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REAL ESTATE TOKENIZATION – BURJ KHALIFA

A Prospectus for Tokenization of Real-World Assets (RWAs)

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EXECUTIVE SUMMARY

The Burj Khalifa is a towering symbol of human achievement and architectural excellence. This prospectus explores the concept of tokenizing the Burj Khalifa, breaking down its intricate features, historical significance, and economic value into digital tokens. By tokenizing this iconic structure, we aim to enhance liquidity for owners and unlock new opportunities for investors and enthusiasts worldwide.

For tokenizing Burj Khalifa, the smart contract has deployed 15 million utility tokens worth \$1.5 billion in total value. The token tracker has been assigned as BKT. Out of the total, 51% of tokens have been reserved for management, and the rest of the 49% of tokens are allocated to professional investors.

The smart contract address of the Burj Khalifa token is:

0xE5d14BfC86343E76Cd7d135Ae890A0A32CB153a3

The key information about the asset is recorded on Block: 5519677, with the transaction hash as below:

0x3921d8c002c6b134f6b4920186ac33d08b738b44d702e20822eb06bccb314738

The presentation slides for a brief overview of this prospectus can be found at the below link:

https://docs.google.com/presentation/d/1n1TyH8FZnA_I-2UqRqSm-vY9NKgvFQm/edit?usp=sharing&oid=110825593055188575125&rtpof=true&sd=true



BURJ KHALIFA

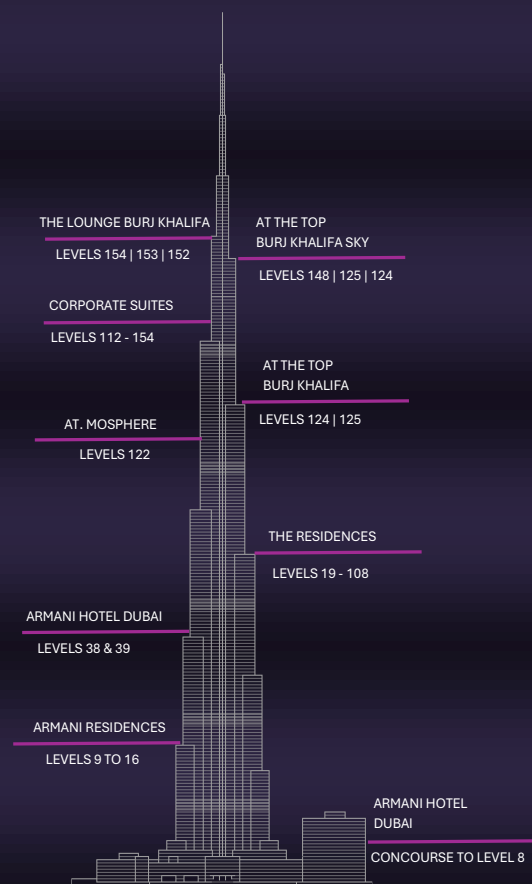
The world's tallest building, Burj Khalifa, is a mixed-use high-rise structure in Dubai, United Arab Emirates. It is a multi-use building with restaurants, a hotel, residential apartments, and office space. It is also a tourist attraction with observation decks.

The huge building, described by many as the "Vertical City", is owned by Emaar Properties and, from 11 February 2006, its construction was sponsored by Sheikh Mohammad bin Rashid al Maktoum, Vice President and Prime Minister of the United Arab Emirates, Emir of Dubai and main shareholder in Emaar Properties (We Build Value Digital Magazine, 2020)

Burj Khalifa is 828m (2,717 feet) tall, and the whole system is a reinforced concrete tower structure (The Constructor, n.d.). The tower comprises 2,800,000 m² area. The excavation of Burj Khalifa began in January 2004, and the structure took six years to construct. It was inaugurated on 4 January 2010. Since its completion, the Burj Khalifa has captured the world's attention, attracting millions of visitors and becoming an iconic symbol of Dubai's skyline.

THE STRUCTURAL DETAILS OF THE BURJ KHALIFA

1. 163-storey tower
2. Concourse level to level 8 and levels 38 and 39 feature the Armani Hotel Dubai
3. Levels 9 to 16 house luxurious apartments for Armani Residences exclusively.
4. The area is utilised for 700 private luxurious residential apartments from 45 to 108 floors.
5. 30-storey mechanical floors house the electrical substations, water tanks and pumps, and other essential components for the operation of the tower.
6. Level 122 houses the At.Mosphere (a fine dining place) and Level 124 is the tower's public observatory, "At the Top, Burj Khalifa".
7. Levels 43, 76 and 123 feature Sky Lobbies, state-of-the-art fitness facilities, swimming pools, and a recreational room.
8. The corporate suites occupy most of the remaining floors (Burj Khalifa, n.d.).



SHAPE OF THE TOWER

The Burj Khalifa employs a 'Y' shaped floor plan. The basic structure is a central hexagon core with three wings. This design helps to reduce the wind forces on the tower (Burj Khalifa, n.d.).



Pile Raft Foundation in Burj Khalifa
Source: (The Constructor – Structural Details of Burj Khalifa)

Design Inspiration

The structural concept of Burj Khalifa is inspired by a flower called Hymenocallis or SpiderLily, a regional desert flower. Like the flower, the tower's wings extend from a central core.



Hymenocallis Flower



The top view of Burj

FACTS AND FIGURES ABOUT BURJ KHALIFA

1. Burj Khalifa holds the following records:
 - i. Tallest Building in the world
 - ii. The Tallest freestanding structure,
 - iii. Highest number of stories,
 - iv. Highest occupied floor,
 - v. Highest outdoor observation deck,
 - vi. Elevator with the longest travel distance and
 - vii. Tallest service elevator in the world.
2. It comprises 57 elevators and 8 escalators. The building has the longest-running elevator, which is to the 140th floor. Burj Khalifa elevators travel to a height at a speed of 10 metres per second (Burj Khalifa, n.d.).



3. The tip of the sphere of the Burj Khalifa can be seen from up to 95 kilometres away (Dombrowski , 2012).



4. Burj Khalifa is one of the world's most photographed buildings/structures.
5. The total cost of construction of Burj Khalifa is \$1.5 billion.
6. The apartment prices marked per square foot increase by 20% on average in 2023.
7. Dubai's ascent as the hub of second homes has attracted a surge of international buyers. The rising property demand in Dubai has led to a city-wise price increase of 38% since March 2021. However, Burj Khalifa has outperformed the city average with a substantial 55.4% growth over the same period, showcasing its desirability in the market (Noumou, 2024).

TOKENIZATION OF BURJ KHALIFA

TOKENIZATION OVERVIEW

Tokenization transforms real-world assets into digital tokens, enabling trade, transfer, and ownership on blockchain networks without intermediaries. Assets like real estate, art, or landmarks such as the Burj Khalifa become accessible to individuals, who gain fractional ownership and investment opportunities.

By leveraging Distributed Ledger Technology (DLT) or Blockchain, diverse companies collaborate seamlessly. This fosters the aggregation of fragmented information into unified digital tokens. Parties can update data effortlessly, ensuring accuracy. Tokenization streamlines transactions, offering secure records and swift settlements (Pang, et al., 2020).

TOKENIZATION OF REAL-WORLD ASSETS (RWA)

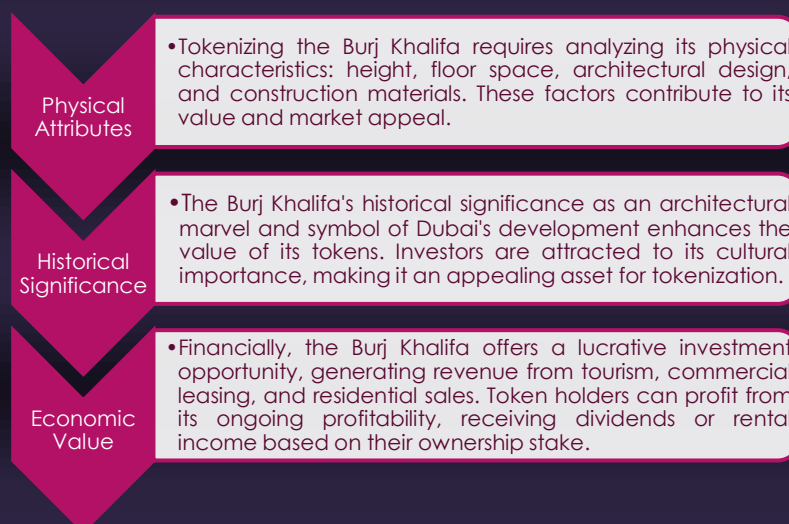
Real estate is a notoriously illiquid asset class. With tokenization, real estate experiences novel forms of fundraising, more liquid markets, tamper-proof ownership history, and streamlined payments, among other benefits.

Non-fungible Tokens (NFTs) are used to represent unique, irreplaceable, and non-interchangeable assets and items. The real-world assets (RWAs) can be represented using NFTs, as there are no two parcels which are identical or have the same address, i.e. each real estate has a unique address, properties, and surrounding areas (Beal, 2019).

BENEFITS OF TOKENIZING THE BURJ KHALIFA

Tokenizing the Burj Khalifa entails breaking down its value into digital tokens, each representing a fraction of ownership in the building.

This process involves a meticulous assessment of the building's physical attributes, historical significance, and economic value.



BENEFITS TO INVESTORS	BENEFITS TO OWNERS
Tokenization enables fractional ownership allowing investors to purchase smaller stakes in the iconic building.	Operational efficiency can be achieved by automating the processes through smart contracts, allowing fast transactions , and facilitating immutable record-keeping , such as compliance, document verification, trading, and distribution of dividends when due.
Liquidity through tokenization provides flexibility for investors to buy, sell, or transfer their ownership stakes more easily.	Tokenizing the Burj Khalifa enhances liquidity by allowing owners to trade digital tokens on secondary markets. Owners will also get the value from the liquidity premium .
Tokenization offers global accessibility to investors from around the world to participate in the ownership of Burj Khalifa.	The global accessibility increases demand for the tokens, potentially driving up the value of Burj Khalifa Tokens.
Investors can realise potential capital gains from the increase in the value of Burj Khalifa tokens.	Owners can enjoy value from savings of administrative costs by the elimination of central third parties.
Blockchain inherently provides transparency , ensuring secure ownership records, minimising fraud risks, and fostering trust among owners and investors.	

PHASE 1: DEAL STRUCTURE

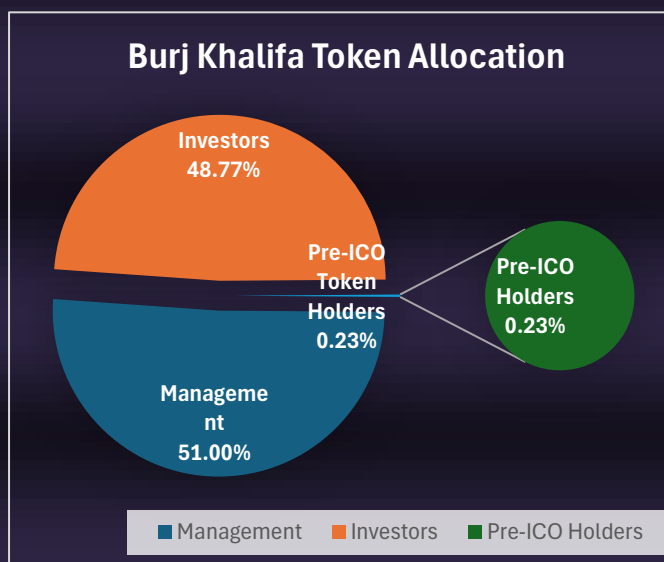
TOKEN CREATION

Token Name	• BURJ KHALIFA TOKEN
Token Tracker	• BKT
Token Type	• UTILITY TOKEN
Total Tokenized Value	• \$1.5 BILLION
Value per Token	• \$100
Initial Coin Offering (ICO)	• 15 MILLION TOKENS
Management Share in Tokens	• 51%
Investors Share in Tokens	• 49%
Minimum Investment	• 1,000 Tokens (\$100,000)
Expected Return on Investment	• 10%



TOKEN ALLOCATION

The Burj Khalifa Token will be allocated as follows:



51% share of tokens to remain with management/owners to retain their ownership and decision-making authority in the operations of Burj Khalifa, while the remaining 49% will be distributed among potential investors.

Within this allocation, 0.46% of the tokens (equivalent to 0.23% of the total tokens) are distributed to 10 professional investors through a private offering in a pre-ICO setting, as outlined in Appendix 2.

	Management	Investors	Pre-ICO Holders
Share	51.00%	48.77%	0.23%
Number of Tokens	7,650,000.0000	7,315,500.0000	34,500.0000

PHASE 2: DIGITISATION

Step 1: A smart contract is developed on the Ethereum Blockchain to tokenize the Burj Khalifa. The digital representation of Burj Khalifa value will appear in the distributed ledger/blockchain as a digital token, and its transaction will be executed using a smart contract.

This contract defines the Burj Khalifa Token's parameters like name, symbol, total supply, and decimal precision, ensuring its intended use. Smart contracts execute predefined conditions autonomously (Nishad & Nair, 2024).

Step 2: Fractionalizing NFT

There are two common token standards on the Ethereum blockchain: ERC20 and ERC721. ERC721 is used to create non-fungible, unique tokens. ERC20 is used to create fungible, interchangeable tokens.

Given that ERC721 tokens are unique and cannot be duplicated, to fractionalize a non-fungible token (NFT) like the Burj Khalifa, ERC20 tokens are created through a smart contract. These tokens represent partial ownership, enabling multiple holders to collectively own a single NFT (Lemerle, 2023).

Step 3: The BKT tokens were first tested on the Sepolia network for testing the smart contracts without risking real funds or assets. Testing on Sepolia ensures compatibility with the network's features and infrastructure before deployment to the main network.

Step 4: Once the smart contract is created on the main network, it is deployed on the blockchain and the utility tokens are created through a process called Initial Coin Offering (ICO) (Sharma, 2023).

A transaction hash for the smart contract is generated, and the token's name, symbol and other information is stored with blockchain technology.

The ICO of Burj Khalifa creates 15 million ERC20 utility tokens, denoted with the specific tracker as BKT (Appendix 1). Potential investors can buy these tokens using fiat currency or other cryptocurrencies like Bitcoin or Ethereum.

Step 5: These BKTs can be transferred between investors using compatible wallets and applications. Each BKT token is trackable, and each transfer is recorded on the Ethereum blockchain in the digital register of members (ROM) on blockchain, updating the ownership records accordingly.

PHASE 3: PRIMARY DISTRIBUTION

1. 49% (7.35 million) of the total 15 million tokens will be issued in the market.
2. BKTs will be primarily distributed to professional investors, requiring a minimum investment of 1,000 tokens per investor.
3. Investors will review investment information in the prospectus provided.
4. Investors can contact by filling out the details in the form under this link:
<https://forms.gle/gYUBpWEin1K6qMXH9>
5. After confirmation of the deal, funds equivalent to the token value will be reserved in the investor's account until the token transfer.
6. Tokens will be transferred to investors within 24 hours, with corresponding funds debited from their accounts.
7. A fee comprising a Gas Fee + 0.2% of tokenized value will be charged to the investor's account to cover operational and administrative costs.
8. Investor details will be securely recorded on the digital Register of Members (ROM) post-transfer.
9. BKT tokens will be classified as financial assets according to accounting principles.
10. In the economy of the UAE, capital gains are not taxable. Therefore, no capital gains tax applies to BKT. However, this is subject to change with regulatory updates. International investors may be subject to tax based on their local jurisdiction.



PHASE 4: TOKENOMICS

- The Burj Khalifa management is expected to generate funds of up to \$735 million from this tokenization, which can bring liquidity to the owners and opportunities for further investments.
- After the distribution, investors can trade the BKTs in the secondary market.

- The tokenized Burj Khalifa value fund has a term of 2 years, during which tokens cannot be redeemed from the issuer.
- Investors will receive dividends in the form of tokens at the end of the financial year, with the dividend per token to be determined at that time.
- Investors can benefit from capital gains due to the appreciation of BKT tokens, with an expected rate of return of 10%.
- The investors (having investment >1,000 BKT) will be entitled to a free pass to 'At the Top Burj Khalifa' and 'Dubai Aquarium' once a year.
- The investors (having investment >1,000 BKT) will have access to Burj Khalifa's blockchain rewards app. Where the tokens can be redeemed at its properties, hotels, commercial activities, and malls. The investors can also gain tradeable loyalty tokens within the app by trading and holding the BKT for longer periods.
- Investors holding over 5,000 BKT tokens can enjoy a free 3-night stay in an Armani Deluxe Room annually, while those with over 10,000 BKT tokens can access a free 3-night stay at the Armani Fountain Suite annually, subject to availability.
- The performance of the tokens will be revised 6-months and any changes in tokenization or compliance with regulatory requirements will be addressed promptly.
- Tokenization is an innovative process that is continuously being improved. Such as a new ERC standard, ERC-3643 is being introduced, primarily focusing on real-world assets and related regulatory applications (Nishad & Nair, 2024). At the end of the 2-year term, the tokenization process of BKT will be reevaluated, and tokens will be transferred or reissued as per the latest blockchain technology in practice.

CONCLUSION

Tokenizing the Burj Khalifa represents a groundbreaking opportunity to unlock new possibilities in the real estate market. By leveraging blockchain technology, investors can gain fractional ownership in this iconic landmark, contributing to a more inclusive and accessible investment landscape.

The potential benefits of tokenization are vast, paving the way for a future where valuable assets like the Burj Khalifa are accessible to all.

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APPENDIX 1: BKT TOKEN TRACKER

The screenshot shows the Etherscan Sepolia Testnet interface for a contract. The address is 0xE5d14Bfc86343E76Cd7d135Ae890A0A32Cb153a3. The page includes sections for Overview, More Info, and Multichain Info. The Overview section shows an ETH balance of 0 and token holdings of \$0.00 (1 Tokens). The More Info section shows the contract creator as 0xf94A992d...B0945a8A3 and the token tracker as BURJ KHALIFA TOKEN (BKT). The Transactions section shows a list of transactions, with the latest 14 from a total of 14 transactions. The table below shows the transaction details:

Transaction Hash	Method	Block	Age	From	To	Value	Txn Fee
0xf94A992d...B0945a8A3	Transfer	5553676	4 hrs ago	0xf94A992d...B0945a8A3	0xE5d14Bfc86343E76Cd7d135Ae890A0A32Cb153a3	0 ETH	0.00010411

APPENDIX 2: BKT TOKEN HOLDERS

The screenshot shows the Etherscan Sepolia Testnet interface for the BURJ KHALIFA TOKEN (BKT). The token is ERC-20. The page includes sections for Overview, Market, and Other Info. The Overview section shows a max total supply of 15,000,000 BKT and 10 holders. The Market section shows an onchain market cap of \$0.00 and a circulating supply market cap of -. The Other Info section shows the token contract address as 0xE5d14Bfc86343E76Cd7d135Ae890A0A32Cb153a3. The Transfers section shows a list of transactions, with a total of 13 transactions found. The table below shows the transaction details:

Transaction Hash	Method	Block	Age	From	To	Value	Txn Fee
0xf94A992d997cc16CFB3a7bfc340E924B0945a8A3	Transfer	5553676	4 hrs ago	0xf94A992d997cc16CFB3a7bfc340E924B0945a8A3	0xE5d14Bfc86343E76Cd7d135Ae890A0A32Cb153a3	14,965,500 BKT	0.00010411