MINUTES

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FINANCIAL DERIVATIVES ADVISORY COMMITTEE MEETING

Date:	03 August 2017
Time:	10h00
Venue:	Ubuntu Conference Room – 1st Floor, JSE Offices, Sandown

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Present:	Donna Nemer (DN), Guy Algeo (GA), Bryn Macullan (BM), Merlin Rajah (MeR), Leanne Parsons (LP), Godfrey Matjuda (GM), Mark Randall (MR), Andre Koen (AK), Valdene Reddy (VR), Ved Somera (VS), Langa Manqele (LM), Zweli Vonya (ZV), Bekithemba Sibanda (BS), Alex Comninos (AC), Hemash Kala (HK).
Apologies:	Helen Masson (HM), Phillip Thuthuka Dube (PD), Neil Cohen (NC) , Gavin Betty (GB)
Dialled In:	Shiran Samuels (SS), Matthew Arnott (MA), Naval Singh (NS), Brendan Harcourt-Wood (BW), Petrus Bosman (PB), Richard Juchniewicz (RJ), Crispin Gell (CG).

WELCOME AND APOLOGIES

DN welcomed all the attendees to the second Financial Derivatives Advisory Committee (FDAC) meeting for 2017.

CONFIRMATION OF PREVIOUS MINUTES

The minutes of the FDAC meeting held on the 29 March 2017 were confirmed and accepted.

MTM AND ATM VOLS

MR has implemented some mechanism where the JSE can deal with some extremely stale far out expiries for 2018 and beyond on the ALSI contract effective put in from the 1st August 2017.

- Effectively what currently happens on the ALSI MTM:
- On the futures price the contract is priced, where there is liquidity its priced using the mode of the double on-screen at 17:00 on on-book trades,
- For all other models a point from near models is used, just a linear difference from the nearest contract and that points input only get updated when there is something that is on-screen, for anything beyond the first two or three expiries.
- The JSE now has some discretion in setting those points, what is settled on is where there is no remark for a week then the JSE has some discretion to edit that input.

- Inputs used is basically a flat dividend yield estimate using a forward value thus far, obviously if there are any on-book trade that are reported during the course of the week they are also used to remark the spread.
- The DEC'18 contract will continue being marked to the near contract, the spread used will be updated from time to time.

ATM Vols:

- Same principle applies, process in the past it was to update ATM vol where on-book activity is seen at 16:00 on particular anchor strike, activity seen in the first two expiries, and then very little beyond that, so ATM tend to get pegged and hang around unrealistic levels.
- JSE has discretion to edit where there's no remark for a week.
- Inputs to be used have not yet been stipulated, there's a few, obviously looking at trading activity for the week, vendor data is also received from Super Derivatives that is considered, if uncertainty arises the option to take some poll amongst members to pick up prevailing levels are.
- Dec'18 is probably the worst case where the plan is to drop the vol from 24 ATM to around about 16.
- Vol skew applied for ALSI and all index options use the same or similar skew, in the past trader data has been used, the skew has been updated on a two weeks basis using model based on on-book trades, from 1st August 2017 a new skew provided by Super Derivatives is used (trial), impact of that to be seen over time whether it's an appropriate vendor to be using for this purpose.
- The preliminary feed so far shows that it's a far more appropriate skew for where the prices are.

NON-CASH COLLATERAL UPDATE

HK informed the committee that post the 2008 financial crisis and the tightening of risk and regulatory frameworks, the demand for efficient asset utilisation has increased. As a result, there has been a steady growth in demand from the market for the acceptance of alternative forms of collateral – namely securities and foreign currency collateral.

The acceptance of alternate collateral forms by JSE Clear, will allow members to meet their Initial Margin (IM) requirements through a combination of ZAR cash, selected securities i.e. equities and bonds, and in the case of non-resident clients, selected foreign currency cash. The new securities collateral service offering is being designed and developed as part of the JSE Integrated Trading and Clearing (ITaC) project and is planned for launch in Q1 2018.

A question was raised as to what the impact of the above offering would be to the JSE and to the market. DN explained that firstly for the market; to the extent that brokers aren't cash generative themselves; giving so much cash back to the market should take immediate pressure off the near term month cash availability as well as the rates on the short term end of the yield curve. DN then went on to highlight that the question is how the funds from this funding benefit will in turn be utilized? She went on to explain that the offering would have a revenue impact to the JSE as well as the clearing members.

Another question was then raised on how the offering would work on illiquid stocks. AC explained that the JSE will determine a single initial margin amount per client across all their derivative positions, whether it's due to exposures on liquid (e.g. ALSI) or illiquid stocks, and then be collateralised with securities or cash thereafter. The JSE will determine a list of eligible securities (liquid Gov Bonds and Top 40 equities) that may be pledged against the single margin amount determined across all derivative positions.

Service Offering Overview
The launch of this service will be done in a phased approach based on the following **indicative timelines**:

- **Phase A –** Pledging of select SA government bonds against initial margin requirements in the equity derivative (EQD) and currency derivative (FXD) markets in Q1 2018
- **Phase B –** Pledging of select Top 40 equities against initial margin requirements in the equity derivative (EQD) and currency derivative (FXD) markets to follow a few months after Phase A
- **Phase C –** Pledging of select SA government bonds and Top 40 equities against initial margins requirements in the interest rate derivative (IRD) and commodity derivative (CMD) markets to be developed and tested using existing systems in parallel with phases A and B and launched soon thereafter
- **Phase D –** Pledging of foreign currency collateral i.e. USD, GBP and EUR, will be launched as soon as final regulatory approvals are obtained and testing with the market is completed

The use of alternative collateral forms is proposed for the JSE derivative markets only and non-ZAR cash collateral for Cash Equity margins is being tackled as part of the Equity CCP initiative. Trading members and clients will have the option of collateralising their initial margin (including add-on margins i.e. liquidity and large position) and settlement margin requirements using a combination of cash, securities and foreign cash currency [1]. HK mentioned that other collateral types will be considered in future and that a minimum percentage of initial margin, as determined by the clearing house, must be pledged in cash (ZAR or foreign currency).
Trading members and clients will however not be able to pledge securities or FX collateral against Variation Margin.

A question was raised as to whether there are any limitations or tax implications w.r.t the duration over which securities are pledged to the receiver i.e. if securities are pledged for over 365 days are there any STT or other tax implications? A response was given that by adopting the 'pledge' mechanism beneficial ownership of the pledged securities never changes and thus does not have STT or CGT implications. The question may be in reference to cession where the previous version of the TLAB required assets to be returned within 365 days, this has now been revised to 2 years…both not an issue for cessions in STRATE's view as substitution due to Corporate Events resolves this.

Another question was then raised as to whether the JSE will be looking at this offering on a portfolio basis, i.e. if a member has a margin call on their activity in currency market, will the member have the ability to use Top40 equities to collateralize that or can the member only use equity collateral for the equity market. AC and HK however confirmed that a member would be able to use any of the acceptable collateral on a margin call across all their derivative positions (across all markets) on the ITaC solution.

Benefit estimates
Initial margin benefits:

- The acceptance of securities collateral against initial margin is estimated to increase ZAR cash liquidity by R20 billion to R27 billion across all JSE derivative markets
- Cost of capital savings estimated between R900 million and 1.2 billion per annum across all clients*
- With ITaC Project 1 go-live in Q1 2018, 82% of this increased ZAR cash liquidity could be realised from the EQD and FXD markets – remaining 18% to be realised soon thereafter as securities collateral is rolled out for the IRD and CMD markets

[1] Due to the regulatory impact of foreign currency movement, the JSE has engaged SARB and National Treasury on the acceptance of foreign currency collateral. Approval in principal for non-resident clients has been obtained however full regulatory approval is still pending.

Default fund benefits:

- The ability for Clearing Members to pledge securities collateral against their default fund contributions is estimated to increase ZAR cash liquidity by a further R240 million to R320 million
- Clearing members, depending on the size of their default fund contributions, could see a cost of capital savings from R300 thousand up to R3.6 million per annum *

** based on an average cost of capital of 11% and JSE initial margin investment rate of 6.7% (this excludes any CSD, CSDP and Clearing Members fees for the securities collateral service)*

<u>Pledging, Withdrawing and Substituting Collateral</u>

Trading members and clients will pledge securities directly to the Clearing House (JSE Clear). The 'pledge' mechanism (as opposed to 'cession') will be used for securities collateral; which means that all corporate actions on pledged securities will be entitled to the collateral giver and no Securities Transfer Tax (STT) will be applicable on securities pledged to the JSE. The CSDPs of trading members and clients are required to commit to all security pledge/withdrawal requests to/from the JSE.

HK then went on to highlight the two pledging processes, which are as follows:

- Pledging of securities and FX collateral by trading members and clients will be done as part of the daily end-of-day process
- Withdrawing of pledged securities will be facilitated during the daily 'Intraday Rebalancing' process whereby clients my substitute pledged cash for pledged securities

Substituting pledged securities for other eligible securities may be done at any time during the business day, Securities and FX collateral posted to the JSE will be valued during the intra-day and end-of-day processes.

<u>Collateral Risk Management</u>

Collateral pledged to the clearing house will only be accessed in the case of a default. In the event of a default, all pledged securities will be liquidated into ZAR cash via a JSE appointed trading member and the standard default management process will be followed thereafter. To ensure that clearing members and JSE Clear are adequately covered, the valuation of securities and FX collateral will take into considerations factors such as price volatility, liquidity risk, concentration risk, spread risk and impact cost.

Quantification of the above risk considerations will result in the clearing house defining the following risk mitigation factors:

I. **Minimum cash percentage:** a minimum cash percentage (ZAR or FX) will be applicable across all trading members and clients i.e. only a certain percentage of initial margin may be collateralised with securities
II. **List of eligible security and FX types:** only a certain set of highly liquid securities and FX collateral types will be eligible for pledging
    I. This eligible list of securities and FX will be monitored and updated on a regular basis
III. **Valuation haircut:** will state how much additional collateral is required to be pledged for a particular collateral type e.g. 102% required for USD cash collateral (i.e. 2% valuation haircut)
IV. **Maximum value per security (ISIN):** a maximum amount that can be pledged per security will be set across all trading members and clients e.g. a maximum of R1 billions of Naspers shares may be pledged per client.

The values of the above mentioned risk management factors are planned to be finalised closer to the go-live date (Q1 2018), however in order to assist clients in planning their take-up of this service, the following indicative values may be considered:

Risk Management Factor	Indicative Value
Minimum cash percentage	JSE Clear will stipulate, per participant, the minimum proportion of obligation that must be covered by ZAR cash. This proportion is to be set at 40% at inception of the service. JSE Clear plans to decrease this proportion over time and anticipates that the minimum ZAR cash amount will not be set lower than 20%. This proportion may change from time to time.
List of eligible securities	Only a subset of SA government bonds and SA listed equities will be eligible to post as collateral. The bonds that may be used to cover margin obligations will be the constituents of the GOVI index. Constituents of the TOP40 index will be the eligible equities. Initially only bonds will be accepted, after which a subset of the TOP40 will be accepted. Finally, when processes have proved to be resilient, the full set of eligible equities will be accepted.
Valuation haircut	In the interest of providing a stable haircut to the market and to align with other areas of the industry, the anticipated haircut on bonds will be 10% and for equities it will be 15%. This will apply to all ISINs.
Maximum value per security (ISIN)	JSE Clear will publish the maximum amount of each eligible ISIN that may be pledged, this will be related to the particular security's liquidity.

Corporate actions on pledged securities

As a result of the 'pledge' mechanism being used for the posting of securities collateral, resulting outcomes of all corporate actions on pledged securities will be entitled to the collateral giver e.g. dividend proceeds will be paid directly to the collateral giver

The impact of corporate actions on pledged securities may result in two possible outcomes:

- Pledged securities become ineligible and need to be substituted with cash or other eligible securities
- Pledged securities remain eligible and are revalued accordingly

In the event that pledged securities become ineligible as a result of a corporate action, the JSE will send out a market notice well in advanced to all impacted clients advising to start substituting out these securities

In addition, the JSE may gradually start to limit the amount of these securities that may be pledged a few days leading up to last date of trade (LDT).

Primary Stakeholders

HK then briefly highlighted that the initial margin amounts confirmed by JSE Clear with Clearing Members as part of the daily end-of-day process. Then the allowable securities margin amount will be sent to Strate per Client and Trading Member for securities collateralisation. Utilising the tri-party securities collateral service, Strate will allocate or release securities as available in Client and Trading Member SDA accounts.

The CSDPs are then required to commit to all security pledge and release requests in order for them to be valid. Thereafter, the JSE will determine the remaining cash amount required (i.e. total margin required less pledged securities) and once clearing members confirm the cash breakdown i.e. ZAR and FX, cash settlements are done via the settlement banks and authorised dealers.

Client Enablement

HK concluded by informing the committee on the steps to be followed by clients to be enabled for securities collateral service:

Step 1: Contact trading member or clearing member to initiate enablement process
Step 2: Contact existing/new CSDP to create a new Segregated Depository Account (SDA) at the CSD (Strate)
Step 3: Complete necessary securities collateral enablement forms and submit to Strate
Step 4: Receive confirmation from Strate once client accounts are loaded into their collateral management system and linked to the client's JSE derivatives account
Step 5: Transfer eligible securities into newly created SDA at Strate.

Loading of new client accounts onto the Strate collateral management system is limited to 3 to 5 clients per business day. HK advised that Clients wishing to make use of the securities collateral service should sign-up as soon as possible to avoid on-boarding delays.

SSF WORKING GROUP UPDATE

VR reported that the SSF Working Group held its second meeting on 6 June 2017. She then presented the two main observations of the SSF Working Group on the challenges in reviving the Single Stock Futures On-Screen market, namely: **(1)** transparency of trade activity to improve price discovery and **(2)** fee structures and pricing. VR then presented the recommendations of the SSF Working Group, namely:

a) Introduce a Spot Price reference linked to Reported trades.
b) In the short-term proposal is to do away with the current maker-taker model and provide relief for current market maker (s).
c) Look to introduce a formal market making scheme with obligations and incentives. That would need to be coupled with an aggressive marketing drive, firstly to attract market makers and secondly to grow the market.

She added that the group also felt that if a healthier On-Screen market was thus achieved and then the first request - bullet (a) above - may not need to be enforced. She closed off by noting that Capital Markets has had no objections from Regulation, however they would want a market-wide consult and approval to adopt.

From the above, FDAC discussed and agreed on the following:

a) *Spot Reference* on Report Only trades adopted but deferred in order to first monitor the impact of the point (b) and (c) above once implemented.
b) Market-Taker price model to be discontinued once systems impact has been ascertained and EXCO sign-off secured.
c) Introduction of a formal Market Maker Scheme with obligations, 80% time on Book and no minimum size requirement.
d) Market Maker scheme to begin with a limited set of underling universe, ALSI and 20 most liquid of the Top 40 shares.
e) Review of the contract size multiplier (100) referred back to JSE to consider impact on systems, corporate actions and on Option as a product class.
f) Market Maker incentives would not include rebates on ALSI, DTOP or other indirect cross product rebates.

g) SSF rebates alone would not be sufficient as market making is costly in terms of systems and resources, the JSE would have to consider other means to incentivise market makers.
h) JSE to consider Total Future Return as an additional product to offer in the market as there is demand.

MONTHLY EXPIRIES UPDATE

VR informed the FDAC about the internal approval and prioritization of the monthly expiries "*monthlies*" launch with ITAC Q1 2018 go-live. The monthlies will follow the same methodology as the current quarterly single stocks and index futures/options re:

1. Third Thursday of each expiration month (to default to previous day if public holiday) , and
2. Future-Close-Out (FCO) auction process that start at 12pm

VR asked whether the monthlies' launch can be implemented sooner in Q4 2017 rather than later for pre-selected indices like ALSI and DTOP, and their constituents.
The Calender spreads will remain on quarterly expiries; Mar, Jun, Sept and Dec due large number of permutations, but may be considered on ad-hoc basis. A member of the committee suggested that the Calender spread be introduced just for the near month expiry and next near month expiries.
DN mentioned that, there is a strong view and consensus that the monthlies will bring more liquidity to SSF markets. A member of the committee suggested that the committee members should provide a list of limited number of constituents that they would like to see being included in monthlies for Q4 2017 launch. The FDAC agreed on this proposal.

ITAC UPDATE

History & Background

The JSE recognized the need to invest heavily in derivatives and essentially catching up 15 years of under investment through the ITaC Project. The upgrade would offer a single platform for trading and clearing multiple asset classes.
The current integrated solution would not allow us to implement Trading without Clearing and vice-versa. The project was officially launched in Q1 of 2015 and there has been many working groups since then with the first one held in

JSE Status

ITAC project 1a (Equities upgrade and base for trading derivatives) has been implemented successfully on 26 September 2016.
Project 1b's development and system testing has been completed. The JSE is currently in consolidated testing phase of the project. The project is on track for Q1 2018 go-live. The JSE conducted an engagement session with some key stakeholders on the 26th of July where 6 themes were raised:

1. Costs
   a) Increased costs with risk of broker consolidations
   b) At this stage, the JSE is not able to offer a front end that works from a commercial, risk and legal perspective
   c) The JSE is not able to offer a front end that works from a commercial, risk and legal perspective and has thus been looking at how clients can be assisted. Some of the initiatives being investigated are to give monthly credits for a short period of time post ITAC go-live, waiving connectivity fees and possibly discount some of the derivatives data fees.

2. Software Provider (SWP) Readiness - concern around readiness and conformance of software providers as well as information arbitrage between JSE, SWP and end client

   a) There is at this stage only one clearing solution provider. Two other software providers have clearing solutions operating internationally and would be happy to provide services into SA but need to have a client to be able to justify to their principals the business case.
   b) Trading SWPs have Indicated they will be ready – 1st SWP Dress Rehearsal is only in Oct; 1st Market Dress Rehearsal is only in Nov
   c) Conformance in progress by SWPs – RTC 2 passed; 2 Trading passed; 3 Market Data Passed. Others scheduled for August.
   d) JSE looking to bring conformance dates for Trading earlier than before SWP DRs in Oct

3. JSA and unlimited liability with no sight of costs
   a) Agreement doesn't bring in additional liability; liability existed regardless of whether an agreement was in place or not
   b) Agreement spells out how certain situations would be dealt with and caps liability in certain circumstances

4. Timelines - fear of convergence of several big projects at once, fear that ITaC timelines will slip, fear that testing will be cut short just to make the timelines
   a) The JSE view is that in the event there is a go-live date conflict, ITaC will take priority over Bond ETP
   b) Currently proposing extending the VCMT phase by 3 weeks to end on 15 Sep 2017 (previously ended 25 Aug)
   c) Currently proposing moving MCMT to now be from 2 Oct to 24 Nov 2017 (previously was 11 Sep to 10 Nov 2017). Clearing members have indicated banks freezes don't affect ability to continue testing during this time or into December 2017
   d) JSE will consider input from Clearing Members on SWP deliver dates and determine whether further adjustment is needed

5. End of day re-run
   a) There are a number of features being introduced in the ITaC solution that eliminates the historical causes for needing a next day EOD rerun. The JSE will be engaging clearing members in detail on this.

Three workshops will also be scheduled and those are:

1. JSA
2. Commissions
3. End of Day Processing and Timing

WMCO RATE DISCUSSION

VR briefly communicated and advised the FDAC members that this discussion will be taken off-line with relevant members.

GENERAL

AK informed the FDAC that at Future-Close-Out (FCO) date, every option trader has 20 minutes period to exercise or abandon the option with open position and that time starts as soon as the FCO prices have been published. AK suggested a change to this current 20 minutes period due to inconsistency in publishing the FCO price at every FCO date. He proposed that, with ITAC implementation in Q1 2018 the time until exercise or abandoning of option be set to a fixed time stamp of 1:15pm, and should the FCO prices delay then the exercise/abandoning of the option will shift accordingly. It was agreed that a broad based market consultation be conducted in order to get a market consensus.

A member of the committee suggested that the JSE should look into the total return swap (TRS) market that is growing fast in the OTC space with trades generally ranging at about R500 million to R2 billion. However, the total return swaps have no caps at the moments therefore it is expensive to book and unwind the trade. He suggested that the JSE should make means and explore the TRS opportunity. DN thanked the committee member for the suggestion and agreed to look into it with all other functionality the JSE is working on.

DN thanked all the FDAC members and adjourned the meeting.