Re: financial mathematics question

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From: Jon Miller (*jonmillere1_at_comcast.net*)
Date: 11/02/04

Date: Mon, 01 Nov 2004 21:50:46 −0600

On Mon, 1 Nov 2004 00:30:00 +0100, "Nicolas Dickreuter"
<NOSPAMdickreuter@yahoo.com> wrote:

>
>"Gyude Bryant" <nospam@nospam.com> wrote in message
>news:2ul23mF2aspr9U1@uni−berlin.de...
>>
>> "Nicolas Dickreuter" <NOSPAMdickreuter@yahoo.com> wrote in message
>> news:cm3io0$b4s$1@newshispeed.ch...
>>> A Share Index (e.g. NASDAQ) shows a compounded annual return of 8% and a
>>> yearly volatility of 24%
>>> What is the expected return and volatility for 6 month / 3 years / 16
>> years?
>>>
>>> Compounded return is r=LN (P1/P0). I think for the 6 months it is thus
>> just
>>> 4%. Is that correct? But what about the volatility?
>>>
>>> Any help is appreciated.
>>> Nicolas
>>>
>>>
>> yep. expected return.
>> What is volatility? Variation in Price? So you got a high side and low
>> side.
>> Volatility would remain more constant over time periods
>>
>>
>
>Yes, volatility is standard deviation. That remains constant, even though
>number of observations increase?

No. The standard deviation is the square root of the variance. The
variance for half a year is half the variance of a whole year. The
variance for a time period of T is T times the variance of a time
period of 1.

>I have another question: What is the probability that the for the given
>periods the return is less than 2%? Am I right in thinking that the I just
>have to take the normal distribution with the according rate of returns for
>the given periods and the same standard deviation for all of them?

Nope. You have to adjust the s