

**Cryptocurrency Derivatives
A PROJECT REPORT FOR
FRE 6073 – Introduction to Derivatives**



Submitted By (Student Name)
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Cryptocurrency Derivatives

Abstract

Once most sections of your Report are complete, create a brief abstract for this report with less than 500 words. Provide a list of Key Words.

Simple Example (not for Cryptocurrencies): The objective of this study was to identify and test preliminary rules for trading call option time spreads and then to assess opportunities for further research to improve on those rules. To do so the theoretical and empirical properties of near-the-money time spreads were used to develop four rules for profitably trading in India's Nifty 50 (NSE 50) call options. Day-end pricing for 2015 – 2019 included periods of rising, falling and stable volatility.....

Example of Key Words: Cryptocurrency, Bitcoin, Ethereum, e-Yuan, Smart Contracts, Bitcoin mining

Introduction - Make this section brief and concise (about 4 pages) saving most of the text for Crypto Derivatives.

Provide an educational introduction to Crypto Derivatives assuming the reader is familiar with standard derivatives (futures, forwards, swaps, options) but unfamiliar with Crypto versions. Basic questions to address include but are not limited to the following:

Cryptocurrencies: Bitcoin/Ethereum

- What are Bitcoin/Ethereum?
- Who are the primary users?
- What are typical uses for Bitcoin/Ethereum?
- What are the primary benefits to using Bitcoin/Ethereum? Primary concerns?
- What are coins and tokens?
- How do types of crypto exchanges differ from one another?
- How do Crypto wallets work?
- How are cryptos created?

Crypto Derivatives (CDs)

- What types of Crypto Derivatives are available for transactions?
- Which cryptocurrencies have CDs? On what exchanges?
- What government or other agencies regulate CDs?
- What are smart derivative contracts?

Literature Review (Important!) – Length no more than one or two pages.

Use Google Scholar, Google and other search tools to identify particularly helpful articles, books, journals and websites specifically on Crypto Derivatives that a reader can use for reference and further self-education. Look for important high quality educational material, not just casual

wordy articles. Download relevant material and place it in a zip file for separate submission with this project assignment.

Bitcoin and Ether Futures

Address basic questions for the reader such as

- Where are Bitcoin/Ether futures traded beside the CME?
- What government or other agencies regulate trading?

For the reader, provide the following for Bitcoin/Ether futures:

- How do crypto futures differ from standard futures in margining, settlement...? (Include contract specifications in an Appendix and not in the body of the Report.)
- How is the Fair Value price computed? What models are valid for pricing?
- Describe two or more typical applications but on a separate Excel spreadsheet develop numerical solutions clearly illustrating them. Separately include the Excel spreadsheet with your submission.

Bitcoin Options

For Bitcoin Options repeat the steps taken with Bitcoin Futures answering how they differ from standard options and describe typical applications but with worked numerical details only in the Excel spreadsheet. Is a standard Black-Scholes model valid for pricing?

Bitcoin OTC Contracts and Financial Instruments

- List and describe examples you find of OTC CD contracts, smart contracts, Crypto bonds, Crypto loans and other Crypto structures with market transactions in the past 4 years. Provide specific sources for all examples (URLs, references)
- Are there special terms or market mechanics to be aware of for Crypto forwards and swaps?
- Summarize ISDA guidelines covering Crypto OTC contracts?

Summary

Briefly summarize your findings for the reader. Include suggestions for further study.

References

Suggestion: After you have inserted all your citations in the body of your Report, it is simple to create your References / Bibliography section using the Citations & Bibliography tools on the Word ribbon.

First, for citations in the Literature Review section and elsewhere, choose Style > APA Sixth Edition. Then use the Insert Citation tool to create and Insert references. The helpful Wizard will guide you.

When you are finished, use the References > Bibliography > Insert Bibliography to automatically create your References section at the end of the Report.

Examples resulting from use of these Word tools are

Cretien, P. D. (2013, April 1). Seize the Day With Forex Calendar Spreads. *Futures Magazine*, pp. 20, 21, 27.

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Koshiyama, A. S., Firoozye, N., & Treleaven, P. (2019, Vol 26, No. 2). A Derivatives Trading Recommendation System: The Mid-Curve Calendar Spread Case. *Intelligent Systems in Accounting, Finance & Management*, 83-103.

Appendix

Include here CD contract specifications along with other charts, graphs and tables too complex or voluminous to include in the body of the Report. Always include the source citation for Appendix entries such as the URL from which the item has been captured.