necessary processes in place to manage a potential clearing member default.

The most recent default simulation conducted by JSE Clear in November 2021 demonstrated the resilience of its processes and systems – this simulation exercise focused on the steps for porting the open market positions of trading members from a potential defaulting clearing member to other clearers, and the methodology to be applied for variation margin. The outcome was positive and indicative of JSE Clear's ability to effectively manage a potential default event in the markets.

JSE Clear will become an ICH in accordance with section 110 of the FMA during 2022, the deadline for such compliance having been extended by the authorities to 1 January 2023. The required licence application has been submitted during 2021 and JSE Clear will engage with the Financial Markets Conduct Authority (FMCA) and the Prudential Authority (PA) during 2022 as part of the process to finalise the granting of this ICH licence.

Our regulators

The integrity of the JSE's regulatory relationships is fundamental to the exercise of its licensed functions and the exercise of its delegated regulatory authority as a frontline regulator.

- The Financial Sector Regulation Act, 9 of 2017 (FSRA) established South Africa's twin peaks regulatory regime, with the FSCA as the JSE's lead regulator. The FSCA is responsible for the supervision of the conduct of financial institutions, including market infrastructures, and replaced the Financial Services Board.
- The JSE and JSE Clear, as FMIs, are also subject to prudential regulation by the PA, a department of the SARB. The PA is responsible for the prudential supervision of banks, insurance companies and market infrastructures (such as exchanges and clearing houses).

Prudential regulation includes detailed quarterly and monthly reporting and supervisory meetings with the PA, which were conducted online in 2021. The supervisory meetings for both the JSE and JSE Clear involved executives across the Group, as well as senior finance, risk, operations, IT, internal audit and external audit, and compliance team members.

The PA also engaged directly with the CEOs and board chairs and the full boards of the JSE and JSE Clear on matters related to strategy and risk management.

No negative findings were raised by the PA in 2021.

See page 136 for more information on how the JSE manages its compliance.

Issuer Regulation division

The Issuer Regulation division is the custodian of the Listings Requirements and is responsible for their interpretation, application and enforcement.

The **Listings Requirements** apply to companies seeking a listing of securities for the first time and to companies that already have securities listed on the JSE (shares or other specialist securities, such as debt securities or ETFs).

Pursuant to the FMA, the Listings Requirements are binding on issuers, their directors, officers, agents and employees.

The Listings Requirements aim to ensure that JSE market participants have an orderly marketplace for trading in securities listed on the JSE and to regulate the market accordingly.

They contain the rules and procedures governing new applications for listing, certain corporate actions, and continuing obligations applicable to issuers and issuers of specialist securities.

Where the JSE finds that an applicant issuer or its director(s)/officer(s) have contravened or failed to adhere to the Listings Requirements, the JSE may:

- censure the issuer and/or the issuer's director(s)/officer(s), individually or jointly, by means of private or public censure;
- impose a fine on the issuer and/or the issuer's director(s)/officer(s), individually or jointly;
- disqualify an issuer's director(s)/officer(s) from holding the office of a director or officer of a listed company for any period of time; and
- issue any other penalty that is appropriate under the circumstances.

The **sanctions** that may be imposed by the JSE are in addition to any sanctions, fines or prosecution that may be sought or imposed by the FSCA.

The **protection of investors** (retail and wholesale) takes precedence when setting regulatory standards, as does promoting investor confidence in standards of disclosure and corporate governance.

Similarly to its global peers, the JSE does this by ensuring that:

- all applicant issuers meet minimum entry requirements. Compliance is determined based on the input of various role-players; and
- sufficient disclosure of relevant information is made available publicly and timeously so that investors are able to inform themselves of all relevant facts before deciding whether to trade in securities.

Market Regulation division

The Market Regulation division is responsible for overseeing trading in the markets operated by the JSE, with the primary aim of identifying potential market abuse, including insider trading and market manipulation.

The JSE does not have the power to investigate **market abuse.** Market abuse is a statutory offence in terms of the FMA. The statutory powers to conduct market abuse investigations and to initiate enforcement action, if necessary, are vested in the **FSCA.**

The Market Regulation division **monitors trading** in all JSE-listed securities using surveillance systems designed to detect and analyse suspicious trading activity. If it identifies trading activity that it believes warrants further scrutiny, the findings are discussed with the FSCA. The FSCA determines whether the identified trading activity should be formally investigated.

The FSCA can also initiate a market abuse investigation based on information referred by another licensed exchange or by any other party.

The Market Regulation division also **supervises the compliance** of authorised JSE member firms with the rules dealing with the use of the JSE's trading systems, with the regulated services provided to their clients, and with the financial soundness of the member firms, as well as with various governance, risk management and internal control arrangements.

Key developments in 2021

Publication of an issuer regulation guide

Explaining the role and powers of the JSE and that of the various regulatory and supervisory entities within the South African financial markets – the JSE's role is limited to its statutory obligations set out in the FMA and this publication serves to educate users on the scope and limits of the JSE's regulatory powers.

https://www.jse.co.za/files/issuer-regulation-guide-april-2021

Publication of a consultation paper

This paper – *Cutting Red Tape aimed at Effective and Appropriate Regulation* – seeks to identify provisions in the Listings Requirements that may be redundant or not fit for purpose. Capital markets are constantly evolving, and our Listings Requirements need to remain current and relevant to changing market circumstances. We seek to balance effective regulation with our assessment of the regulatory burden on participants.

March 2021: https://www.jse.co.za/regulation/companies-issuer-regulation

Publication of proposed amendments to the Listings Requirements in response to the *Cutting Red Tape* consultation

Formal changes and improvements to the Listings Requirements as a consequence of the *Cutting Red Tape* consultation have been published for public comments and are expected to come into effect during 2022, once approved by FSCA.

August 2021: https://www.jse.co.za/regulation/companies-issuer-regulation

2021 PERFORMANCE continued

Publication of proposed amendments to the Listings Requirements as part of an ongoing Annual Improvement Project

In addition to the *Cutting Red Tape* process, the JSE has also identified general improvements and enhancements to the Listings Requirements and has published these proposed improvements for public comment – the changes are expected to come into effect in 2022, once approved by FSCA.

September 2021: https://www.jse.co.za/regulation/companies-issuer-regulation

Publication of public censures and penalties

In the interests of transparent regulation, the JSE's investigations unit has published a summary of public censures and penalties imposed on companies that have transgressed the Listings Requirements – this is intended to contribute to heightened awareness of the need for improved governance within corporate South Africa.

https://www.jse.co.za/sites/default/files/media/documents/issuer-regulations/Censures%20and%20Penalties%20-%2025%20June%202021_0.pdf

Publication of self-regulatory report

A licensed exchange is required to publish a self-regulatory report outlining the steps taken to deal with any conflicts between its regulatory and commercial functions that might arise during the financial year – this report is approved by the Group SRO Oversight Committee each year, and is submitted to FSCA and the PA and published as part of our integrated reporting suite.

https://www.jse.co.za/investor-relations/results

Looking forward to 2022

The following amendments to the Listings Requirements and Debt Listing Requirements are at various phases of public consultation and should come into effect during the course of 2022.

Sustainability Segment	The JSE is proposing amendments to the JSE Debt Listing Requirements to introduce sustainability-linked debt securities, which are forward-looking performance-based debt securities for which the financial and/or structural characteristics can vary depending on whether the applicant issuer achieves predefined sustainability or ESG objectives pursuant to the sustainability-linked standards. The JSE further aims to introduce transition debt securities to enable applicant issuers to raise funds for climate-transition-related purposes. The transition debt securities can take the form of either (i) sustainability use of proceeds debt securities or (ii) sustainability-linked debt securities. To accommodate the above new debt securities, the current debt instruments under the Sustainability Segment will be renamed sustainability use of proceeds debt securities to align with their sustainability use of proceeds objectives.
Actively managed certificates	The JSE is proposing amendments to the Listings Requirements to expand the current Section 19 (specialist securities) to include specific provisions dealing with the listing of actively managed certificates. An actively managed certificate is a non-interest paying debt instrument that pays the investor the performance of a basket of securities that is actively managed by a portfolio manager according to a specific mandate.

Regulatory developments on the horizon impacting our business

Exchange control reform	The JSE, in partnership with Intellidex, engaged the National Treasury and the SARB on the importance of a modern, transparent framework for cross-border flows, advocating for three changes in capital flow reform: • **Standardising the treatment of inward-listed instruments:** Under the proposed reforms, all inward-listed instruments on South African exchanges will be classified as domestic. • **Permission to list non-rand-denominated instruments:** Multi-currency listings will provide the opportunity for investors to invest in non-rand denominated assets in South Africa. • **Collateral for derivative exposure:** Permitting non-rand collateral for derivative exposures would improve the competitiveness of South African markets in attracting international investment. A suite of changes to capital flow management (including the reforms proposed above) was announced by the Minister of Finance in the 2020 Medium-Term Budget Policy Statement. These changes would position South Africa as a competitive investment destination, opening the door for increased international investment and laying the foundation for securing Organisation for Economic Cooperation and Development (OECD) member status for South Africa. The JSE is actively engaging with policy makers and regulators to help facilitate these changes.
Crypto assets	The Intergovernmental Fintech Working Group (IFWG) published a position paper that provides specific recommendations, including legislative amendments, for the development of a regulatory framework for crypto assets. The finalisation of this framework within the twin peaks regulatory framework, through the Conduct of Financial Institutions (CoFI) Bill, should provide the JSE with an opportunity to introduce new products referencing crypto assets and provide wider investment opportunities for investors.

Twin peaks framework	Several legislative instruments to complete the twin peaks regulatory framework are yet to be finalised, leading to some policy uncertainty: • **CoFI Bill –** The National Treasury, the FSRA and the PA are focused on the finalisation of the third draft of the CoFI Bill, which sets out the proposed regulatory framework for the conduct of financial institutions. The regulatory framework includes the licensing, regulation and supervision of all financial institutions and their activities in the financial market. The National Treasury is expected to publish the third and final draft of the CoFI Bill for public comment in the first quarter of 2022. • **FMA –** The revision of the FMA has not been completed and is not likely to be published at the same time as the third draft of the CoFI Bill. The National Treasury published a discussion paper for comment. It is titled *Building Competitive Financial Markets for Innovation and Growth – A Work Programme for Structural Reforms to South Africa's Financial Markets*. It sets out the review of the FMA and aims to provide alignment of the financial markets' legislative architecture within the twin peaks framework. The anticipated next step is the publication of the draft amendments to the FMA. • **The Financial Sector Laws Amendment Bill (FSLAB)** provides for the resolution of systemically important financial institutions and deposit insurance for banks. Consequential amendments to the Insolvency Act, 24 of 1936, which are required to enable the JSE to accept securities as collateral in lieu of margin, are included in this Bill. The FSLAB was passed in the National Assembly and the National Council of Provinces in December 2021. It is expected to be assented to and implemented in 2022. • **The Financial Sector Levies Bill** provides for the funding of the twin peaks framework by the imposition and collection of levies from market infrastructures and financial institutions, for the benefit of the financial sector bodies: the FSCA, the PA, the Financial Services Tribunal, the Ombud Council, the Office of the Pension Funds Adjudicator and the Office of the Ombud for Financial Services Providers. A significant increase in the levies on all financial institutions is expected. The Bill was approved by Cabinet for submission to Parliament on 24 November 2021 and is expected to be introduced in the National Assembly in 2022.
Financial benchmarks	The Minister of Finance published a draft regulation to the Financial Sector Regulation (FSR) Act, 9 of 2017, which designates the provision of a benchmark as a financial service.
Companies Amendment Bill	The Department of Trade, Industry and Competition has published the draft Companies Amendment Bill (CAB), for public comment. This Bill is a revised version of the draft published in September 2018, which has been subject to further consultation with numerous stakeholders and extensive discussions and review at the National Economic and Labour Council (Nedlac).

Resilient operations

THROUGH A ROBUST PROGRAMME FOR BUSINESS CONTINUITY MANAGEMENT (BCM) THE JSE SEEKS TO ACHIEVE BUSINESS RESILIENCE, INNOVATION AND GROWTH, WHILE PROTECTING AND ENHANCING ITS VALUE.

The JSE defines business continuity as the ability to continue delivering core products and/or services at a predetermined level in the event of a material business incident/disruption as well as the protection of its employees and reputation.

BCM policy	Sets out the strategic governance framework that provides direction to ensure that BCM becomes an integral part of day-to-day business operations. Business continuity is a core management competency and a clear responsibility of management.
Standards and guidelines referenced in the development of the BCM policy	• The Business Continuity Institute's Good Practice Guidelines (GPG2018) • The FMA • ISO 22301: 2019 Security and resilience — Business continuity management systems — Requirements • King Report on Corporate Governance™ for South Africa, 2016 (King IV)* • IOSCO requirements • The BCM framework (which operationalises BCM)

Governance and management of BCM

The Board is ultimately responsible for BCM and has delegated its authority in this regard to the Group Risk Management Committee (GRMC). The effectiveness and adequacy of the BCM programme are evaluated by Group Internal Audit as part of its internal audit plan.

The JSE Exco is responsible for the implementation of the BCM programme. Each Exco member is responsible for the establishment and maintenance of business continuity plans (BCPs) relating to their areas of responsibility and appoints resilience champions per division to support the Exco head; coordinate divisional recovery efforts; ensure the business continuity arrangements in place are appropriate, complete and up to date; and coordinate BCM activities within the division.

BCP teams are appointed and take responsibility for each division in the JSE Group when the divisional BCPs are activated to coordinate recovery efforts.

The IT department is responsible for the implementation of IT disaster recovery strategies and plans.

The crisis management team (CMT) is led by the recovery director.

The enterprise risk management (ERM) team and CRO provide oversight, assurance and measurement of the conformance of the various business units with BCM policy and business continuity best practice.

2021 PERFORMANCE continued

Business continuity response to the COVID-19 pandemic and the civil unrest in July 2021

The JSE's BCM policies, plans and crisis management structures played an essential role in responding to the COVID-19 pandemic and the civil unrest experienced in July 2021. They will continue to play an important role as the JSE addresses the systemic impacts of these events in the medium to long term.

The JSE has comprehensive crisis management policy and manual to ensure business continuity in the event of a crisis. A specific, scenario-based response plan is generally developed to ensure an appropriate response to the prevailing crisis event, for example the Pandemic Response Plan in 2020 and the Unrest Response Plan in July 2021.

The key considerations of people (our employees), JSE infrastructure, critical 3rd parties, socio-economic impact, and industry and market (operations) impact underpin such plans. This ensures that, in developing our response, we not only anticipate how each of these operational resilience pillars are likely to be impacted, but also deliver appropriate interventions to ensure business continuity.

BCM framework

The following BCM framework was refined in 2021:

Analysis

Understanding of the business through a comprehensive business impact analysis supported by operational resilience and enterprise risk work streams.

Policy and programme management

Defined, Board-approved BCM policy, roles and responsibilities, and programme of work, with specific deliverables.

Design

Business continuity enablers. Offsite work area recovery, power and water back-ups, and integrated incident and crisis management strengthen the business continuity capability.

Implementation

Defined continuity plans that make use of all business continuity enablers.

Validation

Control measures to assess and/or test implementation across the entire BCM programme to identify areas of improvement through resilience testing.

Embedding

BCM culture embedded through training and awareness initiatives, as well as through nominated recovery champions in every division, and enhanced by divisional business continuity statements.

Crisis management

The CMT aims to prepare and provide guidance with regard to the processes and procedures for a coordinated response to unexpected circumstances that have negative strategic implications, ensuring that the JSE brand, image credibility and stakeholder confidence are protected and managed.

The JSE's crisis management objectives are to:

- value and protect people's health and safety above anything else;
- re-establish continuity of business as quickly as possible;
- protect and build the JSE's reputation;
- minimise liabilities; and
- assess and investigate root causes to prevent reoccurrence.

The main objectives for communication during a crisis include:

- preserving confidentiality before the incident or crisis becomes public;
- giving priority to internal communication (in compliance with confidentiality rules, data protection and market regulations); and
- being honest and transparent.

Future focus

The JSE is committed to developing, implementing and maintaining a robust BCM programme to ensure the recovery of critical services/systems in the event of disruptive events and incidents. One of the key tenets of any operational resilience programme is organisational learning derived from disruptive events.

Technology and information

WE LEVERAGE MODERN TECHNOLOGIES TO OPERATE A ROBUST AND SECURE MARKETPLACE FOR THE TRADING, CLEARING AND SETTLING OF TRANSACTIONS IN EQUITIES, BONDS AND DERIVATIVES.

As a licensed FMI provider, the JSE operates in a high-availability environment. Our technology architecture, the reliability of our technology platforms, and the efficiency of our operating processes all have a direct impact on our earnings, reputation and ongoing sustainability.

HIGHLIGHTS

Operated our markets remotely throughout 2021.

99.85% market availability (2020: 99.97%). Our operational resilience and systems uptime has exceeded our SLA commitments despite two unfortunate incidents in the cash Equities and Derivatives Markets.

Processed the **highest-ever trading volumes** on the Exchange in August 2021 owing to the Naspers/Prosus share swap (see page 18 of the CEO's report).

Recorded **eight priority 1 (P1) IT incidents**, which were fewer than in the prior year (2020: nine incidents).

Migrated and upgraded the BDA mainframe to reduce processing risk across multiple data centre locations related to electricity sustainability.

Upgraded the RTC system infrastructure for the Equity and Currency Derivatives Markets to maintain a modern processing platform.

Enhanced the JSE's cybersecurity defences. Delivered significant improvements through network segmentation and cyber implementation.

Colocation: Racks deployed to provide increased capacity for new client take-up.

Enabled market data usage reporting capability to improve visibility of market data use.

Implemented commissions functionality to simplify brokers' activities.

Complied with the requirements of the Protection of Personal Information Act (PoPIA), 4 of 2013.

CHALLENGES

Two incidents contributed significantly to the overall decrease in market availability during 2021: The 18 August Equity Market outage and the 21 June outage in the Equities Derivatives Market and the Currency Market.

Global supply chain performance is impacting the delivery of technical infrastructure.

Continuous cybersecurity activities increase the load on employees.

Technology and information strategy: Preparing for the future

OUR INFORMATION TECHNOLOGY (IT) STRATEGY IS EVOLVING TO ENSURE THAT WE REMAIN ALIGNED WITH THE JSE'S BUSINESS STRATEGY AND PROVIDE A SAFE, SECURE AND HIGH-AVAILABILITY MARKETPLACE.

Our clients and markets are interconnected by trusted, high-performing platforms and secure networks. The JSE's technologies continue to attract substantial investment.

The JSE remains focused on creating a business of the future and is leveraging new-generation cloud technologies, thus increasing and extending business capabilities without over-capitalising on underlying infrastructure.

We have embarked on a multi-year programme to refresh and update our technology. During 2021 the JSE delivered high-profile rejuvenation and upgrade projects including the BDA mainframe in-sourcing, the MIT upgrade and the RTC hardware replacement. These significant outcomes were delivered seamlessly while working remotely.

The JSE is actively addressing outdated technologies and legacy systems and will keep modernising the underlying technology platforms.

We constantly keep our resource mix under consideration to enable higher efficiencies.

The JSE is a critical FMI for the South African capital markets, with a high profile in the digital cyber domain, and therefore needs to maintain strong cyber resilience.

Strategy, architecture and emerging technologies

Digitalisation is proceeding at an ever-increasing pace, with a constant increase in process automation, edge computing, tokenisation, and digital assets through new technology file systems (NFTs). We continue to monitor trends and technologies in crypto currencies and central bank digital currencies, along with the associated regulations. Our technology teams undertake ongoing research into new technologies.

Engaging in the future IT landscape

Data fabric	The data integration platform was upgraded to the cloud version, enabling standards-based integration with the global data ecosystem. Progress is being made on rejuvenating the JSE information distribution platform.
Cybersecurity mesh	The JSE is moving towards a combination of on-premises and cloud-based security technologies to secure all elements of our technology solutions, including those provided by service providers by means of software as a service (SaaS).
Privacy-enhancing	Various technologies have been leveraged to ensure that customers experience PoPIA-compliant treatment. Recent improvements to the email platform will enable more effective oversight and control over the dissemination of data through this channel.
Cloud platforms	The dissemination of market and other data is a key role of the JSE. Work is underway to establish a cloud information dissemination platform (IDP) as part of the JSE technology rejuvenation journey. A cloud-first approach is being adopted.
Decision intelligence	We leverage artificial intelligence, machine learning and advanced analytics in our cybersecurity defences.
Automation	Recent investment into Globacap demonstrates the JSE's commitment to incorporating new generation and fintech automated processing. The recent incorporation of JIS into the JSE presents new opportunities for process automation and efficiencies in JIS operations.
Distributed enterprises	Remote working models and technologies have proven their robustness during the COVID-19 pandemic.

Our IT operating model and framework

The JSE's IT division focused on embedding the basics of the IT4IT™ operating model during 2020. The IT Manco is effective and efficient in coordinating operational activities and strategic initiatives. Processes and oversight were structured and standardised, and regular monitoring and guidance resulted in sustained operational stability and reliable performance while processing the exceptional volumes generated during the Naspers/Prosus share swap in August 2021.

Integration and collaboration across the enterprise have increased, as illustrated by the successful upgrade projects, including the BDA mainframe in-sourcing, the MIT upgrade and the RTC hardware replacement, which were delivered while working remotely.

We continued to implement the scaled agile framework (SAFe®) that was adopted in 2018 to embed agile and new ways of working across the business.

During 2021, the JSE IT operating model evolved, with the addition of JIS and the anticipated establishment of JPP and the JSE Clear ICH. A fit-for-purpose oversight model for the various JSE operating entities is being pursued so as to not over-govern the smaller operating companies.

Risk and oversight activities are effective and efficient, leading to high-quality, timeous audit findings, remedial actions and risk-mitigation activities. The IT risk controls framework is evolving and will mature in the foreseeable future.

Cybersecurity

Cybersecurity remains a priority to ensure that we can honour our commitment to providing a safe, secure and trusted South African marketplace.

The increasing occurrence of ransomware remains a concern and there are ongoing efforts to improve the JSE's posture in this regard. Internal awareness is regularly reinforced through structured communication and education campaigns.

The increasing use of SaaS-based solutions remains a challenge as not all solution providers enable integrated identity, authentication and authorisation management. The JSE's basic cloud foundation remains a focus area and will evolve as the industry matures and changes. Our focus is on maintaining a zero-trust security posture.

New entities

JIS

JIS is becoming a more significant aspect of the overall JSE platform. The JSE supported and enabled the transition of the Link SA software support from India to South Africa and assisted with the incorporation of the Investec Share Plan services into the JIS environment.

JPP

The JSE is working with Globacap to leverage their solution and enable the cloud-based technology capability that will support this endeavour. JPP obtained a financial services provider licence in December 2021.

Driving PoPIA compliance

The Protection of Personal Information Act (PoPIA), 4 of 2013, governs how organisations collect, use, store and delete personal information for natural and juristic persons. We prioritise data privacy and have operationalised the data privacy compliance programme to comply with this legislation.

Our enterprise information governance team, led by the JSE's chief information officer, is responsible for the JSE's enterprise information governance framework. The deputy information officer is supported by divisional privacy champions, who are responsible for driving privacy implementation and governance within their business units. They also play a key role in the data incident management process. The Privacy Champion Forum meets monthly.

Several policies were introduced, amended and reviewed during the year, including the JSE privacy notice, data management policy, record retention policy, employee privacy notice and data incident management plan. All employees have attended compliance training, which covers data privacy principles and data incident management.

Although PoPIA compliance is a key regulatory consideration, the treatment of confidential information under the FMA and general information governance principles are also integrated into our compliance approach.

Technology priorities delivered in 2021

Migrated and upgraded the BDA mainframe	The JSE decided in 2019 to relocate the processing of the BDA solution into the JSE data centre. This enables a micro-ecosystem in the JSE, which means that the market can be closed and re-opened in a controlled manner should an Eskom grid failure compromise the operation of the market.
Delivered RTC deal management	Enhancement to enable two members to split commissions on deals were closed out.
Implemented equities settlement roll-over capability	The post-trade services team can now identify potential contra trades ahead of implementing roll/fail trade procedures and pro-actively act to prevent any negative impact on market participants and the JSE.
RTC upgrade	The RTC technical platform was upgraded to new infrastructure with no market disruption. This was a crucial upgrade existing hardware in the clearing system.
Implemented robotics in treasury	Advanced capability was implemented to improve controls and reduce risks regarding bank reconciliations.
Strengthened security posture	Implemented cybersecurity technologies to reduce vulnerabilities across various attack vectors.
Improved market oversight	Implemented various enhancements to the market regulation solutions that improve market oversight.
Mitigated IT risk and improved IT controls	Various operational risk mitigation actions have been implemented and a risk controls framework was implemented to improve the overall IT operational risk profile.
Colocation	Racks deployed to enable increased capacity for new client take-up.
Building technology upgrades	New technology implemented as part of a building upgrade, including audio visual equipment, equipment to facilitate new ways of working, and the integration of modern building access control.
Enablement	Supported the business with planning and preparation for the ICH, JPP, OTC enhancements, inorganic acquisitions and the incorporation of JIS and Investec Share Plan Services.

Future focus areas

For 2022, the primary focus is on improving the delivery model to increase throughput for change, while balancing the focus on safe, reliable and performing market platforms. Existing partners' off-shore capabilities will be leveraged to exploit multi-time-zone benefits and lower cost bases.

Several initiatives are on the JSE's radar for 2022, including:

- Work to mitigate the risk related to ageing infrastructure for the commodities, interest rate derivatives, cash bonds and repos asset classes has commenced and will continue over the short to medium term.
- Work on the cyber resilience capability will continue.
- Cloud initiatives will be progressed, with a cloud-based data lake and information dissemination platform taking shape in 2022.
- JPP: Internal work to support the development of the private markets offering will commence in collaboration with Globacap.
- Investec Share Plan Services: Existing Investec systems and people will continue to be integrated into JIS.
- Diesel contract technical changes: Technical changes are being developed in preparation for market participants' take-up. Once clearing members have been onboarded, the product will go live to the market.

TRANSFORMATION AND SOCIO-ECONOMIC ADVANCEMENT

The JSE's transformation efforts are focused on areas that will broaden the talent pool, develop people, improve stakeholder relationships, improve enterprise and supplier development (SD) and support procurement initiatives.

At the JSE, we start from within, becoming demographically representative in terms of knowledge, skills, experience, race, gender and disabilities, thereby creating a diverse workforce from different cultures, backgrounds, skills and communities.

The Board, executive management and senior employees of the JSE:

- recognise and understand that transformation is a moral and strategic business imperative;
- embrace the challenge of being a progressive and transformed organisation;
- value equity, fairness and diversity; and
- are active in driving the appropriate mindset and behaviour.

The JSE focuses its development activities on areas believed to be relevant to South Africa (for example, poverty alleviation, job creation and youth and community development) and the business activities of the JSE (such as enterprise development (ED) and financial literacy).

We are measured under the revised Financial Sector Charter (RFSC) and have maintained our rating to a Level 2 rating, (2020: Level 2 rating), thus reaching our 2021 target.

Black ownership statistics

	2021	2020
Voting rights of Black people	**19.10%**	18.76%
Voting rights of Black women	**8.37%**	7.30%
Economic interest of Black people	**13.79%**	12.49%
Economic interest of Black women	**5.22%**	4.60%

Supporting the President's Gender-Based Violence and Femicide (GBVF) Response Fund

The JSE recognises that GBV is a persistent worldwide problem, occurring in every culture in all societies, and in the last couple of years the issue of GBV has really come to the fore in South Africa. COVID-19 has had the detrimental effect of exacerbating the cases of GBV with stress, loss of income and isolation making the situation far worse.

On 4 February 2021, President Cyril Ramaphosa launched the Gender-Based Violence and Femicide (GBVF) Response Fund together with the International Women's Forum of South Africa and social partners. Since the fund's launch, R128 million has been pledged by companies and organised business. This newly established fund anticipates reaching a number of beneficiaries, including children, children with disabilities, people living with HIV/Aids, drug abusers and women, to name a few. As such, and given the national importance and impact of gender-based violence on communities and women and children, the JSE also contributed R1 million to this worthy initiative.

Independent verification of the BBBEE status of the JSE

AQRate Proprietary Limited (AQRate), an independent South African National Accreditation System (SANAS)-accredited verifier, conducted a review of the JSE scorecard and related supporting documents in accordance with the requirements of SANAS R47-02 and the gazetted verification manual. These standards require that AQRate plans and performs the verification process and procedures to obtain reasonable assurance about the BBBEE status of the JSE under the RFSC. Summary scorecard: period from 1 January 2021 to 31 December 2021. Valid until February 2023.

Scorecard element

	2021	2020
Equity ownership	**16.18**	15.38
Management control	**17.83**	17.02
Skills development	**14.22**	14.58
Preferential procurement	**21.71**	22.73
ED/SD	**13.17**	12.16
Socio-economic development and consumer education	**8.00**	8.00
Total	**91.11**	89.87

2021 PERFORMANCE continued

Focus area	Our objectives	What we are doing and progress to date	Performance
Enterprise development and supplier development	• Enterprise development: Maintain current ED initiatives. • Supplier development: Identify fit-for-purpose SD opportunities.	The JSE's Black stockbroker ED programme provides financial assistance to emerging Black stockbroking firms to support them in the sustainable growth of their businesses. It continued in 2021. Qualifying participants receive 33% of their equity trading fees as well as 33% of their new API connectivity fees back in cash, quarterly in arrears. Participants are expected to use the funds for the purposes of developing their businesses, whether by employing more resources or by acquiring technological tools that will enable the firms to enhance their service offering and ultimately their business activity and growth. The JSE continued with its SD initiative and identified 14 organisations to assist. This programme helps SMEs to grow their businesses, expand their customer base, increase their turnover and profitability, and scale their operations to be more sustainable. These SMEs should then be able to participate in the corporate supply chain. Further detail is available online in our Sustainability report.	R9.1 million spent, equating to 0.5% of NPAT (2020: R9.5 million; 0.5% of NPAT). 13 members out of 48 equity trading members (2020: 13 out of 48) receive financial support. SD financial support to 14 organisations: R6.2 million (40% of 2% of FY2020 NPAT).
Preferential procurement	Embed preferential procurement practices.	Our procurement policy promotes preferential procurement practices that consider the BBBEE credentials of potential suppliers. Only suppliers that meet the BBBEE, Black and/or Black woman ownership, or exempt micro-enterprise (EME) and qualifying small enterprise (QSE) targets are placed on the preferred supplier list. Black-owned EMEs and QSEs are further supported by being placed on a 15-day payment period to minimise cash flow constraints.	Procurement spend in the supply chain is 75% of total measured procurement spend (TMPS), R733 million (2020: R700 million; 81% of TMPS).

2021 PERFORMANCE continued

Focus area	Our objectives	What we are doing and progress to date	Performance
Consumer education and socio-economic development	Retain the JSE Investment Challenge as our flagship consumer education initiative.	The JSE continues to prioritise its education-focused activities, such as operating the JSE Investment Challenge. The challenge has run over the past 40 years. It involves participation in a fun, interactive, online trading game and is a focused and far-reaching educational programme. It is aimed at introducing South African high school learners and university students to the world of finance and investments in JSE-listed shares, helping to demystify the stock exchange.	The number of high school participants increased from 9 429 to 18 542 and the number of university participants increased from 2 588 to 3 523. Spend: R3.1 million (2020: R3.2 million).
Socio-economic development	The JSE's socio-economic development initiatives focus on education, healthcare, and skills and development for disadvantaged communities, and are executed through registered not-for-profit organisations. The JSE invests by providing time, effort and money and believes that individuals should benefit directly through positive and meaningful contributions that are sustainable.	The JSE enabled 21 chartered financial analyst (CFA) (level 1) students to attend extra classes through Novia One Group. Fundisa funding was provided to learners from low-income families to pay for quality accredited qualifications at a public college or university.	Spend: R4.6 million (2020: 4.1 million).
Skills development	Implement strategic talent management initiatives.	Our learnership programme for people with disabilities continued throughout 2021. We launched a 12-month learnership for 21 people living with disabilities in July 2019. All participants are Black South African females with disabilities. The JSE absorbed a large percentage of its learners from the 2021 learnership programme.	21 Black individuals participated in learnership programmes. Of those, 100% were females and 0% were males. R6.5 million, 77.5% of our training spend for 2021, was allocated to Black employees. Total skills development spend: R8.4 million, of which R1.9 million is for disabled learners' training and salaries.

2021 PERFORMANCE continued

Focus area	Our objectives	What we are doing and progress to date	Performance
Employment equity	Drive progressive and integrated people plans.	Our programmes promote diversity and wellness and enable us to promote an equitable workplace. Diversity management and gender-based violence sessions were conducted with JSE employees in 2021, which informed the organisation's key priorities. The JSE has been monitoring progress against EE targets. We are progressing well towards our set goals and objectives as set out in our EE plan.	We are 93% on the target at the skilled technical occupational level. We are 16% away from achieving our target at the professionally qualified occupational level (2020 was 4%). We are making good progress at the senior (68% from 17% six years ago) and top management occupational levels (80% from 33% six years ago) for Black transformation.
Management control	Continue building a transformed Board and Exco over time.	We will continue to focus on EE appointments at Exco level.	The JSE Board consists of 67% Black and 67% female members. Black representation at Exco level is at 56% and 75% female members.
Ownership	Increase Black ownership of the JSE sustainably and economically viably over time.	The JEF Trust provides academically deserving Black South African students with the finance and support to acquire appropriate qualifications and the opportunity to enter the financial services sector on completion of their university training.	Spend: R10 million (2020: R10.5 million). Beneficiaries: 57 (2020: 66). Since the inception of the trust in 2009, it has supported 705 students with total disbursements of R83 million.

MANAGING, SUPPORTING AND RECOGNISING OUR EMPLOYEES' CONTRIBUTION

As we settled into new ways of working, including remote working, we continued to build capabilities within the JSE that enabled us to remain an effective organisation, with high-performing teams and individuals.

Our values and culture drive how we attract, develop, remunerate, engage, and retain diverse top talent.

This is essential because we need a motivated, skilled and diverse workforce that is suited to our current and future needs. We need to attract, retain and develop scarce and specialised skills in regulation, operations, technology and futuristic thinking.

Being an attractive employer requires progressive policies that consider the changing work landscape, so we focus on ensuring that we can fulfil our current and future talent requirements, enable business transformation, and meet the needs of our changing and diverse society.

In 2021, we continued to review our capabilities and invested in our culture, employee engagement and wellbeing initiatives to enable employees to be more productive, effective, and efficient while continuing to work remotely.

All dimensions of employee wellbeing were addressed to support the effectiveness of our teams, as well as individual resilience.

Our ethical capabilities continued to receive focused attention. We kept engaging with and educating employees on this essential aspect and increasing the mechanisms we employ to enable our ethical fitness.

2021 PERFORMANCE continued

Our employees and learners in numbers

Attracting and retaining diverse top talent is a strategic priority for the JSE and, in 2021, we continued to make progress in building the diversity and skills of our workforce, keeping a tight grip on headcount, and integrating employees from the JSE's acquisitions into our workforce.

PERMANENT EMPLOYEES

403 **Total permanent employees**[1]
(2020: 406)

54% **Female**
(2020: 53%)

46% **Male**
(2020: 47%)

76% **ACI**
(2020: 76%)

24% **White**
(2020: 23%)

1 **Employee with a disability**
(2020: 1)

7,44% **Employee turnover**
(2020: 6.16%)

41 years **The average age of JSE employees**
(2020: 40 years)

1 Workmen's Compensation claim **Fines, accidents or other health and safety incidents reported**
(2020: nil)

8 years **The average length of service across all categories**
(2020: 8 years)

[1] *There were no fixed-term contract employees (2020: nil).*

LEARNERS

21 **People with disabilities (learnership)**
(2020: 21)

100% **Female**
(2020: 96%)

0% **Male**
(2020: 4%)

100% **JSE, for Black and external**
(2020: 100%)

R8,2 million **Skills and development spend**
(2020: R8 million)

856 **Training days**
(2020: 645)

2 days **Average days per employee trained**
(2020: 2 days)

21 **Learners**
(2020: 3)

COVID-19 and remote working support for employees

The JSE continued to support employees in working remotely and dealing with the impact of COVID-19, providing them with educational and capability-building interventions in the following areas:

Support for remote working

- All employees continued to receive working tools, office equipment and access to internet services at the JSE's expense.
- Leaders were provided with the knowledge and skills to enable them to lead and manage teams remotely. All employees were offered knowledge and skills to enable them to create a healthy work-life balance.
- Employees received training and development opportunities, leveraging various world-class online learning platforms.

Other support

- To mitigate the impact of increased mortality as a result of COVID-19, an employee educator benefit was launched in June 2021. It provides the children of employees, from Grade 0 to tertiary level, with educational financial support if their JSE-employed parent passes on.
- The JSE enrolled employees in the Banking Association of South Africa's COVID-19 vaccination roll-out programme to facilitate their access to COVID-19 vaccinations.

Developing our people

The JSE supports employee productivity by providing training that aligns with our corporate strategy. In 2021, this included training to facilitate remote interactions with clients and colleagues, to support employees as they settled into remote working.

Intelligent learning capabilities are becoming increasingly important in employee development, therefore, the JSE has developed a strong focus on enabling and encouraging immersive and engaging learner experiences to facilitate the reskilling and upskilling of employees and to increase cross-functional collaboration and foster a continuous learning culture.

All JSE employees use the JSE Training Academy digital platform for essential training and mandatory courses. In some cases, this is augmented with access to bespoke subject-matter educational platforms.

Coaching programmes are offered for high-potential leaders and their value is evident in the rising confidence and engagement levels of the senior team.

During 2021, 10 senior managers enrolled for MBAs at local and international institutions, 13 JSE employees became certified coaches for agile transformation, enrolment in South African Institute of Financial Markets (SAIFM) programmes was supported and encouraged, and 132 employees were sponsored to study towards bachelor's degrees and other accredited qualifications.

The JSE spent R8.2 million on learning and development in 2021 (2020: R8 million), and 80% of the beneficiaries were previously disadvantaged.

A review of our talent and a succession planning process was conducted during the year to ensure that a smooth transition plan remains in place to ensure leadership changes do not interrupt major business initiatives and key person dependency is mitigated.

Employee development at a glance

132 **Employees using the JSE Sponsored Education Fund**
(2020: 73)

11 **Employees attending leadership development training (including leadership short sessions)**
(2020: 59)

88 **Institutions and trainers**
(2020: 89)

40 520 **Hours spent on employee training**
(2020: 22 715)

21 **Learners with disabilities trained**
(2020: 21)

1 **JSE permanent employee with disabilities trained**
(2020: 1)

412 **Employees using the JSE Training Academy app (%)**
(2020: 100)

Adapting our culture

WE ARE COMMITTED TO IMPROVING OUR CULTURE THROUGH HIGH LEVELS OF EMPLOYEE ENGAGEMENT, THE EMPLOYEE EXPERIENCE AND EMPLOYEE WELLBEING.

The JSE is on a journey to enhance its culture and, in so doing, become a great place to work by improving the employee experience and employee engagement levels. We continued implementing programmes and initiatives to improve employee engagement, the employee experience and employee wellbeing. These included organisational engagement and alignment regarding strategy, employee wellbeing, and leadership enablement programmes.

A solid agile foundation

Agility has become a key element of the JSE culture and the JSE has created a solid agile foundation and shown notable improvements in business agility and maturity metrics against a set baseline and global benchmark. In 2021 we implemented the agile coaching programme to improve business agility across the Group.

Organisational alignment: JSE vision, mission, purpose, and values

We launched the Proudly JSE Day initiative, to further improve and enhance employee engagement, employee wellbeing and JSE culture adoption in the context of a remote working environment. The aim was to foster team cohesion and to increase the alignment of our vision, mission, purpose, values, and strategic objectives.

Each division comes together monthly to engage on key strategic themes in accordance with employee engagement, employee wellbeing and culture adoption objectives and drivers. The divisions also engage each other on the progress made towards their strategic objectives and celebrate their successes and team members who have demonstrated our values. This initiative has enhanced team cohesion and a feeling of belonging.

For new joiners who must integrate into the Group and the JSE culture while working remotely, we developed an intensive four-day online induction programme. They are introduced to all our functions, are educated about practices, processes and systems, and have the opportunity to meet and engage with leaders.

Employee wellbeing

As remote working continued in 2021, the employee wellbeing programme was further enhanced to support and enable employee wellness and effectiveness.

We launched the 10 Dimensions of Wellbeing programme with 10 wellbeing themes to educate, support and improve employees' wellbeing. We supported employees through mental, emotional, physical, and financial wellbeing educational sessions in line with these dimensions. Leaders were also provided with educational sessions to improve their wellbeing and to capacitate them with the knowledge to support their teams.

The employee wellbeing programme also includes weekly yoga, meditation and fitness recorded sessions to provide employees with easily accessible wellness resources, enabling them to improve their overall wellbeing.

Employee engagement and experience

The JSE conducts an employee engagement survey every second year to assess the level of employee engagement, the employee experience and employee wellbeing. The 2020 employee engagement survey results indicated that we have high employee engagement, with a sustainable engagement score of 85% across all dimensions measured.

The Proudly JSE Day initiative, mentioned above, provided a vehicle for addressing areas for improvement that were identified by the survey.

Through these monthly educational and engagement sessions, as well as training interventions, we engaged the Group in the following ways to enhance employee engagement:

- We supported employees with the knowledge and skills on how to grow their careers and empowered the leadership group with the skills to enable career growth for themselves and for their teams.
- We engaged employees on the JSE's employee value proposition, highlighting the remuneration philosophy and benefits offered by the JSE.
- We continued on JSE's agile transformation journey and celebrated the successes achieved since embarking on it.
- We supported employees through a series of engagement sessions on burnout, digital fatigue, rest, sleep and resilience.

In 2021, each division, represented by its employee engagement ambassador, interrogated their divisional results and agreed on key focus areas and action plans to be implemented and tracked monthly. Employee engagement ambassador engagement sessions are conducted at a Group level to assess progress against divisional employee engagement action plans.

Reinforcing our ethics 01 02

We remain focused on adhering to applicable legislation and being an ethical, environmentally responsible Group. We have zero tolerance for bribery, corruption, misconduct, fraud, theft and unethical behaviour. Breaches of the JSE Group Code of Conduct and Ethics may result in disciplinary action and/or criminal prosecution. All employees are required to report actual or potential breaches to management, the head of Group compliance or the whistle-blower hotline. Zero calls and one email was received during 2021 (2020: 5). One matter was escalated for investigation and closed during 2021.

What guides our approach to ethics?

The Board is responsible for ensuring the ethical conduct of employees, and is committed to the King IV principles of accountability, integrity, fairness and transparency, which are reflected in the Board's charter.

The reputation of the JSE is built on the actions and decisions taken by all employees in our interactions, whether internal or external, and ethical conduct is an integral part of our corporate culture. Our behaviour in the performance of day-to-day duties and interactions with stakeholders is underpinned by our values and is indicative of how we think and feel about doing business and interacting in the broader economic and social environment.

Ethical behaviour and anti-corruption measures are instilled formally through our code of conduct and ethics, policies, procedures, and training material, as well as through compliance oversight of the Group's adherence to relevant legislation. The code of conduct sets out our individual responsibilities as colleagues, stakeholders, and business partners, and guides our behaviour when we make decisions. It is based on a strong foundation of ethical leadership and a commitment to doing the right thing.

We hold ourselves to high ethical standards and, wherever possible, we insist that the external parties with whom we interact apply the same standards.

Responsible business and good governance principles are promoted by the Listings Requirements, the effective regulation and surveillance of our markets, the FTSE/JSE Responsible Investment Index Series, and our support of a variety of good governance and best practice initiatives, in South Africa and internationally.

To continuously improve our organisational ethical fitness, we conduct a GIBS Ethics Barometer Survey every second year so that we can implement measures and interventions to close identified gaps. The 2021 survey results returned an overall score of 73% for the JSE, compared with 63% in 2019. To address the gaps identified, training sessions were conducted to create awareness and an understanding of our ethical objectives, and for the adoption of the required enhancements, both within the JSE and in respect of our stakeholders.

Strengthening diversity and fostering equality

The JSE supports the country's transformation objectives and is committed to becoming demographically representative in knowledge, skills and experience, race, gender and disability, while redressing historical inequality. We have an employment equity policy that aims to eliminate unfair discrimination.

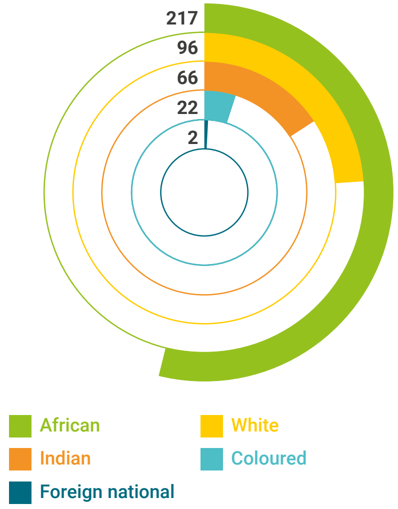
We conduct mandatory diversity, inclusion, equality and belonging workshops and training sessions for employees and specific ones for our leadership group. The training and workshops aim to facilitate discussion and a shared understanding of diversity and the JSE's transformation priorities.

We have completed the first year in the new successive three-year employment equity plan and are making progress towards our December 2023 objectives. As at 31 December 2021, 76% of our employees were African, Coloured or Indian (ACI) and we continue to improve ACI representation in senior and top management. Our learnership programme for unemployed Black youth contributes to a pipeline of skilled Black employees. Our focus is on disabled learners, assists in driving transformation.

To ensure the fairness and equality of our working environments, we reviewed various policies and practices to ensure fairness regardless of gender and race. This resulted in the implementation and adoption of a gender-neutral parental leave policy and the introduction of a gender-based violence policy.

Based on an internal review, the JSE does not have a gender or race pay disparity.

Race breakdown, 31 December 2021

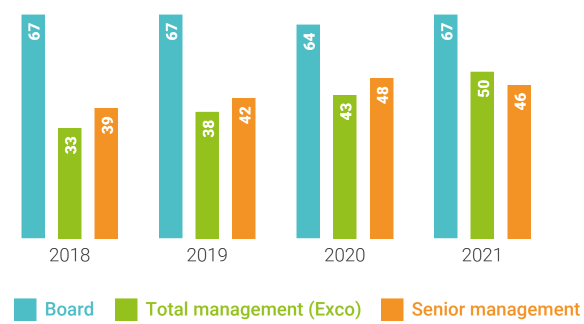


Female representation at

Board
67%

Exco
75%

Black representation in leadership (%)



Performance and remuneration outcomes

The Group's annual financial performance targets aim for balanced operating leverage, HEPS growth year-on-year and a return on equity (ROE) of 17% – 18%.

Despite a resilient performance in 2021 with EBITDA unchanged year-on-year at R1.06 billion, operating leverage slipped to -1% and HEPS declined 6% year-on-year, largely on account of the steep decline in finance income to R146 million (2020: R200 million), a consequence of the record low interest rate environment. The business returned an ROE of 17.3%.

ROE is a key measure of financial performance as it combines all our critical drivers, including earnings growth and capital utilisation, into a single metric. For the past four years, we have recorded an average annual ROE of 19.4%. Looking forward, our medium-term target ROE range is 16% – 20%. This is lower than the previous target range of 16% – 23% given the expected economic outlook.

The Group continues to be strongly cash generative, with net cash from operations of R917 million (2020: R1.03 billion.

This cash flow supports our progressive dividend policy (with the ordinary dividend up 4% year-on-year) and positions the JSE well to continue investing in those areas of our business that we believe to be critical to our long-term sustainability.

In this context:

TGP for 2021

- Group Remco approved increases to TGP of 4.5% for 2021 (2020: 5.5%) based on benchmarking and input from the Group's remuneration advisors. For staff earning less than R350 000 per annum, the annual TGP adjustment was significantly above inflation, as part of our approach to fair and responsible remuneration.

Corporate performance for 2021

- Assessed by Group Remco as on-target, with nearly all objectives for 2021 being achieved. Group Remco awarded a discretionary bonus pool of R72.3 million, aligned to the 10% of NPAT guideline for calculating the bonus pool (although the pool was down 5% on the R76 million awarded in 2020 in line with the decline in profitability).

Long-term performance

- Group Remco determined the vesting percentage for share awards that vested in 2021, based on performance against pre-set corporate targets over the measurement period 2018 - 2020. The vesting for this Allocation 1(1) was assessed at 42.93%, and the balance of the Allocation 1(1) share award was forfeited.

Refer to our online remuneration report for detailed information.

GROUP REMCO – AREAS OF FOCUS IN 2021

- **reviewed grading and benchmarking outcomes for all executive roles (as prepared by the committee's independent advisors), and determined the overall TGP adjustments for all staff, including for subsidiary companies JSE Clear and JSE Investor Services**
- **approved the corporate scorecard for 2021 and assessed corporate performance against this scorecard**
- **determined the annual discretionary bonus pool for 2021**
- **approved all LTIS 2018 share awards and critical scheme cash awards**
- **determined the vesting percentage for the long-term share awards vesting in 2021**
- **engaged key institutional shareholders via a roadshow and worked with our independent remuneration advisors in detailed workshops to design enhancements to JSE remuneration policies, including a new scorecard model**
- **reviewed leadership continuity plans, and the senior talent pipeline for the Group**
- **monitored employment equity progress and plans, and oversaw appointments to the executive committee**
- **prepared a recommendation for the Board and shareholders on non-executive director fees**

Malus and clawback

- No malus or clawback conditions were triggered in 2021.

Minimum shareholding requirements

- Compliance with MSR was achieved by the CFO while the Group CEO remains on track to meet an interim MSR target as her first share award granted in 2020 will only vest in Q1|2023).

TGP for 2022

- Group Remco approved a 5% increase to TGP for 2022 (2021: 4.5%), inclusive of a pay parity adjustment of 0.94% of payroll (R3.9 million in aggregate) to address parity adjustments where merited.

Remuneration policy changes

Group Remco last undertook a meaningful revision of JSE remuneration policies in 2018 – the principal changes at that time being the shift from two annual bonus schemes to one universal discretionary bonus scheme, and the introduction of individual bonus limits for on-target, above-target and maximum performance.

Reward practices and incentive design evolve over time, and it was opportune for Group Remco to re-examine the JSE's remuneration policies during 2021. Further impetus came from our institutional shareholders, specifically their concerns regarding the need for a more visible and direct linkage between variable pay and performance (through clear metrics, targets and weightings for the annual corporate scorecard). (See new Scorecard methodology for 2022 on page 31). Executive management also noted various challenges with the existing reward model, particularly the historical limitation on the size of the pool which restricts individual awards below the approved policy levels.

With the input and guidance of our independent remuneration advisors, Group Remco has developed several refinements to the existing remuneration policies to address the concerns. The changes are being presented as part of the updated remuneration policy for consideration and endorsement by shareholders at the AGM to be held on Tuesday, 3 May 2022. As the changes will apply prospectively, the performance conditions for all in-flight awards will remain unchanged.

Remuneration philosophy objective

The JSE's remuneration philosophy and policy governs the remuneration of executive management (executive directors and prescribed officers) and other employees. We are committed to observing the concept of fair and responsible remuneration for executive management in the context of overall employee remuneration.

Remuneration philosophy

Remuneration is structured in a fair and reasonable manner, recognising individual contributions and collective results. There is a clear differentiation between executives and employees based on line-of-sight responsibility, accountability, competencies, work performance and scarcity of skills.

Inherent in this philosophy is the linkage between performance and short and long-term remuneration (both at an individual and corporate level).

In order to drive a pay-for-performance approach, there is also an increasing element of variable pay at senior management levels.

We aim to:

- Align pay to performance against corporate strategy
- Promote a culture that supports innovation, enterprise and the execution of Group strategy
- Align the interests of employees with attaining profitable (and sustainable) long-term growth of the business for the benefit of all stakeholders
- Offer an equitable remuneration mix that attracts, motivates and retains the appropriate calibre of executives and employees

Our remuneration philosophy accounts for:

- Reality of the JSE's size and its significant role in the South African financial sector
- Nature of the business, its risk profile, the competitive environment and financial affordability
- Balancing of rewards with the funding of capital to maintain and grow the JSE, dividend payments to shareholders and payments to wider society (through taxation and corporate social responsibility)

Our philosophy creates sustainable value as it is:

Aligned with stakeholder interests

Congruent with strategic priorities and values

Linked to corporate and individual performance

Competitive with market norms and benchmarks

Transparent and understandable

2021 PERFORMANCE continued

1. RIGOROUS CORPORATE SCORECARD MODEL

New corporate scorecard model will apply from 2022 and will include:

- Four focus areas, weighted as follows: Financial (45%), Protect core business (20%), Transform business (20%), Deliver sustainable marketplace (15%)
- Clear metrics and targets for both on-target and above target performance levels (per focus area)
- Modifiers (outcomes that will penalise poor performance)
- Upfront disclosure of the scorecard to shareholders

See page 31 in this report for the 2022 scorecard

2. FUNDING MODEL FOR ANNUAL DISCRETIONARY BONUS SCHEME

- Shift from an after-tax funding model (10% of NPAT) to a pre-tax model linked to variable percentage of PBITI (profit before interest, tax and incentives)
- Percentage range of PBITI outcomes linked to overall corporate performance delivered (but subject to Group Remco discretion):
  - Below target: 7% – 8% of PBITI
  - On-target: 8% – 10% of PBITI
  - Above-target: +10% of PBITI

3. FUNDING MODEL FOR LONG-TERM INCENTIVES

- Shift from an after-tax funding model (10% of NPAT) to a PBITI model for LTIS 2018 and the Critical Skills scheme

4. REFINEMENTS TO EXISTING MINIMUM SHAREHOLDING REQUIREMENT (MSR) POLICY

- Limit application of policy to executive directors and prescribed officers
- Align MSR percentage holdings to the LTIS 2018 award multiples
  - Group CEO at 150% of TGP
  - Prescribed officers at 80% of TGP
- Rolling compliance period of five years from the date that a share allocation for executives vests for the first time in their hands
- Minimum level of compliance required for each year of the five-year compliance period
- Sanction for not meeting MSR is the mandatory 100% deferral into the MSR of all future share awards upon vesting until compliance achieved

5. EXTENDING MALUS AND CLAWBACK TO ANNUAL DISCRETIONARY BONUS SCHEME

- Malus and clawback conditions currently apply to share and cash awards granted under LTIS 2018 and the Critical Skills scheme
- These conditions to be applied to the annual discretionary bonus scheme as from 2022

6. REVIEW OF PEER GROUPS

No changes to the peer groups utilised for TGP benchmarking, LTIS TSR benchmarking or non-executive director emoluments benchmarking

7. REVIEW OF PAY MIX AND MEDIAN PAY POLICY FOR TGP

- Pay mix for executives considered appropriate
- TGP pay policy at median retained

The objective of these policy enhancements is to achieve a balanced outcome that is fair and responsible to all stakeholders. Total reward for executives needs to be market competitive and must be linked to clear and objective corporate performance outcomes which deliver value creation for shareholders.

Corporate performance 2021

KEY OUTCOME: *Group Remco considered the evidence supporting management's self-assessment and rated overall corporate performance for 2021 as "on-target"*

Our corporate scorecard for 2021 included initiatives to address all our material matters. Our strategic priorities for 2021 formed the basis of the corporate scorecard for 2021 which was approved by Group Remco and the Board.

At year-end, management's self-assessment of strategic delivery for 2021 was interrogated by Group Remco. Each scorecard element was assessed as achieved by Group Remco, with an overall performance rating of "on-target".

Although Group Remco did not assign specific weightings to each scorecard deliverable, financial performance does contribute materially to the scorecard assessment and the self-assessment directly informs the size of the discretionary bonus pool for 2021. Following engagement with institutional shareholders in 2021, a fresh approach to performance measurement is being implemented for 2022 (refer to our revised corporate scorecard – see page 31).

Annual incentives awarded for 2021

KEY OUTCOME: *Discretionary bonus pool of R72.3 million awarded for 2021 (a decline of 5% on the bonus pool of R76 million awarded in 2020)*

In terms of the JSE's approved remuneration policy for 2021, the maximum amount that may be awarded in annual short-term incentives is limited to 10% of that year's NPAT. The JSE's financial performance in any given year is a key determinant, but not the sole factor, in determining the final quantum of the discretionary bonus pool.

Group Remco determined that management and staff had delivered an on-target corporate performance for 2021 under challenging operating conditions. All pre-set scorecard targets had been achieved, notably with financial performance better than the approved budget for 2021 (although down 6% year-on-year on reported results).

Group Remco awarded a discretionary bonus pool of R72.3 million (2020: R76 million) reflecting the overall quality of the corporate performance. This translates into a bonus pool of 10% of NPAT (2020: 9.7%) which is within the Group's policy guideline of 10% of NPAT for the size of the discretionary bonus pool. No bonus shares were awarded for the 2021 year, and all discretionary bonus awards were payable in cash. This is equivalent to 7.3% of PBITI under the proposed new funding model for the discretionary bonus (to be applied from 2022 subject to policy approval at the AGM to be held in May 2022).

Long-term incentives vesting in 2021

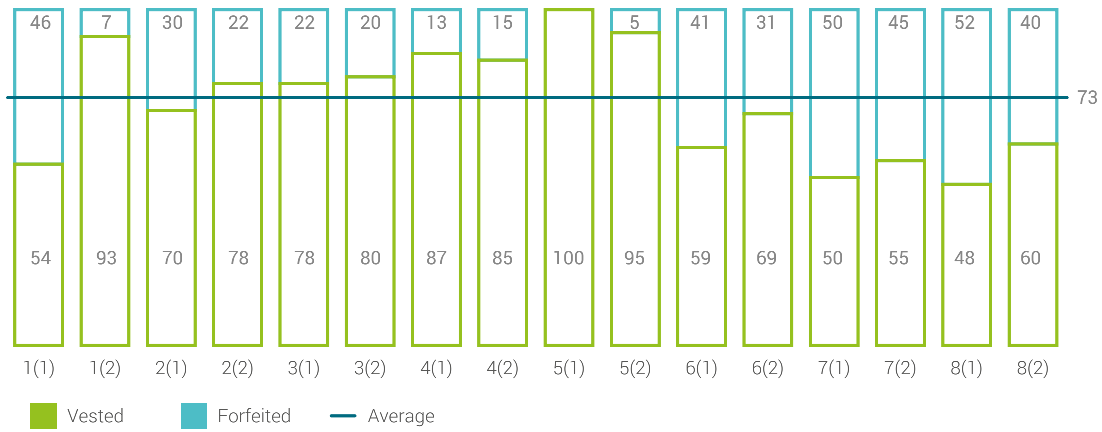
KEY OUTCOME: *Share awards granted in 2018 vested in 2021 at 42.93% based on performance against the corporate metrics (ROE, Earnings growth, relative TSR and strategic performance over the vesting period) – the balance of these share awards were forfeited*

By design, the LTIS 2010 scheme (now closed) and the new LTIS 2018 scheme approved by shareholders in 2018 are structured for on-target vesting of 70% (with the size of the original award being calibrated to account for this expected 70% vesting).

This means that on average over the life of these schemes, 70% of the share awards ought to vest if management achieves on-target performance against the pre-set corporate performance metrics.

The LTIS 2010 has closed with all allocations having vested. Over the life of the LTIS 2010, the overall vesting percentage is 73%. Where corporate performance targets are not met, the relevant portion of the share awards are forfeited (there is no subsequent retesting of performance).

LTIS 2010 vesting profile over the life of the LTIS 2010 scheme (%)



Areas of future focus

During 2022 Group Remco will focus on:

- Continued oversight of the JSE's implementation of pay parity in support of fair and responsible remuneration across the Group, particularly in our subsidiaries JSE Clear and JSE Investor Services
- Developing a strategic retention model and continuing to oversee the JSE's talent management plans and pipeline, and employee value proposition, particularly in a post-COVID-19 world
- Monitoring the effectiveness, productivity and employee response to the JSE's new hybrid way of work
- Reviewing the effectiveness of the new corporate scorecard model and the associated metrics and targets
- Overseeing implementation of the PBITI model for the annual discretionary bonus scheme
- Considering whether to introduce an element of deferral for short-term incentives
- Monitoring compliance with the revised MSR policy for all executives
- Reviewing the total reward framework and any additional enhancements that might be required post-AGM
- Maintaining the dialogue with our institutional shareholders on remuneration matters to promote alignment with stakeholder requirements

PROTECTING VALUE CREATION

COMMITMENT TO GOVERNANCE

The Board is the custodian of corporate governance and is responsible for steering the Group towards achieving its governance outcomes through strategic direction and value creation.

Our commitment to best practice governance drives us to constantly improve the way our business is managed and ensures decisions are taken openly and transparently within an ethical framework.

The Board plays a pivotal role in protecting value by setting policy and overseeing the Group's governance and compliance frameworks and control environment.

Sound corporate governance practices are implicit in our values, culture and processes; and our internal controls promote awareness of risk, compliance and good governance in every area of the business.

The Board is guided by a range of local and international requirements, standards and guidance, including, but not limited to, the Companies Act, 71 of 2008 (as amended) (Companies Act); the FMA; the Listings Requirements; and King IV. These requirements are incorporated into the Board's policies, processes and operating procedures. Compliance with applicable statutes, regulatory notices and good governance practices is overseen by the Board, supported by the Group's governance and assurance team.

THE BOARD IS SATISFIED IT HAS FULFILLED ITS RESPONSIBILITIES IN ACCORDANCE WITH ITS MANDATE FOR THE 2021 FINANCIAL YEAR AND HAS PROVIDED RELEVANT INFORMATION TO STAKEHOLDERS TO SATISFY THE KING IV DISCLOSURE REQUIREMENTS.

KEY FOCUS AREAS FOR 2021

including major decisions taken by the Board and its committees in 2021

Approved the buy-out of the minority stake in JIS and the acquisition of the Investec Share Plan business, under the guidance of the Group Deal Committee.

Provided guidance and support in implementing the acquisition strategy to ensure effective execution of the JSE's inorganic strategy.

Under the guidance of the Group Remuneration Committee:

- reviewed and updated the Remuneration policy; and
- reviewed the remuneration of the Executive Committee.

Approved the appointment of Board Chairman-designate, under the guidance of the Group Nomination Committee.

Reviewed how the JSE should approach ESG reporting and its position in providing guidance to the market on ESG disclosures.

FUTURE AREAS OF FOCUS

Acquisition strategy | Technology | Financial performance

- Continue to focus on our inorganic strategy and closely monitor the performance of recent acquisitions.
- Ensure the Group remains focused on advances in information services and market technological disruptions to maintain its competitive advantage.
- Focus on the financial aspect of the business, particularly revenue enhancement and diversification, and oversight on the cost containment strategies.
- Exercise stronger oversight on the delivery of a clear future looking technology strategy that is fully integrated into the overall JSE strategy as well as the associated investment and return on investment.
- Focus on succession planning and talent management.

Governance universe

Board

The Board is ultimately responsible for the JSE's adherence to sound corporate governance practices and high ethical standards, and for ensuring the business operates in a fair and transparent manner.

There is a clear delineation of roles and responsibilities between the Board and executive management. Our governance framework, anchored in the Companies Act, FMA and the JSE's memorandum of incorporation (MOI), allows for delegation and assignment of authority, while enabling the Board to maintain effective control of the Group. The Board confirms that it complied with all statutory requirements and the provisions of the MOI for the year ended 31 December 2021.

The JSE aims to ensure that the roles, mandates and committee compositions allow for shared responsibilities, dispersed influence and balanced perspectives on the strategic matters facing the Board. Governance structures and processes are formally reviewed annually, and changes are adopted where appropriate to accommodate internal developments and market best practice. Each Board committee operates following its written terms of reference and defined focus areas to deliver our governance outcomes.

Board committees

Finance and audit governance	Group Audit Committee
Regulatory oversight	Group SRO Oversight Committee
Remuneration governance	Group Remuneration Committee
Risk, technology and information governance	Group Risk Management Committee
Sustainability and ethics governance	Group Sustainability Committee
Board renewal and governance	Group Nominations Committee
Oversight of acquisitions and growth opportunities	Group Deal Committee[1]

Executive management

- Issuer Regulation
- Market Regulation
- Capital Markets
- Post-Trade Services
- Information Services

EACH BOARD COMMITTEE CONFIRMED THAT IT HAS EXECUTED ITS RESPONSIBILITIES IN ACCORDANCE WITH ITS TERMS OF REFERENCE. 08

Governance outcomes

Value creation is protected by achieving the governance outcomes as outlined in King IV. The Board has satisfied itself that the JSE has complied with the King IV principles in all material respects. A summary of how the King IV principles were applied is on pages 141 to 145.

The Board is satisfied that it has fulfilled its responsibilities as set out in the Board charter, and that the Board and Board committees have discharged their fiduciary duties, acted in good faith, with diligence and care, and in the best interests of the JSE and all its stakeholders. 06

ETHICAL LEADERSHIP – GOOD PERFORMANCE – TRUST AND LEGITIMACY – EFFECTIVE CONTROL

[1] *As of February 2022 the mandate to this committee has been expanded to include oversight of investments and therefore renamed the Group Investment Committee.*

BOARD OF DIRECTORS

Driving sustained value creation through ethical and effective leadership.

Independent non-executive directors

Nonkululeko Nyembezi (61)

Independent non-executive Chairman

BSc (EE); MSc (EE); MBA

Key strengths

Strategy development and execution
Corporate governance
Risk management
Entrepreneurship

Non-executive director of:

- Standard Bank Group
- Anglo American plc
- Macsteel Service Centres SA Proprietary Limited

Appointed to the Board in 2009 | Tenure as director: 12 years

Phuthuma Nhleko (61)

Independent non-executive director

BSc; MBA

Key strengths

Strategy development and execution
Corporate governance
Risk management
Entrepreneurship
Information technology governance

- Independent non-executive chairman of Tullow Oil plc (LSE)
- Independent non-executive HIS Holding Limited (NYSE)

Non-executive director of:

- Engen Holding Limited
- Phembani Remgro Infrastructure Fund Managers
- Chairman of Phembani Group (Pty) Limited

Appointed to the Board in 2021 | Tenure as director: 9 months

Dr Suresh Kana (66)

Lead independent non-executive director

CA(SA); CD(SA); MCom; PhD (Honorary)

Key strengths

Financial
Strategy development and execution
Corporate governance
Financial services
Risk management
Sustainability
Regulatory and compliance

- Chairman of Murray & Roberts Holdings Limited
- Lead independent director of Transaction Capital Limited
- Trustee and member of the executive committee IFRS Foundation
- Chairman of the audit committee of the United Nations World Food Programme based in Rome

Appointed to the Board in 2015 | Tenure as director: 6 years

Zarina Bassa (57)

Independent non-executive director

BAcc; DipAcc; CA(SA)

Key strengths

Financial
Strategy development and execution
Corporate governance
Financial services
Risk management
Regulatory and compliance

Lead independent non-executive director of:

- Woolworths Holdings Limited (until 31 March 2022)
- Investec Limited and Investec plc

Independent non-executive director of:

- Oceana Group Limited
- Mediclinic International (from February 2022)

Appointed to the Board in 2018 | Tenure as director: 3 years

Siobhan Cleary (48)

Independent non-executive director

MSc; BA LLB; MA; MBA; Fellowship: Yale World Programme

Key strengths

Strategy development and execution
Corporate governance
Sustainability
Regulatory and compliance

Appointed to the Board in 2020 | Tenure as director: 2 years

Nolitha Fakude (57)

Independent non-executive director

BA (Hons)

Key strengths

Strategy development and execution
Corporate governance
Sustainability
Human resources
Financial services

Non-executive director of:

- Discovery Bank Holdings
- Anglo American plc
- Chairman – Anglo American Management Board: South Africa
- Vice president – Minerals Council
- International Woman's Forum South Africa (IWFSA)

Appointed to the Board in 2017 | Tenure as director: 3 years

Faith Khanyile (53)

Independent non-executive director

BA (Hons); MBA; HDip Tax; PhD (Honorary)

Key strengths

Strategy development and execution
Corporate governance
Sustainability
Financial services
Regulatory and compliance

- Executive director of WDB Investment Holdings

Non-executive director of:

- Discovery Limited
- Transcend Residential Property Fund Limited
- Bidvest Group Limited (from January 2022)

Appointed to the Board in 2018 | Tenure as director: 3 years

Ian Kirk (63)

Independent non-executive director

BCom (Hons); CA(SA); FCA (Ireland); HDip BDP

Key strengths

Financial
Strategy development and execution
Corporate governance
Financial services
Risk management
Regulatory and compliance

Independent non-executive director of:

- Shriram General Insurance Company Limited
- Transaction Capital Limited
- Pepkor Holdings
- Chairman of SCOR UK Company Limited
- Chairman of The Channel Managing Agency Limited (TCMS)

Appointed to the Board in 2020 | Tenure as director: 1 year

Ben Kruger (62)

Independent non-executive director

BCom (Hons); CA(SA)

Key strengths

Financial

Strategy development and execution

Corporate governance

Financial services

Entrepreneurship

Risk management

Regulatory and compliance

Independent non-executive director of:

- Aspen Pharmacare Holdings Limited
- Stanbic IBTC Holdings Plc

Appointed to the Board in 2018 | Tenure as director: 3 years

Dr Mantsika Matooane (46)

Independent non-executive director

BSc; PhD; MBA

Key strengths

Strategy development and execution

Corporate governance

Risk management

Sustainability

Financial services

Information technology governance

- Independent non-executive director of Nedbank Group Limited
- CEO of Truesport Investments Proprietary Limited

Appointed to the Board in 2012 | Tenure as director: 9 years

PROTECTING VALUE CREATION continued

Executive directors

Leila Fourie (53)

Group CEO
BA (Hons); MCom; PhD

Key strengths

Strategy development and execution
Corporate governance
Financial services
Risk management
Regulatory and compliance

- Director of JSE-related companies

Appointed to the Board in 2019 | Appointed CEO in 2019

Tenure as director: 2 years

Aarti Takoordeen (41)

CFO
BCompt (Hons); CTA; CA(SA)

Key strengths

Financial
Strategy development and execution
Corporate governance
Financial services
Risk management

- Director of JSE-related companies

Appointed to the Board in 2013 | Appointed CFO in 2013

Tenure as director: 8 years

Biographical details are correct as at 31 December 2021. Tenure as a director is calculated from the date that an appointment is first ratified by shareholders to the date of the AGM to be held on 3 May 2022.

GROUP EXECUTIVE COMMITTEE

Executive team

Leila Fourie (53)

Group CEO
(Executive director)

Aarti Takoordeen (41)

CFO
(Executive director)

Valdene Reddy (39)

Director: Capital Markets
BBusSc

- Financial Sector Transformation Council and Financial Services Working Group of BRICS Business Council

Appointed to Exco in 2020 | Years in service: 8 years

Dr Alicia Greenwood (50)

Director: Post-Trade Services
BSc (Hons); PhD

- Invitee to JSE GRMC and JSE Clear Risk Committee
- Member of JSE Clear Board and Strate Board

Appointed to Exco in 2016 | Years in service: 5 years

Mark Randall (41)

Director: Information Services
BCom

- Fellow of the Actuarial Society of South Africa

Appointed to Exco in 2018 | Years in service: 9 years

Hendrik Kotze (57)

Chief information officer
BCom; CPIM (APICS)

Appointed to Exco in December 2018 | Years in service: 3 years

Vuyo Lee (43)

Director: Marketing and Corporate Affairs
BCom (Hons); MBA

Appointed to Exco in 2021 | Years in service: 1 year

Itumeleng Monale (43)

Chief operating officer
BSc; MBA

Appointed to Exco in 2021 | Years in service: 1 year

Changes to Exco

Donald Khumalo (44)

Director: Human Resources

Resigned: Effective 30 September 2021

Palesa Ntoagae (40)

Director: Human Resources

Appointed: Effective 10 January 2022

CFO: Aarti Takoordeen was on extended leave to attend the AMP at Harvard from March 2021 – July 2021. In 2022, Aarti resigned as CFO and executive director effective 20 May 2022.

Ms Carmini Kander (Head: Commercial Finance) served as acting CFO during Aarti's extended study leave in 2021, and has been appointed acting CFO effective 20 May 2022 while the process to appoint a permanent successor is underway.

February 2022, CIO: Mr Hendrik Kortze resigned. An interim CIO, Naushad Kermalli has been appointed to lead the team while the process for a permanent replacement is underway.

75% **Executive gender diversity** (% female)

50% **Executive race diversity** (% Black)

4.6 years **Average executive tenure** (years)

Biographical details are correct as at 31 December 2021.

Effective leadership

Independent Board oversight is an essential component of good performance and effective control. The role of the independent non-executive Chairman is distinct and separate from that of the Group CEO. The separation of responsibilities is designed to ensure that no single person has unfettered decision-making powers and that the appropriate balance of power and authority exists on the Board. Two members of executive management (Group CEO and CFO) serve on the Board to ensure that non-executive directors have more than one point of direct interaction with management.

Chairman 07	An independent non-executive director who is responsible for leading the Board and ensuring the integrity and effectiveness of the Board and its committees. Ensures high standards of corporate governance and ethical behaviour.
Lead independent director 07	An independent non-executive director who maintains the effectiveness of the Board by providing leadership and advice when the Chairman has a conflict of interest, without detracting from or undermining her authority. Provides support to the Chairman, is available as a trusted intermediary for the other directors, as necessary, and chairs a meeting of the non-executive directors at which the performance of the Chairman is considered.
Group CEO 10	An executive director who is responsible for leading the Group, creating an organisational culture based on the Group's values and maintaining an ethical environment. She develops and recommends the JSE's short-, medium- and long-term vision and strategy to the Board, and drives operating performance within the JSE's approved risk appetite. The Group CEO appoints the executive management team and ensures proper executive succession planning.
CFO	An executive director responsible for the Group's financial capital and leads the finance team. She creates and maintains a robust internal financial control environment, ensures appropriate treasury management, oversees the integrity of financial reporting and ensures compliance with all relevant financial and tax laws and regulations, including IFRS.

Group company secretary 10 Graeme Brookes serves as Group company secretary	The Group company secretary serves as a conduit between the JSE Board and the Group and has a direct reporting line to the Chairman of the Board, the GAC and the GRMC. All directors have unfettered access to the advice and services of the Group company secretary. He plays a pivotal role in the effective functioning of the Board by providing guidance to directors on their governance, compliance and fiduciary responsibilities. He ensures that Board and committee procedures, charters and relevant legislation and regulations are observed. The Board assessed the Group company secretary for 2021 and confirms that he continues to demonstrate the requisite level of knowledge, experience and competence to carry out his duties. The Group company secretary is not a director of the Company and in the view of the directors is suitably independent of the Board to be an effective steward of the Group's corporate governance programme. In reaching their assessment, the Board has considered and concluded: • explicit independence: there is no direct or indirect relationship between the directors and the Group company secretary; and • implicit independence: the company secretariat is properly resourced, and the Group company secretary has provided advice and guidance to the Board independently and objectively, and by following the principles of King IV, the JSE's Board charter and code of ethics. The Board considers its arrangements for accessing professional corporate governance services as effective.

PROTECTING VALUE CREATION continued

GOVERNANCE STRUCTURES

Board composition, diversity and tenure as at 31 December 2021

Unitary Board structure

Board composition

Policy: Board must comprise a majority of independent non-executive directors with separate roles for Chairman and Group CEO.

As at 31 December 2021, the JSE's Board comprised:

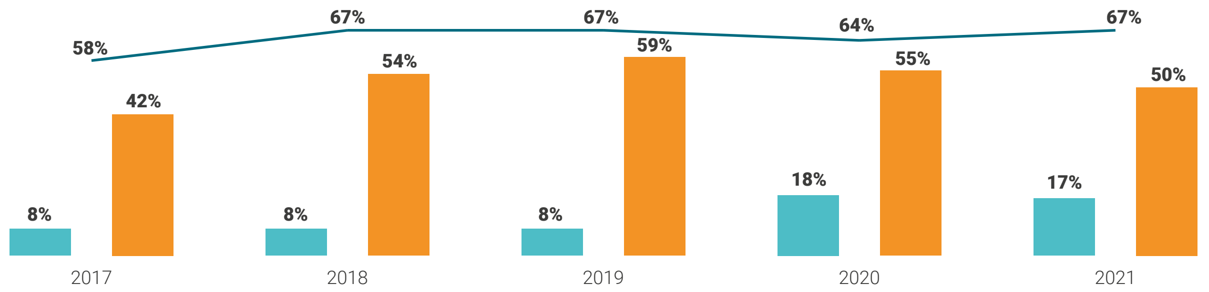
10 Independent non-executive directors

2 Executive directors

Board diversity of gender and race

Policy: Maintain over time a minimum of 50% female Board members, and a minimum of 67% Black Board members.

Female representation: Percentage of total Board (%)



Board diversity in age

Policy: No formal policy on retirement age applies.

Average age of all directors	Average age of directors with 0–3 years tenure	Average age of directors with 4–6 years tenure	Average age of directors with 7–9 years tenure	Oldest non-executive director	Youngest non-executive director
56 years	56.7 years	54.6 years	46 years	66 years	46 years

Board diversity of skill and expertise 07

Policy: The Board should comprise directors with a wide range of knowledge, skills, experience and behavioural competencies across various industries and disciplines.

The Board's areas of expertise are:

Financial: Senior executive experience in financial accounting and reporting, auditing and internal control.

Strategy development and execution: Ability to critically assess strategic opportunities and threats and to develop and implement successful strategies to create sustained, resilient business outcomes. Ability to question and challenge delivery against agreed strategic planning objectives.

Entrepreneurship: Extensive experience in applying skills and experience to bring new ideas to market and driving growth opportunities.

Financial Services: Senior executive experience in investment banking, retail banking and capital markets.

Risk Management: Understanding of and experience in identifying and monitoring risks critical to an organisation and implementing appropriate risk management frameworks, procedures and controls.

Information Technology Governance: Experience in the effective and efficient use of IT in enabling an organisation to achieve its goals. An understanding of the processes by which organisations ensure the effective evaluation, selection, prioritisation, and funding of competing IT investments.

Corporate Governance: Knowledge of governance practices and trends and global codes of governance. Experience in implementing and practising high standards of governance.

Human Resources: Experience in strategically planning and steering HR initiatives that benefit an organisation and encourage more efficient and beneficial work from employees.

Sustainability: Senior executive expertise in combining business expertise and environmental factors to determine how businesses can operate in an environmentally responsible way that is aligned with the organisation's overarching strategy as well as the needs of key internal and external stakeholders.

Regulatory and Compliance: Extensive knowledge of the financial industry and listed companies' environment standards, regulations, laws and specifications.

The Board comprises an appropriate balance of knowledge, skills, experience, cultural diversity and independence to objectively and effectively discharge its governance role and responsibilities. The Board has the skills, competencies and wide business experience to respond effectively to the changing regulatory, technological and competitive landscape faced by the JSE.

Independence

Policy: An independent director should be independent in character and judgement. There should be no relationships or circumstances which are likely to affect, or could appear to affect, this independence. In assessing independence, the Board considers all aspects of the relationship between the director and the JSE, not only the length of service.

The Board considers all its non-executive directors to be independent.

Upon appointment to the Board, both Ian Kirk and Ben Kruger were initially classified as not independent due to the business relationship that their affiliated companies have with the JSE. Both non-executive directors have subsequently served the relevant cooling off periods, and neither director is involved in the day-to-day operations of their former employers.

The Group Nomination Committee has assessed the independence of both of these non-executive directors and has recommended to the Board that both be classified as independent, effective 31 December 2021.

Refer to the directors' report in the annual financial statements for non-executive directors' interests in the JSE.

Board tenure

Policy: At least one-third of all directors (including executive directors) are required to retire by rotation each year. All directors are subject to retirement by rotation and re-election at least once every three years. Retiring directors, if eligible, may be re-elected by shareholders. Non-executive directors who have served for nine consecutive years may thereafter stand for annual re-election up to a maximum term of 12 consecutive years. In exceptional circumstances, the Board may motivate to shareholders for an extension beyond 12 years.

Average non-executive director tenure	0–3 years	4–6 years	7–12 years
Independent	P Nhleko ZBM Bassa MS Cleary FN Khanyile I Kirk BJ Kruger	VN Fakude SP Kana	NMC Nyembezi MA Matooane
Executive	L Fourie	A Takoordeen	
Average tenure	2.1 years	6.3 years	10.5 years

The Chairman has served 12 years on the Board and will retire from the Board at the AGM on 3 May 2022. Mr P Nhleko joined the Board as an independent non-executive director and Chairman-designate in July 2021. He will assume the Chairmanship on 4 May 2022.

Director rotation

Rotation of Board members is structured to retain valuable skills, to ensure continuity of knowledge and experience, and to introduce persons with new ideas and expertise.

- Mr Phuthuma Nhleko joined the Board as an independent non-executive director and Chairman-designate on 1 July 2021. He will stand for election by shareholders at the first AGM after his appointment, to be held on 3 May 2022.
- Ms Nonkululeko Nyembezi has served as an independent non-executive director for 12 years (and since 2014 as Chairman of the Board). She is scheduled to retire from the Board at the AGM on 3 May 2022.
- The following directors will be up for re-election (triennial rotation in terms of the MOI):
  - SP Kana
  - BJ Kruger
  - FN Khanyile
  - ZBM Bassa

The following director will retire and be up for re-election in terms of the JSE's policy on non-executive director tenure:

- MA Matooane

Board meeting attendance and director responsibilities in 2021

The Board is required to meet a minimum of four times per year and more frequently, should circumstances require. The Board and some of the Board committees engaged in several development sessions during the year (for more information see page 122 of this report).

Director	Role	Overall attendance	Board[1]	Board strategy session	GAC	GRMC	GSC	GRC[2]	GSROOC[3]	GDC	GNC
Number of meetings			8	1	4	4	3	5	3	3	2
Non-executive directors											
N Nyembezi	Independent NED and chairs Board and GNC	97%	8	1	4	4	3	5	3	2	2
P Nhleko[4]	Independent NED (Chair-designate)	100%	3/3	1/1	2/2	2/2	2/2	3/3	2/2	2/2	1/1
SP Kana	Lead Independent Director and chairs GAC and GSC	100%	8	1	4	4	3		3		2
Z Bassa	Independent NED and chairs GSROOC	100%	8	1	4	4			3		
S Cleary	Independent NED	100%	8	1	4		3		3		
VN Fakude	Independent NED and chairs GRC	95%	8	1			2	5			
F Khanyile	Independent NED	95%	8	1	3		2/2[5]		3	3	
I Kirk	Independent NED	100%	8	1		4		5		3	
BJ Kruger	Independent NED and chairs GDC[6]	100%	8	1		4		5		3	2
MA Matoaone	Independent NED and chairs GRMC	100%	8	1		4	3				
Executive directors											
L Fourie	Group CEO	100%	8	1		4				3	
A Takoordeen[6]	CFO	69%	6	1		2				2	
Standing attendee											
GA Brookes	Group company secretary	100%	8	1	4	4	3	5	2	3	2

1 *Includes Director Development Sessions and Bilateral Prudential Authority.*
2 *Includes workshops held in June and September.*
3 *Includes workshop held in September.*
4 *Appointed to the Board effective 1 July 2021.*
5 *F Khanyile joined GSC effective 1 July 2021.*
6 *A Takoordeen was on sabbatical from March 2021 to July 2021.*

GAC – Group Audit Committee
GRMC – Group Risk Management Committee
GRC – Group Remuneration Committee
GSC – Group Sustainability Committee
GSROOC – Group SRO Oversight Committee
GNC – Group Nominations Committee
GDC – Group Deal Committee
NED – Non-executive Director

Board committees

The composition and key focus areas of the Board committees are described below. The responsibilities delegated to these committees are formally documented in each committee's terms of reference, which are approved by the Board and reviewed annually. After each committee meeting, committee chairmen report back to the Board, which facilitates transparent communication between directors and ensures that all aspects of the Board's mandate are addressed. 08

GROUP AUDIT COMMITTEE

Independence of committee: 100%

Chairman: SP Kana

Members: Z Bassa, S Cleary, FN Khanyile

Invitees: N Nyembezi, L Fourie, A Takoordeen, External auditors, FSCA representative, Group internal auditors, Group company secretary

Focus areas for 2021 and beyond

- The integrity of the Group's financial statements and accounting policies.
- Continue to focus on ensuring that the Group's financial systems, processes and internal financial controls are operating effectively.

Key activities in 2021

- Reviewed the audited Annual Financial Statements and related disclosures and recommended them to the board for approval.
- Ensured that Group Internal Audit (GIA) performs an independent assurance function and monitored the effectiveness of the GIA function in terms of its scope, execution of its plan, coverage, independence, skills, staffing, overall performance and position within the organisation.
- Endorsed the external auditors' 2021 audit plan, confirming suitable reliance on GIA and the appropriateness of key audit risks identified.
- Monitored the effectiveness of the external auditors in terms of their audit quality, expertise and independence.

Further reading | Directors' report and GAC report in the annual financial statements.

GROUP RISK MANAGEMENT COMMITTEE

Independence of committee: 80%

Chairman: MA Matooane

Members: Z Bassa, L Fourie, SP Kana, I Kirk, BJ Kruger

Invitees: P Nhleko, N Nyembezi, A Takoordeen, CIO, Chief risk officer, External auditors, FSCA representative, Group internal audit, Director: Capital Markets, Director: Information Services, Director: Post-Trade Services, Group company secretary

Focus areas for 2021 and beyond

- Identification, assessment and management of top business risks and associated opportunities.
- Continue to ensure that system availability and stability are maintained.
- Technology opportunities and risks, information management and cybersecurity.

Key activities in 2021

- Reviewed the reporting and prioritisation of top business risks and the process to self-assess the control activities in place to manage risks.
- Reviewed the process to manage sustainability risk, particularly relating to climate change.
- Oversaw cybersecurity, information management and data security interventions.
- Ensured the Group remains focused on advances in technology and technological disruptions, as well as information management to maintain levels of competitive advantage.

Further reading | Additional information is available under risk governance on pages 123 to 127.

PROTECTING VALUE CREATION continued

GROUP SUSTAINABILITY COMMITTEE

Independence of committee: 100%

Chairman: SP Kana

Members: S Cleary, VN Fakude, F Khanyile, MA Matooane

Invitees: P Nhleko, N Nyembezi, L Fourie, COO, Director: Human Resources, Director Marketing and Corporate Affairs, Group company secretary

Focus areas for 2021 and beyond

- Continuous oversight on ethics governance and the effectiveness of ethics management.
- Oversee and monitor the Group's contribution towards combating climate change.
- Monitor the Group's progress on the journey towards TCFD-aligned climate disclosure.
- Monitor the Group's contribution towards social and economic development within its sphere of influence.
- Continue to focus on establishing and maintaining mutually beneficial relationships with stakeholders.

Key activities in 2021

- Oversight over the development and issuing of ESG Disclosure and Climate Change Disclosure guidelines.
- Oversight over the Group's own approach to sustainability reporting and commitment to TCFD-aligned climate disclosure for the 2022 reporting year.
- Approved an updated Corporate Social Investment strategy that are more aligned to the Group's corporate strategy.
- Monitored progress on stakeholder engagements, transformation and human capital interventions maintain levels of competitive advantage.

Further reading | Refer to the online sustainability report.

GROUP REMUNERATION COMMITTEE

Independence of committee: 100%

Chairman: VN Fakude

Members: I Kirk, BJ Kruger, P Nhleko, N Nyembezi

Invitees: L Fourie, Director: Human Resources, Group company secretary

Focus areas for 2021 and beyond

- Review annually the LTIS targets and weightings between performance and time vesting, seeking to ensure appropriate balance between shareholder interests and retention risks.
- Continue to engage with shareholders to ensure the relevance and appropriateness of the Remuneration policy.
- Ensuring that remuneration is implemented in accordance with the Remuneration policy.

Key activities in 2021

- Engaged with shareholders on best practice remuneration and reviewed and aligned the Remuneration policy with the latest thinking in remuneration design to better incentivise and retain management and employees, and drive shareholder/stakeholder value creation.
- Reviewed and approved the key performance indicators used to evaluate the performance of senior employees under the Long-Term Incentive Scheme.
- Mandated a pay parity review and approved pay parity adjustments (for 2022) to ensure fair and reasonable remuneration.
- Mandated a review of the JSE Group leadership continuity plan.

Further reading | Refer to the rewarding performance section on page 88, as well as in the online remuneration report.

GROUP SRO OVERSIGHT COMMITTEE

Independence of committee: 100%

Chairman: Z Bassa

Members: S Cleary, F Khanyile, SP Kana

Invitees: N Nyembezi, L Fourie, Director: Issuer Regulation, Director: Market Regulation, Group company secretary

Focus areas for 2021 and beyond

- Continue to monitor regulatory developments, including those relevant to market conduct and reputational risk.
- Continue to monitor conflicts of interest and compliance with Conflicts Policy.

Key activities in 2021

- Examined the regulatory mandate of the Committee, in a changing environment, to determine how the JSE's regulatory oversight function can best be exercised.
- Ensured the fair treatment of clients by tracking market conduct compliance, breaches, complaints, and remediation.
- Oversaw the activities of Issuer Regulation and Market Regulation division on regulatory activities undertaken in 2021.

Further reading | Refer to the Group SRO Oversight Committee report which is available online

GROUP NOMINATION COMMITTEE

Independence of committee: 100%

Chairman: N Nyembezi

Members: SP Kana, BJ Kruger, P Nhleko

Invitees: L Fourie, Group company secretary

Focus areas for 2021 and beyond

- Governing structures and delegation of authority.
- Primary role and responsibilities of the Board.
- Composition of the Board, succession planning, director appointment and director independence.
- Leadership requirements of the Group.
- Annual Board effectiveness review.

Key activities in 2021

- Reviewed the composition of the Board and governance committees, considering independence, skill, diversity and gender.
- Reviewed the Board composition of JSE subsidiary companies, and recommended directors for appointment considering independence, skill, diversity and gender.
- Ensured that the Board and governance committees act with independence of mind, balance of skills, experience and diversity to fully discharge their roles and responsibilities.
- Monitored progress on the action items from the Board effectiveness assessment for 2020.

GROUP DEAL COMMITTEE

Independence of committee: 67%

Chairman: B Kruger

Members: L Fourie, F Khanyile, I Kirk, P Nhleko, N Nyembezi, A Takoordeen

Invitees: Director: Capital Markets, Group company secretary

Focus areas for 2021 and beyond

- Monitor implementation of Acquisitions Strategy.
- Continue to consider and evaluate potential opportunities for strategic partnerships and acquisitions.

Key activities in 2021

- Reviewed and recommended updated Acquisitions Strategy for JSE Group Board approval.
- Oversight over the finalisation of the Investec Share Plans business acquisition.
- Oversight over the early buy-out of the minority interest in JIS.

BOARD EFFECTIVENESS AND PERFORMANCE

Board appointment and induction

Board renewal was a key focus area in 2021. Our approach to recruiting and inducting non-executive directors is designed to ensure the search and appointment of directors is thorough and inclusive. The induction programme provides an effective introduction to the JSE and facilitates a comprehensive understanding of the business. 07

RECRUITMENT AND APPOINTMENT

Guided by the Board appointment policy, the appointment process is a formal and transparent process which has a particular focus on gender and race diversity. The process is the responsibility of the GNC which is chaired by the Board Chairman. The GNC, with the assistance of the Group company secretary, conducts the recruitment process and recommends the successful candidate for appointment by the Board.

Non-executive directors are required to sign a letter of appointment, setting out all salient engagement terms. Among others, it includes key responsibilities, time commitment, committee service, outside interests, director evaluation and emoluments.

INDUCTION PROGRAMME

A formal one-year process forms the mechanism to support new non-executive directors in meeting their statutory duties, embedding their understanding of our strategic priorities and bringing the director closer to the decision-makers and those tasked with running the day-to-day management of the business. The programme requires the new directors to attend GRMC meetings for the first year of appointment.

Board continuity

Focus on succession planning is important as it ensures the effective functioning of the Board over time and appropriate independence of all directors. Board succession planning, including CEO succession, is a responsibility of the GNC, supported by the Group company secretary.

The appointment of Mr P Nhleko as successor to the Chairman of the Board, Ms N Nyembezi, was finalised in May 2021 and Mr Nhleko joined the Board as an independent non-executive director in July 2021. This was to allow Mr Nhleko to work closely with Ms Nyembezi to gain an understanding of the JSE business and key Board concerns to enable a smooth handover of the Chairmanship in 2022.

The Board is well balanced and diversified with the appropriate mix of skills, experience and tenure. At the same time the changing business landscape demands continuous renewal of the Board, and it will remain a priority.

Changes in Board composition

During 2021, we announced the following changes to the Board:

- Nonkululeko Nyembezi (independent non-executive director and Chairman) will retire from the Board at the AGM to be held on 3 May 2022. Ms Nyembezi will retire in terms of the Board's tenure policy after having served for the maximum 12 years.
- Phuthuma Nhleko was appointed as an independent non-executive director effective 1 July 2021. Mr Nhleko will stand for confirmation by shareholders as an independent non-executive director and the new Chairman of the Board at the AGM.

Board performance

The Board ensures continued improvement in performance and effectiveness through annual self-evaluation. 09

Evaluation process

The annual self-assessment of the Board's performance and effectiveness, as well as that of its governance committees and individual directors (including the Chairman, CFO and Group company secretary), is overseen by the Chairman and the Group company secretary in conjunction with an independent service provider. Our board and committee self-evaluation process allows for an assessment of Board practices and the opportunity to identify areas of improvement. Individual interviews are held with each Board member and with the Group company secretary.

Annual self-evaluation process

1 Evaluation

The annual evaluation is conducted as an online assessment. It probes the Board's impact on critical issues and dynamics, the workings of the Board committees, and the performance of the CFO and Group company secretary.

2 Individual interviews

One-on-one interviews with Board members focusing on:

- reviewing the Board and its performance over the year; and
- identifying areas for potential enhancements going forward.

3 Discussion of results

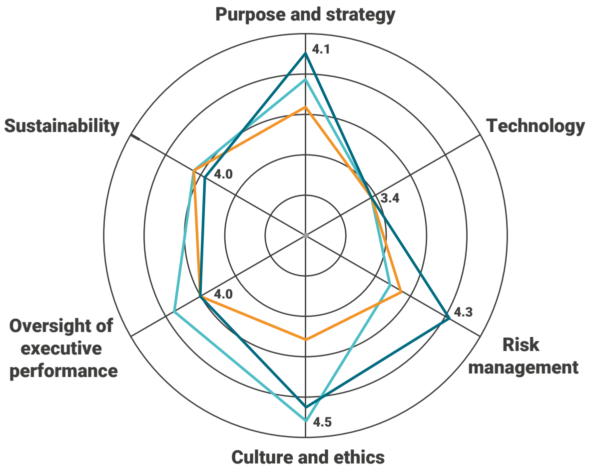
The report is presented to GNC for discussion and tabled for consideration by the Board. Where required, the Chairman will discuss findings from the effectiveness review in one-on-one meetings with the directors.

4 Use of feedback

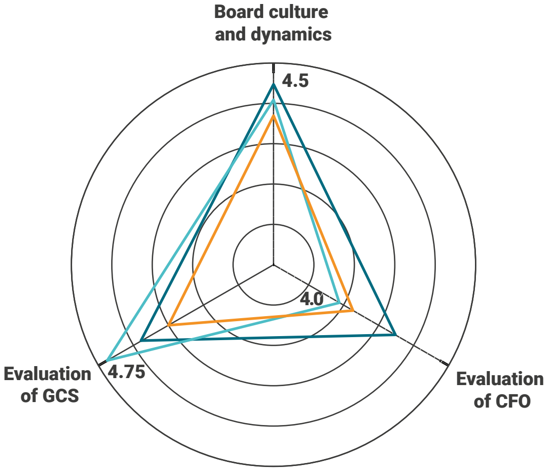
In 2022, the Board and each committee will develop action plans based on the results. The implementation of these plans will be monitored during the year and progress shared with stakeholders accordingly.

Key insights from the 2021 review

Impact of the Board on critical issues



Board culture, dynamics and compliance



This review established that the Board leveraged on its existing strengths and has functioned well under challenging circumstance and that the governance of the Board is at a high level with strong policies and procedures. The Committees remain very effective and the Board relies on the work of the Committees with clear and open communication between the Board and its Committees. The relationship between the Board and the CEO remains healthy, based on trust, openness and transparency.

Board review highlights

Level of concern*	2017	2018	2019	2020	2021
High	Board renewal Strategy – (implementation and competition)	Executive succession Strategy – (Disruption, risk, agility, culture, alternate revenue streams)	Strategy – (purposeful to address agility, culture, ESG matters, alternate revenue streams) Technology – (capability, legacy systems, cyber security)	Technology – (capability, legacy systems, cyber security) Strategy – (more time devoted to deeper discussions)	Strategy – Growth (inorganic & organic) Technology alignment with strategy, legacy systems, cost & benefit Executive succession – (bench strength & talent management)
Medium	Executive succession	Technology – (capability, legacy systems & ITaC) Board renewal – (Chairman succession)	Board renewal – (Chairman succession) Culture, ethics & stakeholders Executive succession – (bench strength & talent management)	Board renewal – (Chairman succession	
Low	ESG matters as part of strategy	ESG matters as part of strategy			Board renewal – (Composition)

* *This graph represents trends over time*

Summary of findings

The effectiveness review highlighted the following as areas as top of mind for the Board:

Growth and Strategy:

The JSE has a clear purpose which is well understood, and which effectively guides both the formulation and execution of the strategy. The dual strategy of pursuing inorganic and organic growth is seen to be the right approach; good progress has been made regarding the bedding down of recent acquisitions. While there is agreement on the vision and strategic direction of the JSE, it needs to more deliberate in outlining how it will move from strategy execution to realising its ambitions.

Technology:

The modernisation and continued development of IT systems remains a challenge and a key Board concern.

Executive succession:

Executive succession has also been identified a focus area by the Board. The Board noted that the JSE is a relatively small organisation for the building of strong bench bench-strength below the Executive Committee (Exco), however internal potential candidates should be allowed to pursue a growth and development plan for optimal participation.

Critical priorities for the Board in 2022

- Execution and delivery of growth strategy
- Oversight over the development on a technology strategy that is aligned to overall group strategy
- Executive committee succession planning – defining the competencies and experience a future-fit Exco

ENHANCING GOOD GOVERNANCE

Leveraging good governance to ensure the long-term sustainability of our business.

For the 2020 year, the Board undertook a more focused effectiveness annual assessment and members were probed on the critical priorities that need to be addressed by the Board and Board committees in 2021. The results helped to shape the focus areas for 2021.

While the 2021 corporate scorecard includes initiatives that address all our material matters, the Board, supported by its committees, particularly focused on:

Focus area	More information
Supporting the Group's strategic objectives in pursuit of its vision and purpose	pages 27 to 28 and 31
Ensuring the Group's business model is transforming to support an increasingly digital future	pages 9 to 16 to 30
IT oversight with a focus on driving alignment of IT strategy with business and future roadmap	page 73
Implementing the acquisition strategy, including the integration of JIS and Investec Share Plans business	page 123
ESG considerations and a commitment to sustainability	read more on our online sustainability report
Remuneration policy and executive remuneration	pages 87 to 92
Board renewal including the Chairman succession	page 115

The key actions taken by the Board in response to these focus areas are set out below.

Board as a driver of value protection

During 2021 mindful focus was given, by the Board and its various committees, to the following governance processes to ensure the Group achieves its strategic objectives and realise the desired governance outcomes. 06

Key focus areas in 2021	Key Board actions	Board	GAC	GRMC	GRC	GSC	GDC	GNC
Strategy and performance 04								
Reinforce and defend core business while diversifying revenue	Reviewed and approved a clear growth strategy	●	●		●			
Align the Group's acquisition strategy to the broader Group strategy and strategic direction	Reviewed and approved acquisition strategy	●					●	
Drive initiatives that will deliver new lines of business beyond equity market trading	Approved the buy-out of the minority stake in JIS Approved the acquisition of the Investec Share Plan business Oversight of the onboarding of acquisitions	●					●	
Improvements in the key drivers of Group financial performance	Oversight of financial performance and performance of our acquisitions	●	●				●	
Technology and IT governance 12								
Group remains focused on advances in technology and technological disruptions, as well as information management to maintain levels of competitive advantage	Driving alignment of IT strategy with business and Group's growth strategy Oversee progress towards the successful delivery of the Group's IT transformational projects Monitor and review ongoing improvements to the IT security posture	●		●				
Risk Management 11								
Improved integration of risk into the revised Group strategy	Promote and monitor the shift to a more integrated, proactive and continuous enterprise ERM approach	●		●				

PROTECTING VALUE CREATION continued

Key focus areas in 2021	Key Board actions	Board	GAC	GRMC	GRC	GSC	GDC	GNC
Stakeholder inclusiveness 16								
Build trust among stakeholders and enhance our brand and reputation in a manner that preserves and grows Group value	Engage with shareholders on governance and remuneration matters	●			●			
	Initiated a stakeholder risk assessment to assess quality of engagement with stakeholders	●		●		●		
ESG Matters 03								
Issue disclosure guidance that considers the South African landscape	*Environmental* Approved the implementation TCFD aligned reporting for the 2022 financial year Approved the issuance of Sustainability and Climate Disclosure Guidelines to the market	●				●		
Ensure that CSI focus areas and budget is aligned to corporate strategy and the UN Sustainable Development Goals that the JSE has chosen to prioritise	*Social* Reviewed CSI portfolio and approved the 2022 CSI strategy	●				●		
Ensure the Remuneration policy supports value creation	*Governance* Approved an updated Remuneration policy Reviewed and approved the KPIs used to evaluate the performance of executive directors and senior executives	●			●			
Seamless Chairman succession	Appointed successor to the Board Chairman	●						●

Board development

During 2021, the Board and some of its committees participated in several subject-focused development sessions. The specific areas of focus for each workshop were informed by the results of the 2020 board effectiveness review, where the Board identified certain areas of development. 08

Subject area	Objective	Outcome
Remuneration	To examine how the JSE's remuneration policies and practices might be aligned with the latest thinking in remuneration design to better incentivise and retain management and employees, and drive shareholder/ stakeholder value creation.	• Board approved an updated Remuneration policy that is aligned to best practice remuneration design. • Pay parity alignment. • Reviewed and approved new KPIs to evaluate the performance of Exco under the Long-Term Incentive Scheme.
Sustainability reporting	To inform how the JSE should approach sustainability reporting and climate change within the South African context while considering the more urgent local social pressures.	• The JSE issued sustainability and climate change disclosure guidance that takes into account the South African market and brings in the social element in relation to climate change (just transition). • The JSE has committed to a TCFD-aligned set of climate disclosures for the 2022 financial year.
Information and cybersecurity	Assess the areas of vulnerability in the JSE's information and cybersecurity landscape.	• An assessment of our IT service providers was conducted to determine whether the JSE is getting valuable strategic and operational support. • Employees participated in various cybersecurity awareness training sessions.

RISK GOVERNANCE AND MANAGEMENT

The JSE continues to mature and strengthen its risk and resilience framework, ensuring that our risk approach is aligned with the Group's strategy, and that an effective risk culture is embedded in the organisation.

Despite the challenges in 2021 and the heightened external risk environment, the JSE has continued to respond appropriately to the dynamic operating environment to create, preserve and protect value for stakeholders. The JSE has focused primarily on managing evolving business sustainability, technology, business model disruption and cybersecurity risks proactively in the continuing external uncertainty.

The JSE seeks to embed a risk culture in which strategy, performance management and risk management are linked, thus ensuring that risks and opportunities are effectively identified and managed appropriately according to the JSE Group risk appetite. Risk management is incorporated into performance measurements, with clear accountability.

Key focus areas in 2021	• Continue to reposition the JSE's ERM as an important element in strategic decision-making. • Implementation of the JSE's ERM framework, to ensure agility and ongoing organisational resilience of the JSE in the wake of the COVID-19 health and economic crisis. • Improvement in cyber resilience capabilities to enable the JSE to respond effectively to cyberattacks. The effective management of cyber risk ensured there were no breaches to the JSE's defences. • Completion of a risk culture assessment that provides an accurate score of maturity and the activities to be undertaken to achieve the desired state.
Future focus areas	• Continue to promote and monitor the shift to a more integrated, proactive and continuous enterprise risk management approach. • Driving alignment of IT strategy with business and the Group's growth strategy. • Oversee progress towards the successful delivery of the Group's IT transformational projects. • Monitor and review ongoing improvements to the IT security posture. • Acquisition strategy: Roll out the enterprise risk approach across all subsidiaries and any new acquisitions.

ERM framework

The JSE ERM framework sets out a standardised approach and methodology for the design, implementation, monitoring, review and continuous improvement of risk and opportunity management. The objective of the ERM framework is to integrate risk management into the organisation's operations, processes and decision-making to ensure compliance and alignment with the JSE ERM policy.

ERM framework	Defines the structure and methodology within which the JSE manages risks and is aligned with the ISO 31000:2018 international risk management standard.
ERM policy	Governs the management of the full spectrum of risks faced by the JSE.

The ERM team provides oversight on strategic and operational risk management (ORM) and business continuity, with specialised risk teams responsible for IT governance, information security and financial risk management.

The team applies industry best practice, which is obtained through interaction with the SARB FSCF, the WFE, Enterprise Risk Working Group (ERWG), the Institute of Risk Management South Africa (IRMSA) working groups and International Organization for Standardization (ISO) committees. The Group's CRO is a member of the WFE, SARB, IRMSA and ISO committees.

The Group's CRO is a member of the ERWG, the FSCF, the IRMSA and the ISO.

The JSE integrated risk and resilience programme and strategy are based on guidance from King IV principles 11 and 15, ISO 31000:2018 guidance as well as the elements of the Committee of Sponsoring Organizations of the Treadway Commission (COSO) deemed relevant to the JSE (such as key risk indicators), while also ensuring alignment with Basel III, Cobit 5 (previously referred to as Control Objectives for Information and Related Technology) and IOSCO principles on risk management.

Risk and resilience programme

The JSE Group manages risks and opportunities through the risk and resilience programme, which is aligned with the international standard ISO 31000:2018 and draws from other standards and guidelines, where applicable. The framework aims to enable the organisation to proactively anticipate risks and opportunities and to ensure that appropriate responses are developed and implemented within our risk appetite; thereby ensuring that we achieve our strategic objectives and the long-term sustainability of the business. The programme has the following key objectives:

- embed a risk-aware culture;
- implement a dynamic risk and resilience programme;
- enhance risk ownership;
- integrate risk and resilience activities into business processes and decision-making; and
- coordinate best available value adding information.

Top risks

The JSE's top risks are reported on page 36.

Our holistic risk and resilience programme encompasses four integrated elements, underpinned by the processes and plans required to ensure that a systematic and structured approach is adopted proactively:

Anticipate	Withstand	Respond	Recover
ERM Risk identification Scenario planning	Risk mitigation Operational resilience Control management Monitoring of key risk indicators Response planning	Incident management process Emergency response plan Crisis management plan	Business continuity management Disaster recovery

Risk oversight structure

Exco is accountable to the Board for implementing the agreed risk management principles and monitoring the process of ongoing risk management. The executive head of each business unit is accountable to ensure adherence to these principles and for integrating effective risk management practices into day-to-day operations in line with the Group's risk management framework and policies.

JSE STRATEGY

Culture

JSE risk and resilience strategy

Risk oversight process

Oversight

Board

- Policy
- Risk appetite and tolerance
- Combined assurance
- Full visibility of overall Group risk profile and actions taken to manage this

GRMC

- Overview of risk exposure and management across the business

Exco

- Risk and accountability
- Risk reports for the JSE and its subsidiaries

Infrastructure

Risk management function

- Risk universe
- Incident reporting
- Training and awareness
- Risk culture surveys
- Reporting and consolidation
- Specialised risk functions
- Business continuity management

Process

Business units

- Communicate and consult
- Establish context
- Identification
- Assessment
- Response
- Monitor and review

Assurance

Internal audit

- Risk-based internal audit approach
- Adequacy and effectiveness of controls
- Effectiveness of risk management process

External audit

- Assurance on effectiveness of financial controls and expression of an independent opinion thereon

Regulated by

- **Prudential Authority**
- **Financial Sector Conduct Authority**

As at 31 December 2021, the JSE Board was satisfied that the Group's risk and opportunity management processes were generally operating effectively.

JSE subsidiaries

GRMC is responsible for overall risk oversight of the JSE Group (including all subsidiaries and Group entities.

JSE Clear

JSE Clear is a licensed clearing house in terms of the FMA and is a CCP for trades executed on the JSE's Derivatives Markets. JSE Clear manages counterparty credit risk, liquidity risk, operational risk and regulatory compliance risk.

Its governance structures are similar to those of the JSE: ultimate responsibility for the management of risk lies with the Board, and the risk committee (RC) assists the Board. The Board includes executive and independent expert representation. The JSE Clear RC is mandated to:

- annually review and assess the quality, integrity and effectiveness of risk management plans and systems, and to ensure that the risk policies and strategies are effectively managed and that risks taken are within the agreed tolerance and appetite levels; and
- define JSE Clear's appetite or tolerance for risk, oversee the implementation of an effective ongoing process to identify and measure risks, and to ensure that these risks are proactively managed.

A framework and process to anticipate risks are also maintained through JSE Clear's risk management framework. Oversight of the degree to which this risk management framework is appropriately maintained and implemented is provided by the JSE Clear audit committee.

JSE Clear has reporting obligations to the JSE Board and the GRMC, allowing for appropriate Group oversight as well as its own, clearly defined JSE Clear risk appetite statement.

JPP and JIS

The JSE Board has a well-established structure of standing Board Committees, and these committees exercise oversight and set policy for all Group entities. The JSE Group Board Committees serve JPP and JIS and therefore they are not required to establish separate or additional Board Committees. The various Group Board Committees meet on a quarterly basis and provide feedback to the JSE Board at each quarterly Board meeting. Where any of the Group Board Committees address matters relating to the subsidiary, the relevant feedback will be provided to that subsidiary's Board.

STAKEHOLDER ENGAGEMENT

Enhanced stakeholder experience through collaborative value creation and the highest quality of service delivery.

Improving customer experience across the value chain

Our success is dependent on our relationships with a range of stakeholders – clients, shareholders, regulators, communities, suppliers and employees.

In these uncertain times defined by low trust in institutions, gradual post-COVID recovery, rapid technological change, hyper transparency and a growing list of emerging trends to respond to, understanding the needs, expectations and concerns of stakeholders has never been more important. By understanding and addressing their needs, expectations and concerns, we will build trust with our stakeholder network, allowing us to maintain our social licence to operate today and create new opportunities for tomorrow. Similarly, the JSE's reputation and brand will be enhanced in such a manner that it preserves and grows organisational value. 16

KEY FOCUS AREAS IN 2021

- Improved our client engagement NPS score, indicating a notable increase in customer loyalty and trust.
- Completed a stakeholder risk assessment.
- Our employee engagement tracker shows that we have implemented and improved on most of the gaps raised in the 2018/19 employee engagement survey (page 131).

FUTURE FOCUS AREAS

- Stakeholder assessment survey – to inform the design and implementation of a comprehensive stakeholder management strategy.
- Draft a stakeholder management strategy.
- Maintain the openness and transparency of our regulatory relationships.

Our approach

Central to our strategy is putting our clients at the centre of what we do and aligning business initiatives to expedite those that provide the most value in enhancing stakeholder experience. We grouped our stakeholders into 11 key categories and assess their concerns, why they matter to us, and consider how they are affected by our strategic decisions. The manner, level, and extent of our engagements are driven by their influence, interests, expectations, and concerns.

PROTECTING VALUE CREATION continued

These relationships are depicted in the graph below.

IMPACT
(Extent to which the stakeholder group is impacted by the JSE)

Address concerns Communities NGOs	**Involve extensively** Clients Employees Shareholders Regulators
Keep informed Media Suppliers	**Enlist as need** Policy and Rules Makers Market Infrastructure Associations Industry Bodies

INFLUENCE
(Extent to which the stakeholder group can influence the JSE's success)

In 2021 we undertook several engagements with the stakeholders that we need to involve extensively to determine the needs and expectations of those stakeholders as well as to objectively assess the strength and quality of our relationships with these stakeholders.

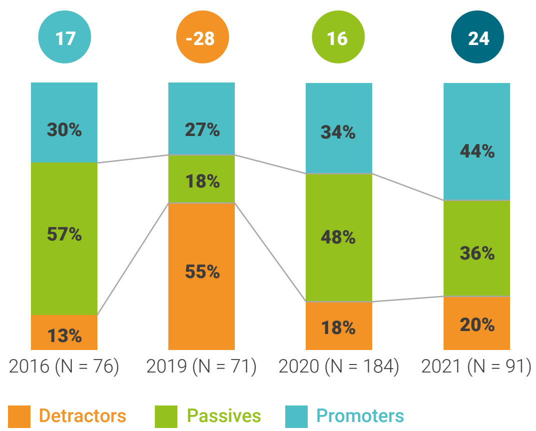
- Clients | 2021 NPS Survey
- Employees | Employee GIBS ethics survey
- Shareholders | Governance and remuneration roadshow (refer to Chairman's report on page 2)
- Regulator | Bi-lateral engagements

PROTECTING VALUE CREATION continued

Engagements with material stakeholders

CLIENTS

JSE NPS shifts YoY



Methodology shifts:

2016 – telephonic, NPS only, over three weeks.

2019 – email, NPS only, over three weeks.

2020 – telephonic, NPS and highly qualitative CSAT, over a longer six-week period as interview periods were extensive.

2021 – telephonic and email NPS and quantitative CSAT with some qualitative, over three weeks.

Interviews are further supplemented by focus groups and separate probing engagements where challenges are identified.

NEEDS AND EXPECTATIONS

- Stable systems and technology.
- Quality service and support.
- Fees and costs versus value delivered.

2021 NPS OVERALL RESULTS

2021 results indicate a notable increase in customer loyalty, with an all-time high NPS of 24. Our clients' feelings of loyalty and trust continue to grow as we strengthen our client experience strategies.

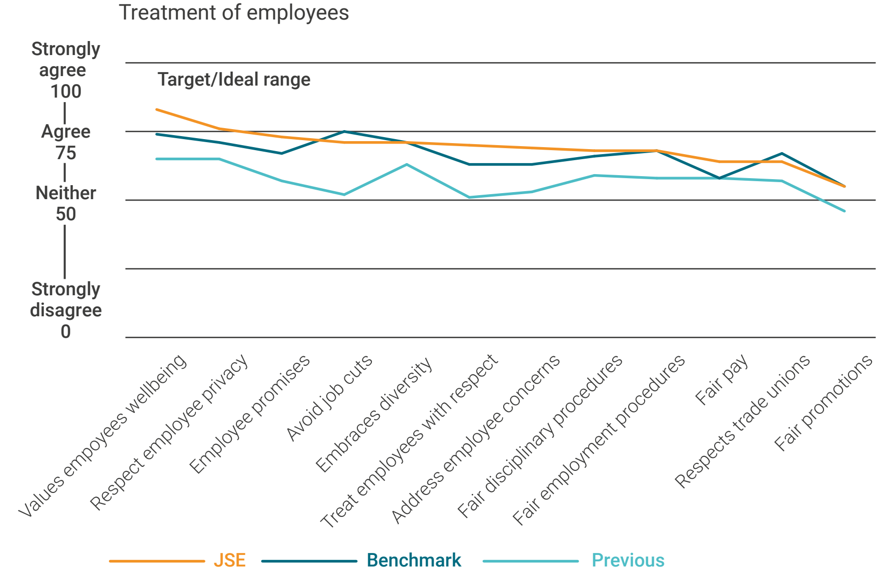
- With an increase of 14% in the Promoters Segment for 2021, we are continuing to successfully create consistent positive sentiment.
- In 2019, our NPS saw a stark decline with a score of -28. Subsequent scores suggest that we have been successful in closing the loop with clients on the issues they experienced.
- Clients who were Detractors in 2019 had moved to Passives in 2020, giving us the opportunity to convert them to Promoters.
- 2021's results suggest that we are succeeding in these efforts, with a growing Promoter Segment and shrinking Passive Segment compared to 2020.

AREAS OF IMPROVEMENT

- Platform issues – clients require real-time resolutions and updates.
- Fees – there is a demand for lower fees and simplifying of fee structures.
- Communication challenges – slow turnaround times.
- Clients find it difficult to navigate the organisation and this affects problem resolution and turn-around times.

EMPLOYEES

JSE GIBS ethics survey shifts YoY



NEEDS AND EXPECTATIONS

- A safe and healthy work environment supported by flexible work practices.
- Fair remuneration, effective performance management, and recognition.
- Amplifying the employees' voice in Group decision-making.
- An empowering and enabling environment that embraces diversity and inclusivity.

2021 GIBS ETHICS STUDY RESULTS

Overall Ethical Fitness (71) above benchmark (69) and significantly higher than the previous score (57) in 2018/19.

Employees observed the following positive behaviours in the organisation:

- High levels of perceived performance in areas of regulatory compliance (legal compliance, support regulations, pays taxes).
- High levels of perceived performance in treatment of shareholders.
- High levels of perceived performance in treatment of clients – (reliable, address concerns, treats client fairly, clear terms and conditions).
- High levels of perceived performance in valuing employee wellbeing.

AREAS OF IMPROVEMENT

However, improvements are required across several drivers to achieve the ideal range of 75.

Employees observed the following as areas of improvement for the organisation:

- Cultural practices in relation to fair and equitable remuneration.
- Employee interactions – empowerment to speak up.
- Accountability and transparency by management.

PROTECTING VALUE CREATION continued

SHAREHOLDERS

In May 2021 (prior to the AGM) the Chairman of the Board and the Chairman of the Group Remuneration Committee led a governance and remuneration roadshow where they engaged shareholders to gain an understanding of their views on our remuneration and governance practices.

Voting outcomes at the 16th 2021 AGM

All the resolutions at the 2021 AGM were passed with results of noteworthy resolutions as follows:

Key resolutions at 2021 AGM	% votes in favour
Ordinary resolution 4 Reappointment of Ernst & Young as independent auditors	99.98%
Ordinary resolution 5.1, 5.2, 5.3 & 5.4: Reappointment of JSE GAC members	99.96% 95.08% 99.97% 99.56%
Non-binding advisory resolutions: JSE Group Remuneration policy JSE Group Remuneration Implementation Report	89.67% 89.21%

NEEDS AND EXPECTATIONS

- Delivering sustainable, profitable growth over the longer term.
- Attractive and sustainable growth strategy.
- Sound balance sheet to protect against downside risk.
- Transparent reporting and disclosure.
- Sound ESG practices.

2021 ROADSHOW RESULTS

Overall shareholders welcomed the governance and remuneration roadshow initiative by JSE and the opportunity to engage directly with non-executive leadership.

Shareholders made the following observations:

- No concerns with JSE governance arrangements – Chairman succession process clear and welcomed.
- Satisfied with improvements in quality of remuneration disclosure – policies are clear and understandable.
- No concerns with the JSE Board tenure policy – supportive of JSE approach and the diverse composition of the Board.

AREAS OF IMPROVEMENT

Shareholders observed the following as areas of improvement for the organisation:

- Board needs to improve level of oversight over technology and the value received for investment in technology spend.
- Less discretion exercised by GRC in STI scheme and for clear metrics and targets to be embedded in STI scheme.
- More stringent LTI targets for ROE and HEPS.

REGULATORS

We are fully supportive of a robust regulatory environment and we engage with policy makers and regulators to provide insight into policy or regulatory initiatives.

FSCA

PA

SARB

INFORMATION REGULATOR

NEEDS AND EXPECTATIONS

- Robust regulatory environment which ensures the integrity of the financial market.
- Compliance with all legal and regulatory requirements.
- Being a responsible taxpayer in the countries where we do business.

2021 ENGAGEMENTS

A total of 17 supervisory meetings were conducted by the PA in 2021:

- The JSE – eight.
- JSE Clear – nine.

These included, for the JSE and JSE Clear, meetings with the respective CEO, risk and IT senior management, internal and external auditors, Board chairpersons and full Boards in respect of:

- strategic outlook;
- risk management;
- business model and operational strategy; and
- our outsourcing arrangements.

ACCOUNTABILITY AND CONTROL

An integrated and responsive assurance discipline supports the Group's pursuit of success, with long-term sustainability being the core goal.

Critical to our success is the ability to embed a Group-wide culture to promote decision-making more quickly and confidently. The coordination of current and future assurance mechanisms enables such confidence. The road to success is guarded by rails of assurance, enabling faster navigation and a greater probability of success. 15

Several assurance providers and reliable risk assurance mechanisms, that preserve and protect value creation, currently exist across the business.

1 Internal Control Environment

- Processes to manage operational risks and performance.
- Processes to identify and remediate control breakdowns.

2 Compliance and Risk

- Works closely with operational management to monitor processes and controls to mitigate identified risks.
- Provides oversight over management functions.

3 Internal Audit

- Provides objective and independent assurance of the adequacy and effectiveness of internal controls, risk management and governance.

4 External Audit

- Provides shareholders with independent assurance reporting information.
- Provides information on financial risk and reporting (to the Board and senior management).

Internal Financial Control

During 2020 GAC approved the Control Management Framework (CMF) which was developed to drive improvements in the maturity of the control environment across the organisation. The application of CMF goes beyond just the financial reporting control environment and aims to achieve enhanced consistency and ultimately improving the robustness of the control environment.

Below is a graph depicting an overview of our control management arrangements.

ALIGNMENT TO STRATEGIC OBJECTIVES AND RISK APPETITE

Governance, Roles and Responsibilities

Control Management Process

Understand Business and Map Processes → Identify Risks and Control Objectives → Control Design/ Identification → Control Documentation → Control Assessment → Review and Reporting → Remediation and Improvement

Control Management Guidance

Combined Assurance

Supporting Infrastructure and Tools

KEY FOCUS AREAS IN 2021

- The implementation of CMF across the following areas of the business:
  - Equity Markets – end-to-end value stream;
  - Roll out of CMF in JSE subsidiary – JIS;
  - Marketing and Corporate Affairs division critical processes; and
  - IFCFR review in support of the mandatory CEO and CFO attestation regarding the adequacy and effectiveness of the financial control environment.

Progress on the implementation of CMF by management was slower than initially planned, with delays experienced mainly due to resource constraints across the business.

The project team, in an attempt to reduce impact on business, reprioritised the roll out to focus on the equities end-to-end value stream (extended to H1 2022) and MCA critical process. The JIS CMF roll out, with the exception of the finance element, has been deferred to H2 2022.

Compliance and Risk

Compliance

The JSE recognises the importance of compliance with applicable legislation and the standards set by its regulators. The Group's compliance function is responsible for embedding a culture of compliance and providing the Board and senior management with the assurance of regulatory compliance.

Regulatory oversight

The FSRA established South Africa's twin peaks regulatory regime.

The JSE is regulated as a licensed exchange and JSE Clear as a licensed clearing house by the FSCA and on a prudential basis in respect of these licensed functions, by the PA, a division of the SARB.

While ultimate accountability for regulatory compliance oversight lies with the Board, the implementation and execution of effective compliance management are delegated to the Group's management, as the first line of defence.

As a second line of defence, the group compliance function assists the board and management in fulfilling their compliance obligations, by providing compliance risk management services. Regulatory alert systems and other professional and industry stakeholders assist the compliance function by constantly monitoring the frequently changing regulatory environment to ensure that key regulatory changes are identified and incorporated, as necessary.

The Group compliance function works closely with the Group ERM, Legal and internal audit functions, to ensure an aligned approach to monitoring and reporting.

KEY FOCUS AREAS IN 2021

- The adherence of JSE employees to the compliance policies in respect of conduct and ethics, the safeguarding of personal and confidential information and cybersecurity remained a high priority, as employees continued to work from home in 2021.
- Integration of the compliance team of JIS in group policies and initiatives.
- Oversight in respect of the compliance obligations of JPP.
- Contributed to the Financial Ombud System Diagnostic for South Africa, which proposes the establishment of a National Financial Ombud that will replace existing voluntary schemes.
- Ensured completion and submission of all regulatory returns and reports.
- Oversight of compliance with COVID-19 regulations in respect of health and safety protocols and the procedures for access to and use of the JSE building.

FUTURE FOCUS AREAS

- JSE compliance policies will be reviewed and adapted in accordance with the hybrid way of working. The focus will be on the health and safety of JSE employees and the protection of the personal and confidential information under the control of the JSE.
- The compliance plan in respect of JPP will be embedded, with emphasis on the safeguarding of the interests of clients, including monitoring in respect of Anti-Money Laundering and Counter-Terrorism Financing, Conflicts of Interest and FAIS compliance.
- Submission of the necessary application for the continued recognition of the JSE Ombud Scheme.
- Maintenance of JSE regulatory relationships and the timely submission of regulatory returns and reports.

There were no regulatory penalties, sanctions or fines for contraventions of, or non-compliance with statutory obligations. No fraud misdemeanours, bribery or corruptive practices were reported during the year.

Conflicts of interest

FMI

As an FMI, the JSE is required to implement appropriate arrangements to avoid, eliminate, disclose and otherwise manage possible conflicts of interest that may arise between its functions as the regulator of its issuers and markets, and its commercial services. This includes the identification of possible situations in which a conflict of interests may arise, and the documented steps necessary for its avoidance, elimination or management and disclosure in accordance with Board Notice 1 of 2015, issued by the FSCA. The conflicts of interest policies for the Issuer and Market Regulation divisions, as prescribed by the Board Notice, which set out these requirements were in effect during the year and are published on the JSE website.

Directors and employees

Directors are required, at all Board and committee meetings, to table their directorships, if updates are required, and to declare any conflicts of interest that they have encountered or foresee for noting in the corporate register.

Insider trading

The JSE dealing policy prohibits directors and employees from trading in JSE shares during periods when they could be privy to price-sensitive information. Trading in JSE shares is permitted during two limited open periods, these being immediately following the release of the annual financial statements and again after the interim financial statements are released. A director may not trade in JSE shares without obtaining the prior written approval of the Board Chairman and in the event that the Board Chairman wishes to trade, they must obtain the approval of the lead independent director.

The dealing policy also governs the trading by directors and employees in JSE-listed securities, other than those of the JSE, and it is mandatory that the prior approval of the relevant executive head and the director: market regulation is obtained for these transactions. Employees in specific divisions, such as Market Regulation and Issuer Regulation, are prohibited from trading in any JSE-listed securities, as a result of their ongoing exposure to non-public Company information.

Refer to the directors' report in the annual financial statements for dealings by directors and prescribed officers.

Anti-bribery and corruption

The JSE has a strict zero-tolerance approach to unethical conduct, and we do not engage in, accept or condone any illegal acts. This includes, among others, any form of bribery, facilitation payments, political donations or any corrupt practices in the conduct of our business. The Board's policy is to actively pursue and encourage the prosecution of the perpetrators of fraudulent and other illegal activities, should it become aware of such acts. No fraud, bribery or corrupt practices were reported during the period under review.

Tax compliance

Where complex tax treatment is required as a result of tax law amendments, tax opinions are sought from external experts to ensure correct treatment and compliance.

Ombudsman for JSE complaints and disputes

The JSE Ombud Scheme is recognised in terms of section 194 of the FSRA, as an industry ombud scheme. The rules of the JSE Ombud Scheme, as set out in the rules of the JSE, regulate the resolution of complaints and disputes between authorised users, and between authorised users and their clients. The governing body of the scheme is the JSE Exco.

The scheme allows the JSE to facilitate the resolution of complaints that are made by or against clients and authorised users in a timely and cost-effective way and reduces the need for either party to resort to formal legal proceedings.

One matter was referred to the JSE appointed ombud during 2021.

Risk

For more details on the arrangements we have in place for risk governance and management, see page 123.

Group Internal Audit

The Group has an independent in-house Group internal audit (GIA) function which operates in terms of an approved charter. The GIA charter spans across all JSE Group entities. GIA's purpose is to be a proactive business partner, providing integrated, risk-based and objective assurance, insight and related advisory services.

GIA is headed by the chief audit executive who reports functionally to the GAC chairman and administratively to the Group CEO and has the mandate to communicate directly and freely on relevant matters. GIA has adopted the in-house platform which maintains a database of audit findings and facilitates tracking and monitoring of remediation efforts.

GIA interrogates the audit findings databases to gain insights on common themes across the business, which in some instances may not be significant individually; however, when considered holistically can point to pervasive control weaknesses which warrant management attention.

During the year, the GAC received regular reports from GIA on any weaknesses in controls that were identified, including financial controls, and considered corrective actions to be implemented by management. The GAC is satisfied with the expertise, effectiveness and adequacy of arrangements in place for combined assurance.

Below are the areas of significant audit that the external auditor focused on in 2021.

- Logical Access Management Design adequacy.
- Disaster recovery technical review.
- Market Surveillance – market abuse and error trade for non-equity markets.
- Improving maturity in control environment.

JSE subsidiaries – GIA activities

GIA is responsible for the delivery of internal audit services to the JSE Group (including all subsidiaries and Group entities) as set out in the internal audit charter. Individual and specific annual internal audit plans were prepared for JSEC and JIS and were approved by the respective governing bodies. These plans include both direct and indirect audit assignments. GIA engages on these plans and progress on a regular basis with the executives in each subsidiary. Overall oversight is exercised by GAC (which serves as the audit committee for all Group entities in accordance with section 94 of the Companies Act).

Interaction with External Audit

GIA meets with the external auditors on a regular basis to ensure that they are aligned from a combined assurance perspective to facilitate reliance where practical and appropriate. GIA has continuous engagements with the external auditors and matters for discussion included, amongst others:

- progress against Annual Internal Audit Plan for 2021
- potential use of the work of IA for 2021;
- status on the Control Management Framework implementation and the implications on the JSE;
- status and conclusions reached regarding the IFCFR testing performed by IA;
- planned IA IT General Controls (ITGC) testing, specifically relating to Logical Access and Change Control Management;
- any material matters reported to management; and
- general themes emanating from both internal and external reviews.

External Audit

Ernst & Young is the Group's appointed external auditor and GAC is satisfied that they are independent of the Group. In reaching this conclusion, the committee considered:

- the Group has a clearly defined audit and non-audit services policy which is strictly followed; and
- the extent of non-audit services is minimal and is continuously monitored, with no excessive, unusual or unnecessary engagements noted.

The committee is of the view that the group received a high-quality external audit considering the standard of audit planning and scope of activities performed.

Below are the areas of significant audit that the external auditor focused on in 2021.

- Revenue recognition – key area of audit focus given the various IT applications supporting the revenue process.
- Goodwill impairment testing – a significant risk area considering the performance of JIS and other initiatives which are likely to increase revenue in future periods.
- Fair value and accounting of investment in Globacap.
- Capitalisation of software-related intangible assets.
- First-time audit of newly acquired JIS subsidiary for the purpose of the statutory audit and the consolidated financial statements.

INTEGRATED ANNUAL REPORT SCOPE

The integrated reporting process is an ongoing journey. We constantly strive to improve on the quality of the JSE's reporting.

Report objectives

This report is intended for our stakeholders and aims to tell the value creation story of the JSE. This report provides information that also enables our stakeholders to make an informed assessment of our ability to create sustainable value over time.

This report was compiled with information that the Board and management believe is relevant to stakeholders and provides a comprehensive view of the Group's performance for the financial year ended 31 December 2021.

We welcome feedback from stakeholders on this report and invite you to contact ir@jse.co.za should you have any questions or recommendations.

Scope and boundary

The information presented in this report describes the JSE and the five financial markets operated by the Group, and the investor protection funds[1] associated with its markets. The report excludes details on our associate, Strate, in which the JSE holds 44.55%, as Strate has an independent board and management team. The JSE equity accounts for Strate. The Group legal structure is available online: https://www.jse.co.za/investor-relations/results. This report outlines the Group's risk management processes and overall risk profile and considers the reasonable and legitimate needs and concerns of our stakeholder groups. The Board approved the material matters for this report (IFC). The JSE's reporting framework for this report is informed by a range of local and international requirements, standards and guidance, including, but not limited to the:

- International Integrated Reporting Council Integrated Reporting Framework (IIRC <IR> Framework);
- Companies Act;
- King IV;
- Relevant indicators of FTSE Russell's ESG ratings methodology as applied for purposes of the FTSE/JSE Responsible Investment Index Series, of which the JSE is a constituent;
- UN Global Compact (UNGC);
- UN Principles for Responsible Investment (PRI);
- SSEI; and
- CDP (formerly known as the Carbon Disclosure Project).

Assurance over the report 05 15

Our reporting suite contains a range of information governed by a diverse set of regulations and frameworks. Management decides and applies significant judgement in deciding what to report, based on principles of materiality and stakeholder inclusiveness.

The Board's responsibilities include oversight of financial and non-financial value drivers against agreed performance measures and the annual corporate scorecard.

INTEGRATED ANNUAL REPORT SCOPE continued

The Board, supported by its committees, is ultimately accountable for the JSE's systems of internal control, designed to identify, evaluate, manage and provide reasonable assurance against material misstatement. Executive management and internal audit provide the Board with formal confirmation of the effectiveness of the internal control environment.

Financial information in this report is drawn from the annual financial statements prepared in accordance with the relevant standards. These are audited by the Group's external auditors, Ernst & Young Inc., in accordance with international auditing standards. Non-financial information in this report is reviewed and approved by the relevant Board committee.

AQRate verification service, an accredited BBBEE verification agency, has verified our BBBEE performance. It has confirmed a Level 2 rating and the verification certificate is available at https://www.jse.co.za/investor-relations/jse-bee.

The Board is satisfied that internal oversight sufficiently ensures the reliability of the information presented in this report and did not obtain additional external assurance over this report.

[1] *These funds consist of the JSE Guarantee Fund Trust, the JSE Derivatives Default Fund Trust and the JSE Debt Guarantee Fund Trust.*

Reporting suite

Our full reporting suite is available at https://www.jse.co.za/investor-relations/results and comprises the following reports:

Integrated annual report

Sets out how the JSE creates value in the context of our business model, strategy, operating context, governance and operational performance.

Annual financial statements

Sets out our financial results, with the GAC report, director's report and annual financial statements prepared in accordance with IFRS.

Sustainability report

Sets out our approach to sustainability and our commitments to support and drive sustainable value creation.

Remuneration report (rewarding value creation)

Sets out the JSE's remuneration philosophy and policy, and how it was implemented in 2021.

Notice of AGM and proxy form

Sets out the notice of the JSE's AGM of shareholders to be held on 3 May 2022, together with the summarised report containing the required financial disclosures.

Disclaimer

Many of the statements in this report constitute forward-looking statements. These are not guarantees or predictions of future performance. The information on which forward-looking statements were based was not audited. Like all businesses, the JSE faces risks and other factors outside of its control. This may lead to outcomes unforeseen by the Group. These are not reflected in the report.

Readers are cautioned not to place undue reliance on forward-looking statements.

APPENDICES

KING IV PRINCIPLES

We are a listed company, listed on our own exchange, and paragraph 3.84 of the Listings Requirements stipulates that issuers must comply with specific requirements concerning corporate governance. The JSE certifies that it complies with all the requirements detailed in paragraph 3.84.

We believe that our governance processes should aim to achieve an ethical culture, good performance, effective control and legitimacy. We have applied all the principles outlined in King IV adequately during 2021. The table sets out a brief description of the principles and their application within the JSE environment. More information can be found in the integrated annual report where relevant information is indicated through a King IV icon 00. Principle 17 relates to institutional investors and has no bearing on the JSE.

APPENDICES continued

Desired outcomes	Activities in the year	Key governance policies and procedures
01 Principle 1 Lead ethically and effectively	• Satisfactory attendance by directors at Board meetings. • Declaration of interest at each Board and Board committee meeting. • Director development – remuneration, sustainability and information and cybersecurity. • Oversaw and monitored implementation and execution of policies by management.	• Board charter and terms of reference. • Declarations of interest. • Board assessments.
02 Principle 2 Govern the ethics of the organisation to support an ethical culture	• Continued to embed a culture of putting people first and taking care of employees by focusing on employee safety and wellness programmes. • Employees trained on their obligations in respect of the JSE Group code of conduct and ethics policy.	• Whistle-blowing hotline. • Group Dealing in Shares policy. • Code of conduct and ethics policy. • Protected disclosure/whistle-blowing procedures.
03 Principle 3 Ensure that the organisation is seen to be a responsible corporate citizen	Oversaw and monitored the Group's following activities: • Transformation efforts – achievement of Level 2 on BBBEE scorecard. • Launch of ESG and climate change disclosure guidance. • Commitment to TCFD-aligned set of climate disclosure for the 2022 reporting year. • Revision of the carbon footprint.	• Sustainability strategy. • EE plan. • BBBEE scorecard.
04 Principle 4 The organisation's core purpose, its risks and opportunities, strategy, business model, performance and sustainable development are inseparable elements of the value creation process	• Approved the Group's growth strategy for 2022 which focuses more actively on pursuing inorganic opportunities and creating new lines of business beyond equity trading. • JIS minority stake buy-out. • Acquisition of Investec Share Plan business. • Integration of JSE Investor Services Proprietary Limited into the Group.	• 2021 Group strategy. • 2021 CEO and corporate scorecard. • 2021 annual budget. • Sustainability strategy.

Desired outcomes	Activities in the year	Key governance policies and procedures
05 Principle 5 Ensure that reports issued by the organisation enable stakeholders to make informed assessments of the organisation's performance and its short-, medium- and long-term prospects	• Timely submissions to the Board and Board committees to better monitor strategic objectives. • Reviewed and approved the 2021 integrated annual report, Group consolidated annual financial statements, financial results and results announcements.	• Shareholder/investor roadshows. • Integrated annual report. • Trading statements. • Remuneration report. • Sustainability report.
06 Principle 6 The Board is the focal point and custodian of corporate governance in the organisation	• Newly appointed Board member serves on the GRMC for a period of one year. • Reviewed Board charter, Board work plan and Board committees' terms of reference.	• Board charter. • Board protocol on access to independent, professional advice.
07 Principle 7 Appropriate balance of knowledge, skills, experience, diversity and independence to discharge governance role and responsibilities objectively and effectively	• Achieved voluntary diversity targets at Board level. • Reviewed Board succession plan. • Completed appointment of successor to Board Chairman	• Diversity policy. • Group Nominations Committee (GNC) terms of reference. • Chairman is an independent non-executive director. • Have a lead independent non-executive director. • CEO and CFO are executive directors of the Board.
08 Principle 8 Ensure that arrangements for delegation within Board structures promote independent judgement, and assist with the balance of power and the effective discharge of its duties	• Reviewed and updated the committee terms of reference to ensure alignment between the committees. • Meetings without management.	• Board charter. • Board committees' terms of reference.

APPENDICES continued

Desired outcomes	Activities in the year	Key governance policies and procedures
09 Principle 9 Ensure that the evaluation of the Board and its committees supports continued improvement	• Considered the 2020 independent Board evaluation report and implemented action plans. • Performed 2021 independent evaluation of directors, chairs and committees.	• Board and committee evaluations.
10 Principle 10 Ensure that the appointment of, and delegation to, management contribute to role clarity and the effective exercise of authority and responsibilities	• Implement the Board delegation of authority as a base for the divisional delegations of authority.	• Delegation of authority.
11 Principle 11 Govern risk in a way that supports the organisation in setting and achieving its strategic objectives	• Embed a risk-aware culture by integrating risk and resilience activities into business processes and decision-making.	• ERM policy. • Risk and resilience roadmap. • Control management framework. • BCM policy. • BCM plan.
12 Principle 12 Govern technology and information in a way that supports the organisation setting and achieving its strategic objectives	• Invested in our operational capabilities, technology upgrade, information security, cybersecurity, technical skills and backup systems to ensure the operational stability of our markets and reduce operational disruption.	• IT and associated security policies. • Information Services policy. • Operational resilience framework. • Control management framework.
13 Principle 13 Govern compliance with applicable laws and adopted, non-binding rules, codes and standards in a way that supports the organisation being ethical and a good corporate citizen	• Entrenched legal compliance processes to mitigate the risk of non-compliance. • Monitored regulatory compliance to ensure the fulfilment of licence operating conditions.	• Group compliance charter. • Group compliance framework.

Desired outcomes	Activities in the year	Key governance policies and procedures
14 Principle 14 Ensure that the organisation remunerates fairly, responsibly and transparently to promote the achievement of strategic and positive outcomes in the short, medium and long term	• Reviewed and updated remuneration policy to ensure that it is aligned to current remuneration designs. • Paid specific attention to the performance measures of the long-term incentive scheme. • Conducted pay parity alignment.	• Remuneration policy.
15 Principle 15 Ensure that assurance services and functions enable an effective control environment that supports the integrity of information for internal decision-making and for external reports	• Applied three levels of combined assurance model that is aligned to King IV and designed to effectively address significant risks and material matters. • The Group Audit Committee received regular reports from GIA on any identified weaknesses in controls.	• Non-audit services policy. • GIA charter. • Annual internal audit plan. • Control management framework.
16 Principle 16 Adopt a stakeholder-inclusive approach that balances the needs, interests and expectations of material stakeholders in the best interests of the organisation	• Board held a governance and remuneration roadshow. • Focused on enhancing customer experience and improving the quality of our engagements. • Continued to embark on a customer experience change management programme with the aim to embed a culture of customer awareness. • Convened an external Sustainability Advisory Committee to ensure a broad representation of stakeholder interests in the development of our Sustainability and Climate Change disclosure guidance.	• Stakeholder engagement framework. • Crisis communication standard.

SHARE INFORMATION

The JSE has a primary listing on the Johannesburg Stock Exchange. There are no secondary listings.

Share code: JSE

ISIN: ZAE000079711

LEI: 231800MZ1VUQEBWRF039

Sector: Financial Services

Sub-sector: Investment Services

	Authorised share capital (Shares)	Nominal value (Rand)	Number of shares in issue (Shares)	Nominal value (Rand)	Closing price (Rand per share)	Market capitalisation (Rand billion)
31 December 2020[1]	400 000 000	40 000	86 877 600	8 620	112.50	9.8
30 June 2021	400 000 000	40 000	86 877 600	8 620	106.30	9.2
31 December 2021	400 000 000	40 000	86 877 600	8 620	112.00	9.7

[1] *The JSE has one class of shares: ordinary shares with a par value of 10 cents per share. The total number of treasury shares held by the Group at as 31 December 2021 was 3 662 367 shares (2020: 3 778 968 shares). Further details of the stated capital for the period under review are disclosed in note 18 of the Company's audited annual financial statements, available at https://www.jse.co.za/investor-relations/results.*

APPENDICES continued

Shareholder spread as at 31 December 2021

	Number of shareholders	Shares held	%
Public			
Institutional shareholders	1 590	77 699 937	89.44%
Non-institutional shareholders	5 245	4 979 307	5.73%
Total	6 835	82 679 244	95.17%
Non-public			
JEF Trust	35	2 129 639	2.45%
JSE LTIS Trusts	65	1 532 296	1.76%
Directors and company secretary	6	72 933	0.08%
Total		3 734 868	4.29%
Total identified shares		86 414 112	99.47%
Miscellaneous (below threshold)		463 488	0.53%
Total share capital		86 877 600	100%
Geographic ownership			
South Africa		48 350 950	55.7%
United States		12 377 419	14.2%
United Kingdom		9 431 561	10.9%
Sweden		1 378 300	1.6%
Rest of Europe		575 934	0.6%
Rest of world		14 763 436	17%
Total		86 877 600	100%

APPENDICES continued

Major shareholders

Pursuant to the Companies Act, the following beneficial shareholdings equal to or exceeding 4% as at 31 December 2021 were disclosed or established from enquiries:

Names	% of total issued ordinary shares	Number of ordinary shares held
Ninety One SA Pty Limited	**14.4**	**12 546 403**
Public Investment Corporation (SOC) Limited	**11.4**	**9 932 956**
Allan Gray Proprietary Limited	**9.2**	**8 013 338**
PSG Asset Management (Pty) Limited	**8.5**	**7 427 577**
The Vanguard Group, Inc.	**3.9**	**3 348 244**

No individual shareholder's beneficial shareholding in any of the JSE employee incentive scheme is equal to or exceeds 5%.

Fund managers

The directors have ascertained that some of the shares registered in the names of nominee holders are managed by various fund managers. At 31 December 2021, the following fund managers were responsible for managing investments of 2.5% or more of the share capital of the JSE:

Names	% of total issued	Number of ordinary shares held
Ninety One Ninety One SA Pty Ltd.	**14.4**	**12 546 403**
Public Investment Corporation (SOC) Limited	**11.4**	**9 932 956**
Allan Gray Proprietary Limited	**9.2**	**8 013 338**
PSG Asset Management (Pty) Ltd	**8.5**	**7 427 577**
The Vanguard Group, Inc.	**3.9**	**3 348 244**
Goldman Sachs Asset Management International	**3.4**	**2 960 721**
Abax Investments (Pty) Limited	**3.1**	**2 719 072**
Goldman Sachs Asset Management, L.P.	**2.8**	**2 394 506**
Absa Asset Management (Pty) Limited SA Pty Limited	**2.7**	**2 337 630**

APPENDICES continued

Shareholder diary

Events or reports in relation to the 2021/2022 financial years	
Release of summarised annual financial statements with the declaration of a dividend	Tuesday, 1 March 2022
Annual results presentation	Wednesday, 2 March 2022
Record date to determine which shareholders are entitled to receive the AGM notice	Friday, 18 March 2022
Publication of 2021 integrated annual report and posting of AGM notice	Tuesday, 29 March 2022
Last day to trade in order to be eligible to attend and vote at the AGM	Tuesday, 19 April 2022
Record date to determine the registered holders of JSE shares to participate in the AGM	Friday, 22 April 2022
Forms of proxy for the AGM to be lodged for administrative purposes by 16:00	Thursday, 28 April 2022
AGM at 16:00 on	Tuesday, 3 May 2022
Release of results of AGM	Wednesday, 4 May 2022
Release of summarised interim report for the six months ended 30 June 2022	Tuesday, 2 August 2022

APPENDICES continued

Declaration of ordinary and special cash dividends

The Board has declared an ordinary cash dividend and a special cash dividend for the year ended 31 December 2021, as follows:

Dividend	Annual gross amount per share	Withholding tax %	Net amount
Ordinary	754 cents	20%	603.20 cents
Special	100 cents	20%	80 cents

The ordinary and special cash dividends have been declared from retained earnings. A dividend withholding tax of 20% will be applicable to all shareholders who are not exempt. The dividends are payable to shareholders recorded in the register of members of the JSE at the close of business on Friday, 25 March 2022. In compliance with the Companies Act, 71 of 2008 (as amended) (the Companies Act), the directors confirm that the JSE will satisfy the solvency and liquidity test immediately after completion of the dividend distribution.

Dividend paid in respect of financial year ended	**31 December 2021**	31 December 2020
Ordinary dividend per share	**754 cents**	725 cents
Special dividend per share	**100 cents**	0 cents
Total rand value	**R741 million**	R630 million
Board declaration date	**Monday, 28 February 2022**	Thursday, 25 February 2021
Special cash dividend finalisation date	**Monday, 14 March 2022**	–
Last date to trade JSE shares *cum dividend*	**Tuesday, 22 March 2022**	Tuesday, 23 March 2021
JSE shares commence trading *ex-dividend*	**Wednesday, 23 March 2022**	Wednesday, 24 March 2021
Record date for purposes of determining the registered holders of JSE shares to participate in the dividends at close of business on	**Friday, 25 March 2022**	Friday, 26 March 2021
Dividends payment date	**Monday, 28 March 2022**	Monday, 29 March 2021

Share certificates may not be dematerialised or rematerialised from Wednesday, 23 March 2022 to Friday, 25 March 2022, both days inclusive. On Monday, 28 March 2022, the dividend will be electronically transferred to the bank accounts of certificated shareholders. The accounts of those shareholders who have dematerialised their shares (which are held at their central securities depository participant or broker) will be credited on Monday, 28 March 2022.

The issued share capital of the JSE as at the declaration date was 86 877 600 ordinary shares.

The tax number of the JSE is 9313008840. South African Reserve Bank approval is required for the declaration of the special cash dividend and the finalisation date is Monday, 14 March 2022. As subsequently announced, the relevant approval has been granted by the South African Reserve Bank.

GLOSSARY

AGM	annual general meeting
API	application programme interface
BBBEE	Broad-based Black Economic Empowerment
BCI	Black, Coloured, Indian
BCM	business continuity management
BCP	business continuity plan
BDA	broker dealer accounting back-office services
CAB	Companies Amendment Bill
CAGR	compound annual growth rate
CAPEX	capital expenditure
CCP	central counterparty
CEO	Chief Executive Officer
CFA	chartered financial analyst
CFO	Chief Financial Officer
CIO	Chief Information Officer
CMT	crisis management team
CoFI	Conduct of Financial Institutions
COP26	2021 United Nations Climate Change Conference
COSO	Committee of Sponsoring Organizations of the Treadway Commission
CRO	Chief Risk Officer
CSAT	customer satisfaction
CSI	corporate social investment
EBIT	earnings before interest and tax
EBITDA	earnings before interest, tax, depreciation and amortisation
ED	enterprise development
EE	employment equity
EME	exempt micro-enterprise
EPS	earnings per share
ERM	enterprise risk management
ERWG	Enterprise Risk Working Group
ESG	environmental, social and governance
ETFs	exchange-traded funds
ETNs	exchange-traded notes
EXCO	Executive Committee
FCA	Financial Conduct Authority
FMA	Financial Markets Act
FMI	Financial Market Infrastructure
FSCA	Financial Sector Conduct Authority
FSCF	Financial Sector Contingency Forum
FSLAB	Financial Sector Laws Amendment Act
FSRA	Financial Sector Regulation Act, 9 of 2017
FTSE	Global provider of benchmarks, analytics, and data solutions with multi-asset capabilities. FTSE Russell provides a comprehensive range of indexes
GAC	Group Audit Committee
GBV	gender-based violence
GBVF	gender-based violence and femicide
GHG	greenhouse gas
GIA	Group internal audit
GNC	Group Nominations Committee
GRC	Group Remuneration Committee
GRMC	Group Risk Management Committee
GSC	Group Sustainability Committee

APPENDICES continued

GSROOC	Group SRO Oversight Committee
HEPS	headline earnings per share
HR	human resources
ICH	independent clearing house
IDP	information dissemination platform
IFRS	International Financial Reporting Standards
IFWG	Intergovernmental Fintech Working Group
IOSCO	International Organization of Securities Commissions
IPO	initial public offering
IRMSA	Institute of Risk Management South Africa
ISO	International Organization for Standardization
IT	information technology
ITGC	IT general controls
JEF	JSE Empowerment Fund
JIS	JSE Investor Service
JPP	JSE Private Placement
JSE CLEAR	JSE Clear Proprietary Limited
JSE/THE GROUP	JSE Limited
KING IV	King Report on Corporate Governance™ for South Africa, 2016 (copyright and trademarks are owned by the Institute of Directors in South Africa NPC and all of its rights are reserved)
LTIS	long-term incentive scheme
MCA	marketing and corporate affairs
MIT	MillenniumIT
MOI	memorandum of incorporation
MTS	MTS is one of Europe's electronic fixed income trading markets. It is wholly owned by the London Stock Exchange Group
NEDLAC	National Economic and Labour Council
NPAT	net profit after tax
NPS	net promoter score
OECD	Organisation for Economic Co-operation and Development
OPEX	operating expenditure
ORM	organisational risk management
OTC	over-the-counter
PA	Prudential Authority
PoPIA	Protection of Personal Information Act
PRI	Principles for Responsible Investment
QSE	qualifying small enterprise
RFSC	Revised Financial Sector Charter
RI	responsible investment index
ROE	return on equity
RTC	real time clearing
SaaS	Software as a service
SAFe®	Scaled Agile Framework®. Empowers complex organisations to achieve the benefits of lean agile software and systems development at scale
SAFEX	South African Futures Exchange
SAIFM	South African Institute of Financial Markets
SANAS	South African National Accreditation System
SARB	South African Reserve Bank
SD	supplier development
SLA	service level agreement
SME	small and medium enterprise
SRI	socially responsible investment index
SRO	self-regulatory organisation
SSEI	Sustainable Stock Exchanges Initiative
TCFD	Task Force on Climate-related Disclosures
TMPS	total measured procurement spend
UN	United Nations
UNGC	UN Global Compact
WFE	World Federation of Exchanges
YoY	year-on-year

CORPORATE INFORMATION AND DIRECTORATE

JSE Limited

(Incorporated in the Republic of South Africa)
Registration number: 2005/022939/06
Share code: JSE
ISIN: ZAE000079711
LEI: 213800MZ1VUQEBWRF039

Registered office

One Exchange Square
2 Gwen Lane
Sandown, 2196

Postal address

Private Bag X991174 Sandton, 2146

Contacts

Telephone: +27 (0) 11 520 7000
Web: www.jse.co.za
Investor relations: ir@jse.co.za
Group company secretary:
GroupCompanySecretary@jse.co.za

Directors as at 31 December 2021

N Nyembezi[1] (Chairman)
Z Bassa[1]
MS Cleary[1]
VN Fakude[1]
Dr SP Kana[1] (Lead Independent Director)
FN Khanyile[1]
IM Kirk[2]
BJ Kruger[2]
Dr MA Matooane[1]
P Nhleko[1,4] (Chairman designate)
Dr L Fourie (Group CEO)[3]
A Takoordeen (Group CFO)[3]

Changes to the Board in 2021

Mr P Nhleko[4]

[1] *Independent non-executive directors.*
[2] *Previously classified as non-executive director (not independent) on account of business relationship that affiliated company has with JSE. Reclassified as independent non-executive director as at 31 December 2021 following completion of cooling-off period since leaving the full-time employ of affiliated company.*
[3] *Executive directors.*
[4] *Appointed effective 1 July 2021.*

Group company secretary

GA Brookes

Transfer secretary

JSE Investor Services Proprietary Limited
19 Ameshoff Street
Johannesburg, 2001

Sponsor

Rand Merchant Bank (a division of FirstRand Bank Limited)
1 Merchant Place
Corner Fredman and Rivonia Road
Sandton, 2196

AGM scrutineers

The Meeting Specialist Proprietary Limited
One Exchange Square
2 Gwen Lane
Sandown, 2196

Auditors

Ernst & Young Inc.
102 Rivonia Road
Sandton, 2196

Bankers

First National Bank of SA Limited
Corporate Account Services
4 First Place
Bank City
Simmonds Street
Johannesburg, 2001

Investor queries should be directed to ir@jse.co.za and will be redirected, where necessary, to the appropriate Board member or executive for a response.

Governance and secretarial queries should be directed to GroupCompanySecretary@jse.co.za

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