The behaviour of Athens stock prices

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I. INTRODUCTION

In the last two decades a vast amount of research has been conducted on price movements in capital markets. A problem of continuing interest in financial economics analysis is that of evaluating the efficient capital market hypothesis. Briefly stated, the hypothesis claims that a 'market in which prices fully reflect available information is called efficient'; see Fama (1970). An efficient market is one in which the price always incorporates all the information available to the market. This implies that there are no opportunities to make extraordinary profits by exploiting information contained in past price changes. A large number of empirical studies have been developed supporting this hypothesis. Jensen et al. (1978) calls it the best established empirical fact in economics.

Numerous investigators have examined the efficient capital market hypothesis in developed countries. There have been few studies on the efficient capital market hypothesis for developing countries. Hong (1978a,b) tested for weak-form efficiency on the Stock Exchange of Singapore (SES) and he concluded that the random walk hypothesis cannot be rejected for the SES. In addition, Ang and Pohlman (1978) found that the SES is efficient in the weak sense.

Gandhi et al. (1980), using a number of well known empirical tests, showed the inefficiency of the Kuwaiti stock market.

All these studies used conventional statistical methodologies which assume normal distribution; however, none of them investigated the nature of the distribution of monthly returns. Therefore, these studies have generated additional interest as to (a) additional evidence for other developing countries, and (b) use of proper tests on the form of the distributions of stock returns for investigating the form of stock returns.

The purpose of this paper is to investigate the capital market efficiency in the case of the Athens stock market and to determine to what extent the empirical distribution of monthly returns conforms to the normal distribution. The remainder of this paper is organized as follows. Section II will briefly discuss the methodology and data used. Section III summarizes and reports the results of three tests (autocorrelation coefficients, Ljung–Box statistic and Kolmogorov–Smirnov statistic) employed to test the independence of successive stock price changes in the Athens stock market. Section IV presents and discusses the empirical results of runs analysis and the rank version of von Neumann's ratio test for randomness. The purpose of Section V is to examine the distribution of stock returns in the