

## OPERATIONS

The JSE's drive to build a resilient and sustainable business has many elements; this section focuses on the revenue elements in the business. This is therefore not a complete review of operations; more detail on JSE initiatives can be found throughout the integrated annual report and in the CEO's review.

### Capital Markets

#### Division responsibilities

The Primary Market:

- Sources issuers to list on the JSE's Equity and Interest Rate markets.
- Also supports potential and existing issuers.

The Secondary Market:

- Provides trading and ancillary trading and customer support services in the Equities, Bonds and Financial Derivatives, and Commodity Derivatives markets.

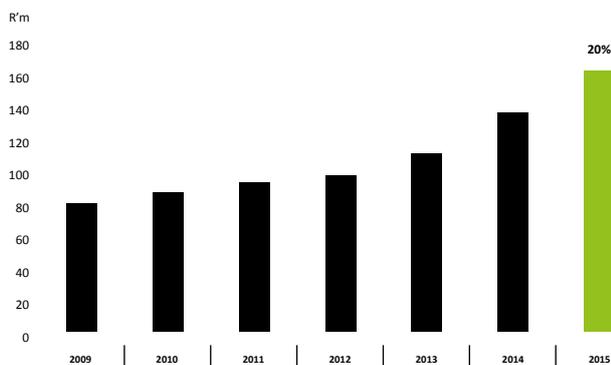
The Equity Market provides trading in equities. Products include:

- Primary and dual-listed ordinary shares, preference shares, depository receipts, property entities like real estate investment trusts (REITs), special purpose acquisition companies (SPACs), warrants, structured products and exchange-traded products (ETFs and ETNs).

The Financial Derivatives Market and the Bond Market provide secondary market access to financial derivatives and to debt instruments.

- The Financial Derivatives Market's products include:
  - Index and single-stock futures and options, can-do futures and options, exchange-traded contracts for difference (CFDs) and other sophisticated derivative Instruments in equities, currencies and interest rate asset classes.
- The Interest Rate Market's products include:
  - Bonds, floating-rate notes, commercial paper and hybrid instruments.
- The Commodity Derivatives Market's products include:
  - a range of cash-settled rand-denominated derivatives on various local and international benchmark commodities, including softs, energy and various metals, under licence from the CME Group, as well as the recently launched beef carcass contract.

#### Primary Market



#### How money is made

- Fees for new issuances, annual listing fees for existing issuers, as well as documentation fees for dealing with specific corporate actions that companies undertake during the year generate revenue.
- In 2015, the price cap based on market capitalisation was increased from R201 000 to R275 000.

### 2015 IN REVIEW

Revenue rose by 20% to

# R161 million

(2014: R134 million) as a result of increased listing activity and restructured equity annual listing fees.

Percentage of total operating revenue (excluding *Strate ad valorem* fees): 8%.

Ended 2015 with 23 new company listings, compared with 24 last year. Listed two new exchange-traded funds (ETFs), one exchange-traded note (ETN), 264 warrants and 49 structured products.

Cross-listed exchange-traded funds on African exchanges, specifically the Kenyan and Nigerian stock exchanges.

Issued 942 new bonds during the year (2014: 837).

The total nominal listed bond value by year-end December 2014 was R2.3 trillion (2014: R2.0 trillion), with 1 946 listings in total by year-end December 2015 (2014: 1 695).

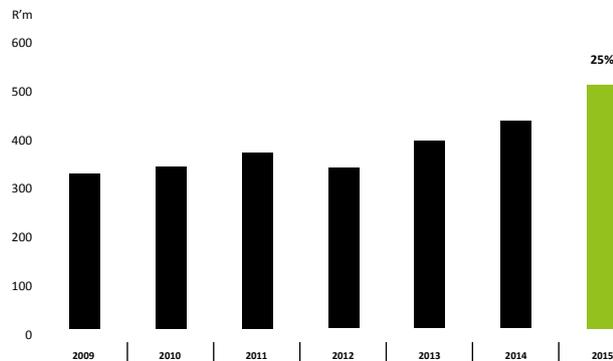
There were eight new listings on AltX in 2015.

#### Looking ahead to 2016

- The JSE will continue to encourage listings by promoting inward and fast-track listings, like the recent listing in 2016 of AB InBev, across asset classes as well as alternative risk structures, using AltX's flexible listings requirements, listed project bonds and the empowerment segment.
- The JSE will also focus on initiatives aiming to facilitate entrepreneurs in sub-AltX counters.
- The JSE will also focus on attracting meaningful African cross-listings and other new products that enable participation in the African growth story.
- The team will continue to pursue new ETNs, ETFs, indices and cross-listings.

## Secondary Market

### Equity Market



### How money is made

- Charges on equity transactions, based on the value of each transaction leg with a 0.0053% value-based charge and a maximum fee per transaction of R316 in 2015, are the main revenue earner.
- The model discounts the highest value trades through the trade cap.

### 2015 IN REVIEW

Revenue rose by 25% to

# R501 million

(2014: R402 million), where billable value traded grew by 26%.

Percentage of total revenue (excluding State *ad valorem* fees): 26%.

Value traded increased by 24%. The JSE recorded 60.3 billion of value traded in the equity market on 17 December 2015 (previous record: 53.7 billion of value traded).

The number of transactions year-on-year rose by 34% to 62 million (2014: 46 million).

Average size per trade continued to decline (2015: 1 202; 2014: 1 333; 2013: 1 640; 2012: 2 296).

Colocation accounts for 26% of value traded.

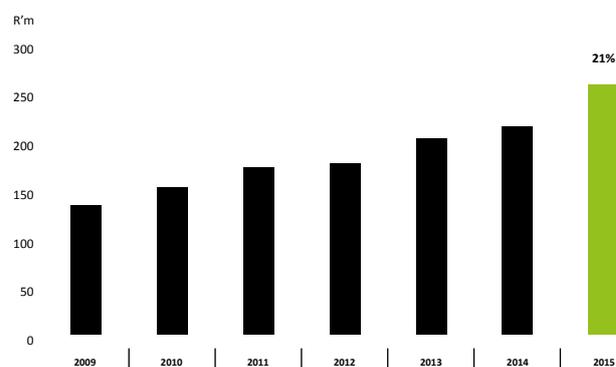
The JSE introduced a revision to the rules governing block trading, aimed at increasing accessibility for certain qualifying investors and enhancing protection for buy-side traders.

Continuing to evolve ways clients can transact through new trade types.

## Looking ahead to 2016

- The local and international markets' adoption of the JSE's colocation facility continues to show potential for growth.
- Increasing the use of the local market by foreign markets.
- The focus will remain on new clients and new products in 2016.

### Bonds and Financial Derivatives markets



### How money is made

- The use of a range of fee models, either based on the contracts traded or on the market value of transactions, generates revenue.
- In order to promote on-screen trading, the fee associated with on-screen trading is normally lower than that for reported trades.
  - Certain markets provide value-based incentives in their fees model.
  - For markets that require the support of market makers, the fee model may also include specific incentives for this activity.
- Certain fee models were reviewed during 2015.
  - No changes were made to the Interest Rate Derivatives Market.
  - A new concept was introduced to the Currency Derivatives Market fee model to promote the liquidity of on-screen products.
  - New pricing models have been agreed for the Bond Market (primary and secondary) and will come into effect in January 2016.

### 2015 REVIEW

Total divisional revenue rose by 21% to

# R257 million

(2014: R213 million).

Percentage of total revenue (excluding State *ad valorem* fees): 13%.

## OPERATIONS (CONTINUED)

### EQUITY DERIVATIVES MARKET

Equity derivatives revenue rose by 18% to

# R173 million

(2014: R147 million) because of the increase in value traded.

Value traded rose to R6.6 trillion (2014: R4.9 trillion), an 11% increase.

The number of contracts traded rose by 78% to 448 million (2014: 202.3 million).

Equity derivative futures performed strongly, with a monthly average value traded of R26.5 billion – 10% more than the R24 billion average traded in 2014.

Index futures value traded is up by 11% from R6 trillion to R6.6 trillion.

Foreign participation in index futures by number of contracts traded increased by 4% year-on-year to 11 million.

Substantial foreign participation in can-dos, at 33%, well surpassed the 15% participation of the previous year.

A bigger appetite for the JSE's international derivative (IDX) product range resulted in IDX value traded more than doubling (2015: R44 billion; 2014: R21 billion).

### CURRENCY DERIVATIVES MARKET

Currency derivatives revenue rose by 48% to

# R34 million

(2014: R23 million) largely owing to the restructuring of the billing model.

The number of contracts traded increased by 1% year-on-year to 45.1 million (2014: 44.6 million).

Value traded increased by 17% to R604 billion (2014: R515.2 billion)

The US dollar/rand contract remains the largest contributor to volumes traded in the market.

### INTEREST RATE MARKET

Interest Rate Market revenue rose by 14% to

# R50 million

(2014: R44 million) because of increased nominal value traded.

Bond Market volumes rose by 21% to a nominal value of R23 trillion in 2015 (2014: R18.8 trillion).

The number of interest rate derivatives contracts traded rose by 13% to 5.7 million (2014: 5 million).

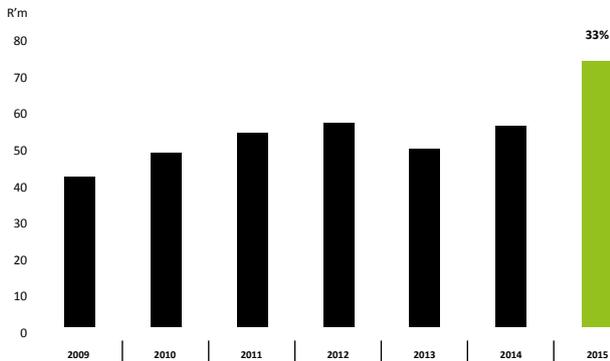
Open interest in the Interest Rate Derivatives Market as at 31 December 2015 rose by 54% to 696 991 contracts from 453 330 contracts in 2014.

The JSE launched the new Eris methodology for interest rate swaps on 31 August 2015. This product is intended to replicate the economics of OTC swaps in a capital-efficient way, using futures.

#### Looking ahead to 2016

- Product innovation remains a driver for growth in all of the Financial Derivatives markets. The JSE will continue to progress its multi-asset-class integrated trading requirements.
  - Progress is being made with the migration of the Equity Derivatives and Currency markets to the same trading engine as the JSE's Equity Market and to a new clearing engine. This will leverage the JSE's investment in advanced trading technology. This decision forms part of the JSE's commitment to an integrated trading and clearing vision.
- The team will close out on sourcing technology for an electronic trading platform (ETP) for government bonds.
- There will also be a focus on simplifying billing models and market maker incentive programmes to enhance on-screen liquidity.
- The JSE sees important opportunities related to the real economy, debt cap raising in the local currency, and refinancing renewable energy transactions.

### Commodity Derivatives Market



#### How money is made

- A fee per contract traded, based on the underlying instrument, and generates revenue.
- A fee collected per ton of grain physically delivered also contributes to revenue.

### 2015 IN REVIEW

Revenue rose by 33% to

# R73 million

(2014: R55 million) because of the increased number and value of contracts traded.

Percentage of total revenue (excluding *Strate ad valorem* fees): 4%.

The number of contracts traded increased by 28% to 3.5 million (2014: 2.7 million), with a daily record high of 34 000 recorded in February 2015.

Daily average contracts traded increased by 28% to 13 900 (2014: 10 900).

Value traded rose by 53% to R749.4 billion (2014: R490.5 billion).

Switched the 10-ton yellow and white maize (mini-maize) contract from physical settlement to cash settlement.

Listed the Euronext milling wheat futures contract.

Introduced a 1 000 kg cash-settled beef carcass contract.

Announced cooperation with the Zambian Commodity Exchange (ZAMACE), where electronic warehouse receipts were issued using the same warehouse receipt platform as the JSE. The aim is to introduce derivative contracts on Zambian grain early in 2016.

### Looking ahead to 2016

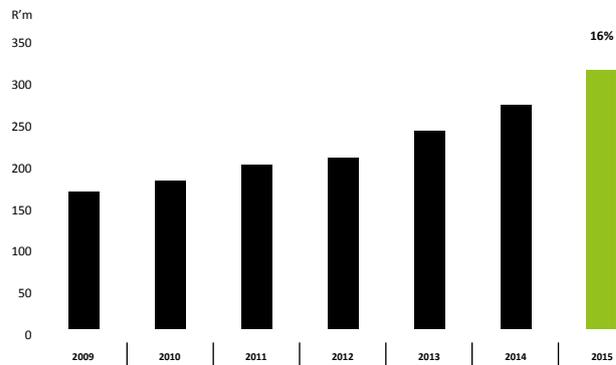
- The team will focus on introducing the Zambian contracts and will embark on an education campaign in Zambia to maximise participation in a deliverable white maize, wheat and soya bean contract.
- The JSE will continue to explore ways to provide financial participants with access to a South African commodity index as a diversified investment alternative.
- The JSE will seek to progress the idea of a weather derivatives offering and will work with market participants to introduce a limited number of base weather products. The Exchange remains ready and available to facilitate the trading and transfer of carbon credits within its existing technology base.

### Trading and Market Services (TMS)

#### Division responsibilities

- TMS includes Trading Services, the Client Service Centre, Market Services (which includes BDA), Business Continuity and Client Data.
- Back-Office Services (also called the Broker Deal Accounting (BDA) system) gives the JSE world-class surveillance capabilities, allowing the JSE to see certain transactions to client level in real time. Equity members are mandated to use the system. The system keeps the securities records and books of individual broking firms and of their clients. It also enables the Exchange to provide settlement assurance for central order book equity transactions.

### Back-Office Services (BDA)



#### How money is made

- Revenues for Back-Office Services are somewhat linked to the number of equity transactions that take place on the Cash Equity Market.
- BDA fees are mostly charged on a per BDA transaction basis, with connectivity, subscription and dissemination fees being charged differently.
- The JSE reduced the BDA fee by 20%. This change was implemented on 31 August 2015.

## OPERATIONS (CONTINUED)

### 2015 IN REVIEW

Revenue rose by 16% to

# R311 million

(2014: R268 million), partially linked to Equity Market transaction volumes.

Percentage of total revenue (excluding Strate *ad valorem* fees): 15%.

The JSE continues to make changes to BDA to facilitate regulatory compliance and to introduce requirements for offerings such as the tax-free savings accounts (TFSAs).

### Looking ahead to 2016

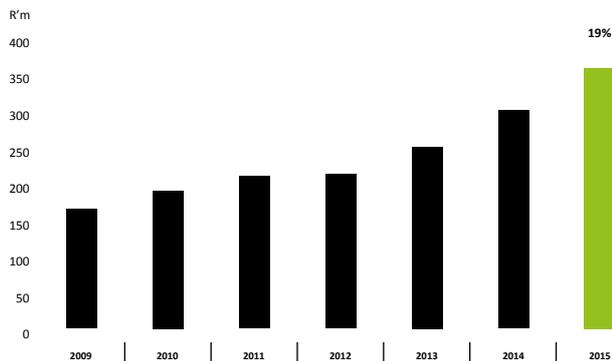
- The JSE will continue maintaining BDA in addition to making the significant changes required to achieve T+3, improve functionality and meet increasing regulatory demands.

## Post-Trade and Information Services (PTIS)

### Division responsibilities

- PTIS includes Market Data, Group Economics, Public Policy, Indices, Business Intelligence Analytics, and Valuations and Risk Management. It is also responsible for clearing and settlement assurance for the Equity Market and for managing the Group's derivatives clearing business (the JSE Clear central counterparty (CCP)).
- Market Data provides financial market participants with fast, reliable and accurate information as well as investable index solutions. The division promotes and sells live, statistical, historical and end-of-day data for all JSE markets. It is also responsible for licensing all JSE indices as well as promoting and selling colocation services.

### Risk Management



### How money is made

- Risk Management revenue reflects only the value-based Equity Market clearing and settlement fees, which were set at 0.0036, with a maximum fee per transaction leg of R137, for 2015.
  - The value-based fee will remain in place for 2016 and the cap will increase by less than inflation, from R137 to R145 per trade.
- Though Risk Management revenues are linked to the number of equity transactions that take place on the Equity Market, the increase in clearing and settlement revenues did not track equity trading activity exactly, because of the different caps applied to equity trading and clearing (both of which are value-based, but at different pricing points).
- Although the division risk manages the clearing of derivative transactions, the JSE does not bill separately for this service. Derivative transactions are billed using a per contract fee, which is accounted for in the Bonds and Financial Derivatives division.

### 2015 IN REVIEW

Revenue rose by 19% to

# R357 million

(2013: R299 million).

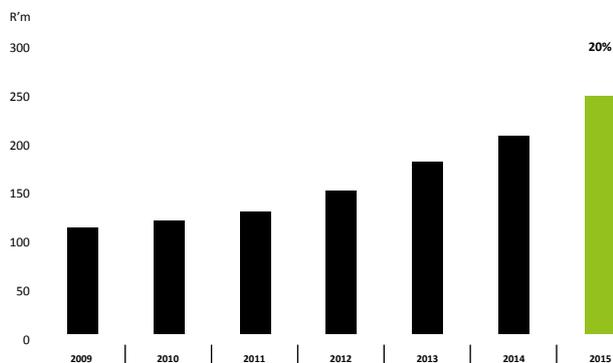
Percentage of total revenue (excluding Strate *ad valorem* fees): 18%.

The JSE's top priority project to reduce the settlement cycle from five days to three progressed well.

### Looking ahead to 2016

- Phase 3 of the T+3 project will be implemented between 25 June and 23 July 2016.
- There will be a continued focus on various initiatives to strengthen the on-exchange clearing business, including revising the equity risk model and making risk enhancements to the CCP, as well as revising valuation services.
- The integrated clearing solution for all markets is progressing well and will be implemented over the next four years. This solution will introduce real-time clearing and will enable a central point of risk management across markets. Benefits from this technology include real-time risk management and non-cash and dollar collateral.
- The JSE continues to make enhancements to the sophistication of post-trade risk and capital management in all markets.

## Market Data



## How money is made

- Revenue is generated by licensing data for all markets and passively tracking products on indices as well as charging a fee per user or terminal and non-display usage for algo participants.

## 2015 IN REVIEW

Revenue rose by 20% to

**R245 million**

(2014: R204 million), owing to new business.

Percentage of total revenue (excluding *Strate ad valorem* fees): 12%.

61 new clients have signed up for Market Data products: (31 local clients and 30 international clients).

28 new non-display clients.

An additional five racks in the colocation centre were sold.

The derivative data solution was delivered to the UK point of presence (PoP).

## Looking ahead to 2016

- To grow revenue, the JSE will continue to diversify across client segments, data products and services, geographically and across all markets, with a continued focus on expanding its international client base.
- There will be a focus on broadening the product range across all markets. The JSE will launch new indices, as well as new indices data products and services.