

# THE AAIL BEGINNER'S PORTFOLIO

By James B. Cloonan

Over the past seven years the Beginner's Portfolio, an experimental portfolio of small stocks, has been periodically discussed in my column. Interest in this portfolio led us to provide detailed information about it that we update on an annual basis.

## THE ORIGIN OF THE PORTFOLIO

We began the Beginner's Portfolio just over seven years ago not to prove any one theory of investing, but to show that a consistent approach could be followed without great time requirements. We also wanted to examine and share the problems and procedures of managing a portfolio of small stocks.

A secondary consideration was our hope that we could convert a few "fundaholics" who exclusively invest in mutual funds into investing at least a part of their portfolio in individual stocks.

Our approach was based on historical evidence that small-capitalization stocks, now more commonly called micro-cap stocks, and stocks with low price-to-book-value ratios, outperformed the market over the long run. It was also based on the belief that a portfolio could be managed by making adjustments only once a quarter.

Based on practical experience in the handling of our portfolio (it is a

real portfolio), we have adjusted the guidelines; the rules provided at the end of this article represent our latest ideas for managing such a portfolio. The performance results through the past seven years can be seen in Table 1.

The purpose of the portfolio is to study processes and not to be an advisory letter. Because of this, we

do not list the stocks as we purchase them, although anyone with a database could have run a screen using our rules and come up with approximately the same selections. However, I thought it would give a feeling of reality to the process if we showed the stocks bought, sold, and currently held. They are presented in Table 2.

**TABLE 1.  
BEGINNER'S PORTFOLIO VS. PASSIVE PORTFOLIOS  
SEVEN-YEAR PERFORMANCE AND RISK (1993-1999)**

	Beginner's Portfolio	S&P 500 Index*	Russell 2000*	Micro Caps*
	Annual Return (%)			
1993	32.3	9.8	18.7	21.0
1994	2.0	1.1	-0.6	3.1
1995	20.7	37.4	28.7	34.5
1996	22.3	22.9	18.1	17.6
1997	44.3	33.2	24.6	22.8
1998	-8.9	28.6	-2.6	-14.3
1999	0.0	19.5	19.6	29.8
7-Year Annualized Rate of Return (%)	16.1	21.8	15.2	16.4
7-Year Annual Volatility (Risk)** (%)	0.18	0.12	0.11	0.15
Risk/Reward Ratio***	0.63	1.41	0.91	0.73

\*Based on passively managed portfolios. The S&P 500 is represented by the Vanguard Index 500 fund; the Russell 2000 by the Vanguard Index Trust Small-Cap fund; and micro caps by the DFA U.S. Small-Cap fund.

\*\*As measured by standard deviation—how much actual returns varied around the average from year to year.

\*\*\*As measured by the Sharpe ratio—how much excess return (return above Treasury bills) is generated for each unit of risk; the higher the number, the better the returns relative to risk.

Note: Standard deviation and the Sharpe ratio are only significant if these investments are a dominant part of all your investments. Otherwise their calculations should be based on performance and risk characteristics of your total portfolio.

## TAX BENEFITS

One interesting point to note is the side benefit to the way stocks are sold in the portfolio. Most stocks are sold because they have negative earnings; the only winners that are sold are those that have gone up enough to double the size or price-to-book-value ratio (share price divided by book value [common stockholder's equity] per share) criteria. As a result, losses are taken and most profits continue to run.

We did not tax-manage the portfolio, but individuals might want to adjust the timing of sales a bit to make losses short-term and gains long-term. However, I emphasize the words "a bit": A slight variation makes sense, but don't defeat the approach by focusing too much on tax consequences.

## TACTICAL CHANGES

During the seven-year period, examination of the results has led to modification of some of the original criteria. Frequent buying and selling of stocks can lead to high expenses in terms of commissions and the bid/ask spread (the difference between the highest price offered to buy a stock and the lowest price offered to sell a stock at a particular time). The portfolio rules have been adjusted to reduce trading activity as well as the trading costs. Based on the additional experience, we made a few other adjustments.

- Originally, we eliminated stocks with a bid/ask spread of over 8%. We believe it is effective to cut the maximum acceptable spread to 6%. Of course, based on our stock order rules, we try to pay less than the 6% initial spread.
- In 1997 we added the price-to-sales ratio (share price relative to sales per share) as a tiebreaker when more than enough stocks met the other criteria. In practice, it turned out that the price-to-sales ratios got very low, and the difference between stocks was too small to be meaningful. While price-to-sales seems to be impor-

TABLE 2. THE BEGIN

### Realized Capital Gains (as of 12/31/99)

Name (Exchange: Ticker)*	Cost Basis (\$)	Sales (\$)	Gain/-Loss (\$)
Advanced Logic Research	19,080	10,920	-8,160
AEL Industries (M: AELNA)	20,295	16,601	-3,694
Alba Waldensian (A: AWS)	19,913	18,674	-1,239
Allegheny & Western (M: ALGH)	19,870	34,800	14,930
Allied Research Corp. (A: ALR)	19,120	14,880	-4,240
Applied Extrusion (M: AETC)	58,160	52,484	-5,676
Arrow Automotive (A: AI)	25,400	24,499	-901
Astrosystems Inc. (M: ASTR)	23,485	27,453	3,968
Audiovox Corp. (A: VOX)	73,655	83,717	10,062
Barrys Jewelers Inc. (M: BARY)	24,120	13,943	-10,177
Ben Franklin Retail (M: BFRS)	24,475	26,150	1,675
Bennetton Group SPA (N: BNG)	22,150	23,674	1,524
Brock Candy (M: BRCK)	22,560	49,003	26,443
Bufete Industrial (GBI)	28,084	49,548	21,464
Catherines Stores (M: CATH)	47,335	206,718	159,383
Concord Fabrics (A: CIS)	18,600	17,957	-643
Culbro Corp. (N: CUC)	22,025	21,487	-538
Data Syst's & Software (M: DSSI)	46,355	55,619	9,264
Datron Systems (M: DTSI)	16,970	13,440	-3,530
Diagnostic Retrieval (A: DRS)	22,073	45,426	23,353
Dynamics Corp. of Amer (N: DYA)	19,213	66,110	46,897
EDO Corporation (N: EDO)	41,884	47,634	5,750
Eldec Corporation (M: ELDC)	20,470	48,100	27,630
Fibreboard Corp. (A: FBD)	21,075	66,923	45,848
Fluor Daniel/GTI (M: FDGT)	50,890	48,170	-2,720
Foodarama Supermarket (A: FSM)	20,875	19,099	-1,776
Frequency Electronic (A: FEI)	40,460	187,585	147,125
GBC Technologies (M: GBCT)	17,660	20,900	3,240
Greenman Brothers (A: GMN)	19,260	29,677	10,417
Hampton Industries (A: HAI)	18,090	21,763	3,673
Kahler Corp. (M: KHLR)	20,670	29,680	9,010
LDI Corporation (M: LDIC)	22,560	11,190	-11,370
Lechters, Inc. (M: LECH)	35,680	21,307	-14,373
Luria & Sons (N: LUR)	21,225	20,937	-288
Marsh Supermarkets (M: MARSA)	25,770	23,565	-2,205
Methode Electronic (M: METHA)	21,060	28,440	7,380
Moog Inc. (A: MOG.A)	20,225	75,447	55,222
Motts Holdings Inc. (A: MSM)	20,213	12,660	-7,553
Natural Wonders, Inc. (M: NATW)	49,095	36,414	-12,681
Nuclear Metals Inc. (M: NUCM)	22,220	23,732	1,512
Nycor Inc (M: NYCO)	22,080	10,920	-11,160
Orbit International (M: ORBT)	24,173	21,203	-2,970
Oriole Homes Corp. (A: OHC.B)	39,688	32,266	-7,422
Paragon Trade (N: PTB)	60,360	63,330	2,970
Perini Corporation (A: PCR)	42,138	34,486	-7,652
Proler International (N: PS)	39,365	17,349	-22,016
Ramsay Health Care (M: RHCI)	20,370	27,920	7,550
Rexon Inc. (M: REXN)	20,745	30,130	9,385
Salem Corporation (A: SBS)	20,188	56,086	35,898
Sea Containers Ltd. (N: SCR.B)	83,200	105,105	21,905
Seaway Food Town (M: SEWY)	20,060	79,417	59,357
Sifco Industries (A: SIF)	18,900	18,039	-861
Spaghetti Warehouse (N: SWH)	35,674	32,885	-2,789
Specialty Chemical (A: CHM)	23,900	17,977	-5,923

## BEGINNER'S PORTFOLIO

### Realized Capital Gains (as of 12/31/99)

Name (Exchange: Ticker)	Cost Basis (\$)	Sales (\$)	Gain/-Loss (\$)
Taco Cabana Inc. (M: TACO)	57,928	107,954	50,026
Tandy Crafts Inc. (N: TAC)	47,800	45,966	-1,834
TCI International (M: TCII)	19,758	15,679	-4,079
Todd Shipyards Corp. (N: TOD)	20,775	25,662	4,887
Transzonic Cosmetic (A: TNZ)	26,975	58,000	31,025
Unitel Video Inc. (A: UNV)	24,849	21,763	-3,086
USA Classic Inc. (M: USCL)	25,548	27,390	1,842
Village Supermarket (M: VLGEA)	19,370	18,690	-680
Washington Homes (N: WHI)	33,475	27,352	-6,123
Watsco Inc. (N: WSO)	24,875	68,323	43,448
Worldway Corp. (N: WCN)	21,300	25,300	4,000
<b>Total Realized Capital Gains</b>			<b>739,704</b>

### Unrealized Capital Gains (as of 12/31/99)

Name (Exchange: Ticker)	Cost Basis (\$)	Value (12/31/99) (\$)	Gain/-Loss (\$)
AMREP Corp. New (N: AXR)	52,985	47,500	-5,485
Baltek Corp. (M: BTEK)	55,990	48,038	-7,952
Beazer Homes US (N: BZH)	59,294	71,225	11,931
BRT Realty Trust (N: BRT)	35,240	64,000	28,760
Continental Materials (A: CUO)	32,600	113,125	80,525
Culp Inc. (N: CFI)	46,551	47,348	797
Ecology & Environment (A: EEI)	34,088	21,252	-12,836
Federal Screw Works (M: FSCR)	11,810	42,000	30,190
Galey & Lord (N: GNL)	53,307	19,380	-33,927
Green Mountain Power (N: GMP)	84,036	40,909	-43,127
Hagger Corp. (M: HGGR)	57,458	56,875	-583
Int'l Shipholding (N: ISH)	69,752	51,150	-18,602
Liberty Homes (M: LIBHA)	53,933	42,578	-11,355
McRae Industries (A: MRIA)	29,138	23,625	-5,513
Noland Company (M: NOLD)	53,185	50,050	-3,135
Oilgear Company (M: OLGR)	49,217	34,375	-14,842
PDK Labs Inc. (M: PDKL)	50,740	43,750	-6,990
Providence & Worcester (A: PWX)	37,680	40,800	3,120
PS Group Holdings (N: PSG)	53,930	45,000	-8,930
Quaker Fabric (M: QFAB)	50,735	51,000	265
Raytech Corp. (N: RAY)	64,992	35,438	-29,554
Rural/Metro Corp. (M: RURL)	54,732	38,529	-16,203
Sonesta Intl Hotels (M: SNSTA)	20,620	62,000	41,380
Trans-Lux (A: TLX)	25,731	19,070	-6,661
<b>Total Unrealized Capital Gains</b>			<b>-28,727</b>

### Summary

Portfolio Value 12/31/99 (\$)	1,319,808
Portfolio Value 12/31/92 (\$)	503,984
Total Gains (\$)	815,824
Realized Capital Gains (\$)	739,704
Unrealized Capital Gains (\$)	-28,727
Dividends or Interest (\$)	104,847

*Exchange Key:*  
 N = New York Stock Exchange  
 A = American Stock Exchange  
 M = Nasdaq

\* Ticker and exchange at time of sale. Please note that some are no longer listed due to mergers, name changes, etc.

tant, instead of trying to use its small differences to select stocks, we are putting in an overall criteria that the price-to-sales ratio must be less than 1. We then go back to choosing in order of price-to-book-value ratio to break ties if all other criteria are met.

## SOME OBSERVATIONS

As can be seen from the average monthly returns over the seven-year period (Table 3), there is a bit of a January effect, but August is stronger. The volatility from month to month is very high, and the variations by month could easily be due to chance.

We have monitored the stocks we have sold as well as those in the portfolio. Portfolio performance tests the validity of our buy rules, but information on whether our sell rules are valid requires maintaining a simulated portfolio of stocks sold. Over the years, this portfolio has had positive returns, but less than our real portfolio.

Since one of the most common sins among individuals is to sell too soon, I suggest all investors maintain a simulated portfolio of stocks sold to validate their own sell rules.

## THE PAST YEAR

While micro-cap stocks re-emerged, producing higher returns in 1999 than large caps, the advance was entirely from the growth stocks. Value stocks, both large and small, lagged behind significantly, as did our heavily value-oriented portfolio.

I continue to believe that value will outperform in the long run, but this two-year severe underperformance indicates the continued need for diversification. For the first six months of 2000, the S&P 500 and the Beginner's Portfolio have been very close in returns.

## OTHER TEST PORTFOLIOS

In 1998, we began an additional portfolio, called the Intermediate Portfolio, which reduced some of the value constraints and left more

discretion to the individual investor. Over the two years, the performance was so close to that of the Beginner's Portfolio that we felt there was no reason to pursue it. Of course, individuals adapting this approach could reduce any of the constraints in the Beginner's Portfolio to select more stocks, which can then be narrowed down by other criteria selected by the individual.

We have begun to test a very large-capitalization stock portfolio based on modern portfolio theory principles, but that also tries to take advantage of a simplification made in current models. We will discuss this further when we have more results. ♦

**TABLE 3.**  
**AVERAGE RETURNS BY MONTH**

	Return (%)		Return (%)
January	2.39	July	0.95
February	0.78	August	2.94
March	1.28	September	1.52
April	-0.22	October	1.09
May	1.42	November	1.27
June	1.61	December	1.06
		<b>All Months</b>	<b>1.34</b>

## DEFINITIONS OF TERMS

### **Bulletin board stocks:**

Stocks traded on the bulletin board system maintained by Nasdaq but not listed or traded on Nasdaq. Because they do not meet exchange listing or Nasdaq requirements, reliable financial information may be more difficult to obtain.

### **Bid-ask spread:**

The difference between the bid price (the price at which a stock can be sold) and the ask price (the price at which a stock can be bought). The spread is a transaction cost to an investor; the wider the spread, the greater the cost.

### **Good-till-cancelled order:**

Order to buy or sell a stock that remains in effect until executed or cancelled.

### **Market capitalization:**

Price per share times the average number of shares outstanding for a company. A measure of firm size.

### **Market order:**

Order to buy or sell a stock at the best available price.

### **Pink sheet stocks:**

Daily publication that details the bid and asked prices of stocks not listed on the New York Stock Exchange, American Stock Exchange or Nasdaq or reported on the bulletin board maintained by Nasdaq. Because they do not need to meet exchange or Nasdaq requirements, reliable financial information may be more difficult to obtain.

### **Price-to-book-value ratio:**

Share price divided by book value (common stockholder's equity) per share. A measure of stock valuation relative to net assets.

### **Price-to-sales ratio:**

Share price divided by sales per share. A measure of stock valuation relative to sales.

### **Sharpe ratio:**

How much excess return (return above Treasury bills) is generated for each unit of risk. The higher the number, the higher the returns relative to risk.

### **Standard deviation:**

How much actual returns varied around the average return. Two-thirds of the time the variation in return will fall within a range of one standard deviation above and below the average return.

## BEGINNER'S PORTFOLIO RULES

### PURCHASE AND SALE RULES

*Stock purchases must meet these criteria:*

- No bulletin board or pink sheet stocks will be purchased.
- Price-to-book-value ratio must be less than 0.85. (This figure will change gradually with changes in overall market values.)
- Market capitalization must be between \$17 million and \$125 million (will also change).
- The firm's last quarter and last 12 months' earnings from continuing operations had to have been positive.
- No financial stocks or limited partnerships will be purchased.
- The share price must be greater than \$4.
- In order to reduce trading by avoiding stocks that are forevermarginal, any stock that was sold within two years will not be rebought.
- Note first item under stock order rules concerning spreads when buying shares.
- Price-to-sales ratio must be less than 1.00.

*Stocks are sold if any of the following occurs:*

- If last 12 months' earnings are negative, the stock is put on probation; if a subsequent quarter has negative earnings prior to 12-month earnings becoming positive, the stock is sold.
- The stock's price-to-book-value ratio goes above 2½ times the initial criteria.
- Market capitalization goes above 2½ times the initial criteria.

### STOCK ORDER RULES

- If the quoted bid-ask spread is more than 6% (ask price minus bid price, divided by asked price), the stock is eliminated from consideration. Better to stretch other criteria, if necessary, than pay high spreads.
- Stocks are eliminated if the average daily number of shares traded is not twice the amount needed for the position, since the spread will be too high and not negotiable either now or when sold.

- Market orders are not used. Instead, orders are placed between the bid and ask prices unless the difference between the two is 4% or less, in which case purchases are placed at the offer price and sales are placed at the bid price.
- For Nasdaq stocks, it appears to be better to use day orders. If the order is not filled, it is placed again in a few days with a slight adjustment. In NYSE and Amex stocks, good-till-canceled (GTC) orders are used to keep place in line in the specialist's books. If market isn't close to desired price, it is adjusted in a few days with a new GTC order.
- If price changes cause a stock to become ineligible (due to changes in price-to-book-value ratio or market capitalization) when only part of the order has been filled, stocks already purchased are kept but the balance of the order is cancelled.

### MANAGEMENT RULES

- Decisions are made only at the end of each quarter. In order to react to the majority of earnings reports as early as possible, quarterly reviews are made early in February, May, August, and November.
- Best judgment is used for tenders or mergers, but all criteria must be obeyed.
- At end of quarter, if receipts from stocks sold exceed requirements for new purchases, the excess receipts—up to 5% of portfolio value—are kept in cash until next quarter. If the excess receipts are greater than 5% of the total portfolio value, the amount above 5% is distributed to smaller holdings that still qualify as buys. Efficient quantities are purchased: If over 10% of the portfolio is in cash, the market capitalization screen may be moved up a bit (for instance, from \$125 million to \$140 million) to find new qualifying stocks.
- At end of quarter, if receipts from stocks sales are insufficient to buy all newly qualifying stocks, purchases are made in order of lowest price-to-book-value ratio in amounts equal to the average holding.
- Note that if you are managing your own portfolio, it should consist of at least 10 stocks. For portfolios over \$100,000, investing in 15 to 20 stocks is sufficient. More than 20 stocks are not needed until the portfolio exceeds \$1 million.