



Libyan International Medical University
Faculty of Business Administration

Graduation Project

**The Connectedness between Bitcoin, Gold & Crude Oil
Prices (2018-2023)**

Department of Banking and Finance

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Declaration

I, Muhaned Taisir El-gumati, hereby declare that the work in this dissertation was carried out in accordance with the requirements and regulations of the Libyan International Medical University LIMU. This dissertation is the result of my own work, and has not been submitted by or to any other academic institution for any other degree or qualifications. It is therefore, the property of the Faculty of Business Administration at LIMU, and it is not allowed to be reused neither completely nor partially in any form without a written permission from the faculty.

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Dedication

I dedicate this dissertation to those who helped and supported me in the journey of making the graduation project. Especially my supervisor and co-supervisor, my father, Mr. Taisir El-gumati, and my mother, Hind Gorbi. I would also like to thank all of my friends, colleagues, and staff members from the Faculty of Business Administration at the Libyan International Medical University for their encouragement and support, as without it I would not have completed this project.

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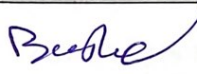


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Acceptance and Approval

The graduation project entitled “The connectedness between Bitcoin, gold and crude oil prices” prepared by Muhaned Elgumati has been:

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Abstract

This study aims to discover the extent of connectedness between Bitcoin, gold and crude oil prices. The analysis period is divided into three sub-periods: the whole period, pre-COVID-19 pandemic, and after the pandemic. Methodology employed in this study was guided by a thorough examination of scholarly articles pertaining to the subject matter. The study's methodology and data collection procedure for examining the connectedness between Bitcoin, Gold, and Crude Oil prices entails a thorough and systematic approach to data analysis. The present investigation involved the collection of daily historical price data pertaining to Bitcoin, Gold, and Crude Oil prices spanning the years 2018-2023, sourced from Yahoo Finance. This study employs the widely recognized Diebold and Yilmaz (2014) method to examine the connectedness between Bitcoin, gold, and crude oil. The study reveals that there are three distinct peaks of total spillover connectedness within three sub-periods. Furthermore, it concludes that Bitcoin, gold, and crude oil do exhibit some connectivity after all the three sub-periods. Bitcoin has been recognized as a shock transmitter for the entire period under consideration. However, it has acted as a shock receiver after both the pre-COVID-19 and COVID-19 periods. On the other hand, gold has been identified as a shock receiver throughout all three sub-periods.

Keywords: Bitcoin, Gold, Crude oil, Prices, Connectedness, Covid-19.

المخلص

تهدف هذه الدراسة الى اختبار الترابط بين اسعار كلا من البيتكوين والذهب والنفط الخام. تنقسم فترة الدراسة الى ثلاث فترات (الفترة بالكامل وقبل فترة كورونا وخلال فترة كورونا). تمت مراجعة أكثر من مقالة علمية تتعلق بموضوع الدراسة. تتضمن منهجية الدراسة جمع البيانات لفحص الارتباط بين أسعار البيتكوين والذهب والنفط الخام لتحليل البيانات. تم جمع البيانات اليومية لأسعار البيتكوين والذهب والنفط الخام للفترة من عام 2018 إلى عام 2023، وتم الحصول عليها من موقع ياهو المالي. تستخدم هذه الدراسة منهج ديولد ويلماز (2014) المعترف به على نطاق واسع لفحص الارتباط بين البيتكوين والذهب والنفط الخام. تكشف الدراسة وجود ثلاثة ذروات متميزة للارتباط الشامل في ثلاث فترات فرعية. وعلاوة على ذلك، تستنتج الدراسة أن البيتكوين والذهب والنفط الخام لا يظهرون ارتباطاً معنوياً خلال أي من الفترات الفرعية الثلاث. تم التعرف على البيتكوين على أنه مرسل للصدمات لكل الفترات المدروسة. ومع ذلك، كان يعمل كمستقبل للصدمات خلال فترتي ما قبل كوفيد-19 وأثناءها. من ناحية أخرى، تم تحديد الذهب كمستقبل للصدمات على مدار الفترات الثلاث الفرعية بالكامل.

الكلمات الرئيسية: عملة البيتكوين ، الذهب ، النفط الخام ، الترابط، الأسعار، كوفيد 19