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# AAII Shadow Stock Portfolio: From Theory to Practical Application

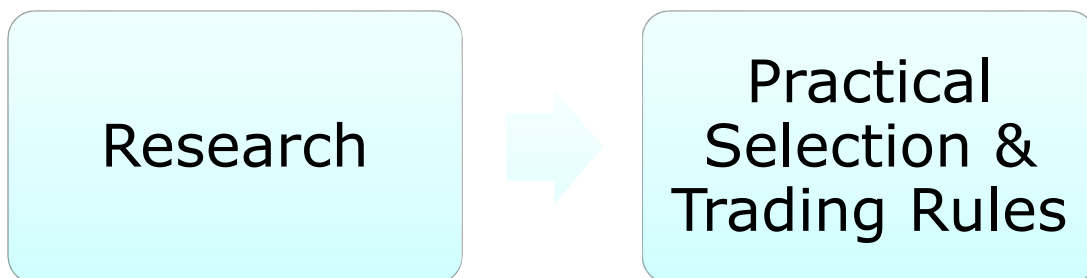
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1

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## Model Shadow Stock Portfolio



2

# Presentation Overview

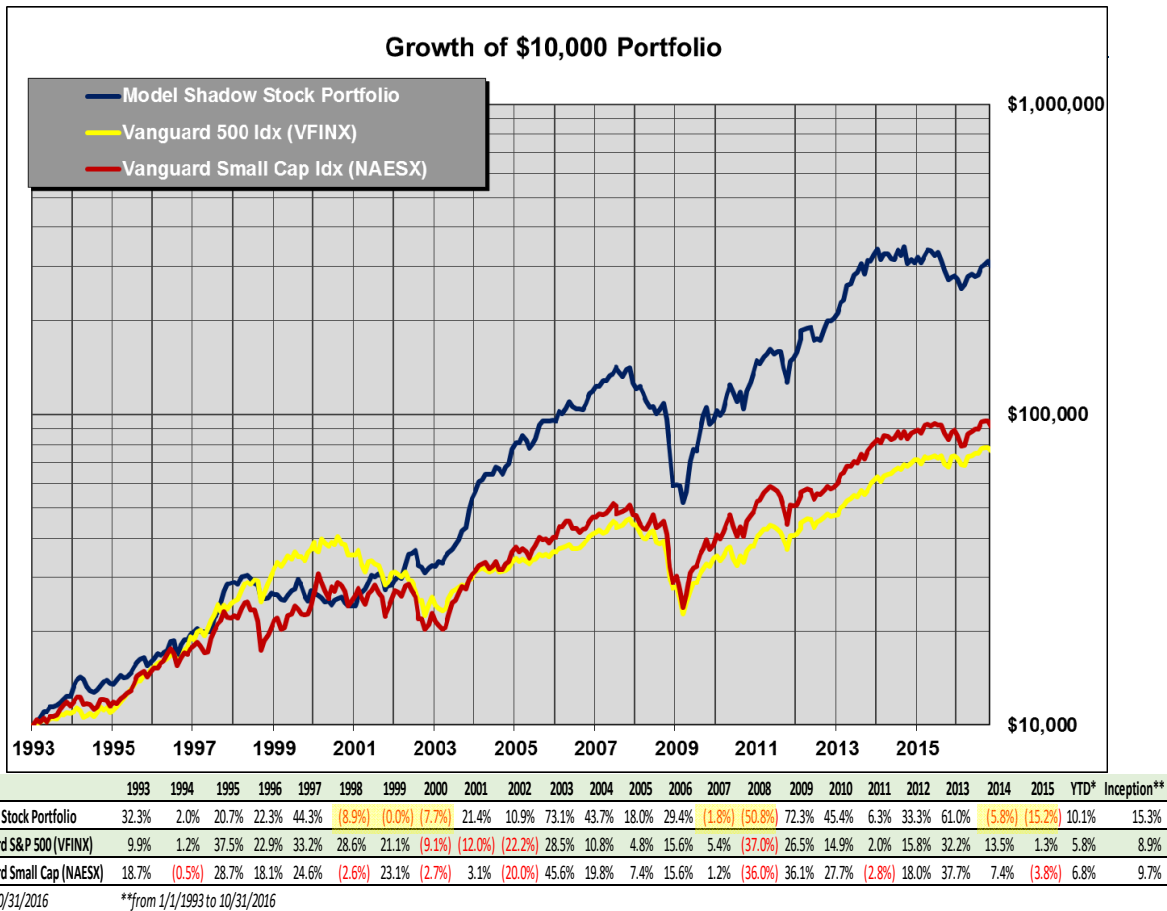
Model  
Shadow Stock  
Portfolio Rules



Investment  
Principles &  
Objectives



AAI Tools  
&  
Resources



# Primary Size Consideration: Market Capitalization



5



## Performance by Market Cap

Decile	1926 to 2015				No. of Firms	% of Largest Stock	% of Total Market Cap
	Annual Return (%)	Standard Deviation (%)	Serial Correlation Annual Return	Ret Above Decile 1			
<b>1-Largest</b>	9.3	19.0	0.07	--	193	\$629.01 bil	66.2
<b>2</b>	10.5	21.6	0.01	0.22	209	\$21.81 bil	13.1
<b>3</b>	11.0	23.5	(0.03)	0.31	208	\$9.61 bil	6.9
<b>4</b>	10.8	25.7	(0.03)	0.25	240	\$5.20 bil	4.9
<b>5</b>	11.4	26.3	(0.03)	0.27	240	\$3.19 bil	3.0
<b>6</b>	11.3	27.3	0.02	0.33	258	\$2.08 bil	2.2
<b>7</b>	11.4	29.2	0.01	0.30	350	\$1.40 bil	1.9
<b>8</b>	11.5	33.2	0.00	0.30	392	\$844.5 mil	1.2
<b>9</b>	11.4	37.4	0.06	0.32	494	\$448.1 mil	0.8
<b>10-Smallest</b>	<b>13.5</b>	<b>42.7</b>	<b>0.14</b>	<b>0.40</b>	<b>796</b>	<b>\$209.4 mil</b>	<b>0.4</b>
<b>Large Cap, S&amp;P 500</b>	10.0	20.0	0.02		500	\$629.01 bil	80.0
<b>Mid Cap, Deciles 3-5</b>	11.0	24.6	(0.03)		680	\$9.61 bil	14.3
<b>Small Cap, Deciles 6-8</b>	11.4	28.9	0.01		1,000	\$2.08 bil	5.2
<b>Micro Cap, Deciles 9-10</b>	12.0	39.0	0.08		1,290	\$448.1 mil	1.1
<b>Treasury Bills</b>	3.4	3.1	0.91				
<b>Inflation</b>	2.9	4.1	0.64				

Source: Morningstar & CRSP

6



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# Invest Where YOU Have the Advantage



7

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## Primary Size Consideration: Market Capitalization

- **Market Cap  $\leq$  \$400 million**
  - Lowest 10% of NYSE-listed stocks
  - Current cut-off established in September 2016
    - Original cut-off: \$55 million in 1993
    - Highest cut-off: \$400 million since 2016

8

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## Secondary Size Consideration: Liquidity

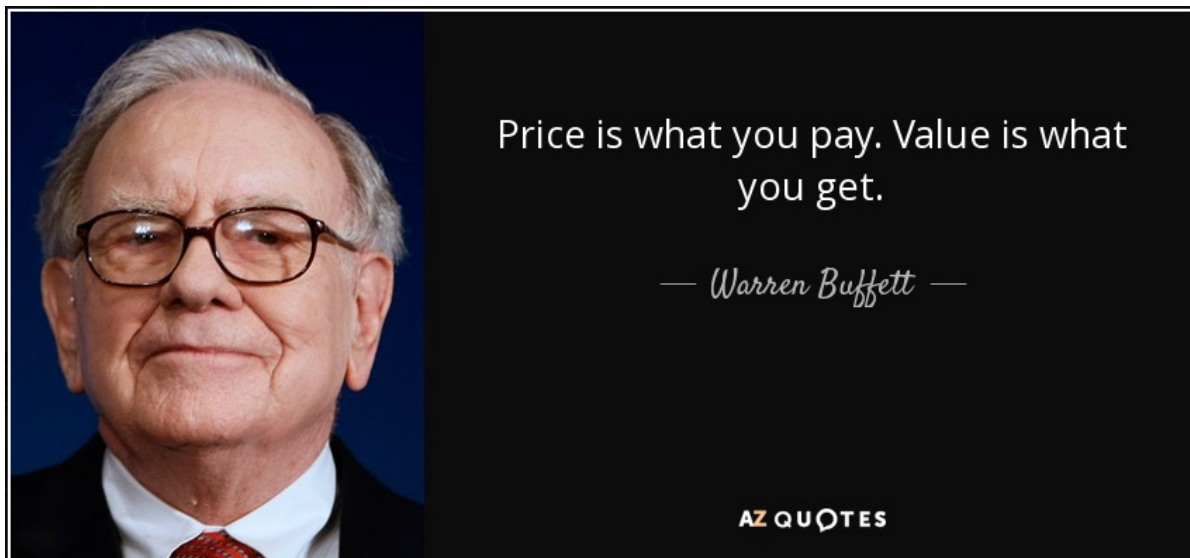
- **Market Cap  $\geq$  \$30 million**
  - Current minimum set in December 2013
    - Original minimum of \$10 million in 1993
- **No OTC stocks** (bulletin board or pink sheets)
- **Share price  $\geq$  \$4**
- **Use limit orders to control buy/sell prices**
- **Average daily trading volume  $\geq$  10x position you are seeking**

9



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## Primary Value Consideration: Price-to-Book-Value Ratio



10



## Primary Value Consideration: Price-to-Book-Value Ratio

	Average Monthly Returns (July 1963 to December 1990) (%)										
	Price-to-Book-Value Ratio										Low
	All	1	2	3	4	5	6	7	8	9	10
All Stocks	1.23	0.64	0.98	1.06	1.17	1.24	1.26	1.39	1.40	1.50	1.63
Size Deciles											
1-Largest	0.89	0.93	0.88	0.84	0.71	0.79	0.83	0.81	0.96	0.97	1.18
2	0.95	0.44	0.89	0.92	1.00	1.05	0.93	0.82	1.11	1.04	1.22
3	1.08	0.66	1.13	0.91	0.95	0.99	1.01	1.15	1.05	1.29	1.55
4	1.07	0.95	1.00	0.99	0.83	0.99	1.13	0.99	1.16	1.10	1.47
5	1.15	0.70	0.98	1.14	1.23	0.94	1.27	1.19	1.19	1.24	1.50
6	1.24	0.88	0.65	1.08	1.47	1.13	1.43	1.44	1.26	1.52	1.49
7	1.19	0.39	0.72	1.06	1.36	1.13	1.21	1.34	1.59	1.51	1.47
8	1.22	0.56	0.88	1.23	0.95	1.36	1.30	1.30	1.40	1.54	1.60
9	1.22	0.43	1.05	0.96	1.19	1.33	1.19	1.58	1.28	1.43	1.79
10-Smallest	1.47	0.70	1.14	1.20	1.43	1.56	1.51	1.70	1.71	1.82	1.92

Source: *The Cross-Section of Expected Stock Returns*, Eugene Fama & Kenneth French, *The Journal of Finance*, June 1992

## Primary Value Consideration: Price-to-Book-Value Ratio

- **Price-to-book-value ratio  $\leq$  1.0**
  - Bottom 10% of NYSE stocks
  - Current maximum set in June 2015
    - Original cut-off of 0.61 in 1993
    - Lowest cut-off of 1.0 between August 2000 & October 2003
  - S&P 500 P/B currently 2.69
    - Year Ago 2.81 (Barron's)

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## Secondary Value Consideration: Price-to-Sales Ratio

- **Price-to-sales ratio  $\leq 1.2$** 
  - Established a filter in August 1996
    - Original cut-off of 0.54 in August 1996
    - Highest cut-off of 1.2 since November 2003

13



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## Momentum Consideration: Relative Price Strength

- “Growth and value investing are joined at the hip.”—Warren Buffett
- “Of all the potential embarrassments to market efficiency, momentum is the primary one.”—Eugene Fama



14



# Momentum Consideration: Relative Price Strength

- **Relative Strength 26-week > 50<sup>th</sup> percentile of stock universe**
  - Added in September 2016
  - Looking for stocks that rank in the top 50% in terms of 26-week price performance compared to the S&P 500
  - ONLY used on buy side, not a sell criterion

15



## Levels of Key Factors Over Time

Period Ending	Maximum Value of Lowest (10th) NYSE		Maximum Value for Shadow Stock Candidates			Minimum Relative Strength 26-Week (%)
	Market Cap (\$ Mil)	Price-to-Book-Value (X)	Market Cap (\$ Mil)	Price-to-Book-Value (X)	Price-to-Sales (X)	
Jun 1993	60	0.72	55	0.61	--	--
Dec 1993	66	0.97	55	0.61	--	--
Dec 1994	60	0.75	60	0.65	--	--
Dec 1995	81	0.95	60	0.65	--	--
Dec 1996	93	1.06	100	0.70	0.54	--
Dec 1997	123	1.15	125	0.85	0.54	--
Dec 1998	100	0.85	125	0.85	1.00	--
Dec 1999	95	0.70	125	0.85	1.00	--
Dec 2000	90	0.51	125	0.85	1.00	--
Dec 2001	115	0.64	125	0.60	1.00	--
Dec 2002	130	0.62	125	0.60	1.00	--
Dec 2003	243	1.02	125	0.70	1.20	--
Dec 2004	300	1.15	200	0.80	1.20	--
Dec 2005	310	1.04	200	0.80	1.20	--
Dec 2006	338	1.11	200	0.80	1.20	--
Dec 2007	250	0.88	200	0.85	1.20	--
Dec 2008	91	0.38	200	0.80	1.20	--
Dec 2009	153	0.79	200	0.80	1.20	--
Dec 2010	191	0.90	200	0.80	1.20	--
Dec 2011	122	0.72	200	0.80	1.20	--
Dec 2012	141	0.81	240	0.80	1.20	--
Dec 2013	331	0.91	300	0.80	1.20	--
Dec 2014	301	0.82	300	0.80	1.20	--
Dec 2015	209	0.66	300	1.00	1.20	--
Nov 2016	275	0.80	400	1.00	1.20	50%

\*Source: AAI's Stock Investor Pro; Thomson Reuters

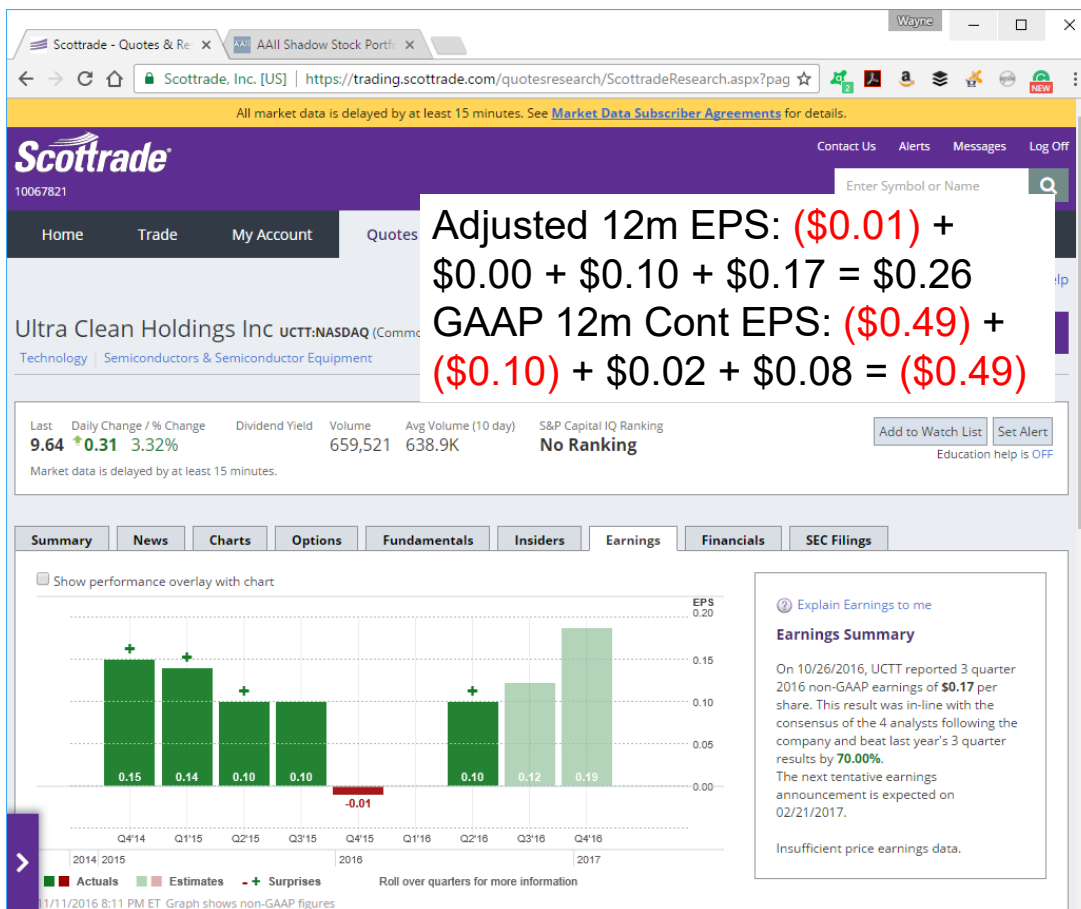
16





# Shadow Stock Financial Considerations

- **Adjusted EPS 12m from continuing operations > \$0**
  - Not GAAP data; use consensus estimates if available
  - When available, consensus estimates must also be positive for current quarter and year
- Avoid any stock that was sold from the portfolio in the last two years



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## Shadow Stock Financial Considerations

- Avoid foreign stocks
- Avoid financial stocks, leasing & rental companies, REITs & limited partnerships
- Avoid company's that have not filed a quarterly SEC report (10-Q) in last six months

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## Building Your Shadow Stock Portfolio: Placing Trades

- **Average daily trading volume > 10x number of shares you want to buy**
  - You may need to slowly move in & out of positions
  - Be willing to build positions slowly by placing partial orders

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## Building Your Shadow Stock Portfolio: Placing Trades

- Cancel open orders if price move pushes price/book or market cap beyond buy limits
  - Keep shares you already have

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## Use Limit Orders for Buy & Sell Trades

- **Bid/ask spread > 2%:** Place limit orders between the bid and ask price to keep the transaction cost low
- **Bid/ask spread < 2%:** Place limit orders at the ask for a buy and at the bid for sell

# Use Limit Orders for Buy & Sell Trades

- NASDAQ: Use day orders that expire at end of day if not filled
- NYSE & Amex: Use good-till-cancelled orders to keep your place in the specialist book
- Adjust limit price if market is not close to desired price after a few days

23



- Bid-ask spread:  $(\text{ask} - \text{bid}) \div \text{ask}$   
 $-(\$11.63 - \$11.59) \div \$11.63 =$   
 $0.0035$  or  $0.35\%$

Detailed Quote for Vishay Precision Group (VPG)

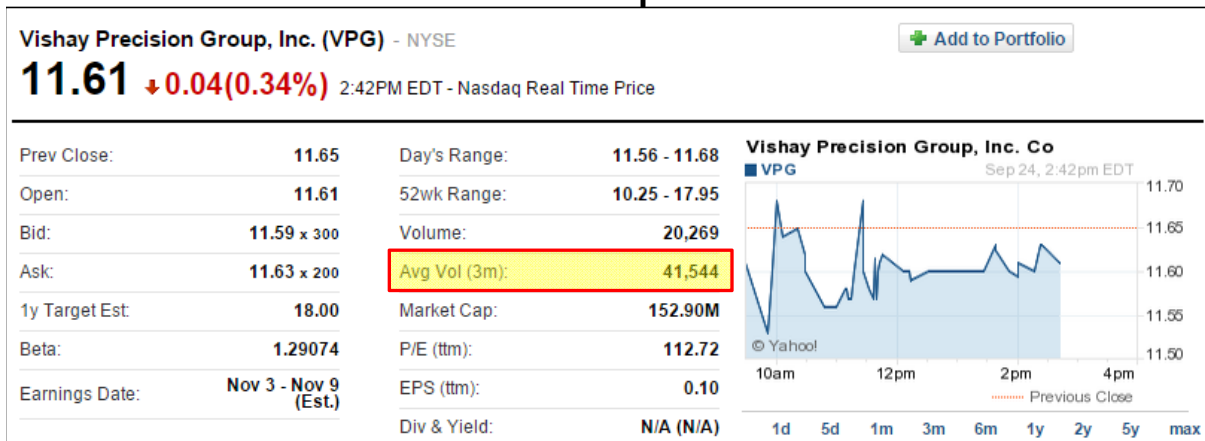
**\$ 11.61** ▼ -0.04 (-0.34%) Volume: 19.62k 2:01 PM EDT Sep 24, 2015

Time & Sales				Summary			
Price	Size	Mkt	Time	Last Price	Change \$	Change %	Tick
\$11.61	100	NDD	14:01:39	11.61	▼ 0.04	▼ 0.34%	▼
\$11.595	100	NDD	14:00:10	<b>Bid</b>	<b>Bid Size</b>	<b>Ask</b>	<b>Ask Size</b>
\$11.59	100	ARCA	14:00:06	11.59	200	11.63	100
\$11.60	100	NYSE	13:52:59	Open	High	Low	Prev Close
f \$11.60	100	NSD	13:52:59	11.61	11.68	11.53	11.65
f \$11.61	100	NSD	13:52:59	Last Trade	Volume	<b>52 Wk Hi</b>	<b>52 Wk Low</b>
f \$11.60	100	NSD	13:52:59	2:01	19.62k	17.95	10.25
f \$11.60	100	NSD	13:52:59	Market Cap	Ex-Div Date	Div Rate	Yield
f \$11.60	100	NSD	13:52:59	152.9m	N/A	N/A	N/A
f \$11.60	100	NSD	13:52:59	Shares	EPS (TTM)	PE Ratio	Exchange
i \$11.60	96	NYSE	13:52:59	13,169,643	0.07	167.00	NYSE
f \$11.61	100	NSD	13:52:59				
\$11.60	200	NYSE	13:52:59				
\$11.61	200	NYSE	13:52:59				
\$11.61	100	NDD	13:52:11				
\$11.65	100	NSD	13:43:45				
i \$11.65	3	BOS	13:41:14				
\$11.625	100	NDD	13:39:45				
f \$11.63	100	NYSE	13:38:51				
i \$11.6289	10	NDD	13:37:24				
\$11.60	100	NYSE	13:26:30				
i \$11.5905	3	NDD	13:14:55				

24



- Avg. Daily Volume: 41,544
  - $41,544 \div 10 = 4,154$  shares maximum supported position
  - $4,154 \times \$11.63 = \$48,311$  maximum dollar position



25

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## Portfolio Construction

- Aim for expense ratio under 1.50%
  - Commissions  $\div$  total investment
- 10-stock portfolio **minimum** number of holdings
  - \$25k minimum investment
- 15 to 20 stocks: \$100k to \$1 million
- 25+ stocks: Over \$1 million
- Invest equal dollar amounts in each security

26

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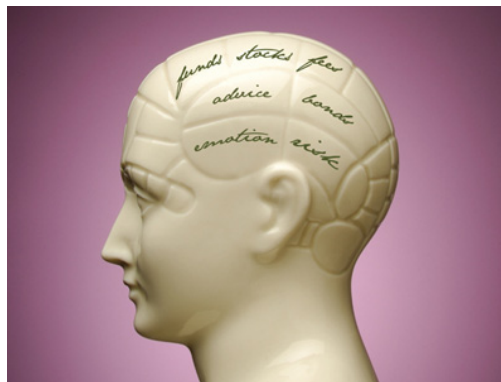
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# Knowing When to Sell



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# Rules to Overcome Emotion



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## Shadow Stock Portfolio Sell Rules

- Price-to-book-value ratio > 3x current buy factor
  - $3 \times 1.0 = 3.0$
- Market cap > 3x current buy factor
  - $3 \times \$400 \text{ mil} = \$1.2 \text{ billion}$
- **Adjusted** EPS 12m < \$0
  - Stock placed on probation the first quarter trailing EPS goes negative
  - If subsequent quarter has negative EPS while trailing EPS still also negative, stock is sold
    - If subsequent quarterly EPS is positive but trailing EPS is negative, stock remains on probation

29



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## Shadow Stock Portfolio Management Rules

- Decisions are made at the end of the quarter once the earnings results have been announced
  - Typically in February, May, August & November
- Use best judgment for mergers/tenders, but still follow rules
- If sales proceeds not enough to buy desired number of companies
  - Best to focus on transaction cost
    - Give preference to stocks with lower bid-ask spreads
  - Invest average portfolio position instead of underweighting

30



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## Shadow Stock Portfolio Management Rules

- **Sales proceeds > average position**
  - Invest average portfolio position in qualified stocks
  - Excess cash held for future purchases

31



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## Keep a Long-Term Perspective



If you are not willing to own a stock  
for 10 years, do not even think  
about owning it for 10 minutes.

— Warren Buffett —

AZ QUOTES

32





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## Keys to Shadow Stock Success

- Time
- Interest
- Discipline
- Minimize turnover

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## AAII Resources

- Home page for AAI Model Portfolios

**Model Portfolios**

**Third-Quarter Model Fund Portfolio Review & Portfolio Updates**

Following his October quarterly portfolio review, James Cloonan did not make any changes in the holdings of the AAI Model Fund Portfolio. [Read More >](#)

AAI model portfolios provide members with stock and fund research and analysis. Our ultimate goal with these portfolios is to provide you with the best of both worlds—investment ideas and investment education. [Read More >](#)

**Model Shadow Stock Portfolio**

1-Year Return: **14.5%**  
As of 9/30/2016

YTD Return (%)	Annual Return (%)				Ann'l Std Dev (%)	3-Year Risk-Adjusted Return (%)
	1-Yr	3-Yr	5-Yr	10-Yr		
14.2	14.5	-0.2	19.5	11.1	16.3	-2.4
Compared to Vanguard S&P 500 Idx (VFVX)						
7.7	15.3	11.0	16.2	7.1	10.7	11.0

[Stock Portfolio >](#)

**What Are Model Portfolios?**

AAI's model portfolios are real investments with real dollars that are managed as if by an individual investor. Some key points:

- There are two model portfolios: a [Model Shadow Stock portfolio](#) and a [Model Fund portfolio](#).
- Two-fold goal: to both educate individual investors and to inspire investing success.
- Investment decisions are published here on AAI.com for members to follow.

**Learn how to follow the Model Shadow Stock Portfolio:**  
AAI senior financial analyst Wayne Thorp, CFA, and AAI Journal editor Charles Rotblut, CFA, offer guidance on how to successfully follow the portfolio in this video.

**Model Portfolios Discussion**

Connect with other AAI Members by engaging in a discussion of various topics through our new [AAI Discussion Boards](#).

35

- "Using AAI Portfolios" section has link to PDF version of latest Model Portfolio pamphlet or view as a Web-based guide

**Using AAI Portfolios**

AAI's purpose is to provide investment education and information. Our ongoing goal is to prepare individual investors to effectively manage their investments and to provide the necessary education, data and support to help them in that effort.

Over the years, however, we became increasingly aware that many of our members wanted more specific help. In talks with members, we found that there is a need for an intermediate level of support—not a complete advisory letter, but some specific guidance for individuals in developing an effective investment program—a real-world example of how to take an investment approach and construct and monitor an actual portfolio. AAI addresses this need by offering our members access to two model portfolios:

- AAI Model Fund Portfolio
- AAI Model Shadow Stock Portfolio

This brief guide is offered as a starting point for those members interested in following the investment direction and education we offer through the AAI model portfolios. The performance of these real-world portfolios has been impressive, but please be advised that a bit of study and commitment is required of members seeking to follow our portfolios.

**AAI Model Fund Portfolio**

**First Methodology**

The fund selection rationale consists of two distinct approaches. The first approach is to select actively managed funds where the managers have shown a long-term ability to outperform the market after allowing for additional portfolio risk, regardless of the sector invested in. A fund must have the following characteristics to be considered for the Model Fund Portfolio:

1. It must be a pure no-load fund. Short-term holding penalties are allowed if paid to the fund and not the manager.
2. It must have been active for 10 years. However, exceptions are possible.
3. It must have outperformed the S&P 500 index over the past five-year and 10-year periods.

**Getting Started**

Click [\[ here \]](#) to download a PDF version of the guide to Getting Started with AAI's Model Portfolios. [Get Started](#)

**Model Portfolios Discussion**

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**Model Portfolios RSS Feeds**

Subscribe to the AAI Model Portfolios RSS feed to receive notifications regarding new data updates and/or changes to the Portfolios.

36

- Home page for AAI Shadow Stock Portfolio

37

**AAII Shadow Stock Portfolio**

The Model Shadow Stock Portfolio provides guidance for investing in the promising micro-cap value sector of the market.

In these pages we will regularly discuss our **Actual Portfolio** (it's a true portfolio with real dollars invested) as well as give you monthly updates on Passing Companies that meet our criteria for the individual investor's Shadow Stock Portfolio. To follow this portfolio, we strongly recommend that you review the Actual Portfolio holdings to get comfortable with the kinds of stocks we invest in and then each month, do your own research on the **Passing Companies** we present.

[Skip to Actual Portfolio](#) | [Skip to Passing Companies List](#) | [Download Spreadsheet](#)

**Actual Portfolio**

The following companies represent the Shadow Stock Portfolio. The portfolio below is a real portfolio with real dollars invested and AAI updates the portfolio actions (based on our [investment rules](#)) on a quarterly basis.

**Shadow Stock Holdings and Notes as of 9/30/2016**  
Data delayed 15 min.

Company (Ticker)	Current Price (\$)	52-Week		Market-Cap Size (\$ mil)	Price-Earnings Ratio (X)	Price-to-Book Ratio (X)	Rel Price Strgth (%)	Notes
		High (\$)	Low (\$)					
Alamo Group Inc. (ALG)	71.86	70.39	48.26	827.1	17.4	2.13	82	
A V Homes Inc. (AVHI)	16.40	16.97	8.50	370.2	2.8	0.85	90	qualified as of 9/30/2016
Beazer Homes USA Inc. (BZH)	10.61	15.15	6.07	351.0	0.9	0.55	88	qualified as of 9/30/2016

**Getting Started: 3 Resources for the Model Shadow Stock Portfolio User**

- 1 Review our [User's Guide](#) as a starting point.
- 2 Learn how the stocks are chosen by studying the [Shadow Stock Selection Rules](#).
- 3 Go to the [FAQ](#) area for questions you might have about the Model Shadow Stock Portfolio.

**Shadow Stock Portfolio Performance**

- [Historical Return Chart](#)
- [Year-To-Year Performance](#)
- [Transaction History](#)

**Commentaries**

- [Model Shadow Stock Portfolio: New Rules, Including Momentum](#) October 2016
- [Limitations When Managing a Real Model Shadow Stock Portfolio](#) July 2016
- [Opportunities Among Micro Caps in Model Shadow Stock Portfolio](#) April 2016

- "Actual Portfolio" section updated monthly & lists current portfolio holdings
- Current price/book & market cap
- Special notes (e.g. currently qualifies, earnings probation)

38

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Beazer Homes USA Inc. (BZH)	10.61	15.15	6.07	351.0	0.9	0.55	88	qualified as of 9/30/2016
CSS Industries Inc. (CSS)	26.40	31.45	23.84	239.7	17.3	0.88	32	
Ducommun Incorporated (DCO)	25.37	24.86	12.28	283.5	NA	1.34	88	earnings probation (2015q3)
Ennis Inc. (EBF)	15.95	21.55	14.40	414.1	71.9	1.64	24	

**Shadow Stock Portfolio Performance**

- [Historical Return Chart](#)
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- [Opportunities Among Micro Caps in Model Shadow Stock Portfolio](#) April 2016
- [Revised Guidance on Following the Model Shadow Stock Portfolio](#) January 2016
- [The Model Shadow Stock Portfolio's Long-Term Performance](#) October 2015



Model Shadow Stock Portfolio  
Transaction History

Changes are made to the Actual Portfolio four times a year (at the beginning of each financial quarter). The table below shows the stocks that have been bought and sold each quarter along with the date. Changes are also reported in the AAI Journal in the January, April, July and October issues.

To view a detailed version of the transaction history, click [here](#).

Data as of 9/30/2015

Date	Transaction	Company (Exchange; Ticker)	Reason
<b>2015 TRANSACTIONS</b>			
<b>2015 Third Quarter</b>			
No transactions were made in the third quarter.			
<b>2015 Second Quarter</b>			
6/4/2015	buy	CDI Corp. (CDI)	
6/4/2015	buy	Salem Media Group Inc. (SALM)	purchased additional shares with excess cash
6/4/2015	buy	Ultra Clean Holdings, Inc. (UCTT)	
6/4/2015	buy	Vishay Precision Group (VPG)	
6/4/2015	sell	Five Star Quality Care, Inc. (FVE)	negative earnings
6/4/2015	sell	International Shipholding Corp. (ISH)	negative earnings
6/4/2015	sell	Kimball International Inc. (KBAL)	exceeded value limit
6/4/2015	sell	Mitcham Industries, Inc. (MIND)	negative earnings

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**Shadow Stock Portfolio Performance**

- Historical Return Chart
- Year-To-Year Performance
- Transaction History**

- Transaction History link leads to a list of Model Shadow Stock Portfolio transactions dating back to 2003

39



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[Skip to Actual Portfolio](#) | [Skip to Passing Companies List](#) | [Download Spreadsheet](#)

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**Passing Companies List**  
Monthly, we run AAI's Individual Investor's Shadow Stock selection methodology against a universe of over 8,000 stocks to uncover specific companies that meet our [selection criteria](#). This month's selection is displayed below.

**Passing Companies as of 9/30/2016.**  
Data delayed 15 min.

Company (Ticker)	Current Price (\$)	52-Week High (\$)	52-Week Low (\$)	Market-Cap Size (\$ mil)	Price-Earnings Ratio (X)	Price-to-Book Ratio (X)	Rel Price Strgth (%)	Industry
AMCON Distributing Company (DIT)	88.32	96.10	69.50	51.9	10.2	0.8	55	Retail (Grocery)
Ameresco Inc. Class A (AMRC)	5.55	7.00	3.91	254.5	26.0	0.9	73	Construction Services
A V Homes Inc. (AVHI)	16.40	16.97	8.50	370.2	2.8	0.9	90	Construction Services
Beazer Homes USA Inc. (BZH)	10.61	15.15	6.07	351.0	0.9	0.5	88	Construction Services
China XD Plastics Company Limited (CXDC)	4.53	5.88	2.53	223.6	3.7	0.4	84	Containers & Packaging
Continental Materials Corporation (CUO)	22.00	26.73	10.30	36.8	10.1	0.7	92	Misc. Capital Goods
Empire Resources Inc. (ERS)	5.00	5.49	2.80	42.3	27.8	0.9	91	Chemical Manufacturing
G. Willi-Food International Ltd. (WILC)	5.12	5.88	3.20	67.8	15.3	0.6	89	Food Processing
Key Tronic Corporation (KTCC)	7.30	8.97	6.09	78.5	10.8	0.7	35	Computer Peripherals
Preformed Line Products Company (PLPC)	45.70	48.98	31.59	234.0	17.5	1.0	74	Misc. Fabricated Products

- Passing Companies section is updated monthly and lists all stocks currently passing initial buy rules
- You will need to monitor any stocks purchased from this list since they may not be part of our model portfolio

Shadow Stock Portfolio | x

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www.aaii.com/model-portfolios/stock-rules

## Shadow Stock Portfolio Rules

- > PURCHASE & SALES RULES
- > STOCK ORDER RULES
- > MANAGEMENT RULES

### Purchase & Sales 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 or equal to 1.00. (This figure will change gradually with changes in overall market values.)
- Market capitalization must be between \$30 million and \$400 million. (This figure will change gradually with changes in overall market values.)
- The firm's last quarter and last 12 months' earnings from continuing operations must be positive and, if there are earnings estimates, the estimates must be positive for the current quarter and year.
- The stock's relative price strength over the last 26 weeks must rank in the top 50% of the stock universe.
- No financial stocks or limited partnerships will be purchased.
- No stocks in the utility sector will be purchased.
- No stocks in the rental and leasing industry will be purchased.
- No stock on foreign exchanges or ADRs will be purchased because of different accounting and/or withholding tax on dividends. Foreign stocks traded on U.S. exchanges are OK with one exception: The stock of any company whose primary business is in China will not be purchased.
- The share price must be greater than \$4.
- In order to reduce trading by avoiding stocks that are forever marginal, any stock that was sold within two years will not be rebought.
- Note second item under Stock Order Guidance concerning spreads when buying shares.
- Price-to-sales ratio must be less than 1.2. (This figure may change gradually with changes in overall market values.)

#### Getting Started: 3 Resources for the Model Shadow Stock Portfolio User

- 1 Review our [User's Guide](#) as a starting point.
- 2 Learn how the stocks are chosen by studying the [Shadow Stock Selection Rules](#)
- 3 Go to the [FAQ](#) area for questions you might have about the Model Shadow Stock Portfolio.

#### Shadow Stock Portfolio Performance

- > [Historical Return Chart](#)
- > [Year-To-Year Performance](#)
- > [Transaction History](#)

#### Commentaries

- [Model Shadow Stock Portfolio: New Rules, Including Momentum](#)  
October 2016
- [Limitations When Managing a Real Model Shadow Stock Portfolio](#)  
July 2016
- [Opportunities Among Micro Caps in Model Shadow Stock Portfolio](#)  
April 2016
- [Revised Guidance on Following the Model Shadow Stock Portfolio](#)  
January 2016
- [The Model Shadow Stock Portfolio's Long-Term Performance](#)  
October 2015
- [Rule Change Made to Shadow Stock Portfolio](#)  
July 2015
- [Model Shadow Stock Portfolio: Sell Rules Dictate a Change](#)  
April 2015
- [Two New Stocks Added to the Model Shadow Stock Portfolio](#)  
January 2015

- Current Model Shadow Stock Portfolio rules can always be found in this section
- Rules are divided into sections dealing with initial buy criteria, sell criteria, guidelines for placing orders, and overall portfolio management rules



Stock Commentary Archi | x

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www.aaii.com/model-portfolios/stockcommentaryarchive

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## Stock Commentary Archive

- [Model Shadow Stock Portfolio: New Rules, Including Momentum](#)  
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April 2015
- [Two New Stocks Added to the Model Shadow Stock Portfolio](#)  
January 2015

- Past AAII Journal articles dealing with Model Shadow Stock Portfolios are presented in the Commentaries section
- Helpful articles to gain an overview of the issues that come up in managing a micro-cap portfolio and how the rules evolve as market conditions change



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Stock Portfolio Year-to-Y...

www.aaii.com/model-portfolios/s

Year	Annual Rate of Return (%)			Cumulative Growth of \$10,000		
	Model Shadow Stock Portfolio	Vanguard 500 Index (VFINX)	Vanguard Small Cap Index (NAESX)	Model Shadow Stock Portfolio	Vanguard 500 Index (VFINX)	Vanguard Small Cap Index (NAESX)
1993	32.3	9.9	18.7	\$13,230	\$10,989	\$11,870
1994	2.0	1.2	(0.5)	\$13,492	\$11,118	\$11,810
1995	20.7	37.4	28.7	\$16,291	\$15,282	\$15,204
1996	22.3	22.9	18.1	\$19,927	\$18,775	\$17,959
1997	44.3	33.2	24.6	\$28,756	\$25,010	\$22,375
1998	(8.9)	28.6	(2.6)	\$26,188	\$32,168	\$21,790
1999	(0.0)	21.1	23.1	\$26,187	\$38,945	\$26,831
2000	(7.7)	(9.1)	(2.7)	\$24,163	\$35,418	\$26,116
2001	21.4	(12.0)	3.1			
2002	10.8	(22.1)	(20.0)			
2003	73.1	28.5	45.6			
2004	43.7	10.8	19.9			
2005	17.9	4.8	7.4			
2006	29.4	15.6	15.6			
2007	(1.8)	5.4	1.2			
2008	(50.8)	(37.0)	(36.0)			
2009	72.3	26.5	36.1			
2010	45.4	14.9	27.7			
2011	6.3	2.0	(2.8)			
2012	33.3	15.8	18.0			
2013	61.0	32.2	37.6			
2014	(5.8)	13.5	7.4			
2015	(15.2)	1.3	(3.8)			
YTD	14.2	7.7	11.4			
Since Incep	15.6	9.0	9.9			

YTD & Inception performance through 9/30/2016.

- Historical Return link brings up performance chart
- Year-to-Year Performance link brings up table of annual performance



Model Shadow Stock Portfolio FAQs

www.aaii.com/model-portfolios/stock-faqs

Model Shadow Stock Portfolio FAQs

SITE MECHANICS

- > What is the difference between the Model Shadow Stock Portfolio and the Actual Shadow Stock Portfolio?
- > Can I see what stocks have been added to and removed from the actual Shadow Stock Portfolio?
- > Why aren't all of the Passing Companies part of the Actual Portfolio?
- > When is the Passing Companies list updated?
- > Why don't you show the actual portfolio with dates, prices bought and sold, and quantities?

IMPLEMENTING THE PORTFOLIO

- > Is the Shadow Stock Portfolio included in AAI's Stock Investor Pro screening software?
- > The model portfolio is only updated once a quarter. If I make a purchase between quarters and then because of a change in the stock the model portfolio does not buy the same issue how do I know what to do with the stock in future?
- > It seems that many of the stocks qualify because they are in a price downtrend. Isn't that contrary to momentum theory?
- > The rules suggest investing in at least 10 stocks, but how do I choose the 10 stocks?
- > If there are more than enough stocks on the qualified list should I choose by trying to diversify by industry?
- > If I invested only \$10,000 per stock that would amount to a substantial portion (1% to 35%) of the stock's average trading volume. It seems to me that this may have a substantial effect on the market for a stock when I want to buy and, more importantly, to sell. Do you have any suggestions?
- > Often it is difficult to get executions at the recommended spreads. What to do?
- > Is there a brokerage firm that AAI would recommend for the Shadow Stock Portfolio?
- > If a stock starts to move up as I buy it how high can I let it go?
- > Does AAI or some other company track the Shadow Stock Portfolio as a mutual fund?

PORTFOLIO MANAGEMENT ISSUES

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Shadow Stock Portfolio Performance

- Historical Return Chart
- Year-To-Year Performance
- Transaction History

Commentaries

The Model Shadow Stock Portfolio's Long-Term Performance  
October 2015

Rule Change Made to Shadow Stock Portfolio  
July 2014

- FAQs (Frequently Asked Questions)

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<input type="radio"/>	<input type="radio"/>	<b>AAII Model Portfolio Update:</b> A monthly email notifying you of the latest changes and the current performance of the Model Shadow Stock and the Model Fund portfolio.

- Members subscribing to the "AAII Model Portfolio Update" receive a monthly e-mail with the latest portfolio changes and current performance

# AAII Model Portfolio Update

View this newsletter in your browser » [View October 2016 Model Portfolios »](#)

**AAII Model Portfolios Update**

**Third-Quarter Model Fund Portfolio Review & Portfolio Updates**

Dear Member,

The October AAI Model Portfolio Update is [now available online](#).

Following his October quarterly portfolio review, James Cloonan did not make any changes in the holdings of the AAI Model Fund Portfolio.

**September and Third Quarter in Review**

Looking back, the third calendar quarter of 2016 turned out to be the best one yet for the U.S. stock market. However, almost all of the quarterly success is attributable to July, during which U.S. stocks stormed back after the sharp sell-off at the end of June that followed the U.K.'s Brexit vote. Stocks were up marginally in August, and September—historically the worst month for U.S. stocks—generated mixed results.

After enjoying near-historic calm throughout much of the quarter—at one point the S&P 500 went 43 days without a price move greater than 1% up or down—volatility saw an uptick at the end of September. Much of the volatility is owed to central banks and worries that they would pull back sooner than expected on their easy-money policies, which have powered global stock markets for the last several years.

# Stock Investor Pro

(800) 428-2244 - [www.aaii.com/stock-investor-pro](http://www.aaii.com/stock-investor-pro)

Systems: Windows Vista, 7, 8 and 10

Price: \$198/year (AAII Member); \$247/year (Non-Member)

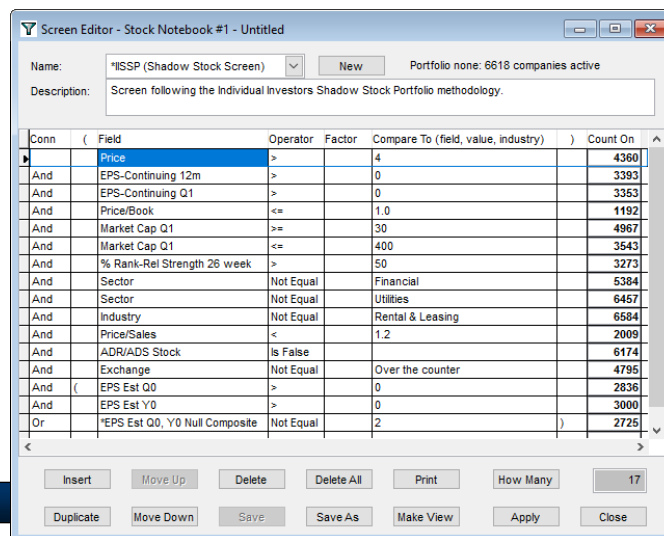
Weekly & Monthly online updates

- System used by AAII to build and maintain Shadow Stock Portfolio
- Includes Shadow Stock Screen (\*IISSP) for performing initial screen
- Has screening and analysis tools to monitor portfolio for quantitative sell process



# Stock Investor Pro

- \*IISSP (Individual Investor's Shadow Stock Portfolio) screen is built into Stock Investor Pro
- Screen contains Shadow Stock buy criteria



Data as of  
11/8/2016





# Stock Investor Pro

Stock Investor Professional

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Portfolio: None Screen: \*ISSP (Shadow) View: \_Shad Ticker Search:

Stock Notebook #1 - Untitled

Company name	Ticker	Price	Price-high 52 week	Price-low 52 week	Market Cap Q1	PE	Price/Book	Yield	% Rank-Rel Strength 26 week	Industry
China XD Plastics Co Ltd	CXDC	4.300	5.880	2.530	207.5	3.7	0.35	0.0	80	Containers & Packaging
Beazer Homes USA, Inc.	BZH	9.960	15.150	6.070	331.5	1.3	0.49	0.0	88	Construction Services
Roadrunner Transportation Syst	RRTS	8.320	13.670	6.390	310.4	12.7	0.51	0.0	51	Trucking
Sori Auto Parts, Inc.	SORL	4.190	5.046	1.390	79.0	5.2	0.60	0.0	98	Auto & Truck Parts
G Will-Food International Ltd	WILC	5.115	5.880	3.200	64.5	15.3	0.63	0.0	90	Food Processing
Continental Materials Corporat	CUO	21.768	26.729	10.304	36.5	10.2	0.72	0.0	92	Misc. Capital Goods
BRT Realty Trust	BRT	7.770	8.250	5.410	111.9	6.2	0.73	0.0	65	Construction Services
UCP Inc	UCP	9.200	9.570	5.220	71.6	13.9	0.78	0.0	78	Construction Services
Ameresco Inc	AMRC	5.200	7.000	3.910	233.8	24.9	0.82	0.0	70	Construction Services
Beasley Broadcast Group Inc	BBGI	4.950	6.050	2.750	115.4	12.4	0.83	3.6	74	Broadcasting & Cable TV
AV Homes Inc	AVHI	16.200	16.970	8.500	364.5	2.9	0.84	0.0	91	Construction Services
Empire Resources Inc	ERS	5.000	5.490	2.800	41.9	21.7	0.86	3.2	91	Chemical Manufacturing
RCI Hospitality Holdings Inc	RICK	11.540	12.000	7.500	115.4	10.5	0.89	1.0	60	Restaurants
New Home Company Inc	NVHM	10.550	15.230	7.510	224.9	10.2	0.95	0.0	75	Construction Services
Ultralife Corp.	ULBI	4.300	7.610	3.730	67.0	28.9	0.98	0.0	57	Electronic Instruments & Controls
Orion Group Holdings Inc	ORH	8.230	8.560	3.250	233.1	54.3	0.98	0.0	93	Construction Services
Preformed Line Products Compan	PLPC	44.190	48.980	31.590	226.9	17.5	1.00	1.8	74	Misc. Fabricated Products

17 stocks selected - ranked by Price/Book, ascending



# Stock Investor Pro

- You can also create a sell screen that you can run against a portfolio of Shadow Stocks to see if there are any potential sell candidates

Screen Editor - Stock Notebook #1 - Untitled

Name: \_Shadow Sell Screen New Portfolio none: 6609 companies active

Description:

Conn	Field	Operator	Factor	Compare To (field, value, industry)	Count On
	EPS-Continuing 12m	<		0	
And	Price/Book	>		3	
And	Market Cap Q1	>		1200	

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# Thank You!

Email your comments or  
questions to [wayne@aaii.com](mailto:wayne@aaii.com)