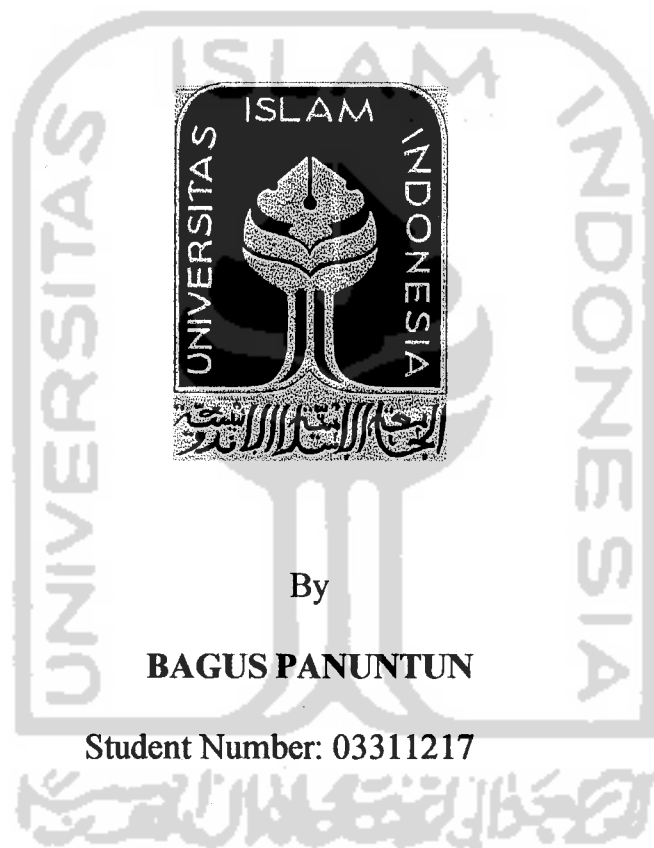


**EMPIRICAL STUDY OF *CALL OPTION VALUATION*
USING *BLACK-SCHOLES OPTION PRICING MODEL***

A THESIS

Presented as Partial Fulfilment of Requirements
to Obtain the Bachelor Degree in Management Department



By

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**DEPARTMENT OF MANAGEMENT
INTERNATIONAL PROGRAM
FACULTY OF ECONOMICS
ISLAMIC UNIVERSITY OF INDONESIA
YOGYAKARTA
2007**

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Defended before the Board of Examiners
on February 23, 2007
and Declared Acceptable

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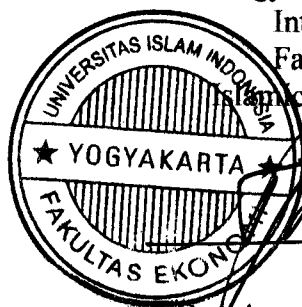
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International Program

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Drs. Asma'i Ishak, M.Bus., Ph.D.

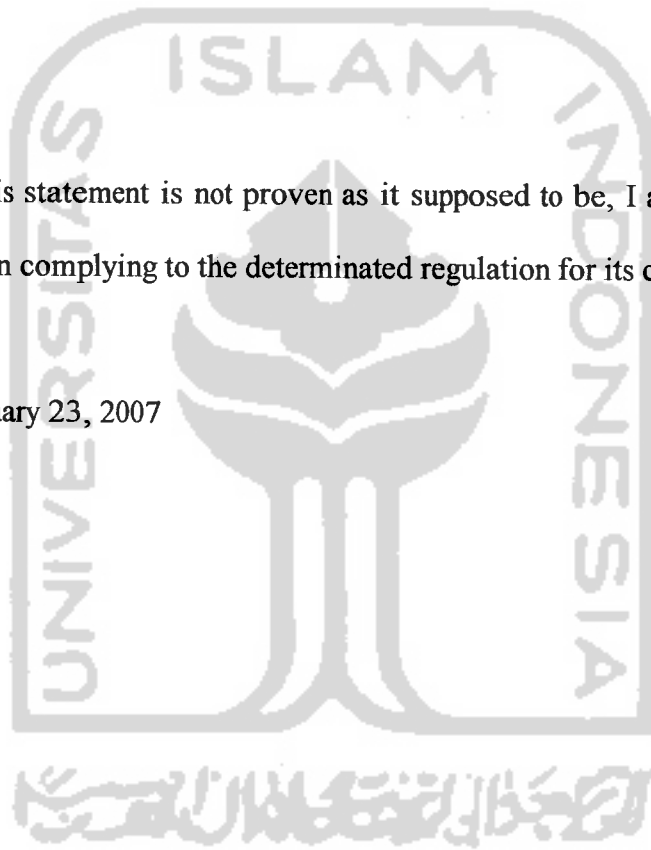
STATEMENT OF FREE PLAGIARISM

Herein I declare the originality of this thesis; there is no other work which has ever presented to obtain any university degree, and in my concern there is neither one else's opinion nor published and written work, except acknowledged quotation relevant to the topic of this thesis which have been stated on thesis bibliography.

If in the future this statement is not proven as it supposed to be, I am willing to accept any sanction complying to the determinated regulation for its consequence.

Yogyakarta, February 23, 2007

Bagus Panuntun



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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

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Yogyakarta, February, 2007

The Writer

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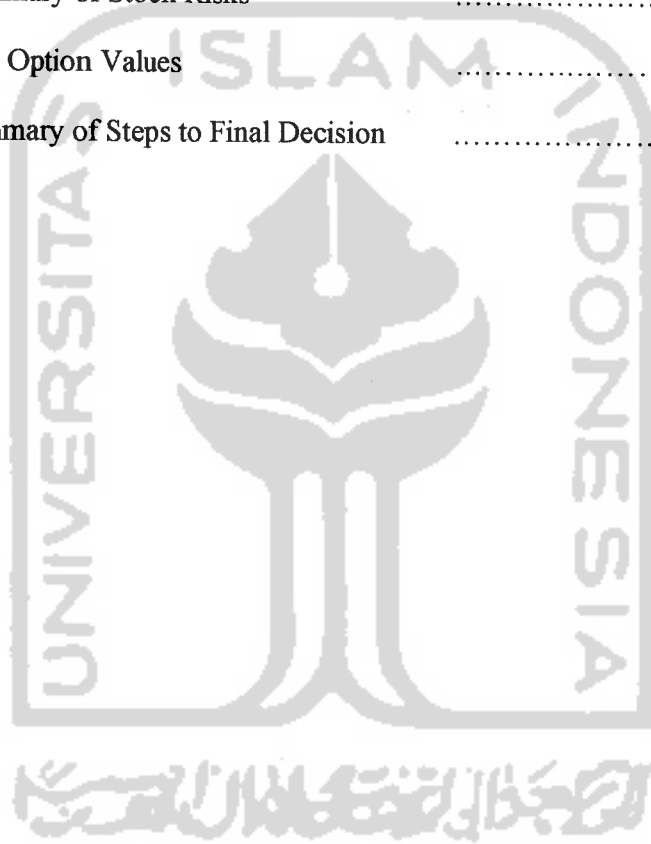
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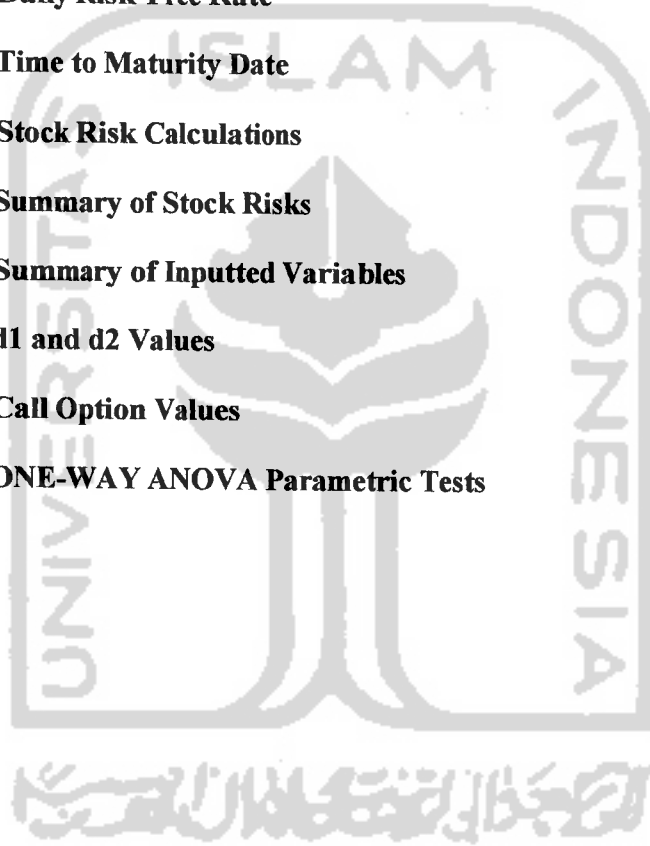
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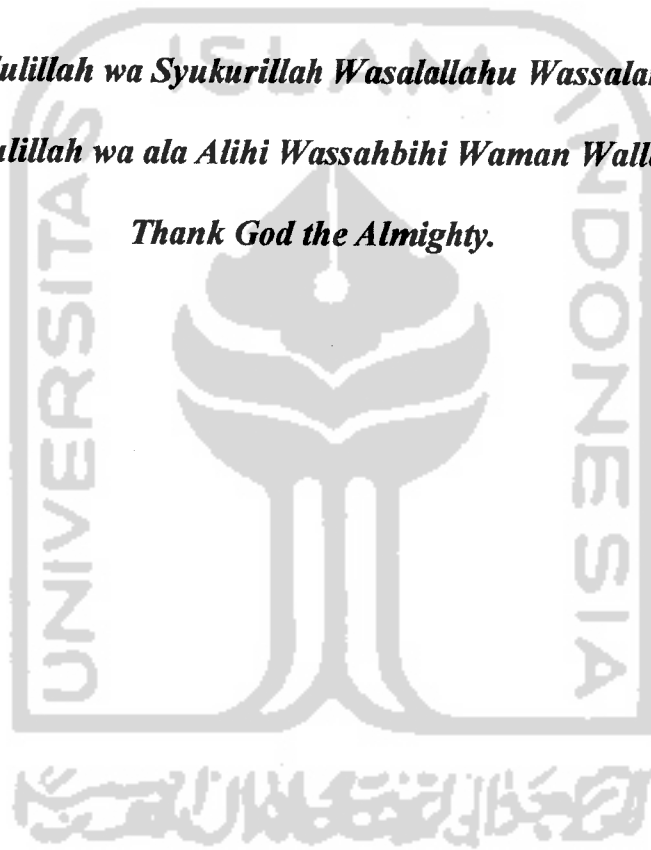
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Alhamdulillah wa Syukurillah Wasalallahu Wassalamu ala

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Dedication.....

to my beloved Mom and Dad

ABSTRACT

Panuntun, Bagus (2007) "Empirical Study of Call Option Valuation Using Black-Scholes Option Pricing Model" Yogyakarta: Management Department, International Program Faculty of Economics, Universitas Islam Indonesia.

Option has been developed rapidly in the investment world. The opening of *Chicago Board Options Exchange (CBOE)* in 1973 is the monumental point of rapid development of option trading. In this CBOE is for the first time in the world for trading an option in an organized exchange floor. Option was introduced in Indonesia in 2004. It shows the option development in Indonesia has left behind comparing with other Asia-Pacific countries such as Malaysia, Singapore, Thailand, and Australia. When call option is traded in Indonesia, it needs a call option valuation tool. Black-Scholes Option Pricing Model can be used as a valuation tool to create a more efficient market. This model can be applied because all inputted variables are provided in the market.

The purpose of this research is to know the application of call option price valuation method on stock samples in Jakarta Stock Exchange trading call option. This research also examines the hypothesis whether there is significant difference among the difference of call option exercise price to call option value based on Black-Scholes Option Pricing Model when the call option is issued.

The research is started with calculating each sample of stock risk. The next step knows the amount of value needed based on *Black-Scholes Option Pricing Model* such as, stock price, exercise price, risk-free rate, and call option time-to-maturity date. Final step is comparing call option value for each difference exercise price. This final step is done to know whether there is significant difference of variative exercise value of call option value to call option value using *Black-Scholes Option Pricing Model*.

The result of this research shows no significant difference of variative exercise value of call option value to call option value for each sample based on *Black-Scholes Option Pricing Model*. This happens, because along the call option time, stock price movement tends to be higher than exercise price. The absence of difference of variative exercise value of call option value to call option value is caused by the failure of samples in the *Homogeneity-Assumption* test and *One-Way ANOVA* test.

Keyword: option, call option, *Black-Scholes Option Pricing Model*.

ABSTRAKSI

Panuntun, Bagus (2007) "Empirical Study of Call Option Valuation Using Black-Scholes Option Pricing Model" Yogyakarta: Management Department, International Program Faculty of Economics, Universitas Islam Indonesia.

Opsi telah berkembang pesat dalam dunia investasi. Pembukaan *Chicago Board Options Exchange (CBOE)* pada tahun 1973 adalah momen penting dalam perkembangan perdagangan opsi. Di *CBOE* ini pertama kalinya memperdagangkan opsi di lantai bursa yang terorganisir di dunia. Namun, opsi baru diperkenalkan di Indonesia pada tahun 2004, dan hal tersebut menunjukkan ketertinggalan perkembangan opsi di Indonesia terhadap negara-negara di kawasan Asia-Pasifik lainnya, seperti Malaysia, Singapura, Thailand, dan Australia. Ketika opsi call diperdagangkan di Indonesia, maka diperlukan suatu alat penilaian opsi. *Black-Scholes Option Pricing Model* dapat dijadikan sebagai suatu alat dalam melakukan penilaian agar tercipta pasar yang lebih efisien. Model ini dapat diterapkan karena semua variabel-variabel input yang digunakan tersedia di bursa.

Tujuan dari penelitian ini adalah untuk mengetahui penerapan metode penilaian harga opsi *call* pada sampel saham di Bursa Efek Jakarta yang memperdagangkan opsi *call*. Penelitian ini juga menguji hipotesis apakah terdapat perbedaan yang signifikan pada nilai opsi *call* berdasarkan *Black-Scholes Model* di antara harga patokan yang berbeda-beda ketika opsi *call* diterbitkan.

Penelitian ini diawali dengan menghitung risiko saham dari setiap sample saham tersebut. Langkah berikutnya adalah mengetahui besarnya nilai untuk variabel-variabel yang diperlukan berdasarkan *Black-Scholes Option Pricing Model*, yaitu harga saham, harga patokan, suku bunga SBI, dan sisa waktu jatuh tempo opsi *call*. Langkah terakhir adalah membandingkan nilai-nilai opsi *call* untuk setiap harga patokan yang berbeda-beda. Langkah terakhir ini dilakukan untuk mengetahui adanya perbedaan yang signifikan nilai opsi *call* berdasarkan harga patokan yang berbeda-beda dengan menggunakan *Black-Scholes Option Pricing Model*.

Hasil penelitian ini menunjukkan tidak adanya perbedaan yang signifikan nilai opsi *call* karena harga patokan yang berbeda-beda berdasarkan *Black-Scholes Option Pricing Model* untuk sampel saham tersebut. Hal ini terjadi, karena sepanjang umur opsi *call*, pergerakan harga saham cenderung lebih tinggi daripada harga patokan. Tidak adanya perbedaan nilai opsi *call* dengan menggunakan harga patokan yang berbeda-beda dikarenakan gugurnya beberapa sampel tersebut melewati uji asumsi *homogeneity* dan uji *One-Way ANOVA*.

Kata kunci: *opsi, opsi call, Black-Scholes Option Pricing Model*.

CHAPTER 1 INTRODUCTION

1.1. Background of the study

Economic movement of one country must be depending on some elements. Trading and investment are elements that have a lot of role and involve so many parts on it, like company, government, individual economic player, and so on. Investment is divided into two categories, direct investment and indirect investment. Direct investment means owing direct obligation in some entity legally, which is already, go public with getting capital gain and dividend income as the expectations. Meanwhile, indirect investment happens if Investment Company, which serves an agent or broker, trades those obligations again.

Modern investment theory is widely employed throughout the investment community by investment and portfolio analysts who are becoming increasingly sophisticated. In 1964, Sharpe published an article entitled “Capital Asset Pricing Model” which is categorized as a revolutionary model in his era. By this model the financial expert is able to explain and count the risk of investment in capital market. The other benefit is that the expert can price assets based on the risk that comes from the assets themselves.

Investing wealth in portfolio assets means investors should readily weight between risk and the return of diverse assets. Risks are divided into two characteristics; those are the risk that can be diversified and the risk that cannot be diversified. In this case, portfolio is aimed to decrease the risk rate that can be diversified, which is related to the market risk that affects to all of assets. When

the investors invest their assets, risk character becomes a dominant factor for the investors' decision-making. They will maximize their utility to determine the optimum investment in portfolio assets.

CAPM model assumes that investor already holds a well diversified portfolio, and then the unsystematic risk that is brought by each asset becomes invaluable. In this condition only systematic risk, which is risk affecting all financial assets, has to be concerned because it cannot be disappeared by diversification process. Although the systematic risk affects overall financial assets it results different influences. If investor should hold a risk content portfolio, investor will ask for premium in the form of higher expected return which is equal to intensity of systematic risk influence of portfolio.

Derivative product has been developed rapidly in the last twenty five years. This happens as a need to find solution of financial distress and the development of financial market itself. The use of derivative product as an investment tool in capital market and financial trading has been increasing which is followed by development and deregulation on global financial market. As being implicitly shown in Indonesian Capital Market Blue Print 2000-2004, development of Indonesian capital market is determined by the issue of new instruments in capital market. Instrument that can be developed is an option, which becomes one example of derivative products that is based on underlying assets.

According to Megginson which is re-explained by Zaenal Arifin¹, an option is securities that give a right – not obligation – to buyer for buying or

¹ From Zaenal Arifin, *Teori Keuangan dan Pasar Modal* (Yogyakarta: Ekonisia, 2005), pp172 - 173.

selling commodities (securities or real assets) with a certain price and at or before the option mature. According to Zaenal Arifin, Call Option is a right to buy assets with a certain price, and at or before its maturity.

The opening of Chicago Board of Option Exchange (CBOE) in United States on April 26, 1973 is the monumental point of rapid development of option trading. In this CBOE is for the first time in the world for trading an option in an organized exchange floor (Hull, 1997). Option trading is not only for stock, but also for stock index, obligation, currency and commodity (Labuszewski, 1998). Ironically, option is not being traded in organized market in Indonesia, it causes the slow development of option in Indonesia. The slow development of option causes Indonesia has left behind comparing with other Asia-Pacific countries such as Malaysia, Singapore, Thailand, and Australia.

When call option is traded in Indonesia, it needs a tool to forecast the value of option. Beside *Binomial Model* option pricing, Black-Scholes Option Pricing Model can be used as a tool for call option valuation and for the creation of more efficient market. This is an applicable model because all of input variables already exist in market.

Call option has an exercise price, the higher of exercise price will decrease the call option value. Beside exercise price, there are some other variables such as market share price, time remaining to maturity date, risk-free rate, and stock risk (Sharpe, 1995).

Several previous studies were offering some methods that might help the investors to make investment decisions. For example, Stoll (1969) and Klemkosky & Resnick (1979) studied the *put-call parity* in *over-the-counter* market and

registered option market. Black-Scholes (1972) studied whether the forming of *riskless hedge* by buying an undervalued option – which is based on Black-Scholes model – and simultaneously selling the overvalued option will gain a profit. They found that the option market at that time – in form of OTC – is efficient. Galai (1977) and Bhattacharya (1983) found the similar result while examining the efficiency of Chicago Board Option Exchange (CBOE) in 1973.

Hakim (2003) conducted the research on observing the application call option valuation method by using Black-Scholes Option Pricing Model. Research conducted by Hakim is using five-samples of underlying stock price (BBCA, GGRM, ASII, TLKM, and HMSP), at the daily frequency. The risk-free rate is taken from Indonesian Bank Certificate (SBI) by assuming that daily risk-free rate is based on the publication form Bank of Indonesia. His findings are the different call option exercise prices resulted on different of call option value too. The higher exercise prices will decrease the call option value at maturity date. The result of his study about application of call option valuation using Black-Scholes option pricing model found that the average value of call options has a significant difference for the five stock samples.

This research examines the previous research conducted by Hakim (2003). Following Hakim, the variables in this research are underlying stock price, exercise price, time to maturity date, stock volatility, and risk-free rate. This research is different from the previous research which is conducted by Hakim, in terms of: (1) the research will be conducted in portfolio stocks in Jakarta Stock Exchange (JSX), using the sample data from the LQ-45 which fulfilled the requirement to be a member of Stock Option Contract (SOC) trading, and the

weekly risk-free rate from Indonesian Bank Certificate (SBI); (2) This research will be using the empirical data of Stock Option Contract (SOC) trading in Jakarta Stock Exchange (JSX) to get the empirical result than previous result. It is different from the previous study which is used many assumptions for their variables, such as call option exercise prices, time to maturity date, and the call option traded up to the end of date. It is because the product of Stock Option Contract (SOC) – which was introduced on October 6, 2004 – did not exist when the previous researcher did his research.

From the study background above, the writer is interested in analyzing the call option valuation by using Black-Scholes Option Pricing Model. Therefore the writer put the main focus on **“Empirical Study of Call Option Valuation Using Black –Scholes Option Pricing Model.”**

1.2. Problem Identification

The basic problem that the researcher would like to focus on is the option pricing method, especially Black-Scholes Option Pricing Method. Therefore, in this research, the researcher would like to observe the application of Black-Scholes Option Pricing Model of public firms in Indonesia, particularly, to examine whether or not there is significant difference among different call option exercise price comparing to call option value based on Black-Scholes Option Pricing Model.

1.3. Problem Formulation

Based on the identification of the problem, the problems can be formulated as follows:

1. How does the application of call option value using the Black-Scholes Option Pricing Model?

2. Is there any significant difference of variative exercise value of call option value to call option value based on Black-Scholes Option pricing Model?

1.4. Limitation of Research Area

In order to avoid the research extend considerably and out of context of the topic, this research is narrowed with these several limitations:

1. This research is quantifying the economic significance of Hakim result' (2003) from the perspective of investor. The research is limited to evaluate the option valuation, using Black-Scholes Option Pricing Model to be compared with the factual value.
2. The sample data used in this research is stocks that include in LQ 45, which index is consisting of 45 selected stocks that have passed the qualification of the stock liquidity and capitalization based on Stock Option Contract (SOC) regulation.
3. This research focuses on analyzing the valuation strategy that can be used in stock option market.
4. The Risk-Free Rate data is taken from Bank of Indonesia. It can be seen from the SBI (Surat Bank Indonesia) that is always revised when the Bank of Indonesia announces the new risk free rate.

1.5. Research Objectives

This research is conducted to re-examine the previous research by Hakim (2003), and analyze the call option valuation using the Black-Scholes Option Pricing Model in Jakarta Stock Exchange (JSX) underlying stocks.

The objective of this research is to provide empirical evidence related to option trading, observing the application of call option pricing method based on Black Scholes Option Pricing Method to stock samples in Jakarta Stock Exchange. And, the other objective is to test whether it is exist a call option significant difference among different exercise price while a call option issued.

1.6. Research Contributions

The researcher hopes that this research entitled “Empirical Study of Call Option Valuation Using Black –Scholes Option Pricing Model” will be beneficial for the following parties:

1. **Researcher**

For the researcher, this research gives more knowledge about Option Pricing Method emphasizing on the application of Black-Scholes Option Pricing Model, more information about some theories related to the option pricing method, and which theories are actually suitable to the Indonesian firms

2. **Management**

This research will give information to the management in performing such strategies in option trading.

3. **Investors**

The result of this research helps the investor to make decision and strategy in order to invest their assets in portfolio to trade in the stock market. By giving the investors a review of Black-Scholes Option Pricing Model, of

course, will be helpful to them to determine the best strategy for their portfolio investment.

4. Academicians

Hopefully, this research can be useful as the reference for the academicians, lectures, students, and others.

5. Government

Finally, this research gives more information to the government which needs some consideration in making economics policies especially about investment policy and financing decision for Indonesian companies. This research can also help the government in making some rules in order to control the economic equilibrium in the country carefully. Then this research provides some suggestions for the establishment of Indonesian option market for the development of market efficiency.

1.7. Definition of Terms

- Call Option is “a right to buying a stock in a certain period and certain price too” (Jones, 2002)
- Exercise Price or Strike Price is “a price that happens when the call option is executed” (Shapiro, 2002)
- Expiration Date is “a time when the call option holder can exercise the call option” (Jones, 2002)
- Call Option Premium is “a price that should be paid by call option buyer to call option seller and usually stated in price of each shares paid by call option buyer” (Jones, 2002)

- Intrinsic Value is the economical value of an option if being exercise as soon as possible.
- The Risk-Free Rate is the rate of return that can be earned with certainty.
- Time-to-maturity date is the excess time until the call option is mature.



CHAPTER II REVIEW OF RELATED REVIEW

2.1. Theoretical Review

2.1.1. Efficient Capital Market

An effective market is defined as one in which the prices of all securities quickly and fully reflect all available information about the assets. Basically, a market is relatively efficient to any information set if investors are unable to earn abnormal return profits by using the information set in their investment decisions.

There are several things that make efficiency in capital market:

1. Investor is price taker, which means investor individually cannot affect the price from a security.
2. The availability of information to all actors in capital market in the same time and the inexpensive price to get the information.
3. Information is selected randomly and each announcement of information is random one to another.
4. Investor reacts to the information fully and quickly.

Financial statement information is a potential source in revising the prices of traded securities. If this information can give significant impact on the capital market, then this information can be said as having information content. This condition could also happen in dividend as the other information beside the financial statement. One way to check this impact is by addressing whether the information released are associated with a change in the distribution of security

returns at the time of their announcement.

Based on how fast the stock prices fully reflect the different types of available information, the market efficiency can be divided into three types:

a. Weak Form

The weak form is characterized by:

1. The price reflects all information in the past (price and volume),
2. Technical analysis, an analysis that use price in the past which cannot be used for getting abnormal return from the change in future price, and
3. There is randomly change of price.

b. Semi-strong Form

This kind of market is characterized by:

1. The price reflects all relevant public information, and
2. Investor cannot get the return above average after public information is announced.

c. Strong Form

Strong Form is characterized by:

1. The price reflects all information including public and private,
2. No investor can get abnormal return by using either public or private information, and
3. it is the highest efficient market form (including weak form and semi-strong form)

The Efficient Capital Market (Fama, 1970) that is usually called as Efficient Market Hypothesis (EMH) is also giving implication for investment business included option market.

2.1.2. Assets Pricing Models

Financial knowledge started to become famous as a scientific science when Sharpe (1964) published his article about Capital Assets Pricing Model (CAPM). By this model, the financial experts are able to explain and count the risk of investment in capital market. Besides, they can price an asset based on the risk that comes from the asset itself.

CAPM model assumes that investor already holds a well diversified portfolio, and then the unsystematic risk that is brought by each asset becomes invaluable. In this condition, only systematic risk, which is the risk affects all financial assets, has to be concerned because it cannot be disappeared by diversification process. Although systematic risk affects overall financial assets, it causes different influences. If investor should hold a risk content portfolio, investor will ask for premium in the form of higher expected return which is equal to intensity of systematic risk influence of portfolio.

The contributions of Sharpe are:

- a. **He gave a definition for systematic risk and formulated how the investor could make a *trade-off* between risk and return.**

By assuming the investor can invest into *risky-assets* e.g. stock, or *risk-free assets* e.g. Treasury bill, then this will produce a risky-asset portfolio which is dominate other risky-assets portfolio. It called as market portfolio. This shows an important result that all investors will allocate their fund to a combination of risk-free assets and market portfolio which is drawn by Sharpe as a straight line named Capital Market Line (CML).

The risk-averse investor will invest great part of their fund to risk-free assets, while the less risk-averse investor will invest in market portfolio. The risk-lover investor perhaps will take a loan with risk-free interest level then invest it in risky market portfolio. It means that the investor can choose a certain risk level and get a competitive return by investing their assets to risk-free assets and market portfolio.

- b. In equilibrium condition, each asset should propose an expected return that has linear positive correlation with covariant from market portfolio expected return (R_m) which is shown as beta (β).

If it will be followed into market portfolio, each share sold with the price which investor can get the fair expected return equal to its stock systematic risk and risk-free assets return. CAPM mathematically formulated as:

$$E(R_i) = R_f + (R_m - R_f) \beta_i$$

$E(R_i)$ = expected return of stock i
 R_f = *risk-free* assets return
 R_m = market portfolio return
 β_i = systematic risk of stock i

2.1.3. Option

According to Megginson which is re-explained by Zaenal Arifin¹, an option is securities that give a right – not obligation – to buyer for buying or selling commodities (securities or real assets) with a certain price and at or before the option mature. According to Zaenal Arifin, call option is a right to buy assets with a certain price, and at or before its maturity.

¹ From Zaenal Arifin, *Teori Keuangan dan Pasar Modal* (Yogyakarta: Ekonisia, 2005), pp172 - 173.

2.1.3.1. Types of Options

There are two basic types of option:

- a. *Call Option* gives the holder the right to buy an asset on a certain date for a certain price.
- b. *Put Option* gives the holder the right to sell an asset on a certain date for a certain price.

Option can be either American Option or European Option, but the distinction has nothing to do with geographical location. There are:

- a. *American Options* can be exercised at any time up to the expiration date.
- b. *European Options* can be exercised only on the expiration date itself.

2.1.3.2. Option Trading Mechanism

1. The Stock Option Contract (SOC) trading in Jakarta Stock Exchange (JSX) uses the JOTS (Jakarta Option Trading System) facility, which is special JATS (Jakarta Automated Trading System) for Stock Option Contract (SOC) trading purpose.
2. The Stock Option Contract (SOC) can only be conducted by Jakarta Stock Exchange (JSX) members who are also the stock option clearing members in KPEI (KPEI is the Clearing and Guarantee Corporation).
3. Stock Option Contract (SOC) Trading Hours:

Monday-Thursday	Session I	09.30-12.00
	Session II	13.30-16.00
Friday	Session I	09.30-11.30
	Session II	14.00-16.00

4. Stock Option Contract (SOC) Exercise Hours:

Monday-Thursday	Session I	10.01-12.15
	Session II	13.30-16.00
Friday	Session I	09.30-11.30
	Session II	14.00-16.00

5. Determination of exercise price follows the rule from Jakarta Stock Exchange (JSX). The rule as follows:

Closing Price (Rp)	Interval Strike Price (Rp)
5,01 - 1,000	50
1,001 - 5,000	100
5,001 - 10,000	200
> 10,000	500

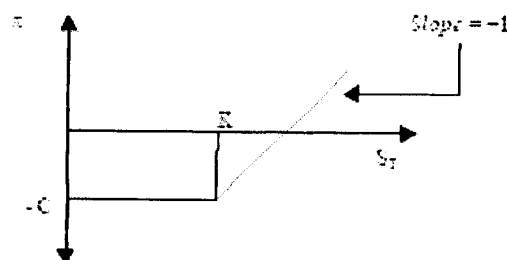
2.1.3.3. Option Positions

There are two sides of every contract. On one side is the investor who has taken the *long position* (i.e., has bought the option). On the other side is the investor who has taken a *short position* (i.e., has sold or *written* the option). The writer of an option receives cash up front but has potential liabilities later. The writer's profit or loss is the reverse of that for the purchaser of the option. There are four types of options positions:

- a. A long position in a call option.

Diagram.1

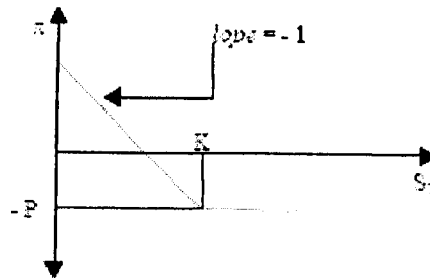
Long Call Profit Profile at Expiration



b. A long position in a put option.

Diagram.2

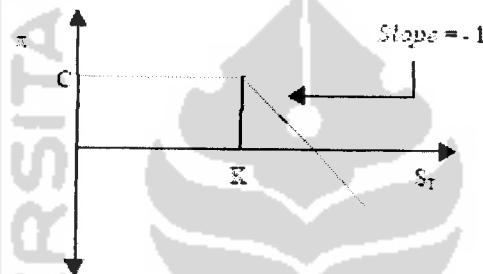
Long Put Profit Profile at Expiration



c. A short position in a call option.

Diagram.3

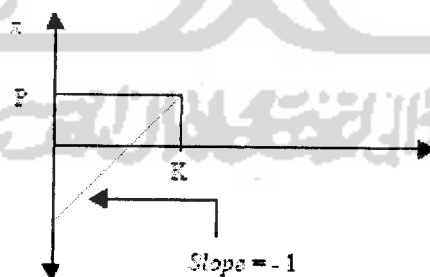
Short Call Profit Profile at Expiration



d. A short position in a put option.

Diagram.4

Short Put Profit Profile at Expiration



C = Call Premium

K = Exercise/Strike price

S_T = Recent market share price

π = Profit at maturity date

2.1.3.4. Other Types of Options

2.1.3.4.1. Stock Index Options

Speculators usually use stock price index to get profit from the change of price in stock market. Difficulties in finding stock index which reflect a stock in an option contract on the market becomes one of this option type's resistance. The other resistance factor is that the stock index option is not always in-line with the movement of stock market.

2.1.3.4.2. Interest Rate Options

Interest rate option contract is the same as government obligation options contract because the interest rate movement causes the change of obligation price. The obligation holder can protect their investment using option contract in this interest rate as the stockholder that can hedge their investment by using stock index option contract. Interest rate options are useful to equalize the losing value that happens between option buying date and obligation maturity date.

2.1.3.4.3. Currency Options

Foreign investment is risky to the change of currency exchange value. Investors can protect their investment portfolio by buying an option to currency where they invest.

2.1.3.4.4. Futures Contract Options

Options provide in various types of interest rate and stock future's contract. Future option's contract gives the holder a right to do - buy or sell – with Futures contracts. Some advantages that make investors reasonably interested in holding an option are the leverage and limited risk. They are:

- a. The Futures contract call option buyer has more leverage level than ordinary options buyer.
- b. Option in Futures contract can be united to the ordinary Futures contract to do a low-risk speculation, or getting profit from the profitable price movement and limit the risk of loss.

2.1.3.5. Specification of Stock Options

a. Expiration Dates.

Expiration dates or sometimes called *maturity dates* is the day when the options contract finished and the option holders cannot exercise their right in buying or selling.

b. Strike Prices.

Strike prices or sometimes called *exercise price* is the amount that should be paid by call option holder to option writer in order to get the assets that are being optioned. On put options, exercise price means the price that is accepted by put option holder when receiving the assets that are being optioned to put option writer.

c. Intrinsic Value (In-the-Money, Out-of-the Money, and At-the-Money).

In-the-money is the condition when the value of option is directly exercised. If it is exercised immediately, this means that the holder will be given a positive cash flow. Similarly, an *at-the-money* will lead to a zero cash flow if it is exercised immediately, and out-of-the money option will lead to a negative cash flow if it were exercised immediately.

Table.1
In, At, and Out the money

In the money	Market price > Exercise price
At the money	Market price = Exercise price
Out of the money	Market price < Exercise price

Source: *Multinational Financial Management*, Shapiro, 1996

In-the-money shows that call option has intrinsic value, at-the-money shows that call option has the zero intrinsic value, and out of the money shows that call option has no intrinsic value. So, the call option intrinsic value is the reduction of asset's price to exercise price.

2.1.3.6. Variables' Influence on Call Options Value

The value of call option can be predicted based on several influential factors. Besides stock price of the option, exercise price, risk-free rate interest, and time to expiration date, Hull (2000) concludes that option's value is also influenced by stock price volatility and the existence of dividend. In simplification, the relationship of the factors can be seen as follows:

Table.2
Variables Influence to Call Option Value

Variables	European Call	American Call
Stock Prices	+	+
Exercise Prices	-	-
Time to Maturity Date	?	+
Stock Volatility	+	+
Risk-Free Interest Rate	+	+
Dividend	-	-

2.1.3.7. Benefits of Options

By doing an options trading, we can get some benefits as follows:

- Risk management

Investors who own put option of underlying assets can do hedging by delaying to sell their stocks if their underlying assets' prices accidentally decrease. It is useful to avoid loss.

- Provide a flexibility of time

For American option type, the call or put option holders can determine whether they want to use their right or not up to the end of date.

- Provide a speculation instrument

Investors can get profit if they are able to make price increasing prediction by considering to buy a call option, and if decreases they consider to buy a put option.

- Leverage

Potentially, leverage gives a higher investment result than investing fund in stock, although the risk tends to be higher if doing a direct investment.

- Diversification

By doing an option trading, it can give a chance for investor to do portfolio diversification in order to decrease the risk of portfolio investment.

- Additional Income

Investors who own stocks can get additional income beside dividend by issuing call option of their stock. They will get a premium cost from the issue of their own stock option.

2.1.4. Option Pricing Theory (Black-Scholes Option Pricing Model)

Option Pricing Theory that is being published by Black-Scholes (1973) becomes a phenomenal cause of the ability to give a solution for call and put option valuation by only using five observable variables. They are:

- a. Exercise price.
- b. Recent share price of underlying option.
- c. Time to maturity date of an option.
- d. Variance of stock return.
- e. Risk-free rate.

Black-Scholes uses assumptions in order to apply model. They are:

- a. Stock price behaviour corresponds to the lognormal distribution
- b. There is no transaction cost or tax. All securities are perfectly divisible.
- c. There is no dividend on the stock during the life of the option.
- d. There is no riskless arbitrage opportunity.
- e. Security trading is continuous.
- f. Investors can borrow or lend at the same risk-free rate of interest
- g. The short-term risk-free rate of interest, r , is constant.

The Formula of Black-Scholes Option Pricing Model as follows:

$$V = [N(d_1) P] - [(Ee^{-Rf(T)}) N(d_2)]$$

$$d_1 = \frac{[\ln(P/E) + (R + 0.5\sigma^2) T]}{(\sigma\sqrt{T})}$$

$$d_2 = d_1 - (\sigma\sqrt{T})$$

V	= Call option price
Nd	= Probability to Lognormal distribution
P	= Recent market share price
E	= Exercise price
Rf	= Risk-free rate
T	= Time remaining to maturity date
α	= Stock risk / stock volatility
ε	= 2.7183

2.2. Previous Research

There is always a continuing debate on how to forecast and evaluate the option precisely. Early authors found that many financial variables help forecasting the excess stock market return. Here are several studies that develop the option valuation method.

In 1969, Stoll conducted an empirical test research which - the first study of how to do an option valuation – tested *a put-call parity*. He found that *over-the-counter* option market at that time is efficient. It means that it was rarely found an option price that was out of *put-call parity*. And, the next ten years, Klemkosky & Resnick (1979) found the similar things to formal option markets.

Black-Scholes (1972) are the first researchers who tested their own option model pricing that was published as Black-Scholes Option Pricing Model (1973) a year after. They tested whether they made a *riskless hedge* by buying an undervalued option - based on Black-Scholes model prediction – and simultaneously selling its undervalued option will gain a profit. They found that a profit or gain existed but it will disappear when we inputted a transactional cost. Based on their result, they concluded that the option market – at that time which is in form of OTC – is efficient. Galai (1977) & Bhattacharya (1983) then got the similar result in 1973, when they test the efficiency of Chicago Board of Options Exchange (CBOE).

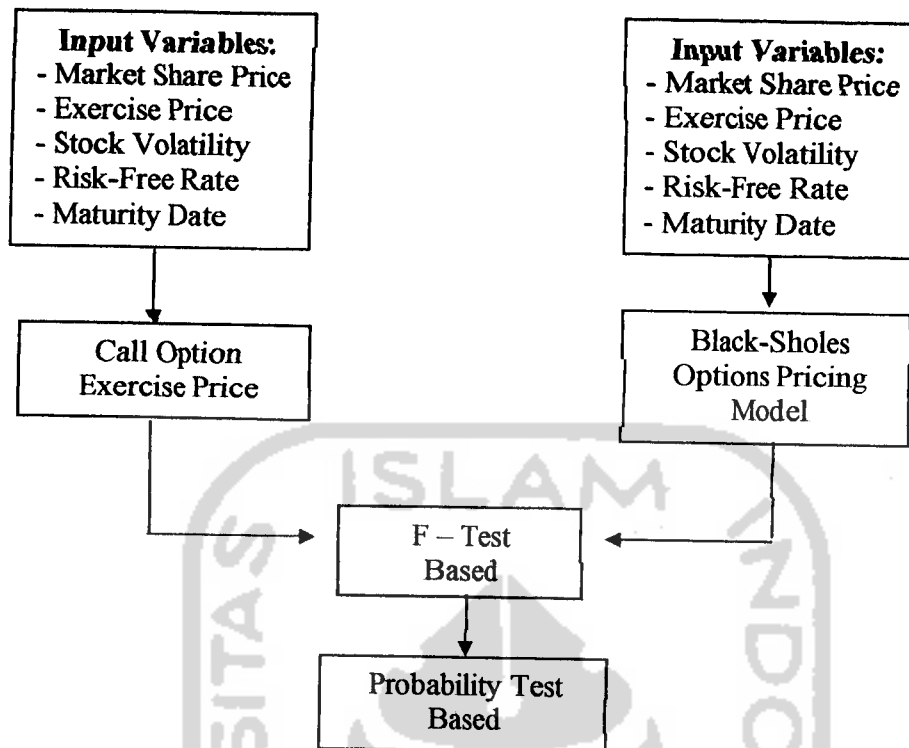
The next research concerning with Black-Scholes Model assumptions whether its constant stock return assumption supported by empirical data. In 1990, Macbath & Merville compared the constant variant assumption in Black-Scholes Model with *Constant Elasticity of Variance* model developed by Cox (1975). This model that was developed by Cox (1975) give a possibility of negative correlation between return variant and the recent stock price, and it was found that Cox (1975) is more supported by empirical data than Black-Scholes model.

The next development of Black-Scholes Option Pricing Model was done by Manaster & Rendleman (1982) by analyzing whether the stock price inside Black-Scholes formula is a better stock price equilibrium predictor comparing with the stated market stock price like New York Stock Exchange (NYSE). This is an interesting topic because option trading gives the bigger leverage than stock market. Investor which is having positive or negative private information can exploit the higher return by buying call or put beside buying or selling a share directly. They found that option price will self-adjustable to relevant information up to twenty-four hours before the information reflects in stock price.

Hakim (2003) was also conducted a research on the application of Black-Scholes Option Pricing Model. He used the data from five samples of stocks (BBCA, GGRM, ASII, TLKM, and HMSP) taken form LQ-45 index from January 3, 2003 until April 3, 2003.

This research is a replica from the previous study, which is conducted by Hakim. This research is also considering the other previous studies as reference for conducting this research. Overall, this study differs from the previous one in the empirical data of the research' subject, target population, and the observation period.

2.3. Conceptual Framework



Based on the explanation, the writer makes a diagram above to describe the steps as follows:

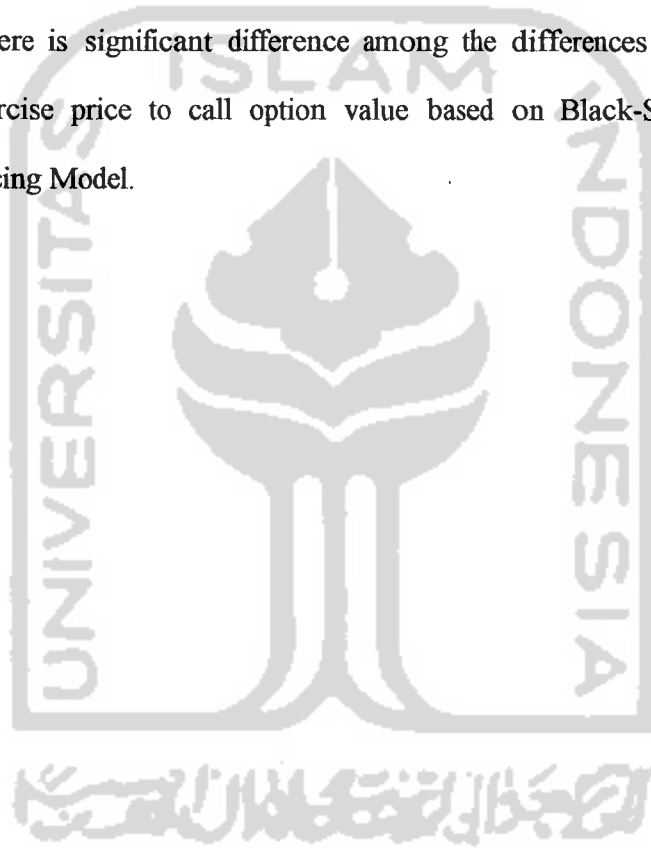
1. Collect all variables that exist in market.
2. Collect the call option exercise price at market.
3. Compute the call option value based on Black-Scholes Options Pricing Method.
4. Compare both results – call option exercise price vs. call option price using Black-Scholes Model – using F-Test for the first step.
5. Compare both results – call option exercise price vs. call option price using Black-Scholes Model – using Probability Test based, to get the final conclusion of accepting or rejecting the hypothesis.

2.4. Hypothesis Formulation

Exercise price affects the call option when maturity date. The higher exercise price will result on lower call option payoff value, finally make lower the call option value (Sembel, 2002).

Based on the theoretical review and theoretical framework, the hypothesis is made for the purpose of this study, in order to give empirical evidence to the problems.

H_0 = There is significant difference among the differences of call option exercise price to call option value based on Black-Scholes Option Pricing Model.



CHAPTER III METHODOLOGY

3.1 Research Method

According to Sekaran (2000) in his book of Research Method for Business, Hypothesis-Testing Research is defined as the study that engages in Hypotheses testing usually explains the nature of certain relationships, or establishes the differences among groups of the interdependence of two or more factors in a situation.

Hypothesis itself, according to Sekaran (2000), is defined as “a logically conjectured relationship between two or more variables expressed in the form of a testable statement. Relationships are conjectured on the basis of the network of associations established in the theoretical framework formulated for the research study. By testing the hypothesis and confirming the conjectured relationships, it is expected that solutions can be found to correct the problem encountered”.

The format of the hypothesis in this thesis is Null (H_0) and Alternate Hypotheses (H_1). The Null hypotheses state the exact relationships between two variables. In general, a null hypothesis is expressed as no significant differences between two variables. While alternate hypothesis is the opposite of null hypothesis, which indicates that there is a significant difference between the variables.

In this study, null and alternate hypothesis format are chosen to give empirical evidence whether there is a significant difference between call options exercise price and call option value based on Black-Scholes Options Pricing Model.

3.2 Research Population

The target population investigated in this research is stock companies who is trading stock option and listed in Jakarta Stock Exchange period *September 2003 - February 2005*. The researcher chooses this period of observation because the call option samples just traded on *November 2004* and mature on *February 2005*. The calculation of stock risks since *August 2004* until *November 2004*. And, In order to fulfill the first criteria to be underlying stock need data since *September 2003* up to *September 2004*. The call option' last trading on July 2005 and still in-active until the researcher done the research.

Jakarta Stock Exchange is chosen as the research subject because JSX is the biggest stock market in Indonesia, either in trading volume activities or in the number of listing companies.

3.3 Research Sample Criteria

The data that selected for the research is not randomly conducted, but it is conducted in a purposive sampling. Purposive sampling is the sample selection based on several criteria (Cooper and Emoty, 1996)

The sample used in this research is the companies included in LQ-45 with most active stocks at that period. To be eligible in the selection, a stock option_needs to fulfil certain criteria and passes the main selection. The criteria requirements for underlying stock are as follows:

1. Sample has been listed in Jakarta Stock Exchange at least 12 months for *September 2003 up to September 2004*.
2. In the last 12 months, the transaction has:
 - Minimum of 2.000 (two thousand) trade frequency per month.

- Minimum of 0.5% (Zero point five percent) daily price volatility average (intraday volatility).
- 3. Stock price minimum is Rp 500, - (five hundred rupiah).
- 4. Market Capitalization minimum is Rp 500.000.000.000, - (five hundred billion rupiah).

The second main criterion that has to be fulfilled as a sample is that for any JSX members the requirements for Stock Option Contract (SOC) trading are, as follows:

1. Has at least marketing and dealing function (order and trade function) of Stock Option in the organization chart.
2. Has *front end system with order management function* and monitoring and *back end system* that supports Stock Option trade.
3. Has Jakarta Option Trading System (JOTS) Trader.
4. Obligated to have stock bank account for every investor before option trade.

The third sample criteria for this research, as follows:

1. The call option samples issued and traded on *November 30, 2004* and the call option maturity date is on *February 28, 2005*.
2. Call option trading is done until the end of expiration date.

The list of Sample Company is provided in the appendix.

3.4 Research Setting

The setting of this research takes place at Jakarta Stock Exchange, Jakarta; Bank of Indonesia, Jakarta; PT. BNI Securities, Jakarta; and JSX corner in Islamic University of Indonesia as the representative of the Jakarta Stock Exchange which

includes serving the trading transaction and also giving all the information needed during the research period.

3.5 Research Instruments

Data sources are the secondary data which come from several sources, which are explained as follows:

1. The data of call option samples which is issued and traded on *November 30, 2004* and mature on *February 28, 2005* comes from the Jakarta Stock Exchange (JSX) database, Jakarta.
2. Data of daily stock price of underlying stocks which starts on *August 30, 2004* and ends on *February 28, 2005* comes from PT. BNI Securities, Jakarta.
3. Data of weekly risk-free rate which is using Indonesian Bank Certificate (SBI 30) from *August 30, 2004* until *February 28, 2005* is taken from Bank of Indonesia, Jakarta (because it is not published).
4. Data of exercise/strike price of an option is taken from Jakarta Stock Exchange (JSX) database through its Stock Option Contract (SOC) product.
5. Data of time to maturity of an option is taken from Jakarta Stock Exchange (JSX) through its Stock Option Contract (SOC) product.
6. Data of company's asset and liabilities comes from Indonesian Capital Market Directory (ICMD).
7. Data of the market capitalization of the company comes from Indonesian Capital Market Directory (ICMD).
8. Data of other requirements needed is taken from Jakarta Stock Exchange (JSX) through its Stock Option Contract (SOC) product qualification.

3.6 Operational Definition of Research Variables

3.6.1 Market Share Price (P)

Market share price variable is an important variable, because this will really affect option value comparing with exercise price. The higher of stock price will effect on the higher of call option value too (Sharpe, 1995).

If $P > E$, Call Option = +

If $P \leq E$, Call Option = 0

3.6.2 Exercise Price (E)

Call option exercise price is the price while call option executed (Shapiro, 2002). The higher of exercise price will affect on the lower of call option value (Sembel, 2002).

3.6.3 Stock Volatility (σ)

The higher stock price fluctuation will cause the higher stock price probability comparing with exercise price (Husnan, 2001). An increase of stock volatility reflects the risk of stock. An increase of stock volatility will result in the higher of call option value (Sharpe, 1995).

$\sigma = \sqrt{\sigma^2}$

3.6.4 Risk-Free Rate (Rf)

An increase of risk-free rate will decrease the exercise price present value (Husnan, 2001). Fixed exercise price and the increase of interest rate will result in the smaller amount of money needed, it means as small as the exercise price while call

option maturity date (Husnan, 2001). The higher risk-free rate will result in the increase of call option value (Sharpe, 1995).

3.6.5 Time to Maturity Date (T)

A longer range of call option period will result in the higher possibility of market share price comparing with exercise price. It means, delaying of call option time will benefit the call option holder (Husnan, 2001). Call option value will be higher if the longer times of maturity date. An increase of stock risk will increase the stock return, and result in an increase of call option value (Sembel, 2002).

$$T = \text{Option Life Remaining} / 365 \text{ days}$$

3.7 Assumptions

In applying of Black-Scholes Option Pricing Model, the assumptions that have to be met, as follows (Hull, 1998):

- a. Stock price behaviour corresponds to the lognormal distribution.
- b. There is no transaction cost or tax. All securities are perfectly divisible.
- c. There is no dividend on the stock during the life of the option.
- d. There is no riskless arbitrage opportunity.
- e. Security trading is continuous.
- f. Investors can borrow or lend at the same risk-free rate of interest
- g. The short-term risk-free rate of interest, r , is constant.

3.8 Research Procedures

The procedure needed in this research as follows:

- 1) Determine the stock risk (σ) of each sample using (Jones, 2002) :

- a. Determining the Stock Return by using the following formula.

$$\text{Return} = \frac{P - P_{t-1}}{P_{t-1}}$$

Return = Share Profit

P = Recent Share Price

P(t-1) = Previous period stock price

- b. Determining the Relative Return by using this formula.

$$G = [(1+\text{return}_1)(1+\text{return}_2)\dots(1+\text{return}_n)]^{1/n} - 1$$

G = geometric average of share profit

n = Sum of stock period

- c. Calculate the Varian Return by using the formula below.

$$\sigma^2 = \sum(\text{Return}-G)^2 / (n-1)$$

σ^2 = Varian

- d. Calculate the Stock Risk to Stock Return by using formula.

$$\sigma = \sqrt{\sigma^2}$$

σ = Stock Risk

- 2) Determine the stock price, exercise price, risk-free rate (SBI), and time to call option maturity date.
- 3) Inputting all variables needed to Black-Sholes Option Pricing Model for call option valuation as the theoretical way.
- 4) Inputting call option value for each call option exercise price to *One-Way ANOVA (SPSS for Windows)* to get the F-value and Probability value.
- 5) Do assumption test to ANOVA examination (Santoso, 2000):

- a. Normal Distribution test : to test whether the population is tested in normal distribution
 - b. Homogeneity test: to test whether the population variants are similar.
- 6) Do alternative hypothesis testing based on F-value and Probability value.
- 7) Decision to accept or reject alternative hypothesis.

3.9 Statistical Method

This research will use statistical tool that is One-Way ANOVA test, as used by Hakim (2003). The purpose of the statistical tool is to examine the hypothesis. To examine whether there is a different exercise price will result no difference in call option value, where it will give a significant result.

The technique of data analysis is using SPSS 13.0

3.10 Hypothesis Examination

Hypothesis examination is used to get a conclusion whether the hypothesis stated is accepted or rejected. The procedure of examine hypothesis in this research are:

- a. F-value Hypothesis testing

Hypothesis examination is executed by observing the F-value from table and ***F-value*** (output from SPSS for Windows). Decision to accept or reject alternate hypothesis is as followed:

Ho is accepted, if $F\text{-value} > F\text{-table}$

Ho is rejected, if $F\text{-value} < F\text{-table}$

b. Probability based Hypothesis testing

Hypothesis examination is executed by observing the calculation of probability value (*output from SPSS for Windows*) and then comparing with the value of " α " with parameter 5% as followed:

Ho is accepted, if $p < \alpha$

Ho is rejected, if $p > \alpha$



CHAPTER IV RESEARCH FINDINGS AND DISCUSSION

4.1. Data Description

The data samples used for this research are companies that allowed to be underlying stock and trading Stock Option Contract (SOC) in Jakarta Stock Exchange (JSX) from November 30, 2004 until February 28, 2005. The distribution of the Sample Company used in this research is provided in table 4.1. The list of Stock Option Contract as the sample of this research is provided in Appendix II.

Table 4.1
Distribution of Sample Company

Code	Company	Type of Industry
ASII	PT Astra International Tbk.	Aneka Industri
BBCA	PT Bank Central Asia Tbk.	Keuangan
HMSP	PT Hanjaya Mandala Sampoerna Tbk.	Industri Barang Konsumsi
INDF	PT Indofood Sukses Makmur Tbk.	Industri Barang Konsumsi
TLKM	PT Telekomunikasi Indonesia Tbk.	Infrastruktur, Utilitas, & Transportasi

Source: Appendix I

4.2. Description of Stock Risks

Calculations of stock risk are based on the historical data of stock prices from August 30, 2004 until the maturity date of Call Option on February 28, 2005. Stock risks can be calculated by using the MS-Excel software. To know the samples' complete stock risk calculations, it can be seen in Appendix VI. The summary of stock risks is provided in table 4.2.

Table 4.2
Summary of Stock Risks

Period	ASII1000	BBCA2850	BBCA2950	BBCA3050	BBCA3250	HMSP7550
1	19,4022%	24,5644%	24,5644%	24,5644%	24,5644%	24,1723%

2	19,2372%	24,4637%	24,4637%	24,4637%	24,4637%	24,0963%
3	19,6041%	24,2791%	24,2791%	24,2791%	24,2791%	24,0119%
4	19,5828%	24,0986%	24,0986%	24,0986%	24,0986%	24,0809%
5	19,4246%	23,9220%	23,9220%	23,9220%	23,9220%	23,9383%
6	19,4682%	23,8291%	23,8291%	23,8291%	23,8291%	23,7983%
7	19,4919%	23,6586%	23,6586%	23,6586%	23,6586%	23,8682%
8	19,5605%	23,5685%	23,5685%	23,5685%	23,5685%	23,6894%
9	19,8698%	23,4037%	23,4037%	23,4037%	23,4037%	23,5145%
10	20,0370%	23,4541%	23,4541%	23,4541%	23,4541%	24,4440%
11	20,3335%	23,2931%	23,2931%	23,2931%	23,2931%	24,8677%
12	20,8144%	23,5414%	23,5414%	23,5414%	23,5414%	24,7524%
13	20,7075%	24,0370%	24,0370%	24,0370%	24,0370%	24,8637%
14	20,5699%	24,7088%	24,7088%	24,7088%	24,7088%	25,3031%
15	20,6040%	24,5384%	24,5384%	24,5384%	24,5384%	25,4723%
16	20,4624%	24,3714%	24,3714%	24,3714%	24,3714%	25,3326%
17	20,3632%	24,2077%	24,2077%	24,2077%	24,2077%	25,2090%
18	20,2391%	24,0471%	24,0471%	24,0471%	24,0471%	25,0432%
19	20,1173%	23,9233%	23,9233%	23,9233%	23,9233%	24,9227%
20	20,0796%	23,7993%	23,7993%	23,7993%	23,7993%	24,7633%
21	19,9897%	23,8162%	23,8162%	23,8162%	23,8162%	24,6097%
22	20,0212%	23,6782%	23,6782%	23,6782%	23,6782%	24,5498%
23	19,9053%	23,5973%	23,5973%	23,5973%	23,5973%	24,4282%
24	19,8217%	23,4856%	23,4856%	23,4856%	23,4856%	24,8034%
25	19,7388%	23,4456%	23,4456%	23,4456%	23,4456%	24,6561%
26	19,6288%	23,3171%	23,3171%	23,3171%	23,3171%	24,6007%
27	19,5213%	23,8281%	23,8281%	23,8281%	23,8281%	24,7352%
28	19,4426%	24,3476%	24,3476%	24,3476%	24,3476%	24,6243%
29	19,5536%	24,2137%	24,2137%	24,2137%	24,2137%	24,5657%
30	19,4484%	24,2200%	24,2200%	24,2200%	24,2200%	24,4268%
31	19,8022%	24,0862%	24,0862%	24,0862%	24,0862%	24,2902%
32	19,6906%	23,9544%	23,9544%	23,9544%	23,9544%	24,1820%
33	19,9769%	23,8631%	23,8631%	23,8631%	23,8631%	24,0523%
34	19,9390%	23,7841%	23,7841%	23,7841%	23,7841%	24,1896%
35	19,8304%	23,6615%	23,6615%	23,6615%	23,6615%	24,0970%
36	19,7296%	23,5375%	23,5375%	23,5375%	23,5375%	23,9691%
37	19,9834%	23,4189%	23,4189%	23,4189%	23,4189%	24,1377%
38	19,9966%	23,3449%	23,3449%	23,3449%	23,3449%	24,0127%

39	19,9006%	23,3411%	23,3411%	23,3411%	23,3411%	24,1503%
40	19,8626%	23,2234%	23,2234%	23,2234%	23,2234%	24,2603%
41	19,7675%	23,1523%	23,1523%	23,1523%	23,1523%	24,2717%
42	19,6674%	23,1591%	23,1591%	23,1591%	23,1591%	24,4822%
43	19,5751%	23,0826%	23,0826%	23,0826%	23,0826%	24,3617%
44	19,9481%	22,9742%	22,9742%	22,9742%	22,9742%	24,7336%
45	20,2643%	22,8981%	22,8981%	22,8981%	22,8981%	24,6343%
46	20,4136%	22,7895%	22,7895%	22,7895%	22,7895%	24,5174%
47	20,4711%	22,6859%	22,6859%	22,6859%	22,6859%	24,4021%
48	20,4288%	22,5838%	22,5838%	22,5838%	22,5838%	24,3088%
49	20,3558%	22,4830%	22,4830%	22,4830%	22,4830%	24,3952%
50	20,3146%	22,3835%	22,3835%	22,3835%	22,3835%	24,3053%
51	20,4667%	22,3770%	22,3770%	22,3770%	22,3770%	25,9540%
52	20,5263%	22,3631%	22,3631%	22,3631%	22,3631%	26,0022%
53	20,4382%	22,8530%	22,8530%	22,8530%	22,8530%	25,9766%
54	20,6110%	22,7572%	22,7572%	22,7572%	22,7572%	25,9602%
55	20,5682%	22,6947%	22,6947%	22,6947%	22,6947%	25,8469%
56	20,4770%	22,6010%	22,6010%	22,6010%	22,6010%	25,7335%
57	20,3910%	22,5084%	22,5084%	22,5084%	22,5084%	25,6232%
58	20,6854%	22,4316%	22,4316%	22,4316%	22,4316%	25,5265%
59	21,1448%	22,4278%	22,4278%	22,4278%	22,4278%	25,4191%
60	21,5236%	22,3686%	22,3686%	22,3686%	22,3686%	25,3130%

Period	INDF800	INDF850	INDF900	TLKM4800	TLKM4900	TLKM5000
1	26,3241%	26,3241%	26,3241%	72,8181%	72,8181%	72,8181%
2	26,4663%	26,4663%	26,4663%	72,2957%	72,2957%	72,2957%
3	26,5682%	26,5682%	26,5682%	71,7812%	71,7812%	71,7812%
4	26,7579%	26,7579%	26,7579%	71,3280%	71,3280%	71,3280%
5	26,8526%	26,8526%	26,8526%	70,7561%	70,7561%	70,7561%
6	27,0283%	27,0283%	27,0283%	70,2832%	70,2832%	70,2832%
7	27,2080%	27,2080%	27,2080%	69,7337%	69,7337%	69,7337%
8	26,9988%	26,9988%	26,9988%	69,2657%	69,2657%	69,2657%
9	26,7943%	26,7943%	26,7943%	68,8870%	68,8870%	68,8870%
10	26,5944%	26,5944%	26,5944%	68,3772%	68,3772%	68,3772%
11	26,7835%	26,7835%	26,7835%	67,8981%	67,8981%	67,8981%
12	26,9362%	26,9362%	26,9362%	67,5990%	67,5990%	67,5990%
13	26,7438%	26,7438%	26,7438%	67,2466%	67,2466%	67,2466%

14	26,5555%	26,5555%	26,5555%	66,8274%	66,8274%	66,8274%
15	26,3710%	26,3710%	26,3710%	66,3618%	66,3618%	66,3618%
16	26,1904%	26,1904%	26,1904%	65,9058%	65,9058%	65,9058%
17	26,3150%	26,3150%	26,3150%	65,4590%	65,4590%	65,4590%
18	26,4775%	26,4775%	26,4775%	65,0235%	65,0235%	65,0235%
19	26,5947%	26,5947%	26,5947%	64,6251%	64,6251%	64,6251%
20	26,6825%	26,6825%	26,6825%	64,2041%	64,2041%	64,2041%
21	26,5122%	26,5122%	26,5122%	63,8207%	63,8207%	63,8207%
22	26,3452%	26,3452%	26,3452%	63,4266%	63,4266%	63,4266%
23	26,1812%	26,1812%	26,1812%	63,1079%	63,1079%	63,1079%
24	27,4336%	27,4336%	27,4336%	62,7293%	62,7293%	62,7293%
25	27,4422%	27,4422%	27,4422%	62,3569%	62,3569%	62,3569%
26	27,2982%	27,2982%	27,2982%	62,0545%	62,0545%	62,0545%
27	27,1884%	27,1884%	27,1884%	61,8209%	61,8209%	61,8209%
28	27,2020%	27,2020%	27,2020%	61,5528%	61,5528%	61,5528%
29	27,0679%	27,0679%	27,0679%	61,2195%	61,2195%	61,2195%
30	26,9630%	26,9630%	26,9630%	60,8666%	60,8666%	60,8666%
31	26,8106%	26,8106%	26,8106%	60,6613%	60,6613%	60,6613%
32	26,6607%	26,6607%	26,6607%	60,3297%	60,3297%	60,3297%
33	26,5620%	26,5620%	26,5620%	59,9958%	59,9958%	59,9958%
34	26,4651%	26,4651%	26,4651%	59,6685%	59,6685%	59,6685%
35	26,3479%	26,3479%	26,3479%	59,3455%	59,3455%	59,3455%
36	26,2314%	26,2314%	26,2314%	59,0278%	59,0278%	59,0278%
37	26,0925%	26,0925%	26,0925%	58,7388%	58,7388%	58,7388%
38	25,9789%	25,9789%	25,9789%	58,4289%	58,4289%	58,4289%
39	26,1111%	26,1111%	26,1111%	58,1338%	58,1338%	58,1338%
40	26,4169%	26,4169%	26,4169%	57,8367%	57,8367%	57,8367%
41	26,3261%	26,3261%	26,3261%	57,5431%	57,5431%	57,5431%
42	26,3347%	26,3347%	26,3347%	57,2538%	57,2538%	57,2538%
43	26,2042%	26,2042%	26,2042%	56,9765%	56,9765%	56,9765%
44	26,1172%	26,1172%	26,1172%	56,7062%	56,7062%	56,7062%
45	26,0075%	26,0075%	26,0075%	56,4311%	56,4311%	56,4311%
46	25,8823%	25,8823%	25,8823%	56,1566%	56,1566%	56,1566%
47	25,7995%	25,7995%	25,7995%	55,8860%	55,8860%	55,8860%
48	25,6775%	25,6775%	25,6775%	55,6193%	55,6193%	55,6193%
49	25,6499%	25,6499%	25,6499%	55,3798%	55,3798%	55,3798%
50	25,5311%	25,5311%	25,5311%	55,1205%	55,1205%	55,1205%

51	25,4139%	25,4139%	25,4139%	54,9307%	54,9307%	54,9307%
52	25,2983%	25,2983%	25,2983%	54,6799%	54,6799%	54,6799%
53	25,2692%	25,2692%	25,2692%	54,4346%	54,4346%	54,4346%
54	25,1701%	25,1701%	25,1701%	54,1906%	54,1906%	54,1906%
55	25,2464%	25,2464%	25,2464%	53,9614%	53,9614%	53,9614%
56	25,1466%	25,1466%	25,1466%	53,7311%	53,7311%	53,7311%
57	25,0475%	25,0475%	25,0475%	53,4966%	53,4966%	53,4966%
58	24,9751%	24,9751%	24,9751%	53,2770%	53,2770%	53,2770%
59	25,1057%	25,1057%	25,1057%	53,0759%	53,0759%	53,0759%
60	25,0116%	25,0116%	25,0116%	52,8528%	52,8528%	52,8528%

Source: Appendix VII

4.3. Analysis of Inputted Variables

Variables used in this research for call option valuation are Stock Price (P), Exercise Price (E), Risk-Free rate (Rf) and Time-to-Maturity date (T). Inputted variables for exercise prices and stock prices are different, while the others are similar. Determination of strike prices' interval ($E < P$ and $E > P$) is following the SOC rule. ASII1000 series use the 50 basis point and the others use 100 basis point. The complete analysis of inputted variables for all samples is provided in Appendix VIII.

4.4. Call Option Valuation

Call option valuation using Black-Scholes Option Pricing Model for each different exercise price is 100 point or 50 point below determined exercise prices, similar to exercise price and 100 point or 50 point above determined exercise prices. The complete calculation for each exercise price of samples is provided in Appendix X. The summary of Call Option value of each sample is provided in the tables below.

Table 4.3
ASII1000 Call Option Value

Date	P	E < P	E = P	E > P
30-Nov-04	9000	8067,38953	8018,30476	7969,22
1-Dec-04	9050	8117,01078	8067,90609	8018,80139
2-Dec-04	9400	8466,82135	8417,70669	8368,59202
3-Dec-04	9300	8366,63188	8317,50725	8268,38261
6-Dec-04	9350	8416,10623	8366,95393	8317,80163
7-Dec-04	9600	8665,91611	8616,7538	8567,59149
8-Dec-04	9850	8915,72594	8866,55362	8817,38131
9-Dec-04	9700	8765,53574	8716,35341	8667,17108
10-Dec-04	9450	8515,3455	8466,15316	8416,96081
13-Dec-04	9250	8314,77454	8265,55215	8216,32976
14-Dec-04	9000	8064,58414	8015,35173	7966,11932
15-Dec-04	9400	8464,20323	8414,95077	8365,69831
16-Dec-04	9550	8614,20323	8564,95077	8515,69831
17-Dec-04	9650	8714,01272	8664,75023	8615,48774
20-Dec-04	9500	8563,44095	8514,14837	8464,85579
21-Dec-04	9550	8613,25028	8563,94766	8514,64505
22-Dec-04	9700	8762,86883	8713,54614	8664,22344
23-Dec-04	9700	8762,86883	8713,54614	8664,22344
27-Dec-04	9700	8762,86883	8713,54614	8664,22344
28-Dec-04	9600	8661,53252	8612,13949	8562,74647
29-Dec-04	9750	8811,53252	8762,13949	8712,74647
30-Dec-04	9600	8661,53252	8612,13949	8562,74647
3-Jan-05	9600	8661,51709	8612,12326	8562,72942
4-Jan-05	9750	8810,56269	8761,11862	8711,67455
5-Jan-05	9700	8760,37169	8710,91757	8661,46345
6-Jan-05	9700	8759,98958	8710,51535	8661,04112
7-Jan-05	9800	8859,98958	8810,51535	8761,04112
10-Jan-05	9750	8809,41613	8759,91171	8710,4073
11-Jan-05	9550	8609,2249	8559,71042	8510,19594
12-Jan-05	9550	8608,65098	8559,10629	8509,56161
13-Jan-05	9950	9008,65098	8959,10629	8909,56161
14-Jan-05	10000	9058,65098	9009,10629	8959,56161
17-Jan-05	10400	9458,0767	9408,50179	9358,92688
18-Jan-05	10300	9357,8852	9308,30021	9258,71522
19-Jan-05	10350	9406,73537	9357,08986	9307,44436
20-Jan-05	10450	9506,73537	9457,08986	9407,44436
24-Jan-05	10150	9206,73537	9157,08986	9107,44436
25-Jan-05	10000	9056,73537	9007,08986	8957,44436
26-Jan-05	10100	9155,96804	9106,28214	9056,59625

27-Jan-05	10000	9055,96804	9006,28214	8956,59625
28-Jan-05	10000	9055,96804	9006,28214	8956,59625
31-Jan-05	10050	9105,39213	9055,67592	9005,95972
1-Feb-05	10050	9105,20008	9055,47377	9005,74746
2-Feb-05	10500	9555,00799	9505,27157	9455,53515
3-Feb-05	10150	9204,04697	9154,25997	9104,47297
4-Feb-05	10500	9554,04697	9504,25997	9454,47297
7-Feb-05	10300	9354,04697	9304,25997	9254,47297
8-Feb-05	10200	9253,85465	9204,05753	9154,2604
11-Feb-05	10150	9203,27745	9153,44995	9103,62245
14-Feb-05	10050	9102,70353	9052,84583	9002,98812
15-Feb-05	10400	9452,51068	9402,64282	9352,77496
16-Feb-05	10700	9752,51068	9702,64282	9652,77496
17-Feb-05	10800	9852,12485	9802,23669	9752,34852
18-Feb-05	11200	10252,1249	10202,2367	10152,3485
21-Feb-05	11100	10151,3527	10101,4239	10051,4951
22-Feb-05	11150	10201,1596	10151,2206	10101,2817
23-Feb-05	11250	10301,1596	10251,2206	10201,2817
24-Feb-05	11750	10800,7732	10750,8139	10700,8546
25-Feb-05	11250	10300,58	10250,6105	10200,641
28-Feb-05	10800	9850,19337	9800,20354	9750,21372

BBCA2850 Call Option Value

Date	P	E < P	E = P	E > P
30-Nov-04	2750	159,92287	109,78279	64,531345
1-Dec-04	2725	143,13917	94,022239	49,970533
2-Dec-04	2725	141,15227	91,99209	47,918512
3-Dec-04	2725	139,19329	89,990683	45,895316
6-Dec-04	2725	135,30529	86,032078	41,85027
7-Dec-04	2700	120,46802	71,725168	28,768893
8-Dec-04	2700	118,59929	69,804932	26,829766
9-Dec-04	2675	104,67499	55,877978	14,134582
10-Dec-04	2675	102,87862	54,007934	12,248193
13-Dec-04	2625	78,06635	27,36337	-12,030349
14-Dec-04	2625	76,401401	25,540478	-13,8669
15-Dec-04	2550	49,269839	-8,5574557	-44,445509
16-Dec-04	2675	100,01635	50,959683	8,8782453
17-Dec-04	2825	188,30585	132,50663	83,462034
20-Dec-04	2850	201,23826	142,44011	92,238549
21-Dec-04	2875	217,22614	154,94192	103,60165
22-Dec-04	2900	232,90057	166,52698	114,06666
23-Dec-04	2925	251,54182	180,77684	127,17849

27-Dec-04	2975	291,45368	211,02141	155,21443
28-Dec-04	3025	326,81897	233,13207	175,45261
29-Dec-04	2975	283,92678	201,65725	146,03858
30-Dec-04	2975	283,52076	201,07189	145,3954
3-Jan-05	2950	262,5049	185,27832	130,62156
4-Jan-05	3000	299,25717	209,24071	152,66756
5-Jan-05	3075	365,44434	255,73744	196,22984
6-Jan-05	3075	363,467	252,35886	192,91848
7-Jan-05	2950	254,58097	175,78349	121,45711
10-Jan-05	2825	158,11915	101,68498	52,415283
11-Jan-05	2825	156,34227	99,822153	50,526206
12-Jan-05	2775	120,41725	68,829387	21,402741
13-Jan-05	2800	135,46106	81,687823	33,299792
14-Jan-05	2825	151,52595	94,800027	45,445259
17-Jan-05	2875	183,30877	118,28413	67,047783
18-Jan-05	2850	163,26387	102,5281	52,19999
19-Jan-05	2850	154,83269	93,466172	43,129003
20-Jan-05	2875	173,29592	106,97438	55,757107
24-Jan-05	2875	172,97693	106,56419	55,324394
25-Jan-05	2850	153,91563	92,361326	41,975686
26-Jan-05	2925	208,30517	128,54602	75,717578
27-Jan-05	2950	229,68357	142,64655	88,976087
28-Jan-05	2925	207,93034	127,94708	75,07125
31-Jan-05	2875	162,9254	94,869397	43,687997
1-Feb-05	2925	202,97015	121,14876	68,42151
2-Feb-05	2925	201,57601	119,12751	66,41907
3-Feb-05	2975	241,20856	138,44933	84,590222
4-Feb-05	3000	264,79657	152,66712	98,09256
7-Feb-05	3000	264,7266	152,41416	97,808018
8-Feb-05	3000	263,7782	150,16707	95,630914
11-Feb-05	3000	261,17271	143,6761	89,436272
14-Feb-05	3000	258,75893	136,73414	82,829649
15-Feb-05	3075	332,39445	177,42669	121,99706
16-Feb-05	3150	407,28474	221,64466	164,57943
17-Feb-05	3325	581,15091	321,91695	262,20402
18-Feb-05	3325	581,1509	321,84754	262,0873
21-Feb-05	3300	553,9158	289,54508	232,03474
22-Feb-05	3300	553,35674	284,59352	227,58754
23-Feb-05	3300	553,35674	284,53937	227,49981
24-Feb-05	3350	602,23828	302,03126	245,63523
25-Feb-05	3300	551,67888	266,77533	211,73346
28-Feb-05	3275	525,55974	235,5454	182,75712

BBCA2950 Call Option Value

Date	P	E < P	E = P	E > P
30-Nov-04	2750	113,068345	64,5313448	23,8765466
1-Dec-04	2725	99,2942492	49,9705328	10,4729957
2-Dec-04	2725	97,3716172	47,9185125	8,41564793
3-Dec-04	2725	95,4795279	45,8953156	6,38644608
6-Dec-04	2725	91,7778449	41,8502705	2,23159857
7-Dec-04	2700	80,1251562	28,7688931	-9,654744
8-Dec-04	2700	78,3746378	26,8297659	-11,600038
9-Dec-04	2675	67,7088136	14,1345824	-23,097873
10-Dec-04	2675	66,0752446	12,2481934	-24,98942
13-Dec-04	2625	47,8538486	-12,030349	-47,043991
14-Dec-04	2625	46,4321297	-13,8669	-48,885403
15-Dec-04	2550	28,0851449	-44,445509	-76,154109
16-Dec-04	2675	63,682909	8,8782453	-28,923733
17-Dec-04	2825	132,80235	83,4620344	38,6916064
20-Dec-04	2850	142,483205	92,2385485	46,2869984
21-Dec-04	2875	155,249113	103,601655	56,5294099
22-Dec-04	2900	167,650988	114,066665	65,8651403
23-Dec-04	2925	183,235958	127,178485	77,8756698
27-Dec-04	2975	217,597714	155,214432	103,736099
28-Dec-04	3025	246,882761	175,452612	121,949292
29-Dec-04	2975	208,96377	146,038583	94,5866671
30-Dec-04	2975	208,41618	145,3954	93,9094339
3-Jan-05	2950	190,089252	130,621557	80,1640084
4-Jan-05	3000	220,494811	152,667562	100,180184
5-Jan-05	3075	279,764556	196,229842	140,79098
6-Jan-05	3075	277,23482	192,918481	137,508222
7-Jan-05	2950	181,174001	121,457107	71,0571914
10-Jan-05	2825	102,081115	52,4152833	6,84068439
11-Jan-05	2825	100,225964	50,5262065	4,91357719
12-Jan-05	2775	72,4336368	21,4027414	-22,471794
13-Jan-05	2800	83,3084832	33,2997921	-11,500513
14-Jan-05	2825	95,2261543	45,4452588	-0,2872384
17-Jan-05	2875	118,724505	67,0477825	19,3665157
18-Jan-05	2850	102,553184	52,1999901	5,38958405
19-Jan-05	2850	93,4875451	43,1290035	-3,9099897
20-Jan-05	2875	107,477081	55,7571067	7,867206
24-Jan-05	2875	107,069288	55,3243939	7,42880059
25-Jan-05	2850	92,3827281	41,9756862	-5,067031
26-Jan-05	2925	133,179828	75,717578	26,0878513
27-Jan-05	2950	150,748125	88,9760868	38,5297242

28-Jan-05	2925	132,616137	75,0712496	25,4200726
31-Jan-05	2875	95,4575099	43,6879968	-4,4348503
1-Feb-05	2925	126,279922	68,4215103	18,7327734
2-Feb-05	2925	124,408379	66,4190702	16,7112914
3-Feb-05	2975	154,396868	84,5902221	33,4766523
4-Feb-05	3000	175,015444	98,0925601	46,2846599
7-Feb-05	3000	174,843438	97,8080181	45,9810302
8-Feb-05	3000	173,299851	95,6309139	43,8239814
11-Feb-05	3000	169,016717	89,4362716	37,7375132
14-Feb-05	3000	164,788869	82,8296488	31,2537979
15-Feb-05	3075	234,054364	121,99706	68,8375975
16-Feb-05	3150	307,841811	164,579427	109,805389
17-Feb-05	3325	481,375683	262,204015	204,603519
18-Feb-05	3325	481,3756	262,087301	204,448077
21-Feb-05	3300	454,058213	232,034735	176,237113
22-Feb-05	3300	453,478805	227,587536	172,178465
23-Feb-05	3300	453,478805	227,499814	172,063622
24-Feb-05	3350	502,319674	245,635228	190,569754
25-Feb-05	3300	451,739932	211,733464	157,839744
28-Feb-05	3275	425,580096	182,757119	130,634925

BBCA3050 Call Option Value

Date	P	E < P	E = P	E > P
30-Nov-04	2750	77,128141	23,876547	-12,436384
1-Dec-04	2725	66,325674	10,472996	-24,731951
2-Dec-04	2725	64,6007	8,4156479	-26,779232
3-Dec-04	2725	62,90953	6,3864461	-28,799749
6-Dec-04	2725	59,647332	2,2315986	-33,085531
7-Dec-04	2700	50,972348	-9,654744	-43,815165
8-Dec-04	2700	49,466368	-11,600038	-45,754826
9-Dec-04	2675	41,752039	-23,097873	-56,09745
10-Dec-04	2675	40,393039	-24,98942	-57,983823
13-Dec-04	2625	27,82085	-47,043991	-77,964472
14-Dec-04	2625	26,715994	-48,885403	-79,80265
15-Dec-04	2550	15,122257	-76,154109	-103,98006
16-Dec-04	2675	38,534069	-28,923733	-62,703339
17-Dec-04	2825	89,677999	38,691606	-2,0146063
20-Dec-04	2850	96,418312	46,286998	4,3835231
21-Dec-04	2875	106,01195	56,52941	13,529321
22-Dec-04	2900	115,19343	65,86514	21,733723
23-Dec-04	2925	127,49226	77,87567	32,685504
27-Dec-04	2975	155,52529	103,7361	56,416655

28-Dec-04	3025	178,10971	121,94929	72,466699
29-Dec-04	2975	146,3753	94,586667	47,134388
30-Dec-04	2975	145,73384	93,909434	46,446351
3-Jan-05	2950	130,65984	80,164008	33,731568
4-Jan-05	3000	153,99349	100,18018	51,618291
5-Jan-05	3075	204,09843	140,79098	89,276788
6-Jan-05	3075	201,07853	137,50822	85,983995
7-Jan-05	2950	121,49016	71,057191	24,416748
10-Jan-05	2825	61,378072	6,8406844	-35,21978
11-Jan-05	2825	59,685452	4,9135772	-37,196107
12-Jan-05	2775	40,073616	-22,471794	-62,975413
13-Jan-05	2800	47,176036	-11,500513	-52,892443
14-Jan-05	2825	55,175586	-0,2872384	-42,574787
17-Jan-05	2875	70,772336	19,366516	-24,926346
18-Jan-05	2850	58,946082	5,389584	-38,071715
19-Jan-05	2850	50,723632	-3,9099897	-47,809148
20-Jan-05	2875	60,064957	7,867206	-36,852111
24-Jan-05	2875	59,653829	7,4288006	-37,280124
25-Jan-05	2850	49,671335	-5,067031	-48,92727
26-Jan-05	2925	76,257076	26,087851	-20,489126
27-Jan-05	2950	88,995679	38,529724	-8,8369481
28-Jan-05	2925	75,614992	25,420073	-21,153432
31-Jan-05	2875	48,777878	-4,4348503	-49,644014
1-Feb-05	2925	69,015767	18,732773	-28,057089
2-Feb-05	2925	67,030047	16,711291	-30,133942
3-Feb-05	2975	85,275829	33,476652	-15,016085
4-Feb-05	3000	100,76733	46,28466	-2,8806981
7-Feb-05	3000	100,49444	45,98103	-3,1913826
8-Feb-05	3000	98,410375	43,823981	-5,3764851
11-Feb-05	3000	92,511905	37,737513	-11,53584
14-Feb-05	3000	86,284783	31,253798	-18,100686
15-Feb-05	3075	142,49496	68,837597	17,84538
16-Feb-05	3150	210,66461	109,80539	57,220757
17-Feb-05	3325	381,6348	204,60352	149,02304
18-Feb-05	3325	381,63299	204,44808	148,83718
21-Feb-05	3300	354,20422	176,23711	122,07351
22-Feb-05	3300	353,60182	172,17847	118,29215
23-Feb-05	3300	353,60175	172,06362	118,15638
24-Feb-05	3350	402,40107	190,56975	136,77183
25-Feb-05	3300	351,80098	157,83974	105,03909
28-Feb-05	3275	325,60045	130,63493	79,146186

BBCA3250 Call Option Value

Date	P	E < P	E = P	E > P
30-Nov-04	2750	32,3091336	-44,673526	-73,106864
1-Dec-04	2725	26,5022939	-55,915904	-83,354351
2-Dec-04	2725	25,3711212	-57,939055	-85,340722
3-Dec-04	2725	24,2763396	-59,937461	-87,304932
6-Dec-04	2725	22,2280906	-64,37257	-91,904694
7-Dec-04	2700	18,1191515	-73,990254	-100,45996
8-Dec-04	2700	17,2337963	-75,913509	-102,3571
9-Dec-04	2675	13,8202323	-85,149016	-110,53799
10-Dec-04	2675	13,0802865	-87,0208	-112,38672
13-Dec-04	2625	8,07756086	-105,08103	-128,68029
14-Dec-04	2625	7,55885298	-106,90861	-130,49063
15-Dec-04	2550	3,73206721	-128,21732	-149,15316
16-Dec-04	2675	12,169908	-92,721573	-119,23838
17-Dec-04	2825	35,8857448	-38,873635	-72,106914
20-Dec-04	2850	38,4814337	-33,681196	-68,120742
21-Dec-04	2875	42,9890205	-25,603056	-61,076875
22-Dec-04	2900	47,0835687	-18,525779	-55,116479
23-Dec-04	2925	53,4759513	-8,5862971	-46,139924
27-Dec-04	2975	69,162716	13,0723924	-26,488698
28-Dec-04	3025	79,7207238	26,8376443	-15,113247
29-Dec-04	2975	61,2700966	3,50395441	-36,488261
30-Dec-04	2975	60,6618405	2,82745819	-37,132066
3-Jan-05	2950	52,2749871	-8,8602977	-47,801345
4-Jan-05	3000	62,9944788	6,81205933	-34,414012
5-Jan-05	3075	92,1914727	41,5326912	-2,603769
6-Jan-05	3075	89,0069832	38,1919708	-6,028918
7-Jan-05	2950	45,0976844	-18,637266	-58,279953
10-Jan-05	2825	17,8371796	-73,946821	-109,52005
11-Jan-05	2825	16,8737309	-75,982828	-111,62537
12-Jan-05	2775	9,52290212	-100,28748	-134,58479
13-Jan-05	2800	11,7554614	-91,053883	-126,1607
14-Jan-05	2825	14,4134447	-81,59372	-117,51876
17-Jan-05	2875	19,3285055	-65,996935	-104,00938
18-Jan-05	2850	14,7341998	-78,351062	-115,61336
19-Jan-05	2850	10,6330616	-88,723814	-126,80593
20-Jan-05	2875	13,4126339	-78,555292	-117,39349
24-Jan-05	2875	13,1882491	-78,957673	-117,75592
25-Jan-05	2850	10,1169247	-89,762716	-127,72785
26-Jan-05	2925	17,2466748	-64,157214	-105,05656
27-Jan-05	2950	21,5674268	-53,266805	-94,899441

28-Jan-05	2925	16,8443838	-64,794309	-105,64399
31-Jan-05	2875	8,12120323	-92,080447	-131,88071
1-Feb-05	2925	13,2172961	-72,084622	-113,48201
2-Feb-05	2925	12,1798426	-74,251448	-115,77155
3-Feb-05	2975	14,9891506	-61,008683	-104,61716
4-Feb-05	3000	19,6436381	-49,523767	-93,760512
7-Feb-05	3000	19,4258909	-49,82998	-94,051271
8-Feb-05	3000	17,9594207	-52,089211	-96,428532
11-Feb-05	3000	14,0341879	-58,494781	-103,24549
14-Feb-05	3000	10,2227252	-65,33593	-110,54898
15-Feb-05	3075	25,6390247	-31,077331	-78,023485
16-Feb-05	3150	57,2294562	6,72872205	-41,762781
17-Feb-05	3325	186,551589	95,3751102	43,5769482
18-Feb-05	3325	186,473599	95,1668552	43,3540349
21-Feb-05	3300	157,284343	69,4703815	18,3588999
22-Feb-05	3300	155,783073	65,8594768	14,8159609
23-Feb-05	3300	155,744007	65,7087258	14,6559268
24-Feb-05	3350	202,657057	84,1830778	32,7492957
25-Feb-05	3300	152,150714	53,2806216	2,5172433
28-Feb-05	3275	125,645244	28,2609337	-22,048429

HMSP7550 Call Option Value

Date	P	E < P	E = P	E > P
30-Nov-04	6750	153,22463	107,11982	73,144915
1-Dec-04	6900	199,4505	142,31305	99,14949
2-Dec-04	7050	257,2823	187,72871	133,76522
3-Dec-04	6900	194,77666	138,19685	95,671043
6-Dec-04	6850	168,66993	117,2077	79,334495
7-Dec-04	6800	148,46503	101,51745	67,548273
8-Dec-04	6650	105,0923	69,448738	44,625648
9-Dec-04	6700	114,30463	75,773589	48,803859
10-Dec-04	6750	124,30581	82,685023	53,395053
13-Dec-04	6400	53,087128	32,868057	19,764223
14-Dec-04	6150	25,68758	15,033231	8,5495148
15-Dec-04	6250	32,710495	19,357939	11,118278
16-Dec-04	6450	59,8672	37,415663	22,708324
17-Dec-04	6750	128,78557	86,758885	56,849397
20-Dec-04	6550	76,361855	48,715022	30,178393
21-Dec-04	6500	64,341141	40,195514	24,358433
22-Dec-04	6600	79,145594	50,008161	30,61268
23-Dec-04	6600	77,808738	48,951743	29,821451
27-Dec-04	6700	99,334091	63,888896	39,789268

28-Dec-04	6700	84,029386	51,822558	30,784133
29-Dec-04	6750	94,591209	58,922498	35,342333
30-Dec-04	6650	71,624542	43,276674	25,16034
3-Jan-05	6600	61,151103	36,26548	20,680231
4-Jan-05	6900	126,55481	80,28403	48,92155
5-Jan-05	6950	138,68071	88,418149	54,089437
6-Jan-05	7100	188,61447	123,95313	78,107076
7-Jan-05	6900	118,25882	73,52834	43,776375
10-Jan-05	7000	141,68892	88,864845	53,221627
11-Jan-05	6900	106,48873	64,100866	36,755947
12-Jan-05	6900	97,599328	57,129225	31,707061
13-Jan-05	6900	96,489472	56,251058	31,071121
14-Jan-05	6850	82,499444	47,037708	25,382815
17-Jan-05	6900	86,948837	48,944189	25,94708
18-Jan-05	6700	43,752456	22,451225	10,817387
19-Jan-05	6800	48,378399	23,897213	10,944299
20-Jan-05	6800	47,66975	23,419422	10,65708
24-Jan-05	7050	112,37169	62,850785	32,73242
25-Jan-05	7050	111,37812	62,052106	32,162404
26-Jan-05	7300	203,07441	121,99516	67,961427
27-Jan-05	7550	355,1227	236,79913	147,79813
28-Jan-05	7400	259,04425	162,90715	95,391539
31-Jan-05	7150	126,4827	68,721566	34,224608
1-Feb-05	7150	121,71767	64,91027	31,576622
2-Feb-05	7500	303,71752	192,55535	112,78464
3-Feb-05	7600	351,10187	222,24594	128,0105
4-Feb-05	7600	350,42226	221,41494	127,18241
7-Feb-05	7600	349,75353	220,59578	126,36625
8-Feb-05	7550	307,97138	186,77416	101,8838
11-Feb-05	7350	167,102	84,370628	36,930452
14-Feb-05	7450	208,98185	106,38562	45,792455
15-Feb-05	8150	821,47659	628,55416	448,14543
16-Feb-05	7950	627,09806	445,69721	288,2353
17-Feb-05	8150	817,57152	622,66631	438,87261
18-Feb-05	8000	669,96723	481,68544	313,48721
21-Feb-05	8000	661,19566	466,38811	287,95599
22-Feb-05	8050	709,16833	511,51446	324,42915
23-Feb-05	8050	709,15974	511,45314	324,20996
24-Feb-05	8150	805,98463	606,26165	408,57209
25-Feb-05	8150	804,48731	604,62865	405,60026
28-Feb-05	8150	801,49604	601,53674	401,57914

INDF800 Call Option Value

Date	P	E < P	E = P	E > P
30-Nov-04	750	46,1874057	24,988921	12,2281366
1-Dec-04	775	61,5313067	35,5407457	18,633437
2-Dec-04	800	79,300866	48,7052104	27,2994665
3-Dec-04	775	61,3290202	35,3864343	18,5298915
6-Dec-04	800	78,4880707	47,8757517	26,5749971
7-Dec-04	775	60,4867687	34,5870257	17,8895061
8-Dec-04	750	44,7670099	23,8093222	11,3955099
9-Dec-04	750	44,1669292	23,2504116	10,9741753
10-Dec-04	750	43,5753878	22,7014738	10,5642236
13-Dec-04	750	42,3705445	21,6124291	9,77222365
14-Dec-04	725	29,316503	13,6606283	5,6146779
15-Dec-04	750	41,8792291	21,2142358	9,50496034
16-Dec-04	750	41,6244259	20,9703435	9,32443893
17-Dec-04	750	41,0574381	20,4533777	8,9542576
20-Dec-04	750	39,8567136	19,3871114	8,21192187
21-Dec-04	750	39,3026298	18,8886906	7,86706989
22-Dec-04	775	54,4727567	28,5287165	13,0103735
23-Dec-04	750	39,0168958	18,6699356	7,73130914
27-Dec-04	775	54,8050181	28,8971744	13,312587
28-Dec-04	800	70,8051998	39,3743327	19,003945
29-Dec-04	800	70,6408492	39,157062	18,8001531
30-Dec-04	800	70,4801248	38,9439124	18,6004679
3-Jan-05	800	70,3137923	38,7279396	18,4005458
4-Jan-05	860	121,522647	79,7435838	46,6606476
5-Jan-05	840	103,076265	64,0509982	35,011863
6-Jan-05	850	111,473622	70,6645572	39,3920329
7-Jan-05	840	102,360106	63,0179482	33,868064
10-Jan-05	820	83,9673154	47,9159667	23,3458709
11-Jan-05	830	92,2416979	54,1388715	27,1806298
12-Jan-05	820	82,5376709	46,0094878	21,4960588
13-Jan-05	820	82,4409278	45,8482217	21,3257919
14-Jan-05	820	82,3463901	45,6897739	21,1584551
17-Jan-05	810	72,7877838	37,9804836	16,137706
18-Jan-05	800	64,136886	31,6261961	12,4900763
19-Jan-05	810	70,2947722	34,6830606	13,2631483
20-Jan-05	820	78,9790771	40,9636566	16,6442647
24-Jan-05	820	78,913026	40,8355578	16,510387
25-Jan-05	830	87,9119828	47,6827934	20,443768
26-Jan-05	860	115,41803	69,9423483	34,258248
27-Jan-05	900	154,858852	106,496947	63,0653286

28-Jan-05	890	144,931765	97,0413792	55,1413456
31-Jan-05	870	124,623461	77,7521447	39,2999302
1-Feb-05	870	124,419766	77,3524757	38,6627295
2-Feb-05	860	114,379988	68,069365	31,6493103
3-Feb-05	870	123,313308	75,2574703	35,2096969
4-Feb-05	870	123,308549	75,2209041	35,1164886
7-Feb-05	860	113,387101	66,0657433	28,5673143
8-Feb-05	860	113,197749	65,6545363	27,8811961
11-Feb-05	880	132,607886	83,44845	39,887429
14-Feb-05	880	132,140507	82,6690006	38,075522
15-Feb-05	880	131,985643	82,418566	37,4179038
16-Feb-05	880	131,985422	82,4095944	37,3624688
17-Feb-05	900	151,677616	101,824348	53,4547188
18-Feb-05	910	161,677544	111,803587	62,7677933
21-Feb-05	940	191,067945	141,139151	91,2261498
22-Feb-05	950	200,915474	150,976506	101,039313
23-Feb-05	960	210,915474	160,976506	111,037975
24-Feb-05	950	200,61044	150,651136	100,691878
25-Feb-05	920	170,457877	120,488402	70,5200848
28-Feb-05	930	180,152657	130,162834	80,1730109

INDF850 Call Option Value

Date	P	E < P	E = P	E > P
30-Nov-04	750	24,988921	12,228137	5,4436177
1-Dec-04	775	35,540746	18,633437	8,898685
2-Dec-04	800	48,70521	27,299466	13,981247
3-Dec-04	775	35,386434	18,529891	8,8372479
6-Dec-04	800	47,875752	26,574997	13,439265
7-Dec-04	775	34,587026	17,889506	8,3998958
8-Dec-04	750	23,809322	11,39551	4,9381054
9-Dec-04	750	23,250412	10,974175	4,6732123
10-Dec-04	750	22,701474	10,564224	4,4191565
13-Dec-04	750	21,612429	9,7722237	3,942696
14-Dec-04	725	13,660628	5,6146779	2,0549548
15-Dec-04	750	21,214236	9,5049603	3,7920654
16-Dec-04	750	20,970344	9,3244389	3,684114
17-Dec-04	750	20,453378	8,9542576	3,4687719
20-Dec-04	750	19,387111	8,2119219	3,0507975
21-Dec-04	750	18,888691	7,8670699	2,860436
22-Dec-04	775	28,528716	13,010374	5,1841436
23-Dec-04	750	18,669936	7,7313091	2,7912252
27-Dec-04	775	28,897174	13,312587	5,3770535

28-Dec-04	800	39,374333	19,003945	7,9501609
29-Dec-04	800	39,157062	18,800153	7,8065294
30-Dec-04	800	38,943912	18,600468	7,6664727
3-Jan-05	800	38,72794	18,400546	7,527715
4-Jan-05	860	79,743584	46,660648	24,066102
5-Jan-05	840	64,050998	35,011863	16,682979
6-Jan-05	850	70,664557	39,392033	19,078877
7-Jan-05	840	63,017948	33,868064	15,721487
10-Jan-05	820	47,915967	23,345871	9,6332838
11-Jan-05	830	54,138871	27,18063	11,54278
12-Jan-05	820	46,009488	21,496059	8,3260358
13-Jan-05	820	45,848222	21,325792	8,2031946
14-Jan-05	820	45,689774	21,158455	8,0829525
17-Jan-05	810	37,980484	16,137706	5,5225088
18-Jan-05	800	31,626196	12,490076	3,917926
19-Jan-05	810	34,683061	13,263148	3,8591678
20-Jan-05	820	40,963657	16,644265	5,1739091
24-Jan-05	820	40,835558	16,510387	5,0903425
25-Jan-05	830	47,682793	20,443768	6,7275816
26-Jan-05	860	69,942348	34,258248	12,896832
27-Jan-05	900	106,49695	63,065329	30,467495
28-Jan-05	890	97,041379	55,141346	25,182609
31-Jan-05	870	77,752145	39,29993	15,121823
1-Feb-05	870	77,352476	38,66273	14,517304
2-Feb-05	860	68,069365	31,64931	10,715015
3-Feb-05	870	75,25747	35,209697	11,323175
4-Feb-05	870	75,220904	35,116489	11,228744
7-Feb-05	860	66,065743	28,567314	8,2215504
8-Feb-05	860	65,654536	27,881196	7,6832364
11-Feb-05	880	83,44845	39,887429	12,31632
14-Feb-05	880	82,669001	38,075522	10,354288
15-Feb-05	880	82,418566	37,417904	9,6264237
16-Feb-05	880	82,409594	37,362469	9,5554535
17-Feb-05	900	101,82435	53,454719	16,758609
18-Feb-05	910	111,80359	62,767793	22,486639
21-Feb-05	940	141,13915	91,22615	42,793229
22-Feb-05	950	150,97651	101,03931	51,623972
23-Feb-05	960	160,97651	111,03798	61,321246
24-Feb-05	950	150,65114	100,69188	50,889215
25-Feb-05	920	120,4884	70,520085	22,299247
28-Feb-05	930	130,16283	80,173011	30,205728

INDF900 Call Option Value

Date	P	E < P	E = P	E > P
30-Nov-04	750	12,2281366	5,44361773	2,22242427
1-Dec-04	775	18,633437	8,89868495	3,89610039
2-Dec-04	800	27,2994665	13,9812466	6,57301012
3-Dec-04	775	18,5298915	8,83724787	3,86354705
6-Dec-04	800	26,5749971	13,4392645	6,22134265
7-Dec-04	775	17,8895061	8,39989577	3,60450218
8-Dec-04	750	11,3955099	4,93810535	1,95393424
9-Dec-04	750	10,9741753	4,67321226	1,81117963
10-Dec-04	750	10,5642236	4,4191565	1,67679505
13-Dec-04	750	9,77222365	3,94269601	1,4330897
14-Dec-04	725	5,6146779	2,05495483	0,67749886
15-Dec-04	750	9,50496034	3,79206536	1,36036573
16-Dec-04	750	9,32443893	3,68411405	1,30633811
17-Dec-04	750	8,9542576	3,46877189	1,2013281
20-Dec-04	750	8,21192187	3,05079749	1,00502962
21-Dec-04	750	7,86706989	2,86043599	0,91828308
22-Dec-04	775	13,0103735	5,18414356	1,82081085
23-Dec-04	750	7,73130914	2,79122522	0,88867054
27-Dec-04	775	13,312587	5,37705354	1,92065202
28-Dec-04	800	19,003945	7,95016093	2,90036654
29-Dec-04	800	18,8001531	7,80652944	2,820708
30-Dec-04	800	18,6004679	7,66647273	2,74364276
3-Jan-05	800	18,4005458	7,52771497	2,66814707
4-Jan-05	860	46,6606476	24,066102	10,9082065
5-Jan-05	840	35,011863	16,6829792	6,9287302
6-Jan-05	850	39,3920329	19,0788774	8,01043628
7-Jan-05	840	33,868064	15,7214868	6,29964904
10-Jan-05	820	23,3458709	9,63328377	3,37608101
11-Jan-05	830	27,1806298	11,54278	4,1488947
12-Jan-05	820	21,4960588	8,32603582	2,68020863
13-Jan-05	820	21,3257919	8,20319463	2,61583648
14-Jan-05	820	21,1584551	8,08295254	2,5533055
17-Jan-05	810	16,137706	5,5225088	1,52954535
18-Jan-05	800	12,4900763	3,91792598	0,98383874
19-Jan-05	810	13,2631483	3,85916781	0,85841008
20-Jan-05	820	16,6442647	5,17390905	1,23104375
24-Jan-05	820	16,510387	5,09034245	1,19720074
25-Jan-05	830	20,443768	6,72758158	1,69226935
26-Jan-05	860	34,258248	12,8968317	3,6506656
27-Jan-05	900	63,0653286	30,4674954	11,5720926

28-Jan-05	890	55,1413456	25,1826093	8,93375115
31-Jan-05	870	39,2999302	15,121823	4,28964271
1-Feb-05	870	38,6627295	14,5173036	3,9525726
2-Feb-05	860	31,6493103	10,7150148	2,55759014
3-Feb-05	870	35,2096969	11,3231748	2,35546955
4-Feb-05	870	35,1164886	11,2287435	2,31148674
7-Feb-05	860	28,5673143	8,22155044	1,49401675
8-Feb-05	860	27,8811961	7,68323642	1,29507406
11-Feb-05	880	39,887429	12,31632	2,20243271
14-Feb-05	880	38,075522	10,3542875	1,41976773
15-Feb-05	880	37,4179038	9,62642372	1,16883812
16-Feb-05	880	37,3624688	9,55545349	1,14472251
17-Feb-05	900	53,4547188	16,7586092	2,36045632
18-Feb-05	910	62,7677933	22,4866391	3,83273326
21-Feb-05	940	91,2261498	42,793229	9,29626243
22-Feb-05	950	101,039313	51,6239717	12,7997697
23-Feb-05	960	111,037975	61,3212455	18,608509
24-Feb-05	950	100,691878	50,8892153	10,2960166
25-Feb-05	920	70,5200848	22,2992465	0,8096833
28-Feb-05	930	80,1730109	30,2057276	0,27948935

TLKM4800 Call Option Value

Date	P	E < P	E = P	E > P
30-Nov-04	5000	903,12394	853,64248	806,40402
1-Dec-04	5100	956,66784	904,77147	855,15957
2-Dec-04	5200	1016,5095	962,26376	910,3221
3-Dec-04	5000	872,93427	822,87144	775,15292
6-Dec-04	5000	855,38508	804,98527	756,99206
7-Dec-04	5100	913,73423	860,85062	810,40023
8-Dec-04	5050	871,10439	819,16523	769,69711
9-Dec-04	4900	765,21092	716,7069	670,70427
10-Dec-04	4700	635,94695	592,36715	551,28334
13-Dec-04	4700	619,1634	575,44981	534,30167
14-Dec-04	4600	554,20422	513,10107	474,56201
15-Dec-04	4750	629,42278	584,1959	541,63287
16-Dec-04	4875	702,73687	654,10557	608,17344
17-Dec-04	4950	742,68368	691,91458	643,88476
20-Dec-04	4925	709,94092	659,53691	611,95123
21-Dec-04	4900	686,05511	636,19044	589,18378
22-Dec-04	4875	658,09467	608,72973	562,28474
23-Dec-04	4825	623,73186	575,74859	530,69919
27-Dec-04	4875	651,49209	601,98513	555,4361

28-Dec-04	4850	601,90317	552,63416	506,51433
29-Dec-04	4900	630,26033	579,36896	531,64928
30-Dec-04	4825	580,73379	532,13305	486,71711
3-Jan-05	4925	640,79023	588,98631	540,38975
4-Jan-05	4950	631,55803	578,42712	528,66629
5-Jan-05	4875	576,55755	525,75428	478,37636
6-Jan-05	4975	629,27306	574,85138	523,92816
7-Jan-05	5125	729,74877	670,34405	614,38492
10-Jan-05	4950	595,40315	541,39275	491,02138
11-Jan-05	4850	525,01682	474,44169	427,57046
12-Jan-05	4825	492,8603	442,94764	396,88205
13-Jan-05	4975	586,74528	531,14569	479,38944
14-Jan-05	5000	601,28097	544,68079	491,93321
17-Jan-05	5000	584,56745	527,43468	474,30814
18-Jan-05	4950	544,38127	488,96392	437,64684
19-Jan-05	4950	511,57823	455,18113	403,24171
20-Jan-05	4950	509,79409	453,32255	401,33181
24-Jan-05	4850	444,15594	392,0257	344,42803
25-Jan-05	4825	427,03808	375,98645	329,48943
26-Jan-05	4850	419,0266	366,34986	318,54231
27-Jan-05	4800	386,96743	336,67468	291,26922
28-Jan-05	4800	385,37775	335,04791	289,63038
31-Jan-05	4800	366,91618	316,29908	270,87983
1-Feb-05	4825	374,81752	322,74815	276,00438
2-Feb-05	4750	323,21389	275,08881	232,38392
3-Feb-05	4700	263,20238	217,93585	178,66328
4-Feb-05	4675	248,68407	204,97048	167,23025
7-Feb-05	4650	234,58562	192,43942	156,23478
8-Feb-05	4625	214,56778	174,14998	139,76542
11-Feb-05	4675	218,61786	175,26624	138,61646
14-Feb-05	4650	183,16842	142,15331	108,41149
15-Feb-05	4750	227,863	179,03318	138,10995
16-Feb-05	4750	226,9804	178,13648	137,23509
17-Feb-05	4700	182,22989	137,70066	101,65676
18-Feb-05	4700	181,43763	136,91558	100,91536
21-Feb-05	4625	107,37655	71,995421	46,300786
22-Feb-05	4650	107,45888	70,209745	43,656985
23-Feb-05	4650	106,90418	69,696972	43,223461
24-Feb-05	4575	53,663872	28,920518	14,328554
25-Feb-05	4475	18,140083	7,4074442	2,6707153
28-Feb-05	4425	0,6672261	0,0615529	0,0036445

TLKM4900 Call Option Value

Date	P	E < P	E = P	E > P
30-Nov-04	5000	853,642482	806,40402	761,356988
1-Dec-04	5100	904,771465	855,15957	807,786547
2-Dec-04	5200	962,263759	910,322101	860,647473
3-Dec-04	5000	822,871436	775,152918	729,725806
6-Dec-04	5000	804,985267	756,992056	711,351715
7-Dec-04	5100	860,850616	810,400226	762,337958
8-Dec-04	5050	819,16523	769,697114	722,649952
9-Dec-04	4900	716,706897	670,704274	627,139901
10-Dec-04	4700	592,367154	551,28334	512,612147
13-Dec-04	4700	575,449811	534,30167	495,632541
14-Dec-04	4600	513,101068	474,562007	438,489612
15-Dec-04	4750	584,195897	541,632874	501,649298
16-Dec-04	4875	654,10557	608,17344	564,870665
17-Dec-04	4950	691,91458	643,884763	598,532004
20-Dec-04	4925	659,536906	611,951228	567,117674
21-Dec-04	4900	636,190441	589,183785	544,965204
22-Dec-04	4875	608,729733	562,284735	518,685083
23-Dec-04	4825	575,748587	530,699194	488,501184
27-Dec-04	4875	601,98513	555,4361	511,769754
28-Dec-04	4850	552,634156	506,514332	463,459556
29-Dec-04	4900	579,36896	531,649278	487,025602
30-Dec-04	4825	532,133051	486,717108	444,396219
3-Jan-05	4925	588,986311	540,389754	494,928929
4-Jan-05	4950	578,427117	528,666293	482,207788
5-Jan-05	4875	525,75428	478,376363	434,338396
6-Jan-05	4975	574,851381	523,928161	476,44246
7-Jan-05	5125	670,344048	614,384919	561,851449
10-Jan-05	4950	541,392747	491,021382	444,220794
11-Jan-05	4850	474,44169	427,570464	384,304819
12-Jan-05	4825	442,947637	396,882052	354,553136
13-Jan-05	4975	531,145687	479,389441	431,418545
14-Jan-05	5000	544,680789	491,933207	442,990323
17-Jan-05	5000	527,434683	474,308135	425,142988
18-Jan-05	4950	488,963922	437,64684	390,363815
19-Jan-05	4950	455,181126	403,241714	355,697233
20-Jan-05	4950	453,322553	401,331805	353,759615
24-Jan-05	4850	392,025697	344,428033	301,243033
25-Jan-05	4825	375,98645	329,489429	287,413798
26-Jan-05	4850	366,349865	318,542306	275,475456
27-Jan-05	4800	336,674683	291,269219	250,590693

28-Jan-05	4800	335,047915	289,630381	248,963874
31-Jan-05	4800	316,299084	270,879834	230,484097
1-Feb-05	4825	322,748149	276,004377	234,426314
2-Feb-05	4750	275,088812	232,383919	194,865872
3-Feb-05	4700	217,935855	178,663279	145,028602
4-Feb-05	4675	204,97048	167,230253	135,072309
7-Feb-05	4650	192,439424	156,234779	125,546778
8-Feb-05	4625	174,149983	139,765418	110,931122
11-Feb-05	4675	175,266239	138,616458	108,161321
14-Feb-05	4650	142,153313	108,411486	81,2526664
15-Feb-05	4750	179,033176	138,109951	104,595837
16-Feb-05	4750	178,136479	137,235091	103,774135
17-Feb-05	4700	137,700662	101,656762	73,3103974
18-Feb-05	4700	136,915582	100,915356	72,6411942
21-Feb-05	4625	71,9954214	46,3007855	28,5524189
22-Feb-05	4650	70,2097453	43,6569848	25,8186178
23-Feb-05	4650	69,696972	43,2234606	25,4815899
24-Feb-05	4575	28,9205179	14,3285538	6,5221734
25-Feb-05	4475	7,40744423	2,67071526	0,85092544
28-Feb-05	4425	0,06155286	0,00364453	0,00014007

TLKM5000 Call Option Value

Date	P	E < P	E = P	E > P
30-Nov-04	5000	806,40402	761,35699	718,44555
1-Dec-04	5100	855,15957	807,78655	762,60216
2-Dec-04	5200	910,3221	860,64747	813,19571
3-Dec-04	5000	775,15292	729,72581	686,53234
6-Dec-04	5000	756,99206	711,35171	668,0053
7-Dec-04	5100	810,40023	762,33796	716,61166
8-Dec-04	5050	769,69711	722,64995	677,96764
9-Dec-04	4900	670,70427	627,1399	585,94403
10-Dec-04	4700	551,28334	512,61215	476,26554
13-Dec-04	4700	534,30167	495,63254	459,351
14-Dec-04	4600	474,56201	438,48961	404,78188
15-Dec-04	4750	541,63287	501,6493	464,15385
16-Dec-04	4875	608,17344	564,87066	524,11878
17-Dec-04	4950	643,88476	598,532	555,78559
20-Dec-04	4925	611,95123	567,11767	524,96034
21-Dec-04	4900	589,18378	544,9652	503,45433
22-Dec-04	4875	562,28474	518,68508	477,84482
23-Dec-04	4825	530,69919	488,50118	449,06072
27-Dec-04	4875	555,4361	511,76975	470,89898

28-Dec-04	4850	506,51433	463,45956	423,37104
29-Dec-04	4900	531,64928	487,0256	445,4077
30-Dec-04	4825	486,71711	444,39622	405,06585
3-Jan-05	4925	540,38975	494,92893	452,51739
4-Jan-05	4950	528,66629	482,20779	438,96548
5-Jan-05	4875	478,37636	434,3384	393,53597
6-Jan-05	4975	523,92816	476,44246	432,31046
7-Jan-05	5125	614,38492	561,85145	512,69846
10-Jan-05	4950	491,02138	444,22079	400,89804
11-Jan-05	4850	427,57046	384,30482	344,52281
12-Jan-05	4825	396,88205	354,55314	315,8252
13-Jan-05	4975	479,38944	431,41855	387,14213
14-Jan-05	5000	491,93321	442,99032	397,769
17-Jan-05	5000	474,30814	425,14299	379,85423
18-Jan-05	4950	437,64684	390,36381	347,01008
19-Jan-05	4950	403,24171	355,69723	312,43334
20-Jan-05	4950	401,33181	353,75962	310,49119
24-Jan-05	4850	344,42803	301,24303	262,30787
25-Jan-05	4825	329,48943	287,4138	249,58228
26-Jan-05	4850	318,54231	275,47546	236,96647
27-Jan-05	4800	291,26922	250,59069	214,42093
28-Jan-05	4800	289,63038	248,96387	212,82827
31-Jan-05	4800	270,87983	230,4841	194,86635
1-Feb-05	4825	276,00438	234,42631	197,77916
2-Feb-05	4750	232,38392	194,86587	162,22271
3-Feb-05	4700	178,66328	145,0286	116,58575
4-Feb-05	4675	167,23025	135,07231	108,02238
7-Feb-05	4650	156,23478	125,54678	99,873904
8-Feb-05	4625	139,76542	110,93112	87,08985
11-Feb-05	4675	138,61646	108,16132	83,280105
14-Feb-05	4650	108,41149	81,252666	59,85868
15-Feb-05	4750	138,10995	104,59584	77,771557
16-Feb-05	4750	137,23509	103,77413	77,026913
17-Feb-05	4700	101,65676	73,310397	51,648633
18-Feb-05	4700	100,91536	72,641194	51,069756
21-Feb-05	4625	46,300786	28,552419	16,886757
22-Feb-05	4650	43,656985	25,818618	14,522141
23-Feb-05	4650	43,223461	25,48159	14,279994
24-Feb-05	4575	14,328554	6,5221734	2,7289634
25-Feb-05	4475	2,6707153	0,8509254	0,240145
28-Feb-05	4425	0,0036445	0,0001401	3,551E-06

Source: Appendix X

4.5. Research Findings

Based on all of steps to determine the stock risks and call option value for each sample, the writer writes the summarized result in the form of tables for call option values. The summary of call option valuation provided in table 4.3 will be tested using One-Way ANOVA statistical test that will be provided in table 4.4.

One-way ANOVA is a test used to answer the proposed hypothesis in this research. The hypothesis states that there is significant difference of call option value among the different exercise price. If the writer finds that the difference of exercise price not significantly influences on the call option value, it means that the research hypothesis is accepted. Hypothesis testing is conducted by comparing between:

1. F-value and F-table

F-table for numerator is sum of exercise price variables minus one or $3-1=2$. Denominator is sum of cases minus sum of exercise price variable or $180-3=177$. The significance level of $\alpha = 5\%$, then we get the F-table of 3, 05.

➤ If F output > 3,05, Ho is accepted

➤ If F output < 3,05, Ho is rejected

2. Probability with the significance level of $\alpha = 5\%$

➤ If Sig. < 0,05, Ho is accepted

➤ If Sig. > 0,05, Ho is rejected

One-Way ANOVA Assumption Test

Before using One-Way ANOVA test to answer the hypothesis, we need to run a One-Way ANOVA Assumption Test first. The purpose of this assumption test is to know the availability of samples to run the One-Way ANOVA statistical test. If the samples are normally distributed, it means One-Way ANOVA test can be used for the next step of this research. *Homogeneity-Assumption test* is used to test whether the variant population is similar. The result will be shown in *Test of Homogeneity of Variance* in appendix XI. If the probability stated in *Levene Test* is more than 0,05, it means the three variants are similar. The complete result of each sample's One-Way ANOVA test is provided in Appendix XI. And, the summary of the twelve samples' One-Way ANOVA test is provided in table 4.4.

One-Way ANOVA Test

To know the condition when $E < P$, $E = P$, $E > P$ can be seen in *descriptive tables* at appendix XII. To find the F-value and each sample probability can be seen in *ANOVA tables* at appendix XI. If the F-value more than 3,05 and significance level is less than 0,05, it means we accept the null hypothesis and reject the alternate hypothesis. In other word, the average value call option exercise price is really different. In comparing the difference of exercise price in average value can be seen in *Multiple Comparisons table* at appendix XI. The condition when one of the exercise price sets ($E < P$, $E = P$ and $E > P$) faces the two other sets of exercise price can be seen from the probability value based on either *Tukey HSD* or *Benferroni*. If the stated probability is more than 0,05, it means there is no

difference in average value. And, If the stated probability is more than 0,05, it means there is no difference in average value.

The summary of steps required in order to decide whether the hypothesis is accepted or rejected is provided in table 4.4 below.

Table 4.4
Summary of Steps to Final Decision

No	Series	Levene Test	Levene Test Probability	F-value	Sig.
1	ASII 1000	,000	1,000	,413	,663
2	BBCA2850	11,125	,000	33,794	,000
3	BBCA2950	8,312	,000	30,974	,000
4	BBCA3050	5,209	,006	33,759	,000
5	BBCA3250	,897	,0410	82,456	,000
6	HMSP7550	9,265	,000	7,966	,000
7	INDF800	14,033	,000	44,970	,000
8	INDF850	24,899	,000	46,403	,000
9	INDF900	31,283	,000	46,344	,000
10	TLKM4800	,085	,918	1,986	,140
11	TLKM4900	,141	,869	1,728	,181
12	TLKM5000	,214	,807	1,518	,222

Source: Appendix XI

Based on the statistical calculation above, we can find that from the twelve stock option contracts (SOC) that are being traded in Jakarta Stock Exchange only two of them rejected this research hypothesis. The samples should fulfill the *Homogeneity-Assumption* test on the first step before running to *One-Way ANOVA* test. The parameter of decision use shown in the *Levene-Test* probability value. The contract that has *Levene probability* value more than 0,05 which means that the data is normally distributed and available for the next procedure of *One-Way ANOVA*

test are ASII1000, BBKA3050, BBKA3250, TLKM4800, TLKM4900, and TLKM5000. The contract that has F-value more than 3,05 and significance level less than 0,05, and finally support the null hypothesis which is BBKA3050 and BBKA3250. The contract that has F-value less than 3,05 and significance level more than 0,05, and finally reject the null hypothesis which are ASII1000, TLKM4800, TLKM4900, TLKM5000.

From the twelve samples, we can see that two samples support the null hypothesis and the others reject the hypothesis. This condition means that the null hypothesis cannot be accepted. This condition shows that there is no significant difference among the difference of call option exercise price to call option value based on Black-Scholes Option Pricing Model.

The result of this research fails to support the previous research which is conducted by Hakim (2003). He conducted the research on the application of Black-Scholes Option Pricing Model for call option valuation. His finding is that the difference exercise price and fixed along the life of call option and the movement of stock prices resulted to a significantly different of average call option value for his entire sample.

The result of this research fails to support the previous research which is conducted by Hakim (2003). It might be because of the samples that are used in this research. This research uses the real samples data shown in the list of Stock Option Contract (SOC) at Jakarta Stock Exchange (JSX). While in the previous research, Hakim used an assumption data for samples, assumption on call option exercise price and the interval strike price of closing price. His reasons could be accepted because the trading of call option contract is started on October 6, 2004, a year

before Hakim did his research. Therefore, a longer period which is supported by empirical data might be needed to get a more accurate result.

4.6. Research Implications

The result of this research will give the implication to the theory that has been explained before. According to Hakim, the difference exercise price and fixed along the life of call option and the movement of stock prices resulted to a significantly different of average call option value. According to him, the difference of exercise price is statistically significant.

From the One-Way ANOVA test conducted, it shows that the different exercise price and fixed along the life of call option and the movement of stock prices have no significant different result on the average of call option value. This result happened because the samples' contract cannot fulfill assumption of Black-Scholes Model and statistical criteria. Based on the explanation above, the hypothesis that states the different exercise price and fixed along the life of call option and the movement of stock prices resulted to a significant difference of average call option value is not significant. The statement above implies that the result of the research cannot support the existing theory that is argued by Hakim (2003).

Finally, based on the results of statistical test, this research failed to prove whether the call option valuation using Black-Scholes Option Pricing Model can be applied in Jakarta Stock Exchange. The result of this research indicates that stock market in Indonesia especially in Jakarta Stock Exchange is not fairly efficient and cannot be predicted using the Black-Scholes Option Pricing Model only. The

reason is even though the call option valuation using Black-Scholes Model shows no significant result, the trading of call option is still being done. This condition assumes that the Black-Scholes Option Pricing Model does not become the preferred method used by call option trader in Jakarta Stock Exchange. Other consideration may happen in the trading of Stock Option Contract (SOC). Therefore, it is assumed that parties involved in the call option trading in Jakarta Stock Exchange can use other consideration to gain profit.



CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

5.1. Conclusions

The call option valuation using Black-Scholes Option Pricing Model cannot be used when it is applied in Jakarta Stock Exchange. From the analysis which is conducted for four months and using Stock Option Contract (SOC) as the data sample, it cannot give the support for the previous study conducted by Hakim. It might happen because of several alternative factors:

1. Empirical data that is used in the research

Hakim used many assumptions' variable on his research. While the writer uses the empirical data for this research. This result cannot support Hakim's argument stating that the difference exercise price and fixed along the life of call option and the movement of stock prices resulted to a significant different of average call option value for his entire sample. It could be as an indication that his research is not supported by empirical data because the Stock Option Contract (SOC) is traded a year after his research.

2. Call Option Valuation

By using difference call option's exercise price, it can give a different call option value too. This part is supported by the previous research stating that a higher stock price in excess of exercise price results in a higher call option value.

3. Market Efficiency

The failure of this research is to support the argument that the different exercise price and fixed along the life of call option and the movement of stock prices resulted to a significant difference of average call option value gives the evidence that the Stock Option Contract (SOC) trading in Jakarta Stock Exchange is not fairly efficient. In this kind of condition, it is difficult to apply the Black-Scholes model accurately. When the market is not efficient, not all of the available information is absorbed by stock price. This situation makes difficulties for investors to forecast the future value of stock price.

To summarize, forecasting the option value is not an easy work, because option market is not fairly efficient, and still many factors that affect it.

5. 2.Recommendation for Investors

The results of this research also provide some information and recommendations for investors who are trading in the option market, moreover in Jakarta Stock Exchange. The recommendations are explained as follows:

- By considering that option market in Indonesia especially in Jakarta Stock Exchange is not efficient, using Black-Scholes model is not absolutely effective.
- In trading Stock Option Contract (SOC) in JSX, the investors need to find another strategy to gain profit.

5.3. Recommendation for Government

The result of this research shows the need of establishment of a structured and organized market in Indonesia to create a more efficient market.

5.4. Recommendation for Future Research

- This research samples use the early series of call option contract since the Stock Option Contract (SOC) is launched on October 6, 2004. Therefore, it is a need to do a further research about call option valuation in the future with more samples, especially when the option trading is active again.
- There are many models of option valuation. Therefore, future researches using other methods besides Black-Scholes Option Pricing Model are still required.
- This model does not include the dividend factor. So, next researches can include this variable in option valuation.

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APPENDIX I**LIST OF COMPANIES THAT ARE USED FOR SAMPLE**

{Allowed to be underlying stock and trading the Stock Option Contract (SOC)}

Code	Company	Type of Industry
ASII	PT Astra International Tbk.	Aneka Industri
BBCA	PT Bank Central Asia Tbk.	Keuangan
HMSP	PT Hanjaya Mandala Sampoerna Tbk.	Industri Barang Konsumsi
INDF	PT Indofood Sukses Makmur Tbk.	Industri Barang Konsumsi
TLKM	PT Telekomunikasi Indonesia Tbk.	Infrastruktur, Utilitas, & Transportasi



APPENDIX II

LIST OF STOCK OPTION CONTRACT (SOC)

(Mature at February 28, 2005)

No	Series	Due Date	Price			Total Trading			
			Max	Min	Close	Contract	Value (Rp)	Freq	Days
1	ASII 1000	28-Feb-05	160	150	160	2	3,100,000	2	1
2	BBCA2850	28-Feb-05	100	75	100	4	3,300,000	4	3
3	BBCA2950	28-Feb-05	75	50	75	2	1,250,000	2	2
4	BBCA3050	28-Feb-05	75	35	75	4	2,200,000	3	2
5	BBCA3250	28-Feb-05	50	50	50	2	1,000,000	2	2
6	HMSP7550	28-Feb-05	60	50	60	3	1,700,000	3	2
7	INDF800	28-Feb-05	50	40	50	2	900,000	2	1
8	INDF850	28-Feb-05	75	50	75	2	1,250,000	2	2
9	INDF900	28-Feb-05	55	25	40	23	7,190,000	18	7
10	TLKM4800	28-Feb-05	60	25	40	6	2,400,000	6	5
11	TLKM4900	28-Feb-05	51	50	51	2	1,010,000	2	1
12	TLKM5000	28-Feb-05	125	100	125	2	2,250,000	2	2

APPENDIX III
DAILY STOCK PRICE of ASII

Date	Day	Code	Stock Price
30-Aug-04	Monday	ASII	6350
31-Aug-04	Tuesday	ASII	6350
1-Sep-04	Wednesday	ASII	6800
2-Sep-04	Thursday	ASII	6650
3-Sep-04	Friday	ASII	6600
6-Sep-04	Monday	ASII	6600
7-Sep-04	Tuesday	ASII	6600
8-Sep-04	Wednesday	ASII	6550
9-Sep-04	Thursday	ASII	6550
10-Sep-04	Friday	ASII	6750
14-Sep-04	Tuesday	ASII	6750
15-Sep-04	Wednesday	ASII	6850
16-Sep-04	Thursday	ASII	6800
17-Sep-04	Friday	ASII	6950
21-Sep-04	Tuesday	ASII	6900
22-Sep-04	Wednesday	ASII	6850
23-Sep-04	Thursday	ASII	6700
24-Sep-04	Friday	ASII	6700
27-Sep-04	Monday	ASII	6750
28-Sep-04	Tuesday	ASII	6650
29-Sep-04	Wednesday	ASII	6750
30-Sep-04	Thursday	ASII	6850
1-Oct-04	Friday	ASII	7000
4-Oct-04	Monday	ASII	7450
5-Oct-04	Tuesday	ASII	7650
6-Oct-04	Wednesday	ASII	7600
7-Oct-04	Thursday	ASII	7550
8-Oct-04	Friday	ASII	7650
11-Oct-04	Monday	ASII	7750
12-Oct-04	Tuesday	ASII	7900
13-Oct-04	Wednesday	ASII	7950
14-Oct-04	Thursday	ASII	7950
15-Oct-04	Friday	ASII	7950
18-Oct-04	Monday	ASII	7950
19-Oct-04	Tuesday	ASII	7900
20-Oct-04	Wednesday	ASII	7900
21-Oct-04	Thursday	ASII	7850
22-Oct-04	Friday	ASII	7950
25-Oct-04	Monday	ASII	7950
26-Oct-04	Tuesday	ASII	7850
27-Oct-04	Wednesday	ASII	7700
28-Oct-04	Thursday	ASII	7900
29-Oct-04	Friday	ASII	7850
1-Nov-04	Monday	ASII	7900
2-Nov-04	Tuesday	ASII	7950
3-Nov-04	Wednesday	ASII	8050
4-Nov-04	Thursday	ASII	7850
5-Nov-04	Friday	ASII	8150
8-Nov-04	Monday	ASII	8250
9-Nov-04	Tuesday	ASII	8600
10-Nov-04	Wednesday	ASII	8500
11-Nov-04	Thursday	ASII	8450
12-Nov-04	Friday	ASII	8550
22-Nov-04	Monday	ASII	8450

23-Nov-04	Tuesday	ASII	8600
24-Nov-04	Wednesday	ASII	8800
25-Nov-04	Thursday	ASII	8600
26-Nov-04	Friday	ASII	8600
29-Nov-04	Monday	ASII	8750
30-Nov-04	Tuesday	ASII	9000
1-Dec-04	Wednesday	ASII	9050
2-Dec-04	Thursday	ASII	9400
3-Dec-04	Friday	ASII	9300
6-Dec-04	Monday	ASII	9350
7-Dec-04	Tuesday	ASII	9600
8-Dec-04	Wednesday	ASII	9850
9-Dec-04	Thursday	ASII	9700
10-Dec-04	Friday	ASII	9450
13-Dec-04	Monday	ASII	9250
14-Dec-04	Tuesday	ASII	9000
15-Dec-04	Wednesday	ASII	9400
16-Dec-04	Thursday	ASII	9550
17-Dec-04	Friday	ASII	9650
20-Dec-04	Monday	ASII	9500
21-Dec-04	Tuesday	ASII	9550
22-Dec-04	Wednesday	ASII	9700
23-Dec-04	Thursday	ASII	9700
27-Dec-04	Monday	ASII	9700
28-Dec-04	Tuesday	ASII	9600
29-Dec-04	Wednesday	ASII	9750
30-Dec-04	Thursday	ASII	9600
3-Jan-05	Monday	ASII	9600
4-Jan-05	Tuesday	ASII	9750
5-Jan-05	Wednesday	ASII	9700
6-Jan-05	Thursday	ASII	9700
7-Jan-05	Friday	ASII	9800
10-Jan-05	Monday	ASII	9750
11-Jan-05	Tuesday	ASII	9550
12-Jan-05	Wednesday	ASII	9550
13-Jan-05	Thursday	ASII	9950
14-Jan-05	Friday	ASII	10000
17-Jan-05	Monday	ASII	10400
18-Jan-05	Tuesday	ASII	10300
19-Jan-05	Wednesday	ASII	10350
20-Jan-05	Thursday	ASII	10450
24-Jan-05	Monday	ASII	10150
25-Jan-05	Tuesday	ASII	10000
26-Jan-05	Wednesday	ASII	10100
27-Jan-05	Thursday	ASII	10000
28-Jan-05	Friday	ASII	10000
31-Jan-05	Monday	ASII	10050
1-Feb-05	Tuesday	ASII	10050
2-Feb-05	Wednesday	ASII	10500
3-Feb-05	Thursday	ASII	10150
4-Feb-05	Friday	ASII	10500
7-Feb-05	Monday	ASII	10300
8-Feb-05	Tuesday	ASII	10200
11-Feb-05	Friday	ASII	10150
14-Feb-05	Monday	ASII	10050

15-Feb-05	Tuesday	ASII	10400
16-Feb-05	Wednesday	ASII	10700
17-Feb-05	Thursday	ASII	10800
18-Feb-05	Friday	ASII	11200
21-Feb-05	Monday	ASII	11100

22-Feb-05	Tuesday	ASII	11150
23-Feb-05	Wednesday	ASII	11250
24-Feb-05	Thursday	ASII	11750
25-Feb-05	Friday	ASII	11250
28-Feb-05	Monday	ASII	10800

DAILY STOCK PRICE of BBCA

Date	Day	Code	Stock Price
30-Aug-04	Monday	BBCA	1775
31-Aug-04	Tuesday	BBCA	1800
1-Sep-04	Wednesday	BBCA	1875
2-Sep-04	Thursday	BBCA	1875
3-Sep-04	Friday	BBCA	1900
6-Sep-04	Monday	BBCA	1875
7-Sep-04	Tuesday	BBCA	1850
8-Sep-04	Wednesday	BBCA	1900
9-Sep-04	Thursday	BBCA	1850
10-Sep-04	Friday	BBCA	1875
14-Sep-04	Tuesday	BBCA	1975
15-Sep-04	Wednesday	BBCA	2025
16-Sep-04	Thursday	BBCA	2000
17-Sep-04	Friday	BBCA	2000
21-Sep-04	Tuesday	BBCA	2075
22-Sep-04	Wednesday	BBCA	2050
23-Sep-04	Thursday	BBCA	2050
24-Sep-04	Friday	BBCA	2050
27-Sep-04	Monday	BBCA	2000
28-Sep-04	Tuesday	BBCA	1975
29-Sep-04	Wednesday	BBCA	2000
30-Sep-04	Thursday	BBCA	2000
1-Oct-04	Friday	BBCA	2025
4-Oct-04	Monday	BBCA	2125
5-Oct-04	Tuesday	BBCA	2300
6-Oct-04	Wednesday	BBCA	2275
7-Oct-04	Thursday	BBCA	2250
8-Oct-04	Friday	BBCA	2250
11-Oct-04	Monday	BBCA	2275
12-Oct-04	Tuesday	BBCA	2225
13-Oct-04	Wednesday	BBCA	2250
14-Oct-04	Thursday	BBCA	2250
15-Oct-04	Friday	BBCA	2275
18-Oct-04	Monday	BBCA	2275
19-Oct-04	Tuesday	BBCA	2225
20-Oct-04	Wednesday	BBCA	2225
21-Oct-04	Thursday	BBCA	2200
22-Oct-04	Friday	BBCA	2250
25-Oct-04	Monday	BBCA	2275
26-Oct-04	Tuesday	BBCA	2300
27-Oct-04	Wednesday	BBCA	2400
28-Oct-04	Thursday	BBCA	2400
29-Oct-04	Friday	BBCA	2400
1-Nov-04	Monday	BBCA	2475
2-Nov-04	Tuesday	BBCA	2550
3-Nov-04	Wednesday	BBCA	2475
4-Nov-04	Thursday	BBCA	2475
5-Nov-04	Friday	BBCA	2500
8-Nov-04	Monday	BBCA	2500
9-Nov-04	Tuesday	BBCA	2500

10-Nov-04	Wednesday	BBCA	2650
11-Nov-04	Thursday	BBCA	2750
12-Nov-04	Friday	BBCA	2750
22-Nov-04	Monday	BBCA	2700
23-Nov-04	Tuesday	BBCA	2750
24-Nov-04	Wednesday	BBCA	2750
25-Nov-04	Thursday	BBCA	2675
26-Nov-04	Friday	BBCA	2625
29-Nov-04	Monday	BBCA	2725
30-Nov-04	Tuesday	BBCA	2750
1-Dec-04	Wednesday	BBCA	2725
2-Dec-04	Thursday	BBCA	2725
3-Dec-04	Friday	BBCA	2725
6-Dec-04	Monday	BBCA	2725
7-Dec-04	Tuesday	BBCA	2700
8-Dec-04	Wednesday	BBCA	2700
9-Dec-04	Thursday	BBCA	2675
10-Dec-04	Friday	BBCA	2675
13-Dec-04	Monday	BBCA	2625
14-Dec-04	Tuesday	BBCA	2625
15-Dec-04	Wednesday	BBCA	2550
16-Dec-04	Thursday	BBCA	2675
17-Dec-04	Friday	BBCA	2825
20-Dec-04	Monday	BBCA	2850
21-Dec-04	Tuesday	BBCA	2875
22-Dec-04	Wednesday	BBCA	2900
23-Dec-04	Thursday	BBCA	2925
27-Dec-04	Monday	BBCA	2975
28-Dec-04	Tuesday	BBCA	3025
29-Dec-04	Wednesday	BBCA	2975
30-Dec-04	Thursday	BBCA	2975
3-Jan-05	Monday	BBCA	2950
4-Jan-05	Tuesday	BBCA	3000
5-Jan-05	Wednesday	BBCA	3075
6-Jan-05	Thursday	BBCA	3075
7-Jan-05	Friday	BBCA	2950
10-Jan-05	Monday	BBCA	2825
11-Jan-05	Tuesday	BBCA	2825
12-Jan-05	Wednesday	BBCA	2775
13-Jan-05	Thursday	BBCA	2800
14-Jan-05	Friday	BBCA	2825
17-Jan-05	Monday	BBCA	2875
18-Jan-05	Tuesday	BBCA	2850
19-Jan-05	Wednesday	BBCA	2850
20-Jan-05	Thursday	BBCA	2875
24-Jan-05	Monday	BBCA	2875
25-Jan-05	Tuesday	BBCA	2850
26-Jan-05	Wednesday	BBCA	2925
27-Jan-05	Thursday	BBCA	2950
28-Jan-05	Friday	BBCA	2925
31-Jan-05	Monday	BBCA	2875

1-Feb-05	Tuesday	BBCA	2925
2-Feb-05	Wednesday	BBCA	2925
3-Feb-05	Thursday	BBCA	2975
4-Feb-05	Friday	BBCA	3000
7-Feb-05	Monday	BBCA	3000
8-Feb-05	Tuesday	BBCA	3000
11-Feb-05	Friday	BBCA	3000
14-Feb-05	Monday	BBCA	3000
15-Feb-05	Tuesday	BBCA	3075

16-Feb-05	Wednesday	BBCA	3150
17-Feb-05	Thursday	BBCA	3325
18-Feb-05	Friday	BBCA	3325
21-Feb-05	Monday	BBCA	3300
22-Feb-05	Tuesday	BBCA	3300
23-Feb-05	Wednesday	BBCA	3300
24-Feb-05	Thursday	BBCA	3350
25-Feb-05	Friday	BBCA	3300
28-Feb-05	Monday	BBCA	3275

DAILY STOCK PRICE of HMSP

Date	Day	Code	Stock Price
30-Aug-04	Monday	HMSP	5250
31-Aug-04	Tuesday	HMSP	5300
1-Sep-04	Wednesday	HMSP	5450
2-Sep-04	Thursday	HMSP	5450
3-Sep-04	Friday	HMSP	5500
6-Sep-04	Monday	HMSP	5450
7-Sep-04	Tuesday	HMSP	5450
8-Sep-04	Wednesday	HMSP	5450
9-Sep-04	Thursday	HMSP	5350
10-Sep-04	Friday	HMSP	5600
14-Sep-04	Tuesday	HMSP	5850
15-Sep-04	Wednesday	HMSP	5950
16-Sep-04	Thursday	HMSP	5950
17-Sep-04	Friday	HMSP	5900
21-Sep-04	Tuesday	HMSP	5900
22-Sep-04	Wednesday	HMSP	5750
23-Sep-04	Thursday	HMSP	5650
24-Sep-04	Friday	HMSP	5750
27-Sep-04	Monday	HMSP	5800
28-Sep-04	Tuesday	HMSP	6000
29-Sep-04	Wednesday	HMSP	6050
30-Sep-04	Thursday	HMSP	6100
1-Oct-04	Friday	HMSP	6250
4-Oct-04	Monday	HMSP	6300
5-Oct-04	Tuesday	HMSP	6350
6-Oct-04	Wednesday	HMSP	6100
7-Oct-04	Thursday	HMSP	5850
8-Oct-04	Friday	HMSP	5800
11-Oct-04	Monday	HMSP	5800
12-Oct-04	Tuesday	HMSP	5650
13-Oct-04	Wednesday	HMSP	5950
14-Oct-04	Thursday	HMSP	6000
15-Oct-04	Friday	HMSP	6000
18-Oct-04	Monday	HMSP	6000
19-Oct-04	Tuesday	HMSP	5900
20-Oct-04	Wednesday	HMSP	5800
21-Oct-04	Thursday	HMSP	5850
22-Oct-04	Friday	HMSP	5900
25-Oct-04	Monday	HMSP	5900
26-Oct-04	Tuesday	HMSP	5850
27-Oct-04	Wednesday	HMSP	5950
28-Oct-04	Thursday	HMSP	6100
29-Oct-04	Friday	HMSP	6000
1-Nov-04	Monday	HMSP	6000
2-Nov-04	Tuesday	HMSP	6150
3-Nov-04	Wednesday	HMSP	6200

4-Nov-04	Thursday	HMSP	6200
5-Nov-04	Friday	HMSP	6200
8-Nov-04	Monday	HMSP	6200
9-Nov-04	Tuesday	HMSP	6450
10-Nov-04	Wednesday	HMSP	6550
11-Nov-04	Thursday	HMSP	6700
12-Nov-04	Friday	HMSP	7050
22-Nov-04	Monday	HMSP	6750
23-Nov-04	Tuesday	HMSP	6800
24-Nov-04	Wednesday	HMSP	6500
25-Nov-04	Thursday	HMSP	6500
26-Nov-04	Friday	HMSP	6550
29-Nov-04	Monday	HMSP	6400
30-Nov-04	Tuesday	HMSP	6750
1-Dec-04	Wednesday	HMSP	6900
2-Dec-04	Thursday	HMSP	7050
3-Dec-04	Friday	HMSP	6900
6-Dec-04	Monday	HMSP	6850
7-Dec-04	Tuesday	HMSP	6800
8-Dec-04	Wednesday	HMSP	6650
9-Dec-04	Thursday	HMSP	6700
10-Dec-04	Friday	HMSP	6750
13-Dec-04	Monday	HMSP	6400
14-Dec-04	Tuesday	HMSP	6150
15-Dec-04	Wednesday	HMSP	6250
16-Dec-04	Thursday	HMSP	6450
17-Dec-04	Friday	HMSP	6750
20-Dec-04	Monday	HMSP	6550
21-Dec-04	Tuesday	HMSP	6500
22-Dec-04	Wednesday	HMSP	6600
23-Dec-04	Thursday	HMSP	6600
27-Dec-04	Monday	HMSP	6700
28-Dec-04	Tuesday	HMSP	6700
29-Dec-04	Wednesday	HMSP	6750
30-Dec-04	Thursday	HMSP	6650
3-Jan-05	Monday	HMSP	6600
4-Jan-05	Tuesday	HMSP	6900
5-Jan-05	Wednesday	HMSP	6950
6-Jan-05	Thursday	HMSP	7100
7-Jan-05	Friday	HMSP	6900
10-Jan-05	Monday	HMSP	7000
11-Jan-05	Tuesday	HMSP	6900
12-Jan-05	Wednesday	HMSP	6900
13-Jan-05	Thursday	HMSP	6900
14-Jan-05	Friday	HMSP	6850
17-Jan-05	Monday	HMSP	6900
18-Jan-05	Tuesday	HMSP	6700

19-Jan-05	Wednesday	HMSP	6800
20-Jan-05	Thursday	HMSP	6800
24-Jan-05	Monday	HMSP	7050
25-Jan-05	Tuesday	HMSP	7050
26-Jan-05	Wednesday	HMSP	7300
27-Jan-05	Thursday	HMSP	7550
28-Jan-05	Friday	HMSP	7400
31-Jan-05	Monday	HMSP	7150
1-Feb-05	Tuesday	HMSP	7150
2-Feb-05	Wednesday	HMSP	7500
3-Feb-05	Thursday	HMSP	7600
4-Feb-05	Friday	HMSP	7600
7-Feb-05	Monday	HMSP	7600

8-Feb-05	Tuesday	HMSP	7550
11-Feb-05	Friday	HMSP	7350
14-Feb-05	Monday	HMSP	7450
15-Feb-05	Tuesday	HMSP	8150
16-Feb-05	Wednesday	HMSP	7950
17-Feb-05	Thursday	HMSP	8150
18-Feb-05	Friday	HMSP	8000
21-Feb-05	Monday	HMSP	8000
22-Feb-05	Tuesday	HMSP	8050
23-Feb-05	Wednesday	HMSP	8050
24-Feb-05	Thursday	HMSP	8150
25-Feb-05	Friday	HMSP	8150
28-Feb-05	Monday	HMSP	8150

DAILY STOCK PRICE of INDF

Date	Day	Code	Stock Price
30-Aug-04	Monday	INDF	675
31-Aug-04	Tuesday	INDF	675
1-Sep-04	Wednesday	INDF	700
2-Sep-04	Thursday	INDF	700
3-Sep-04	Friday	INDF	700
6-Sep-04	Monday	INDF	700
7-Sep-04	Tuesday	INDF	725
8-Sep-04	Wednesday	INDF	725
9-Sep-04	Thursday	INDF	725
10-Sep-04	Friday	INDF	750
14-Sep-04	Tuesday	INDF	750
15-Sep-04	Wednesday	INDF	750
16-Sep-04	Thursday	INDF	725
17-Sep-04	Friday	INDF	750
21-Sep-04	Tuesday	INDF	725
22-Sep-04	Wednesday	INDF	725
23-Sep-04	Thursday	INDF	725
24-Sep-04	Friday	INDF	725
27-Sep-04	Monday	INDF	725
28-Sep-04	Tuesday	INDF	725
29-Sep-04	Wednesday	INDF	725
30-Sep-04	Thursday	INDF	675
1-Oct-04	Friday	INDF	725
4-Oct-04	Monday	INDF	725
5-Oct-04	Tuesday	INDF	700
6-Oct-04	Wednesday	INDF	700
7-Oct-04	Thursday	INDF	700
8-Oct-04	Friday	INDF	700
11-Oct-04	Monday	INDF	725
12-Oct-04	Tuesday	INDF	700
13-Oct-04	Wednesday	INDF	700
14-Oct-04	Thursday	INDF	700
15-Oct-04	Friday	INDF	700
18-Oct-04	Monday	INDF	700
19-Oct-04	Tuesday	INDF	700
20-Oct-04	Wednesday	INDF	700
21-Oct-04	Thursday	INDF	700
22-Oct-04	Friday	INDF	700
25-Oct-04	Monday	INDF	700
26-Oct-04	Tuesday	INDF	700
27-Oct-04	Wednesday	INDF	675
28-Oct-04	Thursday	INDF	700

29-Oct-04	Friday	INDF	675
1-Nov-04	Monday	INDF	700
2-Nov-04	Tuesday	INDF	725
3-Nov-04	Wednesday	INDF	700
4-Nov-04	Thursday	INDF	700
5-Nov-04	Friday	INDF	700
8-Nov-04	Monday	INDF	700
9-Nov-04	Tuesday	INDF	725
10-Nov-04	Wednesday	INDF	725
11-Nov-04	Thursday	INDF	700
12-Nov-04	Friday	INDF	725
22-Nov-04	Monday	INDF	700
23-Nov-04	Tuesday	INDF	725
24-Nov-04	Wednesday	INDF	725
25-Nov-04	Thursday	INDF	750
26-Nov-04	Friday	INDF	750
29-Nov-04	Monday	INDF	750
30-Nov-04	Tuesday	INDF	750
1-Dec-04	Wednesday	INDF	775
2-Dec-04	Thursday	INDF	800
3-Dec-04	Friday	INDF	775
6-Dec-04	Monday	INDF	800
7-Dec-04	Tuesday	INDF	775
8-Dec-04	Wednesday	INDF	750
9-Dec-04	Thursday	INDF	750
10-Dec-04	Friday	INDF	750
13-Dec-04	Monday	INDF	750
14-Dec-04	Tuesday	INDF	725
15-Dec-04	Wednesday	INDF	750
16-Dec-04	Thursday	INDF	750
17-Dec-04	Friday	INDF	750
20-Dec-04	Monday	INDF	750
21-Dec-04	Tuesday	INDF	750
22-Dec-04	Wednesday	INDF	775
23-Dec-04	Thursday	INDF	750
27-Dec-04	Monday	INDF	775
28-Dec-04	Tuesday	INDF	800
29-Dec-04	Wednesday	INDF	800
30-Dec-04	Thursday	INDF	800
3-Jan-05	Monday	INDF	800
4-Jan-05	Tuesday	INDF	860
5-Jan-05	Wednesday	INDF	840
6-Jan-05	Thursday	INDF	850

7-Jan-05	Friday	INDF	840
10-Jan-05	Monday	INDF	820
11-Jan-05	Tuesday	INDF	830
12-Jan-05	Wednesday	INDF	820
13-Jan-05	Thursday	INDF	820
14-Jan-05	Friday	INDF	820
17-Jan-05	Monday	INDF	810
18-Jan-05	Tuesday	INDF	800
19-Jan-05	Wednesday	INDF	810
20-Jan-05	Thursday	INDF	820
24-Jan-05	Monday	INDF	820
25-Jan-05	Tuesday	INDF	830
26-Jan-05	Wednesday	INDF	860
27-Jan-05	Thursday	INDF	900
28-Jan-05	Friday	INDF	890
31-Jan-05	Monday	INDF	870
1-Feb-05	Tuesday	INDF	870

2-Feb-05	Wednesday	INDF	860
3-Feb-05	Thursday	INDF	870
4-Feb-05	Friday	INDF	870
7-Feb-05	Monday	INDF	860
8-Feb-05	Tuesday	INDF	860
11-Feb-05	Friday	INDF	880
14-Feb-05	Monday	INDF	880
15-Feb-05	Tuesday	INDF	880
16-Feb-05	Wednesday	INDF	880
17-Feb-05	Thursday	INDF	900
18-Feb-05	Friday	INDF	910
21-Feb-05	Monday	INDF	940
22-Feb-05	Tuesday	INDF	950
23-Feb-05	Wednesday	INDF	960
24-Feb-05	Thursday	INDF	950
25-Feb-05	Friday	INDF	920
28-Feb-05	Monday	INDF	930

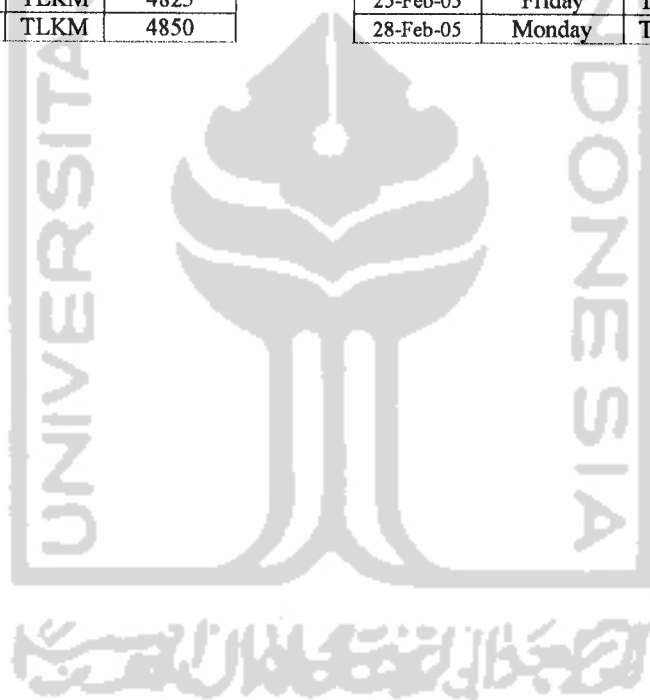
DAILY STOCK PRICE of TLKM

Date	Day	Code	Stock Price
30-Aug-04	Monday	TLKM	7550
31-Aug-04	Tuesday	TLKM	7650
1-Sep-04	Wednesday	TLKM	7950
2-Sep-04	Thursday	TLKM	8100
3-Sep-04	Friday	TLKM	8200
6-Sep-04	Monday	TLKM	8200
7-Sep-04	Tuesday	TLKM	8150
8-Sep-04	Wednesday	TLKM	8150
9-Sep-04	Thursday	TLKM	7950
10-Sep-04	Friday	TLKM	8050
14-Sep-04	Tuesday	TLKM	8200
15-Sep-04	Wednesday	TLKM	8200
16-Sep-04	Thursday	TLKM	8250
17-Sep-04	Friday	TLKM	8150
21-Sep-04	Tuesday	TLKM	8450
22-Sep-04	Wednesday	TLKM	8450
23-Sep-04	Thursday	TLKM	8300
24-Sep-04	Friday	TLKM	8350
27-Sep-04	Monday	TLKM	8350
28-Sep-04	Tuesday	TLKM	4125
29-Sep-04	Wednesday	TLKM	4125
30-Sep-04	Thursday	TLKM	4150
1-Oct-04	Friday	TLKM	4200
4-Oct-04	Monday	TLKM	4350
5-Oct-04	Tuesday	TLKM	4400
6-Oct-04	Wednesday	TLKM	4300
7-Oct-04	Thursday	TLKM	4275
8-Oct-04	Friday	TLKM	4275
11-Oct-04	Monday	TLKM	4350
12-Oct-04	Tuesday	TLKM	4275
13-Oct-04	Wednesday	TLKM	4350
14-Oct-04	Thursday	TLKM	4300
15-Oct-04	Friday	TLKM	4300
18-Oct-04	Monday	TLKM	4275
19-Oct-04	Tuesday	TLKM	4400
20-Oct-04	Wednesday	TLKM	4325
21-Oct-04	Thursday	TLKM	4250
22-Oct-04	Friday	TLKM	4350

25-Oct-04	Monday	TLKM	4300
26-Oct-04	Tuesday	TLKM	4175
27-Oct-04	Wednesday	TLKM	4200
28-Oct-04	Thursday	TLKM	4300
29-Oct-04	Friday	TLKM	4350
1-Nov-04	Monday	TLKM	4350
2-Nov-04	Tuesday	TLKM	4575
3-Nov-04	Wednesday	TLKM	4725
4-Nov-04	Thursday	TLKM	4600
5-Nov-04	Friday	TLKM	4650
8-Nov-04	Monday	TLKM	4625
9-Nov-04	Tuesday	TLKM	4675
10-Nov-04	Wednesday	TLKM	4750
11-Nov-04	Thursday	TLKM	4700
12-Nov-04	Friday	TLKM	4725
22-Nov-04	Monday	TLKM	4950
23-Nov-04	Tuesday	TLKM	5000
24-Nov-04	Wednesday	TLKM	5100
25-Nov-04	Thursday	TLKM	4950
26-Nov-04	Friday	TLKM	5000
29-Nov-04	Monday	TLKM	4950
30-Nov-04	Tuesday	TLKM	5000
1-Dec-04	Wednesday	TLKM	5100
2-Dec-04	Thursday	TLKM	5200
3-Dec-04	Friday	TLKM	5000
6-Dec-04	Monday	TLKM	5000
7-Dec-04	Tuesday	TLKM	5100
8-Dec-04	Wednesday	TLKM	5050
9-Dec-04	Thursday	TLKM	4900
10-Dec-04	Friday	TLKM	4700
13-Dec-04	Monday	TLKM	4700
14-Dec-04	Tuesday	TLKM	4600
15-Dec-04	Wednesday	TLKM	4750
16-Dec-04	Thursday	TLKM	4875
17-Dec-04	Friday	TLKM	4950
20-Dec-04	Monday	TLKM	4925
21-Dec-04	Tuesday	TLKM	4900
22-Dec-04	Wednesday	TLKM	4875
23-Dec-04	Thursday	TLKM	4825

27-Dec-04	Monday	TLKM	4875
28-Dec-04	Tuesday	TLKM	4850
29-Dec-04	Wednesday	TLKM	4900
30-Dec-04	Thursday	TLKM	4825
3-Jan-05	Monday	TLKM	4925
4-Jan-05	Tuesday	TLKM	4950
5-Jan-05	Wednesday	TLKM	4875
6-Jan-05	Thursday	TLKM	4975
7-Jan-05	Friday	TLKM	5125
10-Jan-05	Monday	TLKM	4950
11-Jan-05	Tuesday	TLKM	4850
12-Jan-05	Wednesday	TLKM	4825
13-Jan-05	Thursday	TLKM	4975
14-Jan-05	Friday	TLKM	5000
17-Jan-05	Monday	TLKM	5000
18-Jan-05	Tuesday	TLKM	4950
19-Jan-05	Wednesday	TLKM	4950
20-Jan-05	Thursday	TLKM	4950
24-Jan-05	Monday	TLKM	4850
25-Jan-05	Tuesday	TLKM	4825
26-Jan-05	Wednesday	TLKM	4850

27-Jan-05	Thursday	TLKM	4800
28-Jan-05	Friday	TLKM	4800
31-Jan-05	Monday	TLKM	4800
1-Feb-05	Tuesday	TLKM	4825
2-Feb-05	Wednesday	TLKM	4750
3-Feb-05	Thursday	TLKM	4700
4-Feb-05	Friday	TLKM	4675
7-Feb-05	Monday	TLKM	4650
8-Feb-05	Tuesday	TLKM	4625
11-Feb-05	Friday	TLKM	4675
14-Feb-05	Monday	TLKM	4650
15-Feb-05	Tuesday	TLKM	4750
16-Feb-05	Wednesday	TLKM	4750
17-Feb-05	Thursday	TLKM	4700
18-Feb-05	Friday	TLKM	4700
21-Feb-05	Monday	TLKM	4625
22-Feb-05	Tuesday	TLKM	4650
23-Feb-05	Wednesday	TLKM	4650
24-Feb-05	Thursday	TLKM	4575
25-Feb-05	Friday	TLKM	4475
28-Feb-05	Monday	TLKM	4425



**APPENDIX IV
DAILY RISK-FREE RATE**

Date	SBI (Rf)	Date	SBI (Rf)
30-Nov-04	7.41%	13-Jan-05	7.42%
1-Dec-04	7.41%	14-Jan-05	7.42%
2-Dec-04	7.41%	17-Jan-05	7.42%
3-Dec-04	7.41%	18-Jan-05	7.42%
6-Dec-04	7.43%	19-Jan-05	7.42%
7-Dec-04	7.43%	20-Jan-05	7.42%
8-Dec-04	7.43%	24-Jan-05	7.42%
9-Dec-04	7.43%	25-Jan-05	7.42%
10-Dec-04	7.43%	26-Jan-05	7.42%
13-Dec-04	7.43%	27-Jan-05	7.42%
14-Dec-04	7.43%	28-Jan-05	7.42%
15-Dec-04	7.43%	31-Jan-05	7.42%
16-Dec-04	7.43%	1-Feb-05	7.42%
17-Dec-04	7.43%	2-Feb-05	7.42%
20-Dec-04	7.43%	3-Feb-05	7.42%
21-Dec-04	7.43%	4-Feb-05	7.42%
22-Dec-04	7.43%	7-Feb-05	7.42%
23-Dec-04	7.43%	8-Feb-05	7.42%
27-Dec-04	7.43%	11-Feb-05	7.42%
28-Dec-04	7.43%	14-Feb-05	7.43%
29-Dec-04	7.43%	15-Feb-05	7.43%
30-Dec-04	7.43%	16-Feb-05	7.43%
3-Jan-05	7.42%	17-Feb-05	7.43%
4-Jan-05	7.42%	18-Feb-05	7.43%
5-Jan-05	7.42%	21-Feb-05	7.43%
6-Jan-05	7.42%	22-Feb-05	7.43%
7-Jan-05	7.42%	23-Feb-05	7.43%
10-Jan-05	7.42%	24-Feb-05	7.43%
11-Jan-05	7.42%	25-Feb-05	7.43%
12-Jan-05	7.42%	28-Feb-05	7.43%

APPENDIX V
TIME TO MATURITY DATE

Date	Time to Maturity Date (T)	Date	Time to Maturity Date (T)
30-Nov-04	0.249	13-Jan-05	0.123
1-Dec-04	0.244	14-Jan-05	0.123
2-Dec-04	0.241	17-Jan-05	0.115
3-Dec-04	0.238	18-Jan-05	0.112
6-Dec-04	0.230	19-Jan-05	0.096
7-Dec-04	0.227	20-Jan-05	0.096
8-Dec-04	0.225	24-Jan-05	0.096
9-Dec-04	0.222	25-Jan-05	0.096
10-Dec-04	0.219	26-Jan-05	0.085
13-Dec-04	0.211	27-Jan-05	0.085
14-Dec-04	0.208	28-Jan-05	0.085
15-Dec-04	0.203	31-Jan-05	0.077
16-Dec-04	0.203	1-Feb-05	0.074
17-Dec-04	0.200	2-Feb-05	0.071
20-Dec-04	0.192	3-Feb-05	0.058
21-Dec-04	0.189	4-Feb-05	0.058
22-Dec-04	0.184	7-Feb-05	0.058
23-Dec-04	0.184	8-Feb-05	0.055
27-Dec-04	0.184	11-Feb-05	0.047
28-Dec-04	0.164	14-Feb-05	0.038
29-Dec-04	0.164	15-Feb-05	0.036
30-Dec-04	0.164	16-Feb-05	0.036
3-Jan-05	0.164	17-Feb-05	0.030
4-Jan-05	0.151	18-Feb-05	0.030
5-Jan-05	0.148	21-Feb-05	0.019
6-Jan-05	0.142	22-Feb-05	0.016
7-Jan-05	0.142	23-Feb-05	0.016
10-Jan-05	0.134	24-Feb-05	0.011
11-Jan-05	0.132	25-Feb-05	0.008
12-Jan-05	0.123	28-Feb-05	0.003

**APPENDIX VI
STOCK RISK CALCULATIONS**

ASII STOCK RISK CALCULATION

Date	Stock Price	Return (R _i)	1 + R _i	$(1+R_i) \dots (1+R_1)$	$((1+R_i) \dots (1+R_1))^{1/n}$	G	(Return-G) ²	$\sum (R_i-G)^2$	$\sum (R_i-G)^3$	$\sum (R_i-G)^4 / (n-1)$	σ^2	σ
30-Aug-04	6350											
31-Aug-04	6350	0,0000	1,00000	1,00000	1,00000	0,00000	0,00000	0,00000	0,00000			
1-Sep-04	6800	0,07087	1,07087	1,07087	1,03483	0,03483	0,00130	0,00130	0,00130	0,1299%	15,326%	39,1489%
2-Sep-04	6650	-0,02206	0,97794	1,04724	1,01551	0,01551	0,00141	0,00271	0,00271	0,1355%	15,989%	39,9862%
3-Sep-04	6600	-0,00752	0,99248	1,03937	1,00970	0,00970	0,00030	0,00301	0,00301	0,1002%	11,826%	34,3883%
6-Sep-04	6600	0,00000	1,00000	1,03937	1,00775	0,00775	0,00006	0,00307	0,00307	0,0767%	9,046%	30,0773%
7-Sep-04	6600	0,00000	1,00000	1,03937	1,00646	0,00646	0,00004	0,00311	0,00311	0,0622%	7,336%	27,0842%
8-Sep-04	6550	-0,00758	0,99242	1,03150	1,00444	0,00444	0,00014	0,00325	0,00325	0,0542%	6,397%	25,2921%
9-Sep-04	6550	0,00000	1,00000	1,03150	1,00388	0,00388	0,00002	0,00327	0,00327	0,0467%	5,508%	23,4702%
10-Sep-04	6750	0,03053	1,03053	1,06299	1,00681	0,00681	0,00056	0,00383	0,00383	0,0479%	5,650%	23,7699%
14-Sep-04	6750	0,00000	1,00000	1,06299	1,00613	0,00613	0,00004	0,00387	0,00387	0,0430%	5,072%	22,5200%
15-Sep-04	6850	0,01481	1,01481	1,07874	1,00691	0,00691	0,00006	0,00393	0,00393	0,0393%	4,638%	21,5361%
16-Sep-04	6800	-0,00730	0,99270	1,07087	1,00572	0,00572	0,00017	0,00410	0,00410	0,0373%	4,398%	20,9720%
17-Sep-04	6950	0,02206	1,02206	1,09449	1,00697	0,00697	0,00023	0,00433	0,00433	0,0361%	4,256%	20,6292%
21-Sep-04	6900	-0,00719	0,99281	1,08661	1,00595	0,00595	0,00017	0,00450	0,00450	0,0346%	4,085%	20,2117%
22-Sep-04	6850	-0,00725	0,99275	1,07874	1,00507	0,00507	0,00015	0,00465	0,00465	0,0332%	3,921%	19,8018%
23-Sep-04	6700	-0,02190	0,97810	1,05512	1,00336	0,00336	0,00064	0,00529	0,00529	0,0353%	4,162%	20,3998%
24-Sep-04	6700	0,00000	1,00000	1,05512	1,00316	0,00316	0,00001	0,00530	0,00530	0,0331%	3,909%	19,7707%
27-Sep-04	6750	0,00746	1,00746	1,06299	1,00340	0,00340	0,00002	0,00532	0,00532	0,0313%	3,690%	19,2102%
28-Sep-04	6650	-0,01481	0,98519	1,04724	1,00243	0,00243	0,00030	0,00561	0,00561	0,0312%	3,680%	19,1841%
29-Sep-04	6750	0,01504	1,01504	1,06299	1,00306	0,00306	0,00014	0,00576	0,00576	0,0303%	3,576%	18,9096%
30-Sep-04	6850	0,01481	1,01481	1,07874	1,00362	0,00362	0,00013	0,00588	0,00588	0,0294%	3,471%	18,6304%
1-Oct-04	7000	0,02190	1,02190	1,10236	1,00444	0,00444	0,00030	0,00619	0,00619	0,0295%	3,477%	18,6465%
4-Oct-04	7450	0,06429	1,06429	1,17323	1,00697	0,00697	0,00329	0,00947	0,00947	0,0431%	5,081%	22,5408%

5-Oct-04	7650	0,02885	1,02685	1,20472	1,00779	0,00779	0,00036	0,00984	0,0428%	5,046%	22,4638%
6-Oct-04	7600	-0,00654	0,99346	1,19885	1,00721	0,00721	0,00019	0,01002	0,0418%	4,929%	22,2012%
7-Oct-04	7550	-0,00658	0,99342	1,18898	1,00668	0,00668	0,00018	0,01020	0,0408%	4,815%	21,9425%
8-Oct-04	7650	0,01325	1,01325	1,20472	1,00692	0,00692	0,00004	0,01024	0,0394%	4,648%	21,5585%
11-Oct-04	7750	0,01307	1,01307	1,22047	1,00714	0,00714	0,00004	0,01028	0,0381%	4,491%	21,1918%
12-Oct-04	7900	0,01935	1,01935	1,24409	1,00756	0,00756	0,00014	0,01042	0,0372%	4,389%	20,9504%
13-Oct-04	7950	0,00633	1,00633	1,25197	1,00752	0,00752	0,00000	0,01042	0,0359%	4,238%	20,5874%
14-Oct-04	7850	0,00000	1,00000	1,25197	1,00728	0,00728	0,00005	0,01047	0,0349%	4,118%	20,2927%
15-Oct-04	7950	0,00000	1,00000	1,25197	1,00705	0,00705	0,00005	0,01052	0,0339%	4,004%	20,0100%
18-Oct-04	7950	0,00000	1,00000	1,25197	1,00683	0,00683	0,00005	0,01057	0,0330%	3,896%	19,7385%
19-Oct-04	7900	-0,00629	0,99371	1,24409	1,00644	0,00644	0,00016	0,01073	0,0325%	3,836%	19,5858%
20-Oct-04	7900	0,00000	1,00000	1,24409	1,00626	0,00626	0,00004	0,01077	0,0317%	3,737%	19,3308%
21-Oct-04	7850	-0,00633	0,99367	1,23622	1,00591	0,00591	0,00015	0,01092	0,0312%	3,681%	19,1847%
22-Oct-04	7950	0,01274	1,01274	1,25197	1,00609	0,00609	0,00004	0,01096	0,0304%	3,593%	18,9546%
25-Oct-04	7950	0,00000	1,00000	1,25197	1,00593	0,00593	0,00004	0,01100	0,0297%	3,507%	18,7267%
28-Oct-04	7850	-0,01258	0,98742	1,23622	1,00545	0,00545	0,00033	0,01132	0,0298%	3,516%	18,7498%
27-Oct-04	7700	-0,01911	0,98089	1,21260	1,00483	0,00483	0,00057	0,01189	0,0305%	3,599%	18,9705%
28-Oct-04	7900	0,02597	1,02597	1,24409	1,00534	0,00534	0,00043	0,01232	0,0308%	3,634%	19,0641%
29-Oct-04	7850	-0,00633	0,99367	1,23622	1,00506	0,00506	0,00013	0,01245	0,0304%	3,583%	18,9291%
1-Nov-04	7900	0,00637	1,00637	1,24409	1,00509	0,00509	0,00000	0,01245	0,0296%	3,498%	18,7036%
2-Nov-04	7950	0,00633	1,00633	1,25197	1,00512	0,00512	0,00000	0,01245	0,0290%	3,417%	18,4859%
3-Nov-04	8050	0,01258	1,01258	1,26772	1,00529	0,00529	0,00005	0,01251	0,0284%	3,354%	18,3137%
4-Nov-04	7850	-0,02484	0,97516	1,23622	1,00462	0,00462	0,00087	0,01337	0,0297%	3,507%	18,7271%
5-Nov-04	8150	0,03822	1,03822	1,28346	1,00532	0,00532	0,00108	0,01446	0,0314%	3,708%	19,2570%
8-Nov-04	8250	0,01227	1,01227	1,29821	1,00547	0,00547	0,00005	0,01450	0,0309%	3,641%	19,0815%
9-Nov-04	8000	0,04242	1,04242	1,35433	1,00821	0,00821	0,00131	0,01581	0,0329%	3,888%	19,7170%
10-Nov-04	8500	-0,01163	0,98837	1,33858	1,00585	0,00585	0,00031	0,01612	0,0329%	3,882%	19,7024%
11-Nov-04	8450	-0,00588	0,99412	1,33071	1,00562	0,00562	0,00013	0,01625	0,0325%	3,835%	19,5842%
12-Nov-04	8550	0,01183	1,01183	1,34646	1,00574	0,00574	0,00004	0,01629	0,0319%	3,769%	19,4134%
22-Nov-04	8450	-0,01170	0,98830	1,33071	1,00541	0,00541	0,00029	0,01658	0,0319%	3,763%	19,3976%

23-Nov-04	8600	0,01775	1,01775	1,35433	1,00563	0,00563	0,00015	0,01673	0,0316%	3,724%	19,2987%
24-Nov-04	8600	0,02326	1,02326	1,35883	1,00595	0,00595	0,00030	0,01703	0,0315%	3,721%	19,2895%
25-Nov-04	8600	-0,02273	0,97727	1,35433	1,00543	0,00543	0,00079	0,01782	0,0324%	3,823%	19,5533%
26-Nov-04	8600	0,00000	1,00000	1,35433	1,00534	0,00534	0,00003	0,01785	0,0319%	3,761%	19,3934%
29-Nov-04	8750	0,01744	1,01744	1,37795	1,00554	0,00554	0,00014	0,01799	0,0316%	3,724%	19,2986%
30-Nov-04	9000	0,02857	1,02857	1,41732	1,00593	0,00593	0,00051	0,01850	0,0319%	3,764%	19,4022%
1-Dec-04	9050	0,00556	1,00556	1,42520	1,00592	0,00592	0,00000	0,01850	0,0314%	3,701%	19,2372%
2-Dec-04	9400	0,03867	1,03867	1,48031	1,00645	0,00645	0,00104	0,01954	0,0326%	3,843%	19,6041%
3-Dec-04	9300	-0,01064	0,98936	1,46457	1,00617	0,00617	0,00028	0,01982	0,0325%	3,835%	19,5828%
6-Dec-04	9350	0,00538	1,00538	1,47244	1,00616	0,00616	0,00000	0,01982	0,0320%	3,773%	19,4246%
7-Dec-04	9600	0,02674	1,02674	1,51181	1,00648	0,00648	0,00041	0,02024	0,0321%	3,790%	19,4682%
8-Dec-04	9850	0,02604	1,02604	1,55118	1,00678	0,00678	0,00037	0,02061	0,0322%	3,799%	19,4919%
9-Dec-04	9700	-0,01523	0,98477	1,52756	1,00644	0,00644	0,00047	0,02108	0,0324%	3,826%	19,5605%
10-Dec-04	9450	-0,02577	0,97423	1,48819	1,00595	0,00595	0,00101	0,02208	0,0335%	3,948%	19,8698%
13-Dec-04	9250	-0,02116	0,97884	1,45669	1,00555	0,00555	0,00071	0,02280	0,0340%	4,015%	20,0370%
14-Dec-04	9000	-0,02703	0,97297	1,41732	1,00507	0,00507	0,00103	0,02363	0,0350%	4,135%	20,3335%
15-Dec-04	9400	0,04444	1,04444	1,48031	1,00562	0,00562	0,00151	0,02533	0,0367%	4,332%	20,8144%
16-Dec-04	9550	0,01596	1,01596	1,50394	1,00576	0,00576	0,00010	0,02544	0,0363%	4,288%	20,7075%
17-Dec-04	9650	0,01047	1,01047	1,51989	1,00583	0,00583	0,00002	0,02546	0,0359%	4,231%	20,5699%
20-Dec-04	9500	-0,01554	0,98446	1,49606	1,00553	0,00553	0,00044	0,02590	0,0360%	4,245%	20,6040%
21-Dec-04	9550	0,00526	1,00526	1,50394	1,00553	0,00553	0,00000	0,02590	0,0355%	4,187%	20,4624%
22-Dec-04	9700	0,01571	1,01571	1,52756	1,00566	0,00566	0,00010	0,02600	0,0351%	4,147%	20,3632%
23-Dec-04	9700	0,00000	1,00000	1,52756	1,00559	0,00559	0,00003	0,02604	0,0347%	4,096%	20,2391%
27-Dec-04	9700	0,00000	1,00000	1,52756	1,00552	0,00552	0,00003	0,02607	0,0343%	4,047%	20,1173%
28-Dec-04	9600	-0,01031	0,98969	1,51181	1,00531	0,00531	0,00024	0,02631	0,0342%	4,032%	20,0796%
29-Dec-04	9750	0,01563	1,01563	1,53543	1,00544	0,00544	0,00010	0,02641	0,0339%	3,996%	19,9897%
30-Dec-04	9600	-0,01538	0,98462	1,51181	1,00518	0,00518	0,00042	0,02684	0,0340%	4,008%	20,0212%
3-Jan-05	9600	0,00000	1,00000	1,51181	1,00512	0,00512	0,00003	0,02686	0,0336%	3,962%	19,9053%
4-Jan-05	9750	0,01563	1,01563	1,53543	1,00524	0,00524	0,00011	0,02697	0,0333%	3,929%	19,8217%
5-Jan-05	9700	-0,00513	0,99487	1,52756	1,00512	0,00512	0,00010	0,02708	0,0330%	3,896%	19,7388%

6-Jan-05	9700	0,00000	1,00000	1,52756	1,00506	0,00506	0,00003	0,02710	0,0327%	3,853%	19,6288%
7-Jan-05	9800	0,01031	1,01031	1,54331	1,00512	0,00512	0,00003	0,02713	0,0323%	3,811%	19,5213%
10-Jan-05	9750	-0,00510	0,99490	1,53543	1,00500	0,00500	0,00010	0,02723	0,0320%	3,780%	19,4426%
11-Jan-05	9550	-0,02051	0,97949	1,50394	1,00470	0,00470	0,00064	0,02787	0,0324%	3,823%	19,5536%
12-Jan-05	9550	0,00000	1,00000	1,50394	1,00465	0,00465	0,00002	0,02789	0,0321%	3,782%	19,4484%
13-Jan-05	9950	0,04188	1,04188	1,56693	1,00506	0,00506	0,00136	0,02924	0,0332%	3,921%	19,8022%
14-Jan-05	10000	0,00503	1,00503	1,57480	1,00506	0,00506	0,00000	0,02824	0,0329%	3,877%	19,6906%
17-Jan-05	10400	0,04000	1,04000	1,63780	1,00544	0,00544	0,00119	0,03044	0,0338%	3,991%	19,9769%
18-Jan-05	10300	-0,00962	0,99038	1,62205	1,00527	0,00527	0,00022	0,03066	0,0337%	3,976%	19,9390%
19-Jan-05	10350	0,00485	1,00485	1,62992	1,00527	0,00527	0,00000	0,03066	0,0333%	3,932%	19,8304%
20-Jan-05	10450	0,00966	1,00966	1,64567	1,00531	0,00531	0,00002	0,03068	0,0330%	3,893%	19,7296%
24-Jan-05	10150	-0,02871	0,97129	1,59843	1,00495	0,00495	0,00113	0,03181	0,0338%	3,993%	19,9834%
25-Jan-05	10000	-0,01478	0,98522	1,57480	1,00474	0,00474	0,00038	0,03219	0,0339%	3,999%	19,9966%
28-Jan-05	10100	0,01000	1,01000	1,59055	1,00480	0,00480	0,00003	0,03222	0,0336%	3,960%	19,9006%
27-Jan-05	10000	-0,00990	0,99010	1,57480	1,00464	0,00464	0,00021	0,03243	0,0334%	3,945%	19,8626%
28-Jan-05	10000	0,00000	1,00000	1,57480	1,00460	0,00460	0,00002	0,03245	0,0331%	3,908%	19,7675%
31-Jan-05	10050	0,00500	1,00500	1,58268	1,00460	0,00460	0,00000	0,03245	0,0328%	3,868%	19,6674%
1-Feb-05	10050	0,00000	1,00000	1,58268	1,00456	0,00456	0,00002	0,03247	0,0325%	3,832%	19,5751%
2-Feb-05	10500	0,04478	1,04478	1,65354	1,00494	0,00494	0,00159	0,03406	0,0337%	3,979%	19,9481%
3-Feb-05	10150	-0,03333	0,96667	1,59843	1,00456	0,00456	0,00144	0,03550	0,0348%	4,106%	20,2643%
4-Feb-05	10500	0,03448	1,03448	1,65354	1,00485	0,00485	0,00088	0,03637	0,0353%	4,167%	20,4136%
7-Feb-05	10300	-0,01905	0,98095	1,62205	1,00462	0,00462	0,00056	0,03693	0,0355%	4,191%	20,4711%
8-Feb-05	10200	-0,00971	0,99029	1,60630	1,00448	0,00448	0,00020	0,03714	0,0354%	4,173%	20,4288%
11-Feb-05	10150	-0,00490	0,99510	1,59843	1,00439	0,00439	0,00009	0,03722	0,0351%	4,144%	20,3558%
14-Feb-05	10050	-0,00985	0,99015	1,58268	1,00426	0,00426	0,00020	0,03742	0,0350%	4,127%	20,3146%
15-Feb-05	10400	0,03483	1,03483	1,63780	1,00454	0,00454	0,00092	0,03834	0,0355%	4,189%	20,4667%
16-Feb-05	10700	0,02885	1,02885	1,68504	1,00475	0,00475	0,00058	0,03892	0,0357%	4,213%	20,5263%
17-Feb-05	10800	0,00935	1,00935	1,70079	1,00480	0,00480	0,00002	0,03894	0,0354%	4,177%	20,4382%
18-Feb-05	11200	0,03704	1,03704	1,76378	1,00508	0,00508	0,00102	0,03996	0,0360%	4,248%	20,6110%
21-Feb-05	11100	-0,00893	0,99107	1,74803	1,00495	0,00495	0,00019	0,04015	0,0359%	4,231%	20,5682%

30-Sep-04	2000	0,00000	1,00000	1,12676	1,00570	0,00570	0,00003	0,00815	0,0407%	4,807%	21,9249%
1-Oct-04	2025	0,01250	1,01250	1,14085	1,00601	0,00601	0,00004	0,00819	0,0390%	4,602%	21,4517%
4-Oct-04	2125	0,04938	1,04938	1,19718	1,00786	0,00786	0,00172	0,00991	0,0451%	5,318%	23,0598%
5-Oct-04	2300	0,08235	1,08235	1,29577	1,01085	0,01085	0,00511	0,01503	0,0653%	7,709%	27,7652%
6-Oct-04	2275	-0,01087	0,98913	1,28169	1,00998	0,00998	0,00043	0,01546	0,0644%	7,601%	27,5708%
7-Oct-04	2250	-0,01099	0,98901	1,26761	1,00916	0,00916	0,00041	0,01587	0,0635%	7,489%	27,3662%
8-Oct-04	2250	0,00000	1,00000	1,26761	1,00882	0,00882	0,00008	0,01594	0,0613%	7,236%	26,9005%
11-Oct-04	2275	0,01111	1,01111	1,28169	1,00890	0,00890	0,00000	0,01595	0,0591%	6,970%	26,4017%
12-Oct-04	2225	-0,02198	0,97802	1,25352	1,00782	0,00782	0,00089	0,01684	0,0601%	7,096%	26,6379%
13-Oct-04	2250	0,01124	1,01124	1,26761	1,00794	0,00794	0,00001	0,01685	0,0581%	6,856%	26,1831%
14-Oct-04	2250	0,00000	1,00000	1,26761	1,00768	0,00768	0,00006	0,01691	0,0564%	6,650%	25,7880%
15-Oct-04	2275	0,01111	1,01111	1,28169	1,00779	0,00779	0,00001	0,01692	0,0546%	6,440%	25,3770%
18-Oct-04	2275	0,00000	1,00000	1,28169	1,00755	0,00755	0,00006	0,01698	0,0530%	6,260%	25,0193%
19-Oct-04	2225	-0,02198	0,97802	1,25352	1,00667	0,00667	0,00082	0,01780	0,0539%	6,363%	25,2258%
20-Oct-04	2225	0,00000	1,00000	1,25352	1,00648	0,00648	0,00004	0,01784	0,0525%	6,191%	24,8813%
21-Oct-04	2200	-0,01124	0,98876	1,23944	1,00598	0,00598	0,00030	0,01813	0,0518%	6,114%	24,7262%
22-Oct-04	2250	0,02273	1,02273	1,26761	1,00643	0,00643	0,00027	0,01840	0,0511%	6,031%	24,5583%
25-Oct-04	2275	0,01111	1,01111	1,28169	1,00655	0,00655	0,00002	0,01842	0,0498%	5,875%	24,2378%
26-Oct-04	2300	0,01099	1,01099	1,29577	1,00667	0,00667	0,00002	0,01844	0,0485%	5,726%	23,9289%
27-Oct-04	2400	0,04348	1,04348	1,35211	1,00757	0,00757	0,00129	0,01973	0,0506%	5,969%	24,4320%
28-Oct-04	2400	0,00000	1,00000	1,35211	1,00738	0,00738	0,00005	0,01978	0,0495%	5,836%	24,1580%
28-Oct-04	2400	0,00000	1,00000	1,35211	1,00721	0,00721	0,00005	0,01984	0,0484%	5,709%	23,8929%
1-Nov-04	2475	0,03125	1,03125	1,39437	1,00776	0,00776	0,00055	0,02039	0,0485%	5,728%	23,9328%
2-Nov-04	2550	0,03030	1,03030	1,43662	1,00827	0,00827	0,00049	0,02087	0,0485%	5,728%	23,9329%
3-Nov-04	2475	-0,02941	0,97059	1,39437	1,00741	0,00741	0,00136	0,02223	0,0505%	5,961%	24,4159%
4-Nov-04	2475	0,00000	1,00000	1,39437	1,00725	0,00725	0,00005	0,02228	0,0495%	5,843%	24,1716%
5-Nov-04	2500	0,01010	1,01010	1,40845	1,00731	0,00731	0,00001	0,02229	0,0485%	5,718%	23,9116%
8-Nov-04	2500	0,00000	1,00000	1,40845	1,00716	0,00716	0,00005	0,02234	0,0475%	5,609%	23,6831%
9-Nov-04	2500	0,00000	1,00000	1,40845	1,00701	0,00701	0,00005	0,02239	0,0466%	5,504%	23,4608%
10-Nov-04	2650	0,06000	1,06000	1,49296	1,00805	0,00805	0,00270	0,02509	0,0512%	6,042%	24,5800%

11-Nov-04	2750	0,03774	1,03774	1,54930	1,00862	0,00882	0,00085	0,02594	0,0519%	6,121%	24,7408%
12-Nov-04	2750	0,00000	1,00000	1,54930	1,00845	0,00845	0,00007	0,02601	0,0510%	6,017%	24,5306%
22-Nov-04	2700	-0,01818	0,98182	1,52113	1,00795	0,00795	0,00068	0,02669	0,0513%	6,057%	24,6103%
23-Nov-04	2750	0,01852	1,01852	1,54930	1,00814	0,00814	0,00011	0,02680	0,0508%	5,966%	24,4262%
24-Nov-04	2750	0,00000	1,00000	1,54930	1,00799	0,00799	0,00006	0,02686	0,0497%	5,870%	24,2278%
25-Nov-04	2875	-0,02727	0,97273	1,50704	1,00735	0,00735	0,00120	0,02808	0,0510%	6,020%	24,5364%
26-Nov-04	2625	-0,01869	0,98131	1,47887	1,00689	0,00689	0,00065	0,02872	0,0513%	6,051%	24,5982%
29-Nov-04	2725	0,03810	1,03810	1,53521	1,00742	0,00742	0,00094	0,02966	0,0520%	6,139%	24,7777%
30-Nov-04	2750	0,00917	1,00917	1,54930	1,00745	0,00745	0,00000	0,02966	0,0511%	6,034%	24,5644%
1-Dec-04	2725	-0,00909	0,99091	1,53521	1,00717	0,00717	0,00026	0,02992	0,0507%	5,985%	24,4637%
2-Dec-04	2725	0,00000	1,00000	1,53521	1,00705	0,00705	0,00005	0,02997	0,0500%	5,895%	24,2791%
3-Dec-04	2725	0,00000	1,00000	1,53521	1,00694	0,00694	0,00005	0,03002	0,0492%	5,807%	24,0986%
6-Dec-04	2725	0,00000	1,00000	1,53521	1,00683	0,00683	0,00005	0,03007	0,0485%	5,723%	23,9220%
7-Dec-04	2700	-0,00917	0,99083	1,52113	1,00658	0,00658	0,00025	0,03032	0,0481%	5,678%	23,8291%
8-Dec-04	2700	0,00000	1,00000	1,52113	1,00647	0,00647	0,00004	0,03036	0,0474%	5,597%	23,6586%
9-Dec-04	2875	-0,00928	0,99074	1,50704	1,00623	0,00623	0,00024	0,03060	0,0471%	5,555%	23,5685%
10-Dec-04	2675	0,00000	1,00000	1,50704	1,00614	0,00614	0,00004	0,03064	0,0464%	5,477%	23,4037%
13-Dec-04	2625	-0,01869	0,98131	1,47887	1,00577	0,00577	0,00060	0,03123	0,0466%	5,501%	23,4541%
14-Dec-04	2625	0,00000	1,00000	1,47887	1,00569	0,00569	0,00003	0,03127	0,0460%	5,426%	23,2931%
15-Dec-04	2550	-0,02857	0,97143	1,43862	1,00518	0,00518	0,00114	0,03241	0,0470%	5,542%	23,5414%
16-Dec-04	2675	0,04902	1,04902	1,50704	1,00579	0,00579	0,00187	0,03427	0,0490%	5,778%	24,0370%
17-Dec-04	2825	0,05607	1,05607	1,59155	1,00648	0,00648	0,00246	0,03673	0,0517%	6,105%	24,7088%
20-Dec-04	2850	0,00885	1,00885	1,60563	1,00651	0,00651	0,00001	0,03674	0,0510%	6,021%	24,5384%
21-Dec-04	2875	0,00877	1,00877	1,61972	1,00654	0,00654	0,00000	0,03675	0,0503%	5,940%	24,3714%
22-Dec-04	2900	0,00870	1,00870	1,63380	1,00657	0,00657	0,00000	0,03675	0,0497%	5,860%	24,2077%
23-Dec-04	2925	0,00862	1,00862	1,64789	1,00659	0,00659	0,00000	0,03675	0,0490%	5,783%	24,0471%
27-Dec-04	2975	0,01709	1,01709	1,67606	1,00673	0,00673	0,00011	0,03686	0,0485%	5,723%	23,9233%
28-Dec-04	3025	0,01681	1,01681	1,70423	1,00686	0,00686	0,00010	0,03696	0,0480%	5,664%	23,7993%
29-Dec-04	2975	-0,01653	0,98347	1,67606	1,00656	0,00656	0,00053	0,03749	0,0481%	5,672%	23,8162%
30-Dec-04	2975	0,00000	1,00000	1,67606	1,00648	0,00648	0,00004	0,03754	0,0475%	5,607%	23,6782%

3-Jan-05	2850	-0,00840	0,99160	1,66197	1,00629	0,00629	0,00022	0,03775	0,0472%	5,568%	23,5973%
4-Jan-05	3000	0,01695	1,01695	1,69014	1,00642	0,00642	0,00011	0,03786	0,0467%	5,516%	23,4856%
5-Jan-05	3075	0,02500	1,02500	1,73239	1,00664	0,00664	0,00034	0,03820	0,0466%	5,497%	23,4456%
6-Jan-05	3075	0,00000	1,00000	1,73239	1,00656	0,00656	0,00004	0,03824	0,0461%	5,437%	23,3171%
7-Jan-05	2950	-0,04065	0,95935	1,66197	1,00599	0,00599	0,00218	0,04042	0,0481%	5,678%	23,8281%
10-Jan-05	2825	-0,04237	0,95763	1,59155	1,00542	0,00542	0,00228	0,04270	0,0502%	5,928%	24,3476%
11-Jan-05	2825	0,00000	1,00000	1,59155	1,00536	0,00536	0,00003	0,04273	0,0497%	5,863%	24,2137%
12-Jan-05	2775	-0,01770	0,98230	1,56338	1,00509	0,00509	0,00052	0,04325	0,0497%	5,866%	24,2200%
13-Jan-05	2800	0,00901	1,00901	1,57746	1,00513	0,00513	0,00002	0,04327	0,0492%	5,801%	24,0862%
14-Jan-05	2825	0,00893	1,00893	1,59155	1,00518	0,00518	0,00001	0,04328	0,0486%	5,738%	23,9544%
17-Jan-05	2875	0,01770	1,01770	1,61972	1,00531	0,00531	0,00015	0,04343	0,0483%	5,694%	23,8631%
18-Jan-05	2850	-0,00870	0,99130	1,60563	1,00516	0,00516	0,00019	0,04362	0,0479%	5,657%	23,7841%
19-Jan-05	2850	0,00000	1,00000	1,60563	1,00510	0,00510	0,00003	0,04365	0,0474%	5,599%	23,6615%
20-Jan-05	2875	0,00877	1,00877	1,61972	1,00514	0,00514	0,00001	0,04366	0,0470%	5,540%	23,5375%
24-Jan-05	2875	0,00000	1,00000	1,61972	1,00509	0,00509	0,00003	0,04369	0,0465%	5,484%	23,4189%
25-Jan-05	2850	-0,00870	0,99130	1,60563	1,00494	0,00494	0,00019	0,04388	0,0462%	5,450%	23,3449%
26-Jan-05	2925	0,02632	1,02632	1,64789	1,00516	0,00516	0,00045	0,04432	0,0462%	5,448%	23,3411%
27-Jan-05	2950	0,00855	1,00855	1,66197	1,00520	0,00520	0,00001	0,04433	0,0457%	5,393%	23,2234%
28-Jan-05	2925	-0,00847	0,99153	1,64789	1,00506	0,00506	0,00018	0,04452	0,0454%	5,360%	23,1523%
31-Jan-05	2875	-0,01709	0,98291	1,61972	1,00483	0,00483	0,00048	0,04500	0,0455%	5,363%	23,1591%
1-Feb-05	2925	0,01739	1,01739	1,64789	1,00496	0,00496	0,00015	0,04515	0,0452%	5,328%	23,0826%
2-Feb-05	2925	0,00000	1,00000	1,64789	1,00491	0,00491	0,00002	0,04518	0,0447%	5,278%	22,9742%
3-Feb-05	2975	0,01709	1,01709	1,67606	1,00503	0,00503	0,00015	0,04532	0,0444%	5,243%	22,8981%
4-Feb-05	3000	0,00840	1,00840	1,69014	1,00506	0,00506	0,00001	0,04533	0,0440%	5,194%	22,7895%
7-Feb-05	3000	0,00000	1,00000	1,69014	1,00501	0,00501	0,00003	0,04536	0,0436%	5,147%	22,6859%
8-Feb-05	3000	0,00000	1,00000	1,69014	1,00496	0,00496	0,00002	0,04538	0,0432%	5,100%	22,5838%
11-Feb-05	3000	0,00000	1,00000	1,69014	1,00492	0,00492	0,00002	0,04541	0,0428%	5,055%	22,4830%
14-Feb-05	3000	0,00000	1,00000	1,69014	1,00487	0,00487	0,00002	0,04543	0,0425%	5,010%	22,3835%
15-Feb-05	3075	0,02500	1,02500	1,73239	1,00505	0,00505	0,00040	0,04583	0,0424%	5,007%	22,3770%
18-Feb-05	3150	0,02439	1,02439	1,77465	1,00523	0,00523	0,00037	0,04620	0,0424%	5,001%	22,3631%

17-Feb-05	3325	0,0556	1,0556	1,87324	1,00567	0,00567	0,00249	0,04869	0,0443%	5,223%	22,8530%
18-Feb-05	3325	0,0000	1,0000	1,87324	1,00562	0,00562	0,00003	0,04872	0,0439%	5,179%	22,7572%
21-Feb-05	3300	-0,00752	0,99248	1,85915	1,00550	0,00550	0,00017	0,04889	0,0436%	5,151%	22,6947%
22-Feb-05	3300	0,0000	1,0000	1,85915	1,00545	0,00545	0,00003	0,04892	0,0433%	5,108%	22,6010%
23-Feb-05	3300	0,0000	1,0000	1,85915	1,00541	0,00541	0,00003	0,04895	0,0429%	5,066%	22,5084%
24-Feb-05	3350	0,01515	1,01515	1,88732	1,00549	0,00549	0,00008	0,04904	0,0426%	5,032%	22,4316%
25-Feb-05	3300	-0,01493	0,98507	1,85915	1,00531	0,00531	0,00041	0,04945	0,0426%	5,030%	22,4278%
28-Feb-05	3275	-0,00758	0,99242	1,84507	1,00520	0,00520	0,00016	0,04961	0,0424%	5,004%	22,3686%

HMSP STOCK RISK CALCULATION

Date	Stock Price	Return (R _i)	1 + R _i	$(1+R_i) \dots (1+R_{im})$	$((1+R_{it}) \dots (1+R_{im}))^{1/n}$	G	(Return-G) ²	$\sum(R_i-G)^2$	$\sum(R_i-G)^2 / (n-1)$	σ^2	σ
30-Aug-04	5250										
31-Aug-04	5300	0,00952	1,00952	1,00952	1,00952	0,00952	0,00000	0,00000			
1-Sep-04	5450	0,02830	1,02830	1,03810	1,01887	0,01887	0,00009	0,00009	0,0089%	1,050%	10,2461%
2-Sep-04	5450	0,00000	1,00000	1,03810	1,01254	0,01254	0,00016	0,00025	0,0123%	1,453%	12,0531%
3-Sep-04	5500	0,00917	1,00917	1,04762	1,01170	0,01170	0,00001	0,00025	0,0084%	0,994%	9,9678%
6-Sep-04	5450	-0,00909	0,99091	1,03810	1,00751	0,00751	0,00028	0,00053	0,0132%	1,558%	12,4809%
7-Sep-04	5450	0,00000	1,00000	1,03810	1,00625	0,00625	0,00004	0,00057	0,0113%	1,338%	11,5689%
8-Sep-04	5450	0,00000	1,00000	1,03810	1,00536	0,00536	0,00003	0,00060	0,0099%	1,172%	10,8246%
9-Sep-04	5350	-0,01835	0,98165	1,01905	1,00236	0,00236	0,00043	0,00102	0,0146%	1,727%	13,1429%
10-Sep-04	5600	0,04673	1,04673	1,06667	1,00720	0,00720	0,00156	0,00259	0,0323%	3,817%	19,5360%
14-Sep-04	5850	0,04464	1,04464	1,11429	1,01088	0,01088	0,00114	0,00373	0,0414%	4,887%	22,1067%
15-Sep-04	5950	0,01709	1,01709	1,13333	1,01144	0,01144	0,00003	0,00376	0,0376%	4,436%	21,0619%
16-Sep-04	5950	0,00000	1,00000	1,13333	1,01048	0,01048	0,00011	0,00387	0,0352%	4,151%	20,3732%
17-Sep-04	5900	-0,00840	0,99160	1,12381	1,00902	0,00902	0,00030	0,00417	0,0348%	4,103%	20,2565%
21-Sep-04	5900	0,00000	1,00000	1,12381	1,00837	0,00837	0,00007	0,00424	0,0326%	3,851%	19,6246%
22-Sep-04	5750	-0,02542	0,97458	1,09524	1,00608	0,00608	0,00099	0,00524	0,0374%	4,413%	21,0068%
23-Sep-04	5650	-0,01739	0,98261	1,07619	1,00460	0,00460	0,00048	0,00572	0,0381%	4,499%	21,2111%

24-Sep-04	5750	0,01770	1,01770	1,09524	1,00537	0,00537	0,00015	0,00587	0,0367%	4,330%	20,8089%
27-Sep-04	5800	0,00870	1,00870	1,10476	1,00555	0,00555	0,00001	0,00588	0,0346%	4,082%	20,2046%
28-Sep-04	6000	0,03448	1,03448	1,14286	1,00705	0,00705	0,00075	0,00663	0,0369%	4,349%	20,8536%
29-Sep-04	6050	0,00833	1,00833	1,15228	1,00712	0,00712	0,00000	0,00664	0,0349%	4,121%	20,2996%
30-Sep-04	6100	0,00826	1,00826	1,16190	1,00717	0,00717	0,00000	0,00664	0,0332%	3,915%	19,7874%
1-Oct-04	6250	0,02459	1,02459	1,19048	1,00796	0,00796	0,00028	0,00691	0,0329%	3,884%	19,7090%
4-Oct-04	6300	0,00800	1,00800	1,20000	1,00796	0,00796	0,00000	0,00691	0,0314%	3,708%	19,2558%
5-Oct-04	6350	0,00794	1,00794	1,20952	1,00796	0,00796	0,00000	0,00691	0,0301%	3,547%	18,8326%
6-Oct-04	6100	-0,03937	0,96063	1,16190	1,00602	0,00602	0,00206	0,00897	0,0374%	4,412%	21,0044%
7-Oct-04	5850	-0,04098	0,95902	1,11429	1,00417	0,00417	0,00204	0,01101	0,0440%	5,198%	22,7986%
8-Oct-04	5800	-0,00855	0,99145	1,10476	1,00370	0,00370	0,00015	0,01116	0,0429%	5,066%	22,5075%
11-Oct-04	5800	0,00000	1,00000	1,10476	1,00356	0,00356	0,00001	0,01117	0,0414%	4,884%	22,0993%
12-Oct-04	5650	-0,02586	0,97414	1,07619	1,00254	0,00254	0,00081	0,01198	0,0428%	5,049%	22,4705%
13-Oct-04	5950	0,05310	1,05310	1,13333	1,00418	0,00418	0,00239	0,01437	0,0496%	5,849%	24,1842%
14-Oct-04	6000	0,00840	1,00840	1,14286	1,00432	0,00432	0,00002	0,01439	0,0480%	5,660%	23,7915%
15-Oct-04	6000	0,00000	1,00000	1,14286	1,00418	0,00418	0,00002	0,01441	0,0465%	5,484%	23,4188%
18-Oct-04	6000	0,00000	1,00000	1,14286	1,00405	0,00405	0,00002	0,01442	0,0451%	5,319%	23,0632%
19-Oct-04	5900	-0,01667	0,98333	1,12381	1,00344	0,00344	0,00040	0,01483	0,0449%	5,302%	23,0271%
20-Oct-04	5800	-0,01695	0,98305	1,10476	1,00285	0,00285	0,00039	0,01522	0,0448%	5,283%	22,9838%
21-Oct-04	5850	0,00862	1,00862	1,11429	1,00301	0,00301	0,00003	0,01525	0,0436%	5,142%	22,6765%
22-Oct-04	5900	0,00855	1,00855	1,12381	1,00316	0,00316	0,00003	0,01528	0,0424%	5,009%	22,3806%
25-Oct-04	5900	0,00000	1,00000	1,12381	1,00308	0,00308	0,00001	0,01529	0,0413%	4,877%	22,0829%
26-Oct-04	5850	-0,00847	0,99153	1,11429	1,00278	0,00278	0,00013	0,01542	0,0406%	4,788%	21,8805%
27-Oct-04	5950	0,01709	1,01709	1,13333	1,00313	0,00313	0,00019	0,01561	0,0400%	4,724%	21,7342%
28-Oct-04	6100	0,02521	1,02521	1,16190	1,00367	0,00367	0,00046	0,01608	0,0402%	4,743%	21,7775%
29-Oct-04	6000	-0,01639	0,98361	1,14286	1,00318	0,00318	0,00038	0,01646	0,0401%	4,737%	21,7652%
1-Nov-04	6000	0,00000	1,00000	1,14286	1,00311	0,00311	0,00001	0,01647	0,0392%	4,627%	21,5108%
2-Nov-04	6150	0,02500	1,02500	1,17143	1,00360	0,00360	0,00046	0,01693	0,0394%	4,645%	21,5527%
3-Nov-04	6200	0,00813	1,00813	1,18095	1,00370	0,00370	0,00002	0,01695	0,0385%	4,545%	21,3187%
4-Nov-04	6200	0,00000	1,00000	1,18095	1,00362	0,00362	0,00001	0,01696	0,0377%	4,447%	21,0886%

5-Nov-04	6200	0,00000	1,00000	1,18095	1,00355	0,00355	0,00001	0,01697	0,0369%	4,354%	20,8659%
8-Nov-04	6200	0,00000	1,00000	1,18095	1,00347	0,00347	0,00001	0,01698	0,0361%	4,264%	20,6500%
9-Nov-04	6450	0,04032	1,04032	1,22857	1,00421	0,00421	0,00130	0,01829	0,0381%	4,496%	21,2038%
10-Nov-04	6550	0,01550	1,01550	1,24762	1,00443	0,00443	0,00012	0,01841	0,0376%	4,434%	21,0565%
11-Nov-04	6700	0,02290	1,02290	1,27619	1,00479	0,00479	0,00033	0,01874	0,0375%	4,422%	21,0296%
12-Nov-04	7050	0,05224	1,05224	1,34286	1,00569	0,00569	0,00217	0,02091	0,0410%	4,837%	21,9936%
22-Nov-04	6750	-0,04255	0,95745	1,28571	1,00475	0,00475	0,00224	0,02314	0,0445%	5,252%	22,9172%
23-Nov-04	6800	0,00741	1,00741	1,29524	1,00480	0,00480	0,00001	0,02315	0,0437%	5,154%	22,7033%
24-Nov-04	6500	-0,04412	0,95588	1,23810	1,00389	0,00389	0,00230	0,02546	0,0471%	5,563%	23,5851%
25-Nov-04	6500	0,00000	1,00000	1,23810	1,00382	0,00382	0,00001	0,02547	0,0463%	5,465%	23,3764%
26-Nov-04	6550	0,00769	1,00769	1,24762	1,00389	0,00389	0,00001	0,02548	0,0455%	5,370%	23,1734%
29-Nov-04	6400	-0,02290	0,97710	1,21905	1,00342	0,00342	0,00069	0,02618	0,0459%	5,419%	23,2793%
30-Nov-04	6750	0,05469	1,05469	1,28571	1,00427	0,00427	0,00254	0,02872	0,0495%	5,843%	24,1723%
1-Dec-04	6900	0,02222	1,02222	1,31429	1,00457	0,00457	0,00031	0,02903	0,0492%	5,806%	24,0963%
2-Dec-04	7050	0,02174	1,02174	1,34286	1,00484	0,00484	0,00029	0,02932	0,0489%	5,766%	24,0119%
3-Dec-04	6900	-0,02128	0,97872	1,31429	1,00442	0,00442	0,00066	0,02998	0,0491%	5,799%	24,0809%
6-Dec-04	6850	-0,00725	0,99275	1,30476	1,00423	0,00423	0,00013	0,03011	0,0486%	5,730%	23,9383%
7-Dec-04	6800	-0,00730	0,99270	1,29524	1,00405	0,00405	0,00013	0,03024	0,0480%	5,664%	23,7983%
8-Dec-04	6650	-0,02206	0,97794	1,26667	1,00364	0,00364	0,00066	0,03090	0,0483%	5,697%	23,8682%
9-Dec-04	6700	0,00752	1,00752	1,27619	1,00370	0,00370	0,00001	0,03091	0,0476%	5,612%	23,6894%
10-Dec-04	6750	0,00746	1,00746	1,28571	1,00376	0,00376	0,00001	0,03093	0,0469%	5,529%	23,5145%
13-Dec-04	6400	-0,05185	0,94815	1,21905	1,00292	0,00292	0,00300	0,03393	0,0506%	5,975%	24,4440%
14-Dec-04	6150	-0,03906	0,96094	1,17143	1,00230	0,00230	0,00171	0,03564	0,0524%	6,184%	24,8677%
15-Dec-04	6250	0,01626	1,01626	1,19048	1,00249	0,00249	0,00019	0,03583	0,0519%	6,127%	24,7524%
16-Dec-04	6450	0,03200	1,03200	1,22857	1,00290	0,00290	0,00085	0,03667	0,0524%	6,182%	24,8637%
17-Dec-04	6750	0,04651	1,04651	1,28571	1,00350	0,00350	0,00185	0,03852	0,0543%	6,402%	25,3031%
20-Dec-04	6550	-0,02963	0,97037	1,24762	1,00304	0,00304	0,00107	0,03959	0,0550%	6,488%	25,4723%
21-Dec-04	6500	-0,00763	0,99237	1,23810	1,00289	0,00289	0,00011	0,03970	0,0544%	6,417%	25,3326%
22-Dec-04	6600	0,01538	1,01538	1,25714	1,00306	0,00306	0,00015	0,03985	0,0539%	6,355%	25,2090%
23-Dec-04	6600	0,00000	1,00000	1,25714	1,00302	0,00302	0,00001	0,03986	0,0531%	6,272%	25,0432%

27-Dec-04	6700	0,01515	1,01515	1,27619	1,00317	0,00317	0,00014	0,04001	0,0526%	6,211%	24,9227%
28-Dec-04	6700	0,00000	1,00000	1,27619	1,00313	0,00313	0,00001	0,04002	0,0520%	6,132%	24,7633%
29-Dec-04	6750	0,00746	1,00746	1,28571	1,00319	0,00319	0,00002	0,04003	0,0513%	6,056%	24,6097%
30-Dec-04	6650	-0,01481	0,98519	1,26667	1,00296	0,00296	0,00032	0,04035	0,0511%	6,027%	24,5498%
3-Jan-05	6600	-0,00752	0,99248	1,25714	1,00283	0,00283	0,00011	0,04046	0,0506%	5,967%	24,4282%
4-Jan-05	6900	0,04545	1,04545	1,31429	1,00334	0,00334	0,00177	0,04223	0,0521%	6,152%	24,8034%
5-Jan-05	6950	0,00725	1,00725	1,32381	1,00339	0,00339	0,00001	0,04225	0,0515%	6,079%	24,6561%
6-Jan-05	7100	0,02158	1,02158	1,35238	1,00360	0,00360	0,00032	0,04257	0,0513%	6,052%	24,6007%
7-Jan-05	6900	-0,02817	0,97183	1,31429	1,00322	0,00322	0,00099	0,04355	0,0519%	6,118%	24,7352%
10-Jan-05	7000	0,01449	1,01449	1,33333	1,00335	0,00335	0,00012	0,04368	0,0514%	6,064%	24,6243%
11-Jan-05	6900	-0,01429	0,98571	1,31429	1,00315	0,00315	0,00030	0,04398	0,0511%	6,035%	24,5657%
12-Jan-05	6900	0,00000	1,00000	1,31429	1,00311	0,00311	0,00001	0,04399	0,0506%	5,967%	24,4268%
13-Jan-05	6900	0,00000	1,00000	1,31429	1,00308	0,00308	0,00001	0,04400	0,0500%	5,900%	24,2902%
14-Jan-05	6850	-0,00725	0,99275	1,30476	1,00296	0,00296	0,00010	0,04411	0,0496%	5,848%	24,1820%
17-Jan-05	6900	0,00730	1,00730	1,31429	1,00301	0,00301	0,00002	0,04412	0,0490%	5,785%	24,0523%
18-Jan-05	6700	-0,02899	0,97101	1,27619	1,00265	0,00265	0,00100	0,04512	0,0496%	5,851%	24,1896%
19-Jan-05	6800	0,01493	1,01493	1,29524	1,00279	0,00279	0,00015	0,04527	0,0492%	5,807%	24,0970%
20-Jan-05	6800	0,00000	1,00000	1,29524	1,00276	0,00276	0,00001	0,04528	0,0487%	5,745%	23,9691%
24-Jan-05	7050	0,03676	1,03676	1,34286	1,00311	0,00311	0,00113	0,04641	0,0494%	5,826%	24,1377%
25-Jan-05	7050	0,00000	1,00000	1,34286	1,00308	0,00308	0,00001	0,04642	0,0489%	5,766%	24,0127%
26-Jan-05	7300	0,03546	1,03546	1,39048	1,00340	0,00340	0,00103	0,04745	0,0494%	5,832%	24,1503%
27-Jan-05	7550	0,03425	1,03425	1,43810	1,00371	0,00371	0,00093	0,04838	0,0499%	5,886%	24,2603%
28-Jan-05	7400	-0,01987	0,98013	1,40952	1,00347	0,00347	0,00054	0,04893	0,0499%	5,891%	24,2717%
31-Jan-05	7150	-0,03378	0,96622	1,36190	1,00309	0,00309	0,00136	0,05029	0,0508%	5,994%	24,4822%
1-Feb-05	7150	0,00000	1,00000	1,36190	1,00306	0,00306	0,00001	0,05030	0,0503%	5,935%	24,3617%
2-Feb-05	7500	0,04895	1,04895	1,42857	1,00350	0,00350	0,00207	0,05236	0,0518%	6,117%	24,7336%
3-Feb-05	7600	0,01333	1,01333	1,44762	1,00360	0,00360	0,00009	0,05246	0,0514%	6,068%	24,6343%
4-Feb-05	7600	0,00000	1,00000	1,44762	1,00356	0,00356	0,00001	0,05247	0,0509%	6,011%	24,5174%
7-Feb-05	7600	0,00000	1,00000	1,44762	1,00353	0,00353	0,00001	0,05248	0,0505%	5,955%	24,4021%
8-Feb-05	7550	-0,00658	0,99342	1,43810	1,00343	0,00343	0,00010	0,05258	0,0501%	5,909%	24,3088%

11-Feb-05	7350	-0,02649	0,97351	1,40000	1,00315	0,00315	0,00088	0,05346	0,0504%	5,951%	24,3952%
14-Feb-05	7450	0,01361	1,01361	1,41905	1,00325	0,00325	0,00011	0,05357	0,0501%	5,907%	24,3033%
15-Feb-05	8150	0,09396	1,09396	1,52338	1,00404	0,00404	0,00809	0,06165	0,0571%	6,736%	25,9540%
16-Feb-05	7950	-0,02454	0,97546	1,51429	1,00378	0,00378	0,00080	0,06245	0,0573%	6,761%	26,0022%
17-Feb-05	8150	0,02516	1,02516	1,52338	1,00397	0,00397	0,00045	0,06290	0,0572%	6,748%	25,9766%
18-Feb-05	8000	-0,01840	0,98160	1,52381	1,00377	0,00377	0,00049	0,06340	0,0571%	6,739%	25,9602%
21-Feb-05	8000	0,00000	1,00000	1,52381	1,00373	0,00373	0,00001	0,06341	0,0566%	6,681%	25,8469%
22-Feb-05	8050	0,00625	1,00625	1,53333	1,00376	0,00376	0,00001	0,06342	0,0561%	6,622%	25,7335%
23-Feb-05	8050	0,00000	1,00000	1,53333	1,00372	0,00372	0,00001	0,06343	0,0556%	6,565%	25,6232%
24-Feb-05	8150	0,01242	1,01242	1,55238	1,00380	0,00380	0,00007	0,06350	0,0552%	6,516%	25,5265%
25-Feb-05	8150	0,00000	1,00000	1,55238	1,00377	0,00377	0,00001	0,06352	0,0548%	6,461%	25,4191%
28-Feb-05	8150	0,00000	1,00000	1,55238	1,00373	0,00373	0,00001	0,06353	0,0543%	6,407%	25,3130%

INDF STOCK RISK CALCULATION

Date	Stock Price	Return (RI)	1 + Ri	(1+RI) _t ..(1+RI) ₀	((1+RI) _t ..(1+RI) ₀) ^{1/n}	G	(Return-G) ²	Σ(RI-G) ²	Σ(RI-G) ¹ / (n-1)	σ ²	σ
30-Aug-04	675										
31-Aug-04	675	0,00000	1,00000	1,00000	1,00000	0,00000	0,00000	0,00000			
1-Sep-04	700	0,03704	1,03704	1,03704	1,01835	0,01835	0,00035	0,00035	0,0349%	4,121%	20,2992%
2-Sep-04	700	0,00000	1,00000	1,03704	1,01220	0,01220	0,00015	0,00050	0,0249%	2,938%	17,1403%
3-Sep-04	700	0,00000	1,00000	1,03704	1,00913	0,00913	0,00008	0,00058	0,0194%	2,287%	15,1219%
6-Sep-04	700	0,00000	1,00000	1,03704	1,00730	0,00730	0,00005	0,00063	0,0159%	1,872%	13,6830%
7-Sep-04	725	0,03571	1,03571	1,07407	1,01198	0,01198	0,00056	0,00120	0,0240%	2,827%	16,8140%
8-Sep-04	725	0,00000	1,00000	1,07407	1,01026	0,01026	0,00011	0,00130	0,0217%	2,563%	16,0093%
9-Sep-04	725	0,00000	1,00000	1,07407	1,00897	0,00897	0,00008	0,00138	0,0198%	2,333%	15,2727%
10-Sep-04	750	0,03448	1,03448	1,11111	1,01178	0,01178	0,00052	0,00190	0,0237%	2,802%	16,7377%
14-Sep-04	750	0,00000	1,00000	1,11111	1,01059	0,01059	0,00011	0,00201	0,0224%	2,637%	16,2398%
15-Sep-04	750	0,00000	1,00000	1,11111	1,00962	0,00962	0,00009	0,00210	0,0210%	2,483%	15,7572%
16-Sep-04	725	-0,03333	0,96667	1,07407	1,00597	0,00597	0,00154	0,00365	0,0332%	3,914%	19,7851%
17-Sep-04	750	0,03448	1,03448	1,11111	1,00814	0,00814	0,00069	0,00434	0,0362%	4,271%	20,6659%

21-Sep-04	725	-0,03333	0,96667	1,07407	1,00512	0,00512	0,00148	0,00382	0,0448%	5,284%	22,9875%
22-Sep-04	725	0,00000	1,00000	1,07407	1,00478	0,00478	0,00002	0,00584	0,0417%	4,928%	22,1948%
23-Sep-04	725	0,00000	1,00000	1,07407	1,00448	0,00448	0,00002	0,00586	0,0391%	4,613%	21,4788%
24-Sep-04	725	0,00000	1,00000	1,07407	1,00421	0,00421	0,00002	0,00588	0,0368%	4,338%	20,8282%
27-Sep-04	725	0,00000	1,00000	1,07407	1,00398	0,00398	0,00002	0,00590	0,0347%	4,094%	20,2334%
28-Sep-04	725	0,00000	1,00000	1,07407	1,00377	0,00377	0,00001	0,00591	0,0328%	3,876%	19,6870%
29-Sep-04	725	0,00000	1,00000	1,07407	1,00358	0,00358	0,00001	0,00593	0,0312%	3,680%	19,1827%
30-Sep-04	675	-0,06897	0,93103	1,00000	1,00000	0,00000	0,00476	0,01068	0,0534%	6,302%	25,1037%
1-Oct-04	725	0,07407	1,07407	1,07407	1,00325	0,00325	0,00502	0,01570	0,0747%	8,820%	29,6987%
4-Oct-04	725	0,00000	1,00000	1,07407	1,00311	0,00311	0,00001	0,01571	0,0714%	8,424%	29,0248%
5-Oct-04	700	-0,03448	0,96552	1,03704	1,00152	0,00152	0,00130	0,01700	0,0739%	8,723%	29,5347%
6-Oct-04	700	0,00000	1,00000	1,03704	1,00146	0,00146	0,00000	0,01700	0,0709%	8,361%	28,9147%
7-Oct-04	700	0,00000	1,00000	1,03704	1,00140	0,00140	0,00000	0,01701	0,0680%	8,027%	28,3321%
8-Oct-04	700	0,00000	1,00000	1,03704	1,00135	0,00135	0,00000	0,01701	0,0654%	7,719%	27,7834%
11-Oct-04	725	0,03571	1,03571	1,07407	1,00256	0,00256	0,00110	0,01811	0,0671%	7,914%	28,1315%
12-Oct-04	700	-0,03448	0,96552	1,03704	1,00125	0,00125	0,00128	0,01939	0,0692%	8,169%	28,5822%
13-Oct-04	700	0,00000	1,00000	1,03704	1,00121	0,00121	0,00000	0,01939	0,0669%	7,888%	28,0861%
14-Oct-04	700	0,00000	1,00000	1,03704	1,00117	0,00117	0,00000	0,01939	0,0646%	7,626%	27,6151%
15-Oct-04	700	0,00000	1,00000	1,03704	1,00114	0,00114	0,00000	0,01939	0,0625%	7,380%	27,1669%
18-Oct-04	700	0,00000	1,00000	1,03704	1,00110	0,00110	0,00000	0,01939	0,0606%	7,150%	26,7399%
19-Oct-04	700	0,00000	1,00000	1,03704	1,00107	0,00107	0,00000	0,01939	0,0588%	6,934%	26,3324%
20-Oct-04	700	0,00000	1,00000	1,03704	1,00104	0,00104	0,00000	0,01939	0,0570%	6,730%	25,9430%
21-Oct-04	700	0,00000	1,00000	1,03704	1,00101	0,00101	0,00000	0,01939	0,0554%	6,538%	25,5704%
22-Oct-04	700	0,00000	1,00000	1,03704	1,00098	0,00098	0,00000	0,01939	0,0539%	6,357%	25,2133%
25-Oct-04	700	0,00000	1,00000	1,03704	1,00096	0,00096	0,00000	0,01940	0,0524%	6,186%	24,8709%
26-Oct-04	700	0,00000	1,00000	1,03704	1,00093	0,00093	0,00000	0,01940	0,0510%	6,023%	24,5420%
27-Oct-04	675	-0,03571	0,96429	1,00000	1,00000	0,00000	0,00128	0,02067	0,0530%	6,255%	25,0092%
28-Oct-04	700	0,03704	1,03704	1,03704	1,00089	0,00089	0,00131	0,02198	0,0549%	6,484%	25,4632%
29-Oct-04	675	-0,03571	0,96429	1,00000	1,00000	0,00000	0,00128	0,02325	0,0567%	6,693%	25,8702%
1-Nov-04	700	0,03704	1,03704	1,03704	1,00085	0,00085	0,00131	0,02456	0,0585%	6,901%	26,2704%

2-Nov-04	725	0,03571	1,03571	1,07407	1,00163	0,00163	0,00116	0,02573	0,0598%	7,060%	26,5701%
3-Nov-04	700	-0,03448	0,96552	1,03704	1,00081	0,00081	0,00125	0,02697	0,0613%	7,233%	26,8946%
4-Nov-04	700	0,00000	1,00000	1,03704	1,00079	0,00079	0,00000	0,02697	0,0599%	7,073%	26,5946%
5-Nov-04	700	0,00000	1,00000	1,03704	1,00077	0,00077	0,00000	0,02697	0,0586%	6,919%	26,3042%
8-Nov-04	700	0,00000	1,00000	1,03704	1,00076	0,00076	0,00000	0,02697	0,0574%	6,772%	26,0231%
9-Nov-04	725	0,03571	1,03571	1,07407	1,00146	0,00146	0,00117	0,02815	0,0586%	6,919%	26,3048%
10-Nov-04	725	0,00000	1,00000	1,07407	1,00143	0,00143	0,00000	0,02815	0,0574%	6,779%	26,0359%
11-Nov-04	700	-0,03448	0,96552	1,03704	1,00071	0,00071	0,00124	0,02939	0,0588%	6,935%	26,3353%
12-Nov-04	725	0,03571	1,03571	1,07407	1,00138	0,00138	0,00118	0,03057	0,0599%	7,072%	26,5938%
22-Nov-04	700	-0,03448	0,96552	1,03704	1,00069	0,00069	0,00124	0,03180	0,0612%	7,217%	26,8644%
23-Nov-04	725	0,03571	1,03571	1,07407	1,00132	0,00132	0,00118	0,03299	0,0622%	7,344%	27,1000%
24-Nov-04	725	0,00000	1,00000	1,07407	1,00130	0,00130	0,00000	0,03299	0,0611%	7,208%	26,8486%
25-Nov-04	750	0,03448	1,03448	1,11111	1,00188	0,00188	0,00106	0,03405	0,0619%	7,305%	27,0285%
28-Nov-04	750	0,00000	1,00000	1,11111	1,00185	0,00185	0,00000	0,03405	0,0608%	7,176%	26,7875%
29-Nov-04	750	0,00000	1,00000	1,11111	1,00182	0,00182	0,00000	0,03406	0,0597%	7,050%	26,5527%
30-Nov-04	750	0,00000	1,00000	1,11111	1,00179	0,00179	0,00000	0,03406	0,0587%	6,930%	26,3241%
1-Dec-04	775	0,03333	1,03333	1,14815	1,00231	0,00231	0,00096	0,03502	0,0594%	7,005%	26,4663%
2-Dec-04	800	0,03226	1,03226	1,18519	1,00279	0,00279	0,00087	0,03589	0,0598%	7,059%	26,5682%
3-Dec-04	775	-0,03125	0,96875	1,14815	1,00223	0,00223	0,00112	0,03701	0,0607%	7,160%	26,7579%
6-Dec-04	800	0,03226	1,03226	1,18519	1,00270	0,00270	0,00087	0,03789	0,0611%	7,211%	26,8526%
7-Dec-04	775	-0,03125	0,96875	1,14815	1,00216	0,00216	0,00112	0,03900	0,0619%	7,305%	27,0283%
8-Dec-04	750	-0,03226	0,96774	1,11111	1,00162	0,00162	0,00115	0,04015	0,0627%	7,403%	27,2080%
9-Dec-04	750	0,00000	1,00000	1,11111	1,00160	0,00160	0,00000	0,04015	0,0618%	7,289%	26,9988%
10-Dec-04	750	0,00000	1,00000	1,11111	1,00157	0,00157	0,00000	0,04016	0,0608%	7,179%	26,7943%
13-Dec-04	750	0,00000	1,00000	1,11111	1,00155	0,00155	0,00000	0,04016	0,0599%	7,073%	26,5944%
14-Dec-04	725	-0,03333	0,96667	1,07407	1,00104	0,00104	0,00118	0,04134	0,0608%	7,174%	26,7835%
15-Dec-04	750	0,03448	1,03448	1,11111	1,00151	0,00151	0,00109	0,04243	0,0615%	7,256%	26,9362%
16-Dec-04	750	0,00000	1,00000	1,11111	1,00149	0,00149	0,00000	0,04243	0,0606%	7,152%	26,7438%
17-Dec-04	750	0,00000	1,00000	1,11111	1,00148	0,00148	0,00000	0,04243	0,0598%	7,052%	26,5555%
20-Dec-04	750	0,00000	1,00000	1,11111	1,00144	0,00144	0,00000	0,04243	0,0589%	6,954%	26,3710%

21-Dec-04	750	0,00000	1,00000	1,11111	1,00142	0,00142	0,00000	0,04244	0,0581%	6,859%	26,1904%
22-Dec-04	775	0,03333	1,03333	1,14815	1,00184	0,00184	0,00099	0,04343	0,0587%	6,925%	26,3150%
23-Dec-04	750	-0,03226	0,96774	1,11111	1,00139	0,00139	0,00113	0,04456	0,0594%	7,011%	26,4775%
27-Dec-04	775	0,03333	1,03333	1,14815	1,00180	0,00180	0,00099	0,04555	0,0599%	7,073%	26,5947%
28-Dec-04	800	0,03226	1,03226	1,18519	1,00218	0,00218	0,00090	0,04646	0,0603%	7,120%	26,6825%
29-Dec-04	800	0,00000	1,00000	1,18519	1,00215	0,00215	0,00000	0,04646	0,0596%	7,029%	26,5122%
30-Dec-04	800	0,00000	1,00000	1,18519	1,00213	0,00213	0,00000	0,04647	0,0588%	6,941%	26,3452%
3-Jan-05	800	0,00000	1,00000	1,18519	1,00210	0,00210	0,00000	0,04647	0,0581%	6,855%	26,1812%
4-Jan-05	860	0,07500	1,07500	1,27407	1,00296	0,00296	0,00519	0,05166	0,0638%	7,526%	27,4336%
5-Jan-05	840	-0,02326	0,97674	1,24444	1,00284	0,00284	0,00087	0,05233	0,0638%	7,531%	27,4422%
6-Jan-05	850	0,01190	1,01190	1,25926	1,00275	0,00275	0,00008	0,05242	0,0632%	7,452%	27,2982%
7-Jan-05	840	-0,01176	0,98824	1,24444	1,00258	0,00258	0,00021	0,05262	0,0626%	7,392%	27,1884%
10-Jan-05	820	-0,02381	0,97619	1,21481	1,00227	0,00227	0,00068	0,05330	0,0627%	7,400%	27,2020%
11-Jan-05	830	0,01220	1,01220	1,22963	1,00238	0,00238	0,00010	0,05340	0,0621%	7,327%	27,0679%
12-Jan-05	820	-0,01205	0,98795	1,21481	1,00221	0,00221	0,00020	0,05360	0,0616%	7,270%	26,9630%
13-Jan-05	820	0,00000	1,00000	1,21481	1,00219	0,00219	0,00000	0,05361	0,0609%	7,188%	26,8106%
14-Jan-05	820	0,00000	1,00000	1,21481	1,00216	0,00216	0,00000	0,05361	0,0602%	7,108%	26,6607%
17-Jan-05	810	-0,01220	0,98780	1,20000	1,00201	0,00201	0,00020	0,05381	0,0598%	7,055%	26,5620%
18-Jan-05	800	-0,01235	0,98765	1,18519	1,00185	0,00185	0,00020	0,05401	0,0594%	7,004%	26,4651%
19-Jan-05	810	0,01250	1,01250	1,20000	1,00198	0,00198	0,00011	0,05412	0,0588%	6,942%	26,3479%
20-Jan-05	820	0,01235	1,01235	1,21481	1,00207	0,00207	0,00011	0,05423	0,0583%	6,881%	26,2314%
24-Jan-05	820	0,00000	1,00000	1,21481	1,00205	0,00205	0,00000	0,05423	0,0577%	6,808%	26,0925%
25-Jan-05	830	0,01220	1,01220	1,22963	1,00216	0,00216	0,00010	0,05434	0,0572%	6,749%	25,9789%
28-Jan-05	860	0,03614	1,03614	1,27407	1,00250	0,00250	0,00113	0,05547	0,0578%	6,818%	26,1111%
27-Jan-05	900	0,04651	1,04651	1,33333	1,00294	0,00294	0,00190	0,05737	0,0591%	6,979%	26,4169%
28-Jan-05	890	-0,01111	0,98889	1,31852	1,00280	0,00280	0,00019	0,05756	0,0587%	6,931%	26,3261%
31-Jan-05	870	-0,02247	0,97753	1,28889	1,00254	0,00254	0,00063	0,05819	0,0588%	6,935%	26,3347%
1-Feb-05	870	0,00000	1,00000	1,28889	1,00252	0,00252	0,00001	0,05819	0,0582%	6,867%	26,2042%
2-Feb-05	860	-0,01148	0,98851	1,27407	1,00238	0,00238	0,00019	0,05836	0,0578%	6,821%	26,1172%
3-Feb-05	870	0,01163	1,01163	1,28889	1,00247	0,00247	0,00008	0,05847	0,0573%	6,764%	26,0075%

4-Feb-05	870	0,00000	1,00000	1,28889	1,00244	0,00244	0,00001	0,05847	0,0568%	6,699%	25,8823%
7-Feb-05	860	-0,01149	0,98851	1,27407	1,00231	0,00231	0,00019	0,05866	0,0564%	6,656%	25,7995%
8-Feb-05	860	0,00000	1,00000	1,27407	1,00229	0,00229	0,00001	0,05867	0,0559%	6,593%	25,6775%
11-Feb-05	880	0,02326	1,02326	1,30370	1,00248	0,00248	0,00043	0,05910	0,0558%	6,579%	25,6499%
14-Feb-05	880	0,00000	1,00000	1,30370	1,00246	0,00246	0,00001	0,05911	0,0552%	6,518%	25,5311%
15-Feb-05	880	0,00000	1,00000	1,30370	1,00244	0,00244	0,00001	0,05911	0,0547%	6,459%	25,4139%
16-Feb-05	880	0,00000	1,00000	1,30370	1,00241	0,00241	0,00001	0,05912	0,0542%	6,400%	25,2983%
17-Feb-05	900	0,02273	1,02273	1,33333	1,00260	0,00260	0,00041	0,05952	0,0541%	6,385%	25,2692%
18-Feb-05	910	0,01111	1,01111	1,34815	1,00267	0,00267	0,00007	0,05980	0,0537%	6,335%	25,1701%
21-Feb-05	940	0,03297	1,03297	1,39259	1,00293	0,00293	0,00090	0,06050	0,0540%	6,374%	25,2464%
22-Feb-05	950	0,01064	1,01064	1,40741	1,00300	0,00300	0,00006	0,06056	0,0536%	6,324%	25,1466%
23-Feb-05	960	0,01053	1,01053	1,42222	1,00307	0,00307	0,00006	0,06061	0,0532%	6,274%	25,0475%
24-Feb-05	950	-0,01042	0,98958	1,40741	1,00295	0,00295	0,00018	0,06079	0,0529%	6,238%	24,9751%
25-Feb-05	920	-0,03158	0,96842	1,36296	1,00265	0,00265	0,00117	0,06196	0,0534%	6,303%	25,1057%
28-Feb-05	930	0,01087	1,01087	1,37778	1,00272	0,00272	0,00007	0,06203	0,0530%	6,256%	25,0116%

TLKM STOCK RISK CALCULATION

Date	Stock Price	Return (Ri)	1+ Ri	$(1+Ri)^n$	$(1+Ri)^{n-1}$	G	(Return-G) ²	$\sum(Ri-G)^2$	$\sum(Ri-G)^2 / (n-1)$	σ^2	σ
30-Aug-04	7550										
31-Aug-04	7650	0,01325	1,01325	1,01325	1,01325	0,01325	0,00000	0,00000			
1-Sep-04	7950	0,03922	1,03922	1,05298	1,02615	0,02615	0,00017	0,00017	0,02%	2,01%	14,19%
2-Sep-04	8100	0,01887	1,01887	1,07285	1,02372	0,02372	0,00002	0,00019	0,01%	1,15%	10,71%
3-Sep-04	8200	0,01235	1,01235	1,08609	1,02086	0,02086	0,00007	0,00027	0,01%	1,05%	10,24%
6-Sep-04	8200	0,00000	1,00000	1,08609	1,01665	0,01665	0,00028	0,00054	0,01%	1,61%	12,67%
7-Sep-04	8150	-0,00610	0,99390	1,07947	1,01283	0,01283	0,00036	0,00090	0,02%	2,13%	14,59%
8-Sep-04	8150	0,00000	1,00000	1,07947	1,01098	0,01098	0,00012	0,00102	0,02%	2,01%	14,18%
9-Sep-04	7950	-0,02454	0,97546	1,05298	1,00647	0,00647	0,00096	0,00198	0,03%	3,35%	18,29%
10-Sep-04	8050	0,01258	1,01258	1,06623	1,00715	0,00715	0,00003	0,00201	0,03%	2,97%	17,24%

14-Sep-04	8200	0,01863	1,01863	1,08609	1,00829	0,00829	0,00011	0,00212	0,02%	2,78%	16,66%
15-Sep-04	8200	0,00000	1,00000	1,08609	1,00754	0,00754	0,00006	0,00218	0,02%	2,57%	16,03%
16-Sep-04	8250	0,00610	1,00610	1,09272	1,00742	0,00742	0,00000	0,00218	0,02%	2,34%	15,29%
17-Sep-04	8150	-0,01212	0,98788	1,07947	1,00590	0,00590	0,00032	0,00250	0,02%	2,46%	15,69%
21-Sep-04	8450	0,03681	1,03681	1,11921	1,00808	0,00808	0,00083	0,00333	0,03%	3,02%	17,39%
22-Sep-04	8450	0,00000	1,00000	1,11921	1,00754	0,00754	0,00006	0,00339	0,02%	2,85%	16,90%
23-Sep-04	8300	-0,01775	0,98225	1,09934	1,00594	0,00594	0,00058	0,00395	0,03%	3,11%	17,62%
24-Sep-04	8350	0,00602	1,00602	1,10596	1,00594	0,00594	0,00000	0,00395	0,02%	2,91%	17,06%
27-Sep-04	8350	0,00000	1,00000	1,10596	1,00561	0,00561	0,00003	0,00398	0,02%	2,76%	16,62%
28-Sep-04	4125	-0,50599	0,49401	0,54636	0,96869	-0,03131	0,22532	0,22929	1,27%	150,32%	122,60%
29-Sep-04	4125	0,00000	1,00000	0,54636	0,97023	-0,02977	0,00089	0,23018	1,21%	142,95%	119,56%
30-Sep-04	4150	0,00606	1,00606	0,54967	0,97191	-0,02809	0,00117	0,23135	1,16%	136,50%	116,83%
1-Oct-04	4200	0,01205	1,01205	0,55629	0,97369	-0,02631	0,00147	0,23282	1,11%	130,82%	114,38%
4-Oct-04	4350	0,03571	1,03571	0,57616	0,97631	-0,02369	0,00353	0,23635	1,07%	126,77%	112,59%
5-Oct-04	4400	0,01149	1,01149	0,58278	0,97775	-0,02225	0,00114	0,23749	1,03%	121,84%	110,38%
6-Oct-04	4300	-0,02273	0,97727	0,56954	0,97773	-0,02227	0,00000	0,23749	0,99%	116,76%	108,06%
7-Oct-04	4275	-0,00581	0,99419	0,56623	0,97836	-0,02164	0,00025	0,23774	0,95%	112,21%	105,93%
8-Oct-04	4275	0,00000	1,00000	0,56623	0,97916	-0,02084	0,00043	0,23817	0,92%	108,09%	103,97%
11-Oct-04	4350	0,01754	1,01754	0,57616	0,98050	-0,01950	0,00137	0,23954	0,89%	104,69%	102,32%
12-Oct-04	4275	-0,01724	0,98276	0,56623	0,98058	-0,01942	0,00000	0,23955	0,86%	100,95%	100,48%
13-Oct-04	4350	0,01754	1,01754	0,57616	0,98179	-0,01821	0,00128	0,24083	0,83%	97,99%	98,99%
14-Oct-04	4300	-0,01149	0,98851	0,56954	0,98200	-0,01800	0,00004	0,24087	0,80%	94,74%	97,34%
15-Oct-04	4300	0,00000	1,00000	0,56954	0,98256	-0,01744	0,00030	0,24117	0,78%	91,80%	95,81%
18-Oct-04	4275	-0,00581	0,99419	0,56623	0,98291	-0,01709	0,00013	0,24130	0,75%	88,98%	94,33%
19-Oct-04	4400	0,02924	1,02924	0,58278	0,98424	-0,01576	0,00202	0,24332	0,74%	87,01%	93,28%
20-Oct-04	4325	-0,01705	0,98295	0,57285	0,98421	-0,01579	0,00000	0,24333	0,72%	84,45%	91,90%
21-Oct-04	4250	-0,01734	0,98266	0,56291	0,98416	-0,01584	0,00000	0,24333	0,70%	82,04%	90,57%
22-Oct-04	4350	0,02353	1,02353	0,57616	0,98521	-0,01479	0,00147	0,24480	0,68%	80,24%	89,58%
25-Oct-04	4300	-0,01149	0,98851	0,56954	0,98530	-0,01470	0,00001	0,24481	0,66%	78,07%	88,36%
26-Oct-04	4175	-0,02907	0,97093	0,55298	0,98492	-0,01508	0,00020	0,24500	0,64%	76,08%	87,22%

27-Oct-04	4200	0,00599	1,00599	0,55629	0,98545	-0,01455	0,00042	0,24542	0,63%	74,26%	86,17%
28-Oct-04	4300	0,02381	1,02381	0,56954	0,98636	-0,01364	0,00140	0,24683	0,62%	72,81%	85,33%
29-Oct-04	4350	0,01163	1,01163	0,57616	0,98696	-0,01304	0,00061	0,24744	0,60%	71,21%	84,39%
1-Nov-04	4350	0,00000	1,00000	0,57616	0,98726	-0,01274	0,00016	0,24760	0,59%	69,56%	83,40%
2-Nov-04	4575	0,05172	1,05172	0,60596	0,98868	-0,01132	0,00397	0,25157	0,59%	69,04%	83,09%
3-Nov-04	4725	0,03279	1,03279	0,62583	0,98964	-0,01036	0,00186	0,25343	0,58%	67,97%	82,44%
4-Nov-04	4600	-0,02646	0,97354	0,60927	0,98929	-0,01071	0,00025	0,25368	0,56%	66,52%	81,56%
5-Nov-04	4650	0,01087	1,01087	0,61589	0,98974	-0,01026	0,00045	0,25413	0,55%	65,19%	80,74%
8-Nov-04	4625	-0,00538	0,99462	0,61258	0,98984	-0,01016	0,00002	0,25415	0,54%	63,81%	79,88%
9-Nov-04	4675	0,01081	1,01081	0,61921	0,99027	-0,00973	0,00042	0,25457	0,53%	62,58%	79,11%
10-Nov-04	4750	0,01604	1,01604	0,62914	0,99077	-0,00923	0,00064	0,25521	0,52%	61,46%	78,40%
11-Nov-04	4700	-0,01053	0,98947	0,62252	0,99075	-0,00925	0,00000	0,25521	0,51%	60,23%	77,61%
12-Nov-04	4725	0,00532	1,00532	0,62583	0,99103	-0,00897	0,00020	0,25542	0,50%	59,10%	76,87%
22-Nov-04	4950	0,04762	1,04762	0,65563	0,99207	-0,00793	0,00309	0,25850	0,50%	58,66%	76,59%
23-Nov-04	5000	0,01010	1,01010	0,66225	0,99240	-0,00760	0,00031	0,25882	0,49%	57,62%	75,91%
24-Nov-04	5100	0,02000	1,02000	0,67550	0,99289	-0,00711	0,00073	0,25955	0,48%	56,72%	75,31%
25-Nov-04	4950	-0,02941	0,97059	0,65563	0,99249	-0,00751	0,00048	0,26003	0,47%	55,79%	74,69%
28-Nov-04	5000	0,01010	1,01010	0,66225	0,99280	-0,00720	0,00030	0,26033	0,46%	54,86%	74,06%
29-Nov-04	4950	-0,01000	0,99000	0,65563	0,99275	-0,00725	0,00001	0,26034	0,46%	53,89%	73,41%
30-Nov-04	5000	0,01010	1,01010	0,66225	0,99304	-0,00698	0,00029	0,26063	0,45%	53,02%	72,82%
1-Dec-04	5100	0,02000	1,02000	0,67550	0,99348	-0,00652	0,00070	0,26133	0,44%	52,27%	72,30%
2-Dec-04	5200	0,01961	1,01961	0,68874	0,99391	-0,00609	0,00066	0,26199	0,44%	51,53%	71,78%
3-Dec-04	5000	-0,03846	0,96154	0,66225	0,99338	-0,00662	0,00101	0,26301	0,43%	50,88%	71,33%
6-Dec-04	5000	0,00000	1,00000	0,66225	0,99348	-0,00652	0,00004	0,26305	0,42%	50,06%	70,76%
7-Dec-04	5100	0,02000	1,02000	0,67550	0,99389	-0,00611	0,00068	0,26373	0,42%	49,40%	70,28%
8-Dec-04	5050	-0,00980	0,99020	0,66887	0,99383	-0,00617	0,00001	0,26374	0,41%	48,63%	69,73%
9-Dec-04	4900	-0,02970	0,97030	0,64901	0,99347	-0,00653	0,00054	0,26428	0,41%	47,98%	69,27%
10-Dec-04	4700	-0,04082	0,95918	0,62252	0,99295	-0,00705	0,00114	0,26542	0,40%	47,45%	68,89%
13-Dec-04	4700	0,00000	1,00000	0,62252	0,99305	-0,00695	0,00005	0,26547	0,40%	46,75%	68,38%
14-Dec-04	4600	-0,02128	0,97872	0,60927	0,99284	-0,00716	0,00020	0,26567	0,39%	46,10%	67,90%

15-Dec-04	4750	0,03261	1,03261	0,62914	0,99340	-0,00660	0,00154	0,26721	0,39%	45,70%	67,60%
16-Dec-04	4875	0,02632	1,02632	0,64570	0,99386	-0,00614	0,00105	0,26826	0,38%	45,22%	67,25%
17-Dec-04	4950	0,01538	1,01538	0,65563	0,99415	-0,00585	0,00045	0,26871	0,38%	44,66%	66,83%
20-Dec-04	4925	-0,00505	0,99495	0,65232	0,99416	-0,00584	0,00000	0,26871	0,37%	44,04%	66,36%
21-Dec-04	4900	-0,00508	0,99492	0,64901	0,99417	-0,00583	0,00000	0,26871	0,37%	43,44%	65,91%
22-Dec-04	4875	-0,00510	0,99490	0,64570	0,99418	-0,00582	0,00000	0,26871	0,36%	42,85%	65,46%
23-Dec-04	4825	-0,01026	0,98974	0,63907	0,99413	-0,00587	0,00002	0,26873	0,36%	42,28%	65,02%
27-Dec-04	4875	0,01036	1,01036	0,64570	0,99434	-0,00566	0,00026	0,26899	0,35%	41,76%	64,63%
28-Dec-04	4850	-0,00513	0,99487	0,64238	0,99434	-0,00566	0,00000	0,26899	0,35%	41,22%	64,20%
29-Dec-04	4900	0,01031	1,01031	0,64901	0,99454	-0,00546	0,00025	0,26924	0,35%	40,73%	63,82%
30-Dec-04	4825	-0,01531	0,98469	0,63907	0,99442	-0,00558	0,00009	0,26933	0,34%	40,23%	63,43%
3-Jan-05	4925	0,02073	1,02073	0,65232	0,99474	-0,00526	0,00068	0,27001	0,34%	39,83%	63,11%
4-Jan-05	4950	0,00508	1,00508	0,65563	0,99486	-0,00514	0,00010	0,27011	0,33%	39,35%	62,73%
5-Jan-05	4875	-0,01515	0,98485	0,64570	0,99474	-0,00526	0,00010	0,27021	0,33%	38,88%	62,36%
6-Jan-05	4975	0,02051	1,02051	0,65694	0,99505	-0,00495	0,00065	0,27086	0,33%	38,51%	62,05%
7-Jan-05	5125	0,03015	1,03015	0,67881	0,99545	-0,00455	0,00120	0,27206	0,32%	38,22%	61,82%
10-Jan-05	4950	-0,03415	0,96585	0,65563	0,99510	-0,00490	0,00086	0,27292	0,32%	37,89%	61,55%
11-Jan-05	4850	-0,02020	0,97980	0,64238	0,99493	-0,00507	0,00023	0,27315	0,32%	37,48%	61,22%
12-Jan-05	4825	-0,00515	0,99485	0,63907	0,99493	-0,00507	0,00000	0,27315	0,31%	37,05%	60,87%
13-Jan-05	4975	0,03109	1,03109	0,65894	0,99532	-0,00468	0,00128	0,27443	0,31%	36,80%	60,66%
14-Jan-05	5000	0,00503	1,00503	0,66225	0,99543	-0,00457	0,00009	0,27452	0,31%	36,40%	60,33%
17-Jan-05	5000	0,00000	1,00000	0,66225	0,99548	-0,00452	0,00002	0,27454	0,31%	36,00%	60,00%
18-Jan-05	4950	-0,01000	0,99000	0,65563	0,99542	-0,00458	0,00003	0,27457	0,30%	35,60%	59,67%
19-Jan-05	4950	0,00000	1,00000	0,65563	0,99547	-0,00453	0,00002	0,27459	0,30%	35,22%	59,35%
20-Jan-05	4950	0,00000	1,00000	0,65563	0,99552	-0,00448	0,00002	0,27461	0,30%	34,84%	59,03%
24-Jan-05	4850	-0,02020	0,97980	0,64238	0,99535	-0,00465	0,00024	0,27486	0,29%	34,50%	58,74%
25-Jan-05	4825	-0,00515	0,99485	0,63907	0,99535	-0,00465	0,00000	0,27485	0,29%	34,14%	58,43%
26-Jan-05	4850	0,00518	1,00518	0,64238	0,99545	-0,00455	0,00009	0,27495	0,29%	33,80%	58,13%
27-Jan-05	4800	-0,01031	0,98969	0,63576	0,99539	-0,00461	0,00003	0,27498	0,28%	33,45%	57,84%
28-Jan-05	4800	0,00000	1,00000	0,63576	0,99544	-0,00456	0,00002	0,27500	0,28%	33,11%	57,54%

31-Jan-05	4800	0,00000	1,00000	0,63576	0,99548	-0,00452	0,00002	0,27502	0,28%	32,78%	57,25%
1-Feb-05	4825	0,00521	1,00521	0,63907	0,99558	-0,00442	0,00009	0,27511	0,28%	32,46%	56,98%
2-Feb-05	4750	-0,01554	0,98446	0,62914	0,99547	-0,00453	0,00012	0,27523	0,27%	32,16%	56,71%
3-Feb-05	4700	-0,01053	0,98947	0,62252	0,99541	-0,00459	0,00004	0,27527	0,27%	31,84%	56,43%
4-Feb-05	4675	-0,00532	0,99468	0,61921	0,99540	-0,00460	0,00000	0,27527	0,27%	31,54%	56,16%
7-Feb-05	4650	-0,00535	0,99465	0,61589	0,99539	-0,00461	0,00000	0,27527	0,26%	31,23%	55,89%
8-Feb-05	4625	-0,00538	0,99462	0,61258	0,99539	-0,00461	0,00000	0,27527	0,26%	30,94%	55,62%
11-Feb-05	4675	0,01081	1,01081	0,61921	0,99553	-0,00447	0,00023	0,27550	0,26%	30,67%	55,38%
14-Feb-05	4650	-0,00535	0,99465	0,61589	0,99552	-0,00448	0,00000	0,27550	0,26%	30,38%	55,12%
15-Feb-05	4750	0,02151	1,02151	0,62914	0,99576	-0,00424	0,00066	0,27617	0,26%	30,17%	54,93%
16-Feb-05	4750	0,00000	1,00000	0,62914	0,99580	-0,00420	0,00002	0,27618	0,25%	29,90%	54,68%
17-Feb-05	4700	-0,01053	0,98947	0,62252	0,99574	-0,00426	0,00004	0,27622	0,25%	29,63%	54,43%
18-Feb-05	4700	0,00000	1,00000	0,62252	0,99578	-0,00422	0,00002	0,27624	0,25%	29,37%	54,19%
21-Feb-05	4625	-0,01596	0,98404	0,61258	0,99567	-0,00433	0,00014	0,27638	0,25%	29,12%	53,96%
22-Feb-05	4650	0,00541	1,00541	0,61589	0,99576	-0,00424	0,00009	0,27647	0,24%	28,87%	53,73%
23-Feb-05	4650	0,00000	1,00000	0,61589	0,99579	-0,00421	0,00002	0,27649	0,24%	28,62%	53,50%
24-Feb-05	4575	-0,01613	0,98387	0,60596	0,99569	-0,00431	0,00014	0,27663	0,24%	28,38%	53,28%
25-Feb-05	4475	-0,02186	0,97814	0,59272	0,99554	-0,00446	0,00030	0,27693	0,24%	28,17%	53,08%
28-Feb-05	4425	-0,01117	0,98883	0,58609	0,99548	-0,00452	0,00004	0,27697	0,24%	27,93%	52,85%

APPENDIX VII
SUMMARY OF STOCK RISKS

Period	ASII1000	BBCA2850	BBCA2950	BBCA3050	BBCA3250	HMSP7550
1	19,4022%	24,5644%	24,5644%	24,5644%	24,5644%	24,1723%
2	19,2372%	24,4637%	24,4637%	24,4637%	24,4637%	24,0963%
3	19,6041%	24,2791%	24,2791%	24,2791%	24,2791%	24,0119%
4	19,5828%	24,0986%	24,0986%	24,0986%	24,0986%	24,0809%
5	19,4246%	23,9220%	23,9220%	23,9220%	23,9220%	23,9383%
6	19,4682%	23,8291%	23,8291%	23,8291%	23,8291%	23,7983%
7	19,4919%	23,6586%	23,6586%	23,6586%	23,6586%	23,8682%
8	19,5605%	23,5685%	23,5685%	23,5685%	23,5685%	23,6894%
9	19,8698%	23,4037%	23,4037%	23,4037%	23,4037%	23,5145%
10	20,0370%	23,4541%	23,4541%	23,4541%	23,4541%	24,4440%
11	20,3335%	23,2931%	23,2931%	23,2931%	23,2931%	24,8677%
12	20,8144%	23,5414%	23,5414%	23,5414%	23,5414%	24,7524%
13	20,7075%	24,0370%	24,0370%	24,0370%	24,0370%	24,8637%
14	20,5699%	24,7088%	24,7088%	24,7088%	24,7088%	25,3031%
15	20,6040%	24,5384%	24,5384%	24,5384%	24,5384%	25,4723%
16	20,4624%	24,3714%	24,3714%	24,3714%	24,3714%	25,3326%
17	20,3632%	24,2077%	24,2077%	24,2077%	24,2077%	25,2090%
18	20,2391%	24,0471%	24,0471%	24,0471%	24,0471%	25,0432%
19	20,1173%	23,9233%	23,9233%	23,9233%	23,9233%	24,9227%
20	20,0796%	23,7993%	23,7993%	23,7993%	23,7993%	24,7633%
21	19,9897%	23,8162%	23,8162%	23,8162%	23,8162%	24,6097%
22	20,0212%	23,6782%	23,6782%	23,6782%	23,6782%	24,5498%
23	19,9053%	23,5973%	23,5973%	23,5973%	23,5973%	24,4282%
24	19,8217%	23,4856%	23,4856%	23,4856%	23,4856%	24,8034%
25	19,7388%	23,4456%	23,4456%	23,4456%	23,4456%	24,6561%
26	19,6288%	23,3171%	23,3171%	23,3171%	23,3171%	24,6007%
27	19,5213%	23,8281%	23,8281%	23,8281%	23,8281%	24,7352%
28	19,4426%	24,3476%	24,3476%	24,3476%	24,3476%	24,6243%
29	19,5536%	24,2137%	24,2137%	24,2137%	24,2137%	24,5657%
30	19,4484%	24,2200%	24,2200%	24,2200%	24,2200%	24,4268%
31	19,8022%	24,0862%	24,0862%	24,0862%	24,0862%	24,2902%
32	19,6906%	23,9544%	23,9544%	23,9544%	23,9544%	24,1820%

Period	ASII1000	BBCA2850	BBCA2950	BBCA3050	BBCA3250	HMSP7550
33	19,9769%	23,8631%	23,8631%	23,8631%	23,8631%	24,0523%
34	19,9390%	23,7841%	23,7841%	23,7841%	23,7841%	24,1896%
35	19,8304%	23,6615%	23,6615%	23,6615%	23,6615%	24,0970%
36	19,7296%	23,5375%	23,5375%	23,5375%	23,5375%	23,9691%
37	19,9834%	23,4189%	23,4189%	23,4189%	23,4189%	24,1377%
38	19,9966%	23,3449%	23,3449%	23,3449%	23,3449%	24,0127%
39	19,9006%	23,3411%	23,3411%	23,3411%	23,3411%	24,1503%
40	19,8626%	23,2234%	23,2234%	23,2234%	23,2234%	24,2603%
41	19,7675%	23,1523%	23,1523%	23,1523%	23,1523%	24,2717%
42	19,6674%	23,1591%	23,1591%	23,1591%	23,1591%	24,4822%
43	19,5751%	23,0826%	23,0826%	23,0826%	23,0826%	24,3617%
44	19,9481%	22,9742%	22,9742%	22,9742%	22,9742%	24,7336%
45	20,2643%	22,8981%	22,8981%	22,8981%	22,8981%	24,6343%
46	20,4136%	22,7895%	22,7895%	22,7895%	22,7895%	24,5174%
47	20,4711%	22,6859%	22,6859%	22,6859%	22,6859%	24,4021%
48	20,4288%	22,5838%	22,5838%	22,5838%	22,5838%	24,3088%
49	20,3558%	22,4830%	22,4830%	22,4830%	22,4830%	24,3952%
50	20,3146%	22,3835%	22,3835%	22,3835%	22,3835%	24,3053%
51	20,4667%	22,3770%	22,3770%	22,3770%	22,3770%	25,9540%
52	20,5263%	22,3631%	22,3631%	22,3631%	22,3631%	26,0022%
53	20,4382%	22,8530%	22,8530%	22,8530%	22,8530%	25,9766%
54	20,6110%	22,7572%	22,7572%	22,7572%	22,7572%	25,9602%
55	20,5682%	22,6947%	22,6947%	22,6947%	22,6947%	25,8469%
56	20,4770%	22,6010%	22,6010%	22,6010%	22,6010%	25,7335%
57	20,3910%	22,5084%	22,5084%	22,5084%	22,5084%	25,6232%
58	20,6854%	22,4316%	22,4316%	22,4316%	22,4316%	25,5265%
59	21,1448%	22,4278%	22,4278%	22,4278%	22,4278%	25,4191%
60	21,5236%	22,3686%	22,3686%	22,3686%	22,3686%	25,3130%

Period	INDF800	INDF850	INDF900	TLKM4800	TLKM4900	TLKM5000
1	26,3241%	26,3241%	26,3241%	72,8181%	72,8181%	72,8181%
2	26,4663%	26,4663%	26,4663%	72,2957%	72,2957%	72,2957%
3	26,5682%	26,5682%	26,5682%	71,7812%	71,7812%	71,7812%
4	26,7579%	26,7579%	26,7579%	71,3280%	71,3280%	71,3280%
5	26,8526%	26,8526%	26,8526%	70,7561%	70,7561%	70,7561%
6	27,0283%	27,0283%	27,0283%	70,2832%	70,2832%	70,2832%
7	27,2080%	27,2080%	27,2080%	69,7337%	69,7337%	69,7337%
8	26,9988%	26,9988%	26,9988%	69,2657%	69,2657%	69,2657%
9	26,7943%	26,7943%	26,7943%	68,8870%	68,8870%	68,8870%
10	26,5944%	26,5944%	26,5944%	68,3772%	68,3772%	68,3772%
11	26,7835%	26,7835%	26,7835%	67,8981%	67,8981%	67,8981%
12	26,9362%	26,9362%	26,9362%	67,5990%	67,5990%	67,5990%
13	26,7438%	26,7438%	26,7438%	67,2466%	67,2466%	67,2466%
14	26,5555%	26,5555%	26,5555%	66,8274%	66,8274%	66,8274%
15	26,3710%	26,3710%	26,3710%	66,3618%	66,3618%	66,3618%
16	26,1904%	26,1904%	26,1904%	65,9058%	65,9058%	65,9058%
17	26,3150%	26,3150%	26,3150%	65,4590%	65,4590%	65,4590%
18	26,4775%	26,4775%	26,4775%	65,0235%	65,0235%	65,0235%
19	26,5947%	26,5947%	26,5947%	64,6251%	64,6251%	64,6251%
20	26,6825%	26,6825%	26,6825%	64,2041%	64,2041%	64,2041%
21	26,5122%	26,5122%	26,5122%	63,8207%	63,8207%	63,8207%
22	26,3452%	26,3452%	26,3452%	63,4266%	63,4266%	63,4266%
23	26,1812%	26,1812%	26,1812%	63,1079%	63,1079%	63,1079%
24	27,4336%	27,4336%	27,4336%	62,7293%	62,7293%	62,7293%
25	27,4422%	27,4422%	27,4422%	62,3569%	62,3569%	62,3569%
26	27,2982%	27,2982%	27,2982%	62,0545%	62,0545%	62,0545%
27	27,1884%	27,1884%	27,1884%	61,8209%	61,8209%	61,8209%
28	27,2020%	27,2020%	27,2020%	61,5528%	61,5528%	61,5528%
29	27,0679%	27,0679%	27,0679%	61,2195%	61,2195%	61,2195%
30	26,9630%	26,9630%	26,9630%	60,8666%	60,8666%	60,8666%
31	26,8106%	26,8106%	26,8106%	60,6613%	60,6613%	60,6613%
32	26,6607%	26,6607%	26,6607%	60,3297%	60,3297%	60,3297%
33	26,5620%	26,5620%	26,5620%	59,9958%	59,9958%	59,9958%
34	26,4651%	26,4651%	26,4651%	59,6685%	59,6685%	59,6685%
35	26,3479%	26,3479%	26,3479%	59,3455%	59,3455%	59,3455%
36	26,2314%	26,2314%	26,2314%	59,0278%	59,0278%	59,0278%
37	26,0925%	26,0925%	26,0925%	58,7388%	58,7388%	58,7388%
38	25,9789%	25,9789%	25,9789%	58,4289%	58,4289%	58,4289%
39	26,1111%	26,1111%	26,1111%	58,1338%	58,1338%	58,1338%
40	26,4169%	26,4169%	26,4169%	57,8367%	57,8367%	57,8367%
41	26,3261%	26,3261%	26,3261%	57,5431%	57,5431%	57,5431%
42	26,3347%	26,3347%	26,3347%	57,2538%	57,2538%	57,2538%

Period	INDF800	INDF850	INDF9000	TLKM4800	TLKM4900	TLKM5000
43	26,2042%	26,2042%	26,2042%	56,9765%	56,9765%	56,9765%
44	26,1172%	26,1172%	26,1172%	56,7062%	56,7062%	56,7062%
45	26,0075%	26,0075%	26,0075%	56,4311%	56,4311%	56,4311%
46	25,8823%	25,8823%	25,8823%	56,1566%	56,1566%	56,1566%
47	25,7995%	25,7995%	25,7995%	55,8860%	55,8860%	55,8860%
48	25,6775%	25,6775%	25,6775%	55,6193%	55,6193%	55,6193%
49	25,6499%	25,6499%	25,6499%	55,3798%	55,3798%	55,3798%
50	25,5311%	25,5311%	25,5311%	55,1205%	55,1205%	55,1205%
51	25,4139%	25,4139%	25,4139%	54,9307%	54,9307%	54,9307%
52	25,2983%	25,2983%	25,2983%	54,6799%	54,6799%	54,6799%
53	25,2692%	25,2692%	25,2692%	54,4346%	54,4346%	54,4346%
54	25,1701%	25,1701%	25,1701%	54,1906%	54,1906%	54,1906%
55	25,2464%	25,2464%	25,2464%	53,9614%	53,9614%	53,9614%
56	25,1466%	25,1466%	25,1466%	53,7311%	53,7311%	53,7311%
57	25,0475%	25,0475%	25,0475%	53,4966%	53,4966%	53,4966%
58	24,9751%	24,9751%	24,9751%	53,2770%	53,2770%	53,2770%
59	25,1057%	25,1057%	25,1057%	53,0759%	53,0759%	53,0759%
60	25,0116%	25,0116%	25,0116%	52,8528%	52,8528%	52,8528%



APPENDIX VIII
SUMMARY OF INPUTED VARIABLES

Inputed Variables of ASII1000 Call Option

Date	P	E < P	E = P	E > P	Rf	σ	T
30-Nov-04	9000	950	1000	1050	7,41%	19,40223%	0,249
1-Dec-04	9050	950	1000	1050	7,41%	19,23717%	0,244
2-Dec-04	9400	950	1000	1050	7,41%	19,60411%	0,241
3-Dec-04	9300	950	1000	1050	7,41%	19,58285%	0,238
6-Dec-04	9350	950	1000	1050	7,43%	19,42458%	0,230
7-Dec-04	9600	950	1000	1050	7,43%	19,46825%	0,227
8-Dec-04	9850	950	1000	1050	7,43%	19,49188%	0,225
9-Dec-04	9700	950	1000	1050	7,43%	19,56046%	0,222
10-Dec-04	9450	950	1000	1050	7,43%	19,86979%	0,219
13-Dec-04	9250	950	1000	1050	7,43%	20,03701%	0,211
14-Dec-04	9000	950	1000	1050	7,43%	20,33353%	0,208
15-Dec-04	9400	950	1000	1050	7,43%	20,81439%	0,203
16-Dec-04	9550	950	1000	1050	7,43%	20,70751%	0,203
17-Dec-04	9650	950	1000	1050	7,43%	20,56987%	0,200
20-Dec-04	9500	950	1000	1050	7,43%	20,60398%	0,192
21-Dec-04	9550	950	1000	1050	7,43%	20,46240%	0,189
22-Dec-04	9700	950	1000	1050	7,43%	20,36319%	0,184
23-Dec-04	9700	950	1000	1050	7,43%	20,23913%	0,184
27-Dec-04	9700	950	1000	1050	7,43%	20,11729%	0,184
28-Dec-04	9600	950	1000	1050	7,43%	20,07958%	0,164
29-Dec-04	9750	950	1000	1050	7,43%	19,98972%	0,164
30-Dec-04	9600	950	1000	1050	7,43%	20,02117%	0,164
3-Jan-05	9600	950	1000	1050	7,42%	19,90534%	0,164
4-Jan-05	9750	950	1000	1050	7,42%	19,82174%	0,151
5-Jan-05	9700	950	1000	1050	7,42%	19,73880%	0,148
6-Jan-05	9700	950	1000	1050	7,42%	19,62880%	0,142
7-Jan-05	9800	950	1000	1050	7,42%	19,52131%	0,142
10-Jan-05	9750	950	1000	1050	7,42%	19,44259%	0,134
11-Jan-05	9550	950	1000	1050	7,42%	19,55357%	0,132
12-Jan-05	9550	950	1000	1050	7,42%	19,44841%	0,123
13-Jan-05	9950	950	1000	1050	7,42%	19,80220%	0,123
14-Jan-05	10000	950	1000	1050	7,42%	19,69063%	0,123
17-Jan-05	10400	950	1000	1050	7,42%	19,97690%	0,115

18-Jan-05	10300	950	1000	1050	7,42%	19,93902%	0,112
19-Jan-05	10350	950	1000	1050	7,42%	19,83042%	0,096
20-Jan-05	10450	950	1000	1050	7,42%	19,72959%	0,096
24-Jan-05	10150	950	1000	1050	7,42%	19,98340%	0,096
25-Jan-05	10000	950	1000	1050	7,42%	19,99664%	0,096
26-Jan-05	10100	950	1000	1050	7,42%	19,90058%	0,085
27-Jan-05	10000	950	1000	1050	7,42%	19,86264%	0,085
28-Jan-05	10000	950	1000	1050	7,42%	19,76747%	0,085
31-Jan-05	10050	950	1000	1050	7,42%	19,66743%	0,077
1-Feb-05	10050	950	1000	1050	7,42%	19,57511%	0,074
2-Feb-05	10500	950	1000	1050	7,42%	19,94815%	0,071
3-Feb-05	10150	950	1000	1050	7,42%	20,26431%	0,058
4-Feb-05	10500	950	1000	1050	7,42%	20,41364%	0,058
7-Feb-05	10300	950	1000	1050	7,42%	20,47106%	0,058
8-Feb-05	10200	950	1000	1050	7,42%	20,42880%	0,055
11-Feb-05	10150	950	1000	1050	7,42%	20,35585%	0,047
14-Feb-05	10050	950	1000	1050	7,43%	20,31463%	0,038
15-Feb-05	10400	950	1000	1050	7,43%	20,46673%	0,036
16-Feb-05	10700	950	1000	1050	7,43%	20,52626%	0,036
17-Feb-05	10800	950	1000	1050	7,43%	20,43818%	0,030
18-Feb-05	11200	950	1000	1050	7,43%	20,61099%	0,030
21-Feb-05	11100	950	1000	1050	7,43%	20,56819%	0,019
22-Feb-05	11150	950	1000	1050	7,43%	20,47703%	0,016
23-Feb-05	11250	950	1000	1050	7,43%	20,39105%	0,016
24-Feb-05	11750	950	1000	1050	7,43%	20,68541%	0,011
25-Feb-05	11250	950	1000	1050	7,43%	21,14484%	0,008
28-Feb-05	10800	950	1000	1050	7,43%	21,52357%	0,003

Inputed Variables of BBCA2850 Call Option

Date	P	E < P	E = P	E > P	Rf	σ	T
30-Nov-04	2750	2750	2850	2950	7,41%	24,56445%	0,249
1-Dec-04	2725	2750	2850	2950	7,41%	24,46371%	0,244
2-Dec-04	2725	2750	2850	2950	7,41%	24,27914%	0,241
3-Dec-04	2725	2750	2850	2950	7,41%	24,09863%	0,238
6-Dec-04	2725	2750	2850	2950	7,43%	23,92205%	0,230
7-Dec-04	2700	2750	2850	2950	7,43%	23,82912%	0,227
8-Dec-04	2700	2750	2850	2950	7,43%	23,65856%	0,225
9-Dec-04	2675	2750	2850	2950	7,43%	23,56849%	0,222
10-Dec-04	2675	2750	2850	2950	7,43%	23,40367%	0,219

13-Dec-04	2625	2750	2850	2950	7,43%	23,45412%	0,211
14-Dec-04	2625	2750	2850	2950	7,43%	23,29307%	0,208
15-Dec-04	2550	2750	2850	2950	7,43%	23,54136%	0,203
16-Dec-04	2675	2750	2850	2950	7,43%	24,03697%	0,203
17-Dec-04	2825	2750	2850	2950	7,43%	24,70880%	0,200
20-Dec-04	2850	2750	2850	2950	7,43%	24,53844%	0,192
21-Dec-04	2875	2750	2850	2950	7,43%	24,37145%	0,189
22-Dec-04	2900	2750	2850	2950	7,43%	24,20771%	0,184
23-Dec-04	2925	2750	2850	2950	7,43%	24,04713%	0,184
27-Dec-04	2975	2750	2850	2950	7,43%	23,92328%	0,184
28-Dec-04	3025	2750	2850	2950	7,43%	23,79931%	0,164
29-Dec-04	2975	2750	2850	2950	7,43%	23,81616%	0,164
30-Dec-04	2975	2750	2850	2950	7,43%	23,67818%	0,164
3-Jan-05	2950	2750	2850	2950	7,42%	23,59731%	0,164
4-Jan-05	3000	2750	2850	2950	7,42%	23,48560%	0,151
5-Jan-05	3075	2750	2850	2950	7,42%	23,44561%	0,148
6-Jan-05	3075	2750	2850	2950	7,42%	23,31707%	0,142
7-Jan-05	2950	2750	2850	2950	7,42%	23,82808%	0,142
10-Jan-05	2825	2750	2850	2950	7,42%	24,34758%	0,134
11-Jan-05	2825	2750	2850	2950	7,42%	24,21374%	0,132
12-Jan-05	2775	2750	2850	2950	7,42%	24,22005%	0,123
13-Jan-05	2800	2750	2850	2950	7,42%	24,08622%	0,123
14-Jan-05	2825	2750	2850	2950	7,42%	23,95442%	0,123
17-Jan-05	2875	2750	2850	2950	7,42%	23,86314%	0,115
18-Jan-05	2850	2750	2850	2950	7,42%	23,78406%	0,112
19-Jan-05	2850	2750	2850	2950	7,42%	23,66151%	0,096
20-Jan-05	2875	2750	2850	2950	7,42%	23,53750%	0,096
24-Jan-05	2875	2750	2850	2950	7,42%	23,41891%	0,096
25-Jan-05	2850	2750	2850	2950	7,42%	23,34487%	0,096
26-Jan-05	2925	2750	2850	2950	7,42%	23,34108%	0,085
27-Jan-05	2950	2750	2850	2950	7,42%	23,22340%	0,085
28-Jan-05	2925	2750	2850	2950	7,42%	23,15228%	0,085
31-Jan-05	2875	2750	2850	2950	7,42%	23,15912%	0,077
1-Feb-05	2925	2750	2850	2950	7,42%	23,08258%	0,074
2-Feb-05	2925	2750	2850	2950	7,42%	22,97415%	0,071
3-Feb-05	2975	2750	2850	2950	7,42%	22,89807%	0,058
4-Feb-05	3000	2750	2850	2950	7,42%	22,78946%	0,058
7-Feb-05	3000	2750	2850	2950	7,42%	22,68591%	0,058
8-Feb-05	3000	2750	2850	2950	7,42%	22,58375%	0,055

11-Feb-05	3000	2750	2850	2950	7,42%	22,48296%	0,047
14-Feb-05	3000	2750	2850	2950	7,43%	22,38350%	0,038
15-Feb-05	3075	2750	2850	2950	7,43%	22,37697%	0,036
16-Feb-05	3150	2750	2850	2950	7,43%	22,36314%	0,036
17-Feb-05	3325	2750	2850	2950	7,43%	22,85297%	0,030
18-Feb-05	3325	2750	2850	2950	7,43%	22,75717%	0,030
21-Feb-05	3300	2750	2850	2950	7,43%	22,69474%	0,019
22-Feb-05	3300	2750	2850	2950	7,43%	22,60098%	0,016
23-Feb-05	3300	2750	2850	2950	7,43%	22,50835%	0,016
24-Feb-05	3350	2750	2850	2950	7,43%	22,43163%	0,011
25-Feb-05	3300	2750	2850	2950	7,43%	22,42783%	0,008
28-Feb-05	3275	2750	2850	2950	7,43%	22,36863%	0,003

Inputed Variables of BBKA2950 Call Option

Date	P	E < P	E = P	E > P	Rf	σ	T
30-Nov-04	2750	2850	2950	3050	7,41%	24,56445%	0,249
1-Dec-04	2725	2850	2950	3050	7,41%	24,46371%	0,244
2-Dec-04	2725	2850	2950	3050	7,41%	24,27914%	0,241
3-Dec-04	2725	2850	2950	3050	7,41%	24,09863%	0,238
6-Dec-04	2725	2850	2950	3050	7,43%	23,92205%	0,230
7-Dec-04	2700	2850	2950	3050	7,43%	23,82912%	0,227
8-Dec-04	2700	2850	2950	3050	7,43%	23,65856%	0,225
9-Dec-04	2675	2850	2950	3050	7,43%	23,56849%	0,222
10-Dec-04	2675	2850	2950	3050	7,43%	23,40367%	0,219
13-Dec-04	2625	2850	2950	3050	7,43%	23,45412%	0,211
14-Dec-04	2625	2850	2950	3050	7,43%	23,29307%	0,208
15-Dec-04	2550	2850	2950	3050	7,43%	23,54136%	0,203
16-Dec-04	2675	2850	2950	3050	7,43%	24,03697%	0,203
17-Dec-04	2825	2850	2950	3050	7,43%	24,70880%	0,200
20-Dec-04	2850	2850	2950	3050	7,43%	24,53844%	0,192
21-Dec-04	2875	2850	2950	3050	7,43%	24,37145%	0,189
22-Dec-04	2900	2850	2950	3050	7,43%	24,20771%	0,184
23-Dec-04	2925	2850	2950	3050	7,43%	24,04713%	0,184
27-Dec-04	2975	2850	2950	3050	7,43%	23,92328%	0,184
28-Dec-04	3025	2850	2950	3050	7,43%	23,79931%	0,164
29-Dec-04	2975	2850	2950	3050	7,43%	23,81616%	0,164
30-Dec-04	2975	2850	2950	3050	7,43%	23,67818%	0,164
3-Jan-05	2950	2850	2950	3050	7,42%	23,59731%	0,164

4-Jan-05	3000	2850	2950	3050	7,42%	23,48560%	0,151
5-Jan-05	3075	2850	2950	3050	7,42%	23,44561%	0,148
6-Jan-05	3075	2850	2950	3050	7,42%	23,31707%	0,142
7-Jan-05	2950	2850	2950	3050	7,42%	23,82808%	0,142
10-Jan-05	2825	2850	2950	3050	7,42%	24,34758%	0,134
11-Jan-05	2825	2850	2950	3050	7,42%	24,21374%	0,132
12-Jan-05	2775	2850	2950	3050	7,42%	24,22005%	0,123
13-Jan-05	2800	2850	2950	3050	7,42%	24,08622%	0,123
14-Jan-05	2825	2850	2950	3050	7,42%	23,95442%	0,123
17-Jan-05	2875	2850	2950	3050	7,42%	23,86314%	0,115
18-Jan-05	2850	2850	2950	3050	7,42%	23,78406%	0,112
19-Jan-05	2850	2850	2950	3050	7,42%	23,66151%	0,096
20-Jan-05	2875	2850	2950	3050	7,42%	23,53750%	0,096
24-Jan-05	2875	2850	2950	3050	7,42%	23,41891%	0,096
25-Jan-05	2850	2850	2950	3050	7,42%	23,34487%	0,096
26-Jan-05	2925	2850	2950	3050	7,42%	23,34108%	0,085
27-Jan-05	2950	2850	2950	3050	7,42%	23,22340%	0,085
28-Jan-05	2925	2850	2950	3050	7,42%	23,15228%	0,085
31-Jan-05	2875	2850	2950	3050	7,42%	23,15912%	0,077
1-Feb-05	2925	2850	2950	3050	7,42%	23,08258%	0,074
2-Feb-05	2925	2850	2950	3050	7,42%	22,97415%	0,071
3-Feb-05	2975	2850	2950	3050	7,42%	22,89807%	0,058
4-Feb-05	3000	2850	2950	3050	7,42%	22,78946%	0,058
7-Feb-05	3000	2850	2950	3050	7,42%	22,68591%	0,058
8-Feb-05	3000	2850	2950	3050	7,42%	22,58375%	0,055
11-Feb-05	3000	2850	2950	3050	7,42%	22,48296%	0,047
14-Feb-05	3000	2850	2950	3050	7,43%	22,38350%	0,038
15-Feb-05	3075	2850	2950	3050	7,43%	22,37697%	0,036
16-Feb-05	3150	2850	2950	3050	7,43%	22,36314%	0,036
17-Feb-05	3325	2850	2950	3050	7,43%	22,85297%	0,030
18-Feb-05	3325	2850	2950	3050	7,43%	22,75717%	0,030
21-Feb-05	3300	2850	2950	3050	7,43%	22,69474%	0,019
22-Feb-05	3300	2850	2950	3050	7,43%	22,60098%	0,016
23-Feb-05	3300	2850	2950	3050	7,43%	22,50835%	0,016
24-Feb-05	3350	2850	2950	3050	7,43%	22,43163%	0,011
25-Feb-05	3300	2850	2950	3050	7,43%	22,42783%	0,008
28-Feb-05	3275	2850	2950	3050	7,43%	22,36863%	0,003

Inputed Variables of BBCA3050 Call Option

Date	P	E < P	E = P	E > P	Rf	σ	T
30-Nov-04	2750	2950	3050	3150	7,41%	24,56445%	0,249
1-Dec-04	2725	2950	3050	3150	7,41%	24,46371%	0,244
2-Dec-04	2725	2950	3050	3150	7,41%	24,27914%	0,241
3-Dec-04	2725	2950	3050	3150	7,41%	24,09863%	0,238
6-Dec-04	2725	2950	3050	3150	7,43%	23,92205%	0,230
7-Dec-04	2700	2950	3050	3150	7,43%	23,82912%	0,227
8-Dec-04	2700	2950	3050	3150	7,43%	23,65856%	0,225
9-Dec-04	2675	2950	3050	3150	7,43%	23,56849%	0,222
10-Dec-04	2675	2950	3050	3150	7,43%	23,40367%	0,219
13-Dec-04	2625	2950	3050	3150	7,43%	23,45412%	0,211
14-Dec-04	2625	2950	3050	3150	7,43%	23,29307%	0,208
15-Dec-04	2550	2950	3050	3150	7,43%	23,54136%	0,203
16-Dec-04	2675	2950	3050	3150	7,43%	24,03697%	0,203
17-Dec-04	2825	2950	3050	3150	7,43%	24,70880%	0,200
20-Dec-04	2850	2950	3050	3150	7,43%	24,53844%	0,192
21-Dec-04	2875	2950	3050	3150	7,43%	24,37145%	0,189
22-Dec-04	2900	2950	3050	3150	7,43%	24,20771%	0,184
23-Dec-04	2925	2950	3050	3150	7,43%	24,04713%	0,184
27-Dec-04	2975	2950	3050	3150	7,43%	23,92328%	0,184
28-Dec-04	3025	2950	3050	3150	7,43%	23,79931%	0,164
29-Dec-04	2975	2950	3050	3150	7,43%	23,81616%	0,164
30-Dec-04	2975	2950	3050	3150	7,43%	23,67818%	0,164
3-Jan-05	2950	2950	3050	3150	7,42%	23,59731%	0,164
4-Jan-05	3000	2950	3050	3150	7,42%	23,48560%	0,151
5-Jan-05	3075	2950	3050	3150	7,42%	23,44561%	0,148
6-Jan-05	3075	2950	3050	3150	7,42%	23,31707%	0,142
7-Jan-05	2950	2950	3050	3150	7,42%	23,82808%	0,142
10-Jan-05	2825	2950	3050	3150	7,42%	24,34758%	0,134
11-Jan-05	2825	2950	3050	3150	7,42%	24,21374%	0,132
12-Jan-05	2775	2950	3050	3150	7,42%	24,22005%	0,123
13-Jan-05	2800	2950	3050	3150	7,42%	24,08622%	0,123
14-Jan-05	2825	2950	3050	3150	7,42%	23,95442%	0,123
17-Jan-05	2875	2950	3050	3150	7,42%	23,86314%	0,115
18-Jan-05	2850	2950	3050	3150	7,42%	23,78406%	0,112
19-Jan-05	2850	2950	3050	3150	7,42%	23,66151%	0,096
20-Jan-05	2875	2950	3050	3150	7,42%	23,53750%	0,096

24-Jan-05	2875	2950	3050	3150	7,42%	23,41891%	0,096
25-Jan-05	2850	2950	3050	3150	7,42%	23,34487%	0,096
26-Jan-05	2925	2950	3050	3150	7,42%	23,34108%	0,085
27-Jan-05	2950	2950	3050	3150	7,42%	23,22340%	0,085
28-Jan-05	2925	2950	3050	3150	7,42%	23,15228%	0,085
31-Jan-05	2875	2950	3050	3150	7,42%	23,15912%	0,077
1-Feb-05	2925	2950	3050	3150	7,42%	23,08258%	0,074
2-Feb-05	2925	2950	3050	3150	7,42%	22,97415%	0,071
3-Feb-05	2975	2950	3050	3150	7,42%	22,89807%	0,058
4-Feb-05	3000	2950	3050	3150	7,42%	22,78946%	0,058
7-Feb-05	3000	2950	3050	3150	7,42%	22,68591%	0,058
8-Feb-05	3000	2950	3050	3150	7,42%	22,58375%	0,055
11-Feb-05	3000	2950	3050	3150	7,42%	22,48296%	0,047
14-Feb-05	3000	2950	3050	3150	7,43%	22,38350%	0,038
15-Feb-05	3075	2950	3050	3150	7,43%	22,37697%	0,036
16-Feb-05	3150	2950	3050	3150	7,43%	22,36314%	0,036
17-Feb-05	3325	2950	3050	3150	7,43%	22,85297%	0,030
18-Feb-05	3325	2950	3050	3150	7,43%	22,75717%	0,030
21-Feb-05	3300	2950	3050	3150	7,43%	22,69474%	0,019
22-Feb-05	3300	2950	3050	3150	7,43%	22,60098%	0,016
23-Feb-05	3300	2950	3050	3150	7,43%	22,50835%	0,016
24-Feb-05	3350	2950	3050	3150	7,43%	22,43163%	0,011
25-Feb-05	3300	2950	3050	3150	7,43%	22,42783%	0,008
28-Feb-05	3275	2950	3050	3150	7,43%	22,36863%	0,003

Inputed Variables of BBCA3250 Call Option

Date	P	E < P	E = P	E > P	Rf	σ	T
30-Nov-04	2750	3150	3250	3350	7,41%	24,56445%	0,249
1-Dec-04	2725	3150	3250	3350	7,41%	24,46371%	0,244
2-Dec-04	2725	3150	3250	3350	7,41%	24,27914%	0,241
3-Dec-04	2725	3150	3250	3350	7,41%	24,09863%	0,238
6-Dec-04	2725	3150	3250	3350	7,43%	23,92205%	0,230
7-Dec-04	2700	3150	3250	3350	7,43%	23,82912%	0,227
8-Dec-04	2700	3150	3250	3350	7,43%	23,65856%	0,225
9-Dec-04	2675	3150	3250	3350	7,43%	23,56849%	0,222
10-Dec-04	2675	3150	3250	3350	7,43%	23,40367%	0,219
13-Dec-04	2625	3150	3250	3350	7,43%	23,45412%	0,211
14-Dec-04	2625	3150	3250	3350	7,43%	23,29307%	0,208

15-Dec-04	2550	3150	3250	3350	7,43%	23,54136%	0,203
16-Dec-04	2675	3150	3250	3350	7,43%	24,03697%	0,203
17-Dec-04	2825	3150	3250	3350	7,43%	24,70880%	0,200
20-Dec-04	2850	3150	3250	3350	7,43%	24,53844%	0,192
21-Dec-04	2875	3150	3250	3350	7,43%	24,37145%	0,189
22-Dec-04	2900	3150	3250	3350	7,43%	24,20771%	0,184
23-Dec-04	2925	3150	3250	3350	7,43%	24,04713%	0,184
27-Dec-04	2975	3150	3250	3350	7,43%	23,92328%	0,184
28-Dec-04	3025	3150	3250	3350	7,43%	23,79931%	0,164
29-Dec-04	2975	3150	3250	3350	7,43%	23,81616%	0,164
30-Dec-04	2975	3150	3250	3350	7,43%	23,67818%	0,164
3-Jan-05	2950	3150	3250	3350	7,42%	23,59731%	0,164
4-Jan-05	3000	3150	3250	3350	7,42%	23,48560%	0,151
5-Jan-05	3075	3150	3250	3350	7,42%	23,44561%	0,148
6-Jan-05	3075	3150	3250	3350	7,42%	23,31707%	0,142
7-Jan-05	2950	3150	3250	3350	7,42%	23,82808%	0,142
10-Jan-05	2825	3150	3250	3350	7,42%	24,34758%	0,134
11-Jan-05	2825	3150	3250	3350	7,42%	24,21374%	0,132
12-Jan-05	2775	3150	3250	3350	7,42%	24,22005%	0,123
13-Jan-05	2800	3150	3250	3350	7,42%	24,08622%	0,123
14-Jan-05	2825	3150	3250	3350	7,42%	23,95442%	0,123
17-Jan-05	2875	3150	3250	3350	7,42%	23,86314%	0,115
18-Jan-05	2850	3150	3250	3350	7,42%	23,78406%	0,112
19-Jan-05	2850	3150	3250	3350	7,42%	23,66151%	0,096
20-Jan-05	2875	3150	3250	3350	7,42%	23,53750%	0,096
24-Jan-05	2875	3150	3250	3350	7,42%	23,41891%	0,096
25-Jan-05	2850	3150	3250	3350	7,42%	23,34487%	0,096
26-Jan-05	2925	3150	3250	3350	7,42%	23,34108%	0,085
27-Jan-05	2950	3150	3250	3350	7,42%	23,22340%	0,085
28-Jan-05	2925	3150	3250	3350	7,42%	23,15228%	0,085
31-Jan-05	2875	3150	3250	3350	7,42%	23,15912%	0,077
1-Feb-05	2925	3150	3250	3350	7,42%	23,08258%	0,074
2-Feb-05	2925	3150	3250	3350	7,42%	22,97415%	0,071
3-Feb-05	2975	3150	3250	3350	7,42%	22,89807%	0,058
4-Feb-05	3000	3150	3250	3350	7,42%	22,78946%	0,058
7-Feb-05	3000	3150	3250	3350	7,42%	22,68591%	0,058
8-Feb-05	3000	3150	3250	3350	7,42%	22,58375%	0,055
11-Feb-05	3000	3150	3250	3350	7,42%	22,48296%	0,047
14-Feb-05	3000	3150	3250	3350	7,43%	22,38350%	0,038

15-Feb-05	3075	3150	3250	3350	7,43%	22,37697%	0,036
16-Feb-05	3150	3150	3250	3350	7,43%	22,36314%	0,036
17-Feb-05	3325	3150	3250	3350	7,43%	22,85297%	0,030
18-Feb-05	3325	3150	3250	3350	7,43%	22,75717%	0,030
21-Feb-05	3300	3150	3250	3350	7,43%	22,69474%	0,019
22-Feb-05	3300	3150	3250	3350	7,43%	22,60098%	0,016
23-Feb-05	3300	3150	3250	3350	7,43%	22,50835%	0,016
24-Feb-05	3350	3150	3250	3350	7,43%	22,43163%	0,011
25-Feb-05	3300	3150	3250	3350	7,43%	22,42783%	0,008
28-Feb-05	3275	3150	3250	3350	7,43%	22,36863%	0,003

Inputed Variables of HMSP7550 Call Option

Date	P	E < P	E = P	E > P	Rf	σ	T
30-Nov-04	6750	7350	7550	7750	7,41%	24,17232%	0,249
1-Dec-04	6900	7350	7550	7750	7,41%	24,09632%	0,244
2-Dec-04	7050	7350	7550	7750	7,41%	24,01185%	0,241
3-Dec-04	6900	7350	7550	7750	7,41%	24,08087%	0,238
6-Dec-04	6850	7350	7550	7750	7,43%	23,93830%	0,230
7-Dec-04	6800	7350	7550	7750	7,43%	23,79830%	0,227
8-Dec-04	6650	7350	7550	7750	7,43%	23,86817%	0,225
9-Dec-04	6700	7350	7550	7750	7,43%	23,68944%	0,222
10-Dec-04	6750	7350	7550	7750	7,43%	23,51451%	0,219
13-Dec-04	6400	7350	7550	7750	7,43%	24,44399%	0,211
14-Dec-04	6150	7350	7550	7750	7,43%	24,86773%	0,208
15-Dec-04	6250	7350	7550	7750	7,43%	24,75243%	0,203
16-Dec-04	6450	7350	7550	7750	7,43%	24,86366%	0,203
17-Dec-04	6750	7350	7550	7750	7,43%	25,30308%	0,200
20-Dec-04	6550	7350	7550	7750	7,43%	25,47234%	0,192
21-Dec-04	6500	7350	7550	7750	7,43%	25,33263%	0,189
22-Dec-04	6600	7350	7550	7750	7,43%	25,20900%	0,184
23-Dec-04	6600	7350	7550	7750	7,43%	25,04324%	0,184
27-Dec-04	6700	7350	7550	7750	7,43%	24,92267%	0,184
28-Dec-04	6700	7350	7550	7750	7,43%	24,76334%	0,164
29-Dec-04	6750	7350	7550	7750	7,43%	24,60971%	0,164
30-Dec-04	6650	7350	7550	7750	7,43%	24,54975%	0,164
3-Jan-05	6600	7350	7550	7750	7,42%	24,42818%	0,164
4-Jan-05	6900	7350	7550	7750	7,42%	24,80341%	0,151
5-Jan-05	6950	7350	7550	7750	7,42%	24,65606%	0,148

6-Jan-05	7100	7350	7550	7750	7,42%	24,60069%	0,142
7-Jan-05	6900	7350	7550	7750	7,42%	24,73521%	0,142
10-Jan-05	7000	7350	7550	7750	7,42%	24,62430%	0,134
11-Jan-05	6900	7350	7550	7750	7,42%	24,56572%	0,132
12-Jan-05	6900	7350	7550	7750	7,42%	24,42682%	0,123
13-Jan-05	6900	7350	7550	7750	7,42%	24,29024%	0,123
14-Jan-05	6850	7350	7550	7750	7,42%	24,18197%	0,123
17-Jan-05	6900	7350	7550	7750	7,42%	24,05227%	0,115
18-Jan-05	6700	7350	7550	7750	7,42%	24,18958%	0,112
19-Jan-05	6800	7350	7550	7750	7,42%	24,09700%	0,096
20-Jan-05	6800	7350	7550	7750	7,42%	23,96911%	0,096
24-Jan-05	7050	7350	7550	7750	7,42%	24,13765%	0,096
25-Jan-05	7050	7350	7550	7750	7,42%	24,01272%	0,096
26-Jan-05	7300	7350	7550	7750	7,42%	24,15028%	0,085
27-Jan-05	7550	7350	7550	7750	7,42%	24,26033%	0,085
28-Jan-05	7400	7350	7550	7750	7,42%	24,27175%	0,085
31-Jan-05	7150	7350	7550	7750	7,42%	24,48216%	0,077
1-Feb-05	7150	7350	7550	7750	7,42%	24,36172%	0,074
2-Feb-05	7500	7350	7550	7750	7,42%	24,73356%	0,071
3-Feb-05	7600	7350	7550	7750	7,42%	24,63429%	0,058
4-Feb-05	7600	7350	7550	7750	7,42%	24,51738%	0,058
7-Feb-05	7600	7350	7550	7750	7,42%	24,40212%	0,058
8-Feb-05	7550	7350	7550	7750	7,42%	24,30882%	0,055
11-Feb-05	7350	7350	7550	7750	7,42%	24,39516%	0,047
14-Feb-05	7450	7350	7550	7750	7,43%	24,30525%	0,038
15-Feb-05	8150	7350	7550	7750	7,43%	25,95403%	0,036
16-Feb-05	7950	7350	7550	7750	7,43%	26,00219%	0,036
17-Feb-05	8150	7350	7550	7750	7,43%	25,97658%	0,030
18-Feb-05	8000	7350	7550	7750	7,43%	25,96017%	0,030
21-Feb-05	8000	7350	7550	7750	7,43%	25,84685%	0,019
22-Feb-05	8050	7350	7550	7750	7,43%	25,73350%	0,016
23-Feb-05	8050	7350	7550	7750	7,43%	25,62318%	0,016
24-Feb-05	8150	7350	7550	7750	7,43%	25,52648%	0,011
25-Feb-05	8150	7350	7550	7750	7,43%	25,41906%	0,008
28-Feb-05	8150	7350	7550	7750	7,43%	25,31297%	0,003

Inputed Variables of INDF800 Call Option

Date	P	E < P	E = P	E > P	Rf	σ	T
30-Nov-04	750	750	800	850	7,41%	26,32408%	0,249

1-Dec-04	775	750	800	850	7,41%	26,46634%	0,244
2-Dec-04	800	750	800	850	7,41%	26,56825%	0,241
3-Dec-04	775	750	800	850	7,41%	26,75788%	0,238
6-Dec-04	800	750	800	850	7,43%	26,85263%	0,230
7-Dec-04	775	750	800	850	7,43%	27,02825%	0,227
8-Dec-04	750	750	800	850	7,43%	27,20801%	0,225
9-Dec-04	750	750	800	850	7,43%	26,99877%	0,222
10-Dec-04	750	750	800	850	7,43%	26,79428%	0,219
13-Dec-04	750	750	800	850	7,43%	26,59436%	0,211
14-Dec-04	725	750	800	850	7,43%	26,78353%	0,208
15-Dec-04	750	750	800	850	7,43%	26,93619%	0,203
16-Dec-04	750	750	800	850	7,43%	26,74379%	0,203
17-Dec-04	750	750	800	850	7,43%	26,55546%	0,200
20-Dec-04	750	750	800	850	7,43%	26,37105%	0,192
21-Dec-04	750	750	800	850	7,43%	26,19043%	0,189
22-Dec-04	775	750	800	850	7,43%	26,31503%	0,184
23-Dec-04	750	750	800	850	7,43%	26,47750%	0,184
27-Dec-04	775	750	800	850	7,43%	26,59467%	0,184
28-Dec-04	800	750	800	850	7,43%	26,68248%	0,164
29-Dec-04	800	750	800	850	7,43%	26,51221%	0,164
30-Dec-04	800	750	800	850	7,43%	26,34515%	0,164
3-Jan-05	800	750	800	850	7,42%	26,18122%	0,164
4-Jan-05	860	750	800	850	7,42%	27,43358%	0,151
5-Jan-05	840	750	800	850	7,42%	27,44216%	0,148
6-Jan-05	850	750	800	850	7,42%	27,29819%	0,142
7-Jan-05	840	750	800	850	7,42%	27,18839%	0,142
10-Jan-05	820	750	800	850	7,42%	27,20203%	0,134
11-Jan-05	830	750	800	850	7,42%	27,06785%	0,132
12-Jan-05	820	750	800	850	7,42%	26,96305%	0,123
13-Jan-05	820	750	800	850	7,42%	26,81061%	0,123
14-Jan-05	820	750	800	850	7,42%	26,66073%	0,123
17-Jan-05	810	750	800	850	7,42%	26,56202%	0,115
18-Jan-05	800	750	800	850	7,42%	26,46507%	0,112
19-Jan-05	810	750	800	850	7,42%	26,34789%	0,096
20-Jan-05	820	750	800	850	7,42%	26,23139%	0,096
24-Jan-05	820	750	800	850	7,42%	26,09250%	0,096
25-Jan-05	830	750	800	850	7,42%	25,97891%	0,096
26-Jan-05	860	750	800	850	7,42%	26,11105%	0,085
27-Jan-05	900	750	800	850	7,42%	26,41692%	0,085

28-Jan-05	890	750	800	850	7,42%	26,32606%	0,085
31-Jan-05	870	750	800	850	7,42%	26,33473%	0,077
1-Feb-05	870	750	800	850	7,42%	26,20416%	0,074
2-Feb-05	860	750	800	850	7,42%	26,11718%	0,071
3-Feb-05	870	750	800	850	7,42%	26,00752%	0,058
4-Feb-05	870	750	800	850	7,42%	25,88228%	0,058
7-Feb-05	860	750	800	850	7,42%	25,79948%	0,058
8-Feb-05	860	750	800	850	7,42%	25,67747%	0,055
11-Feb-05	880	750	800	850	7,42%	25,64989%	0,047
14-Feb-05	880	750	800	850	7,43%	25,53105%	0,038
15-Feb-05	880	750	800	850	7,43%	25,41385%	0,036
16-Feb-05	880	750	800	850	7,43%	25,29826%	0,036
17-Feb-05	900	750	800	850	7,43%	25,26918%	0,030
18-Feb-05	910	750	800	850	7,43%	25,17014%	0,030
21-Feb-05	940	750	800	850	7,43%	25,24642%	0,019
22-Feb-05	950	750	800	850	7,43%	25,14658%	0,016
23-Feb-05	960	750	800	850	7,43%	25,04754%	0,016
24-Feb-05	950	750	800	850	7,43%	24,97513%	0,011
25-Feb-05	920	750	800	850	7,43%	25,10574%	0,008
28-Feb-05	930	750	800	850	7,43%	25,01162%	0,003

Inputed Variables of INDF850 Call Option

Date	P	E < P	E = P	E > P	Rf	σ	T
30-Nov-04	750	800	850	900	7,41%	26,32408%	0,249
1-Dec-04	775	800	850	900	7,41%	26,46634%	0,244
2-Dec-04	800	800	850	900	7,41%	26,56825%	0,241
3-Dec-04	775	800	850	900	7,41%	26,75788%	0,238
6-Dec-04	800	800	850	900	7,43%	26,85263%	0,230
7-Dec-04	775	800	850	900	7,43%	27,02825%	0,227
8-Dec-04	750	800	850	900	7,43%	27,20801%	0,225
9-Dec-04	750	800	850	900	7,43%	26,99877%	0,222
10-Dec-04	750	800	850	900	7,43%	26,79428%	0,219
13-Dec-04	750	800	850	900	7,43%	26,59436%	0,211
14-Dec-04	725	800	850	900	7,43%	26,78353%	0,208
15-Dec-04	750	800	850	900	7,43%	26,93619%	0,203
16-Dec-04	750	800	850	900	7,43%	26,74379%	0,203
17-Dec-04	750	800	850	900	7,43%	26,55546%	0,200
20-Dec-04	750	800	850	900	7,43%	26,37105%	0,192

21-Dec-04	750	800	850	900	7,43%	26,19043%	0,189
22-Dec-04	775	800	850	900	7,43%	26,31503%	0,184
23-Dec-04	750	800	850	900	7,43%	26,47750%	0,184
27-Dec-04	775	800	850	900	7,43%	26,59467%	0,184
28-Dec-04	800	800	850	900	7,43%	26,68248%	0,164
29-Dec-04	800	800	850	900	7,43%	26,51221%	0,164
30-Dec-04	800	800	850	900	7,43%	26,34515%	0,164
3-Jan-05	800	800	850	900	7,42%	26,18122%	0,164
4-Jan-05	860	800	850	900	7,42%	27,43358%	0,151
5-Jan-05	840	800	850	900	7,42%	27,44216%	0,148
6-Jan-05	850	800	850	900	7,42%	27,29819%	0,142
7-Jan-05	840	800	850	900	7,42%	27,18839%	0,142
10-Jan-05	820	800	850	900	7,42%	27,20203%	0,134
11-Jan-05	830	800	850	900	7,42%	27,06785%	0,132
12-Jan-05	820	800	850	900	7,42%	26,96305%	0,123
13-Jan-05	820	800	850	900	7,42%	26,81061%	0,123
14-Jan-05	820	800	850	900	7,42%	26,66073%	0,123
17-Jan-05	810	800	850	900	7,42%	26,56202%	0,115
18-Jan-05	800	800	850	900	7,42%	26,46507%	0,112
19-Jan-05	810	800	850	900	7,42%	26,34789%	0,096
20-Jan-05	820	800	850	900	7,42%	26,23139%	0,096
24-Jan-05	820	800	850	900	7,42%	26,09250%	0,096
25-Jan-05	830	800	850	900	7,42%	25,97891%	0,096
26-Jan-05	860	800	850	900	7,42%	26,11105%	0,085
27-Jan-05	900	800	850	900	7,42%	26,41692%	0,085
28-Jan-05	890	800	850	900	7,42%	26,32606%	0,085
31-Jan-05	870	800	850	900	7,42%	26,33473%	0,077
1-Feb-05	870	800	850	900	7,42%	26,20416%	0,074
2-Feb-05	860	800	850	900	7,42%	26,11718%	0,071
3-Feb-05	870	800	850	900	7,42%	26,00752%	0,058
4-Feb-05	870	800	850	900	7,42%	25,88228%	0,058
7-Feb-05	860	800	850	900	7,42%	25,79948%	0,058
8-Feb-05	860	800	850	900	7,42%	25,67747%	0,055
11-Feb-05	880	800	850	900	7,42%	25,64989%	0,047
14-Feb-05	880	800	850	900	7,43%	25,53105%	0,038
15-Feb-05	880	800	850	900	7,43%	25,41385%	0,036
16-Feb-05	880	800	850	900	7,43%	25,29826%	0,036
17-Feb-05	900	800	850	900	7,43%	25,26918%	0,030

18-Feb-05	910	800	850	900	7,43%	25,17014%	0,030
21-Feb-05	940	800	850	900	7,43%	25,24642%	0,019
22-Feb-05	950	800	850	900	7,43%	25,14658%	0,016
23-Feb-05	960	800	850	900	7,43%	25,04754%	0,016
24-Feb-05	950	800	850	900	7,43%	24,97513%	0,011
25-Feb-05	920	800	850	900	7,43%	25,10574%	0,008
28-Feb-05	930	800	850	900	7,43%	25,01162%	0,003

Inputed Variables of INDF900 Call Option

Date	P	E < P	E = P	E > P	Rf	σ	T
30-Nov-04	750	850	900	950	7,41%	26,32408%	0,249
1-Dec-04	775	850	900	950	7,41%	26,46634%	0,244
2-Dec-04	800	850	900	950	7,41%	26,56825%	0,241
3-Dec-04	775	850	900	950	7,41%	26,75788%	0,238
6-Dec-04	800	850	900	950	7,43%	26,85263%	0,230
7-Dec-04	775	850	900	950	7,43%	27,02825%	0,227
8-Dec-04	750	850	900	950	7,43%	27,20801%	0,225
9-Dec-04	750	850	900	950	7,43%	26,99877%	0,222
10-Dec-04	750	850	900	950	7,43%	26,79428%	0,219
13-Dec-04	750	850	900	950	7,43%	26,59436%	0,211
14-Dec-04	725	850	900	950	7,43%	26,78353%	0,208
15-Dec-04	750	850	900	950	7,43%	26,93619%	0,203
16-Dec-04	750	850	900	950	7,43%	26,74379%	0,203
17-Dec-04	750	850	900	950	7,43%	26,55546%	0,200
20-Dec-04	750	850	900	950	7,43%	26,37105%	0,192
21-Dec-04	750	850	900	950	7,43%	26,19043%	0,189
22-Dec-04	775	850	900	950	7,43%	26,31503%	0,184
23-Dec-04	750	850	900	950	7,43%	26,47750%	0,184
27-Dec-04	775	850	900	950	7,43%	26,59467%	0,184
28-Dec-04	800	850	900	950	7,43%	26,68248%	0,164
29-Dec-04	800	850	900	950	7,43%	26,51221%	0,164
30-Dec-04	800	850	900	950	7,43%	26,34515%	0,164
3-Jan-05	800	850	900	950	7,42%	26,18122%	0,164
4-Jan-05	860	850	900	950	7,42%	27,43358%	0,151
5-Jan-05	840	850	900	950	7,42%	27,44216%	0,148
6-Jan-05	850	850	900	950	7,42%	27,29819%	0,142
7-Jan-05	840	850	900	950	7,42%	27,18839%	0,142

10-Jan-05	820	850	900	950	7,42%	27,20203%	0,134
11-Jan-05	830	850	900	950	7,42%	27,06785%	0,132
12-Jan-05	820	850	900	950	7,42%	26,96305%	0,123
13-Jan-05	820	850	900	950	7,42%	26,81061%	0,123
14-Jan-05	820	850	900	950	7,42%	26,66073%	0,123
17-Jan-05	810	850	900	950	7,42%	26,56202%	0,115
18-Jan-05	800	850	900	950	7,42%	26,46507%	0,112
19-Jan-05	810	850	900	950	7,42%	26,34789%	0,096
20-Jan-05	820	850	900	950	7,42%	26,23139%	0,096
24-Jan-05	820	850	900	950	7,42%	26,09250%	0,096
25-Jan-05	830	850	900	950	7,42%	25,97891%	0,096
26-Jan-05	860	850	900	950	7,42%	26,11105%	0,085
27-Jan-05	900	850	900	950	7,42%	26,41692%	0,085
28-Jan-05	890	850	900	950	7,42%	26,32606%	0,085
31-Jan-05	870	850	900	950	7,42%	26,33473%	0,077
1-Feb-05	870	850	900	950	7,42%	26,20416%	0,074
2-Feb-05	860	850	900	950	7,42%	26,11718%	0,071
3-Feb-05	870	850	900	950	7,42%	26,00752%	0,058
4-Feb-05	870	850	900	950	7,42%	25,88228%	0,058
7-Feb-05	860	850	900	950	7,42%	25,79948%	0,058
8-Feb-05	860	850	900	950	7,42%	25,67747%	0,055
11-Feb-05	880	850	900	950	7,42%	25,64989%	0,047
14-Feb-05	880	850	900	950	7,43%	25,53105%	0,038
15-Feb-05	880	850	900	950	7,43%	25,41385%	0,036
16-Feb-05	880	850	900	950	7,43%	25,29826%	0,036
17-Feb-05	900	850	900	950	7,43%	25,26918%	0,030
18-Feb-05	910	850	900	950	7,43%	25,17014%	0,030
21-Feb-05	940	850	900	950	7,43%	25,24642%	0,019
22-Feb-05	950	850	900	950	7,43%	25,14658%	0,016
23-Feb-05	960	850	900	950	7,43%	25,04754%	0,016
24-Feb-05	950	850	900	950	7,43%	24,97513%	0,011
25-Feb-05	920	850	900	950	7,43%	25,10574%	0,008
28-Feb-05	930	850	900	950	7,43%	25,01162%	0,003

Inputed Variables of TLKM4800 Call Option

Date	P	E < P	E = P	E > P	Rf	σ	T
30-Nov-04	5000	4700	4800	4900	7,41%	72,81807%	0,249
1-Dec-04	5100	4700	4800	4900	7,41%	72,29565%	0,244

2-Dec-04	5200	4700	4800	4900	7,41%	71,78121%	0,241
3-Dec-04	5000	4700	4800	4900	7,41%	71,32798%	0,238
6-Dec-04	5000	4700	4800	4900	7,43%	70,75614%	0,230
7-Dec-04	5100	4700	4800	4900	7,43%	70,28324%	0,227
8-Dec-04	5050	4700	4800	4900	7,43%	69,73374%	0,225
9-Dec-04	4900	4700	4800	4900	7,43%	69,26566%	0,222
10-Dec-04	4700	4700	4800	4900	7,43%	68,88704%	0,219
13-Dec-04	4700	4700	4800	4900	7,43%	68,37724%	0,211
14-Dec-04	4600	4700	4800	4900	7,43%	67,89809%	0,208
15-Dec-04	4750	4700	4800	4900	7,43%	67,59900%	0,203
16-Dec-04	4875	4700	4800	4900	7,43%	67,24658%	0,203
17-Dec-04	4950	4700	4800	4900	7,43%	66,82741%	0,200
20-Dec-04	4925	4700	4800	4900	7,43%	66,36178%	0,192
21-Dec-04	4900	4700	4800	4900	7,43%	65,90575%	0,189
22-Dec-04	4875	4700	4800	4900	7,43%	65,45899%	0,184
23-Dec-04	4825	4700	4800	4900	7,43%	65,02346%	0,184
27-Dec-04	4875	4700	4800	4900	7,43%	64,62512%	0,184
28-Dec-04	4850	4700	4800	4900	7,43%	64,20414%	0,164
29-Dec-04	4900	4700	4800	4900	7,43%	63,82072%	0,164
30-Dec-04	4825	4700	4800	4900	7,43%	63,42664%	0,164
3-Jan-05	4925	4700	4800	4900	7,42%	63,10794%	0,164
4-Jan-05	4950	4700	4800	4900	7,42%	62,72928%	0,151
5-Jan-05	4875	4700	4800	4900	7,42%	62,35691%	0,148
6-Jan-05	4975	4700	4800	4900	7,42%	62,05446%	0,142
7-Jan-05	5125	4700	4800	4900	7,42%	61,82093%	0,142
10-Jan-05	4950	4700	4800	4900	7,42%	61,55275%	0,134
11-Jan-05	4850	4700	4800	4900	7,42%	61,21949%	0,132
12-Jan-05	4825	4700	4800	4900	7,42%	60,86664%	0,123
13-Jan-05	4975	4700	4800	4900	7,42%	60,66135%	0,123
14-Jan-05	5000	4700	4800	4900	7,42%	60,32971%	0,123
17-Jan-05	5000	4700	4800	4900	7,42%	59,99584%	0,115
18-Jan-05	4950	4700	4800	4900	7,42%	59,66847%	0,112
19-Jan-05	4950	4700	4800	4900	7,42%	59,34552%	0,096
20-Jan-05	4950	4700	4800	4900	7,42%	59,02775%	0,096
24-Jan-05	4850	4700	4800	4900	7,42%	58,73879%	0,096
25-Jan-05	4825	4700	4800	4900	7,42%	58,42885%	0,096
26-Jan-05	4850	4700	4800	4900	7,42%	58,13375%	0,085
27-Jan-05	4800	4700	4800	4900	7,42%	57,83673%	0,085
28-Jan-05	4800	4700	4800	4900	7,42%	57,54307%	0,085

31-Jan-05	4800	4700	4800	4900	7,42%	57,25384%	0,077
1-Feb-05	4825	4700	4800	4900	7,42%	56,97646%	0,074
2-Feb-05	4750	4700	4800	4900	7,42%	56,70618%	0,071
3-Feb-05	4700	4700	4800	4900	7,42%	56,43114%	0,058
4-Feb-05	4675	4700	4800	4900	7,42%	56,15659%	0,058
7-Feb-05	4650	4700	4800	4900	7,42%	55,88601%	0,058
8-Feb-05	4625	4700	4800	4900	7,42%	55,61931%	0,055
11-Feb-05	4675	4700	4800	4900	7,42%	55,37980%	0,047
14-Feb-05	4650	4700	4800	4900	7,43%	55,12048%	0,038
15-Feb-05	4750	4700	4800	4900	7,43%	54,93068%	0,036
16-Feb-05	4750	4700	4800	4900	7,43%	54,67987%	0,036
17-Feb-05	4700	4700	4800	4900	7,43%	54,43462%	0,030
18-Feb-05	4700	4700	4800	4900	7,43%	54,19062%	0,030
21-Feb-05	4625	4700	4800	4900	7,43%	53,96136%	0,019
22-Feb-05	4650	4700	4800	4900	7,43%	53,73111%	0,016
23-Feb-05	4650	4700	4800	4900	7,43%	53,49664%	0,016
24-Feb-05	4575	4700	4800	4900	7,43%	53,27699%	0,011
25-Feb-05	4475	4700	4800	4900	7,43%	53,07586%	0,008
28-Feb-05	4425	4700	4800	4900	7,43%	52,85278%	0,003

Inputed Variables of TLKM4900 Call Option

Date	P	E < P	E = P	E > P	Rf	σ	T
30-Nov-04	5000	4800	4900	5000	7,41%	72,81807%	0,249
1-Dec-04	5100	4600	4800	5000	7,41%	72,29565%	0,244
2-Dec-04	5200	4600	4800	5000	7,41%	71,78121%	0,241
3-Dec-04	5000	4600	4800	5000	7,41%	71,32798%	0,238
6-Dec-04	5000	4600	4800	5000	7,43%	70,75614%	0,230
7-Dec-04	5100	4600	4800	5000	7,43%	70,28324%	0,227
8-Dec-04	5050	4600	4800	5000	7,43%	69,73374%	0,225
9-Dec-04	4900	4600	4800	5000	7,43%	69,26566%	0,222
10-Dec-04	4700	4600	4800	5000	7,43%	68,88704%	0,219
13-Dec-04	4700	4600	4800	5000	7,43%	68,37724%	0,211
14-Dec-04	4600	4600	4800	5000	7,43%	67,89809%	0,208
15-Dec-04	4750	4600	4800	5000	7,43%	67,59900%	0,203
16-Dec-04	4875	4600	4800	5000	7,43%	67,24658%	0,203
17-Dec-04	4950	4600	4800	5000	7,43%	66,82741%	0,200
20-Dec-04	4925	4600	4800	5000	7,43%	66,36178%	0,192
21-Dec-04	4900	4600	4800	5000	7,43%	65,90575%	0,189
22-Dec-04	4875	4600	4800	5000	7,43%	65,45899%	0,184

23-Dec-04	4825	4600	4800	5000	7,43%	65,02346%	0,184
27-Dec-04	4875	4600	4800	5000	7,43%	64,62512%	0,184
28-Dec-04	4850	4600	4800	5000	7,43%	64,20414%	0,164
29-Dec-04	4900	4600	4800	5000	7,43%	63,82072%	0,164
30-Dec-04	4825	4600	4800	5000	7,43%	63,42664%	0,164
3-Jan-05	4925	4600	4800	5000	7,42%	63,10794%	0,164
4-Jan-05	4950	4600	4800	5000	7,42%	62,72928%	0,151
5-Jan-05	4875	4600	4800	5000	7,42%	62,35691%	0,148
6-Jan-05	4975	4600	4800	5000	7,42%	62,05446%	0,142
7-Jan-05	5125	4600	4800	5000	7,42%	61,82093%	0,142
10-Jan-05	4950	4600	4800	5000	7,42%	61,55275%	0,134
11-Jan-05	4850	4600	4800	5000	7,42%	61,21949%	0,132
12-Jan-05	4825	4600	4800	5000	7,42%	60,86664%	0,123
13-Jan-05	4975	4600	4800	5000	7,42%	60,66135%	0,123
14-Jan-05	5000	4600	4800	5000	7,42%	60,32971%	0,123
17-Jan-05	5000	4600	4800	5000	7,42%	59,99584%	0,115
18-Jan-05	4950	4600	4800	5000	7,42%	59,66847%	0,112
19-Jan-05	4950	4600	4800	5000	7,42%	59,34552%	0,096
20-Jan-05	4950	4600	4800	5000	7,42%	59,02775%	0,096
24-Jan-05	4850	4600	4800	5000	7,42%	58,73879%	0,096
25-Jan-05	4825	4600	4800	5000	7,42%	58,42885%	0,096
26-Jan-05	4850	4600	4800	5000	7,42%	58,13375%	0,085
27-Jan-05	4800	4600	4800	5000	7,42%	57,83673%	0,085
28-Jan-05	4800	4600	4800	5000	7,42%	57,54307%	0,085
31-Jan-05	4800	4600	4800	5000	7,42%	57,25384%	0,077
1-Feb-05	4825	4600	4800	5000	7,42%	56,97646%	0,074
2-Feb-05	4750	4600	4800	5000	7,42%	56,70618%	0,071
3-Feb-05	4700	4600	4800	5000	7,42%	56,43114%	0,058
4-Feb-05	4675	4600	4800	5000	7,42%	56,15659%	0,058
7-Feb-05	4650	4600	4800	5000	7,42%	55,88601%	0,058
8-Feb-05	4625	4600	4800	5000	7,42%	55,61931%	0,055
11-Feb-05	4675	4600	4800	5000	7,42%	55,37980%	0,047
14-Feb-05	4650	4600	4800	5000	7,43%	55,12048%	0,038
15-Feb-05	4750	4600	4800	5000	7,43%	54,93068%	0,036
16-Feb-05	4750	4600	4800	5000	7,43%	54,67987%	0,036
17-Feb-05	4700	4600	4800	5000	7,43%	54,43462%	0,030
18-Feb-05	4700	4600	4800	5000	7,43%	54,19062%	0,030
21-Feb-05	4625	4600	4800	5000	7,43%	53,96136%	0,019
22-Feb-05	4650	4600	4800	5000	7,43%	53,73111%	0,016

23-Feb-05	4650	4600	4800	5000	7,43%	53,49664%	0,016
24-Feb-05	4575	4600	4800	5000	7,43%	53,27699%	0,011
25-Feb-05	4475	4600	4800	5000	7,43%	53,07586%	0,008
28-Feb-05	4425	4600	4800	5000	7,43%	52,85278%	0,003

Inputed Variables of TLKM5000 Call Option

Date	P	E < P	E = P	E > P	Rf	σ	T
30-Nov-04	5000	4900	5000	5100	7,41%	72,81807%	0,249
1-Dec-04	5100	4900	5000	5100	7,41%	72,29565%	0,244
2-Dec-04	5200	4900	5000	5100	7,41%	71,78121%	0,241
3-Dec-04	5000	4900	5000	5100	7,41%	71,32798%	0,238
6-Dec-04	5000	4900	5000	5100	7,43%	70,75614%	0,230
7-Dec-04	5100	4900	5000	5100	7,43%	70,28324%	0,227
8-Dec-04	5050	4900	5000	5100	7,43%	69,73374%	0,225
9-Dec-04	4900	4900	5000	5100	7,43%	69,26566%	0,222
10-Dec-04	4700	4900	5000	5100	7,43%	68,88704%	0,219
13-Dec-04	4700	4900	5000	5100	7,43%	68,37724%	0,211
14-Dec-04	4600	4900	5000	5100	7,43%	67,89809%	0,208
15-Dec-04	4750	4900	5000	5100	7,43%	67,59900%	0,203
16-Dec-04	4875	4900	5000	5100	7,43%	67,24658%	0,203
17-Dec-04	4950	4900	5000	5100	7,43%	66,82741%	0,200
20-Dec-04	4925	4900	5000	5100	7,43%	66,36178%	0,192
21-Dec-04	4900	4900	5000	5100	7,43%	65,90575%	0,189
22-Dec-04	4875	4900	5000	5100	7,43%	65,45899%	0,184
23-Dec-04	4825	4900	5000	5100	7,43%	65,02346%	0,184
27-Dec-04	4875	4900	5000	5100	7,43%	64,62512%	0,184
28-Dec-04	4850	4900	5000	5100	7,43%	64,20414%	0,164
29-Dec-04	4900	4900	5000	5100	7,43%	63,82072%	0,164
30-Dec-04	4825	4900	5000	5100	7,43%	63,42664%	0,164
3-Jan-05	4925	4900	5000	5100	7,42%	63,10794%	0,164
4-Jan-05	4950	4900	5000	5100	7,42%	62,72928%	0,151
5-Jan-05	4875	4900	5000	5100	7,42%	62,35691%	0,148
6-Jan-05	4975	4900	5000	5100	7,42%	62,05446%	0,142
7-Jan-05	5125	4900	5000	5100	7,42%	61,82093%	0,142
10-Jan-05	4950	4900	5000	5100	7,42%	61,55275%	0,134
11-Jan-05	4850	4900	5000	5100	7,42%	61,21949%	0,132
12-Jan-05	4825	4900	5000	5100	7,42%	60,86664%	0,123
13-Jan-05	4975	4900	5000	5100	7,42%	60,66135%	0,123

14-Jan-05	5000	4900	5000	5100	7,42%	60,32971%	0,123
17-Jan-05	5000	4900	5000	5100	7,42%	59,99584%	0,115
18-Jan-05	4950	4900	5000	5100	7,42%	59,66847%	0,112
19-Jan-05	4950	4900	5000	5100	7,42%	59,34552%	0,096
20-Jan-05	4950	4900	5000	5100	7,42%	59,02775%	0,096
24-Jan-05	4850	4900	5000	5100	7,42%	58,73879%	0,096
25-Jan-05	4825	4900	5000	5100	7,42%	58,42885%	0,096
26-Jan-05	4850	4900	5000	5100	7,42%	58,13375%	0,085
27-Jan-05	4800	4900	5000	5100	7,42%	57,83673%	0,085
28-Jan-05	4800	4900	5000	5100	7,42%	57,54307%	0,085
31-Jan-05	4800	4900	5000	5100	7,42%	57,25384%	0,077
1-Feb-05	4825	4900	5000	5100	7,42%	56,97646%	0,074
2-Feb-05	4750	4900	5000	5100	7,42%	56,70618%	0,071
3-Feb-05	4700	4900	5000	5100	7,42%	56,43114%	0,058
4-Feb-05	4675	4900	5000	5100	7,42%	56,15659%	0,058
7-Feb-05	4650	4900	5000	5100	7,42%	55,88601%	0,058
8-Feb-05	4625	4900	5000	5100	7,42%	55,61931%	0,055
11-Feb-05	4675	4900	5000	5100	7,42%	55,37980%	0,047
14-Feb-05	4650	4900	5000	5100	7,43%	55,12048%	0,038
15-Feb-05	4750	4900	5000	5100	7,43%	54,93068%	0,036
16-Feb-05	4750	4900	5000	5100	7,43%	54,67987%	0,036
17-Feb-05	4700	4900	5000	5100	7,43%	54,43462%	0,030
18-Feb-05	4700	4900	5000	5100	7,43%	54,19062%	0,030
21-Feb-05	4625	4900	5000	5100	7,43%	53,96136%	0,019
22-Feb-05	4650	4900	5000	5100	7,43%	53,73111%	0,016
23-Feb-05	4650	4900	5000	5100	7,43%	53,49664%	0,016
24-Feb-05	4575	4900	5000	5100	7,43%	53,27699%	0,011
25-Feb-05	4475	4900	5000	5100	7,43%	53,07586%	0,008
28-Feb-05	4425	4900	5000	5100	7,43%	52,85278%	0,003

APPENDIX.IX

d1 and d2 VALUE of ASII (E < P) Rp1000

Date	P	E	In (P/E)	Rf	σ^2	σ	T	\sqrt{T}	d1	d2
30/11/2004	9000	950	2,2485179	7,41%	3,7645%	19,40223%	0,249	0,499	23,4489	23,352
01/12/2004	9050	950	2,2540581	7,41%	3,7007%	19,23717%	0,244	0,494	23,9665	23,8715
02/12/2004	9400	950	2,292003	7,41%	3,8432%	19,60411%	0,241	0,491	24,0445	23,9482
03/12/2004	9300	950	2,2813077	7,41%	3,8349%	19,58285%	0,238	0,488	24,0939	23,9983
06/12/2004	9350	950	2,2866696	7,43%	3,7731%	19,42458%	0,230	0,480	24,7692	24,676
07/12/2004	9600	950	2,3130564	7,43%	3,7901%	19,46825%	0,227	0,477	25,1437	25,0509
08/12/2004	9850	950	2,3387647	7,43%	3,7993%	19,49188%	0,225	0,474	25,5415	25,4492
09/12/2004	9700	950	2,3234192	7,43%	3,8261%	19,56046%	0,222	0,471	25,4396	25,3475
10/12/2004	9450	950	2,297308	7,43%	3,9481%	19,86979%	0,219	0,468	24,9176	24,8246
13/12/2004	9250	950	2,2759168	7,43%	4,0148%	20,03701%	0,211	0,459	24,9464	24,8543
14/12/2004	9000	950	2,2485179	7,43%	4,1345%	20,33353%	0,208	0,456	24,4470	24,3542
15/12/2004	9400	950	2,292003	7,43%	4,3324%	20,81439%	0,203	0,450	24,6634	24,5697
16/12/2004	9550	950	2,3078344	7,43%	4,2880%	20,70751%	0,203	0,450	24,9600	24,8668
17/12/2004	9650	950	2,3182512	7,43%	4,2312%	20,56987%	0,200	0,447	25,4083	25,3163
20/12/2004	9500	950	2,3025851	7,43%	4,2452%	20,60398%	0,192	0,438	25,7219	25,6317
21/12/2004	9550	950	2,3078344	7,43%	4,1871%	20,46240%	0,189	0,435	26,1424	26,0534
22/12/2004	9700	950	2,3234192	7,43%	4,1466%	20,36319%	0,184	0,428	26,8312	26,7439
23/12/2004	9700	950	2,3234192	7,43%	4,0962%	20,23913%	0,184	0,428	26,9951	26,9084
27/12/2004	9700	950	2,3234192	7,43%	4,0471%	20,11729%	0,184	0,428	27,1581	27,0719
28/12/2004	9600	950	2,3130564	7,43%	4,0319%	20,07958%	0,164	0,405	28,6028	28,5214
29/12/2004	9750	950	2,3285606	7,43%	3,9959%	19,98972%	0,164	0,405	28,9223	28,8412
30/12/2004	9600	950	2,3130564	7,43%	4,0085%	20,02117%	0,164	0,405	28,6860	28,6048
03/01/2005	9600	950	2,3130564	7,42%	3,9622%	19,90534%	0,164	0,405	28,8522	28,7715
04/01/2005	9750	950	2,3285606	7,42%	3,9290%	19,82174%	0,151	0,388	30,4467	30,3698
05/01/2005	9700	950	2,3234192	7,42%	3,8962%	19,73880%	0,148	0,385	30,7850	30,7091
06/01/2005	9700	950	2,3234192	7,42%	3,8529%	19,62880%	0,142	0,377	31,5399	31,4658
07/01/2005	9800	950	2,3336757	7,42%	3,8108%	19,52131%	0,142	0,377	31,8524	31,7787
10/01/2005	9750	950	2,3285606	7,42%	3,7801%	19,44259%	0,134	0,366	32,8630	32,7917
11/01/2005	9550	950	2,3078344	7,42%	3,8234%	19,55357%	0,132	0,363	32,7196	32,6487
12/01/2005	9550	950	2,3078344	7,42%	3,7824%	19,44841%	0,123	0,351	33,9638	33,8955
13/01/2005	9950	950	2,3488658	7,42%	3,9213%	19,80220%	0,123	0,351	33,9483	33,8788
14/01/2005	10000	950	2,3538784	7,42%	3,8772%	19,69063%	0,123	0,351	34,2128	34,1436
17/01/2005	10400	950	2,3930991	7,42%	3,9908%	19,97690%	0,115	0,339	35,4745	35,4067
18/01/2005	10300	950	2,3834372	7,42%	3,9756%	19,93902%	0,112	0,335	35,8241	35,7573
19/01/2005	10350	950	2,3882798	7,42%	3,9325%	19,83042%	0,096	0,310	39,0391	38,9777
20/01/2005	10450	950	2,3978953	7,42%	3,8926%	19,72959%	0,096	0,310	39,3956	39,3345
24/01/2005	10150	950	2,368767	7,42%	3,9934%	19,98340%	0,096	0,310	38,4253	38,3635
25/01/2005	10000	950	2,3538784	7,42%	3,9987%	19,99664%	0,096	0,310	38,1595	38,0976
26/01/2005	10100	950	2,3638287	7,42%	3,9603%	19,90058%	0,085	0,291	40,8959	40,8379
27/01/2005	10000	950	2,3538784	7,42%	3,9452%	19,86264%	0,085	0,291	40,8021	40,7442
28/01/2005	10000	950	2,3538784	7,42%	3,9075%	19,76747%	0,085	0,291	40,9982	40,9406
31/01/2005	10050	950	2,3588659	7,42%	3,8681%	19,66743%	0,077	0,277	43,4352	43,3808
01/02/2005	10050	950	2,3588659	7,42%	3,8318%	19,57511%	0,074	0,272	44,4358	44,3826
02/02/2005	10500	950	2,4026686	7,42%	3,9793%	19,94815%	0,071	0,267	45,2544	45,2012
03/02/2005	10150	950	2,368767	7,42%	4,1064%	20,26431%	0,058	0,240	48,8456	48,797
04/02/2005	10500	950	2,4026686	7,42%	4,1672%	20,41364%	0,058	0,240	49,1810	49,132
07/02/2005	10300	950	2,3834372	7,42%	4,1906%	20,47106%	0,058	0,240	48,6515	48,6024
08/02/2005	10200	950	2,373681	7,42%	4,1734%	20,42880%	0,055	0,234	49,7466	49,6987
11/02/2005	10150	950	2,368767	7,42%	4,1436%	20,35585%	0,047	0,216	54,0213	53,9774
14/02/2005	10050	950	2,3588659	7,43%	4,1268%	20,31463%	0,038	0,196	59,3809	59,3411
15/02/2005	10400	950	2,3930991	7,43%	4,1889%	20,46673%	0,036	0,189	62,0443	62,0057
16/02/2005	10700	950	2,421537	7,43%	4,2133%	20,52626%	0,036	0,189	62,5986	62,5599
17/02/2005	10800	950	2,4308394	7,43%	4,1772%	20,43818%	0,030	0,174	68,5925	68,557
18/02/2005	11200	950	2,4672071	7,43%	4,2481%	20,61099%	0,030	0,174	69,0341	68,9983
21/02/2005	11100	950	2,4582384	7,43%	4,2305%	20,56819%	0,019	0,138	86,3672	86,3387
22/02/2005	11150	950	2,4627328	7,43%	4,1931%	20,47703%	0,016	0,128	93,8636	93,8373
23/02/2005	11250	950	2,4716614	7,43%	4,1579%	20,39105%	0,016	0,128	94,6008	94,5747

24/02/2005	11750	950	2,5151465	7,43%	4,2789%	20,68541%	0,011	0,105	116,1974	116,176
25/02/2005	11250	950	2,4716614	7,43%	4,4710%	21,14484%	0,008	0,091	128,9763	128,957
28/02/2005	10800	950	2,4308394	7,43%	4,6326%	21,52357%	0,003	0,052	215,7923	215,781

d1 and d2 VALUE of ASII (E = P) Rp1000

Date	P	E	In (P/E)	Rf	σ^2	σ	T	\sqrt{T}	d1	d2
30/11/2004	9000	1000	2,1972	7,41%	3,7645%	19,40223%	0,249	0,499	22,9194	22,82254
01/12/2004	9050	1000	2,2028	7,41%	3,7007%	19,23717%	0,244	0,494	23,4265	23,33151
02/12/2004	9400	1000	2,2407	7,41%	3,8432%	19,60411%	0,241	0,491	23,5116	23,41535
03/12/2004	9300	1000	2,23	7,41%	3,8349%	19,58285%	0,238	0,488	23,5574	23,46177
06/12/2004	9350	1000	2,2354	7,43%	3,7731%	19,42458%	0,230	0,480	24,2187	24,12555
07/12/2004	9600	1000	2,2618	7,43%	3,7901%	19,46825%	0,227	0,477	24,5912	24,4984
08/12/2004	9850	1000	2,2875	7,43%	3,7993%	19,49188%	0,225	0,474	24,9863	24,89396
09/12/2004	9700	1000	2,2721	7,43%	3,8261%	19,56046%	0,222	0,471	24,8830	24,79083
10/12/2004	9450	1000	2,246	7,43%	3,9481%	19,86979%	0,219	0,468	24,3662	24,27319
13/12/2004	9250	1000	2,2246	7,43%	4,0148%	20,03701%	0,211	0,459	24,3890	24,29697
14/12/2004	9000	1000	2,1972	7,43%	4,1345%	20,33353%	0,208	0,456	23,8942	23,80142
15/12/2004	9400	1000	2,2407	7,43%	4,3324%	20,81439%	0,203	0,450	24,1161	24,02238
16/12/2004	9550	1000	2,2565	7,43%	4,2880%	20,70751%	0,203	0,450	24,4099	24,31664
17/12/2004	9650	1000	2,267	7,43%	4,2312%	20,56987%	0,200	0,447	24,8507	24,75873
20/12/2004	9500	1000	2,2513	7,43%	4,2452%	20,60398%	0,192	0,438	25,1535	25,06324
21/12/2004	9550	1000	2,2565	7,43%	4,1871%	20,46240%	0,189	0,435	25,5658	25,47686
22/12/2004	9700	1000	2,2721	7,43%	4,1466%	20,36319%	0,184	0,428	26,2432	26,15598
23/12/2004	9700	1000	2,2721	7,43%	4,0962%	20,23913%	0,184	0,428	26,4036	26,31684
27/12/2004	9700	1000	2,2721	7,43%	4,0471%	20,11729%	0,184	0,428	26,5629	26,47676
28/12/2004	9600	1000	2,2618	7,43%	4,0319%	20,07958%	0,164	0,405	27,9727	27,89131
29/12/2004	9750	1000	2,2773	7,43%	3,9959%	19,98972%	0,164	0,405	28,2894	28,20836
30/12/2004	9600	1000	2,2618	7,43%	4,0085%	20,02117%	0,164	0,405	28,0541	27,97291
03/01/2005	9600	1000	2,2618	7,42%	3,9622%	19,90534%	0,164	0,405	28,2167	28,13595
04/01/2005	9750	1000	2,2773	7,42%	3,9290%	19,82174%	0,151	0,388	29,7801	29,70314
05/01/2005	9700	1000	2,2721	7,42%	3,8962%	19,73880%	0,148	0,385	30,1094	30,03348
06/01/2005	9700	1000	2,2721	7,42%	3,8529%	19,62880%	0,142	0,377	30,8476	30,7735
07/01/2005	9800	1000	2,2824	7,42%	3,8108%	19,52131%	0,142	0,377	31,1562	31,08255
10/01/2005	9750	1000	2,2773	7,42%	3,7801%	19,44259%	0,134	0,366	32,1429	32,07168
11/01/2005	9550	1000	2,2565	7,42%	3,8234%	19,55357%	0,132	0,363	31,9962	31,92529
12/01/2005	9550	1000	2,2565	7,42%	3,7824%	19,44841%	0,123	0,351	33,2126	33,14433
13/01/2005	9950	1000	2,2976	7,42%	3,9213%	19,80220%	0,123	0,351	33,2106	33,14106
14/01/2005	10000	1000	2,3026	7,42%	3,8772%	19,69063%	0,123	0,351	33,4709	33,40173
17/01/2005	10400	1000	2,3418	7,42%	3,9908%	19,97690%	0,115	0,339	34,7176	34,6498
18/01/2005	10300	1000	2,3321	7,42%	3,9756%	19,93902%	0,112	0,335	35,0566	34,98975
19/01/2005	10350	1000	2,337	7,42%	3,9325%	19,83042%	0,096	0,310	38,2038	38,14236
20/01/2005	10450	1000	2,3466	7,42%	3,8926%	19,72959%	0,096	0,310	38,5561	38,49497
24/01/2005	10150	1000	2,3175	7,42%	3,9934%	19,98340%	0,096	0,310	37,5964	37,53456
25/01/2005	10000	1000	2,3026	7,42%	3,9987%	19,99664%	0,096	0,310	37,3311	37,26922
26/01/2005	10100	1000	2,3125	7,42%	3,9603%	19,90058%	0,085	0,291	40,0115	39,95351
27/01/2005	10000	1000	2,3026	7,42%	3,9452%	19,86264%	0,085	0,291	39,9159	39,85806
28/01/2005	10000	1000	2,3026	7,42%	3,9075%	19,76747%	0,085	0,291	40,1078	40,05021

31/01/2005	10050	1000	2,3076	7,42%	3,8681%	19,66743%	0,077	0,277	42,4936	42,43912
01/02/2005	10050	1000	2,3076	7,42%	3,8318%	19,57511%	0,074	0,272	43,4724	43,41916
02/02/2005	10500	1000	2,3514	7,42%	3,9793%	19,94815%	0,071	0,267	44,2910	44,23775
03/02/2005	10150	1000	2,3175	7,42%	4,1064%	20,26431%	0,058	0,240	47,7903	47,74172
04/02/2005	10500	1000	2,3514	7,42%	4,1672%	20,41364%	0,058	0,240	48,1334	48,08448
07/02/2005	10300	1000	2,3321	7,42%	4,1906%	20,47106%	0,058	0,240	47,6069	47,55783
08/02/2005	10200	1000	2,3224	7,42%	4,1734%	20,42880%	0,055	0,234	48,6739	48,6261
11/02/2005	10150	1000	2,3175	7,42%	4,1436%	20,35585%	0,047	0,216	52,8537	52,80976
14/02/2005	10050	1000	2,3076	7,43%	4,1268%	20,31463%	0,038	0,196	58,0916	58,05185
15/02/2005	10400	1000	2,3418	7,43%	4,1889%	20,46673%	0,036	0,189	60,7164	60,67774
16/02/2005	10700	1000	2,3702	7,43%	4,2133%	20,52626%	0,036	0,189	61,2745	61,23578
17/02/2005	10800	1000	2,3795	7,43%	4,1772%	20,43818%	0,030	0,174	67,1468	67,11132
18/02/2005	11200	1000	2,4159	7,43%	4,2481%	20,61099%	0,030	0,174	67,6005	67,56474
21/02/2005	11100	1000	2,4069	7,43%	4,2305%	20,56819%	0,019	0,138	84,5664	84,53789
22/02/2005	11150	1000	2,4114	7,43%	4,1931%	20,47703%	0,016	0,128	91,9099	91,88362
23/02/2005	11250	1000	2,4204	7,43%	4,1579%	20,39105%	0,016	0,128	92,6388	92,61269
24/02/2005	11750	1000	2,4639	7,43%	4,2789%	20,68541%	0,011	0,105	113,8287	113,8071
25/02/2005	11250	1000	2,4204	7,43%	4,4710%	21,14484%	0,008	0,091	126,3006	126,2814
28/02/2005	10800	1000	2,3795	7,43%	4,6326%	21,52357%	0,003	0,052	211,2394	211,2281

d1 and d2 VALUE of ASII (E > P) Rp1000

Date	P	E	In (P/E)	Rf	σ^2	σ	T	\sqrt{T}	d1	d2
30/11/2004	9000	1050	2,148434	7,41%	3,7645%	19,40223%	0,249	0,499	22,4158	22,31892
01/12/2004	9050	1050	2,153975	7,41%	3,7007%	19,23717%	0,244	0,494	22,9129	22,81789
02/12/2004	9400	1050	2,19192	7,41%	3,8432%	19,60411%	0,241	0,491	23,0047	22,90849
03/12/2004	9300	1050	2,181224	7,41%	3,8349%	19,58285%	0,238	0,488	23,0471	22,95145
06/12/2004	9350	1050	2,186586	7,43%	3,7731%	19,42458%	0,230	0,480	23,6952	23,60197
07/12/2004	9600	1050	2,212973	7,43%	3,7901%	19,46825%	0,227	0,477	24,0657	23,97285
08/12/2004	9850	1050	2,238681	7,43%	3,7993%	19,49188%	0,225	0,474	24,4582	24,36586
09/12/2004	9700	1050	2,223336	7,43%	3,8261%	19,56046%	0,222	0,471	24,3535	24,26134
10/12/2004	9450	1050	2,197225	7,43%	3,9481%	19,86979%	0,219	0,468	23,8417	23,7487
13/12/2004	9250	1050	2,175833	7,43%	4,0148%	20,03701%	0,211	0,459	23,8588	23,76682
14/12/2004	9000	1050	2,148434	7,43%	4,1345%	20,33353%	0,208	0,456	23,3684	23,27557
15/12/2004	9400	1050	2,19192	7,43%	4,3324%	20,81439%	0,203	0,450	23,5955	23,50179
16/12/2004	9550	1050	2,207751	7,43%	4,2880%	20,70751%	0,203	0,450	23,8866	23,79336
17/12/2004	9650	1050	2,218168	7,43%	4,2312%	20,56987%	0,200	0,447	24,3203	24,22835
20/12/2004	9500	1050	2,202502	7,43%	4,2452%	20,60398%	0,192	0,438	24,6127	24,52251
21/12/2004	9550	1050	2,207751	7,43%	4,1871%	20,46240%	0,189	0,435	25,0174	24,92846
22/12/2004	9700	1050	2,223336	7,43%	4,1466%	20,36319%	0,184	0,428	25,6840	25,59674
23/12/2004	9700	1050	2,223336	7,43%	4,0962%	20,23913%	0,184	0,428	25,8409	25,75418
27/12/2004	9700	1050	2,223336	7,43%	4,0471%	20,11729%	0,184	0,428	25,9969	25,91068
28/12/2004	9600	1050	2,212973	7,43%	4,0319%	20,07958%	0,164	0,405	27,3734	27,29201
29/12/2004	9750	1050	2,228477	7,43%	3,9959%	19,98972%	0,164	0,405	27,6874	27,60636
30/12/2004	9600	1050	2,212973	7,43%	4,0085%	20,02117%	0,164	0,405	27,4530	27,37186
03/01/2005	9600	1050	2,212973	7,42%	3,9622%	19,90534%	0,164	0,405	27,6121	27,5314
04/01/2005	9750	1050	2,228477	7,42%	3,9290%	19,82174%	0,151	0,388	29,1460	29,06904
05/01/2005	9700	1050	2,223336	7,42%	3,8962%	19,73880%	0,148	0,385	29,4668	29,39085
06/01/2005	9700	1050	2,223336	7,42%	3,8529%	19,62880%	0,142	0,377	30,1890	30,11496
07/01/2005	9800	1050	2,233592	7,42%	3,8108%	19,52131%	0,142	0,377	30,4941	30,42038
10/01/2005	9750	1050	2,228477	7,42%	3,7801%	19,44259%	0,134	0,366	31,4580	31,38678
11/01/2005	9550	1050	2,207751	7,42%	3,8234%	19,55357%	0,132	0,363	31,3081	31,23722
12/01/2005	9550	1050	2,207751	7,42%	3,7824%	19,44841%	0,123	0,351	32,4981	32,42985
13/01/2005	9950	1050	2,248782	7,42%	3,9213%	19,80220%	0,123	0,351	32,5089	32,43935
14/01/2005	10000	1050	2,253795	7,42%	3,8772%	19,69063%	0,123	0,351	32,7652	32,69604
17/01/2005	10400	1050	2,293016	7,42%	3,9908%	19,97690%	0,115	0,339	33,9976	33,92981

18/01/2005	10300	1050	2,283354	7,42%	3,9756%	19,93902%	0,112	0,335	34,3265	34,25965
19/01/2005	10350	1050	2,288196	7,42%	3,9325%	19,83042%	0,096	0,310	37,4092	37,34782
20/01/2005	10450	1050	2,297812	7,42%	3,8926%	19,72959%	0,096	0,310	37,7575	37,69638
24/01/2005	10150	1050	2,268684	7,42%	3,9934%	19,98340%	0,096	0,310	36,8080	36,7461
25/01/2005	10000	1050	2,253795	7,42%	3,9987%	19,99664%	0,096	0,310	36,5432	36,48129
26/01/2005	10100	1050	2,263745	7,42%	3,9603%	19,90058%	0,085	0,291	39,1702	39,11225
27/01/2005	10000	1050	2,253795	7,42%	3,9452%	19,86264%	0,085	0,291	39,0731	39,01519
28/01/2005	10000	1050	2,253795	7,42%	3,9075%	19,76747%	0,085	0,291	39,2609	39,20329
31/01/2005	10050	1050	2,258782	7,42%	3,8681%	19,66743%	0,077	0,277	41,5979	41,54345
01/02/2005	10050	1050	2,258782	7,42%	3,8318%	19,57511%	0,074	0,272	42,5560	42,50274
02/02/2005	10500	1050	2,302585	7,42%	3,9793%	19,94815%	0,071	0,267	43,3746	43,32134
03/02/2005	10150	1050	2,268684	7,42%	4,1064%	20,26431%	0,058	0,240	46,7866	46,73794
04/02/2005	10500	1050	2,302585	7,42%	4,1672%	20,41364%	0,058	0,240	47,1370	47,08804
07/02/2005	10300	1050	2,283354	7,42%	4,1906%	20,47106%	0,058	0,240	46,6133	46,56419
08/02/2005	10200	1050	2,273598	7,42%	4,1734%	20,42880%	0,055	0,234	47,6536	47,60582
11/02/2005	10150	1050	2,268684	7,42%	4,1436%	20,35585%	0,047	0,216	51,7431	51,69914
14/02/2005	10050	1050	2,258782	7,43%	4,1268%	20,31463%	0,038	0,196	56,8653	56,82553
15/02/2005	10400	1050	2,293016	7,43%	4,1889%	20,46673%	0,036	0,189	59,4532	59,41458
16/02/2005	10700	1050	2,321454	7,43%	4,2133%	20,52626%	0,036	0,189	60,0150	59,97628
17/02/2005	10800	1050	2,330756	7,43%	4,1772%	20,43818%	0,030	0,174	65,7717	65,7362
18/02/2005	11200	1050	2,367124	7,43%	4,2481%	20,61099%	0,030	0,174	66,2369	66,20115
21/02/2005	11100	1050	2,358155	7,43%	4,2305%	20,56819%	0,019	0,138	82,8535	82,82498
22/02/2005	11150	1050	2,362649	7,43%	4,1931%	20,47703%	0,016	0,128	90,0515	90,02523
23/02/2005	11250	1050	2,371578	7,43%	4,1579%	20,39105%	0,016	0,128	90,7726	90,74647
24/02/2005	11750	1050	2,415063	7,43%	4,2789%	20,68541%	0,011	0,105	111,5756	111,554
25/02/2005	11250	1050	2,371578	7,43%	4,4710%	21,14484%	0,008	0,091	123,7555	123,7363
28/02/2005	10800	1050	2,330756	7,43%	4,6326%	21,52357%	0,003	0,052	206,9086	206,8974

d1 and d2 VALUE of BBCA (E < P) Rp2850

Date	P	E	In (P/E)	Rf	σ^2	σ	T	\sqrt{T}	d1	d2
30/11/2004	2750	2750	0	7,41%	6,0341%	24,56445%	0,249	0,499	0,2119	0,089294
01/12/2004	2725	2750	-0,00913	7,41%	5,9847%	24,46371%	0,244	0,494	0,1344	0,01357
02/12/2004	2725	2750	-0,00913	7,41%	5,8948%	24,27914%	0,241	0,491	0,1329	0,013645
03/12/2004	2725	2750	-0,00913	7,41%	5,8074%	24,09863%	0,238	0,488	0,1313	0,013672
06/12/2004	2725	2750	-0,00913	7,43%	5,7226%	23,92205%	0,230	0,480	0,1268	0,01204
07/12/2004	2700	2750	-0,01835	7,43%	5,6783%	23,82912%	0,227	0,477	0,0440	-0,06961
08/12/2004	2700	2750	-0,01835	7,43%	5,5973%	23,65856%	0,225	0,474	0,0413	-0,07085
09/12/2004	2675	2750	-0,02765	7,43%	5,5547%	23,56849%	0,222	0,471	-0,0450	-0,15606
10/12/2004	2675	2750	-0,02765	7,43%	5,4773%	23,40367%	0,219	0,468	-0,0490	-0,15852
13/12/2004	2625	2750	-0,04652	7,43%	5,5010%	23,45412%	0,211	0,459	-0,2325	-0,3402
14/12/2004	2625	2750	-0,04652	7,43%	5,4257%	23,29307%	0,208	0,456	-0,2390	-0,34527
15/12/2004	2550	2750	-0,07551	7,43%	5,5420%	23,54136%	0,203	0,450	-0,5172	-0,62323
16/12/2004	2675	2750	-0,02765	7,43%	5,7778%	24,03697%	0,203	0,450	-0,0622	-0,17042
17/12/2004	2825	2750	0,026907	7,43%	6,1052%	24,70880%	0,200	0,447	0,4332	0,322732
20/12/2004	2850	2750	0,035718	7,43%	6,0214%	24,53844%	0,192	0,438	0,5187	0,411253
21/12/2004	2875	2750	0,044452	7,43%	5,9397%	24,37145%	0,189	0,435	0,6050	0,499067
22/12/2004	2900	2750	0,05311	7,43%	5,8601%	24,20771%	0,184	0,428	0,6954	0,591713
23/12/2004	2925	2750	0,061694	7,43%	5,7826%	24,04713%	0,184	0,428	0,7827	0,67967
27/12/2004	2975	2750	0,078643	7,43%	5,7232%	23,92328%	0,184	0,428	0,9516	0,849086
28/12/2004	3025	2750	0,09531	7,43%	5,6641%	23,79931%	0,164	0,405	1,1626	1,066077
29/12/2004	2975	2750	0,078643	7,43%	5,6721%	23,81616%	0,164	0,405	0,9892	0,892648
30/12/2004	2975	2750	0,078643	7,43%	5,6066%	23,67818%	0,164	0,405	0,9944	0,898411
03/01/2005	2950	2750	0,070204	7,42%	5,5683%	23,59731%	0,164	0,405	0,9091	0,813442
04/01/2005	3000	2750	0,087011	7,42%	5,5157%	23,48560%	0,151	0,388	1,1226	1,031478
05/01/2005	3075	2750	0,111704	7,42%	5,4970%	23,44561%	0,148	0,385	1,4055	1,315312
06/01/2005	3075	2750	0,111704	7,42%	5,4369%	23,31707%	0,142	0,377	1,4333	1,345334
07/01/2005	2950	2750	0,070204	7,42%	5,6778%	23,82808%	0,142	0,377	0,9431	0,85315
10/01/2005	2825	2750	0,026907	7,42%	5,9280%	24,34758%	0,134	0,366	0,4579	0,36868
11/01/2005	2825	2750	0,026907	7,42%	5,8631%	24,21374%	0,132	0,363	0,4615	0,373656
12/01/2005	2775	2750	0,00905	7,42%	5,8661%	24,22005%	0,123	0,351	0,2565	0,171464

13/01/2005	2800	2750	0,018019	7,42%	5,8015%	24,08622%	0,123	0,351	0,3635	0,278935
14/01/2005	2825	2750	0,026907	7,42%	5,7381%	23,95442%	0,123	0,351	0,4707	0,386617
17/01/2005	2875	2750	0,044452	7,42%	5,6945%	23,86314%	0,115	0,339	0,6951	0,614142
18/01/2005	2850	2750	0,035718	7,42%	5,6568%	23,78406%	0,112	0,335	0,5925	0,512784
19/01/2005	2850	2750	0,035718	7,42%	5,5987%	23,66151%	0,096	0,310	0,6212	0,547953
20/01/2005	2875	2750	0,044452	7,42%	5,5401%	23,53750%	0,096	0,310	0,7439	0,67105
24/01/2005	2875	2750	0,044452	7,42%	5,4845%	23,41891%	0,096	0,310	0,7473	0,674817
25/01/2005	2850	2750	0,035718	7,42%	5,4498%	23,34487%	0,096	0,310	0,6287	0,556372
26/01/2005	2925	2750	0,061694	7,42%	5,4481%	23,34108%	0,085	0,291	1,0336	0,965585
27/01/2005	2950	2750	0,070204	7,42%	5,3933%	23,22340%	0,085	0,291	1,1643	1,096571
28/01/2005	2925	2750	0,061694	7,42%	5,3603%	23,15228%	0,085	0,291	1,0415	0,974012
31/01/2005	2875	2750	0,044452	7,42%	5,3634%	23,15912%	0,077	0,277	0,8138	0,749669
01/02/2005	2925	2750	0,061694	7,42%	5,3281%	23,08258%	0,074	0,272	1,1015	1,038737
02/02/2005	2925	2750	0,061694	7,42%	5,2781%	22,97415%	0,071	0,267	1,1230	1,061685
03/02/2005	2975	2750	0,078643	7,42%	5,2432%	22,89807%	0,058	0,240	1,5370	1,482118
04/02/2005	3000	2750	0,087011	7,42%	5,1936%	22,78946%	0,058	0,240	1,6972	1,64253
07/02/2005	3000	2750	0,087011	7,42%	5,1465%	22,68591%	0,058	0,240	1,7047	1,650276
08/02/2005	3000	2750	0,087011	7,42%	5,1003%	22,58375%	0,055	0,234	1,7493	1,696407
11/02/2005	3000	2750	0,087011	7,42%	5,0548%	22,48296%	0,047	0,216	1,8888	1,840229
14/02/2005	3000	2750	0,087011	7,43%	5,0102%	22,38350%	0,038	0,196	2,0718	2,027954
15/02/2005	3075	2750	0,111704	7,43%	5,0073%	22,37697%	0,036	0,189	2,7289	2,686649
16/02/2005	3150	2750	0,135802	7,43%	5,0011%	22,36314%	0,036	0,189	3,3015	3,259309
17/02/2005	3325	2750	0,189869	7,43%	5,2226%	22,85297%	0,030	0,174	4,8621	4,822476
18/02/2005	3325	2750	0,189869	7,43%	5,1789%	22,75717%	0,030	0,174	4,8824	4,842943
21/02/2005	3300	2750	0,182322	7,43%	5,1505%	22,69474%	0,019	0,138	5,8622	5,830721
22/02/2005	3300	2750	0,182322	7,43%	5,1080%	22,60098%	0,016	0,128	6,3485	6,319558
23/02/2005	3300	2750	0,182322	7,43%	5,0663%	22,50835%	0,016	0,128	6,3745	6,345682
24/02/2005	3350	2750	0,197359	7,43%	5,0318%	22,43163%	0,011	0,105	8,4509	8,427463
25/02/2005	3300	2750	0,182322	7,43%	5,0301%	22,42783%	0,008	0,091	9,0070	8,986649
28/02/2005	3275	2750	0,174717	7,43%	5,0036%	22,36863%	0,003	0,052	14,9458	14,93405

d1 and d2 VALUE of BBCA (E = P) Rp2850

Date	P	E	In (P/E)	Rf	σ^2	σ	T	\sqrt{T}	d1	d2
30/11/2004	2750	2850	-0,03572	7,41%	6,0341%	24,56445%	0,249	0,499	0,139345	0,016691
01/12/2004	2725	2850	-0,04485	7,41%	5,9847%	24,46371%	0,244	0,494	0,11944	-0,00136
02/12/2004	2725	2850	-0,04485	7,41%	5,8948%	24,27914%	0,241	0,491	0,11876	-0,00045
03/12/2004	2725	2850	-0,04485	7,41%	5,8074%	24,09863%	0,238	0,488	0,118084	0,00043
06/12/2004	2725	2850	-0,04485	7,43%	5,7266%	23,92205%	0,230	0,480	0,116427	0,001677
07/12/2004	2700	2850	-0,05407	7,43%	5,6783%	23,82912%	0,227	0,477	0,097305	-0,01633
08/12/2004	2700	2850	-0,05407	7,43%	5,5973%	23,65856%	0,225	0,474	0,096603	-0,01553
09/12/2004	2675	2850	-0,06337	7,43%	5,5547%	23,56849%	0,222	0,471	0,077361	-0,03367
10/12/2004	2675	2850	-0,06337	7,43%	5,4773%	23,40367%	0,219	0,468	0,076649	-0,03292
13/12/2004	2625	2850	-0,08224	7,43%	5,5010%	23,45412%	0,211	0,459	0,038317	-0,06941
14/12/2004	2625	2850	-0,08224	7,43%	5,4257%	23,29307%	0,208	0,456	0,037594	-0,0687
15/12/2004	2550	2850	-0,11123	7,43%	5,5420%	23,54136%	0,203	0,450	-0,01763	-0,12363
16/12/2004	2675	2850	-0,06337	7,43%	5,7778%	24,03697%	0,203	0,450	0,07459	-0,03364
17/12/2004	2825	2850	-0,00881	7,43%	6,1052%	24,70880%	0,200	0,447	0,173782	0,063281
20/12/2004	2850	2850	0	7,43%	6,0214%	24,53844%	0,192	0,438	0,186331	0,07887
21/12/2004	2875	2850	0,008734	7,43%	5,9397%	24,37145%	0,189	0,435	0,201115	0,095151
22/12/2004	2900	2850	0,017392	7,43%	5,8601%	24,20771%	0,184	0,428	0,214139	0,110423
23/12/2004	2925	2850	0,025975	7,43%	5,7826%	24,04713%	0,184	0,428	0,230172	0,127144
27/12/2004	2975	2850	0,042925	7,43%	5,7232%	23,92328%	0,184	0,428	0,261186	0,158689
28/12/2004	3025	2850	0,059592	7,43%	5,6641%	23,79931%	0,164	0,405	0,276343	0,179851

29/12/2004	2975	2850	0,042925	7,43%	5,6721%	23,81616%	0,164	0,405	0,247842	0,151282
30/12/2004	2975	2850	0,042925	7,43%	5,6066%	23,67818%	0,164	0,405	0,248726	0,152724
03/01/2005	2950	2850	0,034486	7,42%	5,5683%	23,59731%	0,164	0,405	0,234578	0,138905
04/01/2005	3000	2850	0,051293	7,42%	5,5157%	23,48560%	0,151	0,388	0,253005	0,161838
05/01/2005	3075	2850	0,075986	7,42%	5,4970%	23,44561%	0,148	0,385	0,291477	0,201297
06/01/2005	3075	2850	0,075986	7,42%	5,4369%	23,31707%	0,142	0,377	0,287119	0,199109
07/01/2005	2950	2850	0,034486	7,42%	5,6778%	23,82808%	0,142	0,377	0,217132	0,127194
10/01/2005	2825	2850	-0,00881	7,42%	5,9280%	24,34758%	0,134	0,366	0,143006	0,053797
11/01/2005	2825	2850	-0,00881	7,42%	5,8631%	24,21374%	0,132	0,363	0,141835	0,054027
12/01/2005	2775	2850	-0,02667	7,42%	5,8661%	24,22005%	0,123	0,351	0,111429	0,026387
13/01/2005	2800	2850	-0,0177	7,42%	5,8015%	24,08622%	0,123	0,351	0,124651	0,040079
14/01/2005	2825	2850	-0,00881	7,42%	5,7381%	23,95442%	0,123	0,351	0,137902	0,053793
17/01/2005	2875	2850	0,008734	7,42%	5,6945%	23,86314%	0,115	0,339	0,158365	0,077417
18/01/2005	2850	2850	0	7,42%	5,6568%	23,78406%	0,112	0,335	0,144416	0,064703
19/01/2005	2850	2850	0	7,42%	5,5987%	23,66151%	0,096	0,310	0,133742	0,060471
20/01/2005	2875	2850	0,008734	7,42%	5,5401%	23,53750%	0,096	0,310	0,145552	0,072665
24/01/2005	2875	2850	0,008734	7,42%	5,4845%	23,41891%	0,096	0,310	0,145921	0,073401
25/01/2005	2850	2850	0	7,42%	5,4498%	23,34487%	0,096	0,310	0,134569	0,062279
26/01/2005	2925	2850	0,025975	7,42%	5,4481%	23,34108%	0,085	0,291	0,159088	0,091065
27/01/2005	2950	2850	0,034486	7,42%	5,3933%	23,22340%	0,085	0,291	0,17023	0,10255
28/01/2005	2925	2850	0,025975	7,42%	5,3603%	23,15228%	0,085	0,291	0,159833	0,09236
31/01/2005	2875	2850	0,008734	7,42%	5,3634%	23,15912%	0,077	0,277	0,131256	0,067112
01/02/2005	2925	2850	0,025975	7,42%	5,3281%	23,08258%	0,074	0,272	0,149425	0,086646
02/02/2005	2925	2850	0,025975	7,42%	5,2781%	22,97415%	0,071	0,267	0,147034	0,085717
03/02/2005	2975	2850	0,042925	7,42%	5,2432%	22,89807%	0,058	0,240	0,150153	0,095229
04/02/2005	3000	2850	0,051293	7,42%	5,1936%	22,78946%	0,058	0,240	0,159416	0,104752
07/02/2005	3000	2850	0,051293	7,42%	5,1465%	22,68591%	0,058	0,240	0,159894	0,105479
08/02/2005	3000	2850	0,051293	7,42%	5,1003%	22,58375%	0,055	0,234	0,156507	0,103642
11/02/2005	3000	2850	0,051293	7,42%	5,0548%	22,48296%	0,047	0,216	0,144721	0,0962
14/02/2005	3000	2850	0,051293	7,43%	5,0102%	22,38350%	0,038	0,196	0,131808	0,087971
15/02/2005	3075	2850	0,075986	7,43%	5,0073%	22,37697%	0,036	0,189	0,147864	0,105633
16/02/2005	3150	2850	0,100083	7,43%	5,0011%	22,36314%	0,036	0,189	0,168265	0,126061
17/02/2005	3325	2850	0,154151	7,43%	5,2226%	22,85297%	0,030	0,174	0,193376	0,153704
18/02/2005	3325	2850	0,154151	7,43%	5,1789%	22,75717%	0,030	0,174	0,194024	0,154517
21/02/2005	3300	2850	0,146603	7,43%	5,1505%	22,69474%	0,019	0,138	0,150511	0,119082
22/02/2005	3300	2850	0,146603	7,43%	5,1080%	22,60098%	0,016	0,128	0,139804	0,110827
23/02/2005	3300	2850	0,146603	7,43%	5,0663%	22,50835%	0,016	0,128	0,14026	0,111402
24/02/2005	3350	2850	0,161641	7,43%	5,0318%	22,43163%	0,011	0,105	0,121851	0,098369
25/02/2005	3300	2850	0,146603	7,43%	5,0301%	22,42783%	0,008	0,091	0,099462	0,079129
28/02/2005	3275	2850	0,138999	7,43%	5,0036%	22,36863%	0,003	0,052	0,055766	0,044058

d1 and d2 VALUE of BBCA (E > P) Rp2850

Date	P	E	In (P/E)	Rf	σ^2	σ	T	\sqrt{T}	d1	d2
30/11/2004	2750	2950	-0,0702	7,41%	6,0341%	24,56445%	0,249	0,499	0,069246	-0,05341
01/12/2004	2725	2950	-0,07934	7,41%	5,9847%	24,46371%	0,244	0,494	0,04983	-0,07097
02/12/2004	2725	2950	-0,07934	7,41%	5,8948%	24,27914%	0,241	0,491	0,049016	-0,0702
03/12/2004	2725	2950	-0,07934	7,41%	5,8074%	24,09863%	0,238	0,488	0,048218	-0,06944
06/12/2004	2725	2950	-0,07934	7,43%	5,7226%	23,92205%	0,230	0,480	0,04728	-0,06748

07/12/2004	2700	2950	-0,08855	7,43%	5,6783%	23,82912%	0,227	0,477	0,028292	-0,08534
08/12/2004	2700	2950	-0,08855	7,43%	5,5973%	23,65856%	0,225	0,474	0,027513	-0,08462
09/12/2004	2675	2950	-0,09786	7,43%	5,5547%	23,56849%	0,222	0,471	0,008431	-0,1026
10/12/2004	2675	2950	-0,09786	7,43%	5,4773%	23,40367%	0,219	0,468	0,007663	-0,1019
13/12/2004	2625	2950	-0,11672	7,43%	5,5010%	23,45412%	0,211	0,459	-0,02922	-0,13694
14/12/2004	2625	2950	-0,11672	7,43%	5,4257%	23,29307%	0,208	0,456	-0,02996	-0,13625
15/12/2004	2550	2950	-0,14571	7,43%	5,5420%	23,54136%	0,203	0,450	-0,08359	-0,18959
16/12/2004	2675	2950	-0,09786	7,43%	5,7778%	24,03697%	0,203	0,450	0,00999	-0,09824
17/12/2004	2825	2950	-0,0433	7,43%	6,1052%	24,70880%	0,200	0,447	0,111364	0,000863
20/12/2004	2850	2950	-0,03449	7,43%	6,0214%	24,53844%	0,192	0,438	0,124784	0,017324
21/12/2004	2875	2950	-0,02575	7,43%	5,9397%	24,37145%	0,189	0,435	0,139591	0,033627
22/12/2004	2900	2950	-0,01709	7,43%	5,8601%	24,20771%	0,184	0,428	0,153103	0,049388
23/12/2004	2925	2950	-0,00851	7,43%	5,7826%	24,04713%	0,184	0,428	0,168729	0,065701
27/12/2004	2975	2950	0,008439	7,43%	5,7232%	23,92328%	0,184	0,428	0,199425	0,096928
28/12/2004	3025	2950	0,025106	7,43%	5,6641%	23,79931%	0,164	0,405	0,217593	0,121101
29/12/2004	2975	2950	0,008439	7,43%	5,6721%	23,81616%	0,164	0,405	0,189134	0,092573
30/12/2004	2975	2950	0,008439	7,43%	5,6066%	23,67818%	0,164	0,405	0,189675	0,093673
03/01/2005	2950	2950	0	7,42%	5,5683%	23,59731%	0,164	0,405	0,175325	0,079652
04/01/2005	3000	2950	0,016807	7,42%	5,5157%	23,48560%	0,151	0,388	0,196004	0,104838
05/01/2005	3075	2950	0,0415	7,42%	5,4970%	23,44561%	0,148	0,385	0,234901	0,144721
06/01/2005	3075	2950	0,0415	7,42%	5,4369%	23,31707%	0,142	0,377	0,231294	0,143285
07/01/2005	2950	2950	0	7,42%	5,6778%	23,82808%	0,142	0,377	0,162505	0,072567
10/01/2005	2825	2950	-0,0433	7,42%	5,9280%	24,34758%	0,134	0,366	0,091109	0,001901
11/01/2005	2825	2950	-0,0433	7,42%	5,8631%	24,21374%	0,132	0,363	0,090187	0,002378
12/01/2005	2775	2950	-0,06115	7,42%	5,8661%	24,22005%	0,123	0,351	0,061434	-0,02361
13/01/2005	2800	2950	-0,05219	7,42%	5,8015%	24,08622%	0,123	0,351	0,074378	-0,01019
14/01/2005	2825	2950	-0,0433	7,42%	5,7381%	23,95442%	0,123	0,351	0,087353	0,003243
17/01/2005	2875	2950	-0,02575	7,42%	5,6945%	23,86314%	0,115	0,339	0,109343	0,028395
18/01/2005	2850	2950	-0,03449	7,42%	5,6568%	23,78406%	0,112	0,335	0,09582	0,016106
19/01/2005	2850	2950	-0,03449	7,42%	5,5987%	23,66151%	0,096	0,310	0,088609	0,015339
20/01/2005	2875	2950	-0,02575	7,42%	5,5401%	23,53750%	0,096	0,310	0,100181	0,027295
24/01/2005	2875	2950	-0,02575	7,42%	5,4845%	23,41891%	0,096	0,310	0,100321	0,027801
25/01/2005	2850	2950	-0,03449	7,42%	5,4498%	23,34487%	0,096	0,310	0,088824	0,016534
26/01/2005	2925	2950	-0,00851	7,42%	5,4481%	23,34108%	0,085	0,291	0,116029	0,048006
27/01/2005	2950	2950	0	7,42%	5,3933%	23,22340%	0,085	0,291	0,126953	0,059274
28/01/2005	2925	2950	-0,00851	7,42%	5,3603%	23,15228%	0,085	0,291	0,116423	0,04895
31/01/2005	2875	2950	-0,02575	7,42%	5,3634%	23,15912%	0,077	0,277	0,090012	0,025869
01/02/2005	2925	2950	-0,00851	7,42%	5,3281%	23,08258%	0,074	0,272	0,108791	0,046011
02/02/2005	2925	2950	-0,00851	7,42%	5,2781%	22,97415%	0,071	0,267	0,106971	0,045654
03/02/2005	2975	2950	0,008439	7,42%	5,2432%	22,89807%	0,058	0,240	0,114028	0,059104
04/02/2005	3000	2950	0,016807	7,42%	5,1936%	22,78946%	0,058	0,240	0,123118	0,068455
07/02/2005	3000	2950	0,016807	7,42%	5,1465%	22,68591%	0,058	0,240	0,123431	0,069016
08/02/2005	3000	2950	0,016807	7,42%	5,1003%	22,58375%	0,055	0,234	0,120762	0,067897
11/02/2005	3000	2950	0,016807	7,42%	5,0548%	22,48296%	0,047	0,216	0,111618	0,063097
14/02/2005	3000	2950	0,016807	7,43%	5,0102%	22,38350%	0,038	0,196	0,101634	0,057797
15/02/2005	3075	2950	0,0415	7,43%	5,0073%	22,37697%	0,036	0,189	0,118779	0,076548
16/02/2005	3150	2950	0,065597	7,43%	5,0011%	22,36314%	0,036	0,189	0,139162	0,096958
17/02/2005	3325	2950	0,119665	7,43%	5,2226%	22,85297%	0,030	0,174	0,167179	0,127507
18/02/2005	3325	2950	0,119665	7,43%	5,1789%	22,75717%	0,030	0,174	0,167716	0,12821
21/02/2005	3300	2950	0,112117	7,43%	5,1505%	22,69474%	0,019	0,138	0,129468	0,098039
22/02/2005	3300	2950	0,112117	7,43%	5,1080%	22,60098%	0,016	0,128	0,120241	0,091263
23/02/2005	3300	2950	0,112117	7,43%	5,0663%	22,50835%	0,016	0,128	0,120616	0,091758
24/02/2005	3350	2950	0,127155	7,43%	5,0318%	22,43163%	0,011	0,105	0,105757	0,082275
25/02/2005	3300	2950	0,112117	7,43%	5,0301%	22,42783%	0,008	0,091	0,085522	0,065189
28/02/2005	3275	2950	0,104513	7,43%	5,0036%	22,36863%	0,003	0,052	0,047696	0,035988

d1 and d2 VALUE of BBCA (E < P) Rp2950

Date	P	E	ln (P/E)	Rf	σ^2	σ	T	\sqrt{T}	d1	d2
30/11/2004	2750	2850	-0,03572	7,41%	6,0341%	24,56445%	0,249	0,499	-0,0793	-0,20192
01/12/2004	2725	2850	-0,04485	7,41%	5,9847%	24,46371%	0,244	0,494	-0,1613	-0,28211
02/12/2004	2725	2850	-0,04485	7,41%	5,8948%	24,27914%	0,241	0,491	-0,1668	-0,28597
03/12/2004	2725	2850	-0,04485	7,41%	5,8074%	24,09863%	0,238	0,488	-0,1723	-0,28991

06/12/2004	2725	2850	-0,04485	7,43%	5,7226%	23,92205%	0,230	0,480	-0,1844	-0,2992
07/12/2004	2700	2850	-0,05407	7,43%	5,6783%	23,82912%	0,227	0,477	-0,2703	-0,38394
08/12/2004	2700	2850	-0,05407	7,43%	5,5973%	23,65856%	0,225	0,474	-0,2772	-0,38937
09/12/2004	2675	2850	-0,06337	7,43%	5,5547%	23,56849%	0,222	0,471	-0,3667	-0,47776
10/12/2004	2675	2850	-0,06337	7,43%	5,4773%	23,40367%	0,219	0,468	-0,3749	-0,48452
13/12/2004	2625	2850	-0,08224	7,43%	5,5010%	23,45412%	0,211	0,459	-0,5640	-0,67177
14/12/2004	2625	2850	-0,08224	7,43%	5,4257%	23,29307%	0,208	0,456	-0,5750	-0,68131
15/12/2004	2550	2850	-0,11123	7,43%	5,5420%	23,54136%	0,203	0,450	-0,8542	-0,9602
16/12/2004	2675	2850	-0,06337	7,43%	5,7778%	24,03697%	0,203	0,450	-0,3922	-0,50044
17/12/2004	2825	2850	-0,00881	7,43%	6,1052%	24,70880%	0,200	0,447	0,1100	-0,00051
20/12/2004	2850	2850	0	7,43%	6,0214%	24,53844%	0,192	0,438	0,1863	0,07887
21/12/2004	2875	2850	0,008734	7,43%	5,9397%	24,37145%	0,189	0,435	0,2680	0,161991
22/12/2004	2900	2850	0,017392	7,43%	5,8601%	24,20771%	0,184	0,428	0,3510	0,247329
23/12/2004	2925	2850	0,025975	7,43%	5,7826%	24,04713%	0,184	0,428	0,4360	0,332986
27/12/2004	2975	2850	0,042925	7,43%	5,7232%	23,92328%	0,184	0,428	0,6031	0,500608
28/12/2004	3025	2850	0,059592	7,43%	5,6641%	23,79931%	0,164	0,405	0,7924	0,695913
29/12/2004	2975	2850	0,042925	7,43%	5,6721%	23,81616%	0,164	0,405	0,6193	0,522746
30/12/2004	2975	2850	0,042925	7,43%	5,6066%	23,67818%	0,164	0,405	0,6224	0,526353
03/01/2005	2950	2850	0,034486	7,42%	5,5683%	23,59731%	0,164	0,405	0,5358	0,440109
04/01/2005	3000	2850	0,051293	7,42%	5,5157%	23,48560%	0,151	0,388	0,7309	0,639689
05/01/2005	3075	2850	0,075986	7,42%	5,4970%	23,44561%	0,148	0,385	1,0094	0,919238
06/01/2005	3075	2850	0,075986	7,42%	5,4369%	23,31707%	0,142	0,377	1,0275	0,93949
07/01/2005	2950	2850	0,034486	7,42%	5,6778%	23,82808%	0,142	0,377	0,5459	0,45601
10/01/2005	2825	2850	-0,00881	7,42%	5,9280%	24,34758%	0,134	0,366	0,0575	-0,03171
11/01/2005	2825	2850	-0,00881	7,42%	5,8631%	24,21374%	0,132	0,363	0,0547	-0,03312
12/01/2005	2775	2850	-0,02667	7,42%	5,8661%	24,22005%	0,123	0,351	-0,1635	-0,24854
13/01/2005	2800	2850	-0,0177	7,42%	5,8015%	24,08622%	0,123	0,351	-0,0588	-0,1434
14/01/2005	2825	2850	-0,00881	7,42%	5,7381%	23,95442%	0,123	0,351	0,0461	-0,03804
17/01/2005	2875	2850	0,008734	7,42%	5,6945%	23,86314%	0,115	0,339	0,2538	0,172895
18/01/2005	2850	2850	0	7,42%	5,6568%	23,78406%	0,112	0,335	0,1444	0,064703
19/01/2005	2850	2850	0	7,42%	5,5987%	23,66151%	0,096	0,310	0,1337	0,060471
20/01/2005	2875	2850	0,008734	7,42%	5,5401%	23,53750%	0,096	0,310	0,2539	0,181001
24/01/2005	2875	2850	0,008734	7,42%	5,4845%	23,41891%	0,096	0,310	0,2548	0,182285
25/01/2005	2850	2850	0	7,42%	5,4498%	23,34487%	0,096	0,310	0,1346	0,062279
26/01/2005	2925	2850	0,025975	7,42%	5,4481%	23,34108%	0,085	0,291	0,5085	0,440496
27/01/2005	2950	2850	0,034486	7,42%	5,3933%	23,22340%	0,085	0,291	0,6365	0,568821
28/01/2005	2925	2850	0,025975	7,42%	5,3603%	23,15228%	0,085	0,291	0,5121	0,444641
31/01/2005	2875	2850	0,008734	7,42%	5,3634%	23,15912%	0,077	0,277	0,2570	0,192825
01/02/2005	2925	2850	0,025975	7,42%	5,3281%	23,08258%	0,074	0,272	0,5326	0,469795
02/02/2005	2925	2850	0,025975	7,42%	5,2781%	22,97415%	0,071	0,267	0,5405	0,479168
03/02/2005	2975	2850	0,042925	7,42%	5,2432%	22,89807%	0,058	0,240	0,8867	0,8318
04/02/2005	3000	2850	0,051293	7,42%	5,1936%	22,78946%	0,058	0,240	1,0438	0,989112
07/02/2005	3000	2850	0,051293	7,42%	5,1465%	22,68591%	0,058	0,240	1,0483	0,993876
08/02/2005	3000	2850	0,051293	7,42%	5,1003%	22,58375%	0,055	0,234	1,0736	1,020754
11/02/2005	3000	2850	0,051293	7,42%	5,0548%	22,48296%	0,047	0,216	1,1526	1,104095
14/02/2005	3000	2850	0,051293	7,43%	5,0102%	22,38350%	0,038	0,196	1,2570	1,21317
15/02/2005	3075	2850	0,075986	7,43%	5,0073%	22,37697%	0,036	0,189	1,8831	1,84086
16/02/2005	3150	2850	0,100083	7,43%	5,0011%	22,36314%	0,036	0,189	2,4552	2,412997
17/02/2005	3325	2850	0,154151	7,43%	5,2226%	22,85297%	0,030	0,174	3,9618	3,922158
18/02/2005	3325	2850	0,154151	7,43%	5,1789%	22,75717%	0,030	0,174	3,9783	3,938835
21/02/2005	3300	2850	0,146603	7,43%	5,1505%	22,69474%	0,019	0,138	4,7257	4,694245
22/02/2005	3300	2850	0,146603	7,43%	5,1080%	22,60098%	0,016	0,128	5,1159	5,086931
23/02/2005	3300	2850	0,146603	7,43%	5,0663%	22,50835%	0,016	0,128	5,1368	5,107983
24/02/2005	3350	2850	0,161641	7,43%	5,0318%	22,43163%	0,011	0,105	6,9299	6,906412
25/02/2005	3300	2850	0,146603	7,43%	5,0301%	22,42783%	0,008	0,091	7,2503	7,229993
28/02/2005	3275	2850	0,138999	7,43%	5,0036%	22,36863%	0,003	0,052	11,8951	11,88338

d1 and d2 VALUE of BBCA (E = P) Rp2950

Date	P	E	In (P/E)	Rf	σ^2	σ	T	\sqrt{T}	d1	d2
30/11/2004	2750	2950	-0,0702	7,41%	6,0341%	24,56445%	0,249	0,499	0,069246	-0,05341
01/12/2004	2725	2950	-0,07934	7,41%	5,9847%	24,46371%	0,244	0,494	0,04983	-0,07097
02/12/2004	2725	2950	-0,07934	7,41%	5,8948%	24,27914%	0,241	0,491	0,049016	-0,0702

03/12/2004	2725	2950	-0,07934	7,41%	5,8074%	24,09863%	0,238	0,488	0,048218	-0,06944
06/12/2004	2725	2950	-0,07934	7,43%	5,7226%	23,92205%	0,230	0,480	0,04728	-0,06748
07/12/2004	2700	2950	-0,08855	7,43%	5,6783%	23,82912%	0,227	0,477	0,028292	-0,08534
08/12/2004	2700	2950	-0,08855	7,43%	5,5973%	23,65856%	0,225	0,474	0,027513	-0,08462
09/12/2004	2675	2950	-0,09786	7,43%	5,5547%	23,56849%	0,222	0,471	0,008431	-0,1026
10/12/2004	2675	2950	-0,09786	7,43%	5,4773%	23,40367%	0,219	0,468	0,007663	-0,1019
13/12/2004	2625	2950	-0,11672	7,43%	5,5010%	23,45412%	0,211	0,459	-0,02922	-0,13694
14/12/2004	2625	2950	-0,11672	7,43%	5,4257%	23,29307%	0,208	0,456	-0,02996	-0,13625
15/12/2004	2550	2950	-0,14571	7,43%	5,5420%	23,54136%	0,203	0,450	-0,08359	-0,18959
16/12/2004	2675	2950	-0,09786	7,43%	5,7778%	24,03697%	0,203	0,450	0,00999	-0,09824
17/12/2004	2825	2950	-0,0433	7,43%	6,1052%	24,70880%	0,200	0,447	0,111364	0,000863
20/12/2004	2850	2950	-0,03449	7,43%	6,0214%	24,53844%	0,192	0,438	0,124784	0,017324
21/12/2004	2875	2950	-0,02575	7,43%	5,9397%	24,37145%	0,189	0,435	0,139591	0,033627
22/12/2004	2900	2950	-0,01709	7,43%	5,8601%	24,20771%	0,184	0,428	0,153103	0,049388
23/12/2004	2925	2950	-0,00851	7,43%	5,826%	24,04713%	0,184	0,428	0,168729	0,065701
27/12/2004	2975	2950	0,008439	7,43%	5,7232%	23,92328%	0,184	0,428	0,199425	0,096928
28/12/2004	3025	2950	0,025106	7,43%	5,6641%	23,79931%	0,164	0,405	0,217593	0,121101
29/12/2004	2975	2950	0,008439	7,43%	5,6721%	23,81616%	0,164	0,405	0,189134	0,092573
30/12/2004	2975	2950	0,008439	7,43%	5,6066%	23,67818%	0,164	0,405	0,189675	0,093673
03/01/2005	2950	2950	0	7,42%	5,5683%	23,59731%	0,164	0,405	0,175325	0,079652
04/01/2005	3000	2950	0,016807	7,42%	5,5157%	23,48560%	0,151	0,388	0,196004	0,104838
05/01/2005	3075	2950	0,0415	7,42%	5,4970%	23,44561%	0,148	0,385	0,234901	0,144721
06/01/2005	3075	2950	0,0415	7,42%	5,4369%	23,31707%	0,142	0,377	0,231294	0,143285
07/01/2005	2950	2950	0	7,42%	5,6778%	23,82808%	0,142	0,377	0,162505	0,072567
10/01/2005	2825	2950	-0,0433	7,42%	5,9280%	24,34758%	0,134	0,366	0,091109	0,001901
11/01/2005	2825	2950	-0,0433	7,42%	5,8631%	24,21374%	0,132	0,363	0,090187	0,002378
12/01/2005	2775	2950	-0,06115	7,42%	5,8661%	24,22005%	0,123	0,351	0,061434	-0,02361
13/01/2005	2800	2950	-0,05219	7,42%	5,8015%	24,08622%	0,123	0,351	0,074378	-0,01019
14/01/2005	2825	2950	-0,0433	7,42%	5,7381%	23,95442%	0,123	0,351	0,087353	0,003243
17/01/2005	2875	2950	-0,02575	7,42%	5,6945%	23,86314%	0,115	0,339	0,109343	0,028395
18/01/2005	2850	2950	-0,03449	7,42%	5,6568%	23,78406%	0,112	0,335	0,09582	0,016106
19/01/2005	2850	2950	-0,03449	7,42%	5,5987%	23,66151%	0,096	0,310	0,088609	0,015339
20/01/2005	2875	2950	-0,02575	7,42%	5,5401%	23,53750%	0,096	0,310	0,100181	0,027295
24/01/2005	2875	2950	-0,02575	7,42%	5,4845%	23,41891%	0,096	0,310	0,100321	0,027801
25/01/2005	2850	2950	-0,03449	7,42%	5,4498%	23,34487%	0,096	0,310	0,088824	0,016534
26/01/2005	2925	2950	-0,00851	7,42%	5,4481%	23,34108%	0,085	0,291	0,116029	0,048006
27/01/2005	2950	2950	0	7,42%	5,3933%	23,22340%	0,085	0,291	0,126953	0,059274
28/01/2005	2925	2950	-0,00851	7,42%	5,3603%	23,15228%	0,085	0,291	0,116423	0,04895
31/01/2005	2875	2950	-0,02575	7,42%	5,3634%	23,15912%	0,077	0,277	0,090012	0,025869
01/02/2005	2925	2950	-0,00851	7,42%	5,3281%	23,08258%	0,074	0,272	0,108791	0,046011
02/02/2005	2925	2950	-0,00851	7,42%	5,2781%	22,97415%	0,071	0,267	0,106971	0,045654
03/02/2005	2975	2950	0,008439	7,42%	5,2432%	22,89807%	0,058	0,240	0,114028	0,059104
04/02/2005	3000	2950	0,016807	7,42%	5,1936%	22,78946%	0,058	0,240	0,123118	0,068455
07/02/2005	3000	2950	0,016807	7,42%	5,1465%	22,68591%	0,058	0,240	0,123431	0,069016
08/02/2005	3000	2950	0,016807	7,42%	5,1003%	22,58375%	0,055	0,234	0,120762	0,067897
11/02/2005	3000	2950	0,016807	7,42%	5,0548%	22,48296%	0,047	0,216	0,111618	0,063097
14/02/2005	3000	2950	0,016807	7,43%	5,0102%	22,38350%	0,038	0,196	0,101634	0,057797
15/02/2005	3075	2950	0,0415	7,43%	5,0073%	22,37697%	0,036	0,189	0,118779	0,076548
16/02/2005	3150	2950	0,065597	7,43%	5,0011%	22,36314%	0,036	0,189	0,139162	0,096958
17/02/2005	3325	2950	0,119665	7,43%	5,2226%	22,85297%	0,030	0,174	0,167179	0,127507
18/02/2005	3325	2950	0,119665	7,43%	5,1789%	22,75717%	0,030	0,174	0,167716	0,12821
21/02/2005	3300	2950	0,112117	7,43%	5,1505%	22,69474%	0,019	0,138	0,129468	0,098039
22/02/2005	3300	2950	0,112117	7,43%	5,1080%	22,60098%	0,016	0,128	0,120241	0,091263
23/02/2005	3300	2950	0,112117	7,43%	5,0663%	22,50835%	0,016	0,128	0,120616	0,091758
24/02/2005	3350	2950	0,127155	7,43%	5,0318%	22,43163%	0,011	0,105	0,105757	0,082275
25/02/2005	3300	2950	0,112117	7,43%	5,0301%	22,42783%	0,008	0,091	0,085522	0,065189
28/02/2005	3275	2950	0,104513	7,43%	5,0036%	22,36863%	0,003	0,052	0,047696	0,035988

d1 and d2 VALUE of BBCA (E > P) Rp2950

Date	P	E	ln (P/E)	Rf	σ^2	σ	T	\sqrt{T}	d1	d2
30/11/2004	2750	3050	-0,10354	7,41%	6,0341%	24,56445%	0,249	0,499	0,001484	-0,12117

01/12/2004	2725	3050	-0,11267	7,41%	5,9847%	24,46371%	0,244	0,494	-0,01746	-0,13826
02/12/2004	2725	3050	-0,11267	7,41%	5,8948%	24,27914%	0,241	0,491	-0,0184	-0,13762
03/12/2004	2725	3050	-0,11267	7,41%	5,8074%	24,09863%	0,238	0,488	-0,01932	-0,13697
06/12/2004	2725	3050	-0,11267	7,43%	5,7226%	23,92205%	0,230	0,480	-0,01957	-0,13433
07/12/2004	2700	3050	-0,12189	7,43%	5,6783%	23,82912%	0,227	0,477	-0,03842	-0,15205
08/12/2004	2700	3050	-0,12189	7,43%	5,5973%	23,65856%	0,225	0,474	-0,03927	-0,15141
09/12/2004	2675	3050	-0,13119	7,43%	5,5547%	23,56849%	0,222	0,471	-0,0582	-0,16923
10/12/2004	2675	3050	-0,13119	7,43%	5,4773%	23,40367%	0,219	0,468	-0,05902	-0,16859
13/12/2004	2625	3050	-0,15006	7,43%	5,5010%	23,45412%	0,211	0,459	-0,0945	-0,20223
14/12/2004	2625	3050	-0,15006	7,43%	5,4257%	23,29307%	0,208	0,456	-0,09527	-0,20156
15/12/2004	2550	3050	-0,17905	7,43%	5,5420%	23,54136%	0,203	0,450	-0,14735	-0,25335
16/12/2004	2675	3050	-0,13119	7,43%	5,7778%	24,03697%	0,203	0,450	-0,05246	-0,16069
17/12/2004	2825	3050	-0,07663	7,43%	6,1052%	24,70880%	0,200	0,447	0,051028	-0,05947
20/12/2004	2850	3050	-0,06782	7,43%	6,0214%	24,53844%	0,192	0,438	0,06529	-0,04217
21/12/2004	2875	3050	-0,05909	7,43%	5,9397%	24,37145%	0,189	0,435	0,080119	-0,02585
22/12/2004	2900	3050	-0,05043	7,43%	5,8601%	24,20771%	0,184	0,428	0,094103	-0,00961
23/12/2004	2925	3050	-0,04185	7,43%	5,7826%	24,04713%	0,184	0,428	0,109334	0,006307
27/12/2004	2975	3050	-0,0249	7,43%	5,7232%	23,92328%	0,184	0,428	0,139723	0,037226
28/12/2004	3025	3050	-0,00823	7,43%	5,6641%	23,79931%	0,164	0,405	0,160802	0,064309
29/12/2004	2975	3050	-0,0249	7,43%	5,6721%	23,81616%	0,164	0,405	0,132382	0,035821
30/12/2004	2975	3050	-0,0249	7,43%	5,6066%	23,67818%	0,164	0,405	0,132593	0,036591
03/01/2005	2950	3050	-0,03334	7,42%	5,5683%	23,59731%	0,164	0,405	0,118047	0,022374
04/01/2005	3000	3050	-0,01653	7,42%	5,5157%	23,48560%	0,151	0,388	0,140904	0,049738
05/01/2005	3075	3050	0,008163	7,42%	5,4970%	23,44561%	0,148	0,385	0,180211	0,090031
06/01/2005	3075	3050	0,008163	7,42%	5,4369%	23,31707%	0,142	0,377	0,177331	0,089321
07/01/2005	2950	3050	-0,03334	7,42%	5,6778%	23,82808%	0,142	0,377	0,109699	0,01976
10/01/2005	2825	3050	-0,07663	7,42%	5,9280%	24,34758%	0,134	0,366	0,040943	-0,04827
11/01/2005	2825	3050	-0,07663	7,42%	5,8631%	24,21374%	0,132	0,363	0,04026	-0,04755
12/01/2005	2775	3050	-0,09449	7,42%	5,8661%	24,22005%	0,123	0,351	0,013105	-0,07194
13/01/2005	2800	3050	-0,08552	7,42%	5,8015%	24,08622%	0,123	0,351	0,025781	-0,05879
14/01/2005	2825	3050	-0,07663	7,42%	5,7381%	23,95442%	0,123	0,351	0,038488	-0,04562
17/01/2005	2875	3050	-0,05909	7,42%	5,6945%	23,86314%	0,115	0,339	0,061955	-0,01899
18/01/2005	2850	3050	-0,06782	7,42%	5,6568%	23,78406%	0,112	0,335	0,048843	-0,03087
19/01/2005	2850	3050	-0,06782	7,42%	5,5987%	23,66151%	0,096	0,310	0,044982	-0,02829
20/01/2005	2875	3050	-0,05909	7,42%	5,5401%	23,53750%	0,096	0,310	0,056324	-0,01656
24/01/2005	2875	3050	-0,05909	7,42%	5,4845%	23,41891%	0,096	0,310	0,056241	-0,01628
25/01/2005	2850	3050	-0,06782	7,42%	5,4498%	23,34487%	0,096	0,310	0,044604	-0,02769
26/01/2005	2925	3050	-0,04185	7,42%	5,4481%	23,34108%	0,085	0,291	0,074406	0,006383
27/01/2005	2950	3050	-0,03334	7,42%	5,3933%	23,22340%	0,085	0,291	0,08512	0,01744
28/01/2005	2925	3050	-0,04185	7,42%	5,3603%	23,15228%	0,085	0,291	0,074461	0,006988
31/01/2005	2875	3050	-0,05909	7,42%	5,3634%	23,15912%	0,077	0,277	0,050144	-0,014
01/02/2005	2925	3050	-0,04185	7,42%	5,3281%	23,08258%	0,074	0,272	0,069511	0,006731
02/02/2005	2925	3050	-0,04185	7,42%	5,2781%	22,97415%	0,071	0,267	0,068243	0,006927
03/02/2005	2975	3050	-0,0249	7,42%	5,2432%	22,89807%	0,058	0,240	0,079108	0,024184
04/02/2005	3000	3050	-0,01653	7,42%	5,1936%	22,78946%	0,058	0,240	0,088031	0,033368
07/02/2005	3000	3050	-0,01653	7,42%	5,1465%	22,68591%	0,058	0,240	0,088184	0,033769
08/02/2005	3000	3050	-0,01653	7,42%	5,1003%	22,58375%	0,055	0,234	0,086208	0,033344
11/02/2005	3000	3050	-0,01653	7,42%	5,0548%	22,48296%	0,047	0,216	0,079619	0,031097

14/02/2005	3000	3050	-0,01653	7,43%	5,0102%	22,38350%	0,038	0,196	0,072466	0,028628
15/02/2005	3075	3050	0,008163	7,43%	5,0073%	22,37697%	0,036	0,189	0,090663	0,048433
16/02/2005	3150	3050	0,032261	7,43%	5,0011%	22,36314%	0,036	0,189	0,111029	0,068825
17/02/2005	3325	3050	0,086328	7,43%	5,2226%	22,85297%	0,030	0,174	0,141856	0,102183
18/02/2005	3325	3050	0,086328	7,43%	5,1789%	22,75717%	0,030	0,174	0,142286	0,10278
21/02/2005	3300	3050	0,078781	7,43%	5,1505%	22,69474%	0,019	0,138	0,109125	0,077697
22/02/2005	3300	3050	0,078781	7,43%	5,1080%	22,60098%	0,016	0,128	0,101329	0,072352
23/02/2005	3300	3050	0,078781	7,43%	5,0663%	22,50835%	0,016	0,128	0,101627	0,072769
24/02/2005	3350	3050	0,093819	7,43%	5,0318%	22,43163%	0,011	0,105	0,0902	0,066717
25/02/2005	3300	3050	0,078781	7,43%	5,0301%	22,42783%	0,008	0,091	0,072046	0,051713
28/02/2005	3275	3050	0,071176	7,43%	5,0036%	22,36863%	0,003	0,052	0,039895	0,028187

d1 and d2 VALUE of BBCA (E < P) Rp3050

Date	P	E	In (P/E)	Rf	σ^2	σ	T	\sqrt{T}	d1	d2
30/11/2004	2750	2950	-0,0702	7,41%	6,0341%	24,56445%	0,249	0,499	-0,3604	-0,48308
01/12/2004	2725	2950	-0,07934	7,41%	5,9847%	24,46371%	0,244	0,494	-0,4468	-0,56759
02/12/2004	2725	2950	-0,07934	7,41%	5,8948%	24,27914%	0,241	0,491	-0,4560	-0,57525
03/12/2004	2725	2950	-0,07934	7,41%	5,8074%	24,09863%	0,238	0,488	-0,4654	-0,58303
06/12/2004	2725	2950	-0,07934	7,43%	5,7226%	23,92205%	0,230	0,480	-0,4849	-0,59971
07/12/2004	2700	2950	-0,08855	7,43%	5,6783%	23,82912%	0,227	0,477	-0,5738	-0,68743
08/12/2004	2700	2950	-0,08855	7,43%	5,5973%	23,65856%	0,225	0,474	-0,5848	-0,6969
09/12/2004	2675	2950	-0,09786	7,43%	5,5547%	23,56849%	0,222	0,471	-0,6773	-0,78838
10/12/2004	2675	2950	-0,09786	7,43%	5,4773%	23,40367%	0,219	0,468	-0,6897	-0,79926
13/12/2004	2625	2950	-0,11672	7,43%	5,5010%	23,45412%	0,211	0,459	-0,8842	-0,9919
14/12/2004	2625	2950	-0,11672	7,43%	5,4257%	23,29307%	0,208	0,456	-0,8995	-1,00577
15/12/2004	2550	2950	-0,14571	7,43%	5,5420%	23,54136%	0,203	0,450	-1,1795	-1,28554
16/12/2004	2675	2950	-0,09786	7,43%	5,7778%	24,03697%	0,203	0,450	-0,7108	-0,81908
17/12/2004	2825	2950	-0,0433	7,43%	6,1052%	24,70880%	0,200	0,447	-0,2021	-0,31259
20/12/2004	2850	2950	-0,03449	7,43%	6,0214%	24,53844%	0,192	0,438	-0,1346	-0,24205
21/12/2004	2875	2950	-0,02575	7,43%	5,9397%	24,37145%	0,189	0,435	-0,0575	-0,16346
22/12/2004	2900	2950	-0,01709	7,43%	5,8601%	24,20771%	0,184	0,428	0,0185	-0,08518
23/12/2004	2925	2950	-0,00851	7,43%	5,7826%	24,04713%	0,184	0,428	0,1013	-0,00174
27/12/2004	2975	2950	0,008439	7,43%	5,7232%	23,92328%	0,184	0,428	0,2666	0,164148
28/12/2004	3025	2950	0,025106	7,43%	5,6641%	23,79931%	0,164	0,405	0,4350	0,338516
29/12/2004	2975	2950	0,008439	7,43%	5,6721%	23,81616%	0,164	0,405	0,2622	0,165601
30/12/2004	2975	2950	0,008439	7,43%	5,6066%	23,67818%	0,164	0,405	0,2631	0,167127
03/01/2005	2950	2950	0	7,42%	5,5683%	23,59731%	0,164	0,405	0,1753	0,079652
04/01/2005	3000	2950	0,016807	7,42%	5,5157%	23,48560%	0,151	0,388	0,3526	0,261414
05/01/2005	3075	2950	0,0415	7,42%	5,4970%	23,44561%	0,148	0,385	0,6270	0,536824
06/01/2005	3075	2950	0,0415	7,42%	5,4369%	23,31707%	0,142	0,377	0,6357	0,547644
07/01/2005	2950	2950	0	7,42%	5,6778%	23,82808%	0,142	0,377	0,1625	0,072567
10/01/2005	2825	2950	-0,0433	7,42%	5,9280%	24,34758%	0,134	0,366	-0,3291	-0,41829
11/01/2005	2825	2950	-0,0433	7,42%	5,8631%	24,21374%	0,132	0,363	-0,3381	-0,42586
12/01/2005	2775	2950	-0,06115	7,42%	5,8661%	24,22005%	0,123	0,351	-0,5690	-0,65406
13/01/2005	2800	2950	-0,05219	7,42%	5,8015%	24,08622%	0,123	0,351	-0,4666	-0,55117
14/01/2005	2825	2950	-0,0433	7,42%	5,7381%	23,95442%	0,123	0,351	-0,3639	-0,44806
17/01/2005	2875	2950	-0,02575	7,42%	5,6945%	23,86314%	0,115	0,339	-0,1722	-0,25313
18/01/2005	2850	2950	-0,03449	7,42%	5,6568%	23,78406%	0,112	0,335	-0,2882	-0,36792
19/01/2005	2850	2950	-0,03449	7,42%	5,5987%	23,66151%	0,096	0,310	-0,3369	-0,4102
20/01/2005	2875	2950	-0,02575	7,42%	5,5401%	23,53750%	0,096	0,310	-0,2193	-0,29215
24/01/2005	2875	2950	-0,02575	7,42%	5,4845%	23,41891%	0,096	0,310	-0,2207	-0,29326
25/01/2005	2850	2950	-0,03449	7,42%	5,4498%	23,34487%	0,096	0,310	-0,3425	-0,41477
26/01/2005	2925	2950	-0,00851	7,42%	5,4481%	23,34108%	0,085	0,291	0,0015	-0,06648
27/01/2005	2950	2950	0	7,42%	5,3933%	23,22340%	0,085	0,291	0,1270	0,059274
28/01/2005	2925	2950	-0,00851	7,42%	5,3603%	23,15228%	0,085	0,291	0,0010	-0,06647
31/01/2005	2875	2950	-0,02575	7,42%	5,3634%	23,15912%	0,077	0,277	-0,2807	-0,34481
01/02/2005	2925	2950	-0,00851	7,42%	5,3281%	23,08258%	0,074	0,272	-0,0167	-0,07953

02/02/2005	2925	2950	-0,00851	7,42%	5,2781%	22,97415%	0,071	0,267	-0,0219	-0,08326
03/02/2005	2975	2950	0,008439	7,42%	5,2432%	22,89807%	0,058	0,240	0,2588	0,203911
04/02/2005	3000	2950	0,016807	7,42%	5,1936%	22,78946%	0,058	0,240	0,4129	0,35823
07/02/2005	3000	2950	0,016807	7,42%	5,1465%	22,68591%	0,058	0,240	0,4145	0,360114
08/02/2005	3000	2950	0,016807	7,42%	5,1003%	22,58375%	0,055	0,234	0,4213	0,368404
11/02/2005	3000	2950	0,016807	7,42%	5,0548%	22,48296%	0,047	0,216	0,4419	0,393351
14/02/2005	3000	2950	0,016807	7,43%	5,0102%	22,38350%	0,038	0,196	0,4703	0,426487
15/02/2005	3075	2950	0,0415	7,43%	5,0073%	22,37697%	0,036	0,189	1,0665	1,024243
16/02/2005	3150	2950	0,065597	7,43%	5,0011%	22,36314%	0,036	0,189	1,6381	1,595875
17/02/2005	3325	2950	0,119665	7,43%	5,2226%	22,85297%	0,030	0,174	3,0926	3,052893
18/02/2005	3325	2950	0,119665	7,43%	5,1789%	22,75717%	0,030	0,174	3,1054	3,065911
21/02/2005	3300	2950	0,112117	7,43%	5,1505%	22,69474%	0,019	0,138	3,6284	3,596966
22/02/2005	3300	2950	0,112117	7,43%	5,1080%	22,60098%	0,016	0,128	3,9258	3,896817
23/02/2005	3300	2950	0,112117	7,43%	5,0663%	22,50835%	0,016	0,128	3,9418	3,912971
24/02/2005	3350	2950	0,127155	7,43%	5,0318%	22,43163%	0,011	0,105	5,4613	5,437822
25/02/2005	3300	2950	0,112117	7,43%	5,0301%	22,42783%	0,008	0,091	5,5543	5,533924
28/02/2005	3275	2950	0,104513	7,43%	5,0036%	22,36863%	0,003	0,052	8,9496	8,937927

d1 and d2 VALUE of BBKA (E = P) Rp3050

Date	P	E	In (P/E)	Rf	σ^2	σ	T	\sqrt{T}	d1	d2
30/11/2004	2750	3050	-0,10354	7,41%	6,0341%	24,56445%	0,249	0,499	0,001484	-0,12117
01/12/2004	2725	3050	-0,11267	7,41%	5,9847%	24,46371%	0,244	0,494	-0,01746	-0,13826
02/12/2004	2725	3050	-0,11267	7,41%	5,8948%	24,27914%	0,241	0,491	-0,0184	-0,13762
03/12/2004	2725	3050	-0,11267	7,41%	5,8074%	24,09863%	0,238	0,488	-0,01932	-0,13697
06/12/2004	2725	3050	-0,11267	7,43%	5,7226%	23,92205%	0,230	0,480	-0,01957	-0,13433
07/12/2004	2700	3050	-0,12189	7,43%	5,6783%	23,82912%	0,227	0,477	-0,03842	-0,15205
08/12/2004	2700	3050	-0,12189	7,43%	5,5973%	23,65856%	0,225	0,474	-0,03927	-0,15141
09/12/2004	2675	3050	-0,13119	7,43%	5,5547%	23,56849%	0,222	0,471	-0,0582	-0,16923
10/12/2004	2675	3050	-0,13119	7,43%	5,4773%	23,40367%	0,219	0,468	-0,05902	-0,16859
13/12/2004	2625	3050	-0,15006	7,43%	5,5010%	23,45412%	0,211	0,459	-0,0945	-0,20223
14/12/2004	2625	3050	-0,15006	7,43%	5,4257%	23,29307%	0,208	0,456	-0,09527	-0,20156
15/12/2004	2550	3050	-0,17905	7,43%	5,5420%	23,54136%	0,203	0,450	-0,14735	-0,25335
16/12/2004	2675	3050	-0,13119	7,43%	5,7778%	24,03697%	0,203	0,450	-0,05246	-0,16069
17/12/2004	2825	3050	-0,07663	7,43%	6,1052%	24,70880%	0,200	0,447	0,051028	-0,05947
20/12/2004	2850	3050	-0,06782	7,43%	6,0214%	24,53844%	0,192	0,438	0,06529	-0,04217
21/12/2004	2875	3050	-0,05909	7,43%	5,9397%	24,37145%	0,189	0,435	0,080119	-0,02585
22/12/2004	2900	3050	-0,05043	7,43%	5,8601%	24,20771%	0,184	0,428	0,094103	-0,00961
23/12/2004	2925	3050	-0,04185	7,43%	5,7826%	24,04713%	0,184	0,428	0,109334	0,006307
27/12/2004	2975	3050	-0,0249	7,43%	5,7232%	23,92328%	0,184	0,428	0,139723	0,037226
28/12/2004	3025	3050	-0,00823	7,43%	5,6641%	23,79931%	0,164	0,405	0,160802	0,064309
29/12/2004	2975	3050	-0,0249	7,43%	5,6721%	23,81616%	0,164	0,405	0,132382	0,035821
30/12/2004	2975	3050	-0,0249	7,43%	5,6066%	23,67818%	0,164	0,405	0,132593	0,036591
03/01/2005	2950	3050	-0,03334	7,42%	5,5683%	23,59731%	0,164	0,405	0,118047	0,022374
04/01/2005	3000	3050	-0,01653	7,42%	5,5157%	23,48560%	0,151	0,388	0,140904	0,049738
05/01/2005	3075	3050	0,008163	7,42%	5,4970%	23,44561%	0,148	0,385	0,180211	0,090031
06/01/2005	3075	3050	0,008163	7,42%	5,4369%	23,31707%	0,142	0,377	0,177331	0,089321
07/01/2005	2950	3050	-0,03334	7,42%	5,6778%	23,82808%	0,142	0,377	0,109699	0,01976
10/01/2005	2825	3050	-0,07663	7,42%	5,9280%	24,34758%	0,134	0,366	0,040943	-0,04827
11/01/2005	2825	3050	-0,07663	7,42%	5,8631%	24,21374%	0,132	0,363	0,04026	-0,04755
12/01/2005	2775	3050	-0,09449	7,42%	5,8661%	24,22005%	0,123	0,351	0,013105	-0,07194
13/01/2005	2800	3050	-0,08552	7,42%	5,8015%	24,08622%	0,123	0,351	0,025781	-0,05879

14/01/2005	2825	3050	-0,07663	7,42%	5,7381%	23,95442%	0,123	0,351	0,038488	-0,04562
17/01/2005	2875	3050	-0,05909	7,42%	5,6945%	23,86314%	0,115	0,339	0,061955	-0,01899
18/01/2005	2850	3050	-0,06782	7,42%	5,6568%	23,78406%	0,112	0,335	0,048843	-0,03087
19/01/2005	2850	3050	-0,06782	7,42%	5,5987%	23,66151%	0,096	0,310	0,044982	-0,02829
20/01/2005	2875	3050	-0,05909	7,42%	5,5401%	23,53750%	0,096	0,310	0,056324	-0,01656
24/01/2005	2875	3050	-0,05909	7,42%	5,4845%	23,41891%	0,096	0,310	0,056241	-0,01628
25/01/2005	2850	3050	-0,06782	7,42%	5,4498%	23,34487%	0,096	0,310	0,044604	-0,02769
26/01/2005	2925	3050	-0,04185	7,42%	5,4481%	23,34108%	0,085	0,291	0,074406	0,006383
27/01/2005	2950	3050	-0,03334	7,42%	5,3933%	23,22340%	0,085	0,291	0,08512	0,01744
28/01/2005	2925	3050	-0,04185	7,42%	5,3603%	23,15228%	0,085	0,291	0,074461	0,006988
31/01/2005	2875	3050	-0,05909	7,42%	5,3634%	23,15912%	0,077	0,277	0,050144	-0,014
01/02/2005	2925	3050	-0,04185	7,42%	5,3281%	23,08258%	0,074	0,272	0,069511	0,006731
02/02/2005	2925	3050	-0,04185	7,42%	5,2781%	22,97415%	0,071	0,267	0,068243	0,006927
03/02/2005	2975	3050	-0,0249	7,42%	5,2432%	22,89807%	0,058	0,240	0,079108	0,024184
04/02/2005	3000	3050	-0,01653	7,42%	5,1936%	22,78946%	0,058	0,240	0,088031	0,033368
07/02/2005	3000	3050	-0,01653	7,42%	5,1465%	22,68591%	0,058	0,240	0,088184	0,033769
08/02/2005	3000	3050	-0,01653	7,42%	5,1003%	22,58375%	0,055	0,234	0,086208	0,033344
11/02/2005	3000	3050	-0,01653	7,42%	5,0548%	22,48296%	0,047	0,216	0,079619	0,031097
14/02/2005	3000	3050	-0,01653	7,43%	5,0102%	22,38350%	0,038	0,196	0,072466	0,028628
15/02/2005	3075	3050	0,008163	7,43%	5,0073%	22,37697%	0,036	0,189	0,090663	0,048433
16/02/2005	3150	3050	0,032261	7,43%	5,0011%	22,36314%	0,036	0,189	0,111029	0,068825
17/02/2005	3325	3050	0,086328	7,43%	5,2226%	22,85297%	0,030	0,174	0,141856	0,102183
18/02/2005	3325	3050	0,086328	7,43%	5,1789%	22,75717%	0,030	0,174	0,142286	0,10278
21/02/2005	3300	3050	0,078781	7,43%	5,1505%	22,69474%	0,019	0,138	0,109125	0,077697
22/02/2005	3300	3050	0,078781	7,43%	5,1080%	22,60098%	0,016	0,128	0,101329	0,072352
23/02/2005	3300	3050	0,078781	7,43%	5,0663%	22,50835%	0,016	0,128	0,101627	0,072769
24/02/2005	3350	3050	0,093819	7,43%	5,0318%	22,43163%	0,011	0,105	0,0902	0,066717
25/02/2005	3300	3050	0,078781	7,43%	5,0301%	22,42783%	0,008	0,091	0,072046	0,051713
28/02/2005	3275	3050	0,071176	7,43%	5,0036%	22,36863%	0,003	0,052	0,039895	0,028187

d1 and d2 VALUE of BBKA (E > P) Rp3050

Date	P	E	In (P/E)	Rf	σ^2	σ	T	\sqrt{T}	d1	d2
30/11/2004	2750	3150	-0,1358	7,41%	6,0341%	24,56445%	0,249	0,499	-0,06409	-0,18675
01/12/2004	2725	3150	-0,14493	7,41%	5,9847%	24,46371%	0,244	0,494	-0,08258	-0,20338
02/12/2004	2725	3150	-0,14493	7,41%	5,8948%	24,27914%	0,241	0,491	-0,08365	-0,20286
03/12/2004	2725	3150	-0,14493	7,41%	5,8074%	24,09863%	0,238	0,488	-0,08468	-0,20233
06/12/2004	2725	3150	-0,14493	7,43%	5,7226%	23,92205%	0,230	0,480	-0,08427	-0,19903
07/12/2004	2700	3150	-0,15415	7,43%	5,6783%	23,82912%	0,227	0,477	-0,10298	-0,21661
08/12/2004	2700	3150	-0,15415	7,43%	5,5973%	23,65856%	0,225	0,474	-0,10391	-0,21604
09/12/2004	2675	3150	-0,16345	7,43%	5,5547%	23,56849%	0,222	0,471	-0,12268	-0,23371
10/12/2004	2675	3150	-0,16345	7,43%	5,4773%	23,40367%	0,219	0,468	-0,12356	-0,23312
13/12/2004	2625	3150	-0,18232	7,43%	5,5010%	23,45412%	0,211	0,459	-0,15768	-0,2654
14/12/2004	2625	3150	-0,18232	7,43%	5,4257%	23,29307%	0,208	0,456	-0,15847	-0,26476
15/12/2004	2550	3150	-0,21131	7,43%	5,5420%	23,54136%	0,203	0,450	-0,20905	-0,31505
16/12/2004	2675	3150	-0,16345	7,43%	5,7778%	24,03697%	0,203	0,450	-0,11289	-0,22112
17/12/2004	2825	3150	-0,10889	7,43%	6,1052%	24,70880%	0,200	0,447	-0,00736	-0,11786
20/12/2004	2850	3150	-0,10008	7,43%	6,0214%	24,53844%	0,192	0,438	0,007716	-0,09975
21/12/2004	2875	3150	-0,09135	7,43%	5,9397%	24,37145%	0,189	0,435	0,022565	-0,0834
22/12/2004	2900	3150	-0,08269	7,43%	5,8601%	24,20771%	0,184	0,428	0,037006	-0,06671
23/12/2004	2925	3150	-0,07411	7,43%	5,7826%	24,04713%	0,184	0,428	0,051856	-0,05117
27/12/2004	2975	3150	-0,05716	7,43%	5,7232%	23,92328%	0,184	0,428	0,081947	-0,02055
28/12/2004	3025	3150	-0,04049	7,43%	5,6641%	23,79931%	0,164	0,405	0,105842	0,00935

29/12/2004	2975	3150	-0,05716	7,43%	5,6721%	23,81616%	0,164	0,405	0,077462	-0,0191
30/12/2004	2975	3150	-0,05716	7,43%	5,6066%	23,67818%	0,164	0,405	0,077352	-0,01865
03/01/2005	2950	3150	-0,0656	7,42%	5,5683%	23,59731%	0,164	0,405	0,062618	-0,03306
04/01/2005	3000	3150	-0,04879	7,42%	5,5157%	23,48560%	0,151	0,388	0,087582	-0,00358
05/01/2005	3075	3150	-0,0241	7,42%	5,4970%	23,44561%	0,148	0,385	0,127286	0,037105
06/01/2005	3075	3150	-0,0241	7,42%	5,4369%	23,31707%	0,142	0,377	0,125108	0,037099
07/01/2005	2950	3150	-0,0656	7,42%	5,6778%	23,82808%	0,142	0,377	0,058596	-0,03134
10/01/2005	2825	3150	-0,10889	7,42%	5,9280%	24,34758%	0,134	0,366	-0,00761	-0,09681
11/01/2005	2825	3150	-0,10889	7,42%	5,8631%	24,21374%	0,132	0,363	-0,00806	-0,09586
12/01/2005	2775	3150	-0,12675	7,42%	5,8661%	24,22005%	0,123	0,351	-0,03366	-0,11871
13/01/2005	2800	3150	-0,11778	7,42%	5,8015%	24,08622%	0,123	0,351	-0,02125	-0,10582
14/01/2005	2825	3150	-0,10889	7,42%	5,7381%	23,95442%	0,123	0,351	-0,0088	-0,09291
17/01/2005	2875	3150	-0,09135	7,42%	5,6945%	23,86314%	0,115	0,339	0,016095	-0,06485
18/01/2005	2850	3150	-0,10008	7,42%	5,6568%	23,78406%	0,112	0,335	0,003383	-0,07633
19/01/2005	2850	3150	-0,10008	7,42%	5,5987%	23,66151%	0,096	0,310	0,002761	-0,07051
20/01/2005	2875	3150	-0,09135	7,42%	5,5401%	23,53750%	0,096	0,310	0,013881	-0,05901
24/01/2005	2875	3150	-0,09135	7,42%	5,4845%	23,41891%	0,096	0,310	0,013583	-0,05894
25/01/2005	2850	3150	-0,10008	7,42%	5,4498%	23,34487%	0,096	0,310	0,001812	-0,07048
26/01/2005	2925	3150	-0,07411	7,42%	5,4481%	23,34108%	0,085	0,291	0,034126	-0,0339
27/01/2005	2950	3150	-0,0656	7,42%	5,3933%	23,22340%	0,085	0,291	0,044636	-0,02304
28/01/2005	2925	3150	-0,07411	7,42%	5,3603%	23,15228%	0,085	0,291	0,033852	-0,03362
31/01/2005	2875	3150	-0,09135	7,42%	5,3634%	23,15912%	0,077	0,277	0,011562	-0,05258
01/02/2005	2925	3150	-0,07411	7,42%	5,3281%	23,08258%	0,074	0,272	0,031498	-0,03128
02/02/2005	2925	3150	-0,07411	7,42%	5,2781%	22,97415%	0,071	0,267	0,030765	-0,03055
03/02/2005	2975	3150	-0,05716	7,42%	5,2432%	22,89807%	0,058	0,240	0,045313	-0,00961
04/02/2005	3000	3150	-0,04879	7,42%	5,1936%	22,78946%	0,058	0,240	0,054076	-0,00059
07/02/2005	3000	3150	-0,04879	7,42%	5,1465%	22,68591%	0,058	0,240	0,054074	-0,00034
08/02/2005	3000	3150	-0,04879	7,42%	5,1003%	22,58375%	0,055	0,234	0,05277	-9,5E-05
11/02/2005	3000	3150	-0,04879	7,42%	5,0548%	22,48296%	0,047	0,216	0,048651	0,00013
14/02/2005	3000	3150	-0,04879	7,43%	5,0102%	22,38350%	0,038	0,196	0,044239	0,000401
15/02/2005	3075	3150	-0,0241	7,43%	5,0073%	22,37697%	0,036	0,189	0,063455	0,021225
16/02/2005	3150	3150	0	7,43%	5,0011%	22,36314%	0,036	0,189	0,083804	0,0416
17/02/2005	3325	3150	0,054067	7,43%	5,2226%	22,85297%	0,030	0,174	0,117349	0,077676
18/02/2005	3325	3150	0,054067	7,43%	5,1789%	22,75717%	0,030	0,174	0,117676	0,07817
21/02/2005	3300	3150	0,04652	7,43%	5,1505%	22,69474%	0,019	0,138	0,08944	0,058011
22/02/2005	3300	3150	0,04652	7,43%	5,1080%	22,60098%	0,016	0,128	0,083028	0,054051
23/02/2005	3300	3150	0,04652	7,43%	5,0663%	22,50835%	0,016	0,128	0,083251	0,054392
24/02/2005	3350	3150	0,061558	7,43%	5,0318%	22,43163%	0,011	0,105	0,075144	0,051661
25/02/2005	3300	3150	0,04652	7,43%	5,0301%	22,42783%	0,008	0,091	0,059005	0,038672
28/02/2005	3275	3150	0,038915	7,43%	5,0036%	22,36863%	0,003	0,052	0,032346	0,020638

d1 and d2 VALUE of BBCA (E < P) Rp3250

Date	P	E	In (P/E)	Rf	σ^2	σ	T	\sqrt{T}	d1	d2
30/11/2004	2750	3150	-0,1358	7,41%	6,0341%	24,56445%	0,249	0,499	-0,8952	-1,0179
01/12/2004	2725	3150	-0,14493	7,41%	5,9847%	24,46371%	0,244	0,494	-0,9898	-1,1106
02/12/2004	2725	3150	-0,14493	7,41%	5,8948%	24,27914%	0,241	0,491	-1,0063	-1,12549
03/12/2004	2725	3150	-0,14493	7,41%	5,8074%	24,09863%	0,238	0,488	-1,0229	-1,14058
06/12/2004	2725	3150	-0,14493	7,43%	5,7226%	23,92205%	0,230	0,480	-1,0565	-1,17131
07/12/2004	2700	3150	-0,15415	7,43%	5,6783%	23,82912%	0,227	0,477	-1,1511	-1,26471
08/12/2004	2700	3150	-0,15415	7,43%	5,5973%	23,65856%	0,225	0,474	-1,1697	-1,28188
09/12/2004	2675	3150	-0,16345	7,43%	5,5547%	23,56849%	0,222	0,471	-1,2682	-1,3792
10/12/2004	2675	3150	-0,16345	7,43%	5,4773%	23,40367%	0,219	0,468	-1,2884	-1,39795
13/12/2004	2625	3150	-0,18232	7,43%	5,5010%	23,45412%	0,211	0,459	-1,4931	-1,60083
14/12/2004	2625	3150	-0,18232	7,43%	5,4257%	23,29307%	0,208	0,456	-1,5166	-1,62293
15/12/2004	2550	3150	-0,21131	7,43%	5,5420%	23,54136%	0,203	0,450	-1,7984	-1,90439
16/12/2004	2675	3150	-0,16345	7,43%	5,7778%	24,03697%	0,203	0,450	-1,3169	-1,42517
17/12/2004	2825	3150	-0,10889	7,43%	6,1052%	24,70880%	0,200	0,447	-0,7957	-0,90623
20/12/2004	2850	3150	-0,10008	7,43%	6,0214%	24,53844%	0,192	0,438	-0,7450	-0,85248
21/12/2004	2875	3150	-0,09135	7,43%	5,9397%	24,37145%	0,189	0,435	-0,6765	-0,78251
22/12/2004	2900	3150	-0,08269	7,43%	5,8601%	24,20771%	0,184	0,428	-0,6139	-0,71765

23/12/2004	2925	3150	-0,07411	7,43%	5,7826%	24,04713%	0,184	0,428	-0,5354	-0,63844
27/12/2004	2975	3150	-0,05716	7,43%	5,7232%	23,92328%	0,184	0,428	-0,3733	-0,47584
28/12/2004	3025	3150	-0,04049	7,43%	5,6641%	23,79931%	0,164	0,405	-0,2448	-0,3413
29/12/2004	2975	3150	-0,05716	7,43%	5,6721%	23,81616%	0,164	0,405	-0,4172	-0,51374
30/12/2004	2975	3150	-0,05716	7,43%	5,6066%	23,67818%	0,164	0,405	-0,4202	-0,51617
03/01/2005	2950	3150	-0,0656	7,42%	5,5683%	23,59731%	0,164	0,405	-0,5103	-0,60599
04/01/2005	3000	3150	-0,04879	7,42%	5,5157%	23,48560%	0,151	0,388	-0,3670	-0,45812
05/01/2005	3075	3150	-0,0241	7,42%	5,4970%	23,44561%	0,148	0,385	-0,1004	-0,19058
06/01/2005	3075	3150	-0,0241	7,42%	5,4369%	23,31707%	0,142	0,377	-0,1097	-0,1977
07/01/2005	2950	3150	-0,0656	7,42%	5,6778%	23,82808%	0,142	0,377	-0,5669	-0,65679
10/01/2005	2825	3150	-0,10889	7,42%	5,9280%	24,34758%	0,134	0,366	-1,0644	-1,15361
11/01/2005	2825	3150	-0,10889	7,42%	5,8631%	24,21374%	0,132	0,363	-1,0851	-1,17291
12/01/2005	2775	3150	-0,12675	7,42%	5,8661%	24,22005%	0,123	0,351	-1,3404	-1,42541
13/01/2005	2800	3150	-0,11778	7,42%	5,8015%	24,08622%	0,123	0,351	-1,2422	-1,32681
14/01/2005	2825	3150	-0,10889	7,42%	5,781%	23,95442%	0,123	0,351	-1,1439	-1,22796
17/01/2005	2875	3150	-0,09135	7,42%	5,6945%	23,86314%	0,115	0,339	-0,9826	-1,0635
18/01/2005	2850	3150	-0,10008	7,42%	5,6568%	23,78406%	0,112	0,335	-1,1111	-1,19084
19/01/2005	2850	3150	-0,10008	7,42%	5,5987%	23,66151%	0,096	0,310	-1,2322	-1,30547
20/01/2005	2875	3150	-0,09135	7,42%	5,5401%	23,53750%	0,096	0,310	-1,1193	-1,19214
24/01/2005	2875	3150	-0,09135	7,42%	5,4845%	23,41891%	0,096	0,310	-1,1253	-1,19781
25/01/2005	2850	3150	-0,10008	7,42%	5,4498%	23,34487%	0,096	0,310	-1,2499	-1,32219
26/01/2005	2925	3150	-0,07411	7,42%	5,4481%	23,34108%	0,085	0,291	-0,9628	-1,03082
27/01/2005	2950	3150	-0,0656	7,42%	5,3933%	23,22340%	0,085	0,291	-0,8423	-0,90995
28/01/2005	2925	3150	-0,07411	7,42%	5,3603%	23,15228%	0,085	0,291	-0,9712	-1,03868
31/01/2005	2875	3150	-0,09135	7,42%	5,3634%	23,15912%	0,077	0,277	-1,3033	-1,36747
01/02/2005	2925	3150	-0,07411	7,42%	5,3281%	23,08258%	0,074	0,272	-1,0616	-1,1244
02/02/2005	2925	3150	-0,07411	7,42%	5,2781%	22,97415%	0,071	0,267	-1,0917	-1,15307
03/02/2005	2975	3150	-0,05716	7,42%	5,2432%	22,89807%	0,058	0,240	-0,9355	-0,99042
04/02/2005	3000	3150	-0,04879	7,42%	5,1936%	22,78946%	0,058	0,240	-0,7871	-0,84179
07/02/2005	3000	3150	-0,04879	7,42%	5,1465%	22,68591%	0,058	0,240	-0,7910	-0,84538
08/02/2005	3000	3150	-0,04879	7,42%	5,1003%	22,58375%	0,055	0,234	-0,8196	-0,87245
11/02/2005	3000	3150	-0,04879	7,42%	5,0548%	22,48296%	0,047	0,216	-0,9101	-0,95858
14/02/2005	3000	3150	-0,04879	7,43%	5,0102%	22,38350%	0,038	0,196	-1,0260	-1,06989
15/02/2005	3075	3150	-0,0241	7,43%	5,0073%	22,37697%	0,036	0,189	-0,4868	-0,52907
16/02/2005	3150	3150	0	7,43%	5,0011%	22,36314%	0,036	0,189	0,0838	0,0416
17/02/2005	3325	3150	0,054067	7,43%	5,2226%	22,85297%	0,030	0,174	1,4391	1,399434
18/02/2005	3325	3150	0,054067	7,43%	5,1789%	22,75717%	0,030	0,174	1,4450	1,405492
21/02/2005	3300	3150	0,04652	7,43%	5,1505%	22,69474%	0,019	0,138	1,5412	1,509795
22/02/2005	3300	3150	0,04652	7,43%	5,1080%	22,60098%	0,016	0,128	1,6620	1,633062
23/02/2005	3300	3150	0,04652	7,43%	5,0663%	22,50835%	0,016	0,128	1,6688	1,639901
24/02/2005	3350	3150	0,061558	7,43%	5,0318%	22,43163%	0,011	0,105	2,6679	2,644369
25/02/2005	3300	3150	0,04652	7,43%	5,0301%	22,42783%	0,008	0,091	2,3281	2,307775
28/02/2005	3275	3150	0,038915	7,43%	5,0036%	22,36863%	0,003	0,052	3,3470	3,335285

d1 and d2 VALUE of BBCA (E = P) Rp3250

Date	P	E	In (P/E)	Rf	σ^2	σ	T	\sqrt{T}	d1	d2
30/11/2004	2750	3250	-0,16705	7,41%	6,0341%	24,56445%	0,249	0,499	-0,12762	-0,25027
01/12/2004	2725	3250	-0,17619	7,41%	5,9847%	24,46371%	0,244	0,494	-0,14566	-0,26646
02/12/2004	2725	3250	-0,17619	7,41%	5,8948%	24,27914%	0,241	0,491	-0,14685	-0,26606
03/12/2004	2725	3250	-0,17619	7,41%	5,8074%	24,09863%	0,238	0,488	-0,14799	-0,26565
06/12/2004	2725	3250	-0,17619	7,43%	5,7226%	23,92205%	0,230	0,480	-0,14694	-0,2617
07/12/2004	2700	3250	-0,1854	7,43%	5,6783%	23,82912%	0,227	0,477	-0,16552	-0,27915
08/12/2004	2700	3250	-0,1854	7,43%	5,5973%	23,65856%	0,225	0,474	-0,16652	-0,27865
09/12/2004	2675	3250	-0,19471	7,43%	5,5547%	23,56849%	0,222	0,471	-0,18515	-0,29618
10/12/2004	2675	3250	-0,19471	7,43%	5,4773%	23,40367%	0,219	0,468	-0,18607	-0,29564
13/12/2004	2625	3250	-0,21357	7,43%	5,5010%	23,45412%	0,211	0,459	-0,21888	-0,3266
14/12/2004	2625	3250	-0,21357	7,43%	5,4257%	23,29307%	0,208	0,456	-0,21969	-0,32598

15/12/2004	2550	3250	-0,24256	7,43%	5,5420%	23,54136%	0,203	0,450	-0,26883	-0,37483
16/12/2004	2675	3250	-0,19471	7,43%	5,7778%	24,03697%	0,203	0,450	-0,17143	-0,27966
17/12/2004	2825	3250	-0,14015	7,43%	6,1052%	24,70880%	0,200	0,447	-0,06393	-0,17443
20/12/2004	2850	3250	-0,13134	7,43%	6,0214%	24,53844%	0,192	0,438	-0,04806	-0,15552
21/12/2004	2875	3250	-0,1226	7,43%	5,9397%	24,37145%	0,189	0,435	-0,03319	-0,13915
22/12/2004	2900	3250	-0,11394	7,43%	5,8601%	24,20771%	0,184	0,428	-0,01831	-0,12202
23/12/2004	2925	3250	-0,10536	7,43%	5,7826%	24,04713%	0,184	0,428	-0,00383	-0,10685
27/12/2004	2975	3250	-0,08841	7,43%	5,7232%	23,92328%	0,184	0,428	0,02598	-0,07652
28/12/2004	3025	3250	-0,07174	7,43%	5,6641%	23,79931%	0,164	0,405	0,0526	-0,04389
29/12/2004	2975	3250	-0,08841	7,43%	5,6721%	23,81616%	0,164	0,405	0,02426	-0,0723
30/12/2004	2975	3250	-0,08841	7,43%	5,6066%	23,67818%	0,164	0,405	0,02384	-0,07216
03/01/2005	2950	3250	-0,09685	7,42%	5,5683%	23,59731%	0,164	0,405	0,00892	-0,08675
04/01/2005	3000	3250	-0,08004	7,42%	5,5157%	23,48560%	0,151	0,388	0,03593	-0,05524
05/01/2005	3075	3250	-0,05535	7,42%	5,4970%	23,44561%	0,148	0,385	0,07601	-0,01417
06/01/2005	3075	3250	-0,05535	7,42%	5,4369%	23,31707%	0,142	0,377	0,07452	-0,01349
07/01/2005	2950	3250	-0,09685	7,42%	5,6778%	23,82808%	0,142	0,377	0,00909	-0,08085
10/01/2005	2825	3250	-0,14015	7,42%	5,9280%	24,34758%	0,134	0,366	-0,05464	-0,14384
11/01/2005	2825	3250	-0,14015	7,42%	5,8631%	24,21374%	0,132	0,363	-0,05486	-0,14267
12/01/2005	2775	3250	-0,158	7,42%	5,8661%	24,22005%	0,123	0,351	-0,07897	-0,16401
13/01/2005	2800	3250	-0,14904	7,42%	5,8015%	24,08622%	0,123	0,351	-0,06681	-0,15138
14/01/2005	2825	3250	-0,14015	7,42%	5,7381%	23,95442%	0,123	0,351	-0,05461	-0,13872
17/01/2005	2875	3250	-0,1226	7,42%	5,6945%	23,86314%	0,115	0,339	-0,02833	-0,10928
18/01/2005	2850	3250	-0,13134	7,42%	5,6568%	23,78406%	0,112	0,335	-0,04066	-0,12037
19/01/2005	2850	3250	-0,13134	7,42%	5,5987%	23,66151%	0,096	0,310	-0,03814	-0,11141
20/01/2005	2875	3250	-0,1226	7,42%	5,5401%	23,53750%	0,096	0,310	-0,02724	-0,10012
24/01/2005	2875	3250	-0,1226	7,42%	5,4845%	23,41891%	0,096	0,310	-0,02774	-0,10026
25/01/2005	2850	3250	-0,13134	7,42%	5,4498%	23,34487%	0,096	0,310	-0,03964	-0,11193
26/01/2005	2925	3250	-0,10536	7,42%	5,4481%	23,34108%	0,085	0,291	-0,00489	-0,07292
27/01/2005	2950	3250	-0,09685	7,42%	5,3933%	23,22340%	0,085	0,291	0,00542	-0,06226
28/01/2005	2925	3250	-0,10536	7,42%	5,3603%	23,15228%	0,085	0,291	-0,00549	-0,07296
31/01/2005	2875	3250	-0,1226	7,42%	5,3634%	23,15912%	0,077	0,277	-0,02581	-0,08996
01/02/2005	2925	3250	-0,10536	7,42%	5,3281%	23,08258%	0,074	0,272	-0,00533	-0,06811
02/02/2005	2925	3250	-0,10536	7,42%	5,2781%	22,97415%	0,071	0,267	-0,00554	-0,06686
03/02/2005	2975	3250	-0,08841	7,42%	5,2432%	22,89807%	0,058	0,240	0,01258	-0,04235
04/02/2005	3000	3250	-0,08004	7,42%	5,1936%	22,78946%	0,058	0,240	0,02118	-0,03348
07/02/2005	3000	3250	-0,08004	7,42%	5,1465%	22,68591%	0,058	0,240	0,02103	-0,03339
08/02/2005	3000	3250	-0,08004	7,42%	5,1003%	22,58375%	0,055	0,234	0,02038	-0,03249
11/02/2005	3000	3250	-0,08004	7,42%	5,0548%	22,48296%	0,047	0,216	0,01865	-0,02987
14/02/2005	3000	3250	-0,08004	7,43%	5,0102%	22,38350%	0,038	0,196	0,01689	-0,02694
15/02/2005	3075	3250	-0,05535	7,43%	5,0073%	22,37697%	0,036	0,189	0,0371	-0,00513
16/02/2005	3150	3250	-0,03125	7,43%	5,0011%	22,36314%	0,036	0,189	0,05743	0,01523
17/02/2005	3325	3250	0,02281	7,43%	5,2226%	22,85297%	0,030	0,174	0,09361	0,05394
18/02/2005	3325	3250	0,02281	7,43%	5,1789%	22,75717%	0,030	0,174	0,09384	0,05433
21/02/2005	3300	3250	0,01527	7,43%	5,1505%	22,69474%	0,019	0,138	0,07037	0,03894
22/02/2005	3300	3250	0,01527	7,43%	5,1080%	22,60098%	0,016	0,128	0,0653	0,03632
23/02/2005	3300	3250	0,01527	7,43%	5,0663%	22,50835%	0,016	0,128	0,06545	0,03659
24/02/2005	3350	3250	0,03031	7,43%	5,0318%	22,43163%	0,011	0,105	0,06056	0,03708

25/02/2005	3300	3250	0,01527	7,43%	5,0301%	22,42783%	0,008	0,091	0,04637	0,02604
28/02/2005	3275	3250	0,00766	7,43%	5,0036%	22,36863%	0,003	0,052	0,02503	0,01333

d1 and d2 VALUE of BBKA (E > P) Rp3250

Date	P	E	In (P/E)	Rf	σ^2	σ	T	\sqrt{T}	d1	d2
30/11/2004	2750	3350	-0,19736	7,41%	6,0341%	24,56445%	0,249	0,499	-0,18922	-0,31187
01/12/2004	2725	3350	-0,20649	7,41%	5,9847%	24,46371%	0,244	0,494	-0,20683	-0,32763
02/12/2004	2725	3350	-0,20649	7,41%	5,8948%	24,27914%	0,241	0,491	-0,20814	-0,32735
03/12/2004	2725	3350	-0,20649	7,41%	5,8074%	24,09863%	0,238	0,488	-0,20939	-0,32704
06/12/2004	2725	3350	-0,20649	7,43%	5,7226%	23,92205%	0,230	0,480	-0,20771	-0,32247
07/12/2004	2700	3350	-0,21571	7,43%	5,6783%	23,82912%	0,227	0,477	-0,22617	-0,3398
08/12/2004	2700	3350	-0,21571	7,43%	5,5973%	23,65856%	0,225	0,474	-0,22723	-0,33937
09/12/2004	2675	3350	-0,22501	7,43%	5,5547%	23,56849%	0,222	0,471	-0,24572	-0,35675
10/12/2004	2675	3350	-0,22501	7,43%	5,4773%	23,40367%	0,219	0,468	-0,2467	-0,35626
13/12/2004	2625	3350	-0,24388	7,43%	5,5010%	23,45412%	0,211	0,459	-0,27823	-0,38595
14/12/2004	2625	3350	-0,24388	7,43%	5,4257%	23,29307%	0,208	0,456	-0,27906	-0,38535
15/12/2004	2550	3350	-0,27287	7,43%	5,5420%	23,54136%	0,203	0,450	-0,32679	-0,43279
16/12/2004	2675	3350	-0,22501	7,43%	5,7778%	24,03697%	0,203	0,450	-0,2282	-0,33643
17/12/2004	2825	3350	-0,17045	7,43%	6,1052%	24,70880%	0,200	0,447	-0,11878	-0,22928
20/12/2004	2850	3350	-0,16164	7,43%	6,0214%	24,53844%	0,192	0,438	-0,10214	-0,2096
21/12/2004	2875	3350	-0,15291	7,43%	5,9397%	24,37145%	0,189	0,435	-0,08725	-0,19322
22/12/2004	2900	3350	-0,14425	7,43%	5,8601%	24,20771%	0,184	0,428	-0,07194	-0,17566
23/12/2004	2925	3350	-0,13567	7,43%	5,7826%	24,04713%	0,184	0,428	-0,05782	-0,16085
27/12/2004	2975	3350	-0,11872	7,43%	5,7232%	23,92328%	0,184	0,428	-0,0283	-0,13079
28/12/2004	3025	3350	-0,10205	7,43%	5,6641%	23,79931%	0,164	0,405	0,000973	-0,09552
29/12/2004	2975	3350	-0,11872	7,43%	5,6721%	23,81616%	0,164	0,405	-0,02733	-0,12389
30/12/2004	2975	3350	-0,11872	7,43%	5,6066%	23,67818%	0,164	0,405	-0,02805	-0,12405
03/01/2005	2950	3350	-0,12716	7,42%	5,5683%	23,59731%	0,164	0,405	-0,04315	-0,13882
04/01/2005	3000	3350	-0,11035	7,42%	5,5157%	23,48560%	0,151	0,388	-0,01416	-0,10533
05/01/2005	3075	3350	-0,08566	7,42%	5,4970%	23,44561%	0,148	0,385	0,026297	-0,06388
06/01/2005	3075	3350	-0,08566	7,42%	5,4369%	23,31707%	0,142	0,377	0,025461	-0,06255
07/01/2005	2950	3350	-0,12716	7,42%	5,6778%	23,82808%	0,142	0,377	-0,03891	-0,12885
10/01/2005	2825	3350	-0,17045	7,42%	5,9280%	24,34758%	0,134	0,366	-0,10024	-0,18945
11/01/2005	2825	3350	-0,17045	7,42%	5,8631%	24,21374%	0,132	0,363	-0,10025	-0,18806
12/01/2005	2775	3350	-0,18831	7,42%	5,8661%	24,22005%	0,123	0,351	-0,12291	-0,20795
13/01/2005	2800	3350	-0,17934	7,42%	5,8015%	24,08622%	0,122	0,351	-0,11099	-0,19556
14/01/2005	2825	3350	-0,17045	7,42%	5,7381%	23,95442%	0,123	0,351	-0,09903	-0,18314
17/01/2005	2875	3350	-0,15291	7,42%	5,6945%	23,86314%	0,115	0,339	-0,07141	-0,15236
18/01/2005	2850	3350	-0,16164	7,42%	5,6568%	23,78406%	0,112	0,335	-0,08336	-0,16308
19/01/2005	2850	3350	-0,16164	7,42%	5,5987%	23,66151%	0,096	0,310	-0,0778	-0,15107
20/01/2005	2875	3350	-0,15291	7,42%	5,5401%	23,53750%	0,096	0,310	-0,06711	-0,13999
24/01/2005	2875	3350	-0,15291	7,42%	5,4845%	23,41891%	0,096	0,310	-0,06781	-0,14033
25/01/2005	2850	3350	-0,16164	7,42%	5,4498%	23,34487%	0,096	0,310	-0,07984	-0,15213
26/01/2005	2925	3350	-0,13567	7,42%	5,4481%	23,34108%	0,085	0,291	-0,04273	-0,11076
27/01/2005	2950	3350	-0,12716	7,42%	5,3933%	23,22340%	0,085	0,291	-0,03261	-0,10029
28/01/2005	2925	3350	-0,13567	7,42%	5,3603%	23,15228%	0,085	0,291	-0,04363	-0,11111
31/01/2005	2875	3350	-0,15291	7,42%	5,3634%	23,15912%	0,077	0,277	-0,06206	-0,1262
01/02/2005	2925	3350	-0,13567	7,42%	5,3281%	23,08258%	0,074	0,272	-0,04103	-0,10381
02/02/2005	2925	3350	-0,13567	7,42%	5,2781%	22,97415%	0,071	0,267	-0,04075	-0,10206
03/02/2005	2975	3350	-0,11872	7,42%	5,2432%	22,89807%	0,058	0,240	-0,01917	-0,07409
04/02/2005	3000	3350	-0,11035	7,42%	5,1936%	22,78946%	0,058	0,240	-0,01071	-0,06538
07/02/2005	3000	3350	-0,11035	7,42%	5,1465%	22,68591%	0,058	0,240	-0,01101	-0,06543
08/02/2005	3000	3350	-0,11035	7,42%	5,1003%	22,58375%	0,055	0,234	-0,01104	-0,0639
11/02/2005	3000	3350	-0,11035	7,42%	5,0548%	22,48296%	0,047	0,216	-0,01044	-0,05896
14/02/2005	3000	3350	-0,11035	7,43%	5,0102%	22,38350%	0,038	0,196	-0,00962	-0,05346
15/02/2005	3075	3350	-0,08566	7,43%	5,0073%	22,37697%	0,036	0,189	0,011538	-0,03069
16/02/2005	3150	3350	-0,06156	7,43%	5,0011%	22,36314%	0,036	0,189	0,031855	-0,01035
17/02/2005	3325	3350	-0,00749	7,43%	5,2226%	22,85297%	0,030	0,174	0,070587	0,030915
18/02/2005	3325	3350	-0,00749	7,43%	5,1789%	22,75717%	0,030	0,174	0,070718	0,031211
21/02/2005	3300	3350	-0,01504	7,43%	5,1505%	22,69474%	0,019	0,138	0,051877	0,020448

22/02/2005	3300	3350	-0,01504	7,43%	5,1080%	22,60098%	0,016	0,128	0,048107	0,01913
23/02/2005	3300	3350	-0,01504	7,43%	5,0663%	22,50835%	0,016	0,128	0,048186	0,019328
24/02/2005	3350	3350	0	7,43%	5,0318%	22,43163%	0,011	0,105	0,046416	0,022933
25/02/2005	3300	3350	-0,01504	7,43%	5,0301%	22,42783%	0,008	0,091	0,034122	0,013789
28/02/2005	3275	3350	-0,02264	7,43%	5,0036%	22,36863%	0,003	0,052	0,017942	0,006234

d1 and d2 VALUE of HMSP (E < P) Rp7550

Date	P	E	ln (P/E)	Rf	σ^2	σ	T	\sqrt{T}	d1	d2
30/11/2004	6750	7350	-0,08516	7,41%	5,8430%	24,17232%	0,25	0,499	-0,4921	-0,61284
01/12/2004	6900	7350	-0,06318	7,41%	5,8063%	24,09632%	0,244	0,494	-0,3196	-0,43862
02/12/2004	7050	7350	-0,04167	7,41%	5,7657%	24,01185%	0,241	0,491	-0,1430	-0,26088
03/12/2004	6900	7350	-0,06318	7,41%	5,7989%	24,08087%	0,238	0,488	-0,3284	-0,44594
06/12/2004	6850	7350	-0,07045	7,43%	5,7304%	23,93830%	0,230	0,480	-0,4072	-0,52201
07/12/2004	6800	7350	-0,07778	7,43%	5,6636%	23,79830%	0,227	0,477	-0,4797	-0,59322
08/12/2004	6650	7350	-0,10008	7,43%	5,6969%	23,86817%	0,225	0,474	-0,6806	-0,79369
09/12/2004	6700	7350	-0,09259	7,43%	5,6119%	23,68944%	0,222	0,471	-0,6262	-0,73776
10/12/2004	6750	7350	-0,08516	7,43%	5,5293%	23,51451%	0,219	0,468	-0,5706	-0,68067
13/12/2004	6400	7350	-0,1384	7,43%	5,9751%	24,44399%	0,211	0,459	-1,0370	-1,14927
14/12/2004	6150	7350	-0,17825	7,43%	6,1840%	24,86773%	0,208	0,456	-1,3778	-1,49123
15/12/2004	6250	7350	-0,16212	7,43%	6,1268%	24,73243%	0,203	0,450	-1,2637	-1,37518
16/12/2004	6450	7350	-0,13062	7,43%	6,1820%	24,86366%	0,203	0,450	-0,9762	-1,08817
17/12/2004	6750	7350	-0,08516	7,43%	6,4025%	25,30308%	0,200	0,447	-0,5647	-0,67781
20/12/2004	6550	7350	-0,11524	7,43%	6,4884%	25,47234%	0,192	0,438	-0,8495	-0,96107
21/12/2004	6500	7350	-0,1229	7,43%	6,4174%	25,33263%	0,189	0,435	-0,9332	-1,04335
22/12/2004	6600	7350	-0,10763	7,43%	6,3549%	25,20900%	0,184	0,428	-0,8162	-0,92425
23/12/2004	6600	7350	-0,10763	7,43%	6,2716%	25,04324%	0,184	0,428	-0,8224	-0,92966
27/12/2004	6700	7350	-0,09259	7,43%	6,2114%	24,92267%	0,184	0,428	-0,6860	-0,79281
28/12/2004	6700	7350	-0,09259	7,43%	6,1322%	24,76334%	0,164	0,405	-0,7504	-0,85078
29/12/2004	6750	7350	-0,08516	7,43%	6,0564%	24,60971%	0,164	0,405	-0,6812	-0,78095
30/12/2004	6650	7350	-0,10008	7,43%	6,0269%	24,54975%	0,164	0,405	-0,8330	-0,93257
03/01/2005	6600	7350	-0,10763	7,42%	5,9674%	24,42818%	0,164	0,405	-0,9140	-1,01308
04/01/2005	6900	7350	-0,06318	7,42%	6,1521%	24,80341%	0,151	0,388	-0,4919	-0,5882
05/01/2005	6950	7350	-0,05596	7,42%	6,0792%	24,65606%	0,148	0,385	-0,4269	-0,52172
06/01/2005	7100	7350	-0,03461	7,42%	6,0519%	24,60069%	0,142	0,377	-0,2124	-0,30527
07/01/2005	6900	7350	-0,06318	7,42%	6,1183%	24,73521%	0,142	0,377	-0,5168	-0,61016
10/01/2005	7000	7350	-0,04879	7,42%	6,0636%	24,62430%	0,134	0,366	-0,3853	-0,47548
11/01/2005	6900	7350	-0,06318	7,42%	6,0347%	24,56572%	0,132	0,363	-0,5551	-0,64421
12/01/2005	6900	7350	-0,06318	7,42%	5,9667%	24,42682%	0,123	0,351	-0,5871	-0,67285
13/01/2005	6900	7350	-0,06318	7,42%	5,9002%	24,29024%	0,123	0,351	-0,5909	-0,67615
14/01/2005	6850	7350	-0,07045	7,42%	5,8477%	24,18197%	0,123	0,351	-0,6795	-0,76445
17/01/2005	6900	7350	-0,06318	7,42%	5,7851%	24,05227%	0,115	0,339	-0,6289	-0,7105
18/01/2005	6700	7350	-0,09259	7,42%	5,8514%	24,18958%	0,112	0,335	-0,9988	-1,07983
19/01/2005	6800	7350	-0,07778	7,42%	5,8067%	24,09700%	0,096	0,310	-0,9097	-0,98429
20/01/2005	6800	7350	-0,07778	7,42%	5,7452%	23,96911%	0,096	0,310	-0,9149	-0,98914
24/01/2005	7050	7350	-0,04167	7,42%	5,8263%	24,13765%	0,096	0,310	-0,4250	-0,49971
25/01/2005	7050	7350	-0,04167	7,42%	5,7661%	24,01272%	0,096	0,310	-0,4276	-0,50192
26/01/2005	7300	7350	-0,00683	7,42%	5,8324%	24,15028%	0,085	0,291	0,0277	-0,04264
27/01/2005	7550	7350	0,026847	7,42%	5,8856%	24,26033%	0,085	0,291	0,5042	0,433507
28/01/2005	7400	7350	0,00678	7,42%	5,8912%	24,27175%	0,085	0,291	0,2203	0,14957
31/01/2005	7150	7350	-0,02759	7,42%	5,9938%	24,48216%	0,077	0,277	-0,2890	-0,35681
01/02/2005	7150	7350	-0,02759	7,42%	5,9349%	24,36172%	0,074	0,272	-0,3004	-0,36666
02/02/2005	7500	7350	0,020203	7,42%	6,1175%	24,73356%	0,071	0,267	0,4191	0,353105
03/02/2005	7600	7350	0,033448	7,42%	6,0685%	24,63429%	0,058	0,240	0,6679	0,608769
04/02/2005	7600	7350	0,033448	7,42%	6,0110%	24,51738%	0,058	0,240	0,6708	0,611953
07/02/2005	7600	7350	0,033448	7,42%	5,9546%	24,40212%	0,058	0,240	0,6737	0,61512
08/02/2005	7550	7350	0,026847	7,42%	5,9092%	24,30882%	0,055	0,234	0,5717	0,51481
11/02/2005	7350	7350	0	7,42%	5,9512%	24,39516%	0,047	0,216	0,0920	0,039317
14/02/2005	7450	7350	0,013514	7,43%	5,9075%	24,30525%	0,038	0,196	0,3676	0,319964
15/02/2005	8150	7350	0,103318	7,43%	6,7361%	25,95403%	0,036	0,189	2,1878	2,138865
16/02/2005	7950	7350	0,078472	7,43%	6,7611%	26,00219%	0,036	0,189	1,6776	1,628497
17/02/2005	8150	7350	0,103318	7,43%	6,7478%	25,97658%	0,030	0,174	2,3633	2,318198

18/02/2005	8000	7350	0,084741	7,43%	6,7393%	25,96017%	0,030	0,174	1,9526	1,907497
21/02/2005	8000	7350	0,084741	7,43%	6,6806%	25,84685%	0,019	0,138	2,4252	2,389382
22/02/2005	8050	7350	0,090972	7,43%	6,6221%	25,73350%	0,016	0,128	2,8108	2,777788
23/02/2005	8050	7350	0,090972	7,43%	6,5655%	25,62318%	0,016	0,128	2,8227	2,789889
24/02/2005	8150	7350	0,103318	7,43%	6,5160%	25,52648%	0,011	0,105	3,9102	3,883447
25/02/2005	8150	7350	0,103318	7,43%	6,4613%	25,41906%	0,008	0,091	4,5214	4,498308
28/02/2005	8150	7350	0,103318	7,43%	6,4075%	25,31297%	0,003	0,052	7,8199	7,806639

d1 and d2 VALUE of HMSP (E = P) Rp7550

Date	P	E	In (P/E)	Rf	σ^2	σ	T	\sqrt{T}	d1	d2
30/11/2004	6750	7550	-0,11201	7,41%	5,8430%	24,17232%	0,249	0,499	-0,7146	-0,83528
01/12/2004	6900	7550	-0,09003	7,41%	5,8063%	24,09632%	0,244	0,494	-0,5453	-0,66425
02/12/2004	7050	7550	-0,06852	7,41%	5,7657%	24,01185%	0,241	0,491	-0,3707	-0,48859
03/12/2004	6900	7550	-0,09003	7,41%	5,7989%	24,08087%	0,238	0,488	-0,5567	-0,6743
06/12/2004	6850	7550	-0,0973	7,43%	5,7304%	23,93830%	0,230	0,480	-0,6410	-0,75579
07/12/2004	6800	7550	-0,10462	7,43%	5,6636%	23,79830%	0,227	0,477	-0,7163	-0,82979
08/12/2004	6650	7550	-0,12693	7,43%	5,6969%	23,86817%	0,225	0,474	-0,9179	-1,031
09/12/2004	6700	7550	-0,11944	7,43%	5,6119%	23,68944%	0,222	0,471	-0,8667	-0,97833
10/12/2004	6750	7550	-0,11201	7,43%	5,5293%	23,51451%	0,219	0,468	-0,8145	-0,92454
13/12/2004	6400	7550	-0,16525	7,43%	5,9751%	24,44399%	0,211	0,459	-1,2761	-1,3884
14/12/2004	6150	7550	-0,2051	7,43%	6,1840%	24,86773%	0,208	0,456	-1,6143	-1,72782
15/12/2004	6250	7550	-0,18897	7,43%	6,1268%	24,75243%	0,203	0,450	-1,5046	-1,61606
16/12/2004	6450	7550	-0,15747	7,43%	6,1820%	24,86366%	0,203	0,450	-1,2160	-1,32798
17/12/2004	6750	7550	-0,11201	7,43%	6,4025%	25,30308%	0,200	0,447	-0,8019	-0,91506
20/12/2004	6550	7550	-0,14208	7,43%	6,4884%	25,47234%	0,192	0,438	-1,0902	-1,20174
21/12/2004	6500	7550	-0,14975	7,43%	6,4174%	25,33263%	0,189	0,435	-1,1770	-1,2871
22/12/2004	6600	7550	-0,13448	7,43%	6,3549%	25,20900%	0,184	0,428	-1,0648	-1,17283
23/12/2004	6600	7550	-0,13448	7,43%	6,2716%	25,04324%	0,184	0,428	-1,0726	-1,17988
27/12/2004	6700	7550	-0,11944	7,43%	6,2114%	24,92267%	0,184	0,428	-0,9375	-1,04423
28/12/2004	6700	7550	-0,11944	7,43%	6,1322%	24,76334%	0,164	0,405	-1,0178	-1,11818
29/12/2004	6750	7550	-0,11201	7,43%	6,0564%	24,60971%	0,164	0,405	-0,9502	-1,05002
30/12/2004	6650	7550	-0,12693	7,43%	6,0269%	24,54975%	0,164	0,405	-1,1028	-1,2023
03/01/2005	6600	7550	-0,13448	7,42%	5,9674%	24,42818%	0,164	0,405	-1,1851	-1,28415
04/01/2005	6900	7550	-0,09003	7,42%	6,1521%	24,80341%	0,151	0,388	-0,7708	-0,86704
05/01/2005	6950	7550	-0,08281	7,42%	6,0792%	24,65606%	0,148	0,385	-0,7100	-0,80481
06/01/2005	7100	7550	-0,06145	7,42%	6,0519%	24,60069%	0,142	0,377	-0,5015	-0,5944
07/01/2005	6900	7550	-0,09003	7,42%	6,1183%	24,73521%	0,142	0,377	-0,8044	-0,89772
10/01/2005	7000	7550	-0,07564	7,42%	6,0636%	24,62430%	0,134	0,366	-0,6828	-0,77305
11/01/2005	6900	7550	-0,09003	7,42%	6,0347%	24,56572%	0,132	0,363	-0,8565	-0,94558
12/01/2005	6900	7550	-0,09003	7,42%	5,9667%	24,42682%	0,123	0,351	-0,9001	-0,98587
13/01/2005	6900	7550	-0,09003	7,42%	5,9002%	24,29024%	0,123	0,351	-0,9056	-0,99093
14/01/2005	6850	7550	-0,0973	7,42%	5,8477%	24,18197%	0,123	0,351	-0,9957	-1,08064
17/01/2005	6900	7550	-0,09003	7,42%	5,7851%	24,05227%	0,115	0,339	-0,9580	-1,03955
18/01/2005	6700	7550	-0,11944	7,42%	5,8514%	24,18958%	0,112	0,335	-1,3299	-1,41098
19/01/2005	6800	7550	-0,10462	7,42%	5,8067%	24,09700%	0,096	0,310	-1,2695	-1,34408
20/01/2005	6800	7550	-0,10462	7,42%	5,7452%	23,96911%	0,096	0,310	-1,2766	-1,35085
24/01/2005	7050	7550	-0,06852	7,42%	5,8263%	24,13765%	0,096	0,310	-0,7842	-0,8589
25/01/2005	7050	7550	-0,06852	7,42%	5,7661%	24,01272%	0,096	0,310	-0,7886	-0,86298
26/01/2005	7300	7550	-0,03367	7,42%	5,8324%	24,15028%	0,085	0,291	-0,3537	-0,42409
27/01/2005	7550	7550	0	7,42%	5,8856%	24,26033%	0,085	0,291	0,1245	0,053783
28/01/2005	7400	7550	-0,02007	7,42%	5,8912%	24,27175%	0,085	0,291	-0,1592	-0,22998
31/01/2005	7150	7550	-0,05444	7,42%	5,9938%	24,48216%	0,077	0,277	-0,6849	-0,75274
01/02/2005	7150	7550	-0,05444	7,42%	5,9349%	24,36172%	0,074	0,272	-0,7056	-0,77185
02/02/2005	7500	7550	-0,00664	7,42%	6,1175%	24,73356%	0,071	0,267	0,0124	-0,05359
03/02/2005	7600	7550	0,006601	7,42%	6,0685%	24,63429%	0,058	0,240	0,2135	0,154412
04/02/2005	7600	7550	0,006601	7,42%	6,0110%	24,51738%	0,058	0,240	0,2142	0,15543
07/02/2005	7600	7550	0,006601	7,42%	5,9546%	24,40212%	0,058	0,240	0,2150	0,156441
08/02/2005	7550	7550	0	7,42%	5,9092%	24,30882%	0,055	0,234	0,0999	0,043
11/02/2005	7350	7550	-0,02685	7,42%	5,9512%	24,39516%	0,047	0,216	-0,4180	-0,47062
14/02/2005	7450	7550	-0,01333	7,43%	5,9075%	24,30525%	0,038	0,196	-0,1964	-0,24404
15/02/2005	8150	7550	0,07647	7,43%	6,7361%	25,95403%	0,036	0,189	1,6397	1,590752

16/02/2005	7950	7550	0,051624	7,43%	6,7611%	26,00219%	0,036	0,189	1,1305	1,0814
17/02/2005	8150	7550	0,07647	7,43%	6,7478%	25,97658%	0,030	0,174	1,7679	1,722854
18/02/2005	8000	7550	0,057894	7,43%	6,7393%	25,96017%	0,030	0,174	1,3568	1,311776
21/02/2005	8000	7550	0,057894	7,43%	6,6806%	25,84685%	0,019	0,138	1,6751	1,639333
22/02/2005	8050	7550	0,064125	7,43%	6,6221%	25,73350%	0,016	0,128	1,9971	1,964074
23/02/2005	8050	7550	0,064125	7,43%	6,5655%	25,62318%	0,016	0,128	2,0055	1,972672
24/02/2005	8150	7550	0,07647	7,43%	6,5160%	25,52648%	0,011	0,105	2,9055	2,878773
25/02/2005	8150	7550	0,07647	7,43%	6,4613%	25,41906%	0,008	0,091	3,3564	3,333307
28/02/2005	8150	7550	0,07647	7,43%	6,4075%	25,31297%	0,003	0,052	5,7936	5,780342

d1 and d2 VALUE of HMSP (E > P) Rp7550

Date	P	E	In (P/E)	Rf	σ^2	σ	T	\sqrt{T}	d1	d2
30/11/2004	6750	7750	-0,13815	7,41%	5,8430%	24,17232%	0,249	0,499	-0,9312	-1,0519
01/12/2004	6900	7750	-0,11617	7,41%	5,8063%	24,09632%	0,244	0,494	-0,7650	-0,88398
02/12/2004	7050	7750	-0,09467	7,41%	5,7657%	24,01185%	0,241	0,491	-0,5924	-0,71034
03/12/2004	6900	7750	-0,11617	7,41%	5,7989%	24,08087%	0,238	0,488	-0,7791	-0,89668
06/12/2004	6850	7750	-0,12344	7,43%	5,7304%	23,93830%	0,230	0,480	-0,8686	-0,98346
07/12/2004	6800	7750	-0,13077	7,43%	5,6636%	23,79830%	0,227	0,477	-0,9467	-1,06018
08/12/2004	6650	7750	-0,15308	7,43%	5,6969%	23,86817%	0,225	0,474	-1,1490	-1,26211
09/12/2004	6700	7750	-0,14559	7,43%	5,6119%	23,68944%	0,222	0,471	-1,1010	-1,21262
10/12/2004	6750	7750	-0,13815	7,43%	5,5293%	23,51451%	0,219	0,468	-1,0520	-1,16204
13/12/2004	6400	7750	-0,19139	7,43%	5,9751%	24,44399%	0,211	0,459	-1,5090	-1,62127
14/12/2004	6150	7750	-0,23124	7,43%	6,1840%	24,86773%	0,208	0,456	-1,8448	-1,95823
15/12/2004	6250	7750	-0,21511	7,43%	6,1268%	24,75243%	0,203	0,450	-1,7392	-1,85065
16/12/2004	6450	7750	-0,18361	7,43%	6,1820%	24,86366%	0,203	0,450	-1,4496	-1,56152
17/12/2004	6750	7750	-0,13815	7,43%	6,4025%	25,30308%	0,200	0,447	-1,0330	-1,14611
20/12/2004	6550	7750	-0,16823	7,43%	6,4884%	25,47234%	0,192	0,438	-1,3246	-1,43612
21/12/2004	6500	7750	-0,17589	7,43%	6,4174%	25,33263%	0,189	0,435	-1,4143	-1,52447
22/12/2004	6600	7750	-0,16062	7,43%	6,3549%	25,20900%	0,184	0,428	-1,3069	-1,4149
23/12/2004	6600	7750	-0,16062	7,43%	6,2716%	25,04324%	0,184	0,428	-1,3163	-1,42355
27/12/2004	6700	7750	-0,14559	7,43%	6,2114%	24,92267%	0,184	0,428	-1,1823	-1,28909
28/12/2004	6700	7750	-0,14559	7,43%	6,1322%	24,76334%	0,164	0,405	-1,2782	-1,37859
29/12/2004	6750	7750	-0,13815	7,43%	6,0564%	24,60971%	0,164	0,405	-1,2123	-1,31205
30/12/2004	6650	7750	-0,15308	7,43%	6,0269%	24,54975%	0,164	0,405	-1,3654	-1,46497
03/01/2005	6600	7750	-0,16062	7,42%	5,9674%	24,42818%	0,164	0,405	-1,4491	-1,54813
04/01/2005	6900	7750	-0,11617	7,42%	6,1521%	24,80341%	0,151	0,388	-1,0423	-1,13859
05/01/2005	6950	7750	-0,10895	7,42%	6,0792%	24,65606%	0,148	0,385	-0,9857	-1,0805
06/01/2005	7100	7750	-0,0876	7,42%	6,0519%	24,60069%	0,142	0,377	-0,7831	-0,87597
07/01/2005	6900	7750	-0,11617	7,42%	6,1183%	24,73521%	0,142	0,377	-1,0844	-1,17777
10/01/2005	7000	7750	-0,10178	7,42%	6,0636%	24,62430%	0,134	0,366	-0,9726	-1,06283
11/01/2005	6900	7750	-0,11617	7,42%	6,0347%	24,56572%	0,132	0,363	-1,1500	-1,23906
12/01/2005	6900	7750	-0,11617	7,42%	5,9667%	24,42682%	0,123	0,351	-1,2049	-1,29071
13/01/2005	6900	7750	-0,11617	7,42%	5,9002%	24,29024%	0,123	0,351	-1,2122	-1,29748
14/01/2005	6850	7750	-0,12344	7,42%	5,8477%	24,18197%	0,123	0,351	-1,3037	-1,38856
17/01/2005	6900	7750	-0,11617	7,42%	5,7851%	24,05227%	0,115	0,339	-1,2784	-1,36
18/01/2005	6700	7750	-0,14559	7,42%	5,8514%	24,18958%	0,112	0,335	-1,6524	-1,73347
19/01/2005	6800	7750	-0,13077	7,42%	5,8067%	24,09700%	0,096	0,310	-1,6198	-1,69446
20/01/2005	6800	7750	-0,13077	7,42%	5,7452%	23,96911%	0,096	0,310	-1,6289	-1,7031
24/01/2005	7050	7750	-0,09467	7,42%	5,8263%	24,13765%	0,096	0,310	-1,1339	-1,20869
25/01/2005	7050	7750	-0,09467	7,42%	5,7661%	24,01272%	0,096	0,310	-1,1402	-1,21459
26/01/2005	7300	7750	-0,05982	7,42%	5,8324%	24,15028%	0,085	0,291	-0,7252	-0,79557
27/01/2005	7550	7750	-0,02615	7,42%	5,8856%	24,26033%	0,085	0,291	-0,2453	-0,31601
28/01/2005	7400	7750	-0,04621	7,42%	5,8912%	24,27175%	0,085	0,291	-0,5289	-0,5996
31/01/2005	7150	7750	-0,08058	7,42%	5,9938%	24,48216%	0,077	0,277	-1,0705	-1,13832
01/02/2005	7150	7750	-0,08058	7,42%	5,9349%	24,36172%	0,074	0,272	-1,1002	-1,16644
02/02/2005	7500	7750	-0,03279	7,42%	6,1175%	24,73356%	0,071	0,267	-0,3836	-0,44966
03/02/2005	7600	7750	-0,01954	7,42%	6,0685%	24,63429%	0,058	0,240	-0,2290	-0,28806
04/02/2005	7600	7750	-0,01954	7,42%	6,0110%	24,51738%	0,058	0,240	-0,2303	-0,28916
07/02/2005	7600	7750	-0,01954	7,42%	5,9546%	24,40212%	0,058	0,240	-0,2317	-0,29025
08/02/2005	7550	7750	-0,02615	7,42%	5,9092%	24,30882%	0,055	0,234	-0,3596	-0,41647
11/02/2005	7350	7750	-0,05299	7,42%	5,9512%	24,39516%	0,047	0,216	-0,9146	-0,96723
14/02/2005	7450	7750	-0,03948	7,43%	5,9075%	24,30525%	0,038	0,196	-0,7457	-0,7933

15/02/2005	8150	7750	0,050325	7,43%	6,7361%	25,95403%	0,036	0,189	1,1060	1,056971
16/02/2005	7950	7750	0,025479	7,43%	6,7611%	26,00219%	0,036	0,189	0,5977	0,548607
17/02/2005	8150	7750	0,050325	7,43%	6,7478%	25,97658%	0,030	0,174	1,1882	1,143077
18/02/2005	8000	7750	0,031749	7,43%	6,7393%	25,96017%	0,030	0,174	0,7767	0,731632
21/02/2005	8000	7750	0,031749	7,43%	6,6806%	25,84685%	0,019	0,138	0,9447	0,908896
22/02/2005	8050	7750	0,037979	7,43%	6,6221%	25,73350%	0,016	0,128	1,2046	1,171636
23/02/2005	8050	7750	0,037979	7,43%	6,5655%	25,62318%	0,016	0,128	1,2097	1,176822
24/02/2005	8150	7750	0,050325	7,43%	6,5160%	25,52648%	0,011	0,105	1,9271	1,900368
25/02/2005	8150	7750	0,050325	7,43%	6,4613%	25,41906%	0,008	0,091	2,2218	2,198767
28/02/2005	8150	7750	0,050325	7,43%	6,4075%	25,31297%	0,003	0,052	3,8203	3,807026

d1 and d2 VALUE of INDF (E < P) Rp800

Date	P	E	In (P/E)	Rf	σ^2	σ	T	\sqrt{T}	d1	d2
30/11/2004	750	750	0	7,41%	6,9296%	26,32408%	0,249	0,499	0,2063	0,074833
01/12/2004	775	750	0,03279	7,41%	7,0047%	26,46634%	0,244	0,494	0,4545	0,323805
02/12/2004	800	750	0,064539	7,41%	7,0587%	26,56825%	0,241	0,491	0,6969	0,566441
03/12/2004	775	750	0,03279	7,41%	7,1598%	26,75788%	0,238	0,488	0,4515	0,320883
06/12/2004	800	750	0,064539	7,43%	7,2106%	26,85263%	0,230	0,480	0,6981	0,56933
07/12/2004	775	750	0,03279	7,43%	7,3053%	27,02825%	0,227	0,477	0,4499	0,321051
08/12/2004	750	750	0	7,43%	7,4028%	27,20801%	0,225	0,474	0,1939	0,064955
09/12/2004	750	750	0	7,43%	7,2893%	26,99877%	0,222	0,471	0,1932	0,066047
10/12/2004	750	750	0	7,43%	7,1793%	26,79428%	0,219	0,468	0,1925	0,0671
13/12/2004	750	750	0	7,43%	7,0726%	26,59436%	0,211	0,459	0,1894	0,067247
14/12/2004	725	750	-0,0339	7,43%	7,1736%	26,78353%	0,208	0,456	-0,0897	-0,21191
15/12/2004	750	750	0	7,43%	7,2556%	26,93619%	0,203	0,450	0,1848	0,063558
16/12/2004	750	750	0	7,43%	7,1523%	26,74379%	0,203	0,450	0,1853	0,064885
17/12/2004	750	750	0	7,43%	7,0519%	26,55546%	0,200	0,447	0,1845	0,065747
20/12/2004	750	750	0	7,43%	6,9543%	26,37105%	0,192	0,438	0,1811	0,065642
21/12/2004	750	750	0	7,43%	6,8594%	26,19043%	0,189	0,435	0,1803	0,066409
22/12/2004	775	750	0,03279	7,43%	6,9248%	26,31503%	0,184	0,428	0,4682	0,355431
23/12/2004	750	750	0	7,43%	7,0106%	26,47750%	0,184	0,428	0,1769	0,063507
27/12/2004	775	750	0,03279	7,43%	7,0728%	26,59467%	0,184	0,428	0,4644	0,350502
28/12/2004	800	750	0,064539	7,43%	7,1195%	26,68248%	0,164	0,405	0,7636	0,655382
29/12/2004	800	750	0,064539	7,43%	7,0290%	26,51221%	0,164	0,405	0,7678	0,660283
30/12/2004	800	750	0,064539	7,43%	6,9407%	26,34515%	0,164	0,405	0,7720	0,665149
03/01/2005	800	750	0,064539	7,42%	6,8546%	26,18122%	0,164	0,405	0,7760	0,669826
04/01/2005	860	750	0,136859	7,42%	7,5260%	27,43358%	0,151	0,388	1,4434	1,336904
05/01/2005	840	750	0,113329	7,42%	7,5307%	27,44216%	0,148	0,385	1,2304	1,124895
06/01/2005	850	750	0,125163	7,42%	7,4519%	27,29819%	0,142	0,377	1,3689	1,265828
07/01/2005	840	750	0,113329	7,42%	7,3921%	27,18839%	0,142	0,377	1,2587	1,156034
10/01/2005	820	750	0,089231	7,42%	7,3995%	27,20203%	0,134	0,366	1,0451	0,945399
11/01/2005	830	750	0,101352	7,42%	7,3267%	27,06785%	0,132	0,363	1,1810	1,082868
12/01/2005	820	750	0,089231	7,42%	7,2701%	26,96305%	0,123	0,351	1,0865	0,991803
13/01/2005	820	750	0,089231	7,42%	7,1881%	26,81061%	0,123	0,351	1,0921	0,997979
14/01/2005	820	750	0,089231	7,42%	7,1079%	26,66073%	0,123	0,351	1,0977	1,004117
17/01/2005	810	750	0,076961	7,42%	7,0554%	26,56202%	0,115	0,339	0,9940	0,903853
18/01/2005	800	750	0,064539	7,42%	7,0040%	26,46507%	0,112	0,335	0,8659	0,777231
19/01/2005	810	750	0,076961	7,42%	6,9421%	26,34789%	0,096	0,310	1,0713	0,989684
20/01/2005	820	750	0,089231	7,42%	6,8809%	26,23139%	0,096	0,310	1,2267	1,145498
24/01/2005	820	750	0,089231	7,42%	6,8082%	26,09250%	0,096	0,310	1,2328	1,152027

25/01/2005	830	750	0,101352	7,42%	6,7490%	25,97891%	0,096	0,310	1,3885	1,308092
26/01/2005	860	750	0,136859	7,42%	6,8179%	26,11105%	0,085	0,291	1,9194	1,843288
27/01/2005	900	750	0,182322	7,42%	6,9785%	26,41692%	0,085	0,291	2,4886	2,411581
28/01/2005	890	750	0,171148	7,42%	6,9306%	26,32606%	0,085	0,291	2,3513	2,274535
31/01/2005	870	750	0,14842	7,42%	6,9352%	26,33473%	0,077	0,277	2,1494	2,076412
01/02/2005	870	750	0,14842	7,42%	6,8666%	26,20416%	0,074	0,272	2,1952	2,123888
02/02/2005	860	750	0,136859	7,42%	6,8211%	26,11718%	0,071	0,267	2,0741	2,004367
03/02/2005	870	750	0,14842	7,42%	6,7639%	26,00752%	0,058	0,240	2,4788	2,416439
04/02/2005	870	750	0,14842	7,42%	6,6989%	25,88228%	0,058	0,240	2,4905	2,428433
07/02/2005	860	750	0,136859	7,42%	6,6561%	25,79948%	0,058	0,240	2,3115	2,249609
08/02/2005	860	750	0,136859	7,42%	6,5933%	25,67747%	0,055	0,234	2,3746	2,314537
11/02/2005	880	750	0,159849	7,42%	6,5792%	25,64989%	0,047	0,216	2,9778	2,92241
14/02/2005	880	750	0,159849	7,43%	6,5183%	25,53105%	0,038	0,196	3,2789	3,228848
15/02/2005	880	750	0,159849	7,43%	6,4586%	25,41383%	0,036	0,189	3,4120	3,364026
16/02/2005	880	750	0,159849	7,43%	6,4000%	25,29826%	0,036	0,189	3,4274	3,379616
17/02/2005	900	750	0,182322	7,43%	6,3853%	25,26918%	0,030	0,174	4,2292	4,185316
18/02/2005	910	750	0,193371	7,43%	6,3354%	25,17014%	0,030	0,174	4,4985	4,454839
21/02/2005	940	750	0,225807	7,43%	6,3738%	25,24642%	0,019	0,138	6,5168	6,481814
22/02/2005	950	750	0,236389	7,43%	6,3235%	25,14658%	0,016	0,128	7,3859	7,3537
23/02/2005	960	750	0,24686	7,43%	6,2738%	25,04754%	0,016	0,128	7,7411	7,70897
24/02/2005	950	750	0,236389	7,43%	6,2376%	24,97513%	0,011	0,105	9,0856	9,059467
25/02/2005	920	750	0,2043	7,43%	6,3030%	25,10574%	0,008	0,091	9,0142	8,991435
28/02/2005	930	750	0,215111	7,43%	6,2558%	25,01162%	0,003	0,052	16,4532	16,44016

d1 and d2 VALUE of INDF (E = P) Rp800

Date	P	E	In (P/E)	Rf	σ^2	σ	T	\sqrt{T}	d1	d2
30/11/2004	750	800	-0,06454	7,41%	6,9296%	26,32408%	0,249	0,499	-0,2847	-0,41618
01/12/2004	775	800	-0,03175	7,41%	7,0047%	26,46634%	0,244	0,494	-0,0393	-0,17002
02/12/2004	800	800	0	7,41%	7,0587%	26,56825%	0,241	0,491	0,2022	0,071719
03/12/2004	775	800	-0,03175	7,41%	7,1598%	26,75788%	0,238	0,488	-0,0425	-0,17315
06/12/2004	800	800	0	7,43%	7,2106%	26,85263%	0,230	0,480	0,1971	0,068328
07/12/2004	775	800	-0,03175	7,43%	7,3053%	27,02825%	0,227	0,477	-0,0508	-0,17968
08/12/2004	750	800	-0,06454	7,43%	7,4028%	27,20801%	0,225	0,474	-0,3065	-0,4355
09/12/2004	750	800	-0,06454	7,43%	7,2893%	26,99877%	0,222	0,471	-0,3142	-0,44139
10/12/2004	750	800	-0,06454	7,43%	7,1793%	26,79428%	0,219	0,468	-0,3219	-0,44739
13/12/2004	750	800	-0,06454	7,43%	7,0726%	26,59436%	0,211	0,459	-0,3390	-0,46111
14/12/2004	725	800	-0,09844	7,43%	7,1736%	26,78353%	0,208	0,456	-0,6178	-0,73998
15/12/2004	750	800	-0,06454	7,43%	7,2556%	26,93619%	0,203	0,450	-0,3473	-0,46857
16/12/2004	750	800	-0,06454	7,43%	7,1523%	26,74379%	0,203	0,450	-0,3507	-0,47107
17/12/2004	750	800	-0,06454	7,43%	7,0519%	26,55546%	0,200	0,447	-0,3589	-0,47769
20/12/2004	750	800	-0,06454	7,43%	6,9543%	26,37105%	0,192	0,438	-0,3777	-0,4932
21/12/2004	750	800	-0,06454	7,43%	6,8594%	26,19043%	0,189	0,435	-0,3865	-0,50035
22/12/2004	775	800	-0,03175	7,43%	6,9248%	26,31503%	0,184	0,428	-0,1043	-0,217
23/12/2004	750	800	-0,06454	7,43%	7,0106%	26,47750%	0,184	0,428	-0,3920	-0,50541
27/12/2004	775	800	-0,03175	7,43%	7,0728%	26,59467%	0,184	0,428	-0,1020	-0,21591
28/12/2004	800	800	0	7,43%	7,1195%	26,68248%	0,164	0,405	0,1670	0,058808
29/12/2004	800	800	0	7,43%	7,0290%	26,51221%	0,164	0,405	0,1674	0,059879

30/12/2004	800	800	0	7,43%	6,9407%	26,34515%	0,164	0,405	0,1678	0,060938
03/01/2005	800	800	0	7,42%	6,8546%	26,18122%	0,164	0,405	0,1680	0,061831
04/01/2005	860	800	0,07232	7,42%	7,5260%	27,43358%	0,151	0,388	0,8374	0,730863
05/01/2005	840	800	0,04879	7,42%	7,5307%	27,44216%	0,148	0,385	0,6190	0,51346
06/01/2005	850	800	0,06062	7,42%	7,4519%	27,29819%	0,142	0,377	0,7425	0,63946
07/01/2005	840	800	0,04879	7,42%	7,3921%	27,18839%	0,142	0,377	0,6298	0,527136
10/01/2005	820	800	0,02469	7,42%	7,3995%	27,20203%	0,134	0,366	0,3975	0,29786
11/01/2005	830	800	0,03681	7,42%	7,3267%	27,06785%	0,132	0,363	0,5235	0,425376
12/01/2005	820	800	0,02469	7,42%	7,2701%	26,96305%	0,123	0,351	0,4048	0,310108
13/01/2005	820	800	0,02469	7,42%	7,1881%	26,81061%	0,123	0,351	0,4065	0,312408
14/01/2005	820	800	0,02469	7,42%	7,1079%	26,66073%	0,123	0,351	0,4083	0,314692
17/01/2005	810	800	0,01242	7,42%	7,0554%	26,56202%	0,115	0,339	0,2777	0,187578
18/01/2005	800	800	0	7,42%	7,0040%	26,46507%	0,112	0,335	0,1383	0,049618
19/01/2005	810	800	0,01242	7,42%	6,9421%	26,34789%	0,096	0,310	0,2803	0,198668
20/01/2005	820	800	0,02469	7,42%	6,8809%	26,23139%	0,096	0,310	0,4322	0,350968
24/01/2005	820	800	0,02469	7,42%	6,8082%	26,09250%	0,096	0,310	0,4341	0,353268
25/01/2005	830	800	0,03681	7,42%	6,7490%	25,97891%	0,096	0,310	0,5863	0,50584
26/01/2005	860	800	0,07232	7,42%	6,8179%	26,11105%	0,085	0,291	1,0713	0,995162
27/01/2005	900	800	0,11778	7,42%	6,9785%	26,41692%	0,085	0,291	1,6503	1,573275
28/01/2005	890	800	0,10661	7,42%	6,9306%	26,32606%	0,085	0,291	1,5101	1,433336
31/01/2005	870	800	0,08388	7,42%	6,9352%	26,33473%	0,077	0,277	1,2645	1,191586
01/02/2005	870	800	0,08388	7,42%	6,8666%	26,20416%	0,074	0,272	1,2896	1,218336
02/02/2005	860	800	0,07232	7,42%	6,8211%	26,11718%	0,071	0,267	1,1482	1,078492
03/02/2005	870	800	0,08388	7,42%	6,7639%	26,00752%	0,058	0,240	1,4443	1,381876
04/02/2005	870	800	0,08388	7,42%	6,6989%	25,88228%	0,058	0,240	1,4509	1,388864
07/02/2005	860	800	0,07232	7,42%	6,6561%	25,79948%	0,058	0,240	1,2686	1,206704
08/02/2005	860	800	0,07232	7,42%	6,5933%	25,67747%	0,055	0,234	1,3009	1,2408
11/02/2005	880	800	0,09531	7,42%	6,5792%	25,64989%	0,047	0,216	1,8119	1,756525
14/02/2005	880	800	0,09531	7,43%	6,5183%	25,53105%	0,038	0,196	1,9881	1,938126
15/02/2005	880	800	0,09531	7,43%	6,4586%	25,41385%	0,036	0,189	2,0664	2,018403
16/02/2005	880	800	0,09531	7,43%	6,4000%	25,29826%	0,036	0,189	2,0756	2,027845
17/02/2005	900	800	0,11778	7,43%	6,3853%	25,26918%	0,030	0,174	2,7580	2,714095
18/02/2005	910	800	0,12883	7,43%	6,3354%	25,17014%	0,030	0,174	3,0215	2,977829
21/02/2005	940	800	0,16127	7,43%	6,3738%	25,24642%	0,019	0,138	4,6708	4,635878
22/02/2005	950	800	0,17185	7,43%	6,3235%	25,14658%	0,016	0,128	5,3842	5,351945
23/02/2005	960	800	0,18232	7,43%	6,2738%	25,04754%	0,016	0,128	5,7314	5,6993
24/02/2005	950	800	0,17185	7,43%	6,2376%	24,97513%	0,011	0,105	6,6171	6,590998
25/02/2005	920	800	0,13976	7,43%	6,3030%	25,10574%	0,008	0,091	6,1787	6,155921
28/02/2005	930	800	0,15057	7,43%	6,2558%	25,01162%	0,003	0,052	11,5235	11,51042

d1 and d2 VALUE of INDF (E > P) Rp800

Date	P	E	In (P/E)	Rf	σ^2	σ	T	\sqrt{T}	d1	d2
30/11/2004	750	850	-0,12516	7,41%	6,9296%	26,32408%	0,249	0,499	-0,7460	-0,87741
01/12/2004	775	850	-0,09237	7,41%	7,0047%	26,46634%	0,244	0,494	-0,5032	-0,6339
02/12/2004	800	850	-0,06062	7,41%	7,0587%	26,56825%	0,241	0,491	-0,2625	-0,393
03/12/2004	775	850	-0,09237	7,41%	7,1598%	26,75788%	0,238	0,488	-0,5066	-0,63722
06/12/2004	800	850	-0,06062	7,43%	7,2106%	26,85263%	0,230	0,480	-0,2735	-0,40229
07/12/2004	775	850	-0,09237	7,43%	7,3053%	27,02825%	0,227	0,477	-0,5212	-0,65005

08/12/2004	750	850	-0,12516	7,43%	7,4028%	27,20801%	0,225	0,474	-0,7766	-0,9056
09/12/2004	750	850	-0,12516	7,43%	7,2893%	26,99877%	0,222	0,471	-0,7909	-0,91805
10/12/2004	750	850	-0,12516	7,43%	7,1793%	26,79428%	0,219	0,468	-0,8052	-0,93068
13/12/2004	750	850	-0,12516	7,43%	7,0726%	26,59436%	0,211	0,459	-0,8353	-0,95743
14/12/2004	725	850	-0,15906	7,43%	7,1736%	26,78353%	0,208	0,456	-1,1138	-1,23603
15/12/2004	750	850	-0,12516	7,43%	7,2556%	26,93619%	0,203	0,450	-0,8471	-0,96842
16/12/2004	750	850	-0,12516	7,43%	7,1523%	26,74379%	0,203	0,450	-0,8541	-0,97452
17/12/2004	750	850	-0,12516	7,43%	7,0519%	26,55546%	0,200	0,447	-0,8694	-0,98817
20/12/2004	750	850	-0,12516	7,43%	6,9543%	26,37105%	0,192	0,438	-0,9027	-1,01815
21/12/2004	750	850	-0,12516	7,43%	6,8594%	26,19043%	0,189	0,435	-0,9189	-1,03274
22/12/2004	775	850	-0,09237	7,43%	6,9248%	26,31503%	0,184	0,428	-0,6420	-0,75472
23/12/2004	750	850	-0,12516	7,43%	7,0106%	26,47750%	0,184	0,428	-0,9264	-1,03983
27/12/2004	775	850	-0,09237	7,43%	7,0728%	26,59467%	0,184	0,428	-0,6340	-0,74798
28/12/2004	800	850	-0,06062	7,43%	7,1195%	26,68248%	0,164	0,405	-0,3934	-0,50159
29/12/2004	800	850	-0,06062	7,43%	7,0290%	26,51221%	0,164	0,405	-0,3966	-0,50411
30/12/2004	800	850	-0,06062	7,43%	6,9407%	26,34515%	0,164	0,405	-0,3998	-0,50663
03/01/2005	800	850	-0,06062	7,42%	6,8546%	26,18122%	0,164	0,405	-0,4031	-0,50929
04/01/2005	860	850	0,011696	7,42%	7,5260%	27,43358%	0,151	0,388	0,2681	0,161576
05/01/2005	840	850	-0,01183	7,42%	7,5307%	27,44216%	0,148	0,385	0,0447	-0,06089
06/01/2005	850	850	0	7,42%	7,4519%	27,29819%	0,142	0,377	0,1541	0,051077
07/01/2005	840	850	-0,01183	7,42%	7,3921%	27,18839%	0,142	0,377	0,0390	-0,06362
10/01/2005	820	850	-0,03593	7,42%	7,3995%	27,20203%	0,134	0,366	-0,2107	-0,31041
11/01/2005	830	850	-0,02381	7,42%	7,3267%	27,06785%	0,132	0,363	-0,0941	-0,19224
12/01/2005	820	850	-0,03593	7,42%	7,2701%	26,96305%	0,123	0,351	-0,2356	-0,33025
13/01/2005	820	850	-0,03593	7,42%	7,1881%	26,81061%	0,123	0,351	-0,2374	-0,33159
14/01/2005	820	850	-0,03593	7,42%	7,1079%	26,66073%	0,123	0,351	-0,2393	-0,33292
17/01/2005	810	850	-0,0482	7,42%	7,0554%	26,56202%	0,115	0,339	-0,3952	-0,48526
18/01/2005	800	850	-0,06062	7,42%	7,0040%	26,46507%	0,112	0,335	-0,5452	-0,63387
19/01/2005	810	850	-0,0482	7,42%	6,9421%	26,34789%	0,096	0,310	-0,4628	-0,54438
20/01/2005	820	850	-0,03593	7,42%	6,8809%	26,23139%	0,096	0,310	-0,3141	-0,39538
24/01/2005	820	850	-0,03593	7,42%	6,8082%	26,09250%	0,096	0,310	-0,3163	-0,39705
25/01/2005	830	850	-0,02381	7,42%	6,7490%	25,97891%	0,096	0,310	-0,1673	-0,24776
26/01/2005	860	850	0,011696	7,42%	6,8179%	26,11105%	0,085	0,291	0,2746	0,19847
27/01/2005	900	850	0,057158	7,42%	6,9785%	26,41692%	0,085	0,291	0,8628	0,785808
28/01/2005	890	850	0,045985	7,42%	6,9306%	26,32606%	0,085	0,291	0,7199	0,643151
31/01/2005	870	850	0,023257	7,42%	6,9352%	26,33473%	0,077	0,277	0,4334	0,360421
01/02/2005	870	850	0,023257	7,42%	6,8666%	26,20416%	0,074	0,272	0,4390	0,3677
02/02/2005	860	850	0,011696	7,42%	6,8211%	26,11718%	0,071	0,267	0,2785	0,208766
03/02/2005	870	850	0,023257	7,42%	6,7639%	26,00752%	0,058	0,240	0,4724	0,410053
04/02/2005	870	850	0,023257	7,42%	6,6989%	25,88228%	0,058	0,240	0,4744	0,412339
07/02/2005	860	850	0,011696	7,42%	6,6561%	25,79948%	0,058	0,240	0,2889	0,227045
08/02/2005	860	850	0,011696	7,42%	6,5933%	25,67747%	0,055	0,234	0,2923	0,232178
11/02/2005	880	850	0,034686	7,42%	6,5792%	25,64989%	0,047	0,216	0,7167	0,661345
14/02/2005	880	850	0,034686	7,43%	6,5183%	25,53105%	0,038	0,196	0,7757	0,725679
15/02/2005	880	850	0,034686	7,43%	6,4586%	25,41385%	0,036	0,189	0,8023	0,754385
16/02/2005	880	850	0,034686	7,43%	6,4000%	25,29826%	0,036	0,189	0,8058	0,758051
17/02/2005	900	850	0,057158	7,43%	6,3853%	25,26918%	0,030	0,174	1,3760	1,332095
18/02/2005	910	850	0,068208	7,43%	6,3354%	25,17014%	0,030	0,174	1,6341	1,590392
21/02/2005	940	850	0,100644	7,43%	6,3738%	25,24642%	0,019	0,138	2,9369	2,901888
22/02/2005	950	850	0,111226	7,43%	6,3235%	25,14658%	0,016	0,128	3,5038	3,471585
23/02/2005	960	850	0,121697	7,43%	6,2738%	25,04754%	0,016	0,128	3,8436	3,811506
24/02/2005	950	850	0,111226	7,43%	6,2376%	24,97513%	0,011	0,105	4,2984	4,272228
25/02/2005	920	850	0,079137	7,43%	6,3030%	25,10574%	0,008	0,091	3,5151	3,492365
28/02/2005	930	850	0,089948	7,43%	6,2558%	25,01162%	0,003	0,052	6,8927	6,879645

d1 and d2 VALUE of INDF (E < P) Rp850

Date	P	E	In (P/E)	Rf	σ^2	σ	T	\sqrt{T}	d1	d2
30/11/2004	750	800	-0,06454	7,41%	6,9296%	26,32408%	0,249	0,499	-0,2847	-0,41618
01/12/2004	775	800	-0,03175	7,41%	7,0047%	26,46634%	0,244	0,494	-0,0393	-0,17002
02/12/2004	800	800	0	7,41%	7,0587%	26,56825%	0,241	0,491	0,2022	0,071719
03/12/2004	775	800	-0,03175	7,41%	7,1598%	26,75788%	0,238	0,488	-0,0425	-0,17315
06/12/2004	800	800	0	7,43%	7,2106%	26,85263%	0,230	0,480	0,1971	0,068328

07/12/2004	775	800	-0,03175	7,43%	7,3053%	27,02825%	0,227	0,477	-0,0508	-0,17968
08/12/2004	750	800	-0,06454	7,43%	7,4028%	27,20801%	0,225	0,474	-0,3065	-0,4355
09/12/2004	750	800	-0,06454	7,43%	7,2893%	26,99877%	0,222	0,471	-0,3142	-0,44139
10/12/2004	750	800	-0,06454	7,43%	7,1793%	26,79428%	0,219	0,468	-0,3219	-0,44739
13/12/2004	750	800	-0,06454	7,43%	7,0726%	26,59436%	0,211	0,459	-0,3390	-0,46111
14/12/2004	725	800	-0,09844	7,43%	7,1736%	26,78353%	0,208	0,456	-0,6178	-0,73998
15/12/2004	750	800	-0,06454	7,43%	7,2556%	26,93619%	0,203	0,450	-0,3473	-0,46857
16/12/2004	750	800	-0,06454	7,43%	7,1523%	26,74379%	0,203	0,450	-0,3507	-0,47107
17/12/2004	750	800	-0,06454	7,43%	7,0519%	26,55546%	0,200	0,447	-0,3589	-0,47769
20/12/2004	750	800	-0,06454	7,43%	6,9543%	26,37105%	0,192	0,438	-0,3777	-0,4932
21/12/2004	750	800	-0,06454	7,43%	6,8594%	26,19043%	0,189	0,435	-0,3865	-0,50035
22/12/2004	775	800	-0,03175	7,43%	6,9248%	26,31503%	0,184	0,428	-0,1043	-0,217
23/12/2004	750	800	-0,06454	7,43%	7,0106%	26,47750%	0,184	0,428	-0,3920	-0,50541
27/12/2004	775	800	-0,03175	7,43%	7,0728%	26,59467%	0,184	0,428	-0,1020	-0,21591
28/12/2004	800	800	0	7,43%	7,1195%	26,68248%	0,164	0,405	0,1670	0,058808
29/12/2004	800	800	0	7,43%	7,0290%	26,51221%	0,164	0,405	0,1674	0,059879
30/12/2004	800	800	0	7,43%	6,9407%	26,34515%	0,164	0,405	0,1678	0,060938
03/01/2005	800	800	0	7,42%	6,8546%	26,18122%	0,164	0,405	0,1680	0,061831
04/01/2005	860	800	0,072321	7,42%	7,5260%	27,43358%	0,151	0,388	0,8374	0,730863
05/01/2005	840	800	0,04879	7,42%	7,5307%	27,44216%	0,148	0,385	0,6190	0,51346
06/01/2005	850	800	0,060625	7,42%	7,4519%	27,29819%	0,142	0,377	0,7425	0,63946
07/01/2005	840	800	0,04879	7,42%	7,3921%	27,18839%	0,142	0,377	0,6298	0,527136
10/01/2005	820	800	0,024693	7,42%	7,3995%	27,20203%	0,134	0,366	0,3975	0,29786
11/01/2005	830	800	0,036814	7,42%	7,3267%	27,06785%	0,132	0,363	0,5235	0,425376
12/01/2005	820	800	0,024693	7,42%	7,2701%	26,96305%	0,123	0,351	0,4048	0,310108
13/01/2005	820	800	0,024693	7,42%	7,1881%	26,81061%	0,123	0,351	0,4065	0,312408
14/01/2005	820	800	0,024693	7,42%	7,1079%	26,66073%	0,123	0,351	0,4083	0,314692
17/01/2005	810	800	0,012423	7,42%	7,0554%	26,56202%	0,115	0,339	0,2777	0,187578
18/01/2005	800	800	0	7,42%	7,0040%	26,46507%	0,112	0,335	0,1383	0,049618
19/01/2005	810	800	0,012423	7,42%	6,9421%	26,34789%	0,096	0,310	0,2803	0,198668
20/01/2005	820	800	0,024693	7,42%	6,8809%	26,23139%	0,096	0,310	0,4322	0,350968
24/01/2005	820	800	0,024693	7,42%	6,8082%	26,09250%	0,096	0,310	0,4341	0,353268
25/01/2005	830	800	0,036814	7,42%	6,7490%	25,97891%	0,096	0,310	0,5863	0,50584
26/01/2005	860	800	0,072321	7,42%	6,8179%	26,11105%	0,085	0,291	1,0713	0,995162
27/01/2005	900	800	0,117783	7,42%	6,9785%	26,41692%	0,085	0,291	1,6503	1,573275
28/01/2005	890	800	0,10661	7,42%	6,9306%	26,32606%	0,085	0,291	1,5101	1,433336
31/01/2005	870	800	0,083881	7,42%	6,9352%	26,33473%	0,077	0,277	1,2645	1,191586
01/02/2005	870	800	0,083881	7,42%	6,8666%	26,20416%	0,074	0,272	1,2896	1,218336
02/02/2005	860	800	0,072321	7,42%	6,8211%	26,11718%	0,071	0,267	1,1482	1,078492
03/02/2005	870	800	0,083881	7,42%	6,7639%	26,00752%	0,058	0,240	1,4443	1,381876
04/02/2005	870	800	0,083881	7,42%	6,6989%	25,88228%	0,058	0,240	1,4509	1,388864
07/02/2005	860	800	0,072321	7,42%	6,6561%	25,79948%	0,058	0,240	1,2686	1,206704
08/02/2005	860	800	0,072321	7,42%	6,5933%	25,67747%	0,055	0,234	1,3009	1,2408
11/02/2005	880	800	0,09531	7,42%	6,5792%	25,64989%	0,047	0,216	1,8119	1,756525
14/02/2005	880	800	0,09531	7,43%	6,5183%	25,53105%	0,038	0,196	1,9881	1,938126
15/02/2005	880	800	0,09531	7,43%	6,4586%	25,41385%	0,036	0,189	2,0664	2,018403
16/02/2005	880	800	0,09531	7,43%	6,4000%	25,29826%	0,036	0,189	2,0756	2,027845
17/02/2005	900	800	0,117783	7,43%	6,3853%	25,26918%	0,030	0,174	2,7580	2,714095
18/02/2005	910	800	0,128833	7,43%	6,3354%	25,17014%	0,030	0,174	3,0215	2,977829
21/02/2005	940	800	0,161268	7,43%	6,3738%	25,24642%	0,019	0,138	4,6708	4,635878
22/02/2005	950	800	0,17185	7,43%	6,3235%	25,14658%	0,016	0,128	5,3842	5,351945
23/02/2005	960	800	0,182322	7,43%	6,2738%	25,04754%	0,016	0,128	5,7314	5,6993
24/02/2005	950	800	0,17185	7,43%	6,2376%	24,97513%	0,011	0,105	6,6171	6,590998
25/02/2005	920	800	0,139762	7,43%	6,3030%	25,10574%	0,008	0,091	6,1787	6,155921
28/02/2005	930	800	0,150573	7,43%	6,2558%	25,01162%	0,003	0,052	11,5235	11,51042

d1 and d2 VALUE of INDF (E = P) Rp850

Date	P	E	In (P/E)	Rf	σ^2	σ	T	\sqrt{T}	d1	d2
30/11/2004	750	850	-0,12516	7,41%	6,9296%	26,32408%	0,249	0,499	-0,7460	-0,87741
01/12/2004	775	850	-0,09237	7,41%	7,0047%	26,46634%	0,244	0,494	-0,5032	-0,6339
02/12/2004	800	850	-0,06062	7,41%	7,0587%	26,56825%	0,241	0,491	-0,2625	-0,393
03/12/2004	775	850	-0,09237	7,41%	7,1598%	26,75788%	0,238	0,488	-0,5066	-0,63722

06/12/2004	800	850	-0,06062	7,43%	7,2106%	26,85263%	0,230	0,480	-0,2735	-0,40229
07/12/2004	775	850	-0,09237	7,43%	7,3053%	27,02825%	0,227	0,477	-0,5212	-0,65005
08/12/2004	750	850	-0,12516	7,43%	7,4028%	27,20801%	0,225	0,474	-0,7766	-0,9056
09/12/2004	750	850	-0,12516	7,43%	7,2893%	26,99877%	0,222	0,471	-0,7909	-0,91805
10/12/2004	750	850	-0,12516	7,43%	7,1793%	26,79428%	0,219	0,468	-0,8052	-0,93068
13/12/2004	750	850	-0,12516	7,43%	7,0726%	26,59436%	0,211	0,459	-0,8353	-0,95743
14/12/2004	725	850	-0,15906	7,43%	7,1736%	26,78353%	0,208	0,456	-1,1138	-1,23603
15/12/2004	750	850	-0,12516	7,43%	7,2556%	26,93619%	0,203	0,450	-0,8471	-0,96842
16/12/2004	750	850	-0,12516	7,43%	7,1523%	26,74379%	0,203	0,450	-0,8541	-0,97452
17/12/2004	750	850	-0,12516	7,43%	7,0519%	26,55546%	0,200	0,447	-0,8694	-0,98817
20/12/2004	750	850	-0,12516	7,43%	6,9543%	26,37105%	0,192	0,438	-0,9027	-1,01815
21/12/2004	750	850	-0,12516	7,43%	6,8594%	26,19043%	0,189	0,435	-0,9189	-1,03274
22/12/2004	775	850	-0,09237	7,43%	6,9248%	26,31503%	0,184	0,428	-0,6420	-0,75472
23/12/2004	750	850	-0,12516	7,43%	7,0106%	26,47750%	0,184	0,428	-0,9264	-1,03983
27/12/2004	775	850	-0,09237	7,43%	7,0728%	26,59467%	0,184	0,428	-0,6340	-0,74798
28/12/2004	800	850	-0,06062	7,43%	7,1195%	26,68248%	0,164	0,405	-0,3934	-0,50159
29/12/2004	800	850	-0,06062	7,43%	7,0290%	26,51221%	0,164	0,405	-0,3966	-0,50411
30/12/2004	800	850	-0,06062	7,43%	6,9407%	26,34515%	0,164	0,405	-0,3998	-0,50663
03/01/2005	800	850	-0,06062	7,42%	6,8546%	26,18122%	0,164	0,405	-0,4031	-0,50929
04/01/2005	860	850	0,011696	7,42%	7,5260%	27,43358%	0,151	0,388	0,2681	0,161576
05/01/2005	840	850	-0,01183	7,42%	7,5307%	27,44216%	0,148	0,385	0,0447	-0,06089
06/01/2005	850	850	0	7,42%	7,4519%	27,29819%	0,142	0,377	0,1541	0,051077
07/01/2005	840	850	-0,01183	7,42%	7,3921%	27,18839%	0,142	0,377	0,0390	-0,06362
10/01/2005	820	850	-0,03593	7,42%	7,3995%	27,20203%	0,134	0,366	-0,2107	-0,31041
11/01/2005	830	850	-0,02381	7,42%	7,3267%	27,06785%	0,132	0,363	-0,0941	-0,19224
12/01/2005	820	850	-0,03593	7,42%	7,2701%	26,96305%	0,123	0,351	-0,2356	-0,33025
13/01/2005	820	850	-0,03593	7,42%	7,1881%	26,81061%	0,123	0,351	-0,2374	-0,33159
14/01/2005	820	850	-0,03593	7,42%	7,1079%	26,66073%	0,123	0,351	-0,2393	-0,33292
17/01/2005	810	850	-0,0482	7,42%	7,0554%	26,56202%	0,115	0,339	-0,3952	-0,48526
18/01/2005	800	850	-0,06062	7,42%	7,0040%	26,46507%	0,112	0,335	-0,5452	-0,63387
19/01/2005	810	850	-0,0482	7,42%	6,9421%	26,34789%	0,096	0,310	-0,4628	-0,54438
20/01/2005	820	850	-0,03593	7,42%	6,8809%	26,23139%	0,096	0,310	-0,3141	-0,39538
24/01/2005	820	850	-0,03593	7,42%	6,8082%	26,09250%	0,096	0,310	-0,3163	-0,39705
25/01/2005	830	850	-0,02381	7,42%	6,7490%	25,97891%	0,096	0,310	-0,1673	-0,24776
26/01/2005	860	850	0,011696	7,42%	6,8179%	26,11105%	0,085	0,291	0,2746	0,19847
27/01/2005	900	850	0,057158	7,42%	6,9785%	26,41692%	0,085	0,291	0,8628	0,785808
28/01/2005	890	850	0,045985	7,42%	6,9306%	26,32606%	0,085	0,291	0,7199	0,643151
31/01/2005	870	850	0,023257	7,42%	6,9352%	26,33473%	0,077	0,277	0,4334	0,360421
01/02/2005	870	850	0,023257	7,42%	6,8666%	26,20416%	0,074	0,272	0,4390	0,3677
02/02/2005	860	850	0,011696	7,42%	6,8211%	26,11718%	0,071	0,267	0,2785	0,208766
03/02/2005	870	850	0,023257	7,42%	6,7639%	26,00752%	0,058	0,240	0,4724	0,410053
04/02/2005	870	850	0,023257	7,42%	6,6989%	25,88228%	0,058	0,240	0,4744	0,412339
07/02/2005	860	850	0,011696	7,42%	6,6561%	25,79948%	0,058	0,240	0,2889	0,227045
08/02/2005	860	850	0,011696	7,42%	6,5933%	25,67747%	0,055	0,234	0,2923	0,232178
11/02/2005	880	850	0,034686	7,42%	6,5792%	25,64989%	0,047	0,216	0,7167	0,661345
14/02/2005	880	850	0,034686	7,43%	6,5183%	25,53105%	0,038	0,196	0,7757	0,725679
15/02/2005	880	850	0,034686	7,43%	6,4586%	25,41385%	0,036	0,189	0,8023	0,754385
16/02/2005	880	850	0,034686	7,43%	6,4000%	25,29826%	0,036	0,189	0,8058	0,758051
17/02/2005	900	850	0,057158	7,43%	6,3853%	25,26918%	0,030	0,174	1,3760	1,332095
18/02/2005	910	850	0,068208	7,43%	6,3354%	25,17014%	0,030	0,174	1,6341	1,590392
21/02/2005	940	850	0,100644	7,43%	6,3738%	25,24642%	0,019	0,138	2,9369	2,901888
22/02/2005	950	850	0,111226	7,43%	6,3235%	25,14658%	0,016	0,128	3,5038	3,471585
23/02/2005	960	850	0,121697	7,43%	6,2738%	25,04754%	0,016	0,128	3,8436	3,811506
24/02/2005	950	850	0,111226	7,43%	6,2376%	24,97513%	0,011	0,105	4,2984	4,272228
25/02/2005	920	850	0,079137	7,43%	6,3030%	25,10574%	0,008	0,091	3,5151	3,492365
28/02/2005	930	850	0,089948	7,43%	6,2558%	25,01162%	0,003	0,052	6,8927	6,879645

d1 and d2 VALUE of INDF (E > P) Rp850

Date	P	E	In (P/E)	Rf	σ^2	σ	T	\sqrt{T}	d1	d2
30/11/2004	750	900	-0,18232	7,41%	6,9296%	26,32408%	0,249	0,499	-1,1808	-1,31228
01/12/2004	775	900	-0,14953	7,41%	7,0047%	26,46634%	0,244	0,494	-0,9406	-1,07126
02/12/2004	800	900	-0,11778	7,41%	7,0587%	26,56825%	0,241	0,491	-0,7007	-0,83115

03/12/2004	775	900	-0,14953	7,41%	7,1598%	26,75788%	0,238	0,488	-0,9441	-1,07476
06/12/2004	800	900	-0,11778	7,43%	7,2106%	26,85263%	0,230	0,480	-0,7172	-0,846
07/12/2004	775	900	-0,14953	7,43%	7,3053%	27,02825%	0,227	0,477	-0,9646	-1,09353
08/12/2004	750	900	-0,18232	7,43%	7,4028%	27,20801%	0,225	0,474	-1,2199	-1,34882
09/12/2004	750	900	-0,18232	7,43%	7,2893%	26,99877%	0,222	0,471	-1,2403	-1,36745
10/12/2004	750	900	-0,18232	7,43%	7,1793%	26,79428%	0,219	0,468	-1,2609	-1,38634
13/12/2004	750	900	-0,18232	7,43%	7,0726%	26,59436%	0,211	0,459	-1,3032	-1,42537
14/12/2004	725	900	-0,21622	7,43%	7,1736%	26,78353%	0,208	0,456	-1,5815	-1,70371
15/12/2004	750	900	-0,18232	7,43%	7,2556%	26,93619%	0,203	0,450	-1,3184	-1,4397
16/12/2004	750	900	-0,18232	7,43%	7,1523%	26,74379%	0,203	0,450	-1,3288	-1,44918
17/12/2004	750	900	-0,18232	7,43%	7,0519%	26,55546%	0,200	0,447	-1,3507	-1,46947
20/12/2004	750	900	-0,18232	7,43%	6,9543%	26,37105%	0,192	0,438	-1,3976	-1,51309
21/12/2004	750	900	-0,18232	7,43%	6,8594%	26,19043%	0,189	0,435	-1,4208	-1,53469
22/12/2004	775	900	-0,14953	7,43%	6,9248%	26,31503%	0,184	0,428	-1,1489	-1,26169
23/12/2004	750	900	-0,18232	7,43%	7,0106%	26,47750%	0,184	0,428	-1,4303	-1,54369
27/12/2004	775	900	-0,14953	7,43%	7,0728%	26,59467%	0,184	0,428	-1,1357	-1,24962
28/12/2004	800	900	-0,11778	7,43%	7,1195%	26,68248%	0,164	0,405	-0,9218	-1,02994
29/12/2004	800	900	-0,11778	7,43%	7,0290%	26,51221%	0,164	0,405	-0,9284	-1,03586
30/12/2004	800	900	-0,11778	7,43%	6,9407%	26,34515%	0,164	0,405	-0,9349	-1,04175
03/01/2005	800	900	-0,11778	7,42%	6,8546%	26,18122%	0,164	0,405	-0,9416	-1,04776
04/01/2005	860	900	-0,04546	7,42%	7,5260%	27,43358%	0,151	0,388	-0,2687	-0,37516
05/01/2005	840	900	-0,06899	7,42%	7,5307%	27,44216%	0,148	0,385	-0,4969	-0,60241
06/01/2005	850	900	-0,05716	7,42%	7,4519%	27,29819%	0,142	0,377	-0,4006	-0,50367
07/01/2005	840	900	-0,06899	7,42%	7,3921%	27,18839%	0,142	0,377	-0,5180	-0,62061
10/01/2005	820	900	-0,09309	7,42%	7,3995%	27,20203%	0,134	0,366	-0,7842	-0,8839
11/01/2005	830	900	-0,08097	7,42%	7,3267%	27,06785%	0,132	0,363	-0,6764	-0,77455
12/01/2005	820	900	-0,09309	7,42%	7,2701%	26,96305%	0,123	0,351	-0,8393	-0,93399
13/01/2005	820	900	-0,09309	7,42%	7,1881%	26,81061%	0,123	0,351	-0,8446	-0,93876
14/01/2005	820	900	-0,09309	7,42%	7,1079%	26,66073%	0,123	0,351	-0,8499	-0,94351
17/01/2005	810	900	-0,10536	7,42%	7,0554%	26,56202%	0,115	0,339	-1,0295	-1,11963
18/01/2005	800	900	-0,11778	7,42%	7,0040%	26,46507%	0,112	0,335	-1,1896	-1,27828
19/01/2005	810	900	-0,10536	7,42%	6,9421%	26,34789%	0,096	0,310	-1,1634	-1,24494
20/01/2005	820	900	-0,09309	7,42%	6,8809%	26,23139%	0,096	0,310	-1,0178	-1,09905
24/01/2005	820	900	-0,09309	7,42%	6,8082%	26,09250%	0,096	0,310	-1,0237	-1,10447
25/01/2005	830	900	-0,08097	7,42%	6,7490%	25,97891%	0,096	0,310	-0,8778	-0,95827
26/01/2005	860	900	-0,04546	7,42%	6,8179%	26,11105%	0,085	0,291	-0,4766	-0,55267
27/01/2005	900	900	0	7,42%	6,9785%	26,41692%	0,085	0,291	0,1204	0,043364
28/01/2005	890	900	-0,01117	7,42%	6,9306%	26,32606%	0,085	0,291	-0,0251	-0,10185
31/01/2005	870	900	-0,0339	7,42%	6,9352%	26,33473%	0,077	0,277	-0,3503	-0,42322
01/02/2005	870	900	-0,0339	7,42%	6,8666%	26,20416%	0,074	0,272	-0,3630	-0,4343
02/02/2005	860	900	-0,04546	7,42%	6,8211%	26,11718%	0,071	0,267	-0,5415	-0,61123
03/02/2005	870	900	-0,0339	7,42%	6,7639%	26,00752%	0,058	0,240	-0,4438	-0,50621
04/02/2005	870	900	-0,0339	7,42%	6,6989%	25,88228%	0,058	0,240	-0,4463	-0,50835
07/02/2005	860	900	-0,04546	7,42%	6,6561%	25,79948%	0,058	0,240	-0,6347	-0,6966
08/02/2005	860	900	-0,04546	7,42%	6,5933%	25,67747%	0,055	0,234	-0,6587	-0,71878
11/02/2005	880	900	-0,02247	7,42%	6,5792%	25,64989%	0,047	0,216	-0,3159	-0,37122
14/02/2005	880	900	-0,02247	7,43%	6,5183%	25,53105%	0,038	0,196	-0,3674	-0,41745
15/02/2005	880	900	-0,02247	7,43%	6,4586%	25,41385%	0,036	0,189	-0,3894	-0,43736
16/02/2005	880	900	-0,02247	7,43%	6,4000%	25,29826%	0,036	0,189	-0,3914	-0,43914
17/02/2005	900	900	0	7,43%	6,3853%	25,26918%	0,030	0,174	0,0730	0,029111
18/02/2005	910	900	0,01105	7,43%	6,3354%	25,17014%	0,030	0,174	0,3260	0,282281
21/02/2005	940	900	0,043485	7,43%	6,3738%	25,24642%	0,019	0,138	1,3020	1,267039
22/02/2005	950	900	0,054067	7,43%	6,3235%	25,14658%	0,016	0,128	1,7310	1,698735
23/02/2005	960	900	0,064539	7,43%	6,2738%	25,04754%	0,016	0,128	2,0638	2,031645
24/02/2005	950	900	0,054067	7,43%	6,2376%	24,97513%	0,011	0,105	2,1122	2,086033
25/02/2005	920	900	0,021979	7,43%	6,3030%	25,10574%	0,008	0,091	1,0039	0,981098
28/02/2005	930	900	0,03279	7,43%	6,2558%	25,01162%	0,003	0,052	2,5267	2,513634

d1 and d2 VALUE of INDF (E < P) Rp900

Date	P	E	In (P/E)	Rf	σ^2	σ	T	\sqrt{T}	d1	d2
30/11/2004	750	850	-0,12516	7,41%	6,9296%	26,32408%	0,249	0,499	-0,7460	-0,87741
01/12/2004	775	850	-0,09237	7,41%	7,0047%	26,46634%	0,244	0,494	-0,5032	-0,6339

02/12/2004	800	850	-0,06062	7,41%	7,0587%	26,56825%	0,241	0,491	-0,2625	-0,393
03/12/2004	775	850	-0,09237	7,41%	7,1598%	26,75788%	0,238	0,488	-0,5066	-0,63722
06/12/2004	800	850	-0,06062	7,43%	7,2106%	26,85263%	0,230	0,480	-0,2735	-0,40229
07/12/2004	775	850	-0,09237	7,43%	7,3053%	27,02825%	0,227	0,477	-0,5212	-0,65005
08/12/2004	750	850	-0,12516	7,43%	7,4028%	27,20801%	0,225	0,474	-0,7766	-0,9056
09/12/2004	750	850	-0,12516	7,43%	7,2893%	26,99877%	0,222	0,471	-0,7909	-0,91805
10/12/2004	750	850	-0,12516	7,43%	7,1793%	26,79428%	0,219	0,468	-0,8052	-0,93068
13/12/2004	750	850	-0,12516	7,43%	7,0726%	26,59436%	0,211	0,459	-0,8353	-0,95743
14/12/2004	725	850	-0,15906	7,43%	7,1736%	26,78353%	0,208	0,456	-1,1138	-1,23603
15/12/2004	750	850	-0,12516	7,43%	7,2556%	26,93619%	0,203	0,450	-0,8471	-0,96842
16/12/2004	750	850	-0,12516	7,43%	7,1523%	26,74379%	0,203	0,450	-0,8541	-0,97452
17/12/2004	750	850	-0,12516	7,43%	7,0519%	26,55546%	0,200	0,447	-0,8694	-0,98817
20/12/2004	750	850	-0,12516	7,43%	6,9543%	26,37105%	0,192	0,438	-0,9027	-1,01815
21/12/2004	750	850	-0,12516	7,43%	6,8594%	26,19043%	0,189	0,435	-0,9189	-1,03274
22/12/2004	775	850	-0,09237	7,43%	6,9248%	26,31503%	0,184	0,428	-0,6420	-0,75472
23/12/2004	750	850	-0,12516	7,43%	7,0106%	26,47750%	0,184	0,428	-0,9264	-1,03983
27/12/2004	775	850	-0,09237	7,43%	7,0728%	26,59467%	0,184	0,428	-0,6340	-0,74798
28/12/2004	800	850	-0,06062	7,43%	7,1195%	26,68248%	0,164	0,405	-0,3934	-0,50159
29/12/2004	800	850	-0,06062	7,43%	7,0290%	26,51221%	0,164	0,405	-0,3966	-0,50411
30/12/2004	800	850	-0,06062	7,43%	6,9407%	26,34515%	0,164	0,405	-0,3998	-0,50663
03/01/2005	800	850	-0,06062	7,42%	6,8546%	26,18122%	0,164	0,405	-0,4031	-0,50929
04/01/2005	860	850	0,011696	7,42%	7,5260%	27,43358%	0,151	0,388	0,2681	0,161576
05/01/2005	840	850	-0,01183	7,42%	7,5307%	27,44216%	0,148	0,385	0,0447	-0,06089
06/01/2005	850	850	0	7,42%	7,4519%	27,29819%	0,142	0,377	0,1541	0,051077
07/01/2005	840	850	-0,01183	7,42%	7,3921%	27,18839%	0,142	0,377	0,0390	-0,06362
10/01/2005	820	850	-0,03593	7,42%	7,3995%	27,20203%	0,134	0,366	-0,2107	-0,31041
11/01/2005	830	850	-0,02381	7,42%	7,3267%	27,06785%	0,132	0,363	-0,0941	-0,19224
12/01/2005	820	850	-0,03593	7,42%	7,2701%	26,96305%	0,123	0,351	-0,2356	-0,33025
13/01/2005	820	850	-0,03593	7,42%	7,1881%	26,81061%	0,123	0,351	-0,2374	-0,33159
14/01/2005	820	850	-0,03593	7,42%	7,1079%	26,66073%	0,123	0,351	-0,2393	-0,33292
17/01/2005	810	850	-0,0482	7,42%	7,0554%	26,56202%	0,115	0,339	-0,3952	-0,48526
18/01/2005	800	850	-0,06062	7,42%	7,0040%	26,46507%	0,112	0,335	-0,5452	-0,63387
19/01/2005	810	850	-0,0482	7,42%	6,9421%	26,34789%	0,096	0,310	-0,4628	-0,54438
20/01/2005	820	850	-0,03593	7,42%	6,8809%	26,23139%	0,096	0,310	-0,3141	-0,39538
24/01/2005	820	850	-0,03593	7,42%	6,8082%	26,09250%	0,096	0,310	-0,3163	-0,39705
25/01/2005	830	850	-0,02381	7,42%	6,7490%	25,97891%	0,096	0,310	-0,1673	-0,24776
26/01/2005	860	850	0,011696	7,42%	6,8179%	26,11105%	0,085	0,291	0,2746	0,19847
27/01/2005	900	850	0,057158	7,42%	6,9785%	26,41692%	0,085	0,291	0,8628	0,785808
28/01/2005	890	850	0,045985	7,42%	6,9306%	26,32606%	0,085	0,291	0,7199	0,643151
31/01/2005	870	850	0,023257	7,42%	6,9352%	26,33473%	0,077	0,277	0,4334	0,360421
01/02/2005	870	850	0,023257	7,42%	6,8666%	26,20416%	0,074	0,272	0,4390	0,3677
02/02/2005	860	850	0,011696	7,42%	6,8211%	26,11718%	0,071	0,267	0,2785	0,208766
03/02/2005	870	850	0,023257	7,42%	6,7639%	26,00752%	0,058	0,240	0,4724	0,410053
04/02/2005	870	850	0,023257	7,42%	6,6989%	25,88228%	0,058	0,240	0,4744	0,412339
07/02/2005	860	850	0,011696	7,42%	6,6561%	25,79948%	0,058	0,240	0,2889	0,227045
08/02/2005	860	850	0,011696	7,42%	6,5933%	25,67747%	0,055	0,234	0,2923	0,232178
11/02/2005	880	850	0,034686	7,42%	6,5792%	25,64989%	0,047	0,216	0,7167	0,661345
14/02/2005	880	850	0,034686	7,43%	6,5183%	25,53105%	0,038	0,196	0,7757	0,725679
15/02/2005	880	850	0,034686	7,43%	6,4586%	25,41385%	0,036	0,189	0,8023	0,754385
16/02/2005	880	850	0,034686	7,43%	6,4000%	25,29826%	0,036	0,189	0,8058	0,758051
17/02/2005	900	850	0,057158	7,43%	6,3853%	25,26918%	0,030	0,174	1,3760	1,332095
18/02/2005	910	850	0,068208	7,43%	6,3354%	25,17014%	0,030	0,174	1,6341	1,590392
21/02/2005	940	850	0,100644	7,43%	6,3738%	25,24642%	0,019	0,138	2,9369	2,901888
22/02/2005	950	850	0,111226	7,43%	6,3235%	25,14658%	0,016	0,128	3,5038	3,471585
23/02/2005	960	850	0,121697	7,43%	6,2738%	25,04754%	0,016	0,128	3,8436	3,811506
24/02/2005	950	850	0,111226	7,43%	6,2376%	24,97513%	0,011	0,105	4,2984	4,272228
25/02/2005	920	850	0,079137	7,43%	6,3030%	25,10574%	0,008	0,091	3,5151	3,492365
28/02/2005	930	850	0,089948	7,43%	6,2558%	25,01162%	0,003	0,052	6,8927	6,879645

d1 and d2 VALUE of INDF (E = P) Rp900

Date	P	E	ln (P/E)	Rf	σ^2	σ	T	\sqrt{T}	d1	d2
30/11/2004	750	900	-0,18232	7,41%	6,9296%	26,32408%	0,249	0,499	-1,1808	-1,31228

01/12/2004	775	900	-0,14953	7,41%	7,0047%	26,46634%	0,244	0,494	-0,9406	-1,07126
02/12/2004	800	900	-0,11778	7,41%	7,0587%	26,56825%	0,241	0,491	-0,7007	-0,83115
03/12/2004	775	900	-0,14953	7,41%	7,1598%	26,75788%	0,238	0,488	-0,9441	-1,07476
06/12/2004	800	900	-0,11778	7,43%	7,2106%	26,85263%	0,230	0,480	-0,7172	-0,846
07/12/2004	775	900	-0,14953	7,43%	7,3053%	27,02825%	0,227	0,477	-0,9646	-1,09353
08/12/2004	750	900	-0,18232	7,43%	7,4028%	27,20801%	0,225	0,474	-1,2199	-1,34882
09/12/2004	750	900	-0,18232	7,43%	7,2893%	26,99877%	0,222	0,471	-1,2403	-1,36745
10/12/2004	750	900	-0,18232	7,43%	7,1793%	26,79428%	0,219	0,468	-1,2609	-1,38634
13/12/2004	750	900	-0,18232	7,43%	7,0726%	26,59436%	0,211	0,459	-1,3032	-1,42537
14/12/2004	725	900	-0,21622	7,43%	7,1736%	26,78353%	0,208	0,456	-1,5815	-1,70371
15/12/2004	750	900	-0,18232	7,43%	7,2556%	26,93619%	0,203	0,450	-1,3184	-1,4397
16/12/2004	750	900	-0,18232	7,43%	7,1523%	26,74379%	0,203	0,450	-1,3288	-1,44918
17/12/2004	750	900	-0,18232	7,43%	7,0519%	26,55546%	0,200	0,447	-1,3507	-1,46947
20/12/2004	750	900	-0,18232	7,43%	6,9543%	26,37105%	0,192	0,438	-1,3976	-1,51309
21/12/2004	750	900	-0,18232	7,43%	6,8594%	26,19043%	0,189	0,435	-1,4208	-1,53469
22/12/2004	775	900	-0,14953	7,43%	6,9248%	26,31503%	0,184	0,428	-1,1489	-1,26169
23/12/2004	750	900	-0,18232	7,43%	7,0106%	26,47750%	0,184	0,428	-1,4303	-1,54369
27/12/2004	775	900	-0,14953	7,43%	7,0728%	26,59467%	0,184	0,428	-1,1357	-1,24962
28/12/2004	800	900	-0,11778	7,43%	7,1195%	26,68248%	0,164	0,405	-0,9218	-1,02994
29/12/2004	800	900	-0,11778	7,43%	7,0290%	26,51221%	0,164	0,405	-0,9284	-1,03586
30/12/2004	800	900	-0,11778	7,43%	6,9407%	26,34515%	0,164	0,405	-0,9349	-1,04175
03/01/2005	800	900	-0,11778	7,42%	6,8546%	26,18122%	0,164	0,405	-0,9416	-1,04776
04/01/2005	860	900	-0,04546	7,42%	7,5260%	27,43358%	0,151	0,388	-0,2687	-0,37516
05/01/2005	840	900	-0,06899	7,42%	7,5307%	27,44216%	0,148	0,385	-0,4969	-0,60241
06/01/2005	850	900	-0,05716	7,42%	7,4519%	27,29819%	0,142	0,377	-0,4006	-0,50367
07/01/2005	840	900	-0,06899	7,42%	7,3921%	27,18839%	0,142	0,377	-0,5180	-0,62061
10/01/2005	820	900	-0,09309	7,42%	7,3995%	27,20203%	0,134	0,366	-0,7842	-0,8839
11/01/2005	830	900	-0,08097	7,42%	7,3267%	27,06785%	0,132	0,363	-0,6764	-0,77455
12/01/2005	820	900	-0,09309	7,42%	7,2701%	26,96305%	0,123	0,351	-0,8393	-0,93399
13/01/2005	820	900	-0,09309	7,42%	7,1881%	26,81061%	0,123	0,351	-0,8446	-0,93876
14/01/2005	820	900	-0,09309	7,42%	7,1079%	26,66073%	0,123	0,351	-0,8499	-0,94351
17/01/2005	810	900	-0,10536	7,42%	7,0554%	26,56202%	0,115	0,339	-1,0295	-1,11963
18/01/2005	800	900	-0,11778	7,42%	7,0040%	26,46507%	0,112	0,335	-1,1896	-1,27828
19/01/2005	810	900	-0,10536	7,42%	6,9421%	26,34789%	0,096	0,310	-1,1634	-1,24494
20/01/2005	820	900	-0,09309	7,42%	6,8809%	26,23139%	0,096	0,310	-1,0178	-1,09905
24/01/2005	820	900	-0,09309	7,42%	6,8082%	26,09250%	0,096	0,310	-1,0237	-1,10447
25/01/2005	830	900	-0,08097	7,42%	6,7490%	25,97891%	0,096	0,310	-0,8778	-0,95827
26/01/2005	860	900	-0,04546	7,42%	6,8179%	26,11105%	0,085	0,291	-0,4766	-0,55267
27/01/2005	900	900	0	7,42%	6,9785%	26,41692%	0,085	0,291	0,1204	0,04336
28/01/2005	890	900	-0,01117	7,42%	6,9306%	26,32606%	0,085	0,291	-0,0251	-0,10185
31/01/2005	870	900	-0,0339	7,42%	6,9352%	26,33473%	0,077	0,277	-0,3503	-0,42322
01/02/2005	870	900	-0,0339	7,42%	6,8666%	26,20416%	0,074	0,272	-0,3630	-0,4343
02/02/2005	860	900	-0,04546	7,42%	6,8211%	26,11718%	0,071	0,267	-0,5415	-0,61123
03/02/2005	870	900	-0,0339	7,42%	6,7639%	26,00752%	0,058	0,240	-0,4438	-0,50621
04/02/2005	870	900	-0,0339	7,42%	6,6989%	25,88228%	0,058	0,240	-0,4463	-0,50835
07/02/2005	860	900	-0,04546	7,42%	6,6561%	25,79948%	0,058	0,240	-0,6347	-0,6966
08/02/2005	860	900	-0,04546	7,42%	6,5933%	25,67747%	0,055	0,234	-0,6587	-0,71878
11/02/2005	880	900	-0,02247	7,42%	6,5792%	25,64989%	0,047	0,216	-0,3159	-0,37122
14/02/2005	880	900	-0,02247	7,43%	6,5183%	25,53105%	0,038	0,196	-0,3674	-0,41745
15/02/2005	880	900	-0,02247	7,43%	6,4586%	25,41385%	0,036	0,189	-0,3894	-0,43736
16/02/2005	880	900	-0,02247	7,43%	6,4000%	25,29826%	0,036	0,189	-0,3914	-0,43914
17/02/2005	900	900	0	7,43%	6,3853%	25,26918%	0,030	0,174	0,0730	0,02911
18/02/2005	910	900	0,01105	7,43%	6,3354%	25,17014%	0,030	0,174	0,3260	0,28228
21/02/2005	940	900	0,04349	7,43%	6,3738%	25,24642%	0,019	0,138	1,3020	1,26704
22/02/2005	950	900	0,05407	7,43%	6,3235%	25,14658%	0,016	0,128	1,7310	1,69873
23/02/2005	960	900	0,06454	7,43%	6,2738%	25,04754%	0,016	0,128	2,0638	2,03165
24/02/2005	950	900	0,05407	7,43%	6,2376%	24,97513%	0,011	0,105	2,1122	2,08603
25/02/2005	920	900	0,02198	7,43%	6,3030%	25,10574%	0,008	0,091	1,0039	0,9811
28/02/2005	930	900	0,03279	7,43%	6,2558%	25,01162%	0,003	0,052	2,5267	2,51363

d1 and d2 VALUE of INDF (E > P) Rp900

Date	P	E	In (P/E)	Rf	σ^2	σ	T	\sqrt{T}	d1	d2
30/11/2004	750	950	-0,23639	7,41%	6,9296%	26,32408%	0,249	0,499	-1,5922	-1,72362
01/12/2004	775	950	-0,2036	7,41%	7,0047%	26,46634%	0,244	0,494	-1,3543	-1,48497
02/12/2004	800	950	-0,17185	7,41%	7,0587%	26,56825%	0,241	0,491	-1,1151	-1,2456
03/12/2004	775	950	-0,2036	7,41%	7,1598%	26,75788%	0,238	0,488	-1,3580	-1,48863
06/12/2004	800	950	-0,17185	7,43%	7,2106%	26,85263%	0,230	0,480	-1,1369	-1,26572
07/12/2004	775	950	-0,2036	7,43%	7,3053%	27,02825%	0,227	0,477	-1,3841	-1,51302
08/12/2004	750	950	-0,23639	7,43%	7,4028%	27,20801%	0,225	0,474	-1,6391	-1,76807
09/12/2004	750	950	-0,23639	7,43%	7,2893%	26,99877%	0,222	0,471	-1,6654	-1,79256
10/12/2004	750	950	-0,23639	7,43%	7,1793%	26,79428%	0,219	0,468	-1,6919	-1,81736
13/12/2004	750	950	-0,23639	7,43%	7,0726%	26,59436%	0,211	0,459	-1,7459	-1,86801
14/12/2004	725	950	-0,27029	7,43%	7,1736%	26,78353%	0,208	0,456	-2,0239	-2,1461
15/12/2004	750	950	-0,23639	7,43%	7,2556%	26,93619%	0,203	0,450	-1,7642	-1,88548
16/12/2004	750	950	-0,23639	7,43%	7,1523%	26,74379%	0,203	0,450	-1,7778	-1,89818
17/12/2004	750	950	-0,23639	7,43%	7,0519%	26,55546%	0,200	0,447	-1,8060	-1,92473
20/12/2004	750	950	-0,23639	7,43%	6,9543%	26,37105%	0,192	0,438	-1,8658	-1,98126
21/12/2004	750	950	-0,23639	7,43%	6,8594%	26,19043%	0,189	0,435	-1,8956	-2,00949
22/12/2004	775	950	-0,2036	7,43%	6,9248%	26,31503%	0,184	0,428	-1,6285	-1,74125
23/12/2004	750	950	-0,23639	7,43%	7,0106%	26,47750%	0,184	0,428	-1,9069	-2,02031
27/12/2004	775	950	-0,2036	7,43%	7,0728%	26,59467%	0,184	0,428	-1,6102	-1,72413
28/12/2004	800	950	-0,17185	7,43%	7,1195%	26,68248%	0,164	0,405	-1,4215	-1,52972
29/12/2004	800	950	-0,17185	7,43%	7,0290%	26,51221%	0,164	0,405	-1,4314	-1,53885
30/12/2004	800	950	-0,17185	7,43%	6,9407%	26,34515%	0,164	0,405	-1,4411	-1,54793
03/01/2005	800	950	-0,17185	7,42%	6,8546%	26,18122%	0,164	0,405	-1,4510	-1,55711
04/01/2005	860	950	-0,09953	7,42%	7,5260%	27,43358%	0,151	0,388	-0,7764	-0,88287
05/01/2005	840	950	-0,12306	7,42%	7,5307%	27,44216%	0,148	0,385	-1,0091	-1,11464
06/01/2005	850	950	-0,11123	7,42%	7,4519%	27,29819%	0,142	0,377	-0,9254	-1,02841
07/01/2005	840	950	-0,12306	7,42%	7,3921%	27,18839%	0,142	0,377	-1,0448	-1,14747
10/01/2005	820	950	-0,14716	7,42%	7,3995%	27,20203%	0,134	0,366	-1,3267	-1,42638
11/01/2005	830	950	-0,13504	7,42%	7,3267%	27,06785%	0,132	0,363	-1,2272	-1,32537
12/01/2005	820	950	-0,14716	7,42%	7,2701%	26,96305%	0,123	0,351	-1,4104	-1,50508
13/01/2005	820	950	-0,14716	7,42%	7,1881%	26,81061%	0,123	0,351	-1,4190	-1,5131
14/01/2005	820	950	-0,14716	7,42%	7,1079%	26,66073%	0,123	0,351	-1,4275	-1,52108
17/01/2005	810	950	-0,15943	7,42%	7,0554%	26,56202%	0,115	0,339	-1,6296	-1,71969
18/01/2005	800	950	-0,17185	7,42%	7,0040%	26,46507%	0,112	0,335	-1,7991	-1,88784
19/01/2005	810	950	-0,15943	7,42%	6,9421%	26,34789%	0,096	0,310	-1,8260	-1,90762
20/01/2005	820	950	-0,14716	7,42%	6,8809%	26,23139%	0,096	0,310	-1,6834	-1,76467
24/01/2005	820	950	-0,14716	7,42%	6,8082%	26,09250%	0,096	0,310	-1,6928	-1,77363
25/01/2005	830	950	-0,13504	7,42%	6,7490%	25,97891%	0,096	0,310	-1,5499	-1,63036
26/01/2005	860	950	-0,09953	7,42%	6,8179%	26,11105%	0,085	0,291	-1,1871	-1,26319
27/01/2005	900	950	-0,05407	7,42%	6,9785%	26,41692%	0,085	0,291	-0,5819	-0,65893
28/01/2005	890	950	-0,06524	7,42%	6,9306%	26,32606%	0,085	0,291	-0,7298	-0,80657
31/01/2005	870	950	-0,08797	7,42%	6,9352%	26,33473%	0,077	0,277	-1,0915	-1,16449
01/02/2005	870	950	-0,08797	7,42%	6,8666%	26,20416%	0,074	0,272	-1,1217	-1,19293
02/02/2005	860	950	-0,09953	7,42%	6,8211%	26,11718%	0,071	0,267	-1,3172	-1,38689
03/02/2005	870	950	-0,08797	7,42%	6,7639%	26,00752%	0,058	0,240	-1,3105	-1,37291
04/02/2005	870	950	-0,08797	7,42%	6,6989%	25,88228%	0,058	0,240	-1,3172	-1,37925
07/02/2005	860	950	-0,09953	7,42%	6,6561%	25,79948%	0,058	0,240	-1,5084	-1,5703
08/02/2005	860	950	-0,09953	7,42%	6,5933%	25,67747%	0,055	0,234	-1,5582	-1,6183
11/02/2005	880	950	-0,07654	7,42%	6,5792%	25,64989%	0,047	0,216	-1,2926	-1,34794
14/02/2005	880	950	-0,07654	7,43%	6,5183%	25,53105%	0,038	0,196	-1,4487	-1,49875
15/02/2005	880	950	-0,07654	7,43%	6,4586%	25,41385%	0,036	0,189	-1,5167	-1,56466
16/02/2005	880	950	-0,07654	7,43%	6,4000%	25,29826%	0,036	0,189	-1,5238	-1,57159
17/02/2005	900	950	-0,05407	7,43%	6,3853%	25,26918%	0,030	0,174	-1,1595	-1,20341
18/02/2005	910	950	-0,04302	7,43%	6,3354%	25,17014%	0,030	0,174	-0,9114	-0,95509
21/02/2005	940	950	-0,01058	7,43%	6,3738%	25,24642%	0,019	0,138	-0,2444	-0,2794
22/02/2005	950	950	0	7,43%	6,3235%	25,14658%	0,016	0,128	0,0540	0,021762
23/02/2005	960	950	0,010471	7,43%	6,2738%	25,04754%	0,016	0,128	0,3802	0,348042
24/02/2005	950	950	0	7,43%	6,2376%	24,97513%	0,011	0,105	0,0442	0,018071
25/02/2005	920	950	-0,03209	7,43%	6,3030%	25,10574%	0,008	0,091	-1,3716	-1,39436
28/02/2005	930	950	-0,02128	7,43%	6,2558%	25,01162%	0,003	0,052	-1,6032	-1,61626

d1 and d2 VALUE of TLKM (E < P) Rp4800

Date	P	E	In (P/E)	Rf	σ^2	σ	T	\sqrt{T}	d1	d2
30/11/2004	5000	4700	0,061875	7,41%	53,0247%	72,81807%	0,249	0,499	0,4028	0,03919
01/12/2004	5100	4700	0,081678	7,41%	52,2666%	72,29565%	0,244	0,494	0,4579	0,10091
02/12/2004	5200	4700	0,101096	7,41%	51,5254%	71,78121%	0,241	0,491	0,5137	0,16129
03/12/2004	5000	4700	0,061875	7,41%	50,8768%	71,32798%	0,238	0,488	0,4025	0,05428
06/12/2004	5000	4700	0,061875	7,43%	50,0643%	70,75614%	0,230	0,480	0,4024	0,06295
07/12/2004	5100	4700	0,081678	7,43%	49,3973%	70,28324%	0,227	0,477	0,4617	0,12654
08/12/2004	5050	4700	0,071826	7,43%	48,6279%	69,73374%	0,225	0,474	0,4331	0,10255
09/12/2004	4900	4700	0,041673	7,43%	47,9773%	69,26566%	0,222	0,471	0,3414	0,0151
10/12/2004	4700	4700	0	7,43%	47,4542%	68,88704%	0,219	0,468	0,2117	-0,11076
13/12/2004	4700	4700	0	7,43%	46,7545%	68,37724%	0,211	0,459	0,2069	-0,10712
14/12/2004	4600	4700	-0,02151	7,43%	46,1015%	67,89809%	0,208	0,456	0,1354	-0,17439
15/12/2004	4750	4700	0,010582	7,43%	45,6962%	67,59900%	0,203	0,450	0,2364	-0,06293
16/12/2004	4875	4700	0,036558	7,43%	45,2210%	67,24658%	0,203	0,450	0,3219	0,01909
17/12/2004	4950	4700	0,051825	7,43%	44,6590%	66,82741%	0,200	0,447	0,3726	0,0737
20/12/2004	4925	4700	0,046762	7,43%	44,0389%	66,36178%	0,192	0,438	0,3552	0,06463
21/12/2004	4900	4700	0,041673	7,43%	43,4357%	65,90575%	0,189	0,435	0,3377	0,05117
22/12/2004	4875	4700	0,036558	7,43%	42,8488%	65,45899%	0,184	0,428	0,3192	0,03876
23/12/2004	4825	4700	0,026248	7,43%	42,2805%	65,02346%	0,184	0,428	0,2825	0,00388
27/12/2004	4875	4700	0,036558	7,43%	41,7641%	64,62512%	0,184	0,428	0,3197	0,04285
28/12/2004	4850	4700	0,031416	7,43%	41,2217%	64,20414%	0,164	0,405	0,2978	0,03745
29/12/2004	4900	4700	0,041673	7,43%	40,7308%	63,82072%	0,164	0,405	0,3376	0,07887
30/12/2004	4825	4700	0,026248	7,43%	40,2294%	63,42664%	0,164	0,405	0,2781	0,02099
03/01/2005	4925	4700	0,046762	7,42%	39,8261%	63,10794%	0,164	0,405	0,3584	0,10225
04/01/2005	4950	4700	0,051825	7,42%	39,3496%	62,72928%	0,151	0,388	0,3805	0,137
05/01/2005	4875	4700	0,036558	7,42%	38,8838%	62,35691%	0,148	0,385	0,3181	0,07827
06/01/2005	4975	4700	0,056863	7,42%	38,5076%	62,05446%	0,142	0,377	0,4050	0,17079
07/01/2005	5125	4700	0,086568	7,42%	38,2183%	61,82093%	0,142	0,377	0,5330	0,29963
10/01/2005	4950	4700	0,051825	7,42%	37,8874%	61,55275%	0,134	0,366	0,3867	0,1612
11/01/2005	4850	4700	0,031416	7,42%	37,4783%	61,21949%	0,132	0,363	0,2965	0,07446
12/01/2005	4825	4700	0,026248	7,42%	37,0475%	60,86664%	0,123	0,351	0,2725	0,05876
13/01/2005	4975	4700	0,056863	7,42%	36,7980%	60,66135%	0,123	0,351	0,4164	0,20342
14/01/2005	5000	4700	0,061875	7,42%	36,3967%	60,32971%	0,123	0,351	0,4412	0,22937
17/01/2005	5000	4700	0,061875	7,42%	35,9950%	59,99584%	0,115	0,339	0,4477	0,24423
18/01/2005	4950	4700	0,051825	7,42%	35,6033%	59,66847%	0,112	0,335	0,4008	0,20084
19/01/2005	4950	4700	0,051825	7,42%	35,2189%	59,34552%	0,096	0,310	0,4126	0,22884
20/01/2005	4950	4700	0,051825	7,42%	34,8428%	59,02775%	0,096	0,310	0,4138	0,23106
24/01/2005	4850	4700	0,031416	7,42%	34,5025%	58,73879%	0,096	0,310	0,3028	0,12089
25/01/2005	4825	4700	0,026248	7,42%	34,1393%	58,42885%	0,096	0,310	0,2749	0,09393
26/01/2005	4850	4700	0,031416	7,42%	33,7953%	58,13375%	0,085	0,291	0,3073	0,13792
27/01/2005	4800	4700	0,021053	7,42%	33,4509%	57,83673%	0,085	0,291	0,2466	0,07802
28/01/2005	4800	4700	0,021053	7,42%	33,1121%	57,54307%	0,085	0,291	0,2470	0,07927
31/01/2005	4800	4700	0,021053	7,42%	32,7800%	57,25384%	0,077	0,277	0,2479	0,08937
01/02/2005	4825	4700	0,026248	7,42%	32,4632%	56,97646%	0,074	0,272	0,2823	0,12732
02/02/2005	4750	4700	0,010582	7,42%	32,1559%	56,70618%	0,071	0,267	0,1805	0,02917
03/02/2005	4700	4700	0	7,42%	31,8447%	56,43114%	0,058	0,240	0,0992	-0,03614
04/02/2005	4675	4700	-0,00533	7,42%	31,5356%	56,15659%	0,058	0,240	0,0594	-0,07525
07/02/2005	4650	4700	-0,0107	7,42%	31,2325%	55,88601%	0,058	0,240	0,0191	-0,11496
08/02/2005	4625	4700	-0,01609	7,42%	30,9351%	55,61931%	0,055	0,234	-0,0272	-0,15742
11/02/2005	4675	4700	-0,00533	7,42%	30,6692%	55,37980%	0,047	0,216	0,0440	-0,07547
14/02/2005	4650	4700	-0,0107	7,43%	30,3827%	55,12048%	0,038	0,196	-0,0187	-0,12665
15/02/2005	4750	4700	0,010582	7,43%	30,1738%	54,93068%	0,036	0,189	0,1794	0,07577
16/02/2005	4750	4700	0,010582	7,43%	29,8989%	54,67987%	0,036	0,189	0,1798	0,07659
17/02/2005	4700	4700	0	7,43%	29,6313%	54,43462%	0,030	0,174	0,0709	-0,02355
18/02/2005	4700	4700	0	7,43%	29,3662%	54,19062%	0,030	0,174	0,0708	-0,02324
21/02/2005	4625	4700	-0,01609	7,43%	29,1183%	53,96136%	0,019	0,138	-0,1588	-0,23356
22/02/2005	4650	4700	-0,0107	7,43%	28,8703%	53,73111%	0,016	0,128	-0,1031	-0,17197
23/02/2005	4650	4700	-0,0107	7,43%	28,6189%	53,49664%	0,016	0,128	-0,1038	-0,17242
24/02/2005	4575	4700	-0,02696	7,43%	28,3844%	53,27699%	0,011	0,105	-0,4408	-0,4966
25/02/2005	4475	4700	-0,04906	7,43%	28,1705%	53,07586%	0,008	0,091	-0,9827	-1,03086
28/02/2005	4425	4700	-0,06029	7,43%	27,9342%	52,85278%	0,003	0,052	-2,1582	-2,18589

d1 and d2 VALUE of TLKM (E = P) Rp4800

Date	P	E	In (P/E)	Rf	σ^2	σ	T	\sqrt{T}	d1	d2
30/11/2004	5000	4800	0,040822	7,41%	53,0247%	72,81807%	0,249	0,499	0,3449	-0,01871
01/12/2004	5100	4800	0,060625	7,41%	52,2666%	72,29565%	0,244	0,494	0,3989	0,041935
02/12/2004	5200	4800	0,080043	7,41%	51,5254%	71,78121%	0,241	0,491	0,4540	0,101559
03/12/2004	5000	4800	0,040822	7,41%	50,8768%	71,32798%	0,238	0,488	0,3421	-0,00617
06/12/2004	5000	4800	0,040822	7,43%	50,0643%	70,75614%	0,230	0,480	0,3404	0,000922
07/12/2004	5100	4800	0,060625	7,43%	49,3973%	70,28324%	0,227	0,477	0,3989	0,06372
08/12/2004	5050	4800	0,050772	7,43%	48,6279%	69,73374%	0,225	0,474	0,3694	0,038851
09/12/2004	4900	4800	0,020619	7,43%	47,9773%	69,26566%	0,222	0,471	0,2769	-0,04943
10/12/2004	4700	4800	-0,021053	7,43%	47,4542%	68,88704%	0,219	0,468	0,1465	-0,17604
13/12/2004	4700	4800	-0,021053	7,43%	46,7545%	68,37724%	0,211	0,459	0,1399	-0,17416
14/12/2004	4600	4800	-0,04256	7,43%	46,1015%	67,89809%	0,208	0,456	0,0675	-0,24235
15/12/2004	4750	4800	-0,010471	7,43%	45,6962%	67,59900%	0,203	0,450	0,1673	-0,1371
16/12/2004	4875	4800	0,015504	7,43%	45,2210%	67,24658%	0,203	0,450	0,2523	-0,05044
17/12/2004	4950	4800	0,030772	7,43%	44,6590%	66,82741%	0,200	0,447	0,3021	0,003254
20/12/2004	4925	4800	0,025708	7,43%	44,0389%	66,36178%	0,192	0,438	0,2828	-0,00782
21/12/2004	4900	4800	0,020619	7,43%	43,4357%	65,90575%	0,189	0,435	0,2642	-0,0223
22/12/2004	4875	4800	0,015504	7,43%	42,8488%	65,45899%	0,184	0,428	0,2441	-0,03631
23/12/2004	4825	4800	0,005195	7,43%	42,2805%	65,02346%	0,184	0,428	0,2069	-0,07169
27/12/2004	4875	4800	0,015504	7,43%	41,7641%	64,62512%	0,184	0,428	0,2437	-0,03319
28/12/2004	4850	4800	0,010363	7,43%	41,2217%	64,20414%	0,164	0,405	0,2169	-0,04343
29/12/2004	4900	4800	0,020619	7,43%	40,7308%	63,82072%	0,164	0,405	0,2563	-0,00249
30/12/2004	4825	4800	0,005195	7,43%	40,2294%	63,42664%	0,164	0,405	0,1963	-0,06088
03/01/2005	4925	4800	0,025708	7,42%	39,8261%	63,10794%	0,164	0,405	0,2761	0,020213
04/01/2005	4950	4800	0,030772	7,42%	39,3496%	62,72928%	0,151	0,388	0,2940	0,050535
05/01/2005	4875	4800	0,015504	7,42%	38,8838%	62,35691%	0,148	0,385	0,2303	-0,00951
06/01/2005	4975	4800	0,035809	7,42%	38,5076%	62,05446%	0,142	0,377	0,3151	0,080908
07/01/2005	5125	4800	0,065515	7,42%	38,2183%	61,82093%	0,142	0,377	0,4427	0,2094
10/01/2005	4950	4800	0,030772	7,42%	37,8874%	61,55275%	0,134	0,366	0,2934	0,067848
11/01/2005	4850	4800	0,010363	7,42%	37,4783%	61,21949%	0,132	0,363	0,2016	-0,02037
12/01/2005	4825	4800	0,005195	7,42%	37,0475%	60,86664%	0,123	0,351	0,1740	-0,03975
13/01/2005	4975	4800	0,035809	7,42%	36,7980%	60,66135%	0,123	0,351	0,3176	0,104573
14/01/2005	5000	4800	0,040822	7,42%	36,3967%	60,32971%	0,123	0,351	0,3418	0,129979
17/01/2005	5000	4800	0,040822	7,42%	35,9950%	59,99584%	0,115	0,339	0,3443	0,140778
18/01/2005	4950	4800	0,030772	7,42%	35,6033%	59,66847%	0,112	0,335	0,2955	0,095559
19/01/2005	4950	4800	0,030772	7,42%	35,2189%	59,34552%	0,096	0,310	0,2980	0,114278
20/01/2005	4950	4800	0,030772	7,42%	34,8428%	59,02775%	0,096	0,310	0,2987	0,11588
24/01/2005	4850	4800	0,010363	7,42%	34,5025%	58,73879%	0,096	0,310	0,1870	0,005144
25/01/2005	4825	4800	0,005195	7,42%	34,1393%	58,42885%	0,096	0,310	0,1585	-0,02243
26/01/2005	4850	4800	0,010363	7,42%	33,7953%	58,13375%	0,085	0,291	0,1831	0,013654
27/01/2005	4800	4800	0	7,42%	33,4509%	57,83673%	0,085	0,291	0,1217	-0,04689
28/01/2005	4800	4800	0	7,42%	33,1121%	57,54307%	0,085	0,291	0,1214	-0,04627
31/01/2005	4800	4800	0	7,42%	32,7800%	57,25384%	0,077	0,277	0,1152	-0,04339
01/02/2005	4825	4800	0,005195	7,42%	32,4632%	56,97646%	0,074	0,272	0,1464	-0,00854
02/02/2005	4750	4800	-0,010471	7,42%	32,1559%	56,70618%	0,071	0,267	0,0414	-0,10994
03/02/2005	4700	4800	-0,021053	7,42%	31,8447%	56,43114%	0,058	0,240	-0,0563	-0,19168
04/02/2005	4675	4800	-0,026387	7,42%	31,5356%	56,15659%	0,058	0,240	-0,0969	-0,23155
07/02/2005	4650	4800	-0,031749	7,42%	31,2325%	55,88601%	0,058	0,240	-0,1380	-0,27202
08/02/2005	4625	4800	-0,037114	7,42%	30,9351%	55,61931%	0,055	0,234	-0,1889	-0,31913
11/02/2005	4675	4800	-0,026387	7,42%	30,6692%	55,37980%	0,047	0,216	-0,1321	-0,25162
14/02/2005	4650	4800	-0,031749	7,43%	30,3827%	55,12048%	0,038	0,196	-0,2137	-0,32168
15/02/2005	4750	4800	-0,010471	7,43%	30,1738%	54,93068%	0,036	0,189	-0,0236	-0,12732
16/02/2005	4750	4800	-0,010471	7,43%	29,8989%	54,67987%	0,036	0,189	-0,0242	-0,12743
17/02/2005	4700	4800	-0,021053	7,43%	29,6313%	54,43462%	0,030	0,174	-0,1518	-0,24634
18/02/2005	4700	4800	-0,021053	7,43%	29,3662%	54,19062%	0,030	0,174	-0,1530	-0,24703
21/02/2005	4625	4800	-0,037114	7,43%	29,1183%	53,96136%	0,019	0,138	-0,4406	-0,51529
22/02/2005	4650	4800	-0,031749	7,43%	28,8703%	53,73111%	0,016	0,128	-0,4087	-0,47758
23/02/2005	4650	4800	-0,031749	7,43%	28,6189%	53,49664%	0,016	0,128	-0,4108	-0,47937
24/02/2005	4575	4800	-0,048009	7,43%	28,3844%	53,27699%	0,011	0,105	-0,8183	-0,87409
25/02/2005	4475	4800	-0,07011	7,43%	28,1705%	53,07586%	0,008	0,091	-1,4203	-1,46839
28/02/2005	4425	4800	-0,081346	7,43%	27,9342%	52,85278%	0,003	0,052	-2,9193	-2,94692

d1 and d2 VALUE of TLKM (E > P) Rp4800

Date	P	E	In (P/E)	Rf	σ^2	σ	T	\sqrt{T}	d1	d2
30/11/2004	5000	4900	0,020203	7,41%	53,0247%	72,81807%	0,249	0,499	0,2882	-0,07542
01/12/2004	5100	4900	0,040005	7,41%	52,2666%	72,29565%	0,244	0,494	0,3412	-0,01582
02/12/2004	5200	4900	0,059423	7,41%	51,5254%	71,78121%	0,241	0,491	0,3955	0,043057
03/12/2004	5000	4900	0,020203	7,41%	50,8768%	71,32798%	0,238	0,488	0,2829	-0,06538
06/12/2004	5000	4900	0,020203	7,43%	50,0643%	70,75614%	0,230	0,480	0,2796	-0,05982
07/12/2004	5100	4900	0,040005	7,43%	49,3973%	70,28324%	0,227	0,477	0,3374	0,002199
08/12/2004	5050	4900	0,030153	7,43%	48,6279%	69,73374%	0,225	0,474	0,3070	-0,02353
09/12/2004	4900	4900	0	7,43%	47,9773%	69,26566%	0,222	0,471	0,2137	-0,11262
10/12/2004	4700	4900	-0,04167	7,43%	47,4542%	68,88704%	0,219	0,468	0,0825	-0,23997
13/12/2004	4700	4900	-0,04167	7,43%	46,7545%	68,37724%	0,211	0,459	0,0742	-0,23981
14/12/2004	4600	4900	-0,06318	7,43%	46,1015%	67,89809%	0,208	0,456	0,0009	-0,3089
15/12/2004	4750	4900	-0,03109	7,43%	45,6962%	67,59900%	0,203	0,450	0,0995	-0,20484
16/12/2004	4875	4900	-0,00512	7,43%	45,2210%	67,24658%	0,203	0,450	0,1843	-0,11854
17/12/2004	4950	4900	0,010152	7,43%	44,6590%	66,82741%	0,200	0,447	0,2331	-0,06574
20/12/2004	4925	4900	0,005089	7,43%	44,0389%	66,36178%	0,192	0,438	0,2119	-0,07877
21/12/2004	4900	4900	0	7,43%	43,4357%	65,90575%	0,189	0,435	0,1923	-0,09426
22/12/2004	4875	4900	-0,00512	7,43%	42,8488%	65,45899%	0,184	0,428	0,1706	-0,10983
23/12/2004	4825	4900	-0,01542	7,43%	42,2805%	65,02346%	0,184	0,428	0,1329	-0,1457
27/12/2004	4875	4900	-0,00512	7,43%	41,7641%	64,62512%	0,184	0,428	0,1692	-0,10766
28/12/2004	4850	4900	-0,01026	7,43%	41,2217%	64,20414%	0,164	0,405	0,1377	-0,12264
29/12/2004	4900	4900	0	7,43%	40,7308%	63,82072%	0,164	0,405	0,1766	-0,08218
30/12/2004	4825	4900	-0,01542	7,43%	40,2294%	63,42664%	0,164	0,405	0,1161	-0,14106
03/01/2005	4925	4900	0,005089	7,42%	39,8261%	63,10794%	0,164	0,405	0,1955	-0,06037
04/01/2005	4950	4900	0,010152	7,42%	39,3496%	62,72928%	0,151	0,388	0,2094	-0,03414
05/01/2005	4875	4900	-0,00512	7,42%	38,8838%	62,35691%	0,148	0,385	0,1444	-0,09548
06/01/2005	4975	4900	0,01519	7,42%	38,5076%	62,05446%	0,142	0,377	0,2271	-0,00713
07/01/2005	5125	4900	0,044895	7,42%	38,2183%	61,82093%	0,142	0,377	0,3544	0,121035
10/01/2005	4950	4900	0,010152	7,42%	37,8874%	61,55275%	0,134	0,366	0,2019	-0,02358
11/01/2005	4850	4900	-0,01026	7,42%	37,4783%	61,21949%	0,132	0,363	0,1088	-0,11325
12/01/2005	4825	4900	-0,01542	7,42%	37,0475%	60,86664%	0,123	0,351	0,0775	-0,13623
13/01/2005	4975	4900	0,01519	7,42%	36,7980%	60,66135%	0,123	0,351	0,2208	0,007767
14/01/2005	5000	4900	0,020203	7,42%	36,3967%	60,32971%	0,123	0,351	0,2445	0,032641
17/01/2005	5000	4900	0,020203	7,42%	35,9950%	59,99584%	0,115	0,339	0,2430	0,039463
18/01/2005	4950	4900	0,010152	7,42%	35,6033%	59,66847%	0,112	0,335	0,1924	-0,00755
19/01/2005	4950	4900	0,010152	7,42%	35,2189%	59,34552%	0,096	0,310	0,1858	0,002077
20/01/2005	4950	4900	0,010152	7,42%	34,8428%	59,02775%	0,096	0,310	0,1859	0,003075
24/01/2005	4850	4900	-0,01026	7,42%	34,5025%	58,73879%	0,096	0,310	0,0737	-0,10822
25/01/2005	4825	4900	-0,01542	7,42%	34,1393%	58,42885%	0,096	0,310	0,0445	-0,13639
26/01/2005	4850	4900	-0,01026	7,42%	33,7953%	58,13375%	0,085	0,291	0,0614	-0,10805
27/01/2005	4800	4900	-0,02062	7,42%	33,4509%	57,83673%	0,085	0,291	-0,0007	-0,16922
28/01/2005	4800	4900	-0,02062	7,42%	33,1121%	57,54307%	0,085	0,291	-0,0015	-0,16922
31/01/2005	4800	4900	-0,02062	7,42%	32,7800%	57,25384%	0,077	0,277	-0,0148	-0,17342
01/02/2005	4825	4900	-0,01542	7,42%	32,4632%	56,97646%	0,074	0,272	0,0134	-0,1416
02/02/2005	4750	4900	-0,03109	7,42%	32,1559%	56,70618%	0,071	0,267	-0,0948	-0,24618
03/02/2005	4700	4900	-0,04167	7,42%	31,8447%	56,43114%	0,058	0,240	-0,2087	-0,34401
04/02/2005	4675	4900	-0,04701	7,42%	31,5356%	56,15659%	0,058	0,240	-0,2499	-0,38463

07/02/2005	4650	4900	-0,05237	7,42%	31,2325%	55,88601%	0,058	0,240	-0,2918	-0,42584
08/02/2005	4625	4900	-0,05776	7,42%	30,9351%	55,61931%	0,055	0,234	-0,3473	-0,4775
11/02/2005	4675	4900	-0,04701	7,42%	30,6692%	55,37980%	0,047	0,216	-0,3046	-0,42414
14/02/2005	4650	4900	-0,05237	7,43%	30,3827%	55,12048%	0,038	0,196	-0,4047	-0,51268
15/02/2005	4750	4900	-0,03109	7,43%	30,1738%	54,93068%	0,036	0,189	-0,2225	-0,32621
16/02/2005	4750	4900	-0,03109	7,43%	29,8989%	54,67987%	0,036	0,189	-0,2240	-0,32724
17/02/2005	4700	4900	-0,04167	7,43%	29,6313%	54,43462%	0,030	0,174	-0,3700	-0,46454
18/02/2005	4700	4900	-0,04167	7,43%	29,3662%	54,19062%	0,030	0,174	-0,3721	-0,46621
21/02/2005	4625	4900	-0,05776	7,43%	29,1183%	53,96136%	0,019	0,138	-0,7165	-0,79121
22/02/2005	4650	4900	-0,05237	7,43%	28,8703%	53,73111%	0,016	0,128	-0,7080	-0,77689
23/02/2005	4650	4900	-0,05237	7,43%	28,6189%	53,49664%	0,016	0,128	-0,7114	-0,77999
24/02/2005	4575	4900	-0,06863	7,43%	28,3844%	53,27699%	0,011	0,105	-1,1880	-1,24379
25/02/2005	4475	4900	-0,09073	7,43%	28,1705%	53,07586%	0,008	0,091	-1,8488	-1,8969
28/02/2005	4425	4900	-0,10196	7,43%	27,9342%	52,85278%	0,003	0,052	-3,6646	-3,69225

d1 and d2 VALUE of TLKM (E < P) Rp4900

Date	P	E	In (P/E)	Rf	σ^2	σ	T	\sqrt{T}	d1	d2
30/11/2004	5000	4800	0,040822	7,41%	53,0247%	72,81807%	0,249	0,499	0,3449	-0,01871
01/12/2004	5100	4800	0,060625	7,41%	52,2666%	72,29565%	0,244	0,494	0,3989	0,04193
02/12/2004	5200	4800	0,080043	7,41%	51,5254%	71,78121%	0,241	0,491	0,4540	0,10156
03/12/2004	5000	4800	0,040822	7,41%	50,8768%	71,32798%	0,238	0,488	0,3421	-0,00617
06/12/2004	5000	4800	0,040822	7,43%	50,0643%	70,75614%	0,230	0,480	0,3404	0,00092
07/12/2004	5100	4800	0,060625	7,43%	49,3973%	70,28324%	0,227	0,477	0,3989	0,06372
08/12/2004	5050	4800	0,050772	7,43%	48,6279%	69,73374%	0,225	0,474	0,3694	0,03885
09/12/2004	4900	4800	0,020619	7,43%	47,9773%	69,26566%	0,222	0,471	0,2769	-0,04943
10/12/2004	4700	4800	-0,02105	7,43%	47,4542%	68,88704%	0,219	0,468	0,1465	-0,17604
13/12/2004	4700	4800	-0,02105	7,43%	46,7545%	68,37724%	0,211	0,459	0,1399	-0,17416
14/12/2004	4600	4800	-0,04256	7,43%	46,1015%	67,89809%	0,208	0,456	0,0675	-0,24235
15/12/2004	4750	4800	-0,01047	7,43%	45,6962%	67,59900%	0,203	0,450	0,1673	-0,1371
16/12/2004	4875	4800	0,015504	7,43%	45,2210%	67,24658%	0,203	0,450	0,2523	-0,05044
17/12/2004	4950	4800	0,030772	7,43%	44,6590%	66,82741%	0,200	0,447	0,3021	0,00325
20/12/2004	4925	4800	0,025708	7,43%	44,0389%	66,36178%	0,192	0,438	0,2828	-0,00782
21/12/2004	4900	4800	0,020619	7,43%	43,4537%	65,90575%	0,189	0,435	0,2642	-0,0223
22/12/2004	4875	4800	0,015504	7,43%	42,8488%	65,45899%	0,184	0,428	0,2441	-0,03631
23/12/2004	4825	4800	0,005195	7,43%	42,2805%	65,02346%	0,184	0,428	0,2069	-0,07169
27/12/2004	4875	4800	0,015504	7,43%	41,7641%	64,62512%	0,184	0,428	0,2437	-0,03319
28/12/2004	4850	4800	0,010363	7,43%	41,2217%	64,20414%	0,164	0,405	0,2169	-0,04343
29/12/2004	4900	4800	0,020619	7,43%	40,7308%	63,82072%	0,164	0,405	0,2563	-0,00249
30/12/2004	4825	4800	0,005195	7,43%	40,2294%	63,42664%	0,164	0,405	0,1963	-0,06088
03/01/2005	4925	4800	0,025708	7,42%	39,8261%	63,10794%	0,164	0,405	0,2761	0,02021
04/01/2005	4950	4800	0,030772	7,42%	39,3496%	62,72928%	0,151	0,388	0,2940	0,05054
05/01/2005	4875	4800	0,015504	7,42%	38,8838%	62,35691%	0,148	0,385	0,2303	-0,00951
06/01/2005	4975	4800	0,035809	7,42%	38,5076%	62,05446%	0,142	0,377	0,3151	0,08091
07/01/2005	5125	4800	0,065515	7,42%	38,2183%	61,82093%	0,142	0,377	0,4427	0,2094
10/01/2005	4950	4800	0,030772	7,42%	37,8874%	61,55275%	0,134	0,366	0,2934	0,06785
11/01/2005	4850	4800	0,010363	7,42%	37,4783%	61,21949%	0,132	0,363	0,2016	-0,02037
12/01/2005	4825	4800	0,005195	7,42%	37,0475%	60,86664%	0,123	0,351	0,1740	-0,03975
13/01/2005	4975	4800	0,035809	7,42%	36,7980%	60,66135%	0,123	0,351	0,3176	0,10457
14/01/2005	5000	4800	0,040822	7,42%	36,3967%	60,32971%	0,123	0,351	0,3418	0,12998
17/01/2005	5000	4800	0,040822	7,42%	35,9950%	59,99584%	0,115	0,339	0,3443	0,14078
18/01/2005	4950	4800	0,030772	7,42%	35,6033%	59,66847%	0,112	0,335	0,2955	0,09556
19/01/2005	4950	4800	0,030772	7,42%	35,2189%	59,34552%	0,096	0,310	0,2980	0,11428
20/01/2005	4950	4800	0,030772	7,42%	34,8428%	59,02775%	0,096	0,310	0,2987	0,11588
24/01/2005	4850	4800	0,010363	7,42%	34,5025%	58,73879%	0,096	0,310	0,1870	0,00514
25/01/2005	4825	4800	0,005195	7,42%	34,1393%	58,42885%	0,096	0,310	0,1585	-0,02243
26/01/2005	4850	4800	0,010363	7,42%	33,7953%	58,13375%	0,085	0,291	0,1831	0,01365

27/01/2005	4800	4800	0	7,42%	33,4509%	57,83673%	0,085	0,291	0,1217	-0,04689
28/01/2005	4800	4800	0	7,42%	33,1121%	57,54307%	0,085	0,291	0,1214	-0,04627
31/01/2005	4800	4800	0	7,42%	32,7800%	57,25384%	0,077	0,277	0,1152	-0,04339
01/02/2005	4825	4800	0,005195	7,42%	32,4632%	56,97646%	0,074	0,272	0,1464	-0,00854
02/02/2005	4750	4800	-0,01047	7,42%	32,1559%	56,70618%	0,071	0,267	0,0414	-0,10994
03/02/2005	4700	4800	-0,02105	7,42%	31,8447%	56,43114%	0,058	0,240	-0,0563	-0,19168
04/02/2005	4675	4800	-0,02639	7,42%	31,5356%	56,15659%	0,058	0,240	-0,0969	-0,23155
07/02/2005	4650	4800	-0,03175	7,42%	31,2325%	55,88601%	0,058	0,240	-0,1380	-0,27202
08/02/2005	4625	4800	-0,03714	7,42%	30,9351%	55,61931%	0,055	0,234	-0,1889	-0,31913
11/02/2005	4675	4800	-0,02639	7,42%	30,6692%	55,37980%	0,047	0,216	-0,1321	-0,25162
14/02/2005	4650	4800	-0,03175	7,43%	30,3827%	55,12048%	0,038	0,196	-0,2137	-0,32168
15/02/2005	4750	4800	-0,01047	7,43%	30,1738%	54,93068%	0,036	0,189	-0,0236	-0,12732
16/02/2005	4750	4800	-0,01047	7,43%	29,8989%	54,67987%	0,036	0,189	-0,0242	-0,12743
17/02/2005	4700	4800	-0,02105	7,43%	29,6313%	54,43462%	0,030	0,174	-0,1518	-0,24634
18/02/2005	4700	4800	-0,02105	7,43%	29,3662%	54,19062%	0,030	0,174	-0,1530	-0,24703
21/02/2005	4625	4800	-0,03714	7,43%	29,1183%	53,96136%	0,019	0,138	-0,4406	-0,51529
22/02/2005	4650	4800	-0,03175	7,43%	28,8703%	53,73111%	0,016	0,128	-0,4087	-0,47758
23/02/2005	4650	4800	-0,03175	7,43%	28,6189%	53,49664%	0,016	0,128	-0,4108	-0,47937
24/02/2005	4575	4800	-0,04801	7,43%	28,3844%	53,27699%	0,011	0,105	-0,8183	-0,87409
25/02/2005	4475	4800	-0,07011	7,43%	28,1705%	53,07586%	0,008	0,091	-1,4203	-1,46839
28/02/2005	4425	4800	-0,08135	7,43%	27,9342%	52,85278%	0,003	0,052	-2,9193	-2,94692

d1 and d2 VALUE of TLKM (E = P) Rp4900

Date	P	E	In (P/E)	Rf	σ^2	σ	T	\sqrt{T}	d1	d2
30/11/2004	5000	4900	0,0202	7,41%	53,0247%	72,81807%	0,249	0,499	0,2882	-0,0754
01/12/2004	5100	4900	0,04001	7,41%	52,2666%	72,29565%	0,244	0,494	0,3412	-0,0158
02/12/2004	5200	4900	0,05942	7,41%	51,5254%	71,78121%	0,241	0,491	0,3955	0,04306
03/12/2004	5000	4900	0,0202	7,41%	50,8768%	71,32798%	0,238	0,488	0,2829	-0,0654
06/12/2004	5000	4900	0,0202	7,43%	50,0643%	70,75614%	0,230	0,480	0,2796	-0,0598
07/12/2004	5100	4900	0,04001	7,43%	49,3973%	70,28324%	0,227	0,477	0,3374	0,0022
08/12/2004	5050	4900	0,03015	7,43%	48,6279%	69,73374%	0,225	0,474	0,3070	-0,0235
09/12/2004	4900	4900	0	7,43%	47,9773%	69,26566%	0,222	0,471	0,2137	-0,1126
10/12/2004	4700	4900	-0,04167	7,43%	47,4542%	68,88704%	0,219	0,468	0,0825	-0,24
13/12/2004	4700	4900	-0,04167	7,43%	46,7545%	68,37724%	0,211	0,459	0,0742	-0,2398
14/12/2004	4600	4900	-0,06318	7,43%	46,1015%	67,89809%	0,208	0,456	0,0009	-0,3089
15/12/2004	4750	4900	-0,03109	7,43%	45,6962%	67,59900%	0,203	0,450	0,0995	-0,2048
16/12/2004	4875	4900	-0,00512	7,43%	45,2210%	67,24658%	0,203	0,450	0,1843	-0,1185
17/12/2004	4950	4900	0,01015	7,43%	44,6590%	66,82741%	0,200	0,447	0,2331	-0,0657
20/12/2004	4925	4900	0,00509	7,43%	44,0389%	66,36178%	0,192	0,438	0,2119	-0,0788
21/12/2004	4900	4900	0	7,43%	43,4357%	65,90575%	0,189	0,435	0,1923	-0,0943
22/12/2004	4875	4900	-0,00512	7,43%	42,8488%	65,45899%	0,184	0,428	0,1706	-0,1098
23/12/2004	4825	4900	-0,01542	7,43%	42,2805%	65,02346%	0,184	0,428	0,1329	-0,1457
27/12/2004	4875	4900	-0,00512	7,43%	41,7641%	64,62512%	0,184	0,428	0,1692	-0,1077
28/12/2004	4850	4900	-0,01026	7,43%	41,2217%	64,20414%	0,164	0,405	0,1377	-0,1226
29/12/2004	4900	4900	0	7,43%	40,7308%	63,82072%	0,164	0,405	0,1766	-0,0822
30/12/2004	4825	4900	-0,01542	7,43%	40,2294%	63,42664%	0,164	0,405	0,1161	-0,1411
03/01/2005	4925	4900	0,00509	7,42%	39,8261%	63,10794%	0,164	0,405	0,1955	-0,0604
04/01/2005	4950	4900	0,01015	7,42%	39,3496%	62,72928%	0,151	0,388	0,2094	-0,0341
05/01/2005	4875	4900	-0,00512	7,42%	38,8838%	62,35691%	0,148	0,385	0,1444	-0,0955
06/01/2005	4975	4900	0,01519	7,42%	38,5076%	62,05446%	0,142	0,377	0,2271	-0,0071
07/01/2005	5125	4900	0,0449	7,42%	38,2183%	61,82093%	0,142	0,377	0,3544	0,12103
10/01/2005	4950	4900	0,01015	7,42%	37,8874%	61,55275%	0,134	0,366	0,2019	-0,0236
11/01/2005	4850	4900	-0,01026	7,42%	37,4783%	61,21949%	0,132	0,363	0,1088	-0,1132
12/01/2005	4825	4900	-0,01542	7,42%	37,0475%	60,86664%	0,123	0,351	0,0775	-0,1362
13/01/2005	4975	4900	0,01519	7,42%	36,7980%	60,66135%	0,123	0,351	0,2208	0,00777
14/01/2005	5000	4900	0,0202	7,42%	36,3967%	60,32971%	0,123	0,351	0,2445	0,03264
17/01/2005	5000	4900	0,0202	7,42%	35,9950%	59,99584%	0,115	0,339	0,2430	0,03946
18/01/2005	4950	4900	0,01015	7,42%	35,6033%	59,66847%	0,112	0,335	0,1924	-0,0075
19/01/2005	4950	4900	0,01015	7,42%	35,2189%	59,34552%	0,096	0,310	0,1858	0,00208
20/01/2005	4950	4900	0,01015	7,42%	34,8428%	59,02775%	0,096	0,310	0,1859	0,00307

24/01/2005	4850	4900	-0,01026	7,42%	34,5025%	58,73879%	0,096	0,310	0,0737	-0,1082
25/01/2005	4825	4900	-0,01542	7,42%	34,1393%	58,42885%	0,096	0,310	0,0445	-0,1364
26/01/2005	4850	4900	-0,01026	7,42%	33,7953%	58,13375%	0,085	0,291	0,0614	-0,1081
27/01/2005	4800	4900	-0,02062	7,42%	33,4509%	57,83673%	0,085	0,291	-0,0007	-0,1692
28/01/2005	4800	4900	-0,02062	7,42%	33,1121%	57,54307%	0,085	0,291	-0,0015	-0,1692
31/01/2005	4800	4900	-0,02062	7,42%	32,7800%	57,25384%	0,077	0,277	-0,0148	-0,1734
01/02/2005	4825	4900	-0,01542	7,42%	32,4632%	56,97646%	0,074	0,272	0,0134	-0,1416
02/02/2005	4750	4900	-0,03109	7,42%	32,1559%	56,70618%	0,071	0,267	-0,0948	-0,2462
03/02/2005	4700	4900	-0,04167	7,42%	31,8447%	56,43114%	0,058	0,240	-0,2087	-0,344
04/02/2005	4675	4900	-0,04701	7,42%	31,5356%	56,15659%	0,058	0,240	-0,2499	-0,3846
07/02/2005	4650	4900	-0,05237	7,42%	31,2325%	55,88601%	0,058	0,240	-0,2918	-0,4258
08/02/2005	4625	4900	-0,05776	7,42%	30,9351%	55,61931%	0,055	0,234	-0,3473	-0,4775
11/02/2005	4675	4900	-0,04701	7,42%	30,6692%	55,37980%	0,047	0,216	-0,3046	-0,4241
14/02/2005	4650	4900	-0,05237	7,43%	30,3827%	55,12048%	0,038	0,196	-0,4047	-0,5127
15/02/2005	4750	4900	-0,03109	7,43%	30,1738%	54,93068%	0,036	0,189	-0,2225	-0,3262
16/02/2005	4750	4900	-0,03109	7,43%	29,8989%	54,67987%	0,036	0,189	-0,2240	-0,3272
17/02/2005	4700	4900	-0,04167	7,43%	29,6313%	54,43462%	0,030	0,174	-0,3700	-0,4645
18/02/2005	4700	4900	-0,04167	7,43%	29,3662%	54,19062%	0,030	0,174	-0,3721	-0,4662
21/02/2005	4625	4900	-0,05776	7,43%	29,1183%	53,96136%	0,019	0,138	-0,7165	-0,7912
22/02/2005	4650	4900	-0,05237	7,43%	28,8703%	53,73111%	0,016	0,128	-0,7080	-0,7769
23/02/2005	4650	4900	-0,05237	7,43%	28,6189%	53,49664%	0,016	0,128	-0,7114	-0,78
24/02/2005	4575	4900	-0,06863	7,43%	28,3844%	53,27699%	0,011	0,105	-1,1880	-1,2438
25/02/2005	4475	4900	-0,09073	7,43%	28,1705%	53,07586%	0,008	0,091	-1,8488	-1,8969
28/02/2005	4425	4900	-0,10196	7,43%	27,9342%	52,85278%	0,003	0,052	-3,6646	-3,6923

d1 and d2 VALUE of TLKM (E > P) Rp4900

Date	P	E	In (P/E)	Rf	σ^2	σ	T	\sqrt{T}	d1	d2
30/11/2004	5000	5000	0	7,41%	53,0247%	72,81807%	0,249	0,499	0,2326	-0,13099
01/12/2004	5100	5000	0,019803	7,41%	52,2666%	72,29565%	0,244	0,494	0,2846	-0,07241
02/12/2004	5200	5000	0,039221	7,41%	51,5254%	71,78121%	0,241	0,491	0,3382	-0,01426
03/12/2004	5000	5000	0	7,41%	50,8768%	71,32798%	0,238	0,488	0,2248	-0,1234
06/12/2004	5000	5000	0	7,43%	50,0643%	70,75614%	0,230	0,480	0,2201	-0,11934
07/12/2004	5100	5000	0,019803	7,43%	49,3973%	70,28324%	0,227	0,477	0,2771	-0,05808
08/12/2004	5050	5000	0,00995	7,43%	48,6279%	69,73374%	0,225	0,474	0,2459	-0,08466
09/12/2004	4900	5000	-0,0202	7,43%	47,9773%	69,26566%	0,222	0,471	0,1518	-0,17453
10/12/2004	4700	5000	-0,06188	7,43%	47,4542%	68,88704%	0,219	0,468	0,0199	-0,30262
13/12/2004	4700	5000	-0,06188	7,43%	46,7545%	68,37724%	0,211	0,459	0,0099	-0,30414
14/12/2004	4600	5000	-0,08338	7,43%	46,1015%	67,89809%	0,208	0,456	-0,0643	-0,3741
15/12/2004	4750	5000	-0,05129	7,43%	45,6962%	67,59900%	0,203	0,450	0,0332	-0,27122
16/12/2004	4875	5000	-0,02532	7,43%	45,2210%	67,24658%	0,203	0,450	0,1175	-0,18526
17/12/2004	4950	5000	-0,01005	7,43%	44,6590%	66,82741%	0,200	0,447	0,1655	-0,13334
20/12/2004	4925	5000	-0,01511	7,43%	44,0389%	66,36178%	0,192	0,438	0,1423	-0,14828
21/12/2004	4900	5000	-0,0202	7,43%	43,4357%	65,90575%	0,189	0,435	0,1218	-0,16476
22/12/2004	4875	5000	-0,02532	7,43%	42,8488%	65,45899%	0,184	0,428	0,0986	-0,18187
23/12/2004	4825	5000	-0,03563	7,43%	42,2805%	65,02346%	0,184	0,428	0,0604	-0,21822
27/12/2004	4875	5000	-0,02532	7,43%	41,7641%	64,62512%	0,184	0,428	0,0963	-0,18062
28/12/2004	4850	5000	-0,03046	7,43%	41,2217%	64,20414%	0,164	0,405	0,0601	-0,20025
29/12/2004	4900	5000	-0,0202	7,43%	40,7308%	63,82072%	0,164	0,405	0,0985	-0,16025
30/12/2004	4825	5000	-0,03563	7,43%	40,2294%	63,42664%	0,164	0,405	0,0375	-0,21963
03/01/2005	4925	5000	-0,01511	7,42%	39,8261%	63,10794%	0,164	0,405	0,1165	-0,13933
04/01/2005	4950	5000	-0,01005	7,42%	39,3496%	62,72928%	0,151	0,388	0,1264	-0,11711
05/01/2005	4875	5000	-0,02532	7,42%	38,8838%	62,35691%	0,148	0,385	0,0601	-0,17971
06/01/2005	4975	5000	-0,00501	7,42%	38,5076%	62,05446%	0,142	0,377	0,1408	-0,09338
07/01/2005	5125	5000	0,024693	7,42%	38,2183%	61,82093%	0,142	0,377	0,2678	0,034454
10/01/2005	4950	5000	-0,01005	7,42%	37,8874%	61,55275%	0,134	0,366	0,1124	-0,11316
11/01/2005	4850	5000	-0,03046	7,42%	37,4783%	61,21949%	0,132	0,363	0,0178	-0,20425
12/01/2005	4825	5000	-0,03563	7,42%	37,0475%	60,86664%	0,123	0,351	-0,0170	-0,23076
13/01/2005	4975	5000	-0,00501	7,42%	36,7980%	60,66135%	0,123	0,351	0,1259	-0,08708
14/01/2005	5000	5000	0	7,42%	36,3967%	60,32971%	0,123	0,351	0,1491	-0,06273
17/01/2005	5000	5000	0	7,42%	35,9950%	59,99584%	0,115	0,339	0,1437	-0,05981

18/01/2005	4950	5000	-0,01005	7,42%	35,6033%	59,66847%	0,112	0,335	0,0914	-0,10857
19/01/2005	4950	5000	-0,01005	7,42%	35,2189%	59,34552%	0,096	0,310	0,0759	-0,10786
20/01/2005	4950	5000	-0,01005	7,42%	34,8428%	59,02775%	0,096	0,310	0,0753	-0,10745
24/01/2005	4850	5000	-0,03046	7,42%	34,5025%	58,73879%	0,096	0,310	-0,0374	-0,21929
25/01/2005	4825	5000	-0,03563	7,42%	34,1393%	58,42885%	0,096	0,310	-0,0671	-0,24805
26/01/2005	4850	5000	-0,03046	7,42%	33,7953%	58,13375%	0,085	0,291	-0,0579	-0,2273
27/01/2005	4800	5000	-0,04082	7,42%	33,4509%	57,83673%	0,085	0,291	-0,1205	-0,28908
28/01/2005	4800	5000	-0,04082	7,42%	33,1121%	57,54307%	0,085	0,291	-0,1220	-0,2897
31/01/2005	4800	5000	-0,04082	7,42%	32,7800%	57,25384%	0,077	0,277	-0,1422	-0,30082
01/02/2005	4825	5000	-0,03563	7,42%	32,4632%	56,97646%	0,074	0,272	-0,1170	-0,27197
02/02/2005	4750	5000	-0,05129	7,42%	32,1559%	56,70618%	0,071	0,267	-0,2283	-0,37966
03/02/2005	4700	5000	-0,06188	7,42%	31,8447%	56,43114%	0,058	0,240	-0,3579	-0,49327
04/02/2005	4675	5000	-0,06721	7,42%	31,5356%	56,15659%	0,058	0,240	-0,3999	-0,53461
07/02/2005	4650	5000	-0,07257	7,42%	31,2325%	55,88601%	0,058	0,240	-0,4425	-0,57655
08/02/2005	4625	5000	-0,07796	7,42%	30,9351%	55,61931%	0,055	0,234	-0,5025	-0,63268
11/02/2005	4675	5000	-0,06721	7,42%	30,6692%	55,37980%	0,047	0,216	-0,4737	-0,59318
14/02/2005	4650	5000	-0,07257	7,43%	30,3827%	55,12048%	0,038	0,196	-0,5919	-0,69983
15/02/2005	4750	5000	-0,05129	7,43%	30,1738%	54,93068%	0,036	0,189	-0,4174	-0,5211
16/02/2005	4750	5000	-0,05129	7,43%	29,8989%	54,67987%	0,036	0,189	-0,4198	-0,52301
17/02/2005	4700	5000	-0,06188	7,43%	29,6313%	54,43462%	0,030	0,174	-0,5838	-0,67833
18/02/2005	4700	5000	-0,06188	7,43%	29,3662%	54,19062%	0,030	0,174	-0,5869	-0,68096
21/02/2005	4625	5000	-0,07796	7,43%	29,1183%	53,96136%	0,019	0,138	-0,9868	-1,06156
22/02/2005	4650	5000	-0,07257	7,43%	28,8703%	53,73111%	0,016	0,128	-1,0013	-1,07015
23/02/2005	4650	5000	-0,07257	7,43%	28,6189%	53,49664%	0,016	0,128	-1,0059	-1,07454
24/02/2005	4575	5000	-0,08883	7,43%	28,3844%	53,27699%	0,011	0,105	-1,5502	-1,60602
25/02/2005	4475	5000	-0,11093	7,43%	28,1705%	53,07586%	0,008	0,091	-2,2686	-2,31676
28/02/2005	4425	5000	-0,12217	7,43%	27,9342%	52,85278%	0,003	0,052	-4,3949	-4,42253

d1 and d2 VALUE of TLKM (E < P) Rp5000

Date	P	E	ln (P/E)	Rf	σ^2	σ	T	\sqrt{T}	d1	d2
30/11/2004	5000	4900	0,020203	7,41%	53,0247%	72,81807%	0,249	0,499	0,2882	-0,07542
01/12/2004	5100	4900	0,040005	7,41%	52,2666%	72,29565%	0,244	0,494	0,3412	-0,01582
02/12/2004	5200	4900	0,059423	7,41%	51,5254%	71,78121%	0,241	0,491	0,3955	0,04306
03/12/2004	5000	4900	0,020203	7,41%	50,8768%	71,32798%	0,238	0,488	0,2829	-0,06538
06/12/2004	5000	4900	0,020203	7,43%	50,0643%	70,75614%	0,230	0,480	0,2796	-0,05982
07/12/2004	5100	4900	0,040005	7,43%	49,3973%	70,28324%	0,227	0,477	0,3374	0,0022
08/12/2004	5050	4900	0,030153	7,43%	48,6279%	69,73374%	0,225	0,474	0,3070	-0,02353
09/12/2004	4900	4900	0	7,43%	47,9773%	69,26566%	0,222	0,471	0,2137	-0,11262
10/12/2004	4700	4900	-0,04167	7,43%	47,4542%	68,88704%	0,219	0,468	0,0825	-0,23997
13/12/2004	4700	4900	-0,04167	7,43%	46,7545%	68,37724%	0,211	0,459	0,0742	-0,23981
14/12/2004	4600	4900	-0,06318	7,43%	46,1015%	67,89809%	0,208	0,456	0,0009	-0,3089
15/12/2004	4750	4900	-0,03109	7,43%	45,6962%	67,59900%	0,203	0,450	0,0995	-0,20484
16/12/2004	4875	4900	-0,00512	7,43%	45,2210%	67,24658%	0,203	0,450	0,1843	-0,11854
17/12/2004	4950	4900	0,010152	7,43%	44,6590%	66,82741%	0,200	0,447	0,2331	-0,06574
20/12/2004	4925	4900	0,005089	7,43%	44,0389%	66,36178%	0,192	0,438	0,2119	-0,07877
21/12/2004	4900	4900	0	7,43%	43,4357%	65,90575%	0,189	0,435	0,1923	-0,09426
22/12/2004	4875	4900	-0,00512	7,43%	42,8488%	65,45899%	0,184	0,428	0,1706	-0,10983
23/12/2004	4825	4900	-0,01542	7,43%	42,2805%	65,02346%	0,184	0,428	0,1329	-0,1457
27/12/2004	4875	4900	-0,00512	7,43%	41,7641%	64,62512%	0,184	0,428	0,1692	-0,10766
28/12/2004	4850	4900	-0,01026	7,43%	41,2217%	64,20414%	0,164	0,405	0,1377	-0,12264
29/12/2004	4900	4900	0	7,43%	40,7308%	63,82072%	0,164	0,405	0,1766	-0,08218
30/12/2004	4825	4900	-0,01542	7,43%	40,2294%	63,42664%	0,164	0,405	0,1161	-0,14106
03/01/2005	4925	4900	0,005089	7,42%	39,8261%	63,10794%	0,164	0,405	0,1955	-0,06037
04/01/2005	4950	4900	0,010152	7,42%	39,3496%	62,72928%	0,151	0,388	0,2094	-0,03414
05/01/2005	4875	4900	-0,00512	7,42%	38,8838%	62,35691%	0,148	0,385	0,1444	-0,09548
06/01/2005	4975	4900	0,01519	7,42%	38,5076%	62,05446%	0,142	0,377	0,2271	-0,00713
07/01/2005	5125	4900	0,044895	7,42%	38,2183%	61,82093%	0,142	0,377	0,3544	0,12103
10/01/2005	4950	4900	0,010152	7,42%	37,8874%	61,55275%	0,134	0,366	0,2019	-0,02358
11/01/2005	4850	4900	-0,01026	7,42%	37,4783%	61,21949%	0,132	0,363	0,1088	-0,11325
12/01/2005	4825	4900	-0,01542	7,42%	37,0475%	60,86664%	0,123	0,351	0,0775	-0,13623
13/01/2005	4975	4900	0,01519	7,42%	36,7980%	60,66135%	0,123	0,351	0,2208	0,00777

14/01/2005	5000	4900	0,020203	7,42%	36,3967%	60,32971%	0,123	0,351	0,2445	0,03264
17/01/2005	5000	4900	0,020203	7,42%	35,9950%	59,99584%	0,115	0,339	0,2430	0,03946
18/01/2005	4950	4900	0,010152	7,42%	35,6033%	59,66847%	0,112	0,335	0,1924	-0,00755
19/01/2005	4950	4900	0,010152	7,42%	35,2189%	59,34552%	0,096	0,310	0,1858	0,00208
20/01/2005	4950	4900	0,010152	7,42%	34,8428%	59,02775%	0,096	0,310	0,1859	0,00307
24/01/2005	4850	4900	-0,01026	7,42%	34,5025%	58,73879%	0,096	0,310	0,0737	-0,10822
25/01/2005	4825	4900	-0,01542	7,42%	34,1393%	58,42885%	0,096	0,310	0,0445	-0,13639
26/01/2005	4850	4900	-0,01026	7,42%	33,7953%	58,13375%	0,085	0,291	0,0614	-0,10805
27/01/2005	4800	4900	-0,02062	7,42%	33,4509%	57,83673%	0,085	0,291	-0,0007	-0,16922
28/01/2005	4800	4900	-0,02062	7,42%	33,1121%	57,54307%	0,085	0,291	-0,0015	-0,16922
31/01/2005	4800	4900	-0,02062	7,42%	32,7800%	57,25384%	0,077	0,277	-0,0148	-0,17342
01/02/2005	4825	4900	-0,01542	7,42%	32,4632%	56,97646%	0,074	0,272	0,0134	-0,1416
02/02/2005	4750	4900	-0,03109	7,42%	32,1559%	56,70618%	0,071	0,267	-0,0948	-0,24618
03/02/2005	4700	4900	-0,04167	7,42%	31,8447%	56,43114%	0,058	0,240	-0,2087	-0,34401
04/02/2005	4675	4900	-0,04701	7,42%	31,5356%	56,15659%	0,058	0,240	-0,2499	-0,38463
07/02/2005	4650	4900	-0,05237	7,42%	31,2325%	55,88601%	0,058	0,240	-0,2918	-0,42584
08/02/2005	4625	4900	-0,05776	7,42%	30,9351%	55,61931%	0,055	0,234	-0,3473	-0,4775
11/02/2005	4675	4900	-0,04701	7,42%	30,6692%	55,37980%	0,047	0,216	-0,3046	-0,42414
14/02/2005	4650	4900	-0,05237	7,43%	30,3827%	55,12048%	0,038	0,196	-0,4047	-0,51268
15/02/2005	4750	4900	-0,03109	7,43%	30,1738%	54,93068%	0,036	0,189	-0,2225	-0,32621
16/02/2005	4750	4900	-0,03109	7,43%	29,8989%	54,67987%	0,036	0,189	-0,2240	-0,32724
17/02/2005	4700	4900	-0,04167	7,43%	29,6313%	54,43462%	0,030	0,174	-0,3700	-0,46454
18/02/2005	4700	4900	-0,04167	7,43%	29,3662%	54,19062%	0,030	0,174	-0,3721	-0,46621
21/02/2005	4625	4900	-0,05776	7,43%	29,1183%	53,96136%	0,019	0,138	-0,7165	-0,79121
22/02/2005	4650	4900	-0,05237	7,43%	28,8703%	53,73111%	0,016	0,128	-0,7080	-0,77689
23/02/2005	4650	4900	-0,05237	7,43%	28,6189%	53,49664%	0,016	0,128	-0,7114	-0,77999
24/02/2005	4575	4900	-0,06863	7,43%	28,3844%	53,27699%	0,011	0,105	-1,1880	-1,24379
25/02/2005	4475	4900	-0,09073	7,43%	28,1705%	53,07586%	0,008	0,091	-1,8488	-1,8969
28/02/2005	4425	4900	-0,10196	7,43%	27,9342%	52,85278%	0,003	0,052	-3,6646	-3,69225

d1 and d2 VALUE of TLKM (E = P) Rp5000

Date	P	E	ln (P/E)	Rf	σ^2	σ	T	\sqrt{T}	d1	d2
30/11/2004	5000	5000	0	7,41%	53,0247%	72,81807%	0,249	0,499	0,2326	-0,13099
01/12/2004	5100	5000	0,019803	7,41%	52,2666%	72,29565%	0,244	0,494	0,2846	-0,07241
02/12/2004	5200	5000	0,039221	7,41%	51,5254%	71,78121%	0,241	0,491	0,3382	-0,01426
03/12/2004	5000	5000	0	7,41%	50,8768%	71,32798%	0,238	0,488	0,2248	-0,1234
06/12/2004	5000	5000	0	7,43%	50,0643%	70,75614%	0,230	0,480	0,2201	-0,11934
07/12/2004	5100	5000	0,019803	7,43%	49,3973%	70,28324%	0,227	0,477	0,2771	-0,05808
08/12/2004	5050	5000	0,00995	7,43%	48,6279%	69,73374%	0,225	0,474	0,2459	-0,08466
09/12/2004	4900	5000	-0,020203	7,43%	47,9773%	69,26566%	0,222	0,471	0,1518	-0,17453
10/12/2004	4700	5000	-0,061875	7,43%	47,4542%	68,88704%	0,219	0,468	0,0199	-0,30262
13/12/2004	4700	5000	-0,061875	7,43%	46,7545%	68,37724%	0,211	0,459	0,0099	-0,30414
14/12/2004	4600	5000	-0,083382	7,43%	46,1015%	67,89809%	0,208	0,456	-0,0643	-0,3741
15/12/2004	4750	5000	-0,051293	7,43%	45,6962%	67,59900%	0,203	0,450	0,0332	-0,27122
16/12/2004	4875	5000	-0,025318	7,43%	45,2210%	67,24658%	0,203	0,450	0,1175	-0,18526
17/12/2004	4950	5000	-0,01005	7,43%	44,6590%	66,82741%	0,200	0,447	0,1655	-0,13334
20/12/2004	4925	5000	-0,015114	7,43%	44,0389%	66,36178%	0,192	0,438	0,1423	-0,14828
21/12/2004	4900	5000	-0,020203	7,43%	43,4357%	65,90575%	0,189	0,435	0,1218	-0,16476
22/12/2004	4875	5000	-0,025318	7,43%	42,8488%	65,45899%	0,184	0,428	0,0986	-0,18187
23/12/2004	4825	5000	-0,035627	7,43%	42,2805%	65,02346%	0,184	0,428	0,0604	-0,21822
27/12/2004	4875	5000	-0,025318	7,43%	41,7641%	64,62512%	0,184	0,428	0,0963	-0,18062
28/12/2004	4850	5000	-0,030459	7,43%	41,2217%	64,20414%	0,164	0,405	0,0601	-0,20025
29/12/2004	4900	5000	-0,020203	7,43%	40,7308%	63,82072%	0,164	0,405	0,0985	-0,16025
30/12/2004	4825	5000	-0,035627	7,43%	40,2294%	63,42664%	0,164	0,405	0,0375	-0,21963
03/01/2005	4925	5000	-0,015114	7,42%	39,8261%	63,10794%	0,164	0,405	0,1165	-0,13933
04/01/2005	4950	5000	-0,01005	7,42%	39,3496%	62,72928%	0,151	0,388	0,1264	-0,11711
05/01/2005	4875	5000	-0,025318	7,42%	38,8838%	62,35691%	0,148	0,385	0,0601	-0,17971
06/01/2005	4975	5000	-0,005013	7,42%	38,5076%	62,05446%	0,142	0,377	0,1408	-0,09338
07/01/2005	5125	5000	0,024693	7,42%	38,2183%	61,82093%	0,142	0,377	0,2678	0,034454
10/01/2005	4950	5000	-0,01005	7,42%	37,8874%	61,55275%	0,134	0,366	0,1124	-0,11316
11/01/2005	4850	5000	-0,030459	7,42%	37,4783%	61,21949%	0,132	0,363	0,0178	-0,20425