STATISTICAL PRICE ANALYSIS

Buyer Report and Recommendation

Prepared December 1, 2003

The question:

The house we are interested in buying is in Pacific Grove, CA. We like the home quite well (so we want to have a high likelihood of purchasing it). It's important to us that we buy for the best possible price, as the mortgage is a concern, as is attaining future price appreciation. The time to purchase is not much of an issue, as we already have another primary residence in the area, but we would like to have a general idea of how quickly we would purchase. Give us your pricing recommendation.

The data: **The realtor-prepared CMA was used as the data that forms the basis of this price analysis. The data used was the list price, sales price and time to sale (days on market) for each sold property in the CMA.**

The rest of this report provides the analysis and recommendation. You may also want to glance over the definitions (where terms such as probability, etc are explained).

Quick Links:

DEFINITIONS

- Probability: The likelihood of the event occurring. In this report, probability is a % value from 1% to 99%. A higher probability is generally preferred, as it means that your goal is more likely to actually be achieved.
  For example, "What is the likelihood (probability) of buying at $950,000?"
- Time: This is the number of days to get the purchase. Depending on the data you provide, and the info you request, this may or may not include days on escrow. For example, if you send us a CMA which includes both days on market and days on escrow, and specifically request that we analyze time as the days from the property listing until close escrow, we can do that. In this example, we are working with days on market only.
- Price: This is the sales price of the property (i.e., the offer you should make). We use "Price" for short, rather than "Sales Price"
- List Price: This is the price that the property is currently listed at.
- Probability per Dollar: This is the contribution made by each dollar of your offer, to the likelihood of your offer being accepted.

ANALYSIS

1. The house is listed at $1,000,000, and we would like to buy for less than that, say $950,000. What is the probability of buying at that price?

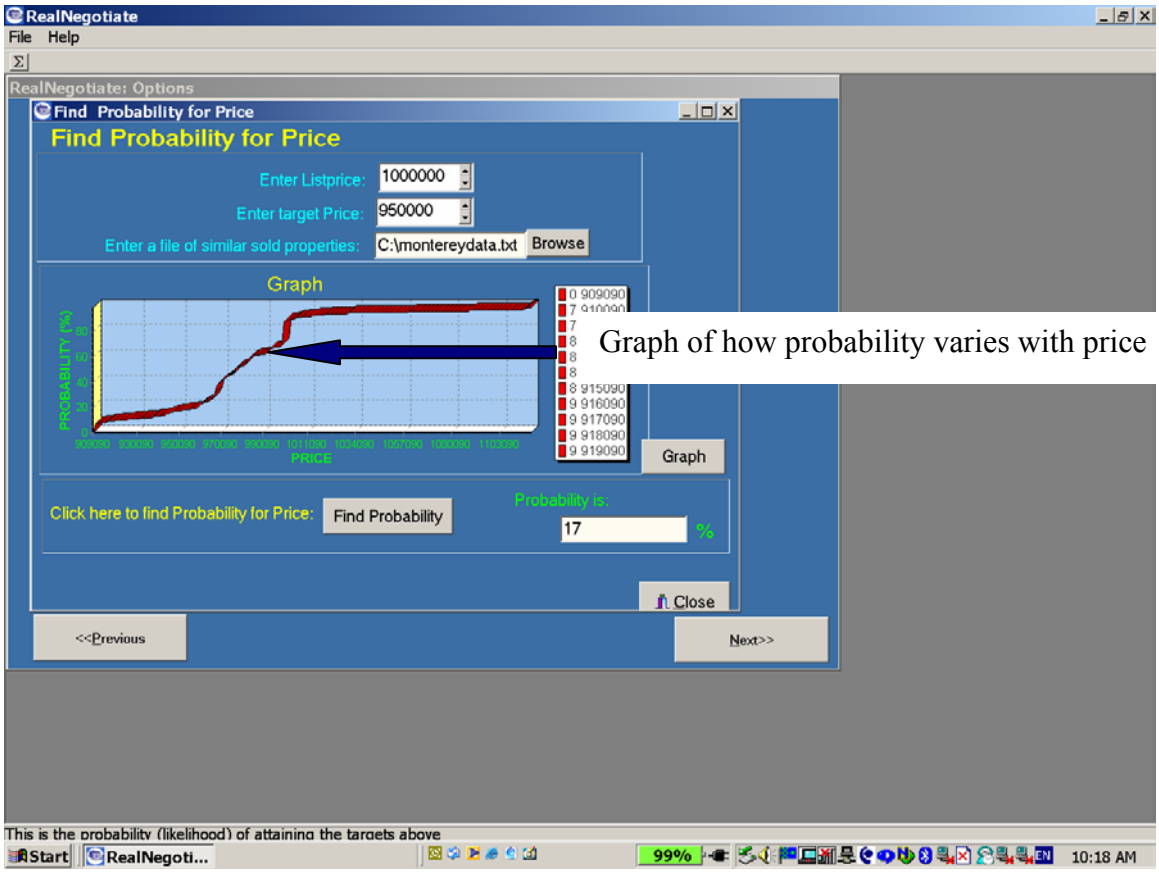

Figure 1. Probability of buying at a low-ball offer

Figure 1 shows that there is only a 17% probability of buying at that offer price; clearly such a low offer is unrealistic. This may also indicate that we should consider other properties instead, so that we can focus on properties we are actually likely to be able to purchase within our price range.

We can run the analysis performed in this example report on other properties, and compare how the results change. For example, if we ran the above analysis using the same target price, and data for a different property within the same price range, we may get a much higher probability of purchasing at our target price. This indicates that the other type of property might be more affordable to us.

Graph Analysis: The graph in Figure 1 shows how probability varies with price. The lower prices have a lower probability (as few sellers will accept such a low offer), and there is a rapid probability increase in the middle range (as prices get more realistic). At

the high prices (which have high probability), the graph "flattens out" (the increase in probability "slows down"), showing that increasing the offer in this range has little effect on probability, and thus may not be worthwhile. The buyer may not even want to bother with offering on this property if they can only offer at the lower price (and thus lower probability) levels. **Thus where it most makes sense to offer (and to potentially increase the offer) is in the mid-ranges, marked by the blue arrow, where the graph is in the shape of an upward diagonal, as in this range each increase in price has the most impact on the likelihood of actually purchasing the property. This is the offer price range of about $970,000 to $1,000,000.**

2. Given that the probability is low, what if we make a more reasonable offer?

In Figure 2, we raise the probability to 62%, after a significant price increase. Note on the graph in Figure 2 that this is still a relatively low probability, and that we could attain significant probability increases with a higher offer, up to about list price.

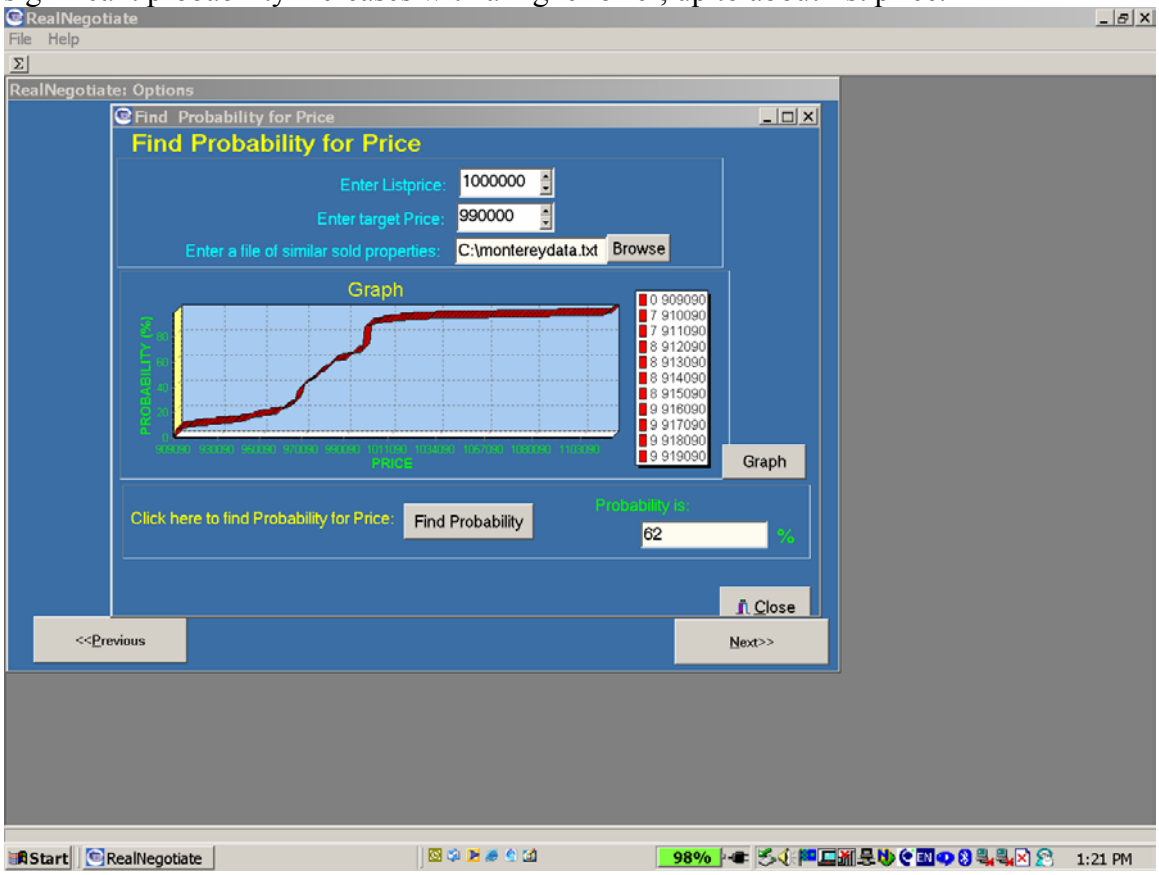

Figure 2. Probability of purchasing at an increased price

3. What is the minimum offer needed to attain a 75% of purchasing?

The graph in Figure 3 shows that the buyer would have to offer at list price to attain a 75% probability of purchasing this particular property. Note that in the graph in Figure 2, this corresponds to the vertical line jump between $990,000 and list price. **This indicates that offering at list price has a strong advantage (perhaps partly psychological) over offering slightly below list price, in terms of the likelihood of getting the property.**

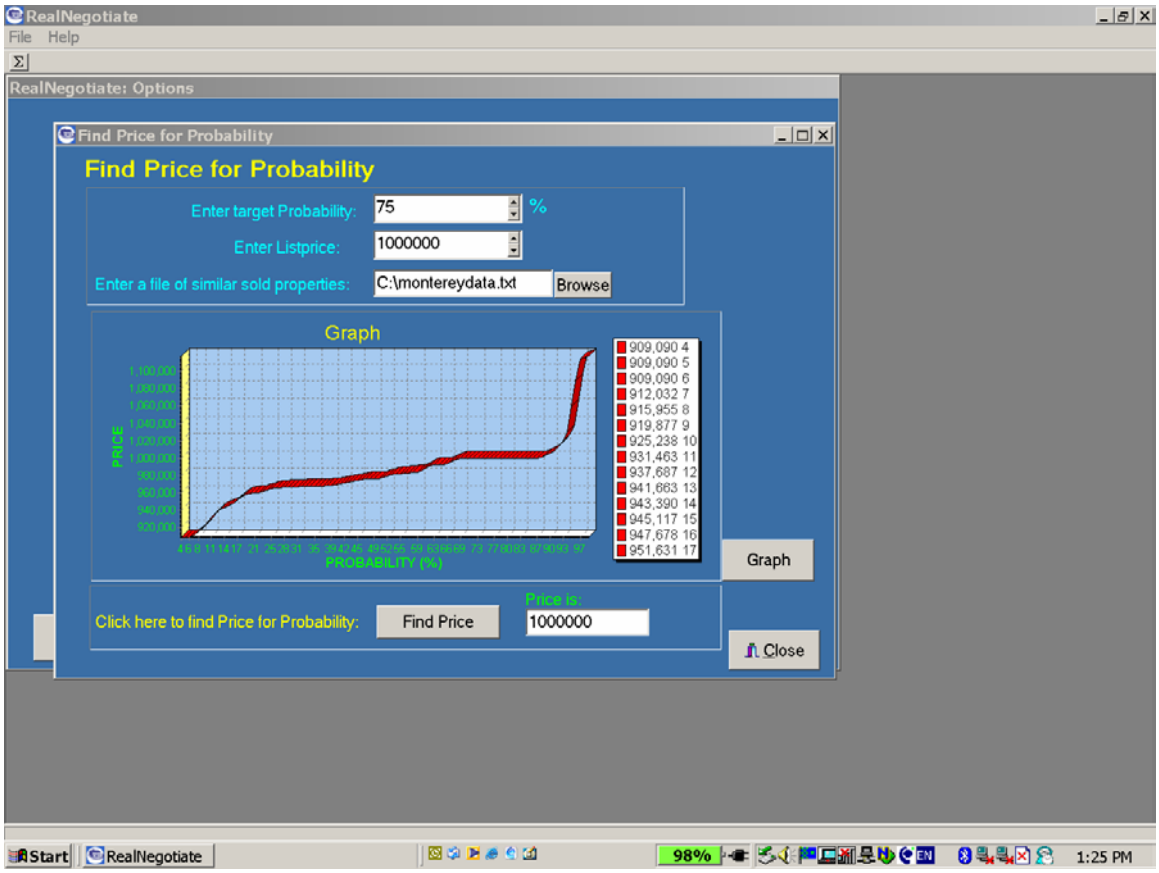

Figure 3. Minimum price needed to attain a 75% probability of purchasing

This graph in Figure 3 also shows a flat region between the Probability (x value) of 75% and about 93%. This indicates that offering list price ($1M) for the home will be the **minimum price** needed to attain a probability of **at least** 75%.

4. What about time to purchase?

Let's find the probability of purchasing at list price ($1M), within say, 150 days (a typical timeframe for this market, based on the data). The results in Figure 4 show that in this price range, homes tend to sell more slowly, even at list price. This is typical for high-priced properties, and may also indicate that sellers in this range are "testing the market" and/or are more likely to wait longer, in an attempt to get the highest offer.

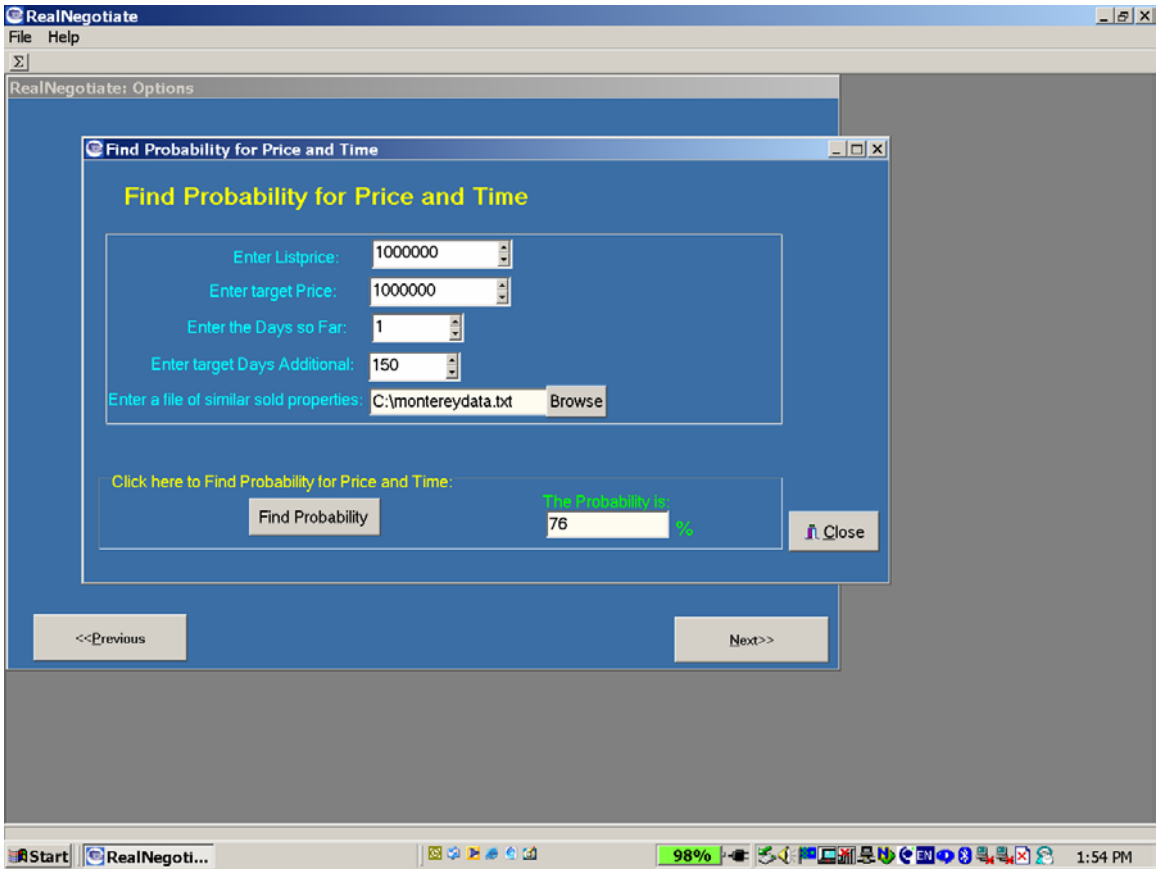

Figure 4. Probability for buying within our target price and time

5. Advanced: What is the most efficient offer, in terms of probability of acceptance, per dollar of the offer?

In other words, we are seeking the price where *each additional dollar of the offer* contributes most to the probability of getting the home. This analysis is based on the limits that we set, in terms of the maximum offer we are willing to make, and the minimum probability of acceptance that we will accept, as well as the maximum time to purchase. The below results are based on determining the probability of the optimum price and time combination. The results in Figure 5a illustrate that our most efficient offer (for a probability of at least 50%, while being able to purchase in at least 155 days) would be about $983,000. Of course, if we adjusted our minimum probability and/or maximum time, the most efficient price could very well change accordingly. In Figure 5b, we adjust our minimum probability to 65%, our maximum offer price to $995,000, remove the time constraint, and are shown that the most efficient offer is now increased to $993,000.

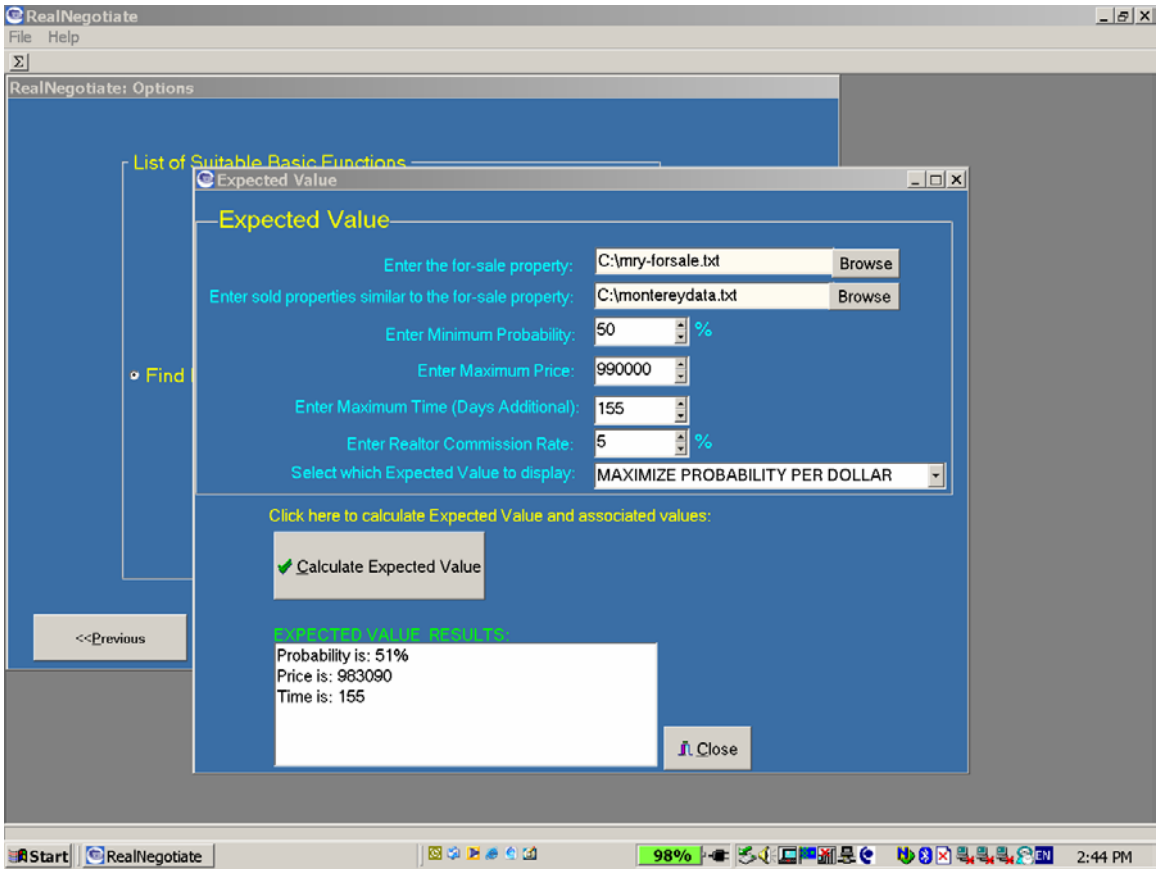

Figure 5a. The most efficient offer (probability/dollar) is about $983,000, if 50% is the minimum probability that is acceptable

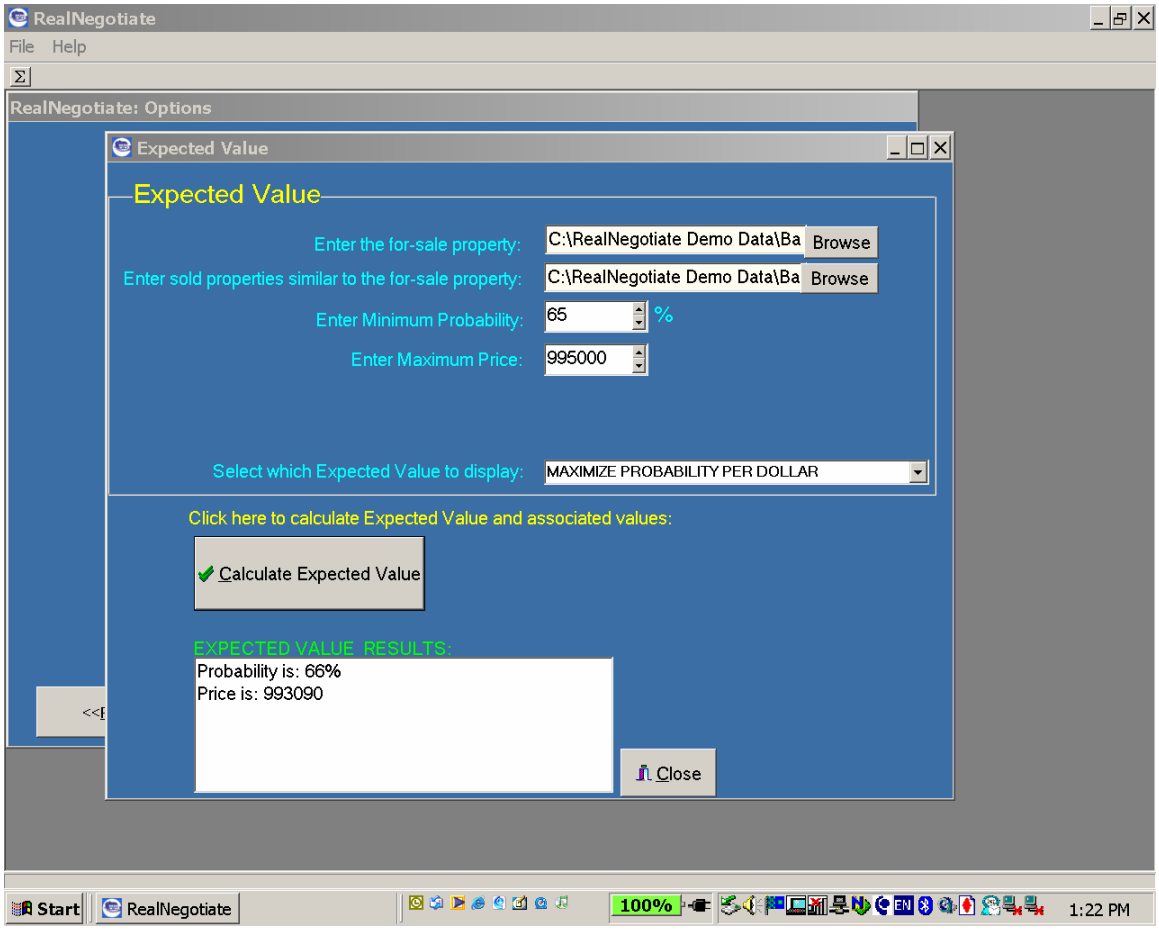

Figure 5b. The most efficient offer (probability/dollar) is about $993,000, if 65% is the minimum probability that is acceptable

CONCLUSIONS

Our conclusion from the analysis above is that **if the buyer really needs to purchase this particular home with high likelihood of success, they should be prepared to pay list price, which would give them a probability of at least 75% of purchasing within 155 days from today.**

Alternately, if the likelihood of success is more flexible (they are not as "set" on getting this particular home), the most efficient offer for the property (in terms of each dollar's effect on probability of success, while keeping within the 155 day timeframe) would be about $983,000 (for a probability of offer acceptance at just over 50%) or $993,000 for a probability of over 65%. We also conclude that because this particular property requires a relatively high price, if the buyer wishes to buy at lower price levels (say $950,000), they should consider alternate properties for which they would have a higher probability of purchasing at the lower price levels.