

***Avoiding Option
Trading Traps:
What to look for
Strategies for Success***

Presented by
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5 Common Problem Areas

- **Option Buying**
- **Covered call writing**
- **Bull Spreads**
- **LEAPS covered writes**
- **Running with the crowd**

What Makes An Option Purchase Profitable?

- **Foremost:**
 - **Favorable movement by the underlying**
- **Secondarily:**
 - **An increase in implied volatility**

Call Buying Problems

- **Getting too theoretical**
- **Using the wrong strike price**
- **Not factoring in implied volatility**
- **Buying the wrong quantity**

Which Option To Buy?

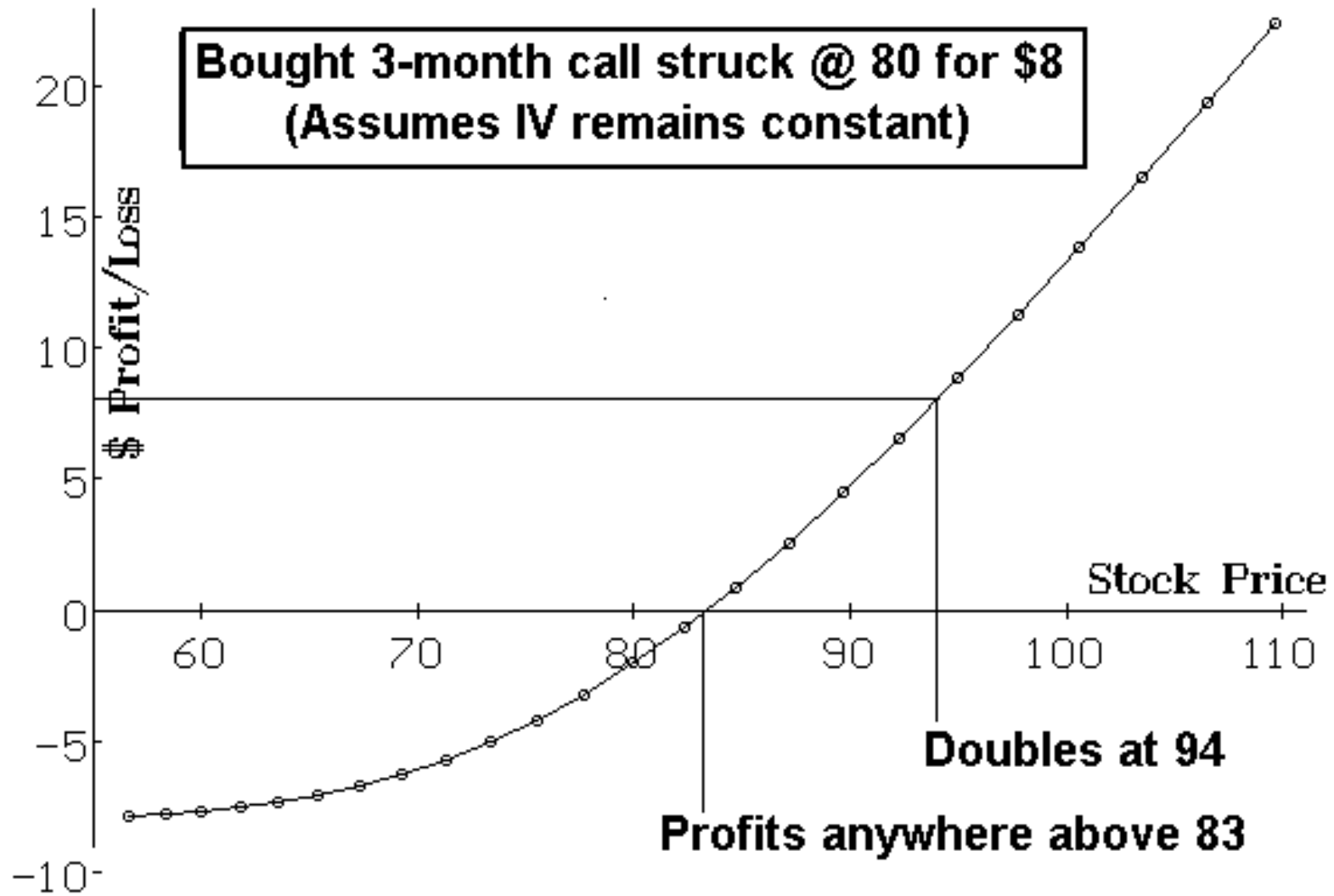
- *“The shorter term your horizon, the higher the delta should be.”*
- **Day traders: use the underlying**
- **Short-term position traders: buy in-the-money, short-term**
- **Intermediate-term position traders (3 months or more): buy at the money.**
- **Long-term: can consider LEAPS, at- or out-of-money**

Always Use a Model

(especially in volatile situations)

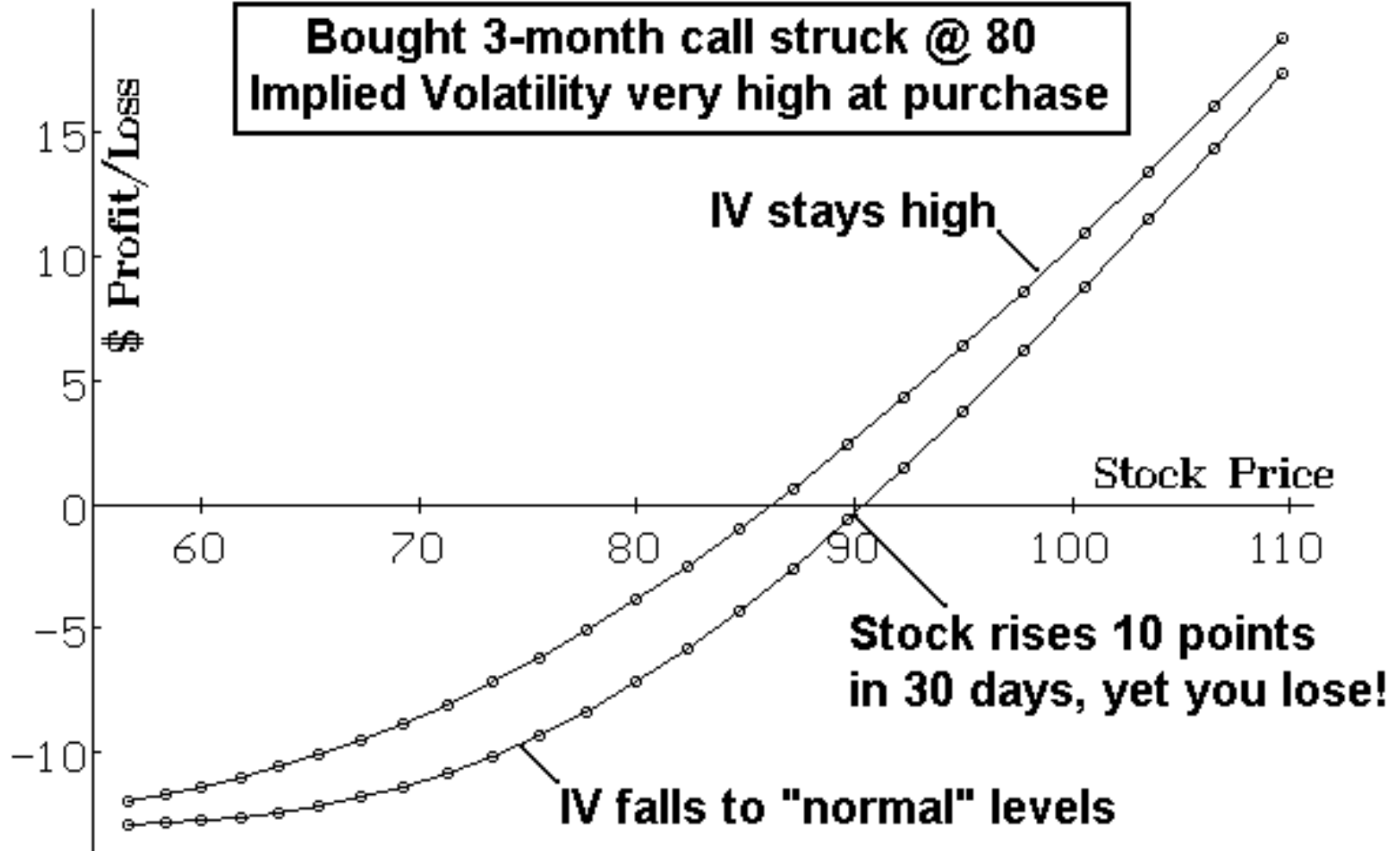
- **It's okay to buy an “expensive” option if you *know* that's what you're doing**
- **...but you limit your profitability solely to the primary effect (stock price)**

"What-If Analysis" One Month After Purchase



"What-If Analysis" One Month After Purchase

**Bought 3-month call struck @ 80
Implied Volatility very high at purchase**



Always Use a Model (for your sanity)

- **Eliminates frustration when things go “wrong”**
 - **For example, “I’m always losing money even when the underlying stock makes a quick 3- or 4-point move in my favor”**

The “frustration” problem: Part I, the bid-asked spread

- **XYZ = 115 in July;**
- **Sept 130 call: 8 bid, 9 asked**
Delta: 0.46
- **Stock must rise nearly 2.25 to overcome bid-asked spread:**

$$\frac{\textit{spread}}{\textit{delta}} = \text{distance to overcome “the vig”}$$

The “frustration” problem: Part II, Implied Vol changes

- **XYZ = 115 in July;**
- **Sept 130 call: 8 bid - 9 asked**

Implied Volatility: 95%

Black-Scholes model:

**exposure is 16 cents per percentage
point change in implied volatility**

The “frustration” problem:

Suppose XYZ stock rises 4 points, but your option is only bid at 8-1/4!! What happened?

(implied volatility dropped to 85%)

Delta: option gains +1.84 (4 x 0.46)

Volatility: option loses -1.60 (-10 x 0.16)

Bid-asked spread: -1.00

Net: a loss of -0.76

is what the model “predicted”

(Maybe you bought that call because it was the lowest strike you could ‘afford’; in-the-money would be better)

How Many Options Should I Buy?

Risk Management

Risk a fixed percent of your account on each trade (3%, e.g.)

Automatically increases when you win and decreases when you lose

*Example: Account size = \$100,000
You plan to risk 5 points on a stock trade*

Therefore, buy 600 shares of stock (3% risk)

How Many Options Should I Buy?

*You could figure your risk = premium,
but that's unrealistic.*

Option costs 10 points (\$1000)

So buy 3,

if your account size is \$100,000

(3% risk)

How Many Options Should I Buy?

More likely scenario: you see XYZ break out at 100, and want to buy calls. But if it falls back to 95, the breakout is negated and you want to be out.

What is the call buyer's risk in this case?

How Many Options Should I Buy?

Using the model to estimate risk.

Oct 100 call costs 10 today (\$1000).

**What would it be worth if XYZ fell to 95
in a week? A month?**

Black-Scholes model says:

In 1 week, if XYZ = 95, Oct 100 call = 7

Therefore, risk = 3 points (\$300)

so you can buy 10 calls, *not* 3!

Covered Writing Problems

- **Failure to understand and limit the risk**
- **Under-estimating stock ownership**
- **Unwilling to let stock be called away**

Covered Call Writing Positives

- **Increased income from stock**
- **Profits even if stock unchanged**
- **Less risky than stock ownership
(downside protection for stock)**

Covered Call Writing Negatives

- **Limited Profit Potential**
- **Large downside risk potential**

Covered Call Writing: Example

XYZ: 48

July 50 call: 3

Buy 100 shares XYZ

and sell 1 XYZ July 50 call

Net Debit: 45 points, plus commission

Results At Expiration

B XYZ @ 48

Sell July 50 call @ 3

<u>Stock Price</u>	<u>Stock Profit</u>	<u>Option Price</u>	<u>Option Profit</u>	<u>Total Profit</u>
40	-\$800	0	+\$300	-\$500
45	-\$300	0	+\$300	0
48	0	0	+\$300	+\$300
50	+\$200	0	+\$300	+\$500
55	+\$700	5	-\$200	+\$500
60	+\$1200	10	-\$700	+\$500

Covered Writing Terms

At Expiration:

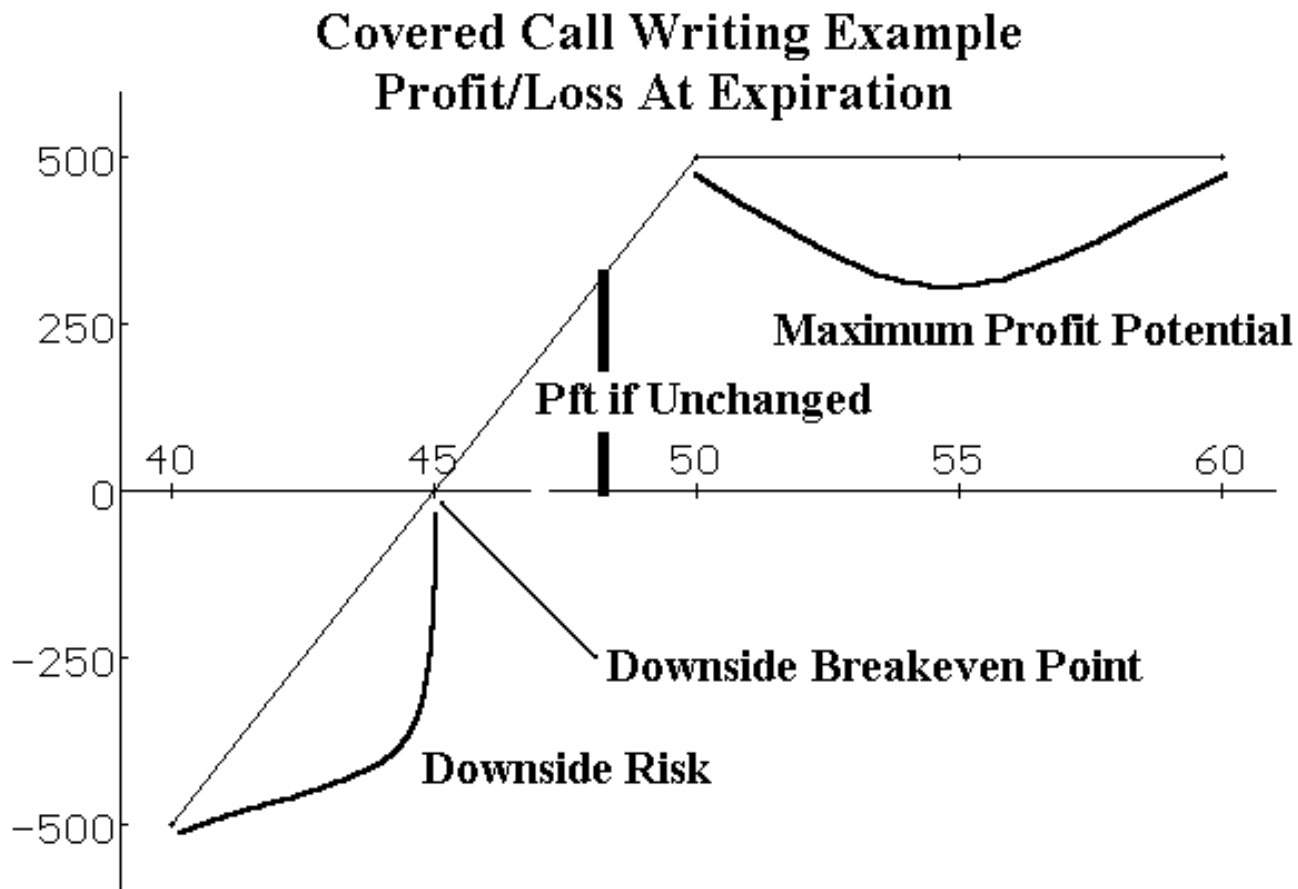
Maximum Profit Potential (\$500 above 50)

Profit If Unchanged (\$300 at 48)

Downside Breakeven Point (45)

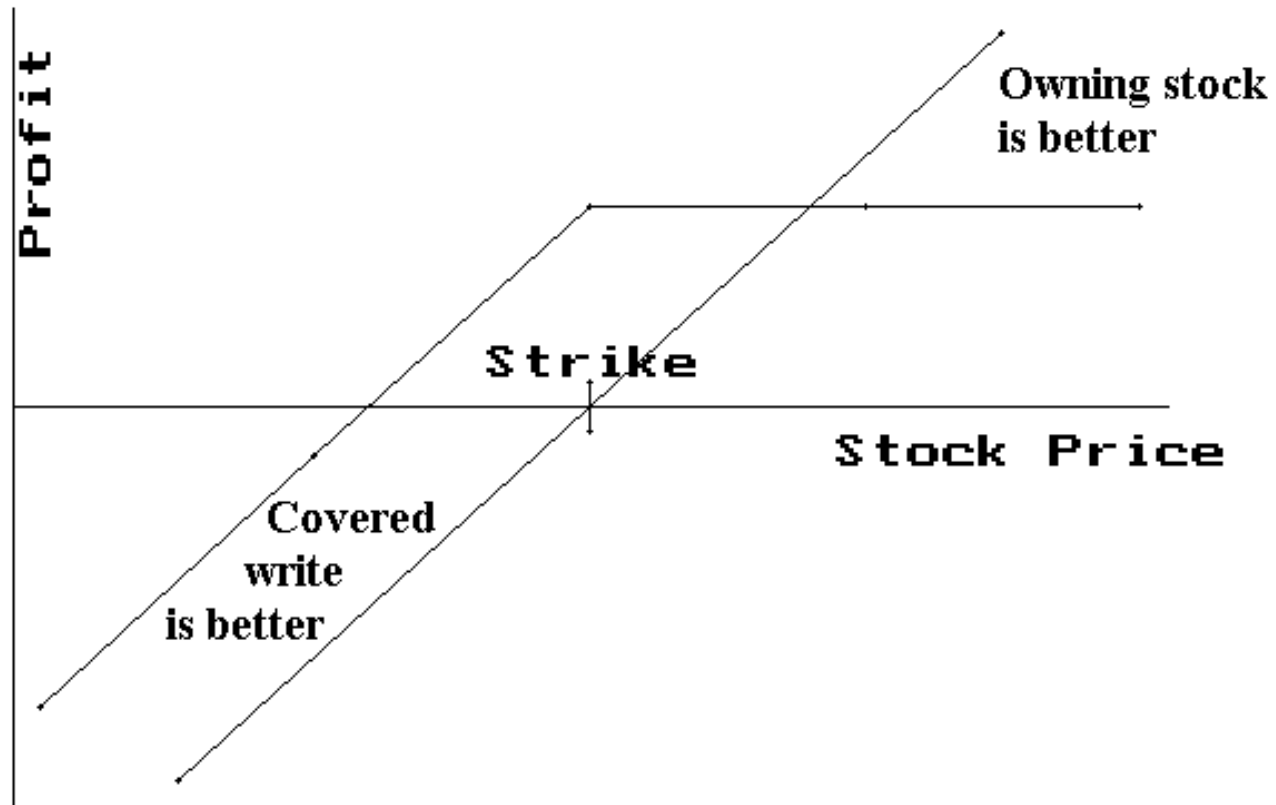
Downside Risk (below 45)

Profit Graph At Expiration



Comparison To Owning Stock

Covered Write Vs. Stock Ownership



Total Return Concept

- **View the covered write as an entity unto itself -- a complete strategy involving both the stock and the option, including dividends received and margin expenses.**
- **Willing to let the stock be called away**
- **Calculate the pertinent returns if the write is held until expiration**

Writing vs. Stock Already Owned

“If you are unwilling to let your stock be called away, then you are writing naked calls for all intents and purposes.”

Refusing to let stock be called:

Classic “disaster” scenario:

Don’t want stock called away

Plan to roll calls up or out

Rolling up eventually incurs debits

So naked puts are sold to reduce debits

**Stock crashes and wipes out the investor
(e.g., PG, LLY, XRX,)**

A “Better” Approach: Rolling for Credits

- **Decide on a price at which you wouldn't mind being called away**
 - **Can be far out-of-money**
- **Plan to be fully covered at that price**
- **Sell against only a portion today**

Rolling for credits: example

Own 10,000 XYZ (70); would sell at 100

Sell 20 June 70's today

If XYZ = 80, roll up to 30 Sept (?) 80's

If XYZ = 90, roll up to 60 Sept 90's

If XYZ = 100, roll up to 100 Dec 100's

Each roll is to be done for a credit, so at the end you get 100 plus whatever credits.

Final Thoughts

- **Strategy has large downside risk, so choose stocks wisely -- don't just rely on the percentage returns.**
- **Don't over-leverage**
- **Don't get “stuck” in a stock; use a stop loss of some sort**

Bull Spread Problems

...or any vertical spread strategy

- **Over-use of strategy**
- **Failure to realize spread
won't widen quickly**
- **Enamored with credit spreads**

Bull Spread

- **Vertical Spread**
- **Makes money if the underlying rises in price**
- **Can be implemented with either calls or puts**

Call Bull Spread

**Buy call at one strike,
sell call (expiring in same month)
at a higher strike.**

Bull Spread - example

XYZ: 32

Oct 30 call: 3

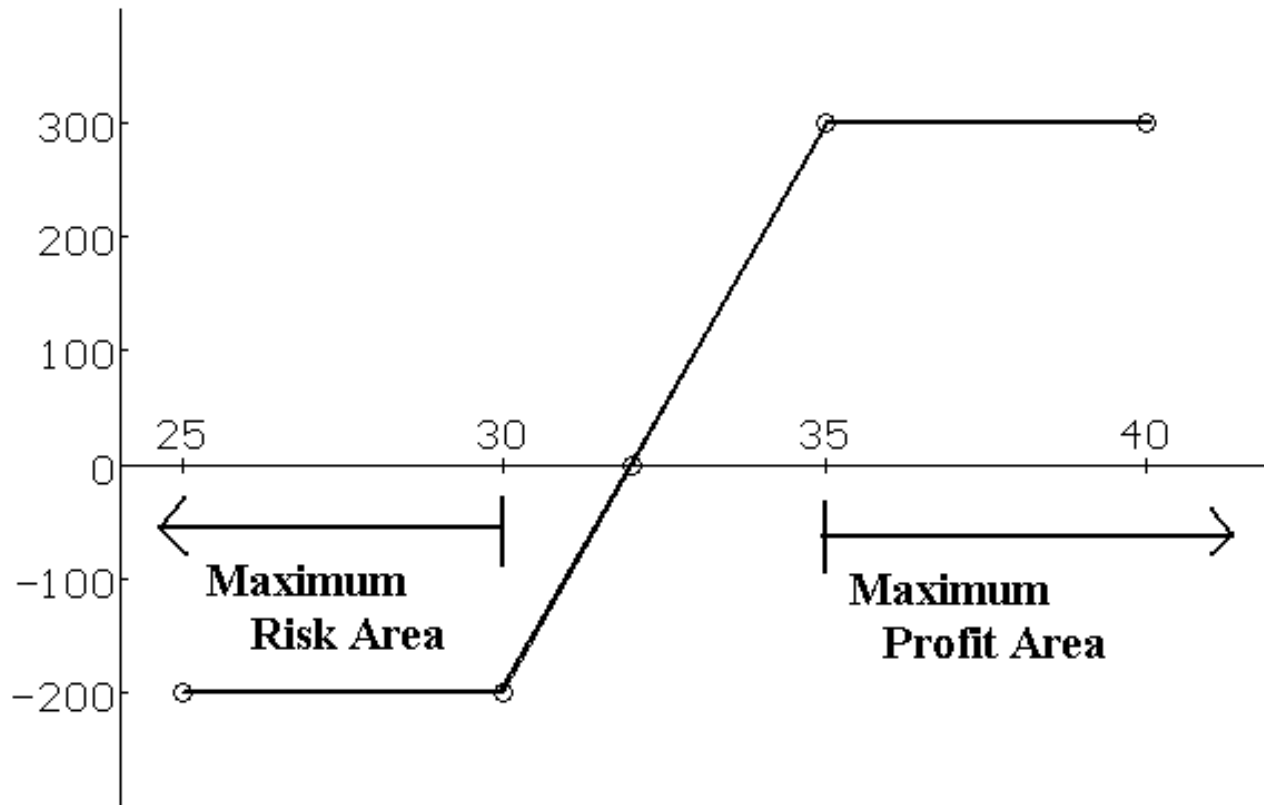
Oct 35 call: 1

Results at expiration: (Buy 1, Sell 1)

<u>XYZ</u>	<u>Oct 30 Pft</u>	<u>Oct 35 Pft</u>	<u>Total Pft</u>
25	-\$300	+\$100	-\$200
30	-300	+100	-200
32	-100	+100	0
35	+200	+100	+300
40	+700	-400	+300

Call Bull Spread - Profit Graph

BULL SPREAD



Call Bull Spread Mechanics

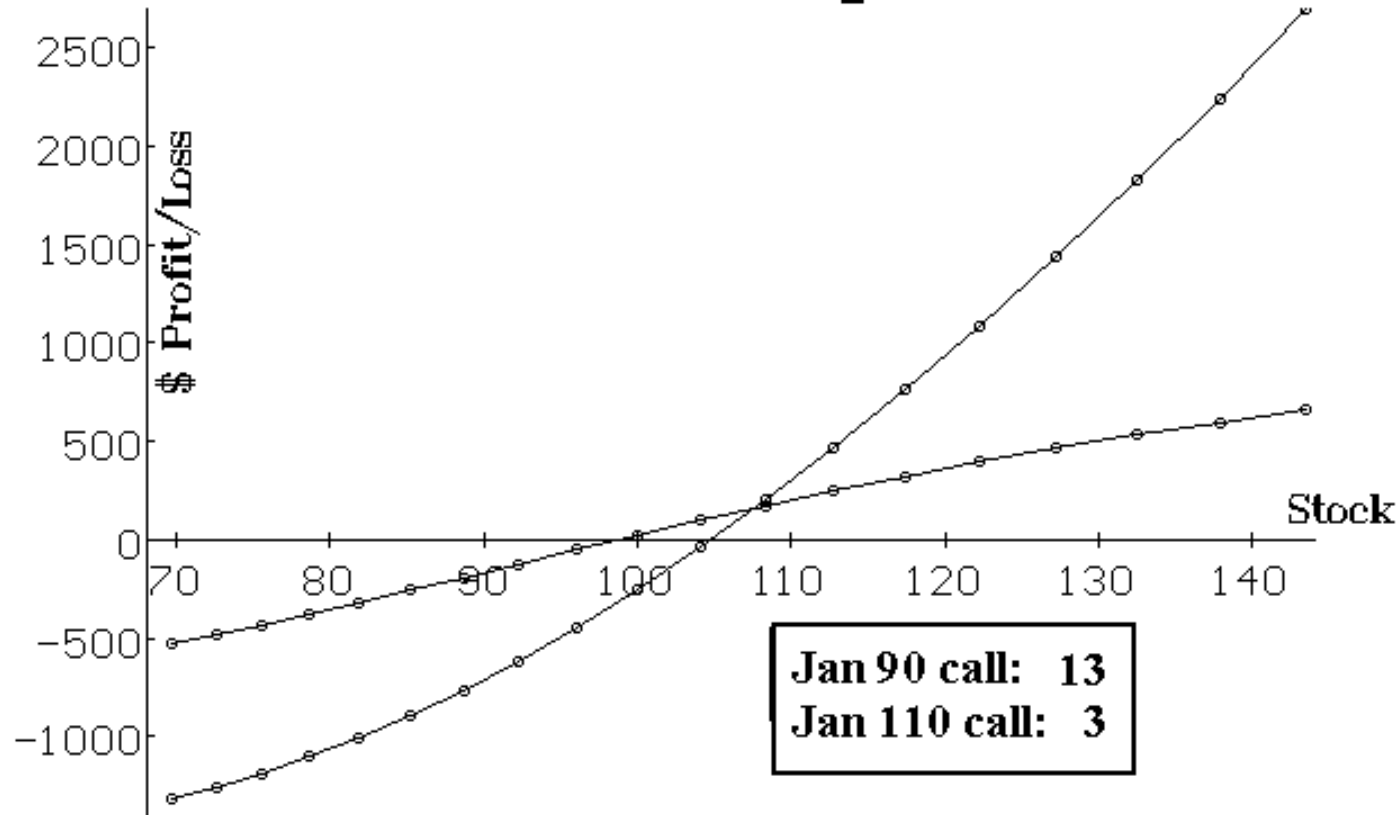
- **Debit Spread**
- **Risk is fixed = initial debit (2 pts.)**
- **Maximum profit potential =
difference in strikes - initial debit
= 5 - 2 = 3**
- **Breakeven point =
Lower strike + initial debit
= 30 + 2 = 32**

Call Bull Spread: Implementation

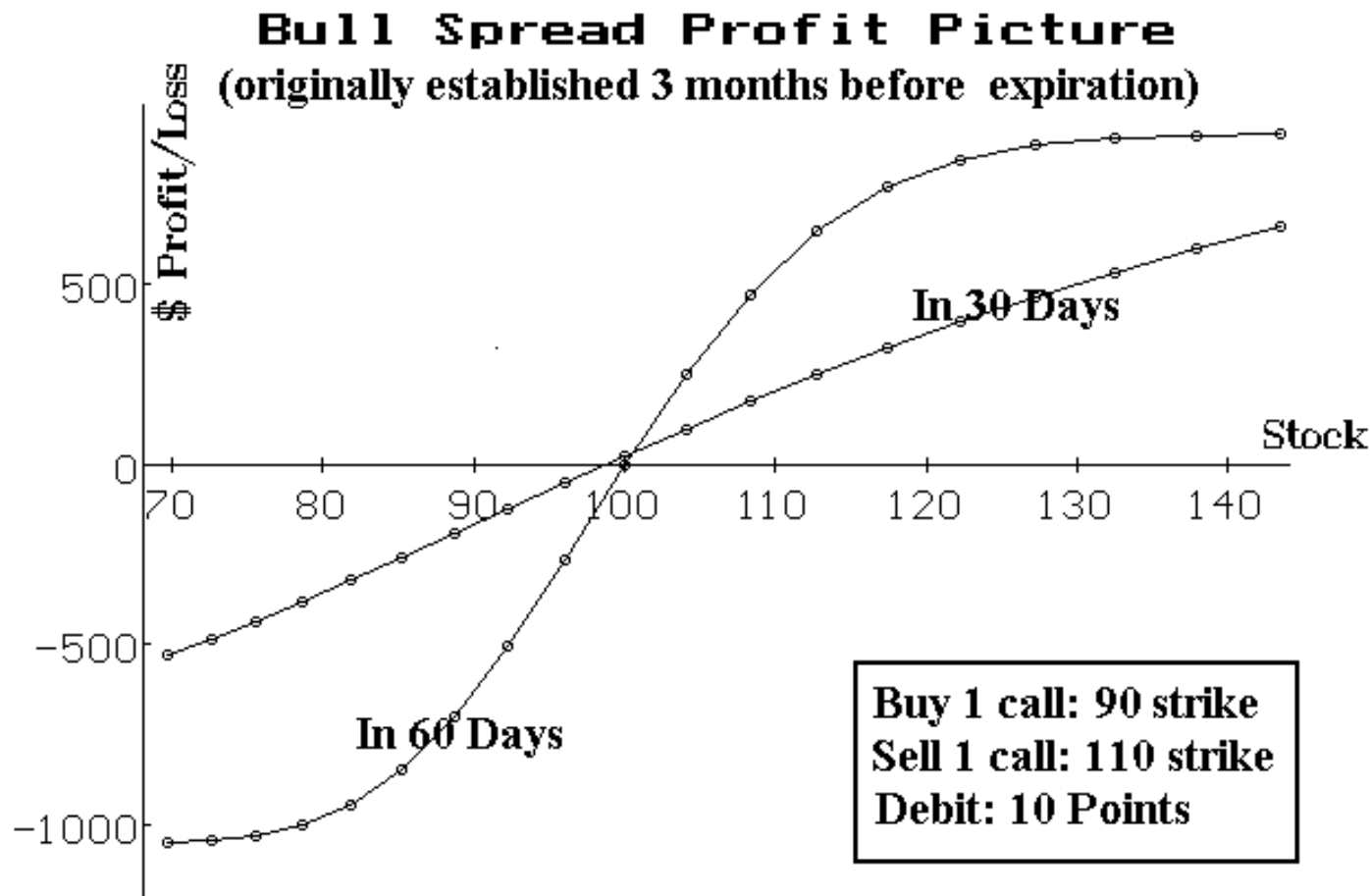
- **Objective: to reduce risk of owning the long call, but still allow room for a large percentage gain on the upside.**
- **Often used when options are expensive, especially when the call being sold has a higher implied volatility than the call being bought.**

Call Buy vs. Bull Spread

Call Buy vs. Bull Spread
In 30 Days



Vertical Spread “Problem”



Countering the “Problem”

- **Space the strikes more widely**
- **Start with strikes out-of-the-money
(caution: probability of profit is
lower when you do this)**

Degrees of Aggressiveness

XYZ: 100

Oct 80 call: 22

Oct 90 call: 13

Oct 110 call: 3

Oct 120 call: 1

“High Probability:”

**buy Oct 80, sell Oct 90
for 9 point debit**

“Aggressive:”

**buy Oct 110 call,
sell Oct 120 call
for a 2 point debit**

Bull Spreads Using Puts

- **Very similar to call spread:
buy lower strike, sell higher strike**
- **But, this is a credit spread**
- **Profit potential = credit received**
- **Breakeven = high strike - credit rcvd**
- **Risk = distance between strikes minus
credit received = margin required**
- **In-money vs. out-of-money?**

Put Credit (Bull) Spread Example

XYZ: 80

Jan 65 put: 1

Jan 60 put: 0.5

Buy Jan 60 put, Sell Jan 65 put: 1/2 cr

Profit potential: 0.5 (high probability)

Risk = 5 - 0.50 = 4.50 = margin rqmt

Breakeven = 65 - 0.50 = 64.50

Put Credit Spreads

- **Deeply out-of-money spreads: Usually the strategy referred to when you see “96% winners!”**
- **In reality, overall expected return is small: high probability of making a little, small probability of losing much more.**
- **You are buying an expensive option to protect an expensive option: spinning your wheels?**

Out-money Credit Spread Cautions

- **Where do you place stop loss?**
 - **Higher or lower strike?**
 - **Expiration?**
- **Early assignment risk is usually something to be avoided**
 - **Especially with index options**
- **One loss can wipe out 10 - 15 winners**

LEAPS Problems

- **“Covered Writing” against LEAPS**
 - **is more like a bull spread**
 - **has more risk than you might think**
 - **can lose money on the upside**

Diagonal Spreads

- **The general term used to describe any spread in which the options have different expiration dates *and* different striking prices**
- **Most typically, one buys a longer-term option and sells and shorter-term option in a diagonal spread (but not always)**

Diagonal Bull Spread

**Modestly popular strategy, especially
where LEAPS are concerned**

**Buy a long-term option (in-the-money)
and continually write short-term options
against during its life.**

**Sometimes thought of as a substitute for
covered call writing, as well.**

Comparing Bull Spreads

XYZ: 105

April 100 call: 10.5

April 110 call: 5.5

LEAPS (2-yr) 100 call: 26

LEAPS (2-yr) 110 call: 21.5

3 different bull spreads: buy 100 strike, sell 110 strike:

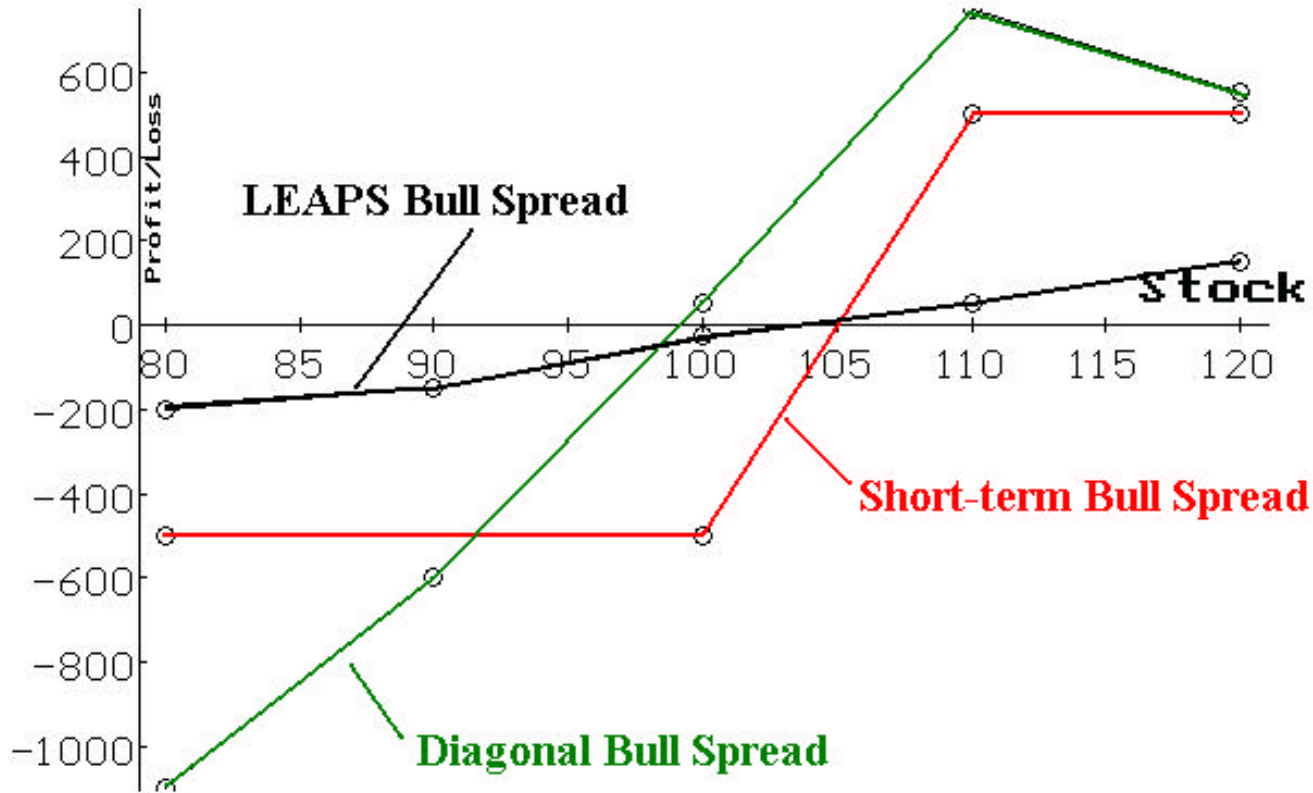
1) “Regular” short-term bull spread: uses April calls

2) “Regular” LEAPS spread: uses the LEAPS calls

3) “Diagonal” buy LEAPS call, Sell April call

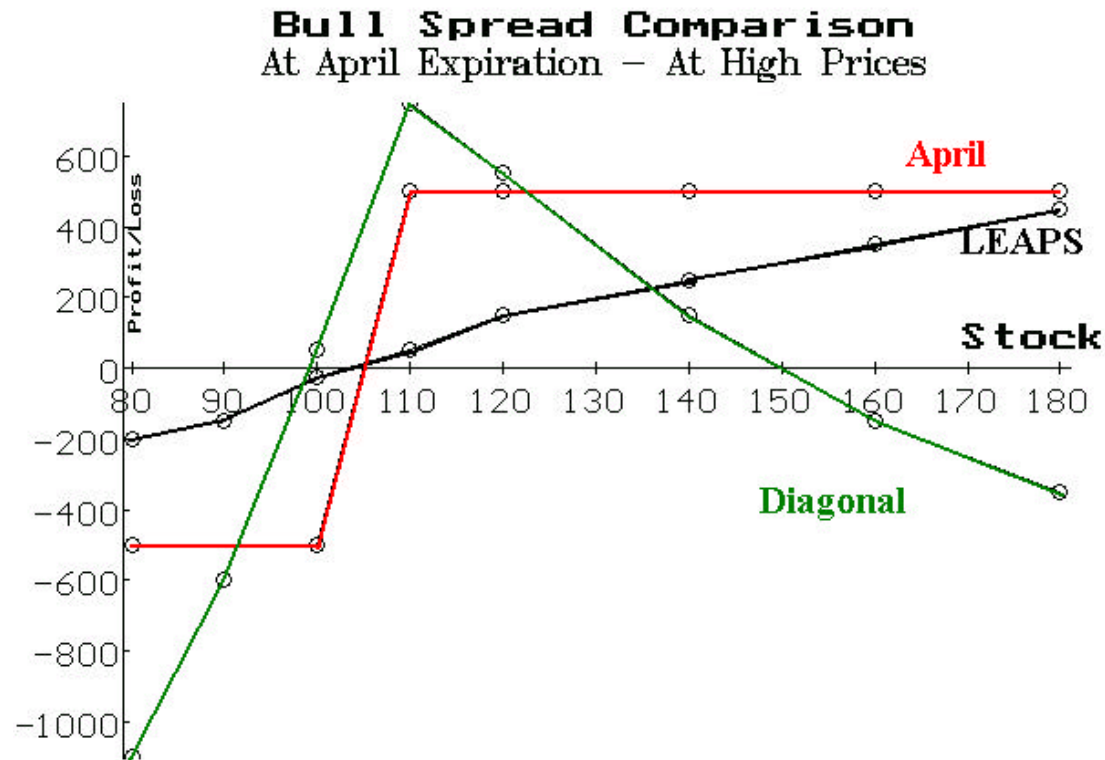
Bull Spread Comparison

**Bull Spread Comparison
at April expiration**



Diagonal Bull Spreads

LEAPS seems best if it doesn't fall too far. But what if they all rise a lot?



Diagonal Spread “Problem”

You are paying extra time value when you establish the position.

So, if the options all go to parity while you’re in it, you will do worse than a “normal” position would.

How To Avoid Running With The Crowd

BECOME A CONTRARIAN

- **Put-call Ratios**
- **Implied Volatility (high or low)**

PUT-CALL RATIOS

**For any group of options,
you can calculate the ratio
of puts traded to calls traded**

“Normal”: volume only

“Dollar Weighted”: price times volume

PUT-CALL RATIOS

- **Any stock, index or sector**
 - **All equity options**
 - **All futures options on a single underlying commodity (all gold futures options, e.g.)**

Contrary Theory

**“TOO MUCH” PUT BUYING IS
BULLISH FOR THE UNDERLYING**

**“TOO MUCH” CALL BUYING IS
BEARISH FOR THE UNDERLYING**

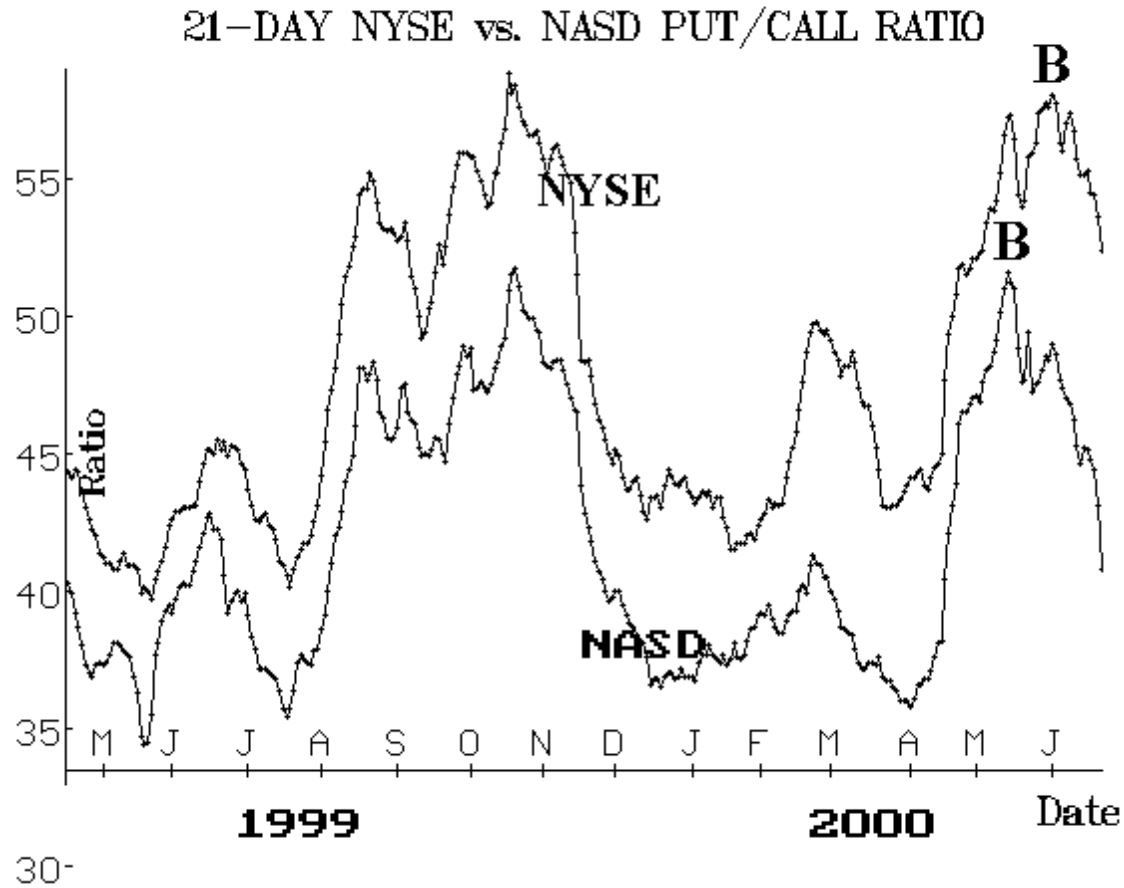
“NORMAL” Put-Call Ratio

$$\text{Ratio} = \frac{\text{Volume of Puts Traded}}{\text{Volume of Calls Traded}}$$

- Put buying generates high numbers**
- Call buying generates low numbers**

Keep a moving average (21 days?)

Breakdown as NYSE & NASD



“Weighted” Put-Call Ratio

Dollar volume = option price x option volume

$$\text{Ratio} = \frac{\text{Sum of dollar volume of puts}}{\text{Sum of dollar volume of calls}}$$

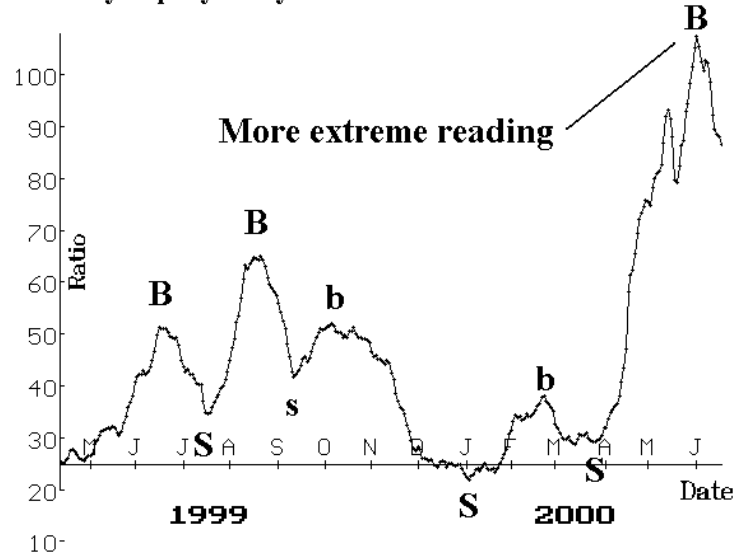
**Measures dollars being spent on bearish opinion
vs. dollars being spent on bullish opinion**

“Weighted” Put-Call Ratio

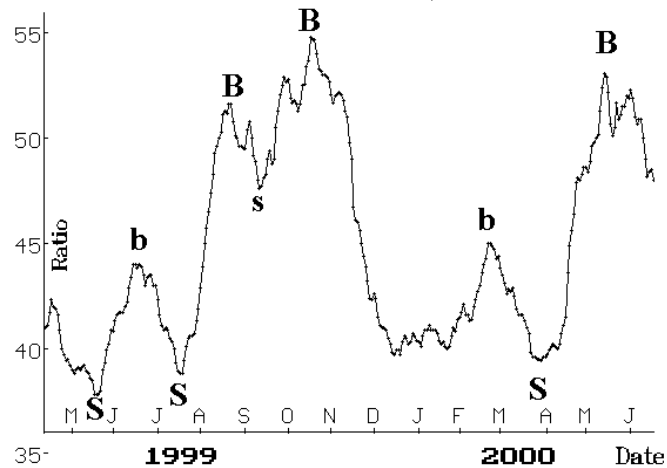
- Can be computed on the same stocks, futures, or indices as the “normal” ratio
- Generally gives more *extreme* readings
- Slightly improves the timing of the signals

Comparison of “weighted” and “normal” equity-only ratios

21-Day Equity-Only WEIGHTED Put-Call Ratio

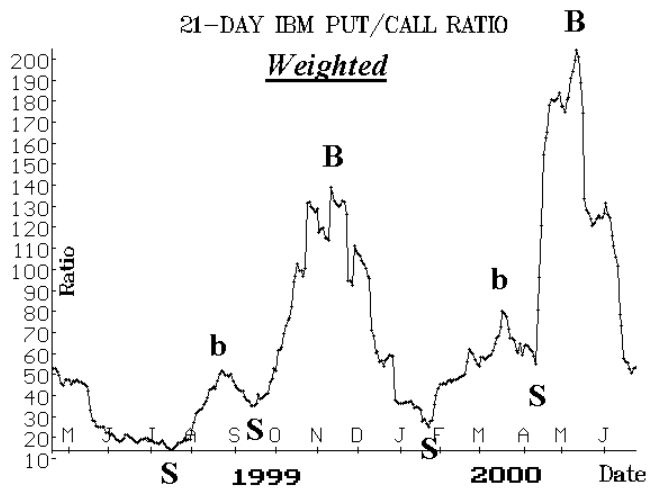
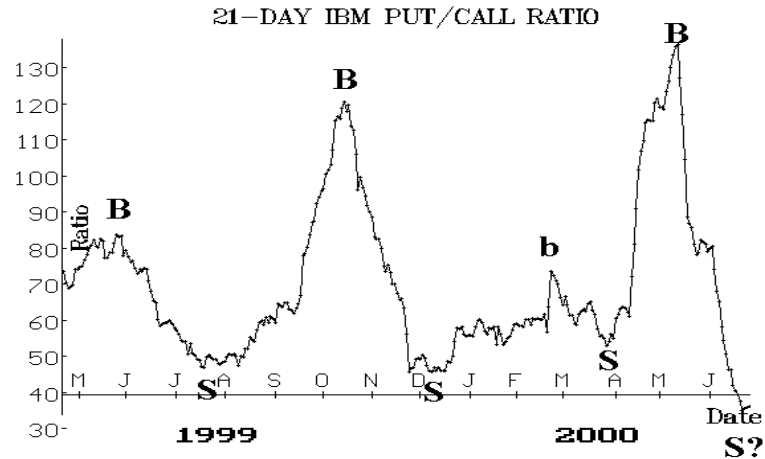


21-DAY EQUITY ONLY PUT/CALL RATIO



IBM

Put-call Ratio



What Do You Buy?

General Theory

- **3-month, at-the-money option**
 - **Planning to risk all unless signal reverses or profits build up (trailing stop)**

Stocks With Good Put-Call History

(generally *not* takeover candidates)

AOL

AXP

C

CHV

CMGI

CPQ

CSCO

DELL

DIS

EK

GE

GM

HWP

IBM

INTC

JNJ

LU

MCD

MRK

MSFT

PFE

WCOM

WMT

Sectors With Good Put-Call History

Banking: \$BKX

Pharmaceutical: \$DRG

Hong Kong: \$HKO

Japan: \$JPN

Mexico: \$MEX

Morgan Stanley High

Tech: \$MSH

NASDAQ-100: \$NDX

Oil Service: \$OSX

Russell 2000: \$RUT

Semiconductor: \$SOX

CBOE Tech: \$TXX

Utility: \$UTY

Gold & Silver: \$XAU

Natural Gas: \$XNG

Futures With Good Put-Call History

Australian Dollar

British Pound

Cocoa

Coffee

Corn*

Cotton

Crude Oil

Deutsche Mark

Eurodollar

Gold

Japanese Yen

Lean Hogs

Live Cattle

Natural Gas

S&P 500

Silver

Soybeans*

Sugar

Swiss Franc

T-Bonds

Wheat*

***: grains are suspect**

Using Implied Volatility

IMPORTANT BULLISH SIGNAL

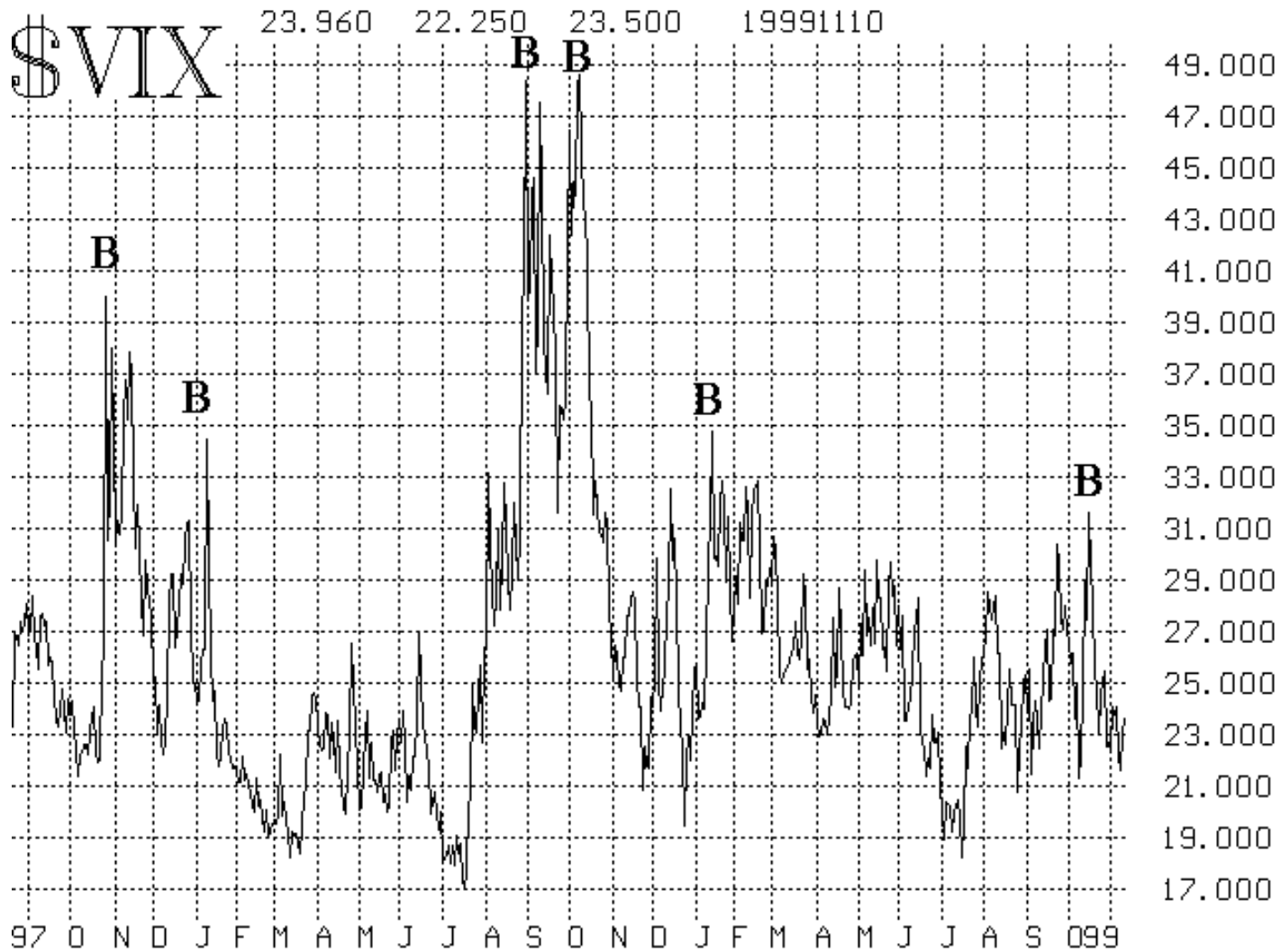
1) If a market is collapsing rapidly

AND

2) Implied volatility is RISING rapidly

**THEN when implied volatility peaks,
the underlying is ready to rally**

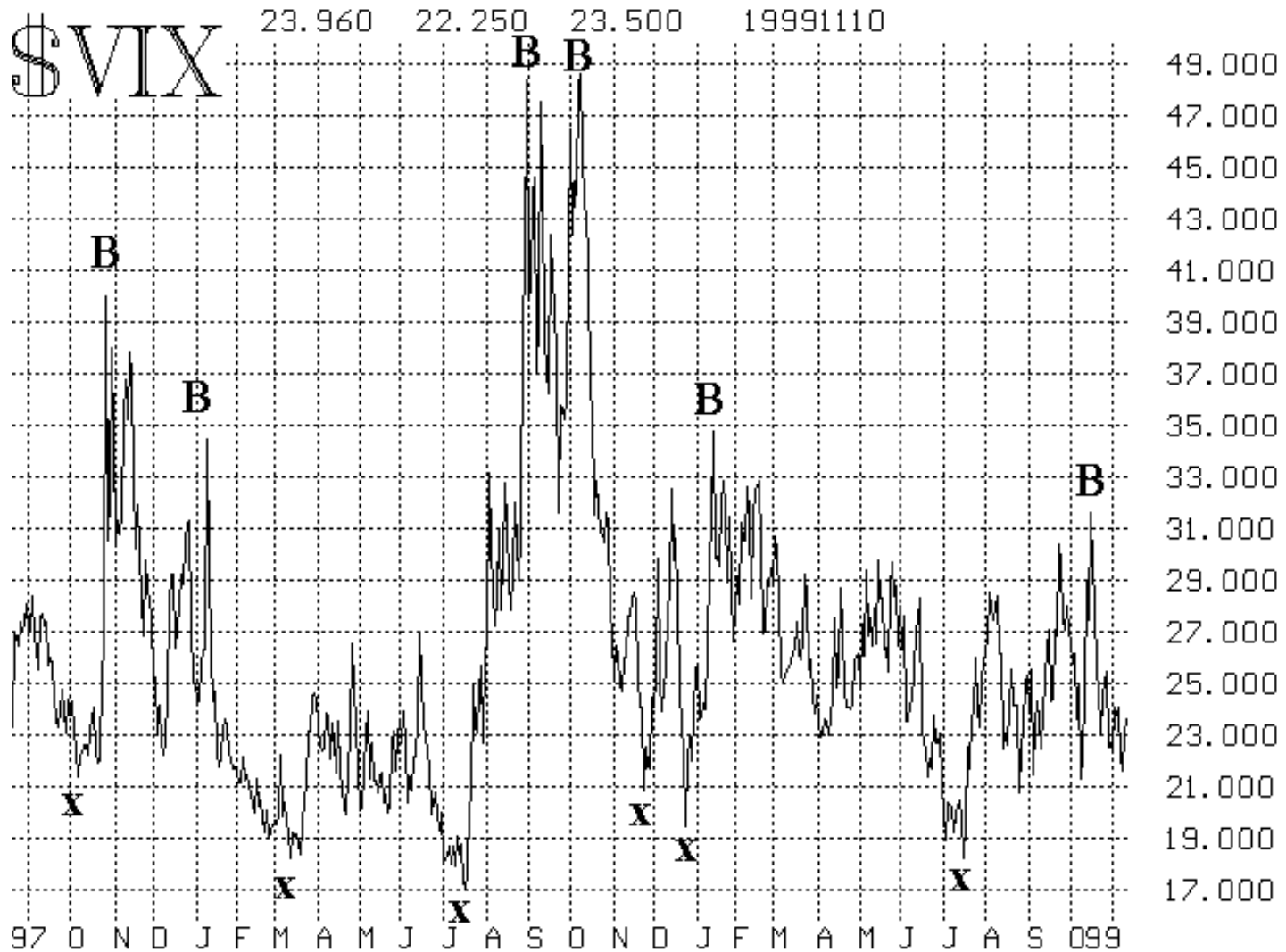
\$VIX Buy Signals 1997-1999



Rating \$VIX Buys 1997-99



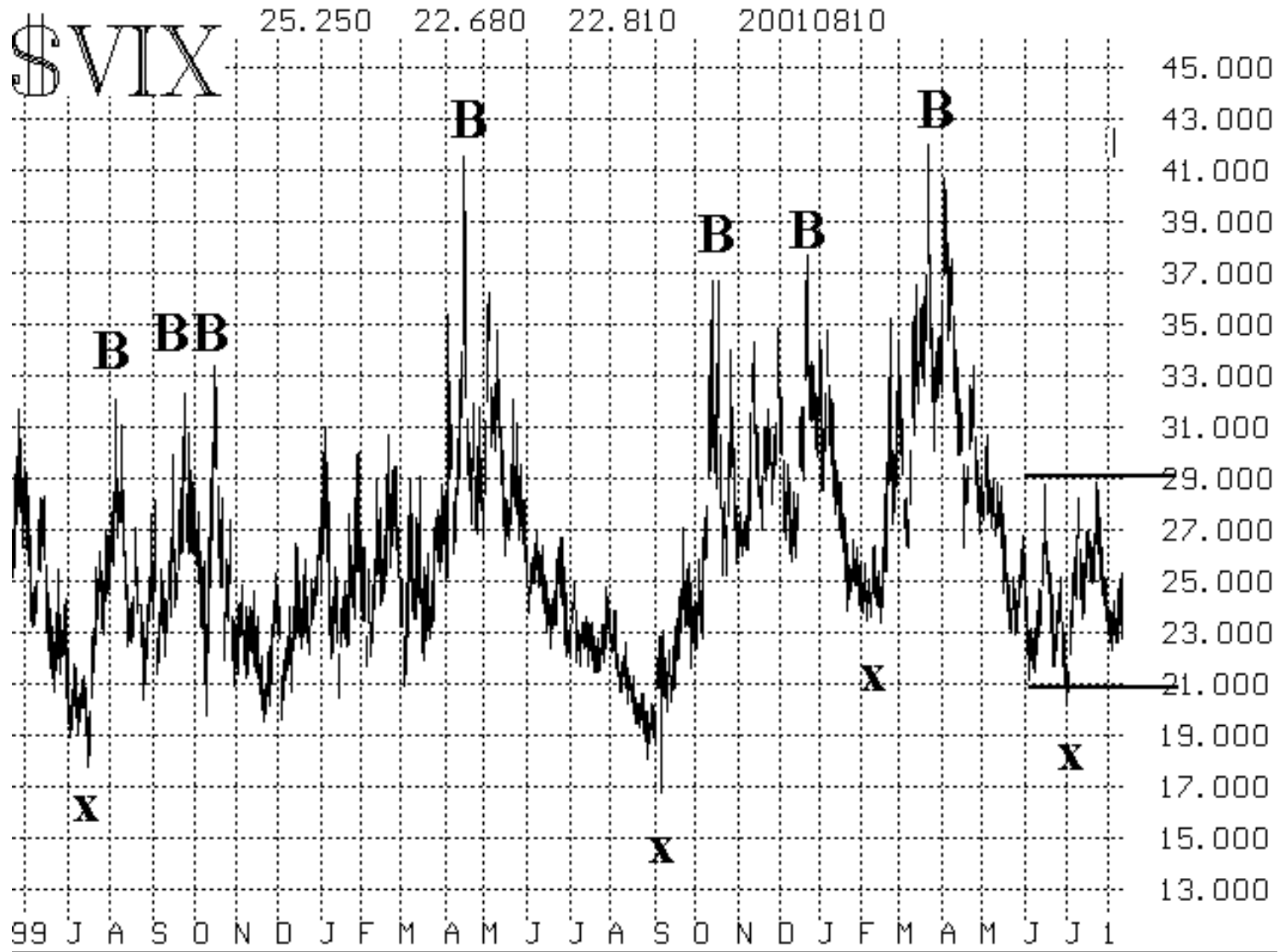
\$VIX Volatility Warnings 1997-99



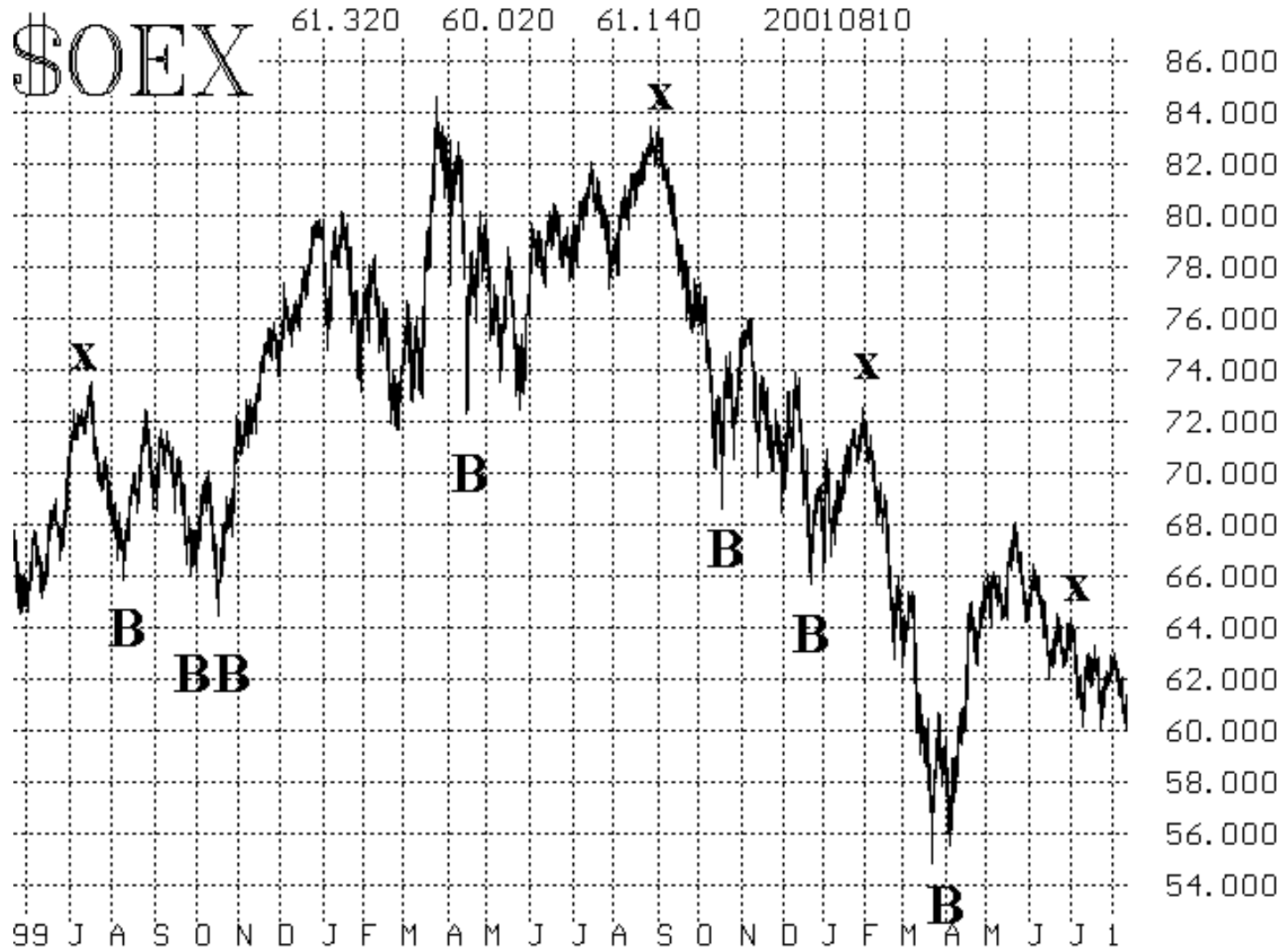
\$VIX Volatility Warnings 97-99



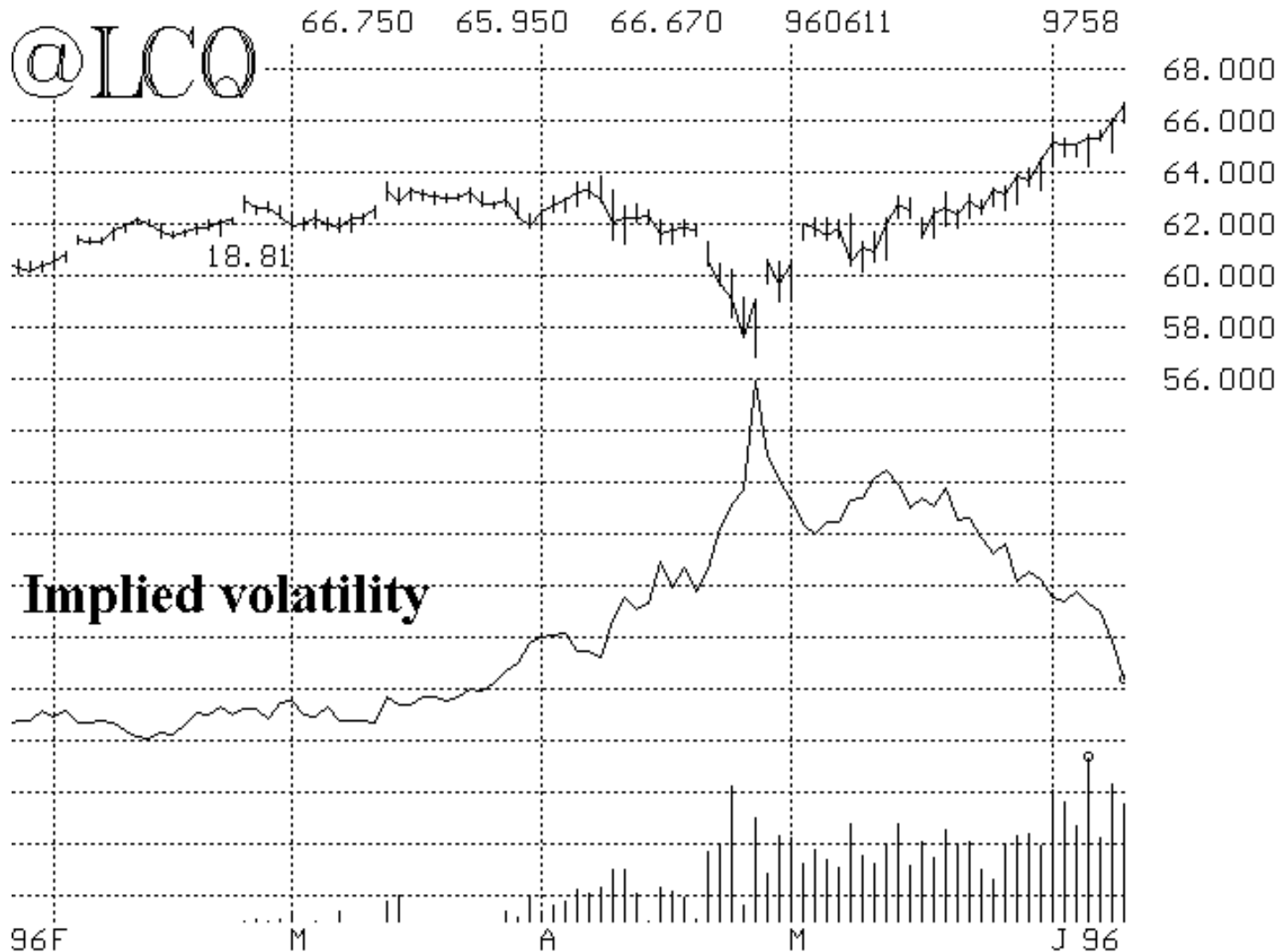
Recent \$VIX Activity



Tracking Recent Activity



Mad Cow Disease



More Uses of Implied Volatility

WARNING OF EXPLOSION!

**When Implied Volatility reaches extremely
low levels**

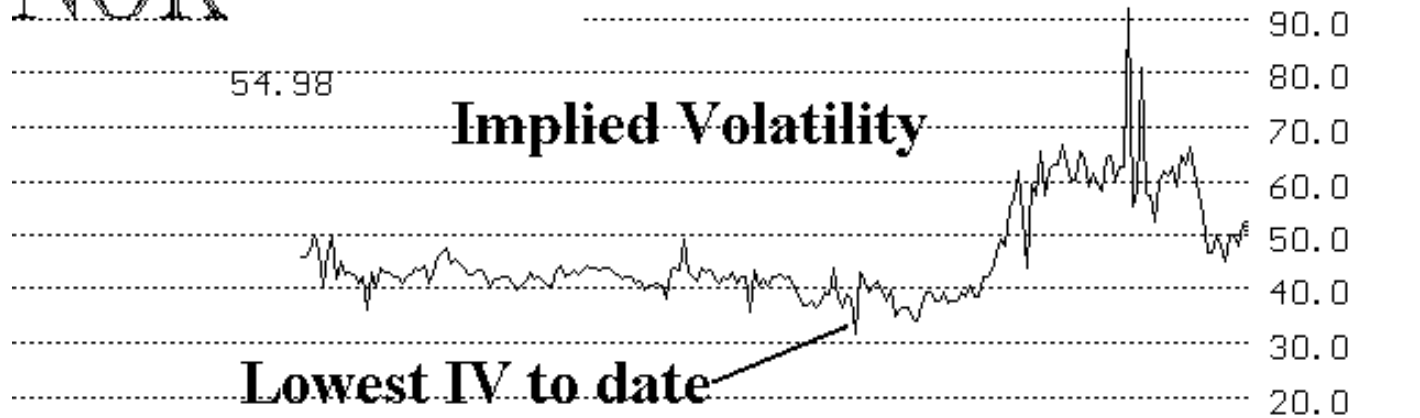
THEN

**THE UNDERLYING IS ABOUT TO
MAKE AN *EXPLOSIVE MOVE!*
(*but we don't know in which direction*)**

Nokia

NOK

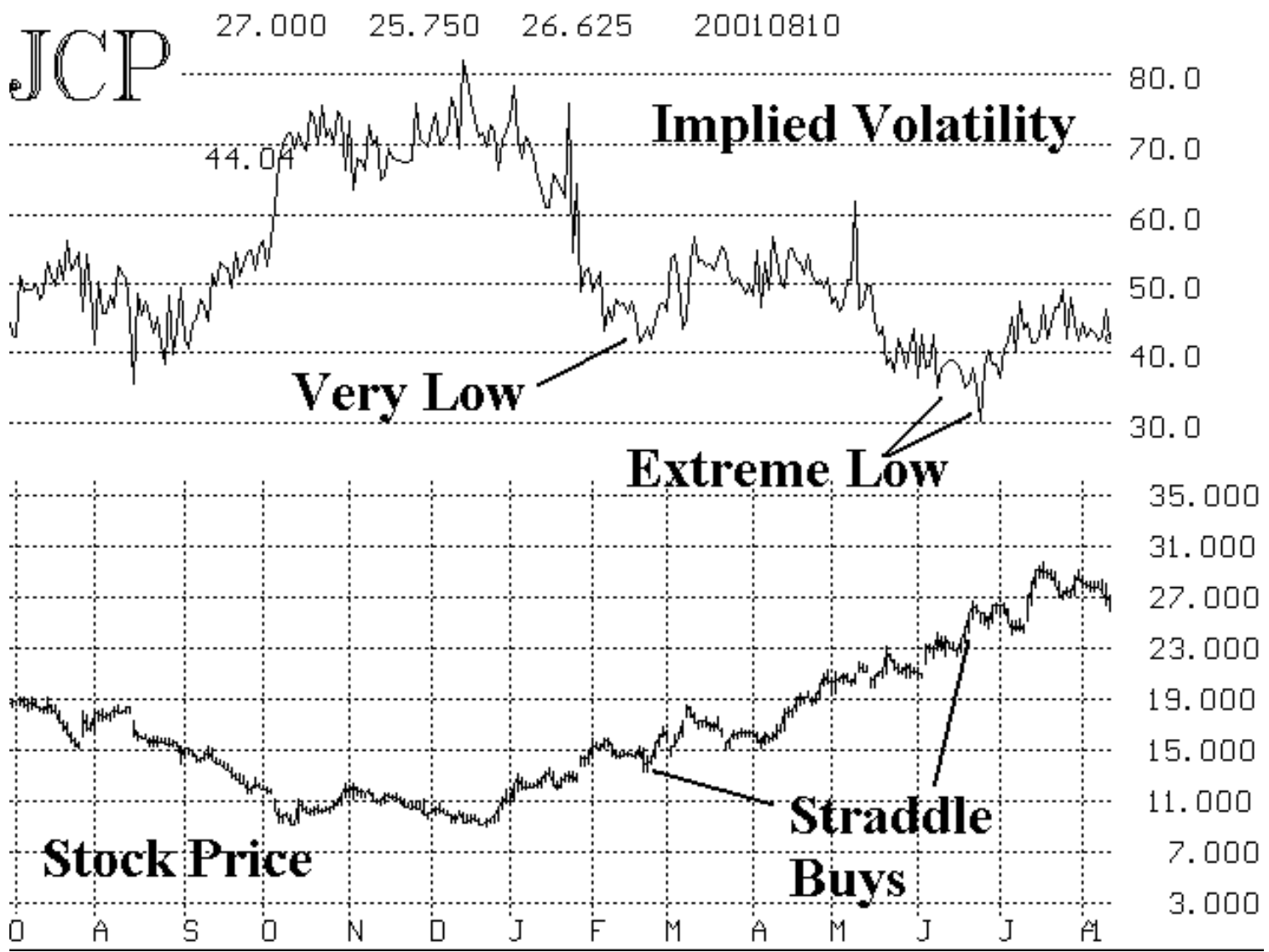
193.500 188.000 191.500 20000215 100.0



The best one of all?



J. C. Penney



Summary

- **Always use a model**
- **Trade all markets**
- **Use follow-up strategies**
- **Only trade in accordance with your personal philosophy**

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