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# ASSESSING THE DYNAMIC RELATIONSHIP OF STOCK MARKET, INTERNATIONAL TRADE AND ECONOMIC GROWTH: EMPIRICAL EVIDENCE FROM WAVELET ANALYSIS

**Ann-Ni Soh**  
University Malaysia  
Sarawak,  
Faculty of Economics and  
Business, Malaysia  
[ann\\_ni0303@hotmail.com](mailto:ann_ni0303@hotmail.com)

**Meng-Chang Jong**  
University Malaysia  
Sarawak,  
Faculty of  
Economics and  
Business, Malaysia  
[jmengchang1130@gmail.com](mailto:jmengchang1130@gmail.com)

**Chin-Hong Puah\***  
University Malaysia  
Sarawak,  
Faculty of Economics  
and Business,  
Malaysia  
[chpuah@unimas.my](mailto:chpuah@unimas.my)

**Mohammad Affendy  
Arip**  
University Malaysia  
Sarawak,  
Faculty of Economics  
and Business, Malaysia  
[amaffendy@unimas.my](mailto:amaffendy@unimas.my)

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## Abstract

This paper aims to identify the nexus of stock market, trade and economic growth in Thailand. The study used approximately two decades of monthly data from 2000 to 2019. By applying the continuous wavelet transform (CWT) wavelet-based approach, the time-frequency and lead-lag relationships among the variables can be captured. Empirical findings reveal significant coherencies among the variables in the medium and long run with a positive association. Evidence reveals that the Thailand stock market plays a prominent and leading role in international trade. This study offers interesting findings about the lead-lag relationship between the stock market and economic growth, while the significant positive relationships among these two variables are validated. The theoretical implications have been justified, as these relationships are significant. The results obtained are vital for policymakers in framing effective macroeconomic policies regarding the Thailand stock market.

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## Key Words

Thailand stock market; wavelet coherence map; time-frequency analysis; trade; economic growth.

## INTRODUCTION

Great interest has arisen among economists regarding the linkage between the stock market and economic growth, despite disagreement regarding the degree to which the financial industry can foster economic growth. Traditionally, the questions revolve around whether or not the financial sector has adequate influence on economic changes. Moreover, in crisis, the degree to which the financial sector affects a country's economic growth has also been debated. Although the connections among the stock market and economic growth remain inconclusive, evidence suggests that the innovations and evolution of the stock market influence progress in global financial markets. The stock market has constituted an important channel through which to raise capital in the economy and trigger growth. In the meantime, potential risks to the economy still exist due to market crashes and volatility in stock market returns.

Over the past five decades, the Thai government has focused on its stock market because it is considered a compelling alternative for diversification to stimulate economic growth. In 1962, a private group in a limited partnership established the Thai stock market; it was renamed the Bangkok Stock Exchange Co., Ltd. (BSE) the next year. Despite the well-intended base, its annual turnover was only THB160 million in 1968 and reached an all-time low of just THB26 million in 1972. Due to BSE's failure, proper facilities and procedures for securities trading were established under the Second National Economic and Social Development Plan (1967-1971). In 1972, the Thai government took further action by extending government control and regulation over finance and securities operations. In 1991, the BSE was renamed the Stock Exchange of Thailand (SET), and on 10 September 2014 it became the first Association of Southeast Asian Nations (ASEAN) member and Southeast Asian country to join the United Nations Sustainable Stock Exchange initiative.

The SET had a total of 757 listed companies as of 2018Q2 (Stock Exchange of Thailand, 2019). In 2018, the SET index closed at 1,563.88 points, a decrease of 10.8% from the previous year. In addition, the market capitalisation of SET and the Market of Alternative Investment (MAI) decreased to USD500.3 billion, a decrease of 9.52% from 2017. The average trading value peaked in the second quarter of 2018 and continued to drop in the last quarter of 2018. This weak performance is due to trade war tensions between the United States (US) and China, the global crude oil price fluctuations and contractual monetary policies of major central banks.

The international trade war tension indicates a dynamic relationship between international trade and the Thai stock exchange. Trade war tension affects investors' confidence level, and thus impacts stock market performance. Trinity Securities Executive Director Nuttachart Mekmasin pointed out that the trade war between the US and China is the most critical factor affecting sentiment across global stock markets (Bangkok Post, 2019). Due to trade war tension, the SET suffered a huge equity sell-off and tumbled by around 35 points on 26 August 2019. This indicates that the Thai stock market is sensitive to trade war tension between the leading countries in the