

## Analisis volatilitas imbal hasil (Return) saham sector perdagangan selama periode 1998 sampai dengan 2005

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### Abstrak

Penelitian mengenai return saham dari berbagai sisi selalu menarik perhatian, terutama bagi investor. Dengan mengetahui volatilitas return saham maka dapat dipelajari dan diantisipasi sebagai salah satu pertimbangan dalam keputusan investasi. Di dalam penelitian ini akan dilakukan analisa terhadap volatilitas pergerakan harga saham individual pada sektor perdagangan sejak Januari 1998 sampai dengan Desember 2005. Model yang digunakan untuk mengetahui volatilitas tergantung dari hasil uji terhadap varian residual yang digunakan. Jika varian residual tersebut bersifat tidak konstan maka menggunakan model Autoregressive Heteroskedastic (ARCH) dan Generalized Autoregressive Heteroskedastic (GARCH). Sedangkan untuk varian dari residual bersifat konstan maka akan digunakan model Ordinary Least Square, dalam penelitian ini model yang digunakan adalah Model AR (Auto Regressive), MA (Moving Average), dan Autoregressive Moving Average (ARMA).

Berdasarkan hasil pengolahan data selama periode penelitian ditemukan bahwa terdapat sepuluh emiten yang memiliki volatilitas bersifat homoscedastic yaitu Enseva! Putra Megatrading Tbk (EPMT), Great River International Tbk (GRIV), Hexindo Adiperkasa Tbk (HEXA), Ramayana Lestari Sentosa Tbk (RALS), Millennium Pharmakon Int. Tbk (SDPC), Tira Austenite Tbk (TIRA), AGIS Tbk (TMPI), Tunas Ridean Tbk (TURD), United Tractors Tbk (UNTR), dan Wicaksana Overseas Intl Tbk (WICO).

Sementara terdapat duabelas emiten yang bersifat heteroscedastic yaitu AKR Corporindo Tbk (AKRA), Hero Supermarket Tbk (HERO), Intraco Penta Tbk (INTA), Inter Delta Tbk (INTD), Perdana Bangun Pusaka Tbk (KON1), Lautan Luas Tbk (LTLS), Modern Photo Film Company Tbk (MDRN), Matahari Putra Prima Tbk (MPPA), Metro Supermarket Realty Tbk (MTSM), Sona Topas Tourism Inds. Tbk (SONA), Tigaraksa Satria Tbk (TGKA), dan Toko Gunung Agung Tbk (TKGA). Terhadap kedua belas emiten ini akan dibuatkan estimasi model conditional variance dengan metode ARCH/ GARCH untuk mengamati volatilitas return saham emiten yang bergerak dalam sektor perdagangan.

Berdasarkan hasil penelitian ini juga ditemukan emiten yang memiliki ARCH/GARCH yang volatilitasnya bersifat persisten yang ditandai dengan nilai  $\alpha + \beta > 1$  sehingga mengurangi kestabilan model ARCH/GARCH. Emiten yang volatilitasnya bersifat persisten yaitu AKRA, KON1, MTSM, dan TGKA

Research towards stock's return from every aspect has always attracts attention, especially with respect for the investors. By be acquainted with the stock volatility returns there are a chance to examine and forecast event, as part of the investing consideration realization. In this research, the analysis will focus on the volatility movement on individual stock's price in retail sector from January 1998 until December 2005. The models that are applied to analyze the volatility depend on the output from the residual variances that are

being analyzed. If the variance is constant, consequently there is a need to use Autoregressive Heteroskedasticity (ARCH) and Generalized Autoregressive Heteroskedasticity (GARCH).

In addition to constant residual variances, the model that are going to be used is Ordinary Least Square, whereas in this research the model that are going to be used are AR Model (Auto Regressive), MA model (Moving Average) and Auto Regressive Moving Average (ARMA).

Based on the data accumulation during the research period, it has been found that there are ten (10) items that has homoscedastic volatility. These items are Enseval Putra Megatrading Tbk (EPMT), Great River International Tbk (GRIV), Hexindo Adiperkasa Tbk (HEXA), Ramayana Lestari Sentosa Tbk (RALS), Millennium Pharmaco Int. Tbk (SDPC), Tira Austenite Tbk (TIRA), AGIS Tbk (TMPI), Tunas Ridean Tbk (TURI), United Tractors Tbk (LFNTR), and Wicaksana Overseas Int'l Tbk (WICO).

In contrary, there are twelve (12) items that are heteroscedastic. These items are AKR Corporindo Tbk (AKRA), Hero Supermarket Tbk (HERO), Intraco Penta Tbk (INTA), Inter Delta Tbk (INTD), Perdana Bangun Pusaka Tbk (KONI), Lautan Luas Tbk (LTLS), Modem Photo Film Company Tbk (MDRN), Matahari Putra Prima Tbk (MPPA), Metro Supermarket Realty Tbk (MTSM), Soria Topas Tourism Inds\_Tbk (SONA), Tigaraksa Satria Tbk (TGKA), dan Toko Gunung Agung Tbk (TKGA). Relating to these twelve items, there is a need to make conditional variance estimation model with ARCHIGARCH method to predict stocks volatility return towards retail item.

This research also found that there are items that has ARCHIGARCH with persistent volatility that marked with a  $\alpha_1 > 1$  which decrease the ARCHIGARCH model stability. Items that are persistent in this research are AKRA, KONI, MTSM, and TGKA