

What is Veritaseum?What is Veritaseum Offering?Veritaseum's Centralized SolutionsVeritaseum's Distributed Solutions

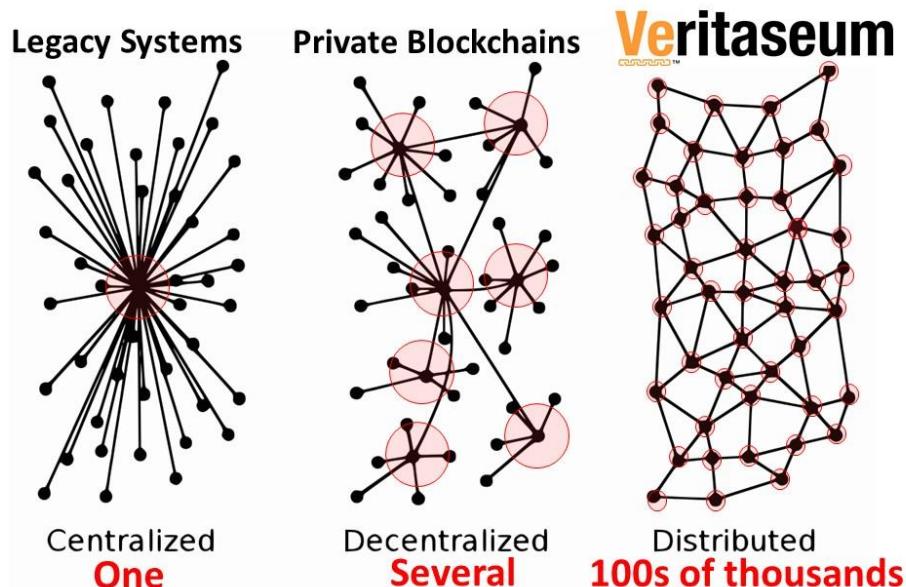
## What is Veritaseum?

Veritaseum builds blockchain-based, peer-to-peer capital markets as software on a global scale. We are taking a wide swath of assets and exposures and placing them on the blockchain as autonomous software that seamlessly connects to parties without the need for a 3rd or authoritarian interest. Any entity with internet access can participate in these capital markets on a peer-to-peer, over-the-counter, and one-on-one basis.

## What is Veritaseum Offering?

Veritaseum software will have two major components - centralized and distributed.

### Points of Successful Attack Needed to Compromise the Network



This is an informational paper and it, nor any of its addendums, should not be considered a solicitation - general or otherwise - for the sale of securities or investments. VeApps: the smart contract-based suite of distributed software applications facilitates peer-to-peer, over-the-counter transactions between two consenting parties, and are not designed to be used as a securities or investment exchange.

## Veritaseum's Centralized Solutions

The centralized software platform is designed to cater to existing institutions that are not prepared to take the full leap into distributed capital markets systems. It will run on servers under the control of the client, i.e. the Jamaica Stock Exchange, if they were to enter into a formal agreement with Veritaseum.



A drilldown of the Veritaseum centralized solution for legacy institutions reveals two components:

1. A centralized digital asset exchange designed to be used by an exchange or prime brokerage entity
2. A “smart arbitrage” software component designed to provide cross platform liquidity. An example would be an exchange, i.e. JSE, employs the centralized solution above to trade popular platform-based digital assets such as Bitcoin, Ethereum, Dash and Ripple as well as USD and Jamaican dollars (JMD). The Veritaseum “smart arbitrage” liquidity component determines that the path through USD to JMD to Ethereum to Bitcoin yields a 20bp pricing advantage over the straight purchase of BTC with USD.

## Veritaseum's Distributed Solutions

Our distributed solutions utilize a very unique approach that is research and analysis-based. Forensic, fundamental and macro analysis are the building blocks of the design of various Veritas (the Veritaseum software keys needed to access our financial machines) sub-tokens created to serve very specific purposes.

The Veritas sub-token creation process:

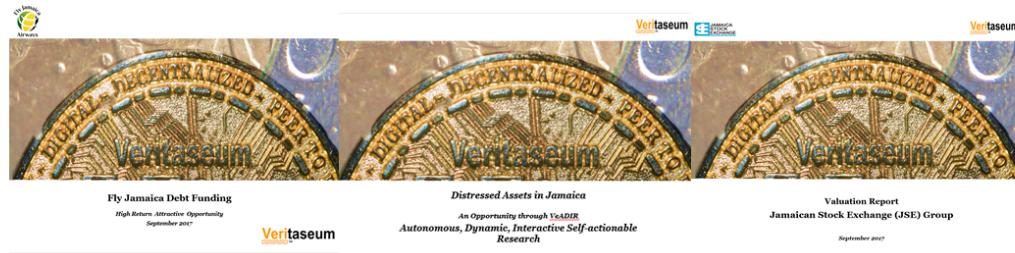
1. Goals are communicated to the Veritaseum team by the Veritaseum client/customer

This is an informational paper and it, nor any of its addendums, should not be considered a solicitation - general or otherwise - for the sale of securities or investments. VeApps: the smart contract-based suite of distributed software applications facilitates peer-to-peer, over-the-counter transactions between two consenting parties, and are not designed to be used as a securities or investment exchange.

2. Veritaseum financial analysts, macro strategists and financial engineers create a construct and analytical framework that supports said construct, along with the fundamental and macro research that facilitates the construct.
3. The financial construct is passed on to the Veritaseum software developers and engineers to create the software token and the smart contracts that support the business processes and logic espoused in the construct through the financial analysis.
4. The software token is issued directly to the Veritaseum customer for direct P2P, OTC transfer (again, the Jamaica Stock Exchange makes a perfect prospective client) or to hold - and/or through the appropriate financial machine, i.e. the VeADIR.

This is an informational paper and it, nor any of its addendums, should not be considered a solicitation - general or otherwise - for the sale of securities or investments. VeApps: the smart contract-based suite of distributed software applications facilitates peer-to-peer, over-the-counter transactions between two consenting parties, and are not designed to be used as a securities or investment exchange.

1  
Veritaseum analysts research opportunities & financially engineer deals

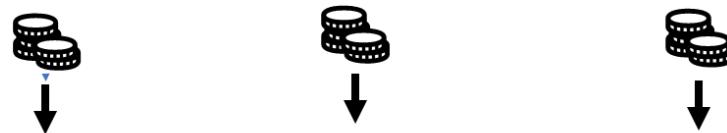


2  
Veritaseum "Veritizes" the deals that are of value to clients by putting them on the blockchain as Veritas sub-tokens

Veritas  
Fly Jamaica Structured Debt tokens, ie. advanced funding for Jamaican companies & infrastructure projects

Veritas  
Distressed Real Asset & Tourism Property tokens

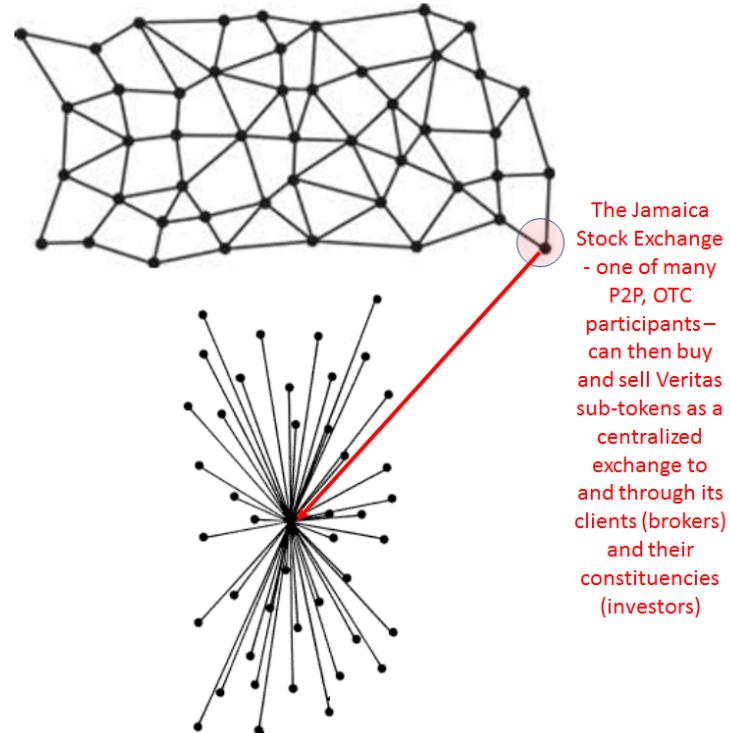
Veritas  
Jamaica Stock Exchange Equity Tracking tokens



3  
Veritized assets are added to the public blockchain



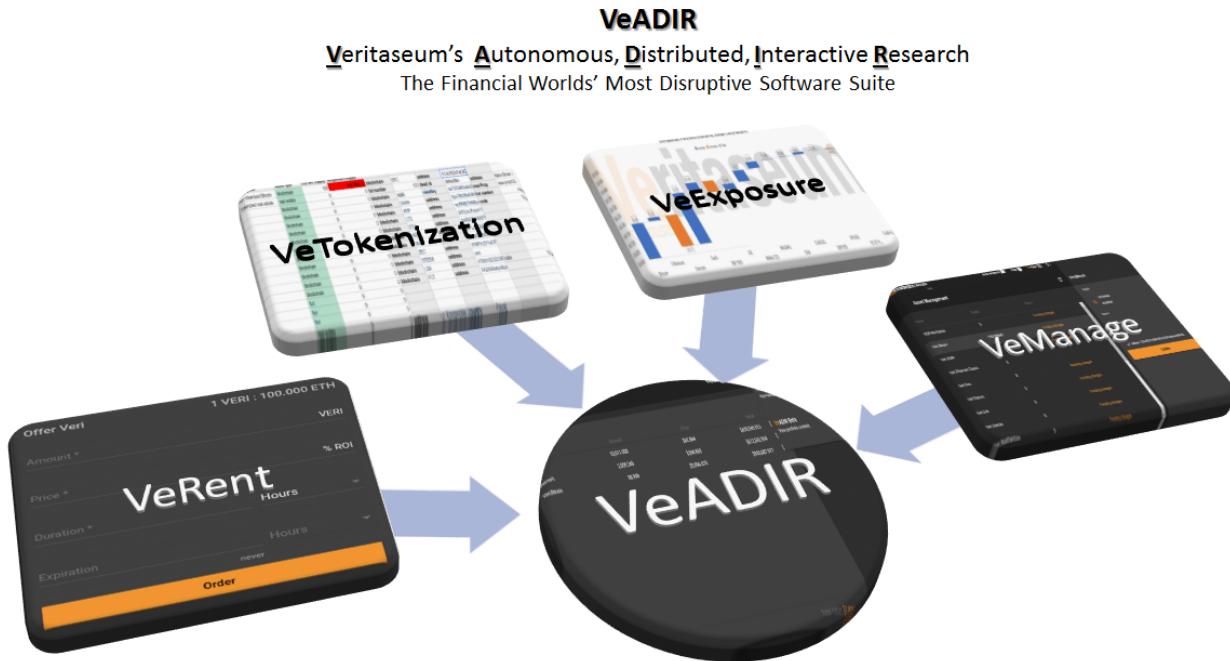
4  
Anyone with internet access can gain exposure to, and/or purchase select Veritized assets as Veritas sub-tokens on a P2P & OTC basis. This means that these exposures and assets can be purchased by, sold by, and attained individuals, entities & institutions without 3rd party assistance, without 3rd party credit and counterparty risk, and without settlement & clearance issues – and most importantly, without 3rd party fees! It is akin to a seller selling a house to a buyer without a broker, agent or bank standing in between. These tokens will also be available to clients (brokers) and brokers clients (investors) of the Jamaica Stock Exchange



Our autonomous products and services sit above the centralized offerings that are designed to ease legacy institutions into the new digitally distributed paradigm. Nearly all of them are ensconced within our research and analysis, which acts as the basis for the creation of the input to the financial machines.

This is an informational paper and it, nor any of its addendums, should not be considered a solicitation - general or otherwise - for the sale of securities or investments. VeApps: the smart contract-based suite of distributed software applications facilitates peer-to-peer, over-the-counter transactions between two consenting parties, and are not designed to be used as a securities or investment exchange.

Ideas that are believed to be of value are “Veritized”, converted into Veritas sub-tokens, and entered into our financial machines. The first financial machine to released is the VeADIR (Veritaseum Autonomous, Dynamic, Interactive Research).



The VeADIR is a suite of roughly one dozen smart contracts which drive software applications that are mostly fully distributed and live on the public blockchain. Currently, it consists of about 2300 lines of efficiently written solidity code, and about 800 lines or so of GUI and supporting code. The VeADIR is in rapid development, with several parts currently undergoing public and private beta testing.

Each major function of VeADIR is compartmentalized.

1. **VeADIR:** An autonomous software construct and Financial Machine that exists to gain exposure to assets and opportunities that allow it to grow its asset base through positive risk adjusted returns. All asset exposure acquisitions are research driven.

This is an informational paper and it, nor any of its addendums, should not be considered a solicitation - general or otherwise - for the sale of securities or investments. VeApps: the smart contract-based suite of distributed software applications facilitates peer-to-peer, over-the-counter transactions between two consenting parties, and are not designed to be used as a securities or investment exchange.

The screenshot shows two views of the Veritaseum VeADIR software. The top view displays a portfolio content table with the following data:

Name	Amount	Price	Value
Veri.Bitcoin	98.999	\$6,603.530	\$653,747.099
Ethereum	2,009.240	\$297.416	\$597,580.123
VERI	10,011.000	\$49.603	\$496,577.635
Populous	1,000.000	\$3.592	\$3,592.040
OmiseGo	200.000	\$6.475	\$1,295.056

Assets Count: 5 Total Value: \$1,752,791.954

The bottom view shows a detailed view of a token balance on Etherscan. A red arrow points from the 'Value' column in the portfolio table to the 'Token Balance' field in the Etherscan interface. The Etherscan interface shows the following details:

- ERC20-TOKEN Veri.BTC
- Token Holder: 0x644638B89345A0a760Ec1221DDA463EDc9100BF
- Contract Address: 0xa549ef3164556c3tba1680798032h993c2320b
- Value per Token: \$0.00
- Token Decimals: 18
- Official Links: Not Available, Update ?
- Search/Filter By: [Reset Filter]

Assets Count: 5 Total Value: \$1,884,515.888

Click [here to see the VeADIR](#) running on mainnet (must use a desktop OS and Firefox, Chrome or Safari).

2. **VeRent:** An interface and facility that allows exposure seekers and buyers to acquire or rent Veritas tokens, which are needed to access the Veritaseum Financial Machines, namely the VeADIR software suite.

This is an informational paper and it, nor any of its addendums, should not be considered a solicitation - general or otherwise - for the sale of securities or investments. VeApps: the smart contract-based suite of distributed software applications facilitates peer-to-peer, over-the-counter transactions between two consenting parties, and are not designed to be used as a securities or investment exchange.

**Veritaseum Rent App**

Beta

Get VERI Tokens      Offer VERI Tokens

Offers		
Amount	Duration	P
0.01	3d	7
0.01	3d	7
0.01	15d	8
0.01	1d	8

Recent rentals		
Amount	Duration	P
0.001	6m	12
0.001	6m	12
0.002	6m	12
0.001	6m	8

My offers

Amount	Duration	Price	Value	Expiration ^
0.01	8.000%	1.000 ETH	0.613%	14d 23h 56m

Please confirm before continuing

You are about to submit an order to Veritaseum Rent app. By confirming the transaction you are sending the specified amount of Ether from your Metamask wallet to the rental contract.

Your order will be visible shortly in "My offers" table, after it has been included on the blockchain. You can cancel your orders by clicking on the trashcan icon in "My offers" table.

When your order is matched, a VeADIR exposure is opened. You can view your exposures in the "Opened exposures" table. Once the exposure is closed, it is moved to "Closed exposures" table. In order to settle a closed exposure and withdraw your funds, click on the dollar icon next to it.

The app works fully on Ethereum blockchain which requires "gas" to execute any operation on it. This incurs cost to the user in the form of transaction fee.

Don't show again      **Continue**

**Veritaseum Rent App**

Beta

Get VERI Tokens      Offer VERI Tokens

Opened exposures

Amount	Price	Value	Projected ROI	Time Left ^	Status
0.01	8.000%	1.000 ETH	0.613%	14d 23h 56m	Open

Closed exposures

Amount	Value	ROI	Status
No data to display			

**My Account:** 99.911 ETH      0.000 VERI      0.290 VERI

Get Veri      1 VERI : 100.000 ETH

Amount \*      VERI

Price \*      % ROI

Duration \*      Hours

Expiration      Hours

never

**Submit**

**VeRent:** 0x1ff4...a1c3

This is an informational paper and it, nor any of its addendums, should not be considered a solicitation - general or otherwise - for the sale of securities or investments. VeApps: the smart contract-based suite of distributed software applications facilitates peer-to-peer, over-the-counter transactions between two consenting parties, and are not designed to be used as a securities or investment exchange.

The screenshot shows the Veritaseum Rent App interface. At the top, there are tabs for "Get VERI Tokens" and "Offer VERI Tokens". Below these are sections for "Offers" and "Recent rentals". The "Offers" section has columns for "Amount", "Duration", and "Price". The "Recent rentals" section also has columns for "Amount", "Duration", and "Price". On the right side, a modal window titled "History" lists several events: "Get Veri offer added a day ago", "Offers matched a day ago", "Funds exposed a day ago", "Renter settled a day ago", and "Renter settled a day ago". Below the modal is a form for "Offer Veri" with fields for "Amount", "Price", "Duration", "Expiration", and a "Submit" button. At the bottom right, it says "VeRent: 0x1ff4...a1c3".

Click [here to see VeRent](#) running on mainnet (must use a desktop OS and Firefox, Chrome or Safari).

3. **VeTokenization:** An automated facility that spins up a custom Veritas sub-token whenever presented with an asset, opportunity or exposure by the VeADIR.

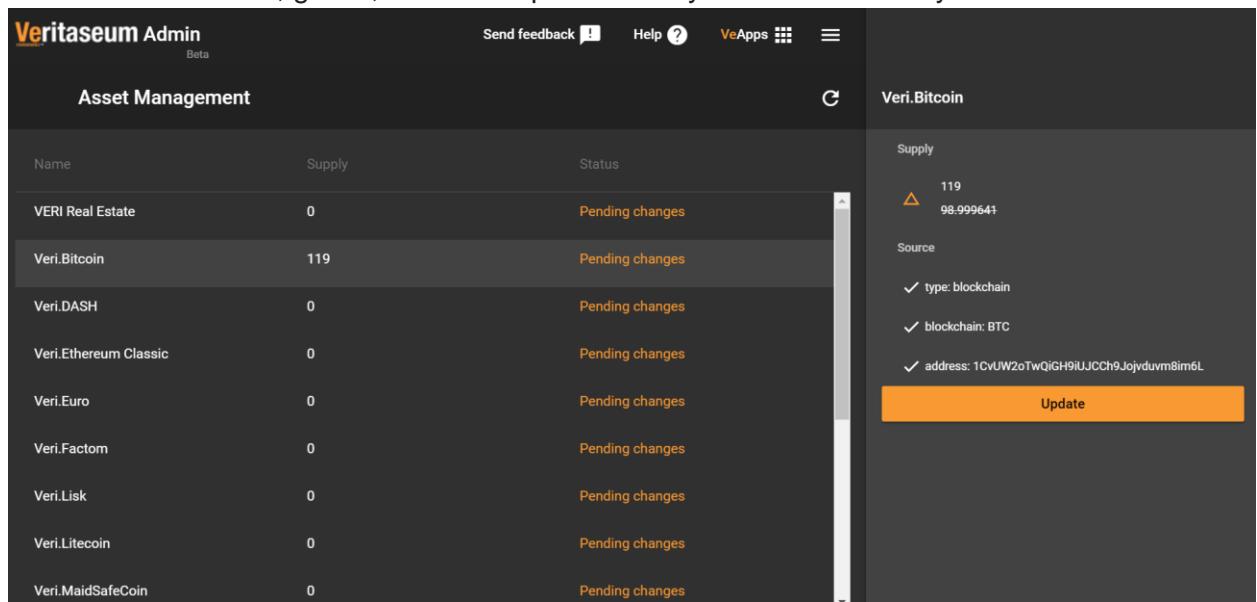
Symbol	Name	Description	Asset type	Current supply	Requested supply				
VERI.BTC	Veri.Bitcoin	Veri tokenized Bitcoin	blockchain	119	119	blockchain	BTC	address	1CvUW2oTwQiGH9l
VERI.XMR	Veri.Monero		blockchain	0	0	blockchain	XMR	viewKey	b470756f0be9d5 new
VERI.DASH	Veri.DASH		blockchain	0	0	blockchain	DASH	address	Xjcx7B2MwD4N lot
VERI.XRP	Veri.Ripple		blockchain	0	0	blockchain	XRP	address	rsyRMBjTbNiByv cod
VERI.LTC	Veri.Litecoin		blockchain	0	0	blockchain	LTC	address	LKRJJuFokoY1
VERI.ETC	Veri.Ethereum Classic		blockchain	0	0	blockchain	ETC	address	0x06936f4495FF
VERI.XEM	Veri.NEM		blockchain	0	0	blockchain	XEM	address	NAYLj6KQ6D6S
VERI.MAID	Veri.MaidSafeCoin		blockchain	0	0	blockchain	MAID	address	1Pjg628yjMLBvA
VERI.ZEC	Veri.Zcash		blockchain	0	0	blockchain	ZEC	address	t1WRYc2Y1aCK
VERI.STEEM	Veri.Steem		blockchain	0	0	blockchain	STEEM	address	veri
VERI.LSK	Veri.Lisk		blockchain	0	0	blockchain	LSK	address	47681182323385 cod
VERI.FCT	Veri.Factom		blockchain	0	0	blockchain	FCT	address	FA2XX8a4pdXpa
VERI.EUR	Veri.Euro		fiat	0	0				
VERI.GBP	Veri.Pound		fiat	0	0				
VERI.CNY	Veri.Yuan		fiat	0	0				
VERI.Estate	VERI Real Estate		real estate	0	0	address	ul. Konopnickiej 1, country	Poland	

4. **VeExposure:** A facility that allows those who have gained access to the VeADIR through possession of the Financial Machine's access keys (VERI) to gain access to the exposures held therein.



This is an informational paper and it, nor any of its addendums, should not be considered a solicitation - general or otherwise - for the sale of securities or investments. VeApps: the smart contract-based suite of distributed software applications facilitates peer-to-peer, over-the-counter transactions between two consenting parties, and are not designed to be used as a securities or investment exchange.

**5. VeManagement:** An administrative interface to manage exposures while the VeADIR software suite learns, grows, and develops into a fully autonomous entity.



Asset Management			G	Veri.BTC
Name	Supply	Status		Supply
VERI Real Estate	0	Pending changes		119 99.999641
Veri.BTC	119	Pending changes		Source
Veri.DASH	0	Pending changes		✓ type: blockchain
Veri.Ethereum Classic	0	Pending changes		✓ blockchain: BTC
Veri.Euro	0	Pending changes		✓ address: 1CvUW2oTwQlGH9iUJCCh9Jojvduvm8im6L
Veri.Factom	0	Pending changes		Update
Veri.Lisk	0	Pending changes		
Veri.Litecoin	0	Pending changes		
Veri.MaidSafeCoin	0	Pending changes		

The following describes a material part of the solutions that we are offering institutions during the 4th quarter of 2017. Please be aware that this is an institutional, P2P and OTC product, akin to a real estate purchase between two institutions. It is not intended to be a security nor an exchange. The VeADIR is the product that was demonstrated to the Jamaica Stock Exchange.

VeADIR is an interactive, digital **research vehicle that offers exposures to its vetted research subjects.** The research takes advantage of distributed ledger (blockchain) and smart contract technology in that it can be both dynamic and applied. This means the research can and will be actionable by this independent construct in near real time. VeADIR is independent from Veritaseum in manner and action. As such, it **makes decisions separate and apart from Veritaseum** or other entities and it must be considered autonomous and sovereign in its actions and existence.

Communication is performed in machine language to and from the VeADIR summarizing the **token purchases, distributions, valuation forensics and market liquidity.**

The VeADIR will pay operating fees to Veritaseum (tokens, either USD-locked or other) for real world research. Veritaseum then feeds research results to VeADIR.

Either other smart contracts/constructs (likely preferable, wherein VERI holders can purchase access) or specialized wallets can be used to convert said machine language into lay person readable human language.

Users pay VERI to the VeADIR to receive the contract-processed research that the VeADIR purchases from Veritaseum in machine language. *This is likely in the form of what is the most promising blockchain based assets.*

This research will look like this in the case of an entity-based token offering (VeADIR will purchase a wide plethora of assets, i.e. from distressed credits to digital platform tokens):

This is an informational paper and it, nor any of its addendums, should not be considered a solicitation - general or otherwise - for the sale of securities or investments. VeApps: the smart contract-based suite of distributed software applications facilitates peer-to-peer, over-the-counter transactions between two consenting parties, and are not designed to be used as a securities or investment exchange.

Weighting

Token

Value: Overpriced (float)

Cashflows: Sparse (float)

Market: float

Management team:

Competition:

Short

Full financials?

Valuation analysis

Trends?

---

GNO: overpriced, sparse initial cash flows, large potential market, large mgmt. team, strong competitors, short recommendation, full financials and valuation analysis will come with it. Trends and other easily recorded information can be sent to VeADIR, ex. ROI2.5%, eROE7.5%, Rev growth50%, DCFvalue=, compvalue-, etc. As well as an over recommendation, i.e. buy@ <=\$12, sell->18. Margin long, sell short, etc.

Execute a function on the **VeADIR** contract (**yes, no, no vote, 25%, 75%**) and have their choice weight according to the % holding of VERI tokens. The goal is to make sure that those asking the VeADIR questions incur a cost to do so, and the VeADIR benefits from said cost.

The VeADIR will then create a model portfolio with the excess assets/tokens that it has at hand, and offer that model portfolio along with the machine language research to the token holders on a periodic basis (e.g. weekly, monthly, quarterly, even potentially daily).

VeADIR makes predictable purchasing decision based on a proprietary algorithm.

*Veritaseum tokens allow VERI holders to trade research/model portfolios between and amongst themselves with real world assets as well as trading between various VeADIR constructs as well.*

That machine language comes back with pro rata portions of the actual tokens purchased as well as the option to purchase additional software (either another smart contract access or wallet) to read said machine code into human readable material.

## Step-by-Step Use Cases

Veritaseum codes VeADIR and initially funds it with assets (i.e. VERI, ETH, VERI.BTC and VERI.USD).

XYZ has an ICO coming up and petitions VeADIR for contribution - or -ABC Bank has distressed assets it's looking to move to re-enlist with its local exchange. It answers the simplified set of

This is an informational paper and it, nor any of its addendums, should not be considered a solicitation - general or otherwise - for the sale of securities or investments. VeApps: the smart contract-based suite of distributed software applications facilitates peer-to-peer, over-the-counter transactions between two consenting parties, and are not designed to be used as a securities or investment exchange.

binary and sliding scale questions, paying for admission to that financial machine in VERI, and it either passes or fails (let's assume it passes).

VeADIR then requests additional VERI for a full analysis from XYZ. (currently, approximately 1600 VERI and upon receipt passes the relevant info to Veritaseum (machine language).

Veritaseum then produces a report (like [this Ripple Report](#) or this [Jamaican Distressed Asset Report](#)).

VeADIR accepts researched info, acts on it through XYZ exchange (centralized legacy or decentralized P2P) or purchases assets directly from the seller, and optionally makes research available to token holders who contributed >xxxx VERI. *Those VERI contributors who opt to receive the "raw" research will have to interact with a separate smart contract to translate machine language to human readable text.*

VeADIR then buys/sells (via the Veritaseum Rental Facility) the tokenized assets. It can use ETH to make the purchase through its ETH reserve and/or USD-locked tokens based on Veritas derivatives such as Ve.USD.

The Veritaseum Rental Contracts allow for holders of Veritas tokens to rent their tokens (either on a contract basis or an economic basis) to those seeking exposure to Veritized assets. This broadens the availability of VeADIR to more institutions to use.

The research that the VeADIR consumes is comprehensive and utilitarian. Below are redacted excerpts of the research presented to the Jamaica Stock Exchange during the VeADIR research demonstration held for one of the top ten global exchanges. Of note is page 34 of this document which discusses the impact of the proposed JV between the JSE and Veritaseum. Also of note is the fact that this report does not discuss the impact of proposed legislation in Jamaica that will allow Jamaican institutions to take positions in foreign entities, which may have the effect of reducing aggregate demand for Jamaican domiciled entities traded on the JSE.

The management of the JSE has stated that the number of listed companies is now ~33% higher than that stated in this report, according to the most recent data.

In the spirit of full disclosure, Veritaseum has signed a Memorandum of Understanding to enter into a joint venture with the Jamaica Stock Exchange to build and operate digital asset exchange.

We have published the executed MOU below. Following it is the Veritaseum valuation report detailing the impact of Ve on the JSE through the JV.

This is an informational paper and it, nor any of its addendums, should not be considered a solicitation - general or otherwise - for the sale of securities or investments. VeApps: the smart contract-based suite of distributed software applications facilitates peer-to-peer, over-the-counter transactions between two consenting parties, and are not designed to be used as a securities or investment exchange.



This Memorandum of Understanding is entered into on the 29<sup>th</sup> day of June, 2017 between Veritaseum, LLC a company incorporated under the laws of Delaware with office located at 1460 Broadway, New York, NY (hereafter referred to as "Veritaseum") and the Jamaica Stock Exchange ("the Exchange") a company incorporated under the laws of Jamaica with registered office located at 40 Harbour Street in the Parish of Kingston. The parties intend to enter into a joint venture arrangement, hereafter referred to as "the Venture".

It is hereby understood and agreed as follows:

1. Duties of the Parties

a. On the part of Veritaseum:

Veritaseum will sell, lease, rent, or lend its Veritas tokens to the Jamaican Stock Exchange for the purposes of consulting on, advising on and building a digital asset exchange for the Joint Venture. The details of which are as follows:

i. A digital asset exchange for the Venture ("The Digital Asset Exchange")

- a. The software and technology to be used by The Digital Asset Exchange will be funded and built by Veritaseum, LLC and its contractors and subcontractors. Upon signing of this MOU by parties on or before June 30, 2017, Veritaseum anticipates the Digital Asset Exchange to go live by, or near August 31st, 2017.
- b. Veritaseum will share [redacted] % of the net revenues stemming from the operation of The Digital Asset Exchange with the Jamaica Stock Exchange.
- c. Veritaseum will, at the behest of the Jamaica Stock Exchange, co-brand The Digital Asset Exchange with a combination of Jamaica Stock Exchange and Veritaseum brands.
- d. Veritaseum will advise on recommended registration fees for Digital Asset Exchange which will be designed to boost the revenues of the Jamaica Stock Exchange.

b. On the part of Jamaica Stock Exchange

The Jamaica Stock Exchange agrees to the following:

1. To use its best endeavours to utilize the Jamaica Stock Exchange brand, the infrastructure, existing and future regulatory relationships and relevant personnel of the Jamaica Stock Exchange to facilitate The Digital Access Exchange;
2. To use its best endeavours to include, if required, any rules required to facilitate The Digital Access Exchange; and
3. To operate the Digital Access Exchange to the extent permitted by the law.

c. The relevant parties agree to facilitate the actions outlined above.

2. Duration

This MOU shall continue in effect for a period of one (1) year from the date of signing of this MOU and may be extended upon request by either party in writing and by consent by the parties in writing.

3. Relationship of the Parties



Nothing in this MOU shall be construed as creating a partnership, joint venture, agency or similar relationship between the parties. No party has the right or authority to bind the other party, including without limitation the power to incur any liability or expense on behalf of the other party without its prior written agreement, except as expressly set forth in this MOU.

4. Indemnities, Warranties and Limitation of Liability

Each party warrants its capacity to enter into this MOU and to participate in the activities contemplated herein. No party shall be held responsible for any cost or expense incurred by the other party in keeping with the terms of agreement or any policies and procedures established between the parties for the purpose of giving effect to this MOU.

5. Good Faith

- The Parties undertake to act in good faith under this MOU and to adopt all reasonable measures to ensure the realization of the objectives of this MOU.
- All parties are free to make this document public for the purposes of communication with their respective constituencies, stakeholders and partners on the condition that Paragraph 1, Section A, subsection I, a – lines 3 and 4 are redacted.
- This document is non-binding, and does not represent an obligation to perform the actions listed above, but rather an agreement of the intent of the parties and an understanding of each party's respective role in any future binding contractual relationships.
- Subject to 6. of this MOU the information supplied and/or obtained by each party to this MOU shall be treated in a confidential manner.

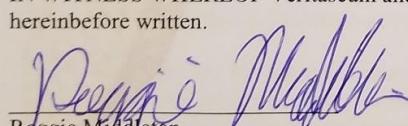
6. Confidentiality

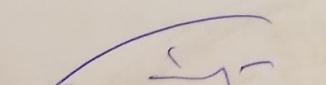
. Paragraph 5, section b describes matter that is confidential in nature.

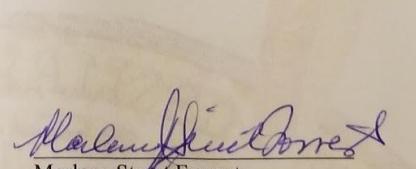
7. Amendment

Any changes, modifications, revisions or amendments to this MOU which are mutually agreed upon by and between the parties to this MOU shall be in writing and signed by authorized representatives of both parties.

IN WITNESS WHEREOF Veritaseum and the Exchange have duly executed this MOU on the day and year first hereinbefore written.

  
Reggie Middleton  
Founder  
Veritaseum

  
Ian McNaughton  
Chairman  
Jamaica Stock Exchange

  
Marlene Street Forrest  
Managing Director  
Jamaica Stock Exchange



**Valuation Report**  
**Jamaica Stock Exchange (JSE) Group**

*September 2017*

This is an informational paper and it, nor any of its addendums, should not be considered a solicitation - general or otherwise - for the sale of securities or investments. VeApps: the smart contract-based suite of distributed software applications facilitates peer-to-peer, over-the-counter transactions between two consenting parties, and are not designed to be used as a securities or investment exchange.



## Contents

- ✓ EXECUTIVE SUMMARY
- Jamaica Stock Exchange Group Profile
- Historical Financial Highlight
- Forecasted Financial Highlight
- Impact – JV with Veritaseum
- Valuation
- Appendix

## EXECUTIVE SUMMARY



- This document contains our views in connection with the valuation of Jamaica Stock Exchange (JSE)
- Based in Kingston, Jamaica, Jamaica Stock Exchange (JSE or "the Exchange") is the principal exchange in the country which was incorporated in 1968 and started its first official trading in 1969
- The Exchange is engaged in providing a trading platform for securities and operates in 3 core markets, namely – Main Market, Junior Market, & US Dollar Equities Market
- Jamaica Stock Exchange owns two operating subsidiaries, namely – Jamaica Central Securities Depository Limited (JCSD) and JCSD Trustee Services
- Over the years, the Exchange has grown both in volume and value terms. As of 2016, the Exchange had a total of 63 listed companies and a market capitalization of US\$6.2 billion (Main & Junior Market)
- In terms of top-line growth, the Exchange has been growing at a healthy rate in recent years.
  - Revenues of the Exchange reached US\$6.75 million in 2016, grew by 22% Y-o-Y, whereas net profits reached to US\$1.74 million in 2016
  - The net profit margin of the Company increased to 25.8% in 2016 from 24.7% in 2015
- Based on the prevailing market dynamics, JSE is expected to continue its growth trend in the coming years as well
- During the forecasted period of 2017-2022, net profit margin of the Exchange is expected to range between 26.2% to 45.6% under various topline growth scenarios
- Based on the various valuation approaches & scenarios, ***the Equity Value of the Exchange is estimated to range between US\$40.2 million to US\$1,190.1 million, implying per share value of JMS7.36 to JMS217.58*** (please refer slide xx for the detailed valuation scenarios)



## Contents

- Executive Summary
- JAMAICA STOCK EXCHANGE GROUP PROFILE**
  - Historical Financial Highlight
  - Forecasted Financial Highlight
  - Impact – JV with Veritaseum
  - Valuation
  - Appendix

## JAMAICA STOCK EXCHANGE GROUP *Overview*

### Company Overview

- Jamaica Stock Exchange (JSE or "the Company") is the principal exchange in Jamaica
- It was incorporated in 1968 and started its operation in 1969
- Main aim of JSE is to mobilize capital so that companies can grow, which in turn could lead to growth of the economy
- The Exchange operates through two subsidiaries, namely
  - Jamaica Central Securities Depository Limited and JCSD\* Trustee Services
- Mr. Willard Samms, Mr. Raglan I. Golding, Mr. Edward E. Gayle, Mr. Anthony Lloyd are the founding members of JSE
- JSE is governed by a board of directors which has the following composition
  - The Governor of the Central Bank ( Bank of Jamaica ) or his nominee
  - A representative of the Ministry of Finance
  - Three persons other than shareholders
  - Up to ten shareholders representing members

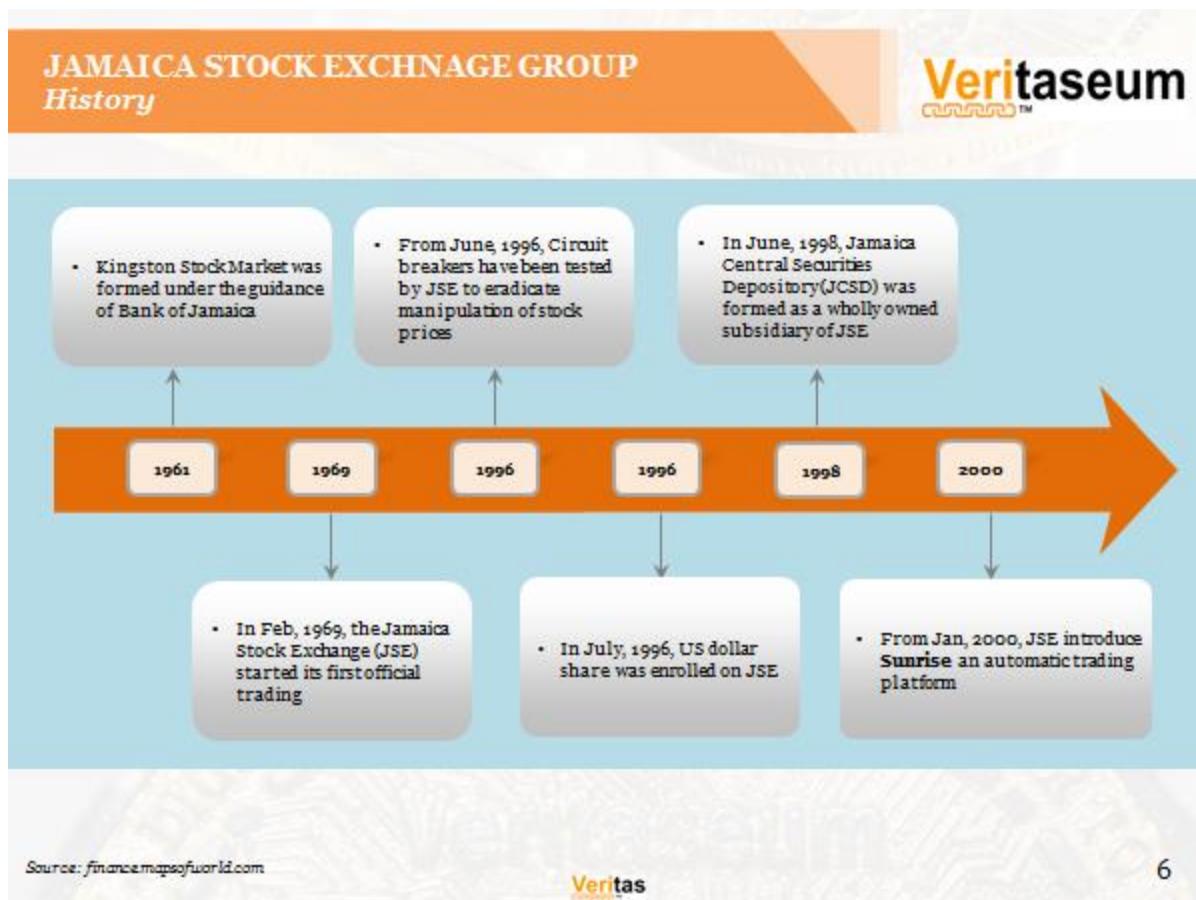
### Jamaica Stock Exchange

Type	Stock Exchange
Incorporated	1969
Subsidiaries	Jamaica Central Securities Depository Limited, & JCSD Trustee Services
Registered Office	40 Harbour Street, P.O.Box 1084, Kingston, Jamaica.



JCSD\* = Jamaica Central Securities Limited

This is an informational paper and it, nor any of its addendums, should not be considered a solicitation - general or otherwise - for the sale of securities or investments. VeApps: the smart contract-based suite of distributed software applications facilitates peer-to-peer, over-the-counter transactions between two consenting parties, and are not designed to be used as a securities or investment exchange.



This is an informational paper and it, nor any of its addendums, should not be considered a solicitation - general or otherwise - for the sale of securities or investments. VeApps: the smart contract-based suite of distributed software applications facilitates peer-to-peer, over-the-counter transactions between two consenting parties, and are not designed to be used as a securities or investment exchange.



**JAMAICA STOCK EXCHANGE GROUP  
Management Team**

Managing Director,  
JSE  
Mrs. Marlene  
Street Forrest



Deputy General  
Manager , JSE  
Mr. Robin Levy



Chief Regulatory Officer  
RMOD  
Mr. Wentworth  
Graham



Manager, IT  
& Systems  
Ms. Suzette  
McNaught



Financial Controller  
Mrs. Suzette  
Whyte



Manager, Market  
Operations & Trading  
Ms. Riccalya  
Robb



Manager, Depository  
Services  
Mrs. Kadell  
McNaught Horne



Manager, Human  
Resources Manager  
Mrs. Doreen  
Parsons Smith



Manager, Marketing  
Mr. Neville Ellis



Manager, Registrar  
Services  
Ms. Michelle  
Sirdar

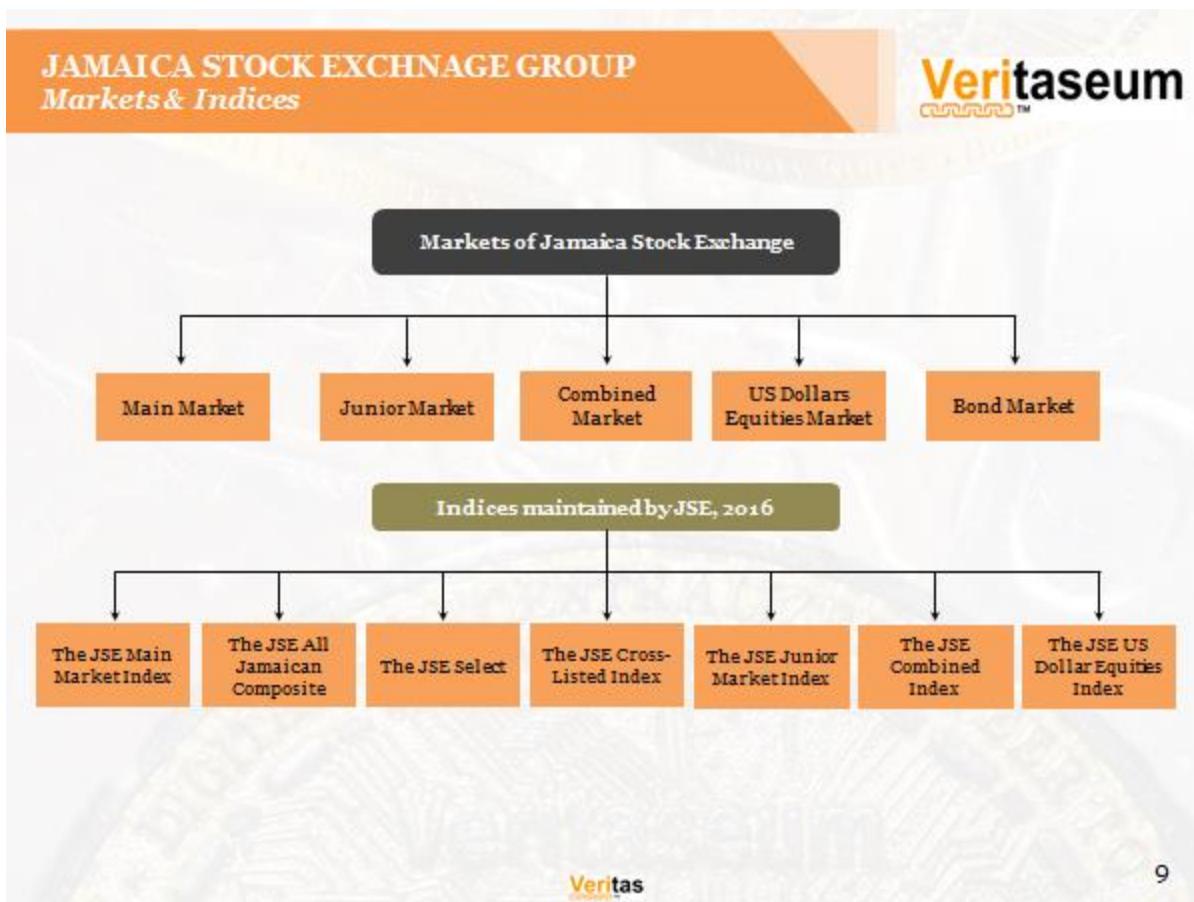


Manager, Retail Repo  
Division  
Ms. Suzette  
Fryce

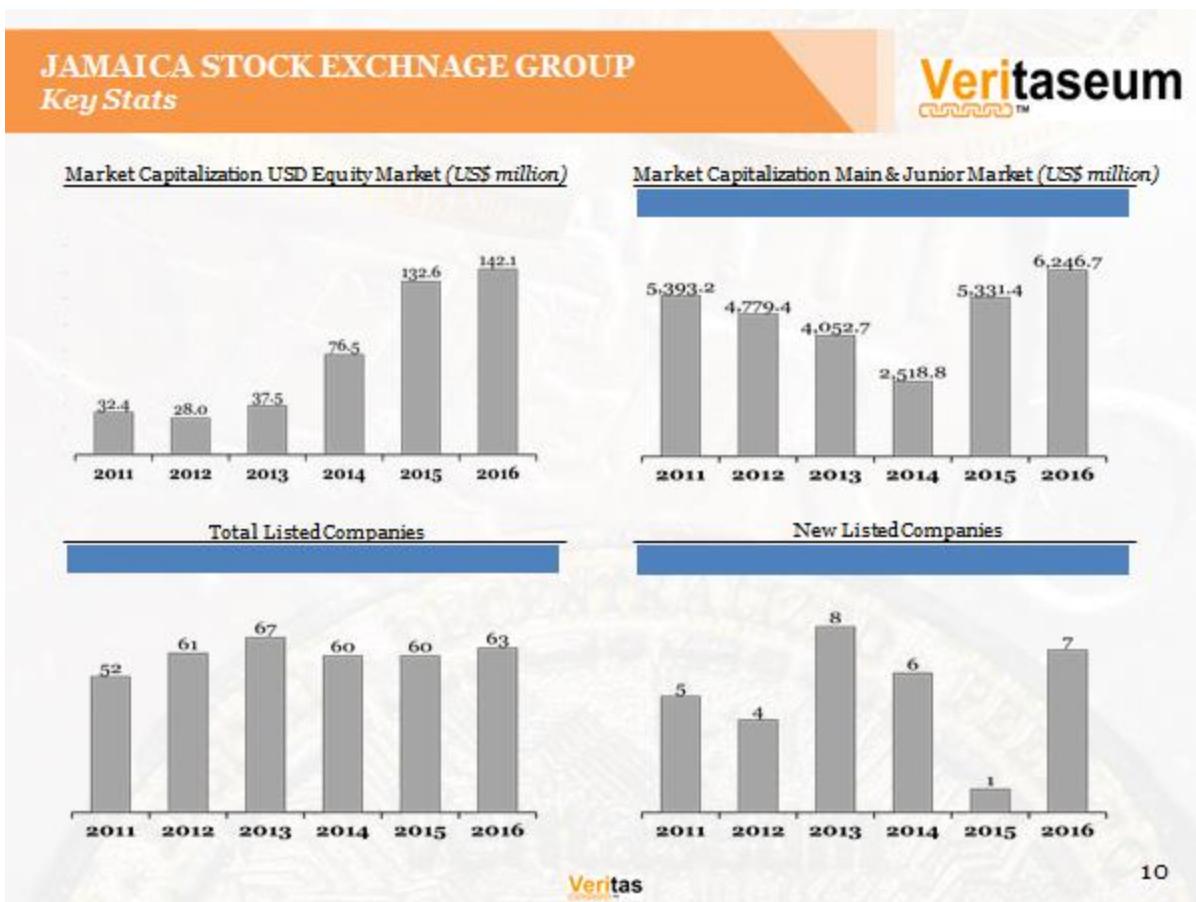


Manager, Trustee  
Services  
Ms. Andrea  
Kelly





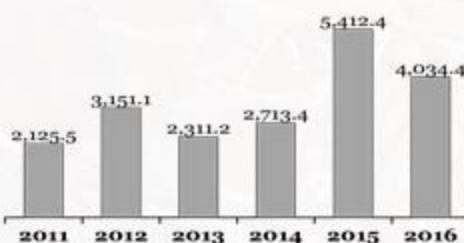
This is an informational paper and it, nor any of its addendums, should not be considered a solicitation - general or otherwise - for the sale of securities or investments. VeApps: the smart contract-based suite of distributed software applications facilitates peer-to-peer, over-the-counter transactions between two consenting parties, and are not designed to be used as a securities or investment exchange.



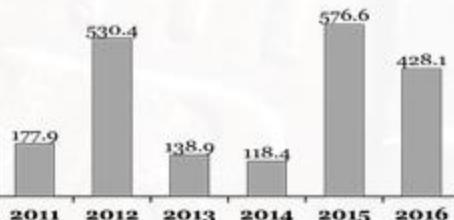
This is an informational paper and it, nor any of its addendums, should not be considered a solicitation - general or otherwise - for the sale of securities or investments. VeApps: the smart contract-based suite of distributed software applications facilitates peer-to-peer, over-the-counter transactions between two consenting parties, and are not designed to be used as a securities or investment exchange.

**JAMAICA STOCK EXCHANGE GROUP**  
*Key Stats... contd.*
**Veritaseum**

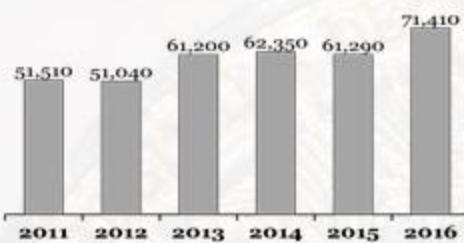
Reported Share Volume (Units in million)



Reported Dollar Value (US\$ million)



Total shares listed in Main &amp; Junior Market (million)



- As on 14th Sep 2017, 91 securities were de-listed from main market & 1 corporate bond from the bond market
- Total number of transactions on JSE Main market reached 21,767 in 2015 which grew approx. 41% to reach 30,698 transactions in 2016
- Total number of transactions on JSE Junior market reach 15,537 transactions in 2016 from 7,754 transaction in 2015

Veritas

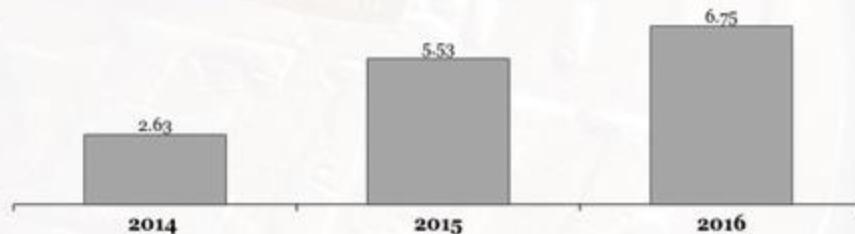
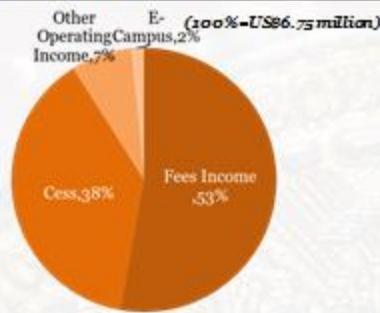
11

This is an informational paper and it, nor any of its addendums, should not be considered a solicitation - general or otherwise - for the sale of securities or investments. VeApps: the smart contract-based suite of distributed software applications facilitates peer-to-peer, over-the-counter transactions between two consenting parties, and are not designed to be used as a securities or investment exchange.



## Contents

- Executive Summary
- Jamaica Stock Exchange Group Profile
- HISTORICAL FINANCIAL HIGHLIGHT**
  - Forecasted Financial Highlight
  - Impact – JV with Veritaseum
  - Valuation
  - Appendix

**FINANCIAL HIGHLIGHTS**  
**Revenue****Revenues, 2014-2016 (US\$ million)****Revenue Breakup, 2016**

- Jamaica Stock Exchange Group generates revenues from 4 different sources – i.e. Cess, Fees Income, E-Campus & Others.
- In 2016, 56% of the total Group Revenues were contributed by Jamaica Central Securities Depository Trustee Services Limited

\*Others include: Other services & events of the group such as website charges conferences  
All figures have been converted to US\$ at DCD 1 = US\$ 0.0078



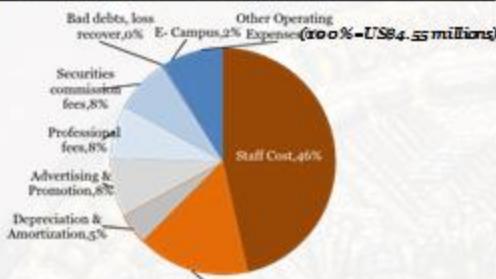
This is an informational paper and it, nor any of its addendums, should not be considered a solicitation - general or otherwise - for the sale of securities or investments. VeApps: the smart contract-based suite of distributed software applications facilitates peer-to-peer, over-the-counter transactions between two consenting parties, and are not designed to be used as a securities or investment exchange.

## FINANCIAL HIGHLIGHTS

### *Operating Expenses*

Operating expenses before strategic re-alignment expenses (US\$ million)

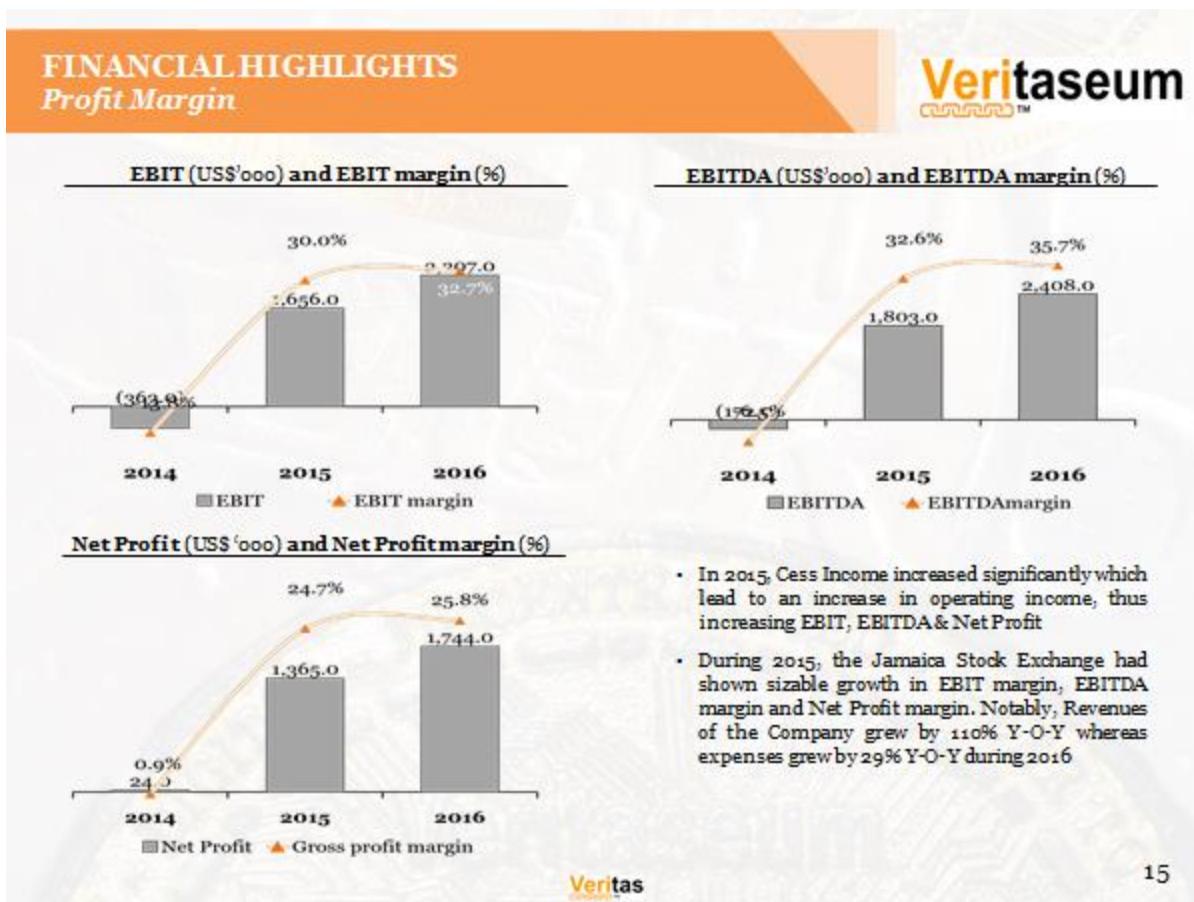
	2014	2015	2016
Staff Cost	1.34	1.68	2.13
Property Expenses	0.65	0.68	0.74
Depreciation & Amortization	0.19	0.15	0.21
Advertising & Promotion	0.22	0.33	0.38
Professional fees	0.28	0.28	0.35
Securities commission fees	0.10	0.37	0.36
Bad debts, loss recover	(0.02)	0.05	(0.02)
E- Campus	0.10	0.11	0.11
Other Operating Expenses	0.14	0.23	0.29
<b>Total</b>	<b>2.99</b>	<b>3.87</b>	<b>4.55</b>

**Operating Expenses Segment Wise, 2016**

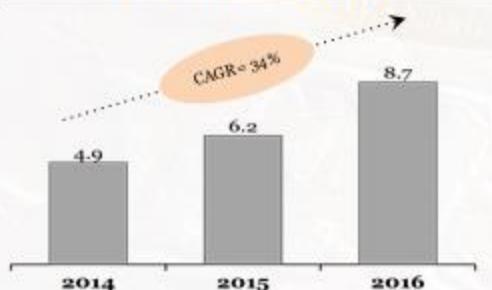
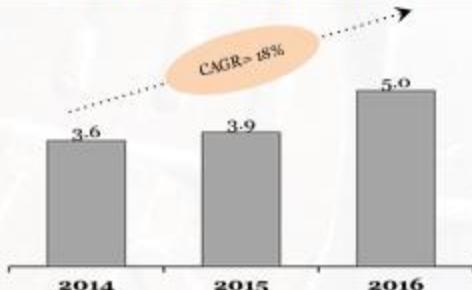
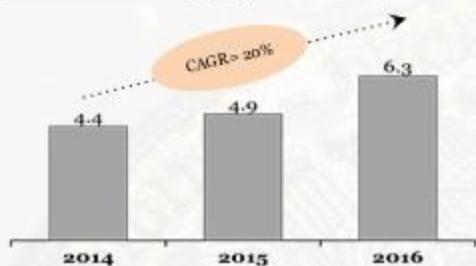
All figures have been converted to US\$ or JMD 1 = US\$ 0.0078

- Operating expenses of JSE are divided into nine categories - Staff cost, Property expenses, Depreciation & Amortization, Advertising & Promotion, Professional fees, Securities commission fees, Bad debts, E-Campus, Other Expenses
- During 2016, Staff cost was the largest component of operating expenses, followed by Property expenses

This is an informational paper and it, nor any of its addendums, should not be considered a solicitation - general or otherwise - for the sale of securities or investments. VeApps: the smart contract-based suite of distributed software applications facilitates peer-to-peer, over-the-counter transactions between two consenting parties, and are not designed to be used as a securities or investment exchange.



This is an informational paper and it, nor any of its addendums, should not be considered a solicitation - general or otherwise - for the sale of securities or investments. VeApps: the smart contract-based suite of distributed software applications facilitates peer-to-peer, over-the-counter transactions between two consenting parties, and are not designed to be used as a securities or investment exchange.

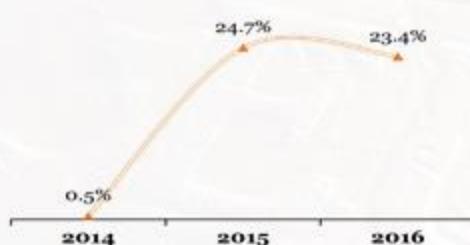
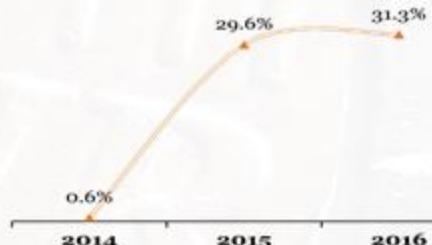
**FINANCIAL HIGHLIGHTS**  
*Balance Sheet*
**Veritaseum****Total Assets (US\$ millions)****Non Current Assets (US\$ millions)****Total Equity (US\$ millions)**

- Non-Current Assets of JSE increased at a CAGR of 18% during 2014-2016
  - In 2016, Land & building were revalued and its value increased by US\$0.89 million which significantly contributed to the increase in Non-Current assets
- During 2014-2016, total Equity witnessed a compounded annual growth of 20%
  - In 2016, property Revaluation Reserve grew by 19% Y-O-Y basis & Revenue Reserve grew by 3% Y-O-Y

Veritas

16

This is an informational paper and it, nor any of its addendums, should not be considered a solicitation - general or otherwise - for the sale of securities or investments. VeApps: the smart contract-based suite of distributed software applications facilitates peer-to-peer, over-the-counter transactions between two consenting parties, and are not designed to be used as a securities or investment exchange.

**FINANCIAL HIGHLIGHTS**  
*Returns***Veritaseum****Return-on-Assets (ROA) (%)****Return-on-Equity (ROE) (%)**

- In 2015, Return-on-Assets reached 24.7% as compared to 0.5% in 2014 as Net Profit grew more than 55 times whereas total Assets grew 26% (Y-O-Y)
- During 2016, ROA decreased by 1.3%, as Net Profit of the Company did not increase in line with total Assets growth

- Return-on-Equity reached 29.6% in 2015 from 0.6% in 2014. Huge growth in Net Profit was the main factor behind such remarkable growth in ROE
- In 2016, Return-on-Equity grew by 1.7%, as both Net Profit and Equity nearly grew in line with each other

Veritas

17

This is an informational paper and it, nor any of its addendums, should not be considered a solicitation - general or otherwise - for the sale of securities or investments. VeApps: the smart contract-based suite of distributed software applications facilitates peer-to-peer, over-the-counter transactions between two consenting parties, and are not designed to be used as a securities or investment exchange.



## Contents

- Executive Summary
- Jamaica Stock Exchange Group Profile
- Historical Financial Highlight
- FORECASTED FINANCIAL HIGHLIGHT**
- Impact – JV with Veritaseum
- Valuation
- Appendix

## FORECASTED FINANCIALS

### *Key Assumptions*



Revenue growth projection scenarios for Cess Income & Fee Income						
Scenarios	Q4 2017	2018	2019	2020	2021	2022
Scenario 1	10%	10%	10%	10%	10%	10%
Scenario 2	25%	25%	25%	20%	20%	20%
Scenario 3	50%	40%	40%	30%	25%	25%
Scenario 4	100%	70%	60%	50%	40%	30%
Scenario 5	200%	150%	100%	85%	70%	50%
Scenario 6	300%	200%	150%	100%	75%	60%
Scenario 7	500%	300%	200%	150%	100%	75%

Cost Y-o-Y growth projection scenarios for Staff Cost						
Scenarios	Q4 2017	2018	2019	2020	2021	2022
Scenario 1	8%	8%	7%	7%	7%	6%
Scenario 2	16%	16%	16%	15%	15%	12%
Scenario 3	30%	30%	30%	30%	30%	25%
Scenario 4	50%	50%	50%	50%	50%	50%
Scenario 5	55%	55%	55%	55%	55%	55%
Scenario 6	60%	60%	60%	60%	60%	60%
Scenario 7	70%	70%	70%	70%	70%	70%

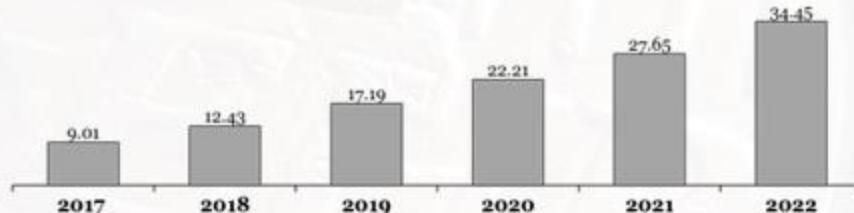
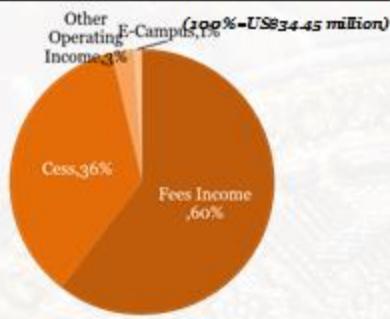
- Revenue growth for 2017 is split into 2 parts, first 9-month period & 4th quarter of 2017. For 9M 2017, the growth rates are as per historical trends, while for the last quarter (4Q), the growth rates are assumed in 7 different scenarios as mentioned in the table
- The lowest growth rate has been assumed to be 10% in Q4 2017, base case as 50% and the highest growth rate is assumed as 500% in Q4 2017
- Staff costs are also forecasted in 7 scenarios where the costs will be forecasted to grow in the range between 8% to 70% in Q4 2017

**FORECASTED FINANCIALS**  
*Key Assumptions cont.***Other Income Statement assumptions**

- Other Expenses are forecasted as % of revenues
- Investment income & other comprehensive income of the company are not forecasted
- Capital expenditures are forecasted as follows:

Additions made in the fixed assets during the forecasted period						
Tangible & Intangible Assets	2017	2018	2019	2020	2021	2022
Furniture & Fixtures	2,500	2,500	2,500	2,500	2,500	2,500
Office Equipment	13,000	16,000	20,000	24,000	28,000	35,000
Motor Vehicles	1,000	1,200	1,300	1,500	1,900	2,200
Computer Hardware	11,000	13,000	16,000	19,000	24,000	30,000

- The Work-in-progress in tangible assets is assumed to get transferred to fixed assets in 7 years from 2017
- Computer Software Development Project in intangible assets is assumed to get transferred to Computer Software in 6 years from 2017

**FORECASTED FINANCIALS**  
**Revenue****Veritaseum**[Scenario 3: 50% revenue growth in Q4 2017] Revenues, 2017-2022 (US\$million)**Revenue Breakup, 2022**

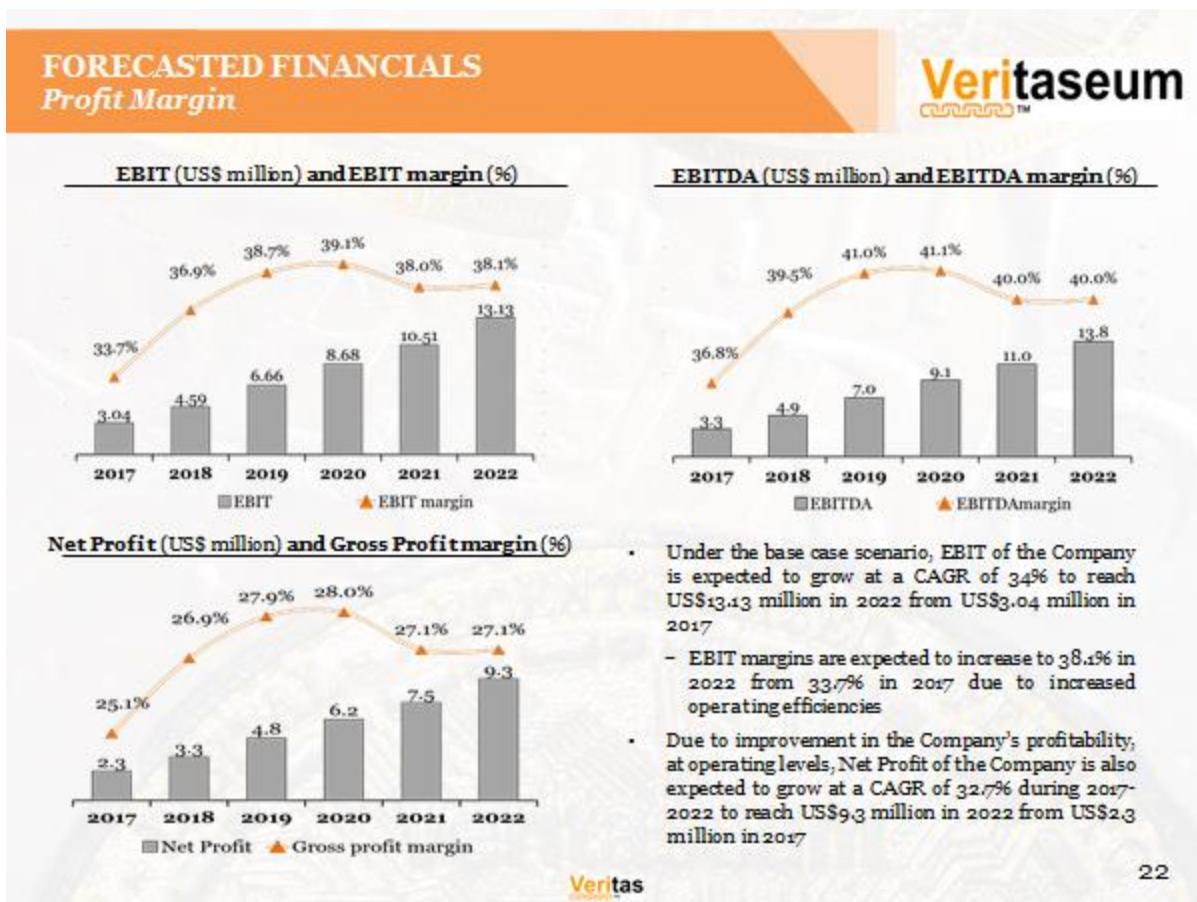
- Scenario 3, 50% revenue growth in Q4 2017 is assumed as the base case.
- Under the base case, total revenues of the Company is forecasted to grow at a CAGR of 34% during 2017-2022 to reach US\$34.45 million in 2022 from US\$9.01 million in 2017
- Revenues from Cess & Fees income is expected to grow at a CAGR of 32% during 2017-2022, whereas revenues from E-campus & Other incomes are expected to grow at a CAGR of 24% & 11%, respectively during the period

Note: Forecasted financials based on the base case where revenue grows by 50%  
All figures have been converted to US\$ at USD 1 = US\$ 0.0078

**Veritas**

21

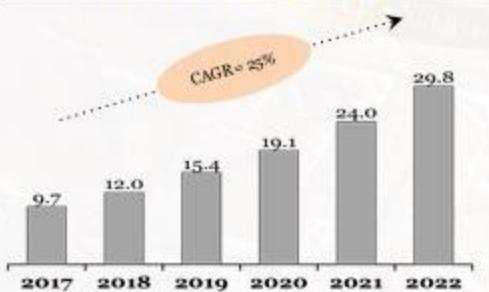
This is an informational paper and it, nor any of its addendums, should not be considered a solicitation - general or otherwise - for the sale of securities or investments. VeApps: the smart contract-based suite of distributed software applications facilitates peer-to-peer, over-the-counter transactions between two consenting parties, and are not designed to be used as a securities or investment exchange.



## FORECASTED FINANCIALS

### *Balance Sheet*

**Veritaseum**  
TM

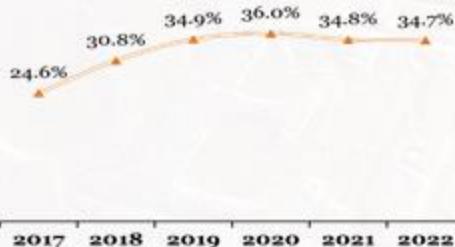
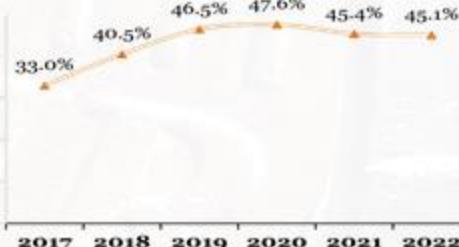
**Total Assets (US\$ millions)****Non Current Assets (US\$ millions)****Total Equity (US\$ millions)**

- Total Assets are forecasted to grow to US\$29.8 million in 2022 from US\$9.7 million in 2017
  - The growth will be due to increase in current assets of the Company
- Non-current assets of the Company is expected to slowly grow from US\$5.1 million in 2017 to US\$5.77 million in 2022
- The main component contributing to the growth of total equity of the Company is the increasing revenue reserves

**Veritas**

23

This is an informational paper and it, nor any of its addendums, should not be considered a solicitation - general or otherwise - for the sale of securities or investments. VeApps: the smart contract-based suite of distributed software applications facilitates peer-to-peer, over-the-counter transactions between two consenting parties, and are not designed to be used as a securities or investment exchange.

**FORECASTED FINANCIAL  
Profit Margin****Veritaseum****Return-on-Assets (ROA)(%)****Return-on-Equity (ROE) (%)**

- ROA of the Company is forecasted to increase from 24.6% in 2017 to 34.7% in 2022

- ROE of the Company is forecasted to improve to 45.1% in 2022 from 33.0% in 2017
  - Higher profitability coupled with increase in revenues are expected to drive ROE of the Exchange

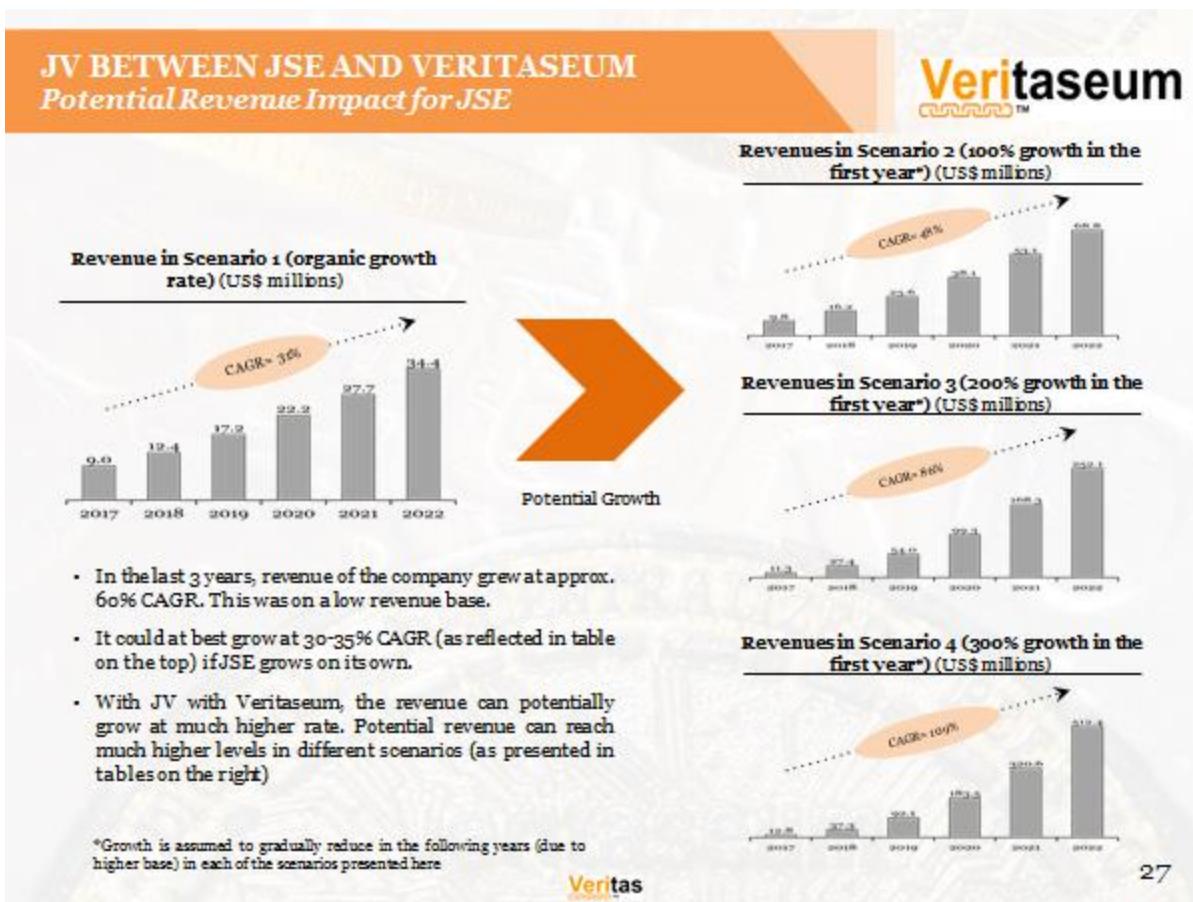


## Contents

- Executive Summary
- Jamaica Stock Exchange Group Profile
- Historical Financial Highlight
- Forecasted Financial Highlight
- IMPACT – JV WITH VERITASEUM**
- Valuation
- Appendix

**IMPACT – VERITASEUM & JSE JOINT VENTURE**

- Recently announced planned joint venture between JSE and Veritaseum has the potential to transform JSE into one of the most attractive stock exchanges globally
- The JSE is a relatively small stock exchange, even in comparison with other exchanges in the Caribbean region. It has roughly 63 companies (as of Dec 2016) listed on it with an average daily volume of US\$ 1.7 million
- A Joint venture with Veritaseum will significantly propel revenue opportunities for JSE in terms of higher trading volume, ease of investment, larger access to global capital and easy trading on stocks & next generation securities
- JSE will potentially become a central exchange for the Caribbean listed companies just like AIM of LSE or Singapore Stock Exchange
- The JV will provide liquidity to stocks and provide access to global investors to invest in high return and attractive opportunities
- It will also open bond and commodity markets with significant capital access
- The domestic Jamaican economy will benefit from considerably more investment and foreign direct investment into various sectors
- Illiquid and non-performing assets will find a market that has investors and financial/strategic speculators interested in workouts, turnarounds and roll-ups
- The country's economy and capital markets are slated to undergo a dramatic transformation post JV



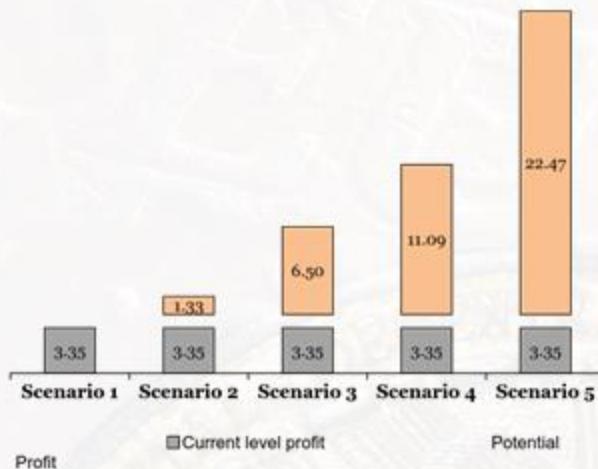
This is an informational paper and it, nor any of its addendums, should not be considered a solicitation - general or otherwise - for the sale of securities or investments. VeApps: the smart contract-based suite of distributed software applications facilitates peer-to-peer, over-the-counter transactions between two consenting parties, and are not designed to be used as a securities or investment exchange.

## JV BETWEEN JSE AND VERITASEUM

*Profitability upside for JSE*



2018 Net Profit under various scenarios (US\$ million)



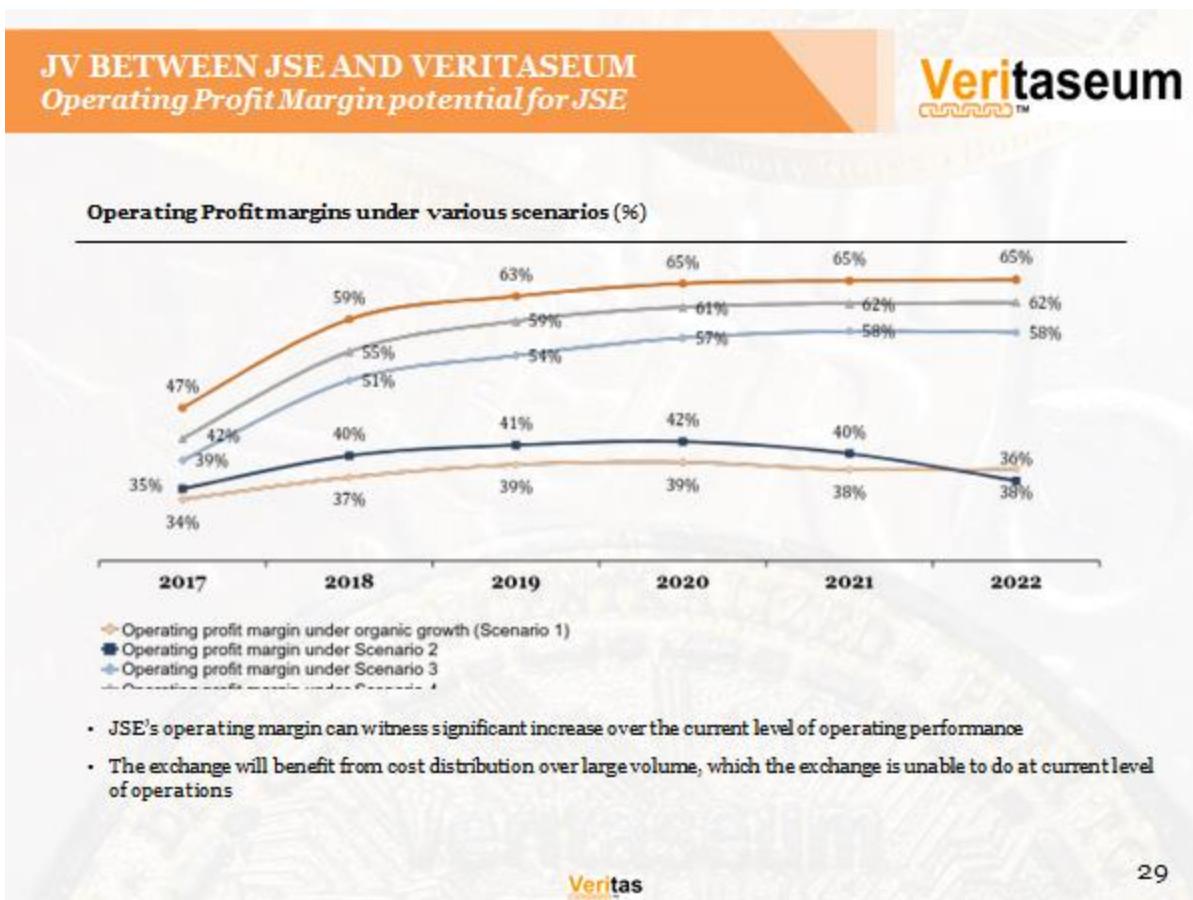
- JSE will likely achieve net profit of US\$3.35 million at growth rate that it is witnessing without the upcoming JV
- With JV, the profit will get substantial upside as presented in the scenarios on the left
- Assuming 100%, 200%, 300% & 500% increase in revenue in 2018 (over 2017), the profit for the year 2018 can increase many multiples
- Listing fee from new companies and trading fee due to increased trading volume will boost revenue and net profit for JSE

Scenarios - Different scenarios assume different growth rate in 2018 as listed below. The growth % trends down due to higher base  
 Scenarios 1: 50%  
 Scenarios 2: 100%  
 Scenarios 3: 200%  
 Scenarios 4: 300%  
 Scenarios 5: 500%

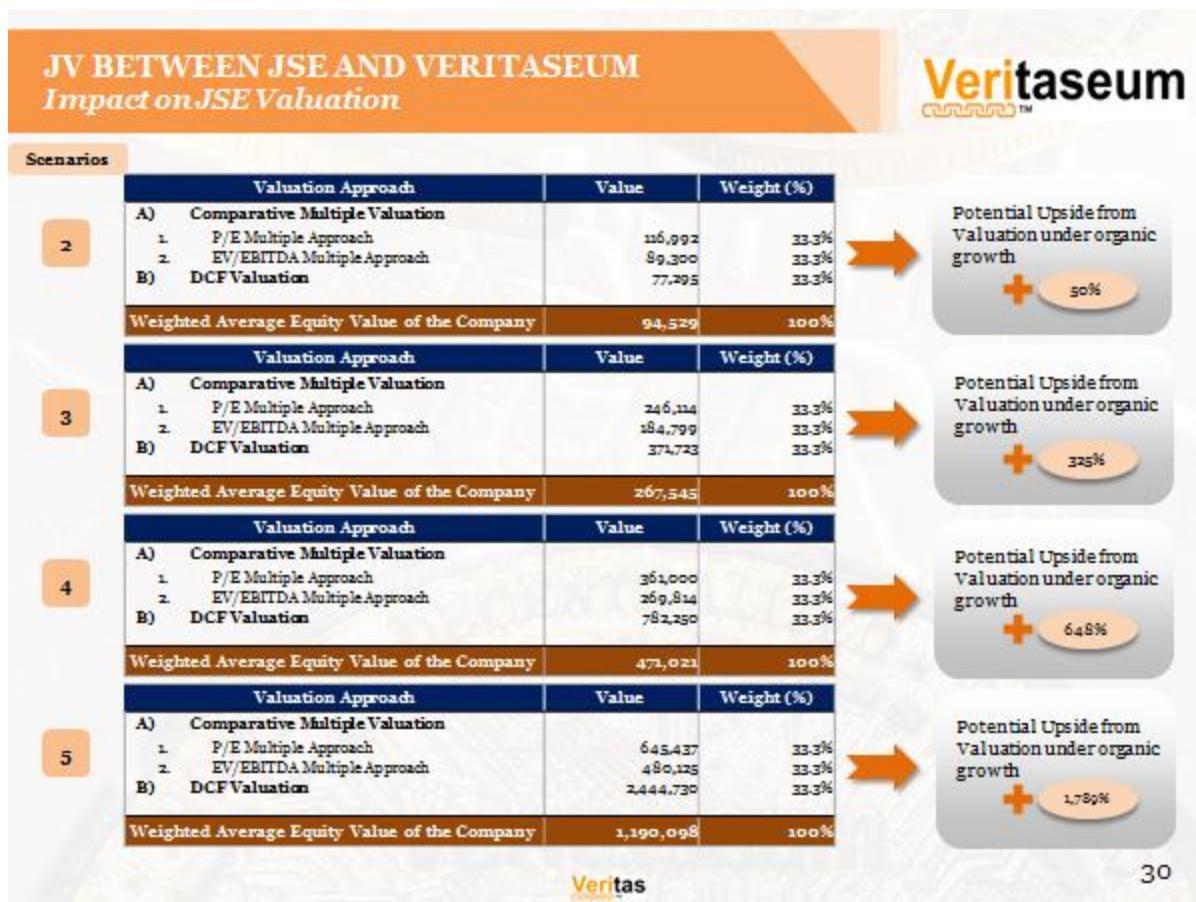


28

This is an informational paper and it, nor any of its addendums, should not be considered a solicitation - general or otherwise - for the sale of securities or investments. VeApps: the smart contract-based suite of distributed software applications facilitates peer-to-peer, over-the-counter transactions between two consenting parties, and are not designed to be used as a securities or investment exchange.



This is an informational paper and it, nor any of its addendums, should not be considered a solicitation - general or otherwise - for the sale of securities or investments. VeApps: the smart contract-based suite of distributed software applications facilitates peer-to-peer, over-the-counter transactions between two consenting parties, and are not designed to be used as a securities or investment exchange.



30

This is an informational paper and it, nor any of its addendums, should not be considered a solicitation - general or otherwise - for the sale of securities or investments. VeApps: the smart contract-based suite of distributed software applications facilitates peer-to-peer, over-the-counter transactions between two consenting parties, and are not designed to be used as a securities or investment exchange.



## Contents

- Executive Summary
- Jamaica Stock Exchange Group Profile
- Historical Financial Highlight
- Forecasted Financial Highlight
- Impact – JV with Veritaseum
- VALUATION**
- Appendix

**VALUATION ASSESSMENT**  
*Preliminary Valuation*

Valuation Approach	Weight (%)	Value (US\$ '000)
<b>(A) Comparative Multiple Valuation</b>	<b>33.3%</b>	
1. P/E Multiple Approach	11.1%	83,694
2. EV/EBITDA Multiple Approach	11.1%	64,559
<b>(B) DCF Valuation</b>	<b>33.3%</b>	<b>40,717</b>
<b>Weighted Average Equity Value of the Company* (US\$'000)</b>	<b>100%</b>	<b>62,990</b>
Add - Net Debt(2018)		(2,267)
<b>Enterprise Value (US\$'000)</b>		<b>60,723</b>

\*The weighted average valuation is based on the base case scenario where revenues are forecasted to grow at a growth rate of 50% in Q4 2017

- Based on the base case scenario, the weighted average Equity Value of the Company is estimated at US\$62.99 million, implying per share value of US\$11.52



## Contents

- Executive Summary
- Jamaica Stock Exchange Group Profile
- Historical Financial Highlight
- Forecasted Financial Highlight
- Impact – JV with Veritaseum
- VALUATION**
- Appendix

**VALUATION ASSESSMENT***Per Share Value & Equity Value of the Company*

Under various scenarios the Weighted Average Equity Value of the Company and Per Share Value of the Company is estimated as follows:

Scenario	Revenue Growth in Q4 2017	Equity Value of the Company (US\$' 000)	Per Share Value (US\$)	Per Share Value (JMS)
1	10%	40,252	0.06	7.36
2	25%	51,888	0.07	9.49
3	50%	62,990	0.09	11.52
4	100%	94,529	0.13	17.28
5	200%	267,545	0.38	48.91
6	300%	471,021	0.67	86.11
7	500%	1,190,098	1.70	217.58

- The weighted average Equity Value of the Company is estimated to range between US\$40.25 million to US\$1,190.1 million, implying a P/E multiple in range of 17.3x to 46.1x (2018)
- Enterprise Value is estimated between US\$38.46 million to US\$1,179.24 million, based on net debt balance projected for 2018

**VALUATION ASSESSMENT**  
*DCF Valuation*

*(All figures are in US\$'000 unless otherwise stated)*

Particulars	2017 F	2018 F	2019 F	2020 F	2021 F	2022 F	Terminal value
<b>FCFF Computation</b>							
Cash from operating activities	1,375	3,456	5,003	5,827	7,744	9,433	52,516
[+] After tax interest expenses	-	-	-	-	-	-	
[+] CAPEX	(645)	(645)	(700)	(757)	(830)	(934)	
<b>Free-Cash-Flow (FCFF)</b>	<b>730</b>	<b>2,811</b>	<b>4,302</b>	<b>5,070</b>	<b>6,914</b>	<b>8,500</b>	<b>52,516</b>
<i>Discounting Factor</i>	0.95	0.81	0.69	0.59	0.50	0.43	0.43
<b>Present Value of FCFF</b>	<b>694</b>	<b>2,277</b>	<b>2,969</b>	<b>2,982</b>	<b>3,466</b>	<b>3,631</b>	<b>22,431</b>
<b>Enterprise Value</b>							
<b>(-) Net Debt</b>							<b>38,450</b>
(-) Total Debt (2018)							(2,267)
(+) Cash & Cash Equivalent (2018)							2,267
<b>Equity Value of the Company* (US\$'000)</b>							<b>40,717</b>

*\*The Equity Value is based on the base case scenario where revenues are forecasted to grow at a growth rate of 50% in Q4 2017*

**VALUATION ASSESSMENT**  
*Relative Valuation**All figures are in US\$'000 unless otherwise stated***P/E Multiple Approach (TTM)**

Net Income (2018)	3.347
Adj. P/E Multiple	25.00x
<b>Equity Value of the Company*</b>	<b>83,694</b>

**EV/EBITDA Multiple Approach (TTM)**

EBITDA (2018)	4.913
Adj. EV/EBITDA Multiple	12.68x
<b>Enterprise Value of the Company</b>	<b>62,292</b>
<b>Less: Net Debt</b>	<b>(2,267)</b>
<b>Equity Value of the Company*</b>	<b>64,559</b>

*\*The Equity Value is based on the base case scenario where revenues are forecasted to grow at a growth rate of 50% in Q4 2017*



## Contents

- Executive Summary
- Jamaica Stock Exchange Group Profile
- Historical Financial Highlight
- Forecasted Financial Highlight
- Impact – JV with Veritaseum
- Valuation
- APPENDIX

**APPENDIX 1**  
*Income Statement*


[All figures are in US\$ '000, unless and otherwise specified]

Items	2014	2015	2016	2017 F	2018 F	2019 F	2020 F	2021 F	2022 F
<b>Revenue</b>									
Cess	535	2,355	2,576	3,110	4,354	6,096	7,925	9,906	12,383
Fee Income	1,549	2,575	3,569	5,219	7,307	10,229	13,298	16,623	20,779
E-campus	85	78	111	133	167	205	255	315	390
Other operating income	460	517	498	543	602	662	733	809	896
<b>Total Revenue</b>	<b>2,631</b>	<b>5,525</b>	<b>6,753</b>	<b>9,006</b>	<b>12,430</b>	<b>17,193</b>	<b>22,211</b>	<b>27,654</b>	<b>34,448</b>
<b>Expenses</b>									
Staff costs	1,339	1,678	2,133	2,614	3,398	4,417	5,742	7,465	9,331
Property Expenses	651	683	743	1,080	1,457	2,072	2,669	3,350	4,178
Depreciation & Amortization	191	147	201	274	326	386	458	543	646
Advertising & Promotion	216	327	378	532	729	1,029	1,331	1,667	2,081
Professional fees	278	276	352	471	663	923	1,202	1,501	1,876
Security commission fees	101	368	356	552	722	1,044	1,333	1,681	2,092
Bad debts loss recoveries	(24)	53	(16)	-	-	-	-	-	-
E-campus	99	109	110	167	220	317	406	511	636
Other operating expenses	143	227	290	277	329	350	394	432	480
<b>Total Expenses</b>	<b>2,993</b>	<b>3,868</b>	<b>4,546</b>	<b>5,966</b>	<b>7,843</b>	<b>10,539</b>	<b>13,535</b>	<b>17,149</b>	<b>21,320</b>
EBIT	(363)	1,656	2,207	3,039	4,587	6,655	8,676	10,505	13,128
Investment Income	330	331	404	195	195	195	195	195	195
Other gains	1	-	-	-	-	-	-	-	-
Finance costs	(0)	-	-	-	-	-	-	-	-
<b>Profit before Tax</b>	<b>(31)</b>	<b>1,987</b>	<b>2,611</b>	<b>3,234</b>	<b>4,782</b>	<b>6,850</b>	<b>8,871</b>	<b>10,700</b>	<b>13,323</b>
Taxation	56	(623)	(867)	(970)	(1,435)	(2,055)	(2,661)	(3,210)	(3,997)
<b>Profit of the year</b>	<b>24</b>	<b>1,365</b>	<b>1,744</b>	<b>2,264</b>	<b>3,347</b>	<b>4,795</b>	<b>6,210</b>	<b>7,490</b>	<b>9,326</b>

**APPENDIX 2**  
*Balance Sheet*

*(All figures are in US\$'000, unless and otherwise specified)*

Items	2014	2015	2016	2017 F	2018 F	2019 F	2020 F	2021 F	2022 F
<b>Non-current Assets</b>									
Property, plant & equipment	643	672	3,005	1,988	1,966	1,942	1,908	1,867	1,832
Intangible Assets	193	353	403	360	313	260	202	140	73
Employee benefits	522	927	1,033	1,129	1,254	1,416	1,627	1,901	2,244
Investment in securities	2,163	1,820	1,532	1,552	1,552	1,552	1,552	1,552	1,552
Long term receivables	84	86	69	69	69	69	69	69	69
<b>Total non-current assets</b>	<b>3,605</b>	<b>3,858</b>	<b>5,043</b>	<b>5,099</b>	<b>5,153</b>	<b>5,240</b>	<b>5,359</b>	<b>5,529</b>	<b>5,770</b>
<b>Current Assets</b>									
Income tax recoverable	151	-	-	-	-	-	-	-	-
Due from related party	19	1	-	-	-	-	-	-	-
Trade and other receivables	471	930	983	1,682	2,259	3,039	4,055	5,007	6,227
Investment in securities	-	491	510	530	530	530	530	530	530
Government securities purchased under resale agreement	538	393	1,053	1,443	1,833	2,223	2,613	3,003	3,393
Cash & cash equivalents	112	499	1,141	934	2,267	4,367	6,527	9,892	13,924
<b>Total Current Assets</b>	<b>1,291</b>	<b>2,314</b>	<b>3,687</b>	<b>4,590</b>	<b>6,890</b>	<b>10,159</b>	<b>13,726</b>	<b>18,432</b>	<b>24,074</b>
<b>Total Assets</b>	<b>4,896</b>	<b>6,172</b>	<b>8,729</b>	<b>9,689</b>	<b>12,043</b>	<b>15,399</b>	<b>19,085</b>	<b>23,962</b>	<b>29,844</b>
<b>Equity</b>									
Share Capital	1,858	1,858	1,858	1,858	1,858	1,858	1,858	1,858	1,858
Fair value reserve	85	46	85	85	85	85	85	85	85
Property revaluation reserve	-	-	924	924	924	924	924	924	924
Revenue reserve non-distributable	-	377	377	377	377	377	377	377	377
Revenue reserve	3,433	2,570	3,059	4,191	5,865	8,262	11,367	15,112	19,775
<b>Total Equity</b>	<b>4,376</b>	<b>4,851</b>	<b>6,303</b>	<b>7,435</b>	<b>9,109</b>	<b>11,506</b>	<b>14,611</b>	<b>18,356</b>	<b>23,019</b>
<b>Non-current Liability</b>									
Deferred tax liability	20	341	600	600	600	600	600	600	600
<b>Total non-current liability</b>	<b>20</b>	<b>341</b>	<b>600</b>	<b>600</b>	<b>600</b>	<b>600</b>	<b>600</b>	<b>600</b>	<b>600</b>
<b>Current Liabilities</b>									
Due to related parties	-	-	1	1	1	1	1	1	1
Income tax payables	-	149	170	170	170	170	170	170	170
Payables & Accruals	499	831	1,656	1,484	2,164	3,123	3,704	4,836	6,055
<b>Total current Liabilities</b>	<b>499</b>	<b>980</b>	<b>1,827</b>	<b>1,654</b>	<b>2,335</b>	<b>3,293</b>	<b>3,874</b>	<b>5,006</b>	<b>6,225</b>
<b>Total equity &amp; liabilities</b>	<b>4,896</b>	<b>6,172</b>	<b>8,729</b>	<b>9,689</b>	<b>12,043</b>	<b>15,399</b>	<b>19,085</b>	<b>23,962</b>	<b>29,844</b>

This is an informational paper and it, nor any of its addendums, should not be considered a solicitation - general or otherwise - for the sale of securities or investments. VeApps: the smart contract-based suite of distributed software applications facilitates peer-to-peer, over-the-counter transactions between two consenting parties, and are not designed to be used as a securities or investment exchange.

**APPENDIX 3**  
**Cash Flow Statement**

*(All figures are in US\$ '000, unless and otherwise specified)*

Items	2014	2015	2016	2017 F	2018 F	2019 F	2020 F	2021 F	2022 F
<b>Cash Flows from Operating Activities</b>									
Profit for the year*	24	1,365	1,744	2,264	3,347	4,795	6,210	7,490	9,326
Adjustments for:									
Depreciation of plant, property & equipment	108	102	149	231	278	334	401	481	579
Amarization of intangible assets	94	45	52	43	49	53	58	62	67
Gain on sale of available-for-sale investments	(2)	(49)	(99)	-	-	-	-	-	-
Loss/(gain) on disposal of plant, property & equipment	(1)	-	6	-	-	-	-	-	-
Write-off of plant, property & equipment	-	-	2	-	-	-	-	-	-
Adjustments to intangible assets	-	-	37	-	-	-	-	-	-
Unrealised foreign exchange gain	(147)	(64)	(105)	-	-	-	-	-	-
Employee benefit expenses	5	20	13	16	21	28	36	47	59
Bad debts loss recoveries	(44)	53	(19)	-	-	-	-	-	-
Income tax charge	(56)	623	867	970	1,435	2,055	2,661	3,210	3,937
Interest Income	(194)	(203)	(213)	(195)	(195)	(195)	(195)	(195)	(195)
Interest Expenses	0	-	-	-	-	-	-	-	-
<b>Operating cash flow before working capital changes</b>	<b>(210)</b>	<b>1,077</b>	<b>2,446</b>	<b>3,330</b>	<b>4,934</b>	<b>7,669</b>	<b>9,171</b>	<b>11,095</b>	<b>13,832</b>
Increase in trade & other receivables	164	(513)	(23)	(699)	(577)	(760)	(1,017)	(952)	(1,220)
Increase in payables & accruals	(94)	332	825	(189)	659	931	545	1,085	1,160
Post employee benefit contribution	(53)	(59)	(69)	(96)	(125)	(162)	(213)	(274)	(343)
<b>Cash utilised in operations</b>	<b>(172)</b>	<b>1,638</b>	<b>3,180</b>	<b>2,346</b>	<b>4,891</b>	<b>7,658</b>	<b>8,480</b>	<b>10,954</b>	<b>13,438</b>
Income tax paid	(109)	(104)	(793)	(970)	(1,435)	(2,055)	(2,661)	(3,210)	(3,937)
Interest paid	(0)	-	-	-	-	-	-	-	-
<b>Net Cash Flows from Operating Activities</b>	<b>(281)</b>	<b>1,534</b>	<b>2,307</b>	<b>1,375</b>	<b>3,456</b>	<b>5,003</b>	<b>5,827</b>	<b>7,744</b>	<b>9,433</b>
<b>Cash Flows from Investing Activities</b>									
Investment Securities, net	(78)	(377)	(533)	(41)	-	-	-	-	-
Proceeds from disposal of plant, property & equipment	1	-	1	-	-	-	-	-	-
Government securities purchased under resale agreement	26	129	(650)	(390)	(390)	(390)	(390)	(390)	(390)
Receipts from related parties	(121)	17	2	-	-	-	-	-	-
Proceed from sale of available-for-sale investment	305	324	1,044	-	-	-	-	-	-
Acquisition of plant, property & equipment	(46)	(131)	(397)	(215)	(255)	(310)	(367)	(440)	(544)
Acquisition of intangible assets	(31)	(205)	(172)	-	-	-	-	-	-
Long-term receivable	(11)	(2)	37	-	-	-	-	-	-
Interest received	209	189	225	195	195	195	195	195	195
<b>Net Cash Flows from Investing Activities</b>	<b>254</b>	<b>(57)</b>	<b>(463)</b>	<b>(450)</b>	<b>(456)</b>	<b>(505)</b>	<b>(562)</b>	<b>(635)</b>	<b>(739)</b>
<b>Cash Flows from Financing Activities</b>									
Dividends paid	-	(1,094)	(1,299)	(1,132)	(1,674)	(2,397)	(3,105)	(3,745)	(4,663)
Loan repaid	(3)	-	-	-	-	-	-	-	-
<b>Net Cash Flows from Financing Activities</b>	<b>(3)</b>	<b>(3,694)</b>	<b>(1,289)</b>	<b>(1,132)</b>	<b>(1,674)</b>	<b>(2,397)</b>	<b>(3,105)</b>	<b>(3,745)</b>	<b>(4,663)</b>
Net increase/(decrease) in cash & cash equivalent	(30)	383	635	(207)	1,333	2,100	2,160	3,364	4,032
Cash & cash equivalent at the beginning of the year	134	112	499	1,141	934	2,267	4,367	6,527	9,992
Effect of foreign exchange rate changes	9	5	7	-	-	-	-	-	-
<b>Cash &amp; cash equivalent at the end of the year</b>	<b>112</b>	<b>499</b>	<b>1,141</b>	<b>934</b>	<b>2,267</b>	<b>4,367</b>	<b>6,527</b>	<b>9,992</b>	<b>13,924</b>

Veritas

40

This is an informational paper and it, nor any of its addendums, should not be considered a solicitation - general or otherwise - for the sale of securities or investments. VeApps: the smart contract-based suite of distributed software applications facilitates peer-to-peer, over-the-counter transactions between two consenting parties, and are not designed to be used as a securities or investment exchange.

**APPENDIX 4**  
*Trading Comps*

Particulars	Headquarter	Currency	Share price	Shares O/s	Market Cap	P/E	P/E	P/B	P/S	D/E	EV/FCF	EV/EBIT DA	Raw Beta	Tax Rate	Unlevered Beta
			Local Currency	million	LC million	Current	TTM								
London Stock Exchange Group plc	London	USD	39.49	350.31	13,716.00	NM	45.39	1.82	6.13	0.38	NM	14.92	1.29	19%	0.99
Deutsche Boerse AG	Germany	EUR	91.30	186.81	17,621.00	19.77	22.13	3.09	5.00	0.66	NM	NM	0.72	30%	0.49
ASX Limited	Australia	AUD	53.45	193.60	10,500.00	24.24	13.82	1.65	11.13	1.07	30.12	19.28	0.85	30%	0.35
Singapore Exchange Ltd.	Singapore	SGD	7.45	1,070.00	8,000.00	23.48	23.68	NM	0.77	NA	21.18	15.37	0.90	17%	NA
Philippine Stock Exchange Inc.	Philippines	PHP	238.80	73.38	17,500.00	24.92	16.04	5.80	NM	NA	NM	20.30	NM	30%	NA
NIX Ltd.	New Zealand	NZD	1.18	168.48	308.70	NM	23.65	4.04	3.65	1.14	20.80	3.83	0.43	28%	0.24
NSX Ltd.	Australia	AUD	0.29	147.91	42.90	NM	NA	4.38	10.84	NA	NA	NM	NM	30%	NA
Japan Exchange Group Inc.	Japan	JPY	16.92	274.53	9,200.00	13.78	13.13	3.32	8.04	0.20	22.12	NM	NA	31%	NA
Euronext NV	Netherlands	EUR	48.22	70.00	3,300.00	17.34	17.04	4.97	5.44	0.13	14.31	11.41	0.71	25%	0.65
Nasdaq Inc.	USA	USD	74.37	165.18	11,600.00	NM	NA	2.06	3.06	0.66	24.40	15.88	0.92	40%	0.66
Hong Kong Exchanges & Clearing Ltd. ADR	Hong Kong	HKD	27.14	1,230.00	33,300.00	NM	41.02	NM	NM	0.11	NM	15.17	1.46	17%	1.34
Giełda Papierów Wartościowych w Warszawie SA	Poland	PLN	46.01	41.97	1,000.00	14.98	13.96	2.25	5.25	0.33	NM	9.20	0.55	19%	0.43
Boltes y Mercados Espanoles Sociedad Holding de Mercados y Sistemas Financieros S.A.	Spain	EUR	29.04	83.62	1,500.00	15.84	15.17	5.40	7.45	NA	NA	NM	0.67	25%	NA
Hellenic Exchange/Athens Stock Exchange S.A.	Greece	EUR	5.05	60.60	306.00	NM	NM	2.13	11.45	NA	NM	1.44	1.11	29%	NA
			<b>Average</b>		20.54	25.00	3.58	7.27	0.63	22.17	12.68	0.87			<b>0.64</b>

This is an informational paper and it, nor any of its addendums, should not be considered a solicitation - general or otherwise - for the sale of securities or investments. VeApps: the smart contract-based suite of distributed software applications facilitates peer-to-peer, over-the-counter transactions between two consenting parties, and are not designed to be used as a securities or investment exchange.