Interest Rates Products

User Manual

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1 VERSION CONTROL

Version	Author	Date	Reason for Change
0.1	Maryke Vreulink and Haseel Bhima	1 November 2013	Initial Document Publication
0.2	Haseel Bhima and Khuduga Montwedi	1 September 2014	MTM changes, addition of new fields and update of MTM files.
0.3	Mark Randall	25 September 2014	Insertion of New Credit Indices layout (email only)
0.4	Tshepo Modise	18 August 2016	Removal of RMBX section and various amendments on field details
1.0	Tshepo Modise	08 September 2016	Addition of the new fields in the Trade Detail Report a. Companion b. Spread
1.0	Tshepo Modise	20 March 2017	Added new Base CPI field to Bond Data product
2.0	Neil Vendeiro	25 September 2018	Added new Bond ETP to Bond Data Product (section 5.1.3)
3.0	Tshepo Modise	July 2019	Updated context notes for MTM

2 DISCLAIMER

The JSE Ltd does not accept any responsibility or liability for any errors or omission in the formulation of this manual, nor for any consequential claims arising there from. Accordingly, the JSE Ltd accepts no responsibility for any transaction entered into as a result of the contents herein.

3 INTRODUCTION

The aim of the JSE is to provide subscribers with Interest Rate Market statistics and reference data on a regular basis. This is done by means of a number of different reports that provide different views of the market activity. These reports are no

Each subscriber can decide the type of report(s) required from the standard offerings available and as per the fees listed on the JSE's Market Data price list.

Subscribers can elect to receive their reports via File Transfer protocol (FTP) via the JSE's Information Delivery Portal (IDP), the JSE premier FTP Server or via email.

For subscription queries please contact the Market Data Division via mdclients@jse.co.za.

This document outlines the various connectivity requirements, which includes the delivery protocols for the access and retrieval of data files, as well as the layout of the specific reports covered in this specifications document.

The following reports are covered in this document.

Data Product	FTP Location
2pm Zeros - CSV / XLS	Zerocurve 2pm
3pm Zeros - CSV / XLS	Zerocurve 3pm
Zero Curve - CSV / XLS	Zerocurve Yield
Linear Swap - XLS	Linear Swap
Yield Curve - CSV / XLS	Yield Curve
MTM Detailed - CSV / XLS(To be decommissioned 15 th October 2014 and replaced by MTM Detailed Updated)	MTM Detailed
MTMT+1 - CSV / XLS(To be decommissioned 15 th October 2014 and replaced by MTMT+1 Updated)	MTMT+1
MTM Value Today - CSV / XLS(To be decommissioned 15 th October 2014 and replaced by MTMVT Updated)	MTMVT
UTMTM - CSV / XLS(To be decommissioned 15 th October 2014 and replaced by UTMTM Updated)	UTMTM
UTMTMT+1 - CSV / XLS(To be decommissioned 15 th October 2014 and replaced by UTMTMT +1 Updated)	UTMTMT +1
UTMTM Value Today - CSV / XLS(To be decommissioned 15 th October 2014 and replaced by UTMVtoday Updated)	UTMVtoday
CILI - CSV / XLS	CILI
CONSTITUENTS - CSV / XLS	Constituents
Daily Report	Daily Report
TRI – CSV	TRI
BONDDATA - CSV / XLS	Bonddata File

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TRADE DETAIL CSV / XLS	Turnover Stats
INSTRUMENT DETAIL CSV / XLS	Turnover Stats
MEMBER/CLIENT POSITION DETAIL CSV / XLS	Turnover Stats

4 FTP SITE ACCESS AND FILE LOCATIONS

4.1 FTP SITE AND FOLDERS

When connecting to the IDP portal, you will be allowed access through the use of different protocols. Please refer to the Information Delivery Portal Connectivity document: https://www.jse.co.za/services/market-data/technical-documents Access to the IDP FTP server is granted as per the following process.

4.2 CONFIRMATION OF USER ID AND PASSWORD

- 1. Once you have successfully negotiated your data subscription with the Market Data division, an instruction will be issued to configure access.
- 2. A representative from the Customer Services Department will provide you with your Sign-on and Dataset name before 11am on the day you go live.
- 3. For security purposes, a representative from the JSE's Information Technology Division (IT Open System Department) will provide you with your Password.
- 4. An Account Officer from the Market Data Division will contact you to confirm receipt of the Dataset, User ID and Password.
- 5. The onus is on you to test as soon as you have received the above-mentioned information to ensure that you will gain access to the system.

Should you experience any problems relating to the information communicated to you or the actual testing of access to the data set, please contact the following contact number(s) for assistance:

Customer Support 011 520 7777 / 7799

5 RETRIEVING REPORTS

All reports available on the JSE IDP FTP server can be retrieved following the below path.

- > ftp bondftp.jse.co.za 196.216.152.24 / Internet 41.208.2.229
- supply user name and password
- > cd "report"
- cd csv / xls
- > get <file name>

ZERO CURVES

5.1 ZERO CURVE

The JSE Zero-Coupon Yield Curves are a daily suite of three yield curves. One to cover the nominal bond market, one the nominal swaps market, and one to cover the inflation-linked bond market. Each curve will be a "perfect fit" curve, in the sense that each curve will exactly price back all of its inputs.

5.1.1 Report Detail

The Zero Curve Report is a report that gives 3 yield curves which are based on:

- **Bonds Curve**: This curve provides the bonds which are used as inputs along with their Mark to market rate.
- **Swaps Curve**: This curve provides the swaps and FRAs which are used as inputs along with their mark to market rate.
- **Real Bonds Curve**: This curve provides the bonds which are used as inputs along with their Mark to market rate.

These curves can be used to discount cash flows.

This report is currently disseminated daily at 14h30, 15h30 and 17h30 (South African Times), and is available via the JSE IDP (Information Delivery Portal) or via email.

The three reports can respectively be retrieved by following the below steps mentioned in point 5.

5.1.2 Report Field Descriptions

Worksheet 1: Zeroes

DATE	The dates of the dissemination run, in the format CCYY/MM/DD.
BOND CURVE (NACC)	Nominal zero-coupon bond yields which are Nominal Annual Compounded Continuously (NACC).
SWAP CURVE (NACC)	Nominal zero-coupon swap yields which are Nominal Annual Compounded Continuously (NACC).
REAL CURVE (NACC)	Real zero-coupon swap yields which are Nominal Annual Compounded Continuously (NACC).
Worksheet 2: Compact	
ZERO CURVES	
PERIOD	The period of how far the corresponding date is from the valuation date.
NOMINAL SWAP (NACQ)	Nominal zero-coupon bond yields which are Nominal Annual Compounded Quarterly (NACQ).

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NOMINAL BOND (NACS)	Nominal zero-coupon bond yields which are Nominal Annual Compounded Semi-Annually (NACS).
REAL BOND (NACS)	Real zero-coupon bond yields which are Nominal Annual Compounded Semi-Annually (NACS).
PAR/SWAP CURVES	
PERIOD	The period of how far the corresponding date is from the valuation date.
NOMINAL SWAP (NACQ)	Par swap yields calibrated off the Nominal Swap Zero Curve. Compounded NACQ.
NOMINAL BOND (NACS)	Par swap yields calibrated off the Nominal Bond Zero Curve. Compounded NACS.
REAL BOND (NACS)	Par swap yields calibrated off the Real Bond Zero Curve. Compounded NACS.
Worksheet 3: Inputs	
BOND CURVE	
CODE	The code or name of the bond used in the Nominal Bond Curve inputs.
МТМ	The Mark To Market yield of the corresponding bond.
SWAP CURVE	
CODE	The code or name of the swaps used as Nominal Swap Curve inputs.
МТМ	The MTM swap rate.
REAL CURVE	
CODE	The code or name of the bonds used as Real Bond Curve inputs.
МТМ	The MTM yield of the corresponding bond.

5.1.3 Record Layout

Excel Report(s)

Report Name	ZeroCurve <ccyymmdd>.xls</ccyymmdd>			
Sheet Name	Zeroes			
	Heading			
	Actual/ <pattern>/(Example)</pattern>		Cell	
Column				
headings	(Bond Curve (NACC))		A1-D1	
Detail				
Field Name		Cells	Field Type	
Date		>=A2	Date time	
Bond Curve (NACC)		>=B2	Float	
Swap Curve (NACC)		>=C2	Float	
Real Curve (NACC)		>=D2	Float	

Sheet Name	Compa	act	
	Heading		
	Actual/ <pattern>/(Example)</pattern>		Cell
Column	(Zero Curves - Nominal Swap		
headings	(NACQ))		A1-K2
	Detail		
Field Name		Cells	Field Type
Zero Curves - Period		>=A3	Varchar(20)
Zero Curves - Date		>=B3	Date time
Zero Curves - Nominal Swap (NACQ)		>=C3	Float
Zero Curves - Nominal Bond (NACS)		>=D3	Float
Zero Curves - Real Bond (NACS)		>=E4	Float
Par/Swap Curves - Period		>=G3	Varchar(20)
Par/Swap Curves - Date		>=H3	Date time
Par/Swap Curves - Nominal Swap (NACQ)		>=l3	Float
Par/Swap Curves - Nominal Bond (NACS)		>=J3	Float
Par/Swap Curves - Real Bond (NACS)		>=K3	Float

Sheet Name	Inputs			
	Heading			
	Actual/ <pattern>/(Example)</pattern>		Cell	
Column				
headings	(Bond Curve - Code)		A1-H2	
Detail				
Field Name		Cells	Field Type	
Bond Curve - Code		>=A3	Varchar(20)	
Bond Curve - MTM		>=B3	Float	
Swap Curve - Cod	e	>=D3	Varchar(20)	
Swap Curve - MTM		>=E3	Float	
Real Curve - Code		>=G3	Varchar(20)	

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Real Curve - MTM	>=H3	Float	

5.2 LINEAR SWAP CURVE

5.2.1 Report Detail

The linear swap curve reports represents a linear interpolation of the par swap rates and the FRA rates used to construct the nominal swap curve.

This report is currently disseminated daily at 17h30 and is available via the JSE IDP (Information Delivery Portal) and email.

5.2.2 Report Field Descriptions

Worksheet 1: Inputs

DATE	Dissemination date - The date of the dissemination run, in the format CCYY/MM/DD.
CODE	The code indicating the type of information contained in the record disseminated - e.g.: 1ddm.
MtM	The Mark to Market rate for the corresponding code.
Worksheet 2: Outputs	
VALUATION DATE	VALUATION DATE - The date of the valuation, in the format DD-MM-YY.
PERIOD (years)	The period in years of how far the dissemination date is from the valuation date.
DATE	The date of the valuation in the format DD/MM/YY.

5.2.3 Record Layout

Excel Report(s)

Report Name	LinearSwapCurve_ <ccyymmdd> xls</ccyymmdd>		
Sheet Name			
Heading			
	Actual/ <pattern>/(Example)</pattern>	Field Type	Cell
Report Title			
Report Date	<dd-mmm-yy></dd-mmm-yy>	datetime	B1
Column			
headings	(MTM)		A2-B2
Detail			
Field Name		Field Type	Cells
Code		varchar(10)	A3-A31
MtM	float B3-B31		

Sheet Name	Outputs		
	Heading		
	Actual/ <pattern>/(Example)</pattern>	Field Type	Cell
Report Title			
Report Date	<dd-mmm-yy></dd-mmm-yy>	datetime	C1
Column			
headings	(Date)		A2-C2
Detail			
Field Name		Field Type	Cells
Period (years)		datetime	A3-A130
Date		datetime	B3-B130
Spot Rates		float	C3-C130

Sheet Name	Outputs		
	Heading		
	Actual/ <pattern>/(Example)</pattern>	Field Type	Cell
Report Title			
Report Date	<dd-mmm-yy></dd-mmm-yy>	datetime	C1
Column			
headings	(Date)		A2-C2
Detail			
Field Name		Field Type	Cells
Period (years)		datetime	A3-A130
Date		datetime	B3-B130
Spot Rates		float	C3-C130

MARK TO MARKET (MTM) REPORTS

MTM is used to value bond portfolios and is a representation of the Mark to Market at various times on a daily basis. ,the MTM can be used as a closing price.

There are six MTM Reports run on a daily basis, only differing in settlement dates, and run at different times during the day.

Three MTM Reports showing 17:00 data, are disseminated and available to clients at 17:30 and will include MTM Detailed, MTM T+1 and MTM Value Today.

The other MTM reports are UTMTM (Unit Trust MTM) Reports, showing 15:00 data, disseminated and available to clients at 15:30, and will include UTMTM, UTMTM T+1, UTMTM Value Today.

Reports will be available in both xls and csv format.

5.3 MTM DETAILED

5.3.1 Report Detail

The MTM Detailed report is a report showing all cash flows discounted back from Maturity date to Settlement date, and assumes all valuations for T+3 settlement. It will exclude any trades which were reported and cancelled on the same day, but will include any back dated trades reported on the day.

This report consists of the MTM, BEASSA TRI (Total Return Index), COBI TRI (Credit Indices) and the Yield Curve. All other MTM reports will only consist of the MTM data, excluding BEASSA TRI, COBI TRI and Yield Curve data.

The report will be available at 17:30 daily.

5.3.2 Report Field Descriptions

Worksheet 1: MTM

TRADE DATE	The date the report is relevant for
SETTLEMENT	The date for which all instruments are valued. All cash flows are discounted back from maturity date to this date
BOND CODE	The short code for each listed instrument
ISIN CODE	The unique ISIN code for each listed instrument. Will be a ZAG code
MATURITY	The date the instrument will redeem. (This is the date from which the maturity cash-flow will be discounted from)
COUPON	Interest rate payable by the issuer to investors
COMPANION BOND	The short code of a more liquid companion instrument to assist in the re-valuation of parallel shifts in the yield curve. Usually governments bonds will be used as the companion bond. (Not all instruments will have a companion bond)

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BP (Basis-point) SPREAD	The spread above the companion bond which denotes the credit component of the instruments yield
MTM	The marked to market yield of the listed instrument
ALL IN PRICE	The price of the listed bond based on the mark to market yield including interest, all based on a nominal of 100 bonds
CLEAN PRICE	The price of the listed bond based on the mark to market yield excluding interest, all based on a nominal of 100 bonds
ACCRUED INTEREST	The interest due to the buyer or seller. All based on nominal of 100 bonds
YEAR HIGH YIELD	The highest mark to market yield for the year
YEAR LOW YIELD	The lowest mark to market yield for the year
RETURN (YTD)	Basis point change since the beginning of the year
DURATION	Measures the price volatility and interest rate sensitivity of the instrument
MODIFIED DURATION	The duration of a financial asset that consists of fixed cash flows, for example a bond, is the weighted average of the times until those fixed cash flows is received. The duration also measures the price sensitivity to yield, the rate of change of price with respect to yield or the percentage change in price for a parallel shift in yields.
DELTA	The ratio comparing the change in the price of the instrument
RAND PER BASIS POINT	The rand value change of R1 million bonds should the yield of the instrument move one basis point (0.01%)
CONVEXITY	A measure of the sensitivity of the duration of a bond to changes in interest rates. The higher the convexity the more sensitive the bond price to the change in IR's.
YIELD VOLATILITY	For future use (Column currently not populated/used)
MTM CHANGE	Why the MTM changed
MTM PROCESS METHODOLOGY	The methodology/process that the exchange used to value the bond for MTM purposes
LAST TRADE DATE	The last date the specific instrument traded
LAST MTM CHANGE DATE	The last date the MTM for a particular instrument changed
YIELD/PRICE INDICATOR	Indicates whether or not the instrument is traded as price or yield

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INDEX RATIO	Provide the multiplicative factor used to calculate inflation linked bond prices
BASE CPI	Business to provide definition
REFERENCE CPI	Business to provide definition
Worksheet 2: BEASSA TRI	
VALUATION DATE (t)	The date the report is relevant for
SECTOR	The sub index short code. For example ALBI, GOVI, OTHI, or as ALBI Term splits
CLEAN PRICE INDEX	The index level of the sub index/sector (for example GOVI) on valuation date based on clean price index methodology (excluding interest)
INTEREST YIELD	Interest component (accrued interest due to the clean price index). Refer to clean price index methodology
TOTAL RETURN INDEX	The index level of the sub index/sector (for example GOVI) on valuation date based on the BEASSA TRI index methodology
TRI AVERAGE YIELD	The average yield of the sub index/sector of all constituents
MODIFIED DURATION	The duration of a financial asset that consists of fixed cash flows, for example a bond, is the weighted average of the times until those fixed cash flows is received. The duration also measures the price sensitivity to yield, the rate of change of price with respect to yield or the percentage change in price for a parallel shift in yields.
CONVEXITY	A measure of the curvature in the relationship between bond prices and bond yields that demonstrates how the duration of a bond changes as the interest rate changes
TOTAL RETURN MtD	The return of the sub index/sector for the month to date as based on the TRI
TOTAL RETURN YtD	The return of the sub index/sector for the year to date as based on the TRI
TOTAL RETURN YonY	The return of the sub index/sector for the year on year as based on the TRI

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K FACTOR 'DATE'	A rebalancing factor on valuation date which caters for coupons/values vested in the sub sector/index
K FACTOR 'DATE + 1'	A rebalancing factor on valuation for the following day which caters for coupons/values vested in the sub sector/index
Worksheet 3: BEASSA YIELD CURVE	
DATE	The date the report is relevant for in the format CCYY/MM/DD
TIME TO MATURITY	Time between when the bond was issued and when it matures (maturity date), at which time the issuer must redeem the bond by paying the principal
YIELD TO MATURITY	The rate of return anticipated on a bond if it is held until the maturity date. (It is assumed that all coupons are reinvested at the same rate)
Worksheet 4: CREDIT INDICES	
VALUATION DATE (t)	The date the report is relevant for
SECTOR	The sub index short code. For example ALBI, GOVI, OTHI, or as ALBI Term splits
TOTAL RETURN MtD	The return of the sub index/sector for the month to date as based on the TRI
TOTAL RETURN YtD	The return of the sub index/sector for the year to date as based on the TRI
TOTAL RETURN YonY	The return of the sub index/sector for the year on year as based on the TRI
K FACTOR 'DATE'	A rebalancing factor on valuation date which caters for coupons/values vested in the sub sector/index
K FACTOR 'DATE + 1'	A rebalancing factor on valuation for the following day which caters for coupons/values vested in the sub sector/index

5.3.3 Record Layout

Excel Report(s)

Report			
Sheet			
Name	мтм		
	Heading		
	Actual/ <pattern>/(Example)</pattern>	Field Type	Cell
Report Title	Detailed Daily MTM - Extract	varchar(100)	12
Trade date	<dd-mmm-yy></dd-mmm-yy>	datetime	C4
Settlement			
Date	<dd-mmm-yy></dd-mmm-yy>	datetime	C5
Column	(Pand Cada)		
neadings			D0-AD0
Field Name	Detail	Field Type	Collo
Pond Codo		rield Type	
		varchar(20)	>=D7
Maturity		datetime	>=07
Coupon		float	>=D7
Companion Bond		varchar(20)	>=L7
BP Spread		float	>=67
МТМ		float	>=07
All in price		float	>=17
Clean Price		float	>=.17
Accrued Interest		float	>=K7
Year High Yield		float	>=L7
Year Low Yield		float	>=M7
Return (YTD)		float	>=N7
Duration		float	>=07
Modified Duration		float	>=P7
Delta		float	>=Q7
Rand per Basis Po	pint	float	>=R7
Convexity		float	>=S7
Yield Volatility		float	>=T7
Yield/Price Indicator		varchar(20)	>=U7
Last Trade Date		Datetime	>=V7
Last MTM Change Date		Datetime	>=W7
Index Ratio		float	>=X7
Base CPI		float	>=Y7
Reference CPI		float	>=Z7
MTM Process Met	hodology	varchar(100)	>=AA7
MTM Change		Currently empty	>=AB7

Report			
Name	MTMDetailed <ccyymmdd>.xls</ccyymmdd>		
Sheet			
Name	BEASSA TRI		
	Heading		
	Actual/ <pattern>/(Example)</pattern>	Field Type	Cell
Report Title	BEASSA Total Return Indices	varchar(100)	F2
Report			
Date	<dd mmm="" yy=""></dd>	datetime	C5
Column			50.140
headings	(Sector)		B6-M6
	Detail		
Field Name		Field Type	Cells
Sector		varchar(100)	B7-B14
Clean Price Index		float	C7-C14
Interest Yield		float	D7-D14
Total Return Index		float	E7-E14
TRI Average Yield		float	F7-F14
Modified Duration		float	G7-G14
Convexity		float	H7-H14
Total Return MtD		float	17-114
Total Return YtD		float	J7-J14
Total Return YonY	,	float	K7-K14
K Factor <dd mmn<="" td=""><td>n></td><td>float</td><td>L7-L14</td></dd>	n>	float	L7-L14
K Factor <dd mmn<="" td=""><td>n></td><td>float</td><td>M7-M14</td></dd>	n>	float	M7-M14

Report			
Name	MTMDetailedUpdated <ccyymmdd>.xls</ccyymmdd>		
Sheet			
Name	BEASSA Yield Curve		
	Heading		
	Actual/ <pattern>/(Example)</pattern>	Field Type	Cell
Report			
Title	BEASSA Yield Curve	varchar(100)	13
Report			
Date	<dd mmm="" yy=""></dd>	datetime	C6
Column			
headings	(Time to Maturity)		B7-C7
Detail			
Field Name		Field Type	Cells
Time to Maturi	ty	datetime	B8-B128
Yield to Maturi	ty	float	C8-C128

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Report				
Name	MTMDetailed <ccyymmdd>.xls</ccyymmdd>			
Sheet Name	Credit Indices			
	Heading			
	Actual/ <pattern>/(Example)</pattern>	Field Type	Cell	
Report Title	JSE Credit Indices	varchar(100)	D2	
Report Date	<dd mmm="" yy=""></dd>	datetime	C5	
Column				
headings	(Sector)		B6-H6	
Detail				
Field Name Field Type Cells				
Sector		varchar(100)	B7-B24	
Total Return Index		float	C7-C24	
Total Return MtD		float	D7-D24	
Total Return YtD		float	E7-E24	
Total Return YonY		float	F7-F24	
K Factor <dd mmm=""></dd>		float	G7-G19	
K Factor <dd mmm<="" td=""><td>1></td><td>float</td><td>H7-H19</td></dd>	1>	float	H7-H19	

CSV Report(s)

Report			
Name	MTMDetail <ccyymmdd>.csv</ccyymmdd>		
Report			
type	CSV		
Delimiter	comma ","		
Total rows	Varies		
Total			
columns	Fixed - 26		
	Heading		
			Row,
	Actual/ <pattern>/(Example)</pattern>	Field Type	Column
Report			
Title	MTMDetailedUpdatedCCYYMMDD	varchar(100)	1, 9
Trade date	<dd-mmm-yy></dd-mmm-yy>	datetime	3, 3
Settlement			
date	<dd-mmm-yy></dd-mmm-yy>	datetime	4, 3
Column			5 (0.00)
neadings			
	Detail		
Field Name		Field Type	Column No.
Bond Code		varchar(20)	2
ISIN Code		varchar(20)	3
Maturity		datetime	4
Coupon		float	5
Companion Bond		varchar(20)	6
BP Spread		float	7
MTM		float	8
All in price		float	9
Clean Price	n Price float		10

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Accrued Interest	float	11
Year High Yield	float	12
Year Low Yield	float	13
Return (YTD)	float	14
Duration	float	15
Modified Duration	float	16
Delta	float	17
Rand per Basis Point	float	18
Convexity	float	19
Yield Volatility	float	20
Yield/Price Indicator	varchar(20)	21
Last Trade Date	Datetime	22
Last MTM Change Date	Datetime	23
Index Ratio	float	24
Base CPI	float	25
Reference CPI	float	26
MTM Process Methodology	varchar(100)	27
MTM Change	Currently empty	28

5.4 <u>MTM T+1</u>

5.4.1 Report Detail

The MTM T+1 report is a report showing all cash flows discounted back from Maturity date to Settlement date, and assumes all valuations for T+1 settlement. It will exclude any trades which were reported and cancelled on the same day, but will include any back dated trades reported on the day.

The report will be available at 17:30 pm daily.

5.4.2 Report Field Descriptions

Worksheet 1: MTM

TRADE DATE	The date the report is relevant for
SETTLEMENT	The date for which all instruments are valued. All cash flows are discounted back from maturity date to this date
BOND CODE	The short code for each listed instrument
ISIN CODE	The unique ISIN code for each listed instrument. Will be a ZAG code
MATURITY	The date the instrument will redeem. (This is the date from which the maturity cash-flow will be discounted from)
COUPON	Interest rate payable by the issuer to investors
COMPANION BOND	The short code of a more liquid companion instrument to assist in the re-valuation of parallel shifts in the yield curve. Usually governments bonds will be used as the companion bond. (Not all instruments will have a companion bond)

BP (Basis-point) SPREAD	The spread above the companion bond which denotes the credit component of the instruments yield	
МТМ	The marked to market yield of the listed instrument	
ALL IN PRICE	The price of the listed bond based on the mark to market yield including interest, all based on a nominal of 100 bonds	
CLEAN PRICE	The price of the listed bond based on the mark to market yield excluding interest, all based on a nominal of 100 bonds	
ACCRUED INTEREST	The interest due to the buyer or seller. All based on nominal of 100 bonds	
YEAR HIGH YIELD	The highest mark to market yield for the year	
YEAR LOW YIELD	The lowest mark to market yield for the year	
RETURN (YTD)	Basis point change since the beginning of the year	
DURATION	Measures the price volatility and interest rate sensitivity of the instrument	
MODIFIED DURATION	The duration of a financial asset that consists of fixed cash flows, for example a bond, is the weighted average of the times until those fixed cash flows is received. The duration also measures the price sensitivity to yield, the rate of change of price with respect to yield or the percentage change in price for a parallel shift in yields.	
DELTA	The ratio comparing the change in the price of the instrument	
RAND PER BASIS POINT	The rand value change of R1 million bonds should the yield of the instrument move one basis point (0.01%)	
CONVEXITY	A measure of the sensitivity of the duration of a bond to changes in interest rates. The higher the convexity the more sensitive the bond price to the change in IR's.	
YIELD VOLATILITY	For future use (Column currently not populated/used)	
MIMCHANGE	Why the MTM changed	
MTM PROCESS METHODOLOGY	The methodology/process that the exchange used to value the bond for MTM purposes	
LAST TRADE DATE	The last date the specific instrument traded	
LAST MTM CHANGE DATE	The last date the MTM for a particular instrument changed	
YIELD/PRICE INDICATOR	Indicates whether or not the instrument is traded as price or yield	

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INDEX RATIO	Provide the multiplicative factor used to calculate inflation linked
	bond prices
BASE CPI	Indicates the CPI value in relation to the settlement date on which the issue took place
REFERENCE CPI	Indicates the CPI value in relation to the settlement date on which the trade took place

5.4.3 Record Layout

Refer to section 5.3.3 – Record Layout, Sheet Name – Detailed MTM (xls, csv)

5.5 MTM VALUE TODAY

5.5.1 Report Detail

The MTM Value Today report is a report showing all cash flows discounted back from Maturity date to Settlement date, and assumes all valuations for T+0 settlement. It will exclude any trades which were reported and cancelled on the same day, but will include any back dated trades reported on the day.

The report will be available at 17:30 pm daily.

5.5.2 Report Field Descriptions

Worksheet 1: MTM	
TRADE DATE	The date the report is relevant for
SETTLEMENT	The date for which all instruments are valued. All cash flows are discounted back from maturity date to this date
BOND CODE	The short code for each listed instrument
ISIN CODE	The unique ISIN code for each listed instrument. Will be a ZAG code
MATURITY	The date the instrument will redeem. (This is the date from which the maturity cash-flow will be discounted from)
COUPON	Interest rate payable by the issuer to investors
COMPANION BOND	The short code of a more liquid companion instrument to assist in the re-valuation of parallel shifts in the yield curve. Usually governments bonds will be used as the companion bond. (Not all instruments will have a companion bond)
BP (Basis-point) SPREAD	The spread above the companion bond which denotes the credit component of the instruments yield
МТМ	The marked to market yield of the listed instrument



REFERENCE CPI

Indicates the CPI value in relation to the settlement date on which the trade took place

5.5.3 Record Layout

Refer to section 5.3.3 - Record Layout, Sheet Name - Detailed MTM (xls, csv)

5.6 <u>UTMTM</u>

5.6.2

5.6.1 Report Detail

The UTMTM (Unit Trust MTM) report is a report showing all cash flows discounted back from Maturity date to Settlement date, and assumes all valuations for T+3 settlement. It will exclude any trades which were reported and cancelled on the same day, but will include any back dated trades reported on the day.

This report will be available at 15:30 daily.

Report Field Descriptions

Worksheet 1: MTM TRADE DATE The date the report is relevant for The date for which all instruments are valued. All cash flows SETTLEMENT are discounted back from maturity date to this date BOND CODE The short code for each listed instrument **ISIN CODE** The unique ISIN code for each listed instrument. Will be a ZAG code MATURITY The date the instrument will redeem. (This is the date from which the maturity cash-flow will be discounted from) COUPON Interest rate payable by the issuer to investors COMPANION BOND The short code of a more liquid companion instrument to assist in the re-valuation of parallel shifts in the yield curve. Usually governments bonds will be used as the companion bond. (Not all instruments will have a companion bond) **BP** (Basis-point) SPREAD The spread above the companion bond which denotes the credit component of the instruments yield мтм The marked to market yield of the listed instrument ALL IN PRICE The price of the listed bond based on the mark to market yield including interest, all based on a nominal of 100 bonds CLEAN PRICE The price of the listed bond based on the mark to market yield excluding interest, all based on a nominal of 100 bonds

ACCRUED INTEREST	The interest due to the buyer or seller. All based on nominal of 100 bonds
YEAR HIGH YIELD	The highest mark to market yield for the year
YEAR LOW YIELD	The lowest mark to market yield for the year
RETURN (YTD)	Basis point change since the beginning of the year
DURATION	Measures the price volatility and interest rate sensitivity of the instrument
MODIFIED DURATION	The duration of a financial asset that consists of fixed cash flows, for example a bond, is the weighted average of the times until those fixed cash flows is received. The duration also measures the price sensitivity to yield, the rate of change of price with respect to yield or the percentage change in price for a parallel shift in yields.
DELTA	The ratio comparing the change in the price of the instrument
RAND PER BASIS POINT	The rand value change of R1 million bonds should the yield of the instrument move one basis point (0.01%)
CONVEXITY	A measure of the sensitivity of the duration of a bond to changes in interest rates. The higher the convexity the more sensitive the bond price to the change in IR's.
YIELD VOLATILITY	For future use (Column currently not populated/used)
MTM CHANGE	Why the MTM changed
MTM PROCESS METHODOLOGY	The methodology/process that the exchange used to value the bond for MTM purposes
LAST TRADE DATE	The last date the specific instrument traded
LAST MTM CHANGE DATE	The last date the MTM for a particular instrument changed
YIELD/PRICE INDICATOR	Indicates whether or not the instrument is traded as price or yield
INDEX RATIO	Provide the multiplicative factor used to calculate inflation linked bond prices
BASE CPI	Indicates the CPI value in relation to the settlement date on which the issue took place
REFERENCE CPI	Indicates the CPI value in relation to the settlement date on which the trade took place

5.6.3 Record Layout

Excel Report(s)

Report			
Name Shoot			
Name	UTMTM <ccyymmdd></ccyymmdd>		
	Heading		
	Actual/ <pattern>/(Example)</pattern>	Field Type	Cell
	Bond Valuations for Unit		
Report Title	Trusts	varchar(100)	C2
Trade date	<dd-mmm-yy></dd-mmm-yy>	datetime	C4
Settlement			
Date	<dd-mmm-yy></dd-mmm-yy>	datetime	C5
Column			
neadings	(Bond Code)		B6-AB6
Field News	Detail	Field Turne	Calla
Field Name			Cells
Bond Code		Varchar(20)	>=B7
ISIN Code		Varchar(20)	>=07
Maturity		datetime	>=D7
Coupon		float	>=E7
Companion Bond		varchar(20)	>=F7
BP Spread		float	>=G7
MTM		float	>=H/
All in price		float	>=1/
Clean Price		float	>=J/
Accrued Interest		float	>=K/
Year High Yield		float	>=L/
Year Low Yield		float	>=M/
Return (YTD)		float	>=N/
Duration		float	>=07
Modified Duration		float	>=P7
Delta		float	>=Q/
Rand per Basis Point		float	>=R/
Convexity		float	>=S/
Yield Volatility		float	>=17
Yield/Price Indicator		varchar(20)	>=U/
Last Trade Date		Datetime	>=V/
Last MIM Change Date			>=VV/
Index Ratio		TIOAT	>=X/
Base CPI			>=Y/
Keterence CPI	0		>=∠/
MIM Process Met	thodology	varchar(100)	>=AA/
MTM Change		Currently empty	>=AB/

CSV Report(s)

Report Name			
Report type	CSV		
Delimiter	comma " "		
Total rows	Varies		
Total			
columns	Fixed - 28		
	Heading	l	
	Actual/ <pattern>/(Example)</pattern>	Field Type	Row, Column
Report Title	Bond Valuations for Unit Trusts	varchar(100)	1, 3
Trade date	<dd-mmm-yy></dd-mmm-yy>	datetime	3, 3
Settlement			
date	<dd-mmm-yy></dd-mmm-yy>	datetime	4, 3
Column	(Bond Code)		5 (2-28)
neadings			5, (2-20)
Field Name	Detail	Field Type	Column No
Rond Code		varebar(20)	
ISIN Code		varchar(20)	3
Maturity		datetime	4
Coupon		float	5
Companion Bond		varchar(20)	6
BP Spread		float	7
MTM		float	8
All in price		float	9
Clean Price		float	10
Accrued Interest		float	11
Year High Yield		float	12
Year Low Yield		float	13
Return (YTD)		float	14
Duration		float	15
Modified Duration		float	16
Delta		float	17
Rand per Basis Po	pint	float	18
Convexity		float	19
Yield Volatility		float	20
Yield/Price Indicator		varchar(20)	21
Last Trade Date		Datetime	22
Last MTM Change Date		Datetime	23
Index Ratio		floot	24
Pateronce CPI	Base CPI		20
Kelerence UPI		varchar(100)	20
MTM Change	MTM Change		21
MTM Process Methodology MTM Change		varchar(100) Currently empty	27

5.7 <u>UTMTM + 1</u>

5.7.2

5.7.1 Report Detail

The UTMTM+1 report is a report showing all cash flows discounted back from Maturity date to Settlement date, and assumes all valuations for T+1 settlement. It will exclude any trades which were reported and cancelled on the same day, but will include any back dated trades reported on the day.

This report will be available at 15:30 daily.

Report Field Descriptions

Worksheet 1: MTM TRADE DATE The date the report is relevant for The date for which all instruments are valued. All cash flows SETTLEMENT are discounted back from maturity date to this date BOND CODE The short code for each listed instrument **ISIN CODE** The unique ISIN code for each listed instrument. Will be a ZAG code MATURITY The date the instrument will redeem. (This is the date from which the maturity cash-flow will be discounted from) COUPON Interest rate payable by the issuer to investors COMPANION BOND The short code of a more liquid companion instrument to assist in the re-valuation of parallel shifts in the yield curve. Usually governments bonds will be used as the companion bond. (Not all instruments will have a companion bond) **BP** (Basis-point) SPREAD The spread above the companion bond which denotes the credit component of the instruments yield MTM The marked to market yield of the listed instrument ALL IN PRICE The price of the listed bond based on the mark to market yield including interest, all based on a nominal of 100 bonds CLEAN PRICE The price of the listed bond based on the mark to market yield excluding interest, all based on a nominal of 100 bonds ACCRUED INTEREST The interest due to the buyer or seller. All based on nominal of 100 bonds YEAR HIGH YIELD The highest mark to market yield for the year YEAR LOW YIELD The lowest mark to market yield for the year RETURN (YTD) Basis point change since the beginning of the year

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5.7.3 Record Layout

Refer to section 5.6.3 – UTMTM Record Layout

5.8 UTMTM VALUE TODAY

5.8.1 Report Detail

The UTMTM Value Today report is a report showing all cash flows discounted back from Maturity date to Settlement date, and assumes all valuations for T+0 settlement. It will exclude any trades which were reported and cancelled on the same day, but will include any back dated trades reported on the day.

This report will be available at 15:30 daily.

5.8.2 Report Field Descriptions	
Worksheet 1: MTM	
TRADE DATE	The date the report is relevant for
SETTLEMENT	The date for which all instruments are valued. All cash flows are discounted back from maturity date to this date
BOND CODE	The short code for each listed instrument
ISIN CODE	The unique ISIN code for each listed instrument. Will be a ZAG code
MATURITY	The date the instrument will redeem. (This is the date from which the maturity cash-flow will be discounted from)
COUPON	Interest rate payable by the issuer to investors
COMPANION BOND	The short code of a more liquid companion instrument to assist in the re-valuation of parallel shifts in the yield curve. Usually governments bonds will be used as the companion bond. (Not all instruments will have a companion bond)
BP (Basis-point) SPREAD	The spread above the companion bond which denotes the credit component of the instruments yield
МТМ	The marked to market yield of the listed instrument
ALL IN PRICE	The price of the listed bond based on the mark to market yield including interest, all based on a nominal of 100 bonds
CLEAN PRICE	The price of the listed bond based on the mark to market yield excluding interest, all based on a nominal of 100 bonds



ACCRUED INTEREST	The interest due to the buyer or seller. All based on nominal of 100 bonds		
YEAR HIGH YIELD	The highest mark to market yield for the year		
YEAR LOW YIELD	The lowest mark to market yield for the year		
RETURN (YTD)	Basis point change since the beginning of the year		
DURATION	Measures the price volatility and interest rate sensitivity of the instrument		
MODIFIED DURATION	The duration of a financial asset that consists of fixed cash flows, for example a bond, is the weighted average of the times until those fixed cash flows is received. The duration also measures the price sensitivity to yield, the rate of change of price with respect to yield or the percentage change in price for a parallel shift in yields.		
DELTA	The ratio comparing the change in the price of the instrument		
RAND PER BASIS POINT	The rand value change of R1 million bonds should the yield of the instrument move one basis point (0.01%)		
CONVEXITY	A measure of the sensitivity of the duration of a bond to changes in interest rates. The higher the convexity the more sensitive the bond price to the change in IR's.		
YIELD VOLATILITY	For future use (Column currently not populated/used)		
MTM CHANGE	Why the MTM changed		
MTM PROCESS METHODOLOGY	The methodology/process that the exchange used to value the bond for MTM purposes		
LAST TRADE DATE	The last date the specific instrument traded		
LAST MTM CHANGE DATE	The last date the MTM for a particular instrumen changed		
YIELD/PRICE INDICATOR	Indicates whether or not the instrument is traded as price or yield		

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INDEX RATIOProvide the multiplicative factor used to calculate
inflation linked bond pricesBASE CPIIndicates the CPI value in relation to the settlement
date on which the issue
took placeREFERENCE CPIIndicates the CPI value in relation to the settlement
date on which the
trade took place

5.8.3 Record Layout

Refer to section 5.6.3 – UTMTM Record Layout

INDEX REPORTS

The reconstitution/reweighting reports consist of the selected bonds and their weightings at reconstitution /reweighting dates. The reports are published by the 15th of the month prior the effective month. The reconstitution is based upon average size of the bond issue and liquidity for the twelve-month period preceding the selection date and they are effective at 12 noon of the first Thursday of February, May, August and November. For the reweighting, the nominal amount in issue is taken to be the value at the end of the month, two months prior to the month in which the new re-weighting applies. They are effective on the Friday following the first Thursday of January, March, April, June, July, September, October, and December.

5.9 <u>CILI</u>

5.9.1 Report Detail

Inflation-Linked Indices track the general levels of bonds whose returns are linked to the Consumer Price Index, or "CPI". The Composite Inflation-Linked Index is called the "CILI" and is split into three sub-indices to reflect bonds issued by Government, State Owned Enterprises and Corporates which will be called the "IGOV", "ISOE" and "ICORP" indices respectively.

The CILI is split into four sub-indices based on term to maturity forming the 1-3 year, 3-7 year, 7-12 year and 12+ year sub-indices.

5.9.2 Report Field Descriptions

Worksheet 1: CILI Output

VALUATION DATE (t)	The date of the valuation, in the format DD-MM-YY.
SECTOR	Inflation-Linked Indices which track the general levels of bonds whose returns are linked to the Consumer Price Index
CLEAN PRICE INDEX	Price index which excludes accrued interest or coupons paid
ALL-IN-PRICE INDEX	Price index which is identical to the Clean Price index save for using the All-in-Price. This is used to benchmark portfolio performance which includes interest
INTEREST YIELD INDEX	Yield index associated with the price index which includes the coupons to be paid
TOTAL RETURN INDEX	Price index used to measure bond portfolio performance which includes accrued interest as well as historical index changes. The historical performance of the index is essentially embedded in the index level and the index does not jump during coupon payment events.
MODIFIED DURATION	The duration of a financial asset that consists of fixed cash flows, for example a bond, is the weighted average of the times until those fixed cash flows are received. The duration also measures the price sensitivity to yield, the rate of change of price with respect to yield or the percentage change in price for a parallel shift in yields

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CONVEXITY	A measure of the curvature in the relationship between bond prices and bond yields that demonstrates how the duration of a bond changes as the interest rate changes.
TOTAL RETURN MtD	Total return Month to Date
TOTAL RETURN YtD	Total return Year to Date
TOTAL RETURN YonY	Total return Year on Year
K FACTOR 'DATE'	A rebalancing factor on valuation date which caters for coupons/values vested in the sub sector/index
K FACTOR 'DATE + 1'	A rebalancing factor on valuation for the following day which caters for coupons/values vested in the sub sector/index

5.9.3 Record Layout

Excel Report(s)

Report			
Name	CILI <ccyymmdd>.xls</ccyymmdd>		
Sheet Name	CILI Output		
	Heading		
	Actual/ <pattern>/(Example)</pattern>	Field Type	Cell
	JSE ASSA Inflation Linked		
Report Title	Bond Index	varchar(100)	F2
Report Date	<dd mmm="" yy=""></dd>	datetime	C5
Column			
headings	(Sector)		B6-M6
	Detail		
Field Name		Field Type	Cells
Sector		varchar(100)	B7-B15
Clean Price Index		float	C7-C15
All-in-Price Index		float	D7-D15
Interest Yield		float	E7-E15
Total Return Index		float	F7-F15
Modified Duration		float	G7-G15
Convexity		float	H7-H15
Total Return MtD		float	17-115
Total Return YtD		float	J7-J15
Total Return YonY		float	K7-K15
K Factor <dd mmm=""></dd>		float	L7-L15
K Factor <dd mmm=""></dd>		float	M7-M15

5.10 CONSTITUENTS

NB: The IW and IWQ constituents follow the same formats and layouts as the CILI and ALBI.

5.10.1 Report Detail

A complete list of all constituents of the BEASSA total return indices reweighting published monthly and recons are quarterly.

5.10.2 Report Field Descriptions	
BOND CODE	Short instrument code as assigned by the JSE
ISSUER	Any entity approved by the Exchange that has issued Debt Securities on the Exchange
COUPON	Interest rate payable by the issuer to investors
MATURITY	The date the instrument will redeem. (This is the date from which the maturity cash-flow will be discounted from)
WEIGHT	The weight is the nominal amount of the bonds that need to be held in the portfolio to balance to the index
COMMENTS	For future use (Column currently not populated/used)

5.10.3 Record Layout

Excel Report(s)

Report				
Sheet				
Name	Notice <q# ccyy=""></q#>			
	Heading			
	Actual/ <pattern>/(Example)</pattern>	Field Type	Cell	
Report	(THE BOND EXCHANGE OF SOUTH			
Heading	ÁFRICA &)	varchar(100)	A1:A2	
	(BEASSA BOND INDICES.			
Report	INCORPORATING TOTAL RETURN			
Title	INDICES.)	varchar(100)	A4:A5	
Report	(Monthly re-weighting of the All Bond Index			
Description	(ALBI) takes place on)	varchar(100)	A6:A7	
Sub-				
Headings	(SECTOR 1 TO 3 YEARS)	varchar(50)	Variable	
Column				
headings	(Bond Code)	varchar(20)	A9:H9	
Detail				
Field Name		Field Type	Cells	
Bond Code		varchar(20)	>=A12	
Issuer		varchar(100)	>=B12	
Coupon		float	>=D12	
Maturity		datetime	>=E12	
Weight		Integer	>=D12	
Comments		char	>=H12:L12	

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CSV Report(s)

Report			
Name	IW <mmmccyy>Reweighting(ALBI) csv</mmmccyy>		
Report			
type	CSV		
Delimiter	comma " "		
Total rows	Varies		
Total			
columns	Fixed - 14		
	Heading		
			Row
	Actual/ <pattern>/(Example)</pattern>	Field Type	Column
Report	(THE BOND EXCHANGE OF SOUTH		
Heading	AFRICA &)	varchar(100)	1-2 1
	(BEASSA BOND INDICES		, .
Report	INCORPORATING TOTAL RETURN		
Title	INDICES.)	varchar(100)	4-5, 1
Repprt	(Monthly re-weighting of the All Bond		
Description	Index (ALBI) takes place on)	varchar(100)	6-7, 1
Sub-		· · · · · ·	
Headings	(SECTOR 1 TO 3 YEARS)	varchar(50)	Variable
Column			
headings	(Bond Code)	varchar(20)	9, 1-11
	Detail		
Field Name	Field Type	Column No.	
Bond Code	text	1	
Issuer	text	2	
Coupon	Date	4	
Maturity	Date	6	
Weight	numeric	7	
Comments	text	8-11	

5.10.1 Report Detail

A complete list of all constituents of the Composite Inflation –Linked Indices (CILI) Reweighting is published monthly by the JSE. The Recon is published quarterly

5.10.2 Report Field Descriptions	
BOND CODE	Short instrument code as assigned by the JSE
ISSUER	Any entity approved by the Exchange that has issued Debt Securities on the Exchange
COUPON	Interest rate payable by the issuer to investors
MATURITY	The date the instrument will redeem. (This is the date from which the maturity cash-flow will be discounted from)
WEIGHT	The weight is the nominal amount of the bonds that need to be held in the portfolio to balance to the index

COMMENTS 5.10.3 Record Layout

For future use (Column currently not populated/used)

Excel Report(s)

	CILI <mmmccyy>ReweightingCCYY.x</mmmccyy>		
Report Name	ls		
Sheet Name	Notice <q# ccyy=""></q#>		
	Heading		
	Actual/ <pattern>/(Example)</pattern>	Field Type	Cell
	(THE JOHANNESBURG STOCK	varchar(100	
Report Heading	EXCHANGE &))	A1:A2
	(JSE ASSA BOND INDICES.		
	INCORPORATING TOTAL RETURN	varchar(100	
Report Title	INDICES))	A4:A5
	(Monthly re-weighting of the		
Report	Composite Inflation Linked Bond Index	varchar(100	
Description	(CILI) take place on))	A6:A7
Sub-Headings	(SECTOR 1 TO 3 YEARS)	varchar(50)	Variable
Column headings	(Bond Code)	varchar(20)	A9:H9
	Detail		
Field Name		Field Type	Cells
Bond Code		varchar(20)	>=A12
		varchar(100	
Issuer)	>=B12
Coupon		float	>=D12
Maturity		datetime	>=E12
Weight		Integer	>=D12
			>=H12:N1
Comments		char	2

CSV Report(s)

Report				
Name	CILI <mmmccyy>ReweightingCCYY.csv</mmmccyy>			
Report				
type	CSV			
Delimiter	comma ","			
Total rows	Varies			
Total				
columns	Fixed - 14			
	Heading			
			Row,	
	Actual/ <pattern>/(Example)</pattern>	Field Type	Column	
Report	(THE JOHANNESBURG STOCK			
Heading	EXCHANGE &)	varchar(100)	1-2, 1	
	(JSE ASSA BOND INDICES.			
Report	INCORPORATING TOTAL RETURN			
Title	INDICES)	varchar(100)	4-5, 1	
	(Monthly re-weighting of the			
Repprt	Composite Inflation Linked Bond Index			
Description	(CILI) take place on)	varchar(100)	6-7, 1	
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Sub-			
Headings	(SECTOR 1 TO 3 YEARS)	varchar(50)	Variable
Column			
headings	(Bond Code)	varchar(20) 9, 1-11	
	Detail		
Field Name	Field Type	Column No.	
Bond Code	text	1	
Issuer	text	2	
Coupon	Date	4	
Maturity	Date	6	
Weight	numeric	7	
Comments	text	8-13	

The CILIReconQ[Q]<CCYY> is produced quarterly and is the same format as the CILI Reweighting

5.11 DAILY TRI (ATTRIBUTION REPORT)

5.11.1 Report Detail

The JSE publishes this daily attribution file with all intermediate calculations for the Total Return Indices. The calculation of the indices requires a number of intermediate steps to get to the ultimate Index value from the individual prices. This report shows all intermediate calculations needed to calculate the daily index level as well as the individual bond performance figures.

5.11.2 Report Field Descriptions

Worksheet 1: DAILY TRI RANGE

PORTFOLIO	ALBI/GOVI/OTHI
INSTRUMENT CODE	Bond code (Short instrument code as assigned by the JSE)/Short code
VALUATION DATE	VALUATION DATE – Trade date (T+0), in the format DD-MM-YY
SETTLEMENT DATE	The date for which all instruments are valued. All cash flows are discounted back from maturity date to this date
MTM	Closing Yield
ALL IN PRICE	Price index which is identical to the Clean Price index save for using the All-in-Price. This is used to benchmark portfolio performance which includes interest
CLEAN PRICE	Price index which excludes accrued interest or coupons paid
ACCRUED INTEREST	The interest due to the buyer or seller. All based on nominal of 100 bonds

	JS=
DURATION	Measures the price volatility and interest rate sensitivity of the instrument
MODIFIED DURATION	The duration of a financial asset that consists of fixed cash flows, for example a bond, is the weighted average of the times until those fixed cash flows are received. The duration also measures the price sensitivity to yield, the rate of change of price with respect to yield or the percentage change in price for a parallel shift in yields.
CONVEXITY	A measure of the sensitivity of the duration of a bond to changes in interest rates. The higher the convexity the more sensitive the bond price to the change in IR's.
MATURITY	The termination date of a bond
CPN	The first coupon payment date which is on or after valuation date
CPN1	First coupon payment date
CPN2	Second coupon payment date
CPN3	Third coupon payment date
CPN4	Fourth coupon payment date
BCD	Books close date corresponding to CPN
BCD1	First books close date
BCD2	Second books close date
BCD3	Third books close date
BCD4	Fourth books close date
LCD	The previous coupon payment date which is before CPN
NCD	The following coupon payment date which is after CPN
CUMEX	CU/EX Indicator
DAYS ACC	Number of days accrued since the last coupon payment date
BIT	The Bond Portion of the portfolio
ISSUE DATE	The date upon which a debt security is listed
DIT	The valuation date discount factor
HIT	The number of half-years over which the discounting is performed

КТ	The proportionality constant (k-factor)
КТР	K-factor of the bond on the first day of its ex-period
NIT	The nominal amount of a bond
NITP	The nominal amount of the bond on the first day of its ex-period
NPIT	The nominal amount of the bond, effective on or before the next trading day
RIT	The value of the ex-coupon for re-investment on the last day of the ex-period.
VIT	The value of each bond's ex-coupon on any day in its ex-period
WIT	The Rand nominal amount issued for each bond
WITP	The next weightings
XIT	The ex-Coupon portion of the portfolio
COUPON FREQUENCY	Coupon frequency of a bond
COUPON RATE	Coupon Rate of a bond
QUARTERLY	Quarterly = $0-4:30$ run, Quarterly = $1 - 12:00$ run

5.11.3 Record Layout

Excel Report(s)

Report			
Name			
Sneet Name	Daily TRI		
	Heading		
	Actual/ <pattern>/(Example)</pattern>	Field Type	Cell
Report			
Heading	Daily TRI	varchar(100)	B3
Column			
headings	(Instrument Code)	varchar(50)	B5:AT5
	Detail		
Field Name		Field Type	Cells
Portfolio		varchar(100)	>=B5
Instrument Code		varchar(50)	>=C5
Valuation Date		datetime	>=D5
Settlement Date		datetime	>=E5
MTM		float	>=F5
All In Price		float	>=G5
Clean Price		float	>=H5
Accrued Interest		float	>=15
Duration		float	>=K5
Modified Duratio	n	float	>=L5
Convexity		float	>=M5
Maturity		datetime	>=N5
CPN		datetime	>=05
CPN1		datetime	>=P5
CPN2		datetime	>=Q5
CPN3		datetime	>=R5
CPN4		datetime	>=\$5
BCD		datetime	>=15
BCD1		datetime	>=05
BCD2		datetime	>=V5
BCD3		datetime	>=\V5
		datetime	>=\3
		datetime	>=13
		varebar(50)	>=23
		integer	>=AA5
Bit		float	>=AC5
Jissue Date		datetime	>=AD5
		float	
Hit		float	>= <u>AE5</u>
Kt		float	>=4G5
Ktn		float	>=AH5
Nit		float	>=AI5
Nito		float	>=AJ5
Npit		float	>=AK5
Rit		float	>=AL5
Vit		float	>=AM5
Wit		float	>=AN5
Witp		float	>=AO5

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Xit	float	>=AP5
Coupon Frequency	integer	>=AR5
Coupon Rate	float	>=AS5
Quarterly	integer	>=AT5

CSV Report(s)

Report Name	Daily_TRI_ <ddmmccyy>.csv</ddmmccyy>			
Report type	CSV			
Delimiter	comma ","			
Total rows	Varies			
Total columns	Fixed - 43	Fixed - 43		
Detail				
Field Name	Field Type	Column No.		
Portfolio	text	1		
Instrument Code	text	2		
Valuation Date	date	3		
Settlement Date	date	4		
MTM	numeric	5		
All In Price	numeric	6		
Clean Price	numeric	7		
Accrued Interest	numeric	8		
Duration	numeric	9		
Modified Duration	numeric	10		
Convexity	numeric	11		
Maturity	date	12		
CPN	date	13		
CPN1	date	14		
CPN2	date	15		
CPN3	date	16		
CPN4	date	17		
BCD	date	18		
BCD1	date	19		
BCD2	date	20		
BCD3	date	21		
BCD4	date	22		
LCD	date	23		
NCD	date	24		
CUMEX	text	25		
Days Acc	numeric	26		
Bit	numeric	27		
Issue Date	date	28		
Dit	numeric	29		
Hit	numeric	30		
Kt	numeric	31		
Ktp	numeric	32		
Nit	numeric	33		
Nitp	numeric	34		
Npit	numeric	35		

Rit	numeric	36
Vit	numeric	37
Wit	numeric	38
Witp	numeric	39
Xit	numeric	40
Coupon Frequency	numeric	41
Coupon Rate	numeric	42
Quarterly	numeric	43

5.12 TRI (TOTAL RETURN INDEX)

5.12.1 Report Detail

The total return indices are calculated daily based on the constituents of the indices as well as each individual instruments daily performance. This report shows the clean and total return index values for the given day along with the relevant Greeks (Modified Duration, Convexity). Periodic return numbers (Month to date and Year to date) are also included in the report.

5.12.2 Report Field Descriptions

Worksheet 1:
TRI"CCYYMMDD"

VALUATION DATE	VALUATION DATE - The date of the valuation, in the format DD-MM-YY
SECTOR	The sub index short code. For example ALBI, GOVI, OTHI, or as ALBI Term splits
CLEAN PRICE INDEX	Price index which excludes accrued interest
INTEREST YIELD	Interest component (accrued interest due to the clean price index). Refer to clean price index methodology.
TOTAL RETURN INDEX	Price index used to measure bond portfolio performance which includes accrued interest as well as historical index changes. The historical performance of the index is essentially embedded in the index level and the index does not jump during coupon payment events.
TRI AVERAGE YIELD	The average yield of the sub index/sector of all constituents
MODIFIED DURATION	The duration of a financial asset that consists of fixed cash flows, for example a bond, is the weighted average of the times until those fixed cash flows is received. The duration also measures the price sensitivity to yield, the rate of change of price with respect to yield or the percentage change in price for a parallel shift in yields.
CONVEXITY	A measure of the sensitivity of the duration of a bond to changes in interest rates. The higher the convexity the more sensitive the bond price to the change in IR's.
TOTAL RETURN MtD	The return of the sub index/sector for the month to date as based on the TRI
TOTAL RETURN YtD	The return of the sub index/sector for the year to date as based on the TRI
TOTAL RETURN YonY	The return of the sub index/sector for the year on year to date as based on the TRI
K FACTOR 'DATE'	A rebalancing factor on valuation date which caters for coupons/values vested in the sub sector/index

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K FACTOR 'DATE + 1'

A rebalancing factor on valuation for the following day which caters for coupons/values vested in the sub sector/index

5.12.1 Record Layout

CSV Report(s)

Report			
Name	TRI <ccyymmdd>.csv</ccyymmdd>		
Report type	CSV		
Delimiter	comma ","		
Total rows	Fixed - 13		
Total			
columns	Fixed - 13		
	Headin	g	
	Actual/ <pattern>/(Example)</pattern>	Field Type	Row, Column
	BEASSA Total Return		
Report Title	Indices	varchar(100)	1,6
Trade date	<dd-mmm-yy></dd-mmm-yy>	datetime	4, 3
Settlement			
date	N/A	N/A	N/A
Column			
headings	(Bond Code)		5, (2-13)
	Detai		
Field Name	ne Field Type Column No.		Column No.
Sector		varchar(20)	2
Clean Price Index		float	3
Interest Yield		float	4
Total Return Index		float	5
TRI Average Yield		float	6
Modified Duration		float	7
Convexity		float	8
Total Return MtD		float	9
Total Return YtD		float	10
Total Return YonY		float	11
K Factor <dd mmm<="" td=""><td>1></td><td>float</td><td>12</td></dd>	1>	float	12
K Factor <dd mmm<="" td=""><td>1></td><td>float</td><td>13</td></dd>	1>	float	13

5.13 BOND DATA

5.13.1 Report Detail

Bond Database is a reference file, which provides specific instrument information of all listed instruments in the Bond Market. The bonds listed in this report are the primary driver in the SA Capital Market.

5.13.2 Report Field Descriptions

Worksheet 1: BondDataCCYYMMDD

BOND CODE	Short instrument code as requested by the Issuer
PRICING CLASS CODE	Financial Instrument type
	International Securities Identification Number (ISIN)
	uniquely identifies a security
ISSUER	Any entity approved by the Exchange that has issued Debt Securities on the Exchange
ISSUER CLASS	The sector/industry the issuer falls under
ISSUE COUNTRY	Country of residence of the Issuer
CURRENCY	Currency that Instrument is listed in
AUTHORISED AMOUNT	The amount which the Board of Directors/ Company has approved for issue in respect of the Debt Security concerned
ISSUED AMOUNT	The nominal amount of bonds issued by the issuer and placed in the market
ALL IN PRICE	The price of a coupon bond including accrued interest
CLEAN PRICE	The price of a coupon bond not including any accrued interest
MARKET CAP AIP	All in price / 100 * Nominal in issue (Cash value of bonds in issue)
MARKET CAP CLEAN	All in price / 100 * Nominal in issue (Cash value of bonds in issue, excluding interest)
TOTAL SPOT NOMINAL TRADED FOR MONTH EXCLUDING REPOS	In a repo agreement, the borrower agrees to sell immediately a security to a lender and also agrees to buy the same security from the lender at a fixed price at some later date
TOTAL SPOT CLEAN CONSIDERATION FOR 'MONTH' EXCLUDING REPOS	The cash value of turnover excluding interest for the month

ISSUE DATE	The date upon which a Debt Security is Listed
COUPON RATE %	The interest rate of a bond / fixed income security
COUPON FREQUENCY	The number of interest payments made annually
COUPON RATE INDICATOR	Whether the bond pays a fixed or variable coupon
FLOAT RATE FIXED	this field is used to indicate the basis points / spreads for floating rate notes
FLOAT RATE VARIABLE	This field is used to indicate whether the variable notes is linked to 3/6/12m JIBAR or another index.
COUPON FLOOR	In the event of a floating rate note the coupon could be limited on the downside should the reference yield (JIBAR) dip below a certain level.
COUPON CAP	In the event of a floating rate note the coupon could be limited on the upside should the reference yield (JIBAR) rise above a certain level.
FIRST INTEREST DATE	The first interest payment date stipulated by the issuer, as the first period that the debt interest pays coupon
FIRST BOOK CLOSE DATE	The period stipulated by an Issuer as being the first period that the Register closes
BROKEN FIRST COUPON	For long / short stub instrument. Indicates that the first coupon will be for a period shorter or longer than the interest periods indicated for the particular debt instrument.
MATURITY DATE	The Date the principal amount is paid back and the bond terminates.
CALLABLE FEATURES	For callable instruments
EARLY REDEMPTION	This field indicates that the issuer might redeem the instrument before the final redemption date. It is mostly applicable to callable bonds.
PRICING REDEMPTION DATE	The date on which the bond matures. For callable bonds the earlier redemption date will be shown in this field and the final redemption date in the Maturity Date field.
SPLIT MATURITY	The maturity date for bonds that has split into new series
SPLIT MATURITY DATE 1	The maturity date for bonds that has split into new series
SPLIT MATURITY DATE 2	The maturity date for bonds that has split into new series
TRADE TYPE	Whether the bond is trading at price, yield or inflation.

INTEREST DATE 1-12	Dates on which a bond pays a coupon
BOOK CLOSE DATE 1-12	The period or periods stipulated by an Issuer as being the period or periods during which the Register in respect of its Debt Securities is closed for purposes of giving effect to transfers of the Debt Securities.
GUARANTEE TYPE	Guarantees in place at time of issue
STATUS	Listed, Redeemed, Matured
RATING FITCH	For future use (Column currently not populated/used)
RATING SP	For future use (Column currently not populated/used)
RATING MOODY	For future use (Column currently not populated/used)
CA RATINGS	Data is no longer captured, however field is populated for older bonds.
MARKET MAKER	For future use (Column currently not populated/used)
INTEREST START DATE	The date from which interest is accrued for the first coupon payment.
DATE CONVENTION	Indicate how payments / maturity will be treated if it should fall on a non-business day.
BASE CPI	Provides the applicable Base CPI
BOND ETP	Flag that denotes whether the instrument is also traded on the Bond ETP platform

5.13.3 Record Layout

Excel Report(s)

Report Name	Latest.xls		
Sheet Name	BondData		
	Не	ading	
	Actual/ <pattern>/(Example)</pattern>	Field Type	Cell
Report Title	Bond Data	varchar(100)	A1-B1
Trade Date	<yy dd="" mmm=""></yy>	datetime	A2-B2
Detail			
Field Name		Field Type	Cells

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Bond Code	[varchar](20)	A4
Pricing Class Code	[varchar](10)	B4
ISIN No	[varchar](20)	С
Issuer	[varchar](100)	D
Issuer Class	[varchar](10)	E
Issuer Country	[varchar](100)	F
Currency	[varchar](50)	G
Authorised Amount	[money]	Н
Issued Amount	[money]	1
All in Price	[float]	J
Clean Price	[float]	К
Market Cap AIP	[float]	L
Market Cap Clean	[float]	Μ
Total Spot Nominal Traded For [Month] Excluding Repos	[float]	Ν
Total Spot Clean Consideration For [Month] Excluding Repos	[float]	0
Issue Date	[datetime]	Р
Coupon Rate %	[float]	Q
Coupon Frequency	[tinyint]	R
Coupon Rate Indicator	[varchar](50)	S
Float Rate Fixed	[varchar](50)	Т
Float Rate Variable	[varchar](100)	U
Coupon Floor	[varchar](50)	V
Coupon Cap	[varchar](50)	W
First Interest Date	[datetime]	Х
First Book Close Date	[datetime]	Υ
Broken First Coupon	[bit]	Z
Maturity Date	[datetime]	AA
Callable Features	[varchar](500)	AB
Early Redemption	[bit]	AC
Pricing Redemption Date	[datetime]	AD
Split Maturity	[bit]	AE
Split Maturity Date 1	[datetime]	AF
Split Maturity Date 2	[datetime]	AG
Trade Type	[varchar](50)	AH
Interest Date 1	[datetime]	AI
Interest Date 2	[datetime]	AJ
Interest Date 3	[datetime]	AK
Interest Date 4	[datetime]	AL
Interest Date 5	[datetime]	AM
Interest Date 6	[datetime]	AN
Interest Date 7	[datetime]	AO
Interest Date 8	[datetime]	AP
Interest Date 9	[datetime]	AQ
Interest Date 10	[datetime]	AR
Interest Date 11	[datetime]	AS
Interest Date 12	[datetime]	AT

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Book Close Date 1	[datetime]	AU
Book Close Date 2	[datetime]	AV
Book Close Date 3	[datetime]	AW
Book Close Date 4	[datetime]	AX
Book Close Date 5	[datetime]	AY
Book Close Date 6	[datetime]	AZ
Book Close Date 7	[datetime]	BA
Book Close Date 8	[datetime]	BB
Book Close Date 9	[datetime]	BC
Book Close Date 10	[datetime]	BD
Book Close Date 11	[datetime]	BE
Book Close Date 12	[datetime]	BF
Guarantee Type	[varchar](200)	BG
Status	[varchar](50)	BH
Rating Fitch	[varchar](100)	BI
Rating SP	[varchar](100)	BJ
Rating Moody	[varchar](100)	ВК
CA Ratings	[varchar](100)	BL
Market Maker	[varchar](250)	BM
General Info	[varchar](500)	BN
Interest Start Date		BO
Date Convention		BP
Base CPI	Decimal(3,15)	BQ
Bond ETP	[varchar](1)	BR

CSV Report(s)

Report Name	BondData <ccyymmdd>.csv</ccyymmdd>		
Sheet Name	BondData		
	Heading		
	Actual/ <pattern>/(Example)</pattern>	Field Type	Cell
Report Title	Bond Data	varchar(100)	A1-B1
Trade Date	<yy dd="" mmm=""></yy>	datetime	A2-B2
	Detail		
Field Name		Field Type	Cells
Bond Code		[varchar](20)	A4
Pricing Class Cod	de	[varchar](10)	B4
ISIN No		[varchar](20)	С
Issuer		[varchar](100)	D
Issuer Class		[varchar](10)	E
Issuer Country		[varchar](100)	F
Currency		[varchar](50)	G
Authored Amount		[money]	Н
Issued Amount		[money]	1
All in Price		[float]	J
Clean Price		[float]	К
Market Cap AIP		[float]	L
Market Cap Clear	1	[float]	М
Total Spot Nomin	al Traded For [Month] Excluding Repo	[float]	Ν
Total Spot Clea Repos	n Consideration For [Month] Excluding	[float]	0
Issue Date		[datetime]	Р
Coupon Rate %		[float]	Q
Coupon Frequen	су	[tinyint]	R
Coupon Rate Ind	icator	[varchar](50)	S
Float Rate Fixed		[varchar](50)	Т
Float Rate Variab	le	[varchar](100)	U
Coupon Floor		[varchar](50)	V
Coupon Cap		[varchar](50)	W
First Interest Date	2	[datetime]	Х
First Book Close	Date	[datetime]	Y
Broken First Cou	oon	[bit]	Z
Maturity Date		[datetime]	AA
Callable Features		[varchar](500)	AB

Early Redemption	[bit]	AC
Pricing Redemption Date	[datetime]	AD
Split Maturity	[bit]	AE
Split Maturity Date 1	[datetime]	AF
Split Maturity Date 2	[datetime]	AG
Trade Type	[varchar](50)	AH
Interest Date 1	[datetime]	AI
Interest Date 2	[datetime]	AJ
Interest Date 3	[datetime]	AK
Interest Date 4	[datetime]	AL
Interest Date 5	[datetime]	AM
Interest Date 6	[datetime]	AN
Interest Date 7	[datetime]	AO
Interest Date 8	[datetime]	AP
Interest Date 9	[datetime]	AQ
Interest Date 10	[datetime]	AR
Interest Date 11	[datetime]	AS
Interest Date 12	[datetime]	AT
Book Close Date 1	[datetime]	AU
Book Close Date 2	[datetime]	AV
Book Close Date 3	[datetime]	AW
Book Close Date 4	[datetime]	AX
Book Close Date 5	[datetime]	AY
Book Close Date 6	[datetime]	AZ
Book Close Date 7	[datetime]	BA
Book Close Date 8	[datetime]	BB
Book Close Date 9	[datetime]	BC
Book Close Date 10	[datetime]	BD
Book Close Date 11	[datetime]	BE
Book Close Date 12	[datetime]	BF
Guarantee Type	[varchar](200)	BG
Status	[varchar](50)	BH
Rating Fitch	[varchar](100)	BI
Rating SP	[varchar](100)	BJ
Rating Moody	[varchar](100)	BK
CA Ratings	[varchar](100)	BL
Market Maker	[varchar](250)	BM
General Info	[varchar](500)	BN
Interest Start Date		BO
Date Convention		BP
Base CPI	Decimal(3,15)	BQ
Bond ETP	[varchar](1)	BR

TURNOVER STATS REPORTS

The Trade Detail report provides all the reported trades for the day. It excludes any trades which are reported and cancelled on the same day, but includes any back dated trades reported on the day.

This report will be available daily, at End of Day; however, can be requested for a period. Where the report is run for a period longer than one day (i.e. weekly or monthly), it will include all trades which contribute to the statistics of that period, regardless of when they were reported.

The reports will be produced in both XLS and CSV format.

The current Turnover Reports are being replaced by <u>three "new" reports (see below) effective 3rd February 2014</u>:

5.14 TRADE DETAIL

5.14.1 Report Detail

This report provides all the reported trades for the day. It excludes any trade which is reported and cancelled on the same day, but includes any back dated trades reported on the day.

5.14.2 Report Field Descriptions

Statistic Date	Date on which trade will be aggregated into statistics
Trade Date	Date on which trade was reported to the system
Trade Time	Time at which matching criteria for both Buy and Sell legs is satisfied
Instrument	Bond Code
Yield	Yield at which the trade was made. Except where the instrument is price traded, in which case it shows the price
Nominal	Nominal amount of trade. Can be negative for backdated Equal and Opposites
All in Price	Price, or derived price at which the trade was made
Consideration	ZAR value of trade. Can be negative
Carry Rate	Underlying rate at which Repo trade was booked. Only filled in for Repo 1 and Repo 2 trade types
Trade Type	Standard Trade Standard Trade (Spot) Repo 1 Repo 2 Structured Deal (SD)

	Other Backdated E&O (Standard Trade) Backdated E&O (Standard Trade-Spot) Backdated E&O (Repo1 or Repo2) Backdated E&O (FOV) Backdated E&O (Structured deal) Backdated E&O (OX)
Buy Party	Foreign Client, Member, Local Client
Sell Party	Foreign Client, Member, Local Client
Settlement	Date on which settlement is scheduled to occur
Period	Settlement period of trade (i.e. t+0 for same day)
Companion	represents the reference instrument over which the bond was traded. Each listed instrument is available as a companion bond as well as JIBAR. Should an instrument be a floating rate note the JIBAR value should be used as a companion bond.
Spread	Represents the traded spread value over the companion bonds YTM. In the case of a floating rate note the spread represent the traded spread above JIBAR. In both cases users will still be required to capture the spread and the yield values. All calculations will be based off of the yield value and will not consider the spread value.
5142 Decord Loveut	

Free of Value (FOV) Option Exercised (OX)

5.14.3 Record Layout

Excel Report(s)

Report Name	TradeDetail_Daily <ccyymmdd>.xls</ccyymmdd>		
Sheet Name	Trade Detail		
	Heading		
	Actual/ <pattern>/(Example)</pattern>	Field Type	Cell
Report Title	Trade Detail	Text	A11
Date Range	Trade Date	Date	B12
Date From	<ccyy dd="" mm=""></ccyy>	Date	B13
Date To	<ccyy dd="" mm=""></ccyy>	Date	B14
Statistic Date	None	Date	B15
Filters	None		B16
Generated	<ccyymmdd> <hh:mm:ss></hh:mm:ss></ccyymmdd>	Date & Time	B14
			A19-
Column headings	(Statistics Date)	Text	P19
	Detail		
Field Name		Field Type	Cells
Statistic Date		date	>=A20
Trade Date		date	>=B20
Trade Time		time	>=C20
Instrument		varchar(12)	>=D20
Yield		float	>=E20

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Nominal	Integer	>=F20
All in price	float	>=G20
Consideration	float	>=H20
Carry Rate	float	>=l20
Trade Type	varchar(50)	>=J20
Buy Party	varchar(50)	>=K20
Sell Party	varchar(50)	>=L20
Settlement	Date	>=M20
Period	Varchar(50)	>=N20
Companion	Varchar(30)	>=O20
Spread	Decimal(18,9)	>=P20

CSV Report(s)

Report Name	TradeDetail_Daily <ccyymmdd>.csv</ccyymmdd>		
Report type	CSV		
Delimiter	comma ","		
Total rows	Varies		
Total columns	Fixed - 16		
	Heading		
	Actual/ <pattern>/(Example)</pattern>	Field Type	Cell
Report Title	Trade Detail	Text	A1
Date Range	Trade Date	Date	B2
Date From	<ccyy dd="" mm=""></ccyy>	Date	B3
Date To	<ccyy dd="" mm=""></ccyy>	Date	B4
Statistic Date	None	Date	B5
Filters	None		B6
Generated	<ccyymmdd> <hh:mm:ss></hh:mm:ss></ccyymmdd>	Date & Time	B7
Column headings	(Statistics Date)	Text	A9-P9
	Detail		
Field Name		Field Type	Cells
Field Name Statistic Date		Field Type date	Cells >=A9
Field Name Statistic Date Trade Date		Field Type date date	Cells >=A9 >=B9
Field Name Statistic Date Trade Date Trade Time		Field Type date date time	Cells >=A9 >=B9 >=C9
Field Name Statistic Date Trade Date Trade Time Instrument		Field Type date date time varchar(12)	Cells >=A9 >=B9 >=C9 >=D9
Field Name Statistic Date Trade Date Trade Time Instrument Yield		Field Type date date time varchar(12) float	Cells >=A9 >=B9 >=C9 >=D9 >=E9
Field Name Statistic Date Trade Date Trade Time Instrument Yield Nominal		Field Typedatedatetimevarchar(12)floatInteger	Cells >=A9 >=B9 >=C9 >=D9 >=E9 >=F9
Field Name Statistic Date Trade Date Trade Time Instrument Yield Nominal All in price		Field Typedatedatetimevarchar(12)floatIntegerfloat	Cells >=A9 >=B9 >=C9 >=D9 >=E9 >=F9 >=G9
Field Name Statistic Date Trade Date Trade Time Instrument Yield Nominal All in price Consideration		Field Typedatedatetimevarchar(12)floatIntegerfloatfloat	Cells >=A9 >=B9 >=C9 >=D9 >=E9 >=F9 >=G9 >=H9
Field NameStatistic DateTrade DateTrade TimeInstrumentYieldNominalAll in priceConsiderationCarry Rate		Field Typedatedatetimevarchar(12)floatIntegerfloatfloatfloat	Cells >=A9 >=B9 >=C9 >=D9 >=E9 >=F9 >=G9 >=H9 >=I19
Field NameStatistic DateTrade DateTrade TimeInstrumentYieldNominalAll in priceConsiderationCarry RateTrade Type		Field Typedatedatetimevarchar(12)floatIntegerfloatfloatfloatvarchar(50)	Cells >=A9 >=B9 >=C9 >=D9 >=E9 >=F9 >=G9 >=H9 >=I19 >=J9
Field NameStatistic DateTrade DateTrade TimeInstrumentYieldNominalAll in priceConsiderationCarry RateTrade TypeBuy Party		Field Typedatedatetimevarchar(12)floatIntegerfloatfloatfloatvarchar(50)varchar(50)	Cells >=A9 >=B9 >=C9 >=D9 >=E9 >=F9 >=G9 >=H9 >=I19 >=J9 >=K9
Field NameStatistic DateTrade DateTrade TimeInstrumentYieldNominalAll in priceConsiderationCarry RateTrade TypeBuy PartySell Party		Field Typedatedatedatetimevarchar(12)floatIntegerfloatfloatfloatvarchar(50)varchar(50)varchar(50)	Cells >=A9 >=B9 >=C9 >=D9 >=E9 >=F9 >=G9 >=H9 >=I19 >=J9 >=K9 >=L9
Field NameStatistic DateTrade DateTrade TimeInstrumentYieldNominalAll in priceConsiderationCarry RateTrade TypeBuy PartySell PartySettlement		Field Typedatedatedatetimevarchar(12)floatIntegerfloatfloatfloatvarchar(50)varchar(50)varchar(50)Date	Cells >=A9 >=B9 >=C9 >=D9 >=E9 >=F9 >=G9 >=H9 >=I19 >=J9 >=L9 >=M9
Field NameStatistic DateTrade DateTrade TimeInstrumentYieldNominalAll in priceConsiderationCarry RateTrade TypeBuy PartySell PartySettlementPeriod		Field Typedatedatedatetimevarchar(12)floatIntegerfloatfloatfloatvarchar(50)varchar(50)varchar(50)varchar(50)Varchar(50)Varchar(50)Varchar(50)	Cells >=A9 >=B9 >=C9 >=D9 >=E9 >=F9 >=G9 >=H9 >=J9 >=L9 >=L9 >=M9 >=N9
Field NameStatistic DateTrade DateTrade TimeInstrumentYieldNominalAll in priceConsiderationCarry RateTrade TypeBuy PartySell PartySettlementPeriodCompanion		Field Typedatedatedatetimevarchar(12)floatIntegerfloatfloatfloatvarchar(50)varchar(50)varchar(50)Varchar(50)Varchar(50)Varchar(50)Varchar(50)Varchar(50)Varchar(50)Varchar(50)	Cells >=A9 >=B9 >=C9 >=D9 >=E9 >=F9 >=G9 >=H9 >=N9 >=O9

5.15 INSTRUMENT DETAIL

This Report will be provided end of day for all trades reported on that day -<u>note</u> that this may affect statistics on previous days due to backdated trades. As such, there may be multiple rows for a particular instrument, each for different statistics dates. Where the report is run for a period longer than one day (i.e. weekly or monthly), it will include all trades which contribute to the statistics of that period, regardless of when they were reported.

Frequency of the report: Daily, Weekly, Monthly and Year-to-date (showing the aggregate statistics for that particular period).

5.15.2 Report Field Descriptions

STANDARD TURNOVER (SPOT ONLY)	Statistics per trade type Header
STANDARD TURNOVER (INCLUDES SPOT)	Statistics per trade type Header
REPO 1 TURNOVER	Statistics per trade type Header
REPO 2 TURNOVER	Statistics per trade type Header
TOTAL TURNOVER	Statistics per trade type Header
STRUCTURED DEALS (SD)	Statistics per trade type Header
FREE OF VALUE (FOV)	Statistics per trade type Header
OPTION EXERCISE (OX)	Statistics per trade type Header
OTHER	Statistics per trade type Header
STATISTIC DATE	Date on which trade will be aggregated into statistics. Left blank when report is generated at a Statistic Date: Summary level
INSTRUMENT	Bond Code
DEALS	Number of Trades. Can be negative for backdated Equal and Opposites
NOMINAL	Nominal amount of trade. Can be negative for backdated Equal and Opposites
CONSIDERATION	ZAR value of trade. Can be negative for backdated Equal and Opposites
DEALS	Number of Trades Can be negative for backdated Equal and Opposites



NOMINAL	Nominal amount of trade. Can be negative for backdated Equal and Opposites
CONSIDERATION	ZAR value of trade. Can be negative
DEALS	Number of Trades for backdated Equal and Opposites
NOMINAL	Nominal amount of trade. Can be negative for backdated Equal and Opposites
CONSIDERATION	ZAR value of trade. Can be negative for backdated Equal and Opposites
DEALS	Number of Trades. Can be negative for backdated Equal and Opposites
NOMINAL	Nominal amount of trade. Can be negative for backdated Equal and Opposites
CONSIDERATION	ZAR value of trade. Can be negative for backdated Equal and Opposites
DEALS	Number of Trades. Can be negative for backdated Equal and Opposites
NOMINAL	Nominal amount of trade. Can be negative for backdated Equal and Opposites
CONSIDERATION	ZAR value of trade. Can be negative for backdated Equal and Opposites
DEALS	Number of Trades. Can be negative for backdated Equal and Opposites
NOMINAL	Nominal amount of trade. Can be negative for backdated Equal and Opposites
CONSIDERATION	ZAR value of trade. Can be negative for backdated Equal and Opposites
DEALS	Number of Trades. Can be negative for backdated Equal and Opposites
NOMINAL	Nominal amount of trade. Can be negative for backdated Equal and Opposites
CONSIDERATION	ZAR value of trade. Can be negative for backdated Equal and Opposites
DEALS	Number of Trades Can be negative for backdated Equal and Opposites
NOMINAL	Nominal amount of trade. Can be negative for backdated Equal and Opposites

CONSIDERATION	ZAR value of trade. Can be negative for backdated Equal and Opposites
DEALS	Number of Trades Can be negative for backdated Equal and Opposites
NOMINAL	Nominal amount of trade. Can be negative for backdated Equal and Opposites
CONSIDERATION	ZAR value of trade. Can be negative

5.15.3 Record Layout

Excel Report(s)

Depart Name	InstrumentDetail_Daily <ccyymm< th=""><th></th><th></th></ccyymm<>		
Report Name	DD>.XIS		
Sheet Name			
	Heading		
	Actual/ <pattern>/(Example)</pattern>	Field Type	Cell
Report Title	Instrument Detail	Text	A11
Date Range	Trade Date	Date	B12
Date From	< CCYY/MM/DD>	Date	B13
Date To	< CCYY/MM/DD>	Date	B14
Statistic Date	Detail/ Summary	Date	B15
Filters	None		B16
Generated	<ccyymmdd> <hh:mm:ss></hh:mm:ss></ccyymmdd>	Date & Time	B17
Top Header Row	(Statistics Date)	varchar(100)	Row 19
Bottom Header			
Row		varchar(100)	Row 20
Data Starting			Row 21
Totals	Sum Total per column		Last Row
Detail			
	Detail		
Field Name	Detail	Field Type	Cells
Field Name Standard Turnover (Spo	Detail ot Only)	Field Type varchar(100)	Cells C-D-E 20
Field Name Standard Turnover (Spo Standard Turnover (incl	Detail ot Only) udes Spot)	Field Type varchar(100) varchar(100)	Cells C-D-E 20 F-G-H 20
Field Name Standard Turnover (Spo Standard Turnover (incl Repo 1 Turnover	Detail ot Only) udes Spot)	Field Type varchar(100) varchar(100) varchar(100)	Cells C-D-E 20 F-G-H 20 I-J-K 20
Field Name Standard Turnover (Spo Standard Turnover (incl Repo 1 Turnover Repo 2 Turnover	Detail ot Only) udes Spot)	Field Type varchar(100) varchar(100) varchar(100) varchar(100)	Cells C-D-E 20 F-G-H 20 I-J-K 20 L-M-N 20
Field Name Standard Turnover (Spo Standard Turnover (incl Repo 1 Turnover Repo 2 Turnover Total Turnover	Detail of Only) udes Spot)	Field Typevarchar(100)varchar(100)varchar(100)varchar(100)varchar(100)varchar(100)	Cells C-D-E 20 F-G-H 20 I-J-K 20 L-M-N 20 O-P-Q 20
Field Name Standard Turnover (Spo Standard Turnover (incl Repo 1 Turnover Repo 2 Turnover Total Turnover Structured Deals (SD)	Detail ot Only) udes Spot)	Field Typevarchar(100)varchar(100)varchar(100)varchar(100)varchar(100)varchar(100)varchar(100)varchar(100)	Cells C-D-E 20 F-G-H 20 I-J-K 20 L-M-N 20 O-P-Q 20 R-S-T 20
Field Name Standard Turnover (Spo Standard Turnover (incl Repo 1 Turnover Repo 2 Turnover Total Turnover Structured Deals (SD) Free of Value (FOV)	Detail ot Only) udes Spot)	Field Typevarchar(100)varchar(100)varchar(100)varchar(100)varchar(100)varchar(100)varchar(100)varchar(100)varchar(100)	Cells C-D-E 20 F-G-H 20 I-J-K 20 L-M-N 20 O-P-Q 20 R-S-T 20 U-V-W 20
Field Name Standard Turnover (Spo Standard Turnover (incl Repo 1 Turnover Repo 2 Turnover Total Turnover Structured Deals (SD) Free of Value (FOV) Option Exercise (OX)	Detail ot Only) udes Spot)	Field Typevarchar(100)varchar(100)varchar(100)varchar(100)varchar(100)varchar(100)varchar(100)varchar(100)varchar(100)varchar(100)varchar(100)	Cells C-D-E 20 F-G-H 20 I-J-K 20 L-M-N 20 O-P-Q 20 R-S-T 20 U-V-W 20 X-Y-Z 20
Field Name Standard Turnover (Spo Standard Turnover (incl Repo 1 Turnover Repo 2 Turnover Total Turnover Structured Deals (SD) Free of Value (FOV) Option Exercise (OX) Other	Detail ot Only) udes Spot)	Field Typevarchar(100)varchar(100)varchar(100)varchar(100)varchar(100)varchar(100)varchar(100)varchar(100)varchar(100)varchar(100)varchar(100)varchar(100)varchar(100)	Cells C-D-E 20 F-G-H 20 I-J-K 20 L-M-N 20 O-P-Q 20 R-S-T 20 U-V-W 20 X-Y-Z 20 AA-AB-AC 20
Field Name Standard Turnover (Spo Standard Turnover (incl Repo 1 Turnover Repo 2 Turnover Total Turnover Structured Deals (SD) Free of Value (FOV) Option Exercise (OX) Other Statistic Date	Detail ot Only) udes Spot)	Field Typevarchar(100)varchar(100)varchar(100)varchar(100)varchar(100)varchar(100)varchar(100)varchar(100)varchar(100)varchar(100)varchar(100)varchar(100)varchar(100)varchar(100)varchar(100)varchar(100)varchar(100)	Cells C-D-E 20 F-G-H 20 I-J-K 20 L-M-N 20 O-P-Q 20 R-S-T 20 U-V-W 20 X-Y-Z 20 AA-AB-AC 20 >=A 21
Field Name Standard Turnover (Spo Standard Turnover (incl Repo 1 Turnover Repo 2 Turnover Total Turnover Structured Deals (SD) Free of Value (FOV) Option Exercise (OX) Other Statistic Date Instrument	Detail ot Only) udes Spot)	Field Typevarchar(100)	Cells C-D-E 20 F-G-H 20 I-J-K 20 L-M-N 20 O-P-Q 20 R-S-T 20 U-V-W 20 X-Y-Z 20 AA-AB-AC 20 >=A 21 >=B 21
Field Name Standard Turnover (Spo Standard Turnover (incl Repo 1 Turnover Repo 2 Turnover Total Turnover Structured Deals (SD) Free of Value (FOV) Option Exercise (OX) Other Statistic Date Instrument Deals	Detail ot Only) udes Spot)	Field Typevarchar(100)varchar(100)varchar(100)varchar(100)varchar(100)varchar(100)varchar(100)varchar(100)varchar(100)varchar(100)varchar(100)varchar(100)varchar(100)varchar(100)varchar(100)varchar(100)lateVarchar(12)Integer	Cells C-D-E 20 F-G-H 20 I-J-K 20 L-M-N 20 O-P-Q 20 R-S-T 20 U-V-W 20 X-Y-Z 20 AA-AB-AC 20 >=A 21 >=B 21 >=C 21
Field NameStandard Turnover (SpotStandard Turnover (inclRepo 1 TurnoverRepo 2 TurnoverTotal TurnoverStructured Deals (SD)Free of Value (FOV)Option Exercise (OX)OtherStatistic DateInstrumentDealsNominal	Detail ot Only) udes Spot)	Field Typevarchar(100)varchar(100)varchar(100)varchar(100)varchar(100)varchar(100)varchar(100)varchar(100)varchar(100)varchar(100)varchar(100)varchar(100)varchar(100)latevarchar(12)IntegerInteger	Cells C-D-E 20 F-G-H 20 I-J-K 20 L-M-N 20 O-P-Q 20 R-S-T 20 U-V-W 20 X-Y-Z 20 AA-AB-AC 20 >=A 21 >=B 21 >=C 21 >=D 21
Field Name Standard Turnover (Spo Standard Turnover (incl Repo 1 Turnover Repo 2 Turnover Total Turnover Structured Deals (SD) Free of Value (FOV) Option Exercise (OX) Other Statistic Date Instrument Deals Nominal Consideration	Detail ot Only) udes Spot)	Field Typevarchar(100)varchar(100)varchar(100)varchar(100)varchar(100)varchar(100)varchar(100)varchar(100)varchar(100)varchar(100)varchar(100)varchar(100)varchar(100)lntegerIntegerFloat	Cells C-D-E 20 F-G-H 20 I-J-K 20 L-M-N 20 O-P-Q 20 R-S-T 20 U-V-W 20 X-Y-Z 20 AA-AB-AC 20 >=A 21 >=B 21 >=C 21 >=D 21 >=E 21

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Nominal	Integer	>=G 21
Consideration	Float	>=H 21
Deals	Integer	>=l 21
Nominal	Integer	>=J 21
Consideration	Float	>=K 21
Deals	Integer	>=L 21
Nominal	Integer	>=M 21
Consideration	Float	>=N 21
Deals	Integer	>=O 21
Nominal	Integer	>=P 21
Consideration	Float	>=Q 21
Deals	Integer	>=R 21
Nominal	Integer	>=S 21
Consideration	Float	>=T 21
Deals	Integer	>=U 21
Nominal	Integer	>=V 21
Consideration	Float	>=W 21
Deals	Integer	>=X 21
Nominal	Integer	>=Y 21
Consideration	Float	>=Z 21
Deals	Integer	>=AA 21
Nominal	Integer	>=AB 21
Consideration	Float	>=AC 21

CSV Report(s)

	InstrumentDetail_Daily <ccyymm< th=""><th></th><th></th></ccyymm<>		
Report Name	DD>.csv		
Report type	CSV		
Delimiter	comma ","		
Total rows	Varies		
Total			
columns	Fixed - 14		
	Heading		
	Actual/ <pattern>/(Example)</pattern>	Field Type	Cell
Report Title	Instrument Detail	Text	A1
Date Range	Trade Date	Date	B2
Date From	< CCYY/MM/DD>	Date	B3
Date To	< CCYY/MM/DD>	Date	B94
Statistic Date	Detail/ Summary	Date	B5
Filters	None		B6
Generated	<ccyymmdd> <hh:mm:ss></hh:mm:ss></ccyymmdd>	Date & Time	B7
Top Header Row	(Statistics Date)	varchar(100)	Row 9
Bottom Header Row		varchar(100)	Row 10
Data Starting Row			Row 11
Totals	Sum Total per column		Last Row
	Detail		
Field Name		Field Type	Cells

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		JJE
Standard Turnover (Spot Only)	varchar(100)	C-9
Standard Turnover (includes Spot)	varchar(100)	F-9
Repo 1 Turnover	varchar(100)	1-9
Repo 2 Turnover	varchar(100)	L-9
Total Turnover	varchar(100)	O-9
Structured Deals (SD)	varchar(100)	R-9
Free of Value (FOV)	varchar(100)	U-9
Option Exercise (OX)	varchar(100)	X-9
Other	varchar(100)	AA-9
Statistic Date	Date	>=A 11
Instrument	Varchar(12)	>=B 11
Deals	Integer	>=C 11
Nominal	Integer	>=D 11
Consideration	Float	>=E 11
Deals	Integer	>=F 11
Nominal	Integer	>=G 11
Consideration	Float	>=H 11
Deals	Integer	>=l 11
Nominal	Integer	>=J 11
Consideration	Float	>=K 11
Deals	Integer	>=L 11
Nominal	Integer	>=M 11
Consideration	Float	>=N 11
Deals	Integer	>=O 11
Nominal	Integer	>=P 11
Consideration	Float	>=Q 11
Deals	Integer	>=R 11
Nominal	Integer	>=S 11
Consideration	Float	>=T 11
Deals	Integer	>=U 11
Nominal	Integer	>=V 11
Consideration	Float	>=W 11
Deals	Integer	>=X 11
Nominal	Integer	>=Y 11
Consideration	Float	>=Z 11
Deals	Integer	>=AA 11
Nominal	Integer	>=AB 11
Consideration	Float	>=AC 11

5.16 MEMBER/CLIENT POSITION

5.16.1 Report Detail

This report provides detail at a trade leg level per trade category (i.e. Buy and Sell shown separately) and shows the split between member/local client and foreign client transactions. The report replaces the Member Client Position tab in the Detailed Turnover Report. It contains two tabs-Member_ Client Overall and Member _ Client Instruments.

Frequency of Report: Daily, Weekly, Monthly and Year-to-date (showing the aggregate statistics for that particular period).

5.16.2 Report Field Descriptions

Worksheet 1: Member Client Overall

This report consists of two worksheets - 'Member Client Overall' and 'Member Client Instruments'.

STATISTICS DATE	Date on which trade will be aggregated into statistics. Left blank when report is generated at a Statistic Date: Summary level
MEMBER/CLIENT	Foreign Client, Member, Local Client
PARTY	Buy or Sell
STANDARD TURNOVER	
DEALS	Number of Trades. Can be negative for backdated Equal and Opposites
NOMINAL	Nominal amount of trade. Can be negative for backdated Equal and Opposites
CONSIDERATION	ZAR value of trade. Can be negative for backdated Equal and Opposites
STANDARD TURNOVER (Incl SPOT)	
DEALS	Number of Trades. Can be negative for backdated Equal and Opposites
NOMINAL	Nominal amount of trade. Can be negative for backdated Equal and Opposites
CONSIDERATION	ZAR value of trade. Can be negative for backdated Equal and Opposites
DEALS	Number of Trades. Can be negative for backdated Equal and Opposites
NOMINAL	Nominal amount of trade. Can be negative for backdated Equal and Opposites
CONSIDERATION	ZAR value of trade. Can be negative for backdated Equal and Opposites

REPO 2 TURNOVER	
DEALS	Number of Trades. Can be negative for backdated Equal and Opposites
NOMINAL	Nominal amount of trade. Can be negative for backdated Equal and Opposites
CONSIDERATION	ZAR value of trade. Can be negative for backdated Equal and Opposites
TOTAL TURNOVER	
DEALS	Number of Trades. Can be negative for backdated
NOMINAL	Nominal amount of trade. Can be negative for backdated Equal and Opposites
CONSIDERATION	ZAR value of trade. Can be negative for backdated Equal and Opposites
STRUCTURED DEALS	
DEALS	Number of Trades. Can be negative for backdated Equal and Opposites
NOMINAL	Nominal amount of trade. Can be negative for backdated Equal and Opposites
CONSIDERATION	ZAR value of trade. Can be negative for backdated Equal and Opposites
FREE OF VALUE	
DEALS	Number of Trades. Can be negative for backdated Equal and Opposites
NOMINAL	Nominal amount of trade. Can be negative for backdated Equal and Opposites
CONSIDERATION	ZAR value of trade. Can be negative for backdated Equal and Opposites
OPTION EXERCISE	
DEALS	Number of Trades. Can be negative for backdated Equal and Opposites
NOMINAL	Nominal amount of trade. Can be negative for backdated Equal and Opposites
CONSIDERATION	ZAR value of trade. Can be negative for backdated Equal and Opposites
OTHER	
OT_DEALS	(Other Trades) Number of Trades. Can be negative for backdated Equal and Opposites
OT_QUANTITY	(Other Trades) Nominal traded. Can be negative for backdated Equal and Opposites
OT_CONSIDERATION	(Other Trades) ZAR value of trade. Can be negative for backdated Equal and Opposites
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5.16.3 Record Layout

Excel Report(s)

Worksheet 1: Member_Client Position Overall

Report Name	MemberClientPosDetail_Daily <ccyymm< th=""><th>DD>.xls</th><th></th></ccyymm<>	DD>.xls	
Sheet Name Member_Client Overall			
Heading			
	Actual/ <pattern>/(Example)</pattern>	Field Type	Cell
Report Title	Member/Client Pos: Summary	Text	A11
Date Range	Trade Date	Date	B12
Date From	<ccyymmdd></ccyymmdd>	Date	B13
Date To	<ccyymmdd></ccyymmdd>	Date	B14
Statistic Date	None	Date	B15
Filters	None		B16
Generated	<ccyymmdd> <hh:mm:ss></hh:mm:ss></ccyymmdd>	Date & Time	B17
Top Header Row		Text	Row 19
Bottom Header Row		Text	Row 20
Data starting row			Row 21
	Detail		
Field Name		Field Type	Cells
Standard Turnover (Sp	oot Only)	varchar(100)	D-E-F19
Standard Turnover (inc	cludes Spot)	varchar(100)	G-H-I19
Repo 1 Turnover		varchar(100)	J-K-L19
Repo 2 Turnover		varchar(100)	M-N-O19
Total Turnover		varchar(100)	P-Q-R19
Structured Deals		varchar(100)	S-T-U19
Free of Value		varchar(100)	V-W-X19
Option Exercise		varchar(100)	Y-Z-AA19
Other		varchar(100)	AB-AC- AD19
Statistic Date		Date	A20
Member / Client		Text	B20
Foreign Client		Text	B21
Foreign Client		Text	B22
Foreign Client		Text	B23
Blank row			Row 24
Local Client		Text	B25
Local Client		Text	B26
Local Client		Text	B27
Blank row			Row 28
Member		Text	B229
Member		Text	B30
Member		Text	B31
Party		Text	C20
Buy		Text	C21
Sell		Text	C22
Net		Text	C23
Blank row			Row 24

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C25

Buy	Text	C25
Sell	Text	C26
Net	Text	C27
Blank row		Row 28
Buy	Text	C29
Sell	Text	C30
Net	Text	C31
Deals	Integer	D20
Nominal	Integer	E20
Consideration	Float	F20
Deals	Integer	G20
Nominal	Integer	H20
Consideration	Float	120
Deals	Integer	J20
Nominal	Integer	K20
Consideration	Float	L20
Deals	Integer	M20
Nominal	Integer	N20
Consideration	Float	O20
Deals	Integer	P20
Nominal	Integer	Q20
Consideration	Float	R20
Deals	Integer	S20
Nominal	Integer	T20
Consideration	Float	U20
Deals	Integer	V20
Nominal	Integer	W20
Consideration	Float	X20
Deals	Integer	Y20
Nominal	Integer	Z20
Consideration	Float	AA20
Deals	Integer	AB20
Nominal	Integer	AC20
Consideration	Float	AD20

CSV Report(s)

Report Name	MemberClientPosDetail_Daily <ccyymmdd>_a.csv</ccyymmdd>				
Report type	CSV				
Delimiter	comma ","				
Total rows	Varies				
Total columns	Fixed - 30				
Heading					
	Actual/ <pattern>/(Example) Field Type Cell</pattern>				
Report Title	Member/Client Pos: Summary	Text	A1		
Date Range	Trade Date	Date	B2		
Date From	<ccyymmdd></ccyymmdd>	Date	B3		
Date To	<ccyymmdd></ccyymmdd>	Date	B4		
Statistic Date	None	Date	B5		
Filters	None		B6		
Generated	<ccyymmdd> <hh:mm:ss></hh:mm:ss></ccyymmdd>	Date & Time	B7		
Top Header		Text	Row 9		
Row					
Bottom Header		Text	Row 10		
Row Data starting	-		Row 11		
row					
Detail					
Field Name		Field Type	Cells		
Standard Turnover (S	pot Only)	varchar(100)	D-9		
Standard Turnover (ir	ncludes Spot)	varchar(100)	G-9		
Repo 1 Turnover		varchar(100)	J-9		
Repo 2 Turnover		varchar(100)	M-9		
Total Turnover		varchar(100)	P-9		
Structured Deals		varchar(100)	S-9		
Free of Value	Free of Value		V-9		
Option Exercise	Option Exercise		Y-9		
Other	Other		AB-9		
Statistic Date	Statistic Date		A10		
Member / Client		Text	B10		
Foreign Client		Text	B11		
Foreign Client	Foreign Client		B12		
Foreign Client	oreign Client Text B13		B13		
Blank row	Blank row Row 14		Row 14		
Local Client	Local Client Text		B15		
Local Client	ocal Client Text		B16		
Local Client T		Text	B17		
Blank row	ank row Row 18		Row 18		
Member	Iember Text B19		B19		
Member	ember Text		B20		
Member		Text	B21		
Party		Text	C10		
Buy	Buy Text C11		C11		
Sell		Text	C12		
Net		Text	C13		

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		12=
Blank row		Row 14
Buy	Text	C15
Sell	Text	C16
Net	Text	C17
Blank row		Row 18
Buy	Text	C19
Sell	Text	C20
Net	Text	C21
Deals	Integer	D10
Nominal	Integer	E10
Consideration	Float	F10
Deals	Integer	G10
Nominal	Integer	H10
Consideration	Float	l10
Deals	Integer	J10
Nominal	Integer	K10
Consideration	Float	L10
Deals	Integer	M10
Nominal	Integer	N10
Consideration	Float	O10
Deals	Integer	P10
Nominal	Integer	Q10
Consideration	Float	R 10
Deals	Integer	S10
Nominal	Integer	T10
Consideration	Float	U10
Deals	Integer	V10
Nominal	Integer	W10
Consideration	Float	X10
Deals	Integer	Y10
Nominal	Integer	Z10
Consideration	Float	AA10
Deals	Integer	AB10
Nominal	Integer	AC10
Consideration	Float	AD10

Worksheet 2: MEMBER_CLIENT INSTRUMENTS

STATISTICS DATE	Date on which trade will be aggregated into statistics. Left blank when report is generated at a Statistic Date: Summary level
INSTRUMENT	Bond Code
MEMBER/CLIENT	Foreign Client, Member, Local Client
PARTY	Buy of Self
STANDARD TURNOVER (SPOT ONLY)	
DEALS	Number of Trades
NOMINAL	Nominal amount of trade. Can be negative for backdated Equal and Opposites
CONSIDERATION	ZAR value of trade. Can be negative for backdated Equal and Opposites
STANDARD TURNOVER (Incl	
<u>SPOT)</u> DEALS	Number of Trades. Can be negative for backdated Equal and Opposites
NOMINAL	Nominal amount of trade. Can be negative for backdated Equal and Opposites
CONSIDERATION	ZAR value of trade. Can be negative for backdated Equal and Opposites
<u>REPO 1 TURNOVER</u> DEALS	Number of Trades. Can be negative for backdated Equal and Opposites
NOMINAL	Nominal amount of trade. Can be negative for backdated Equal and Opposites
CONSIDERATION	ZAR value of trade. Can be negative for backdated Equal and Opposites
REPO 2 TURNOVER	
DEALS	Number of Trades. Can be negative for backdated Equal and Opposites
NOMINAL	Nominal amount of trade. Can be negative for backdated Equal and Opposites
CONSIDERATION	ZAR value of trade. Can be negative for backdated Equal and Opposites
<u>TOTAL TURNOVER</u> DEALS	Number of Trades. Can be negative for backdated Equal and Opposites

	= 2F
NOMINAL	Nominal amount of trade. Can be negative for backdated Equal and Opposites
CONSIDERATION	ZAR value of trade. Can be negative for backdated Equal and Opposites
<u>STRUCTURED DEALS</u> DEALS	Number of Trades. Can be negative for backdated Equal and Opposites
NOMINAL	Nominal amount of trade. Can be negative for backdated Equal and Opposites
CONSIDERATION	ZAR value of trade. Can be negative for backdated Equal and Opposites
<u>FREE OF VALUE</u> DEALS	Number of Trades. Can be negative for backdated Equal and Opposites
NOMINAL	Nominal amount of trade. Can be negative for backdated Equal and Opposites
CONSIDERATION	ZAR value of trade. Can be negative for backdated Equal and Opposites
OPTION EXERCISE DEALS	Number of Trades. Can be negative for backdated Equal and Opposites
NOMINAL	Nominal amount of trade. Can be negative for backdated Equal and Opposites
CONSIDERATION	ZAR value of trade. Can be negative for backdated Equal and Opposites
OT_DEALS	(Other Trades) Number of Trades. Can be negative for backdated Equal and Opposites
OT_QUANTITY	(Other Trades) Nominal traded. Can be negative for backdated Equal and Opposites
OT_CONSIDERATION	(Other Trades) ZAR value of trade. Can be negative for backdated Equal and Opposites

Excel Report(s)

Worksheet 2: Member_Client Instruments

Report Name	MemberClientPosDetail_Daily <ccyymmdd>.xls</ccyymmdd>			
Sheet Name	Member_Client Instruments			
	Heading			
	Actual/ <pattern>/(Example)</pattern>	Field Type	Cell	
Report Title	Member/Client Pos: Instrument Detail	Text	A11	
Date Range	Trade Date	Date	B12	
Date From	<ccyymmdd></ccyymmdd>	Date	B13	
Date To	<ccyymmdd></ccyymmdd>	Date	B14	
Statistic Date	None	Date	B15	
Filters	None		B16	
Generated	<ccyymmdd> <hh:mm:ss></hh:mm:ss></ccyymmdd>	Date & Time	B17	
Top Header				
Row		Text	Row 19	
Bottom Header Bow		Toyt	Bow 20	
Data starting		Text	RUW 20	
row			Row 21	
	Detail			
Field Name	Detail	Field Type	Cells	
Standard Turnover (Spot Only)	varchar(100)	E-F-G19	
Standard Turnover (includes Spot)	varchar(100)	H-I-J19	
Repo 1 Turnover		varchar(100)	K-L-M19	
Repo 2 Turnover		varchar(100)	N-O-P19	
Total Turnover		varchar(100)	Q-R-S19	
Structured Deals		varchar(100)	T-U-V19	
Free of Value		varchar(100)	W-X-Y19	
Option Exercise		varchar(100)	Z-AA-AB19	
			AC-AD-	
Other		varchar(100)	AE19	
Statistic Date		Date	A21	
Instrument		VARCHAR(12)	B21	
Member/Client		VARCHAR(14)	C21	
Local Client		Text	Column C	
Local Repo		Text	Column C	
Foreign Client		Text	Column C	
Member		Text	Column C	
Party		Text	D21	
Buy		VARCHAR(4)	Column D	
Sell		Text	Column D	
Deals		Integer	E21	
Nominal			F21	
Consideration		Float	G21	
Deals		Integer	H21	
Nominal			121	
Consideration		Float	J21	
Deals		Integer	K21	
Nominal		Integer	L21	

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Consideration	Float	M21
Deals	Integer	N21
Nominal	Integer	O21
Consideration	Float	P21
Deals	Integer	Q21
Nominal	Integer	R 21
Consideration	Float	S21
Deals	Integer	T21
Nominal	Integer	U21
Consideration	Float	V21
Deals	Integer	W21
Nominal	Integer	X21
Consideration	Float	Y21
Deals	Integer	Z21
Nominal	Integer	AA21
Consideration	Float	AB21
Deals	Integer	AC21
Nominal	Integer	AD21
Consideration	Float	AE21

CSV Report(s)

Report Name	MemberClientPosDetail_Daily <ccyymmdd_b>.csv</ccyymmdd_b>		
Report type	CSV		
Delimiter	comma ","		
Total rows	Varies		
Total columns	Fixed - 31		
	Heading		
	Actual/ <pattern>/(Example)</pattern>	Field Type	Cell
Report Title	Member/Client Pos: Instrument Detail	Text	A1
Date Range	Trade Date	Date	B2
Date From	<ccyymmdd></ccyymmdd>	Date	B3
Date To	<ccyymmdd></ccyymmdd>	Date	B4
Statistic Date	None	Date	B5
Filters	None		B6
Generated	<ccyymmdd> <hh:mm:ss></hh:mm:ss></ccyymmdd>	Date & Time	B7
Top Header			
Row		Text	Row 9
Bottom Header Bow		Toxt	Pow 10
Data starting		Text	NOW TO
row			Row 11
Detail			
Field Name		Field Type	Cells
Standard Turnover (S	Spot Only)	varchar(100)	E9
Standard Turnover (includes Spot)		varchar(100)	H9
Repo 1 Turnover		varchar(100)	K9
Repo 2 Turnover		varchar(100)	N9
Total Turnover		varchar(100)	Q9
Structured Deals		varchar(100)	Т9

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		14/0
	varchar(100)	W9 70
Option Exercise	varchar(100) Z9	
Other	varchar(100) AC9	
Statistic Date	Date A11	
Instrument	VARCHAR(12)	B15
Member/Client	VARCHAR(14)	C11
Local Client	Text	Column C
Local Repo	Text	Column C
Foreign Client	Text	Column C
Member	Text	Column C
Party	Text	D11
Buy	VARCHAR(4)	Column D
Sell	Text	Column D
Deals	Integer	E11
Nominal	Integer	F11
Consideration	Float	G11
Deals	Integer	H11
Nominal	Integer	111
Consideration	Float	J11
Deals	Integer	K11
Nominal	Integer	111
Consideration	Float	M11
Deals	Integer	N11
Nominal	Integer	011
Consideration	Float	P11
Deals	Integer	011
Nominal	Integer	R11
Consideration	Float	S11
Deale	Integer	T11
Nominal	Integer	111
	U11	
Deele		
Nominal	Integer W11	
	Integer X11	
Deale	Float	714
Deals	Integer	
	Integer	AA11
	Float	AB11
	Integer	AC11
OT_Quantity	Integer	AD11
OT_Consideration	Float	AE11

5.17 CREDIT INDICES

5.17.1 Report Detail

Credit Indices track the general levels of bonds that do not have an explicit government guarantee. They are split into Credit Fixed and Credit Floating according to the nature of the bonds that comprise the index. The two Credit Fixed composites are the JSE Credit Fixed Market Index, which captures 95% of the underlying market, and the Credit Fixed Top 30 Index, which captures the Top 30 bonds by the Dual Ranking methodology. Similarly, in the Credit Floating space, the Credit Floating Market Index and Credit Floating Top 30 Index exist.

Each composite index is further split into four Issuer Class sub-indices for Financials, Non-Financials, State Owned Enterprises and Asset Backed Securities. Finally, each composite is split into four Term Bucket sub-indices based on term to maturity. The Credit Fixed Term Bucket sub-indices are 1-3 year, 3-7 year, 7-12 year and 12+ year, whereas the Credit Floating Term Bucket sub-indices are 1-2 year, 2-3 year, 3-4 year and 4+ year.

5.17.2 Report Field Descriptions	
STATISTIC DATE (t)	The date of the valuation
COMPOSITE INDEX	The code of the composite index
INDEX CODE	The code of the index
TOTAL RETURN INDEX	Index level used to measure bond portfolio performance. The index level incorporates accrued interest and is calculated on the basis of reinvested coupons.
CLEAN PRICE INDEX	Aggregate price level of the bond portfolio calculated using clean prices.
ALL IN PRICE INDEX	Aggregate price level of the bond portfolio calculated using all in prices.
COUPON YIELD	Average coupon yield of the bond portfolio
AVERAGE YIELD	Average yield to maturity of the bond portfolio
AVERAGE SPREAD	Average spread of the bond portfolio, measured in basis points.
MODIFIED DURATION	Indication of the bond portfolio's price sensitivity to small changes in underlying yield
CONVEXITY	Measure of the curvature in the relationship between bond prices and bond yields at a portfolio level
K FACTOR	Rebalancing factor used in the calculation of the Total Return Index
K FACTOR – CLEAN PRICE INDEX	Rebalancing factor used in the calculation of the Clean Price Index
K FACTOR – ALL IN PRICE INDEX	Rebalancing factor used in the calculation of the All in Price Index



Total value of the Bond Portion of the portfolio, measured in index points

Total value of the ex-coupon portion of the portfolio, measured in index points

Total value of the reinvestable coupon portion of the portfolio, measured in index points.

5.17.3 Record Layout

Excel Report

Report			
Name	FIV_ <ccyymmdd>.xlsx</ccyymmdd>		
Sheet Name	Valuation		
	Heading		
	Actual/ <pattern>/(Example)</pattern>	Field Type	Cell
	JSE Fixed Income Index		
Report Title	Series	varchar(50)	A1
Sub-Title	End of Day Valuation Product	Varchar(50)	A2
Date From	<yyyy-mm-dd></yyyy-mm-dd>	Date	A3
Date To	<yyyy-mm-dd></yyyy-mm-dd>	Date	B3
Column headings			A5:R5
Ŭ	Detail		
Field Name		Field Type	Cells
StatisticDate		DATE	From A6
CompositeIndex		VARCHAR(12)	From B6
IndexCode		VARCHAR(12)	From C6
Constituents		INT	From D6
TotalReturnIndex		FLOAT	From E6
CleanPriceIndex		FLOAT	From F6
AllInPriceIndex		FLOAT	From G6
CouponYield		FLOAT	From H6
AverageYield		FLOAT	From I6
AverageSpread		FLOAT	From J6
ModifiedDuration		FLOAT	From K6
Convexity		FLOAT	From L6
KFactor		FLOAT	From M6
KFactor_CleanPric	ceIndex	FLOAT	From N6
KFactor_AllInPrice	lndex	FLOAT	From O6
Bt		FLOAT	From P6
Ct		FLOAT	From Q6
Rt		FLOAT	From R6

Bt

Ct

Rt