



# Alternative Weighting Methodologies and ETFs

December 13, 2011



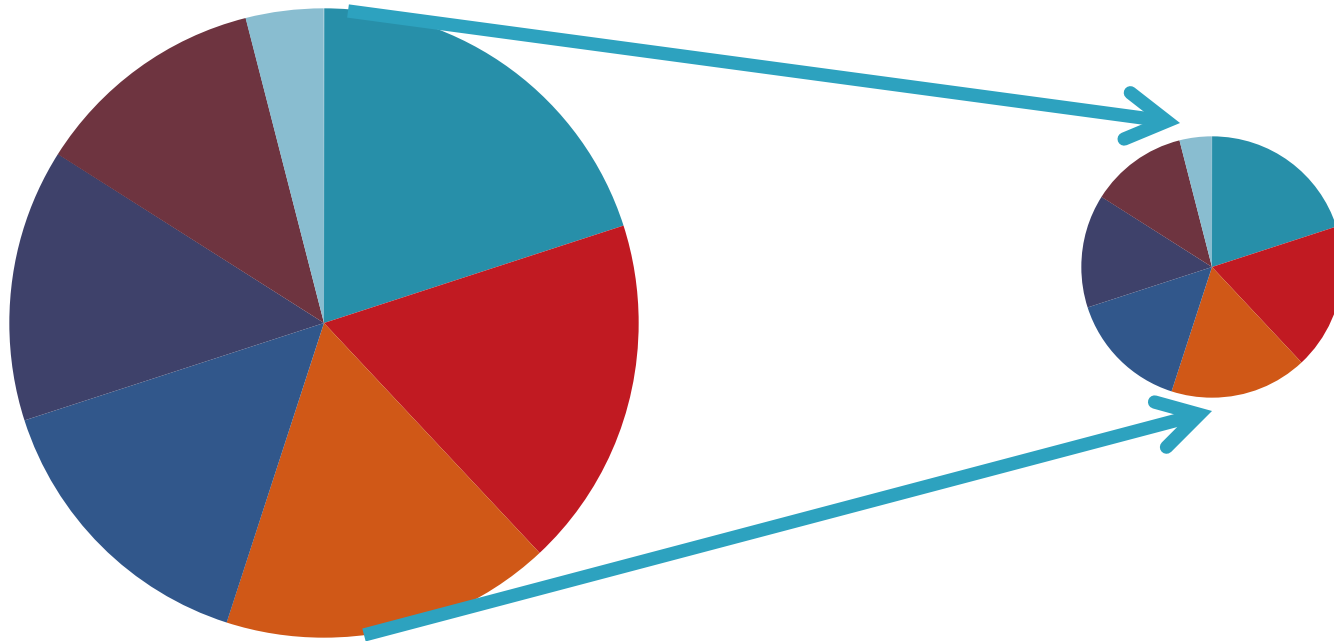


# Overview

- ▶ Highlights of Market Cap Weighting
  - Potential Drawbacks
  
- ▶ Alternative Weighting Strategies
  - Pros
  - Cons
  
- ▶ Impact of “Weight Watching”
  
- ▶ Q&A Session

# Market Capitalization Weighting

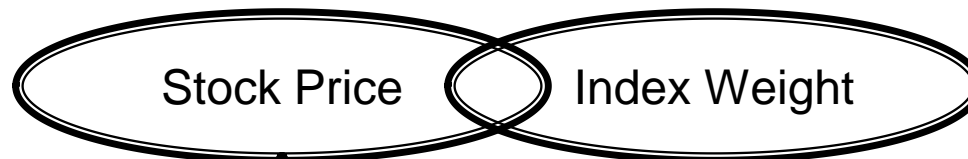
- ▶ Market Cap = Shares x Price Per Share
- ▶ Biggest companies get biggest weighting
  - Owning slice of the economy





# Cap Weighting: Examples & Advantages

- ▶ Cap-Weighted Indexes
  - S&P 500 Index
  - Russell 2000 Index
  - MSCI Emerging Markets Index
- ▶ Clear Advantages:
  - Allows Ownership of “Slice of Economy”
  - Easy to Maintain -> Low Expenses
  - Direct Link:



# Cap Weighting Dominance

Ticker	ETF	AUM*	Weighting
SPY	SPDR S&P 500	\$80,676M	Market Cap
VWO	Emerging Markets ETF	\$40,879.6M	Market Cap
EFA	MSCI EAFE Index Fund	\$33,833.9M	Market Cap
EEM	MSCI Emerging Index Fund	\$31,188.8M	Market Cap
QQQ	QQQ	\$24,264.4M	Modified Market Cap
IVV	S&P 500 Index Fund	\$23,931.8M	Market Cap
IWF	Russell 1000 Growth	\$12,916.5M	Market Cap
IWM	Russell 2000 Index Fund	\$12,250.5M	Market Cap
IWD	Russell 1000 Value	\$9,921.8M	Market Cap
DIA	Dow Jones Industrial Average ETF	\$9,972.0M	Price

\* As of 11/29/2011



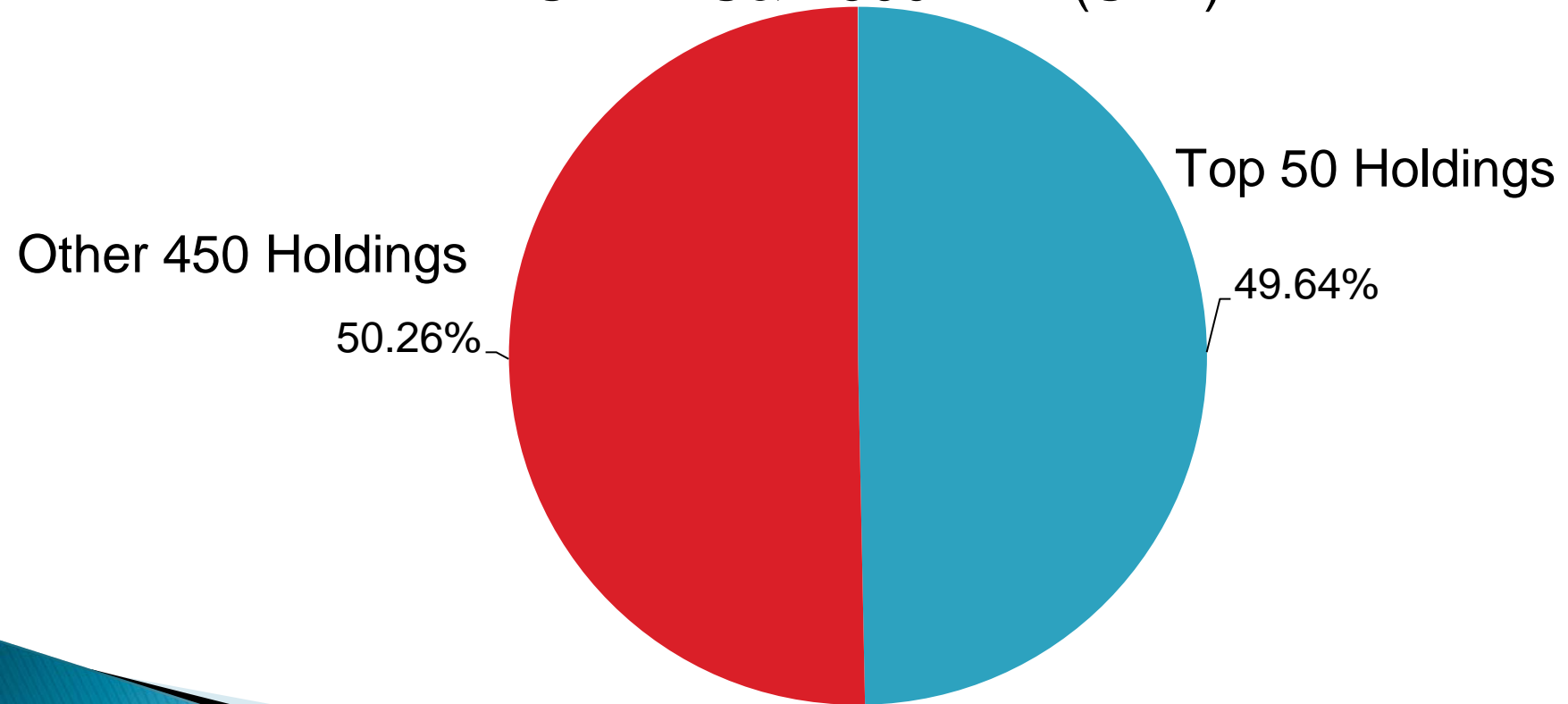
# Cap Weighting: Potential Drawbacks

- ▶ Leads to Top Heavy Portfolios
- ▶ Sector Biases
- ▶ *Inefficient Allocation → Erodes Return?*

# Cap Weighting Pitfalls

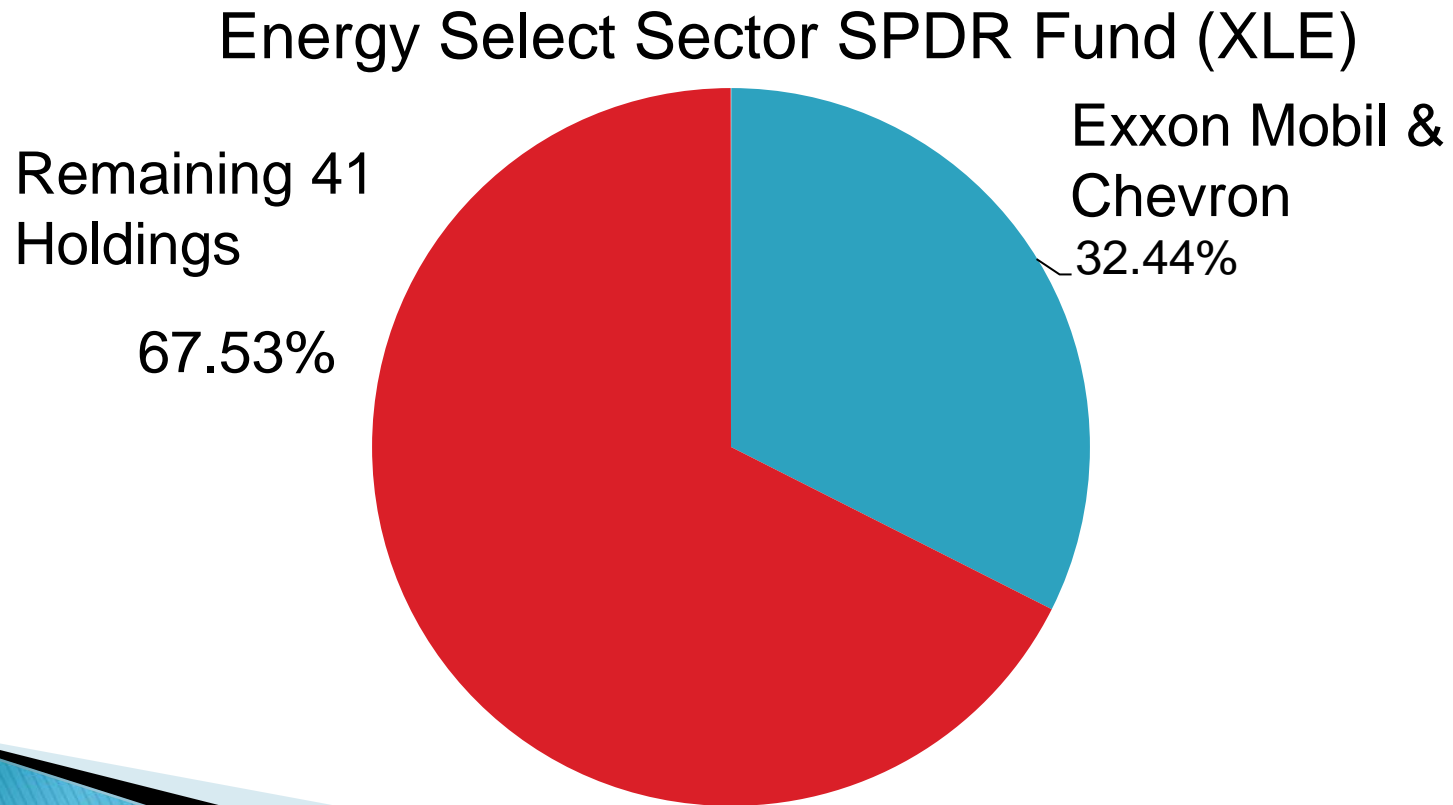
- ▶ “Top Heavy” Portfolios

SPDR S&P 500 ETF (SPY)



# Cap Weighting Pitfalls

- ▶ “Top Heavy” Portfolios





# Cap Weighting Pitfalls

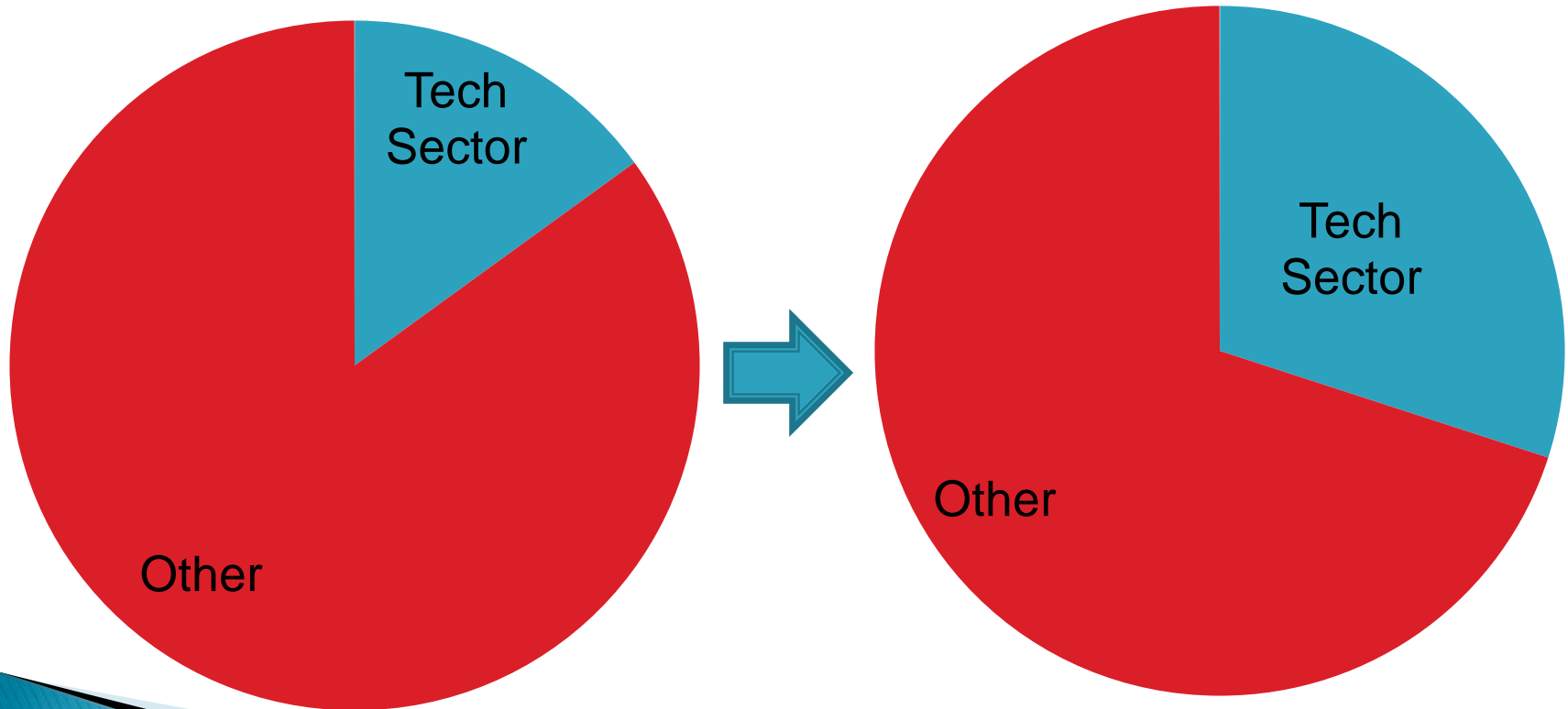
## *Sector Biases*

- ▶ Energy, Financials Afforded Large Weightings
- ▶ Utilities, Health Care Underweighted

	S&P 500 (SPY)	MSCI EAFE (EFA)	MSCI Emerging Markets (EEM)
Energy & Financials	25.00%	26.48%	31.24%
Utilities & Health Care	14.92%	14.23%	3.94%

# Cap Weighting: Sector Bets

- ▶ Cap Weighting → “Bubble Vulnerability”



# Cap Weighting Pitfalls

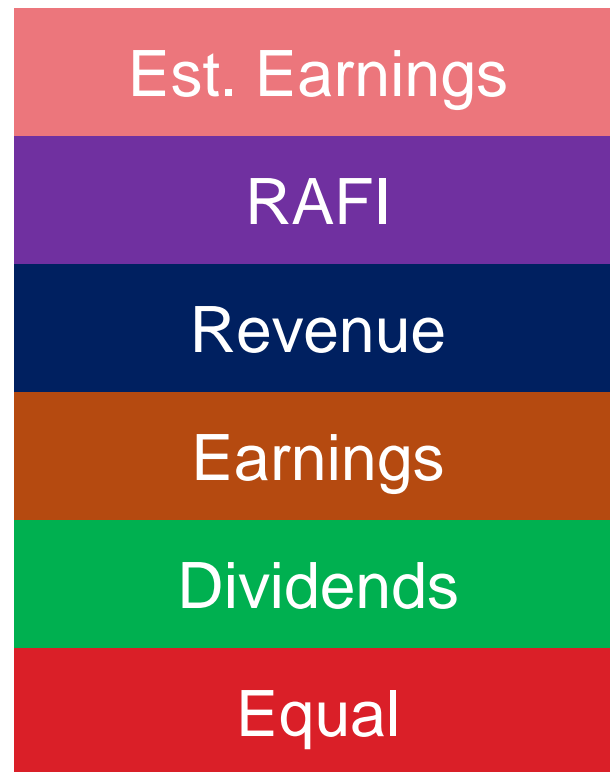
- ▶ The “Allocation Dilemma”
  - Overweight Overvalued Stocks
  - Underweight Undervalued Stocks

	Market Cap	Fair Value	Index Weight	Fair Weight
Stock 1	\$100	\$110	28%	29%
Stock 2	\$90	\$70	25%	19%
Stock 3	\$75	\$100	21%	27%
Stock 4	\$60	\$55	17%	15%
Stock 5	\$30	\$40	8%	11%
<b>Total</b>	<b>\$355</b>	<b>\$375</b>	<b>100%</b>	<b>100%</b>



# Alternative Methodologies

*Cap Weighting Remains Dominant...But Alternatives Are Gaining Ground*





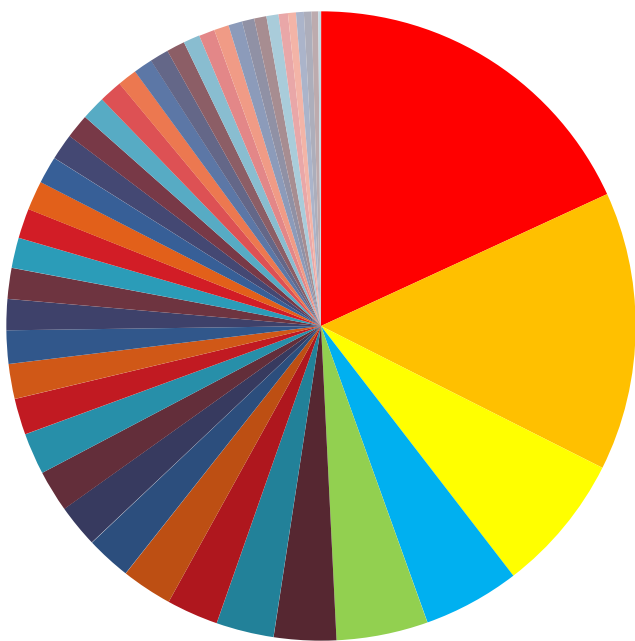
# Equal Weighting: Basics

- ▶ Equivalent Allocations To All Components
  - Each Stock “Treated Equally”
- ▶ Disciplined Selling Of Winners, Buying Of Losers
- ▶ Regular Rebalancings

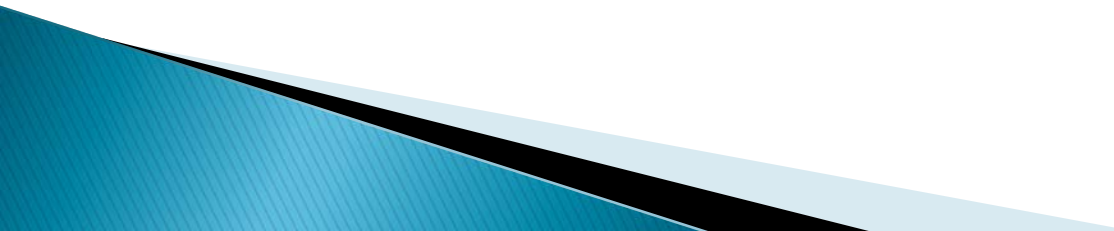
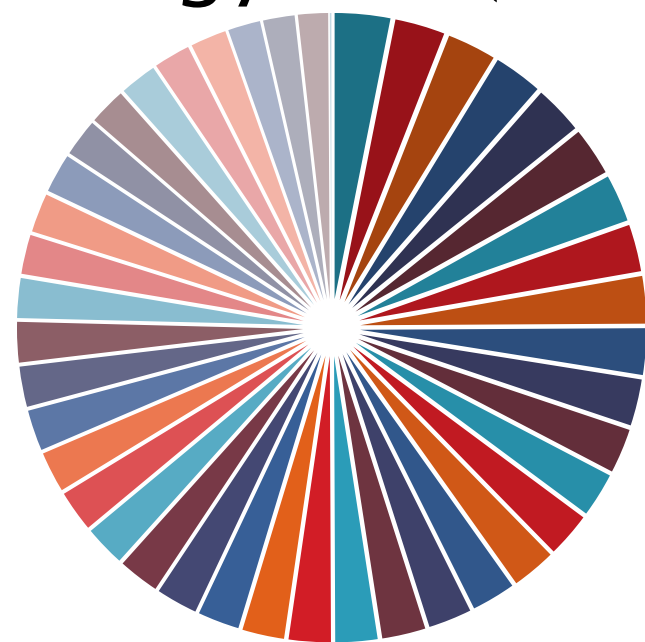


# Equal Weighting: Visualized

Energy SPDR (XLE)



Equal Weight  
Energy ETF (RYE)





# Cap Weighting: Potential Drawbacks

- ▶ Leads to Top Heavy Portfolios
- ▶ Sector Biases
- ▶ *Inefficient Allocation → Erodes Return?*



# Equal Weighting: Tilts

## ▶ Tilt Towards Small Cap Stocks

	SPY	RSP
Large Caps	86.8%	51.4%
Mid Caps	12.7%	45.9%
Small Caps	0.2%	2.7%

Source: Morningstar as of 12/5

- ## ▶ Tilt Towards Contrarian Methodology
- Sell Relative Winners, Buy Relative Laggards



# Equal Weighting: ETF Options

- ▶ Rydex Lineup Of Equal Weight ETFs

Ticker	Name	Compare To
RSP	S&P 500 Equal Weight ETF	SPY
EWMD	S&P MidCap 400 Equal Weight ETF	MDY
EWSM	S&P SmallCap 600 Equal Weight ETF	IJR
EWEM	MSCI Emerging Markets Equal Weight ETF	EEM
EWEF	MSCI EAFE Equal Weight ETF	EFA





# Equal Weighting: Twists

- ▶ Equal Sector Allocation
  - Avoids Big Bets On “Bubbles”
  - Allows Participation In Rallies In All Sector
  - Forces Disciplined Rebalancing
  
- ▶ ALPS Equal Sector Weight ETF (EQL)

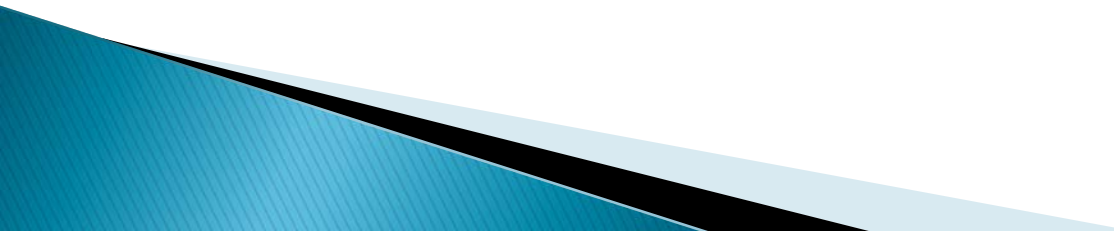


# Equal Weight: Pros & Cons

- ▶ Advantages:

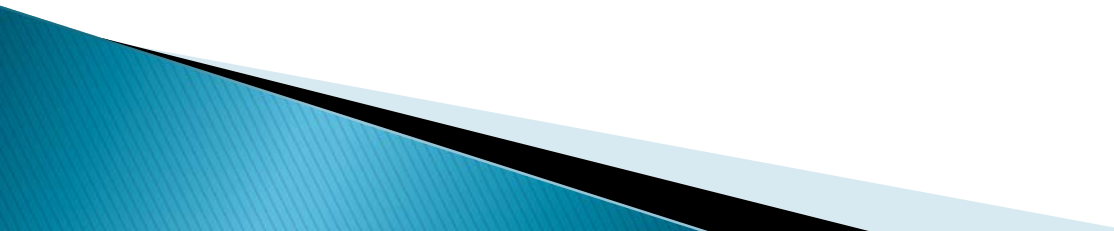
- Breaks Link Between Stock Price, Index Weight
- Disciplined, Rules-Based Rebalancing

- ▶ Drawbacks:

- Higher Maintenance → Higher Fees, Potentially Diminished Tax Efficiency
  - Small Cap Tilt → Higher Volatility
- 



# Dividend Weighting: Basics

- ▶ Universe = Dividend Paying Companies
  - ▶ Weights Determined By Dividend-Related Metrics
    - Cash Dividends Paid
    - Dividend Yield
  - ▶ Breaks Link To Stock Price
    - Enhanced Dividend Yield
- 



# Dividend Weighting: More Thoughts

- ▶ Added Benefit: Avoid “Book Cookers”
- ▶ Value Tilt: Focuses on Dividend Payers
- ▶ May Exclude Desirable, High Growth Stocks
  - Example: Exclusion of AAPL
- ▶ Correlation: Dividends & Market Cap
- ▶ Sector Biases?
  - Telecom, Utilities, Real Estate



# Dividends vs. Dividend Yield

- ▶ Dividend Weighted Index: Amount Of Cash Dividends
- ▶ Dividend Yield Weighted Index: Dividend Yield

	Market Cap	Dividend	Yield	Weight: Dividend Weighted	Weight: Yield Weighted
Company A	\$900	\$45	5%	83%	36%
Company B	\$100	\$9	9%	17%	64%



# Dividend Weighting: ETF Options

- ▶ **WisdomTree Dividend-Weighted ETFs**
    - Total Dividend Fund (DTD)
    - LargeCap Dividend Fund (DLN)
    - MidCap Dividend Fund (DON)
    - SmallCap Dividend Fund (DES)
    - Various Equity Markets: Australia (AUSE), EAFE (DWM), Emerging Markets (DEM), Global (DEW)
  
  - ▶ **Dividend Yield-Weighted ETFs**
    - Emerging Markets: HILO, EDIV
- 

# Earnings Weighting: Basics

- ▶ Weights Assigned Based On Earnings
  - ▶ Value Tilt
  - ▶ Excludes Companies Losing Money
  - ▶ Strong Correlation to Market Cap
    - Earnings Drives Value
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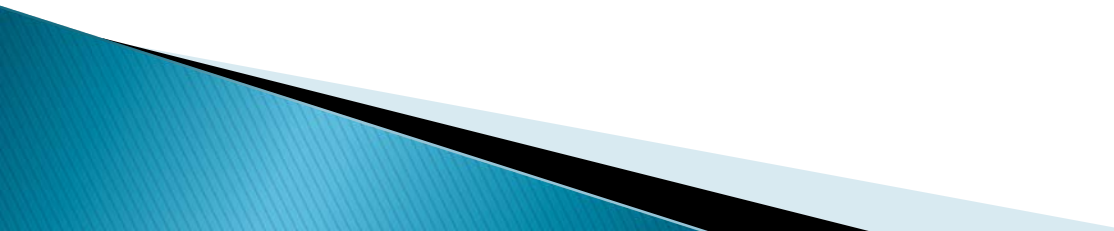


# Earnings Weighting: Examining EPS

## ▶ WisdomTree Earnings 500 Fund (EPS)

Stock	EPS Weight	SPY Weight
Exxon Mobil	4.4%	3.5% (1)
Chevron	2.8%	1.8% (4)
AT&T	2.7%	1.5% (9)
Microsoft	2.6%	1.7% (5)
Apple	2.4%	3.2% (2)
IBM	2.3%	2.0% (3)
Wal-Mart	2.2%	0.9% (23)
Intel	1.9%	1.2% (16)
Johnson & Johnson	1.8%	1.6% (8)
JP Morgan	1.6%	1.1% (17)

# Revenue Weighting: Basics

- ▶ Weighted By Top Line Revenue
  - ▶ Rebalance From High P/Sales To Low P/Sales
  - ▶ Diverse Portfolio vs. SPY
    - Ford Motor Company: #7 (RWL) vs. #57 (SPY)
    - Cardinal Health: #18 (RWL) vs. #193 (SPY)
  - ▶ Shift Towards Low Margin Businesses
  - ▶ Shift Towards Big Debt Burdens
- 



# Revenue Weighting: Biases

- ▶ Tilt Towards Low Margin Business

	Company A	Company B	Company C
Revenue	\$500	\$500	\$500
Net Income	\$250	\$100	\$5
Margin	50%	20%	1%
P/E Multiple	10x	10x	10x
Market Cap	\$2,500	\$1,000	\$50

# Revenue Weighting: Biases

- ▶ Tilt Towards Debtors

	Company A	Company B	Company C
Revenue	\$500	\$500	\$500
Op. Expenses	(\$250)	(\$250)	(\$250)
Interest	(\$200)	(\$100)	(\$0)
EBT	\$50	\$150	\$250
Less: Taxes	(\$20)	(\$60)	(\$100)
Net Income	\$30	\$90	\$150
P/E Multiple	10x	10x	10x
Market Cap	\$300	\$900	\$1,500

# Revenue Weighting: ETF Options

## ▶ RevenueShares Lineup:

Name	Ticker	Compare To
Large Cap Fund	RWL	SPY
Mid Cap Fund	RWK	MDY
Small Cap Fund	RWJ	IJS
Financial Sector Fund	RWW	XLF
ADR Fund	RTR	
Navellier Overall-A 100 Fund	RWV	n/a

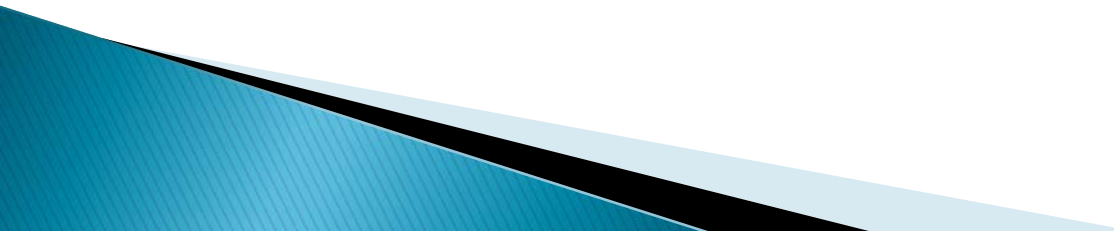


# RAFI Weighting: Overview

- ▶ Research Affiliates Fundamental Index
  - ▶ Weights Based On Fundamental Factors
    - Revenue
    - Cash Flow
    - Dividends
    - Book Value
  - ▶ Designed To Measure “True Economic Size” of Companies
- 



# RAFI Weighting: More Thoughts

- ▶ Value Tilt
  - ▶ Less Likely To Exclude Stocks
    - AAPL
  - ▶ Can Be Applied To Bonds As Well
    - Fundamental High Yield Bond ETF (PHB)
    - Fundamental Investment Grade Corporate Bond ETF (PFIG)
- 

# Summary of Weighting Methodologies

Methodology	Advantages	Potential Drawbacks
Market Cap	Cheap, Easy, Tax Efficient	Concentration, Inefficient Allocation
Equal	Balanced, Breaks Link To Stock Prices	Small Cap Tilt, Contrarian Strategy
Dividend	Higher Yield, Breaks Link to Stock Prices	Value Tilt, Incomplete Coverage
Earnings	Breaks Link to Stock Prices	Incomplete Coverage
Revenue	Focus on Low P/Sales Stocks	Tilt Towards Low Margins, High Debt
RAFI	Uses Multiple Fundamental Factors	Value Tilt

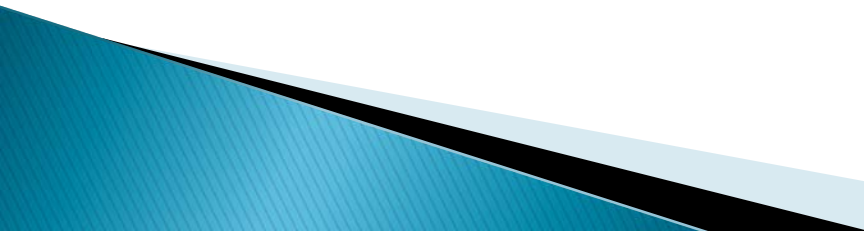
# Summary of Weighting Methodologies

Stock	SPY	RSP	DLN	EPS	RWL
Exxon Mobil	3.5%	0.2%	4.5%	4.4%	3.8%
Apple	3.2%	0.2%	0.0%	2.4%	0.6%
IBM	2.0%	0.2%	2.0%	2.3%	1.1%
Chevron	1.8%	0.2%	3.1%	2.8%	2.1%
Microsoft	1.7%	0.2%	2.3%	2.6%	0.6%
Proctor & Gamble	1.6%	0.2%	2.5%	1.4%	0.8%
GE	1.6%	0.2%	2.2%	1.4%	1.7%
Johnson & Johnson	1.6%	0.2%	2.8%	1.8%	0.6%
AT&T	1.5%	0.2%	4.5%	2.7%	1.3%
Pfizer	1.4%	0.2%	3.1%	1.2%	0.8%

# The “Weight” Impact

Weighting	ETF	2010 %	Thru Q3 2011
Earnings	EPS	13.26%	-7.58%
Market Cap	SPY	14.58%	-8.71%
Equal Sector	EQL	14.83%	-7.33%
Revenue	RWL	16.50%	-9.99%
Dividend	DLN	14.98%	-2.64%
RAFI	PRF	19.68%	-11.36%
Equal	RSP	20.60%	-11.50%

# Alternative Weighting + Bonds

- ▶ Market Cap Weighting In Bond Arena
    - Larger Debtor = Larger Weighting
  - ▶ ETF Options: PHB, PFIG, CBND
  - ▶ Alternatives: Fundamental Measures
    - Interest Coverage
    - Cash Flow
    - RAFI Factors
- 

# Questions??

