

## **BUKTI EMPIRIK KETIDAKNORMALAN BAGI INDEKS BULANAN PASARAN SAHAM BURSA MALAYSIA**

(Empirical Evidence on Non-normality in Monthly Stock Market Indices of Bursa Malaysia)

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### *ABSTRAK*

Siri masa kewangan didapati mempamerkan pelbagai fakta bergaya, iaitu ciri gelagat struktur umum tertentu. Kajian dalam bidang kewangan telah mendokumentasikan pelbagai sifat mengenai kehadiran fakta-fakta bergaya ini khususnya bagi indeks pasaran saham. Dalam makalah ini dikaji siri masa bagi indeks pasaran saham Bursa Malaysia. Fakta-fakta bergaya ini cuba dicirikan dalam tiga indeks Bursa Malaysia, iaitu Indeks Komposit FTSE Bursa Malaysia Kuala Lumpur (FBM KLCI), Indeks Kewangan dan Indeks Industri dari Julai 1990 hingga Julai 2010. Didapati bahawa ketiga-tiga indeks tersebut adalah dicirikan oleh kehadiran fakta-fakta bergaya seperti kekurangan kenormalan, isu kepencongan dan lebih kurtosis. Seterusnya dikupas sebab taburan pulangan mempunyai hujung berkembang dan lebih berpuncak daripada taburan normal. Turut dijelaskan adalah cara sifat-sifat ini mempengaruhi model-model tradisi dalam bidang kewangan yang didapati bahawa sifat-sifat statistik ini membatalkan banyak pendekatan statistik yang biasa digunakan untuk mengkaji siri masa kewangan. Selain itu, dalam kajian ini turut diberikan cadangan penyelesaian untuk mengatasi kelemahan ini bagi pemodelan data.

*Kata kunci:* Fakta bergaya; indeks pasaran saham Bursa Malaysia; ketidaknormalan

### *ABSTRACT*

Financial time series is known to exhibit diverse of stylised facts as documented in financial literature on the presence of these stylised facts especially in stock market indices. This paper studies on the time series of stock market indices of Bursa Malaysia. We attempt to characterise the stylised facts in three indices of Bursa Malaysia Index Series namely the FTSE Bursa Malaysia Composite Index (FBM KLCI), the Finance Index and the Industrial Index from July 1990 until July 2010. We observe that these three indices are characterised by the presence of the stylised facts such as lack of normality, skewness and excess kurtosis. We identify why the returns distribution has heavier tails and more peaks than normal distribution. We also explain how these properties influence the traditional financial models where these statistical properties invalidate many of the common statistical approaches used to study financial time series. Lastly, we propose solution on how to overcome this drawback for modelling purpose.

*Keywords:* Stylised facts; Bursa Malaysia stock market indices; non-normality

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