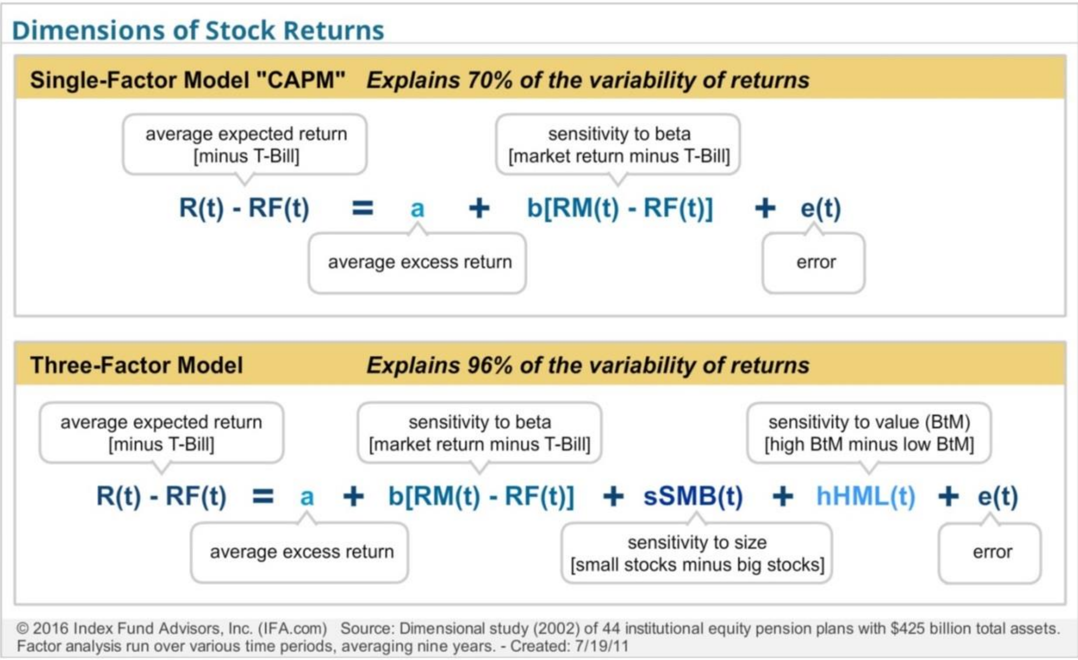
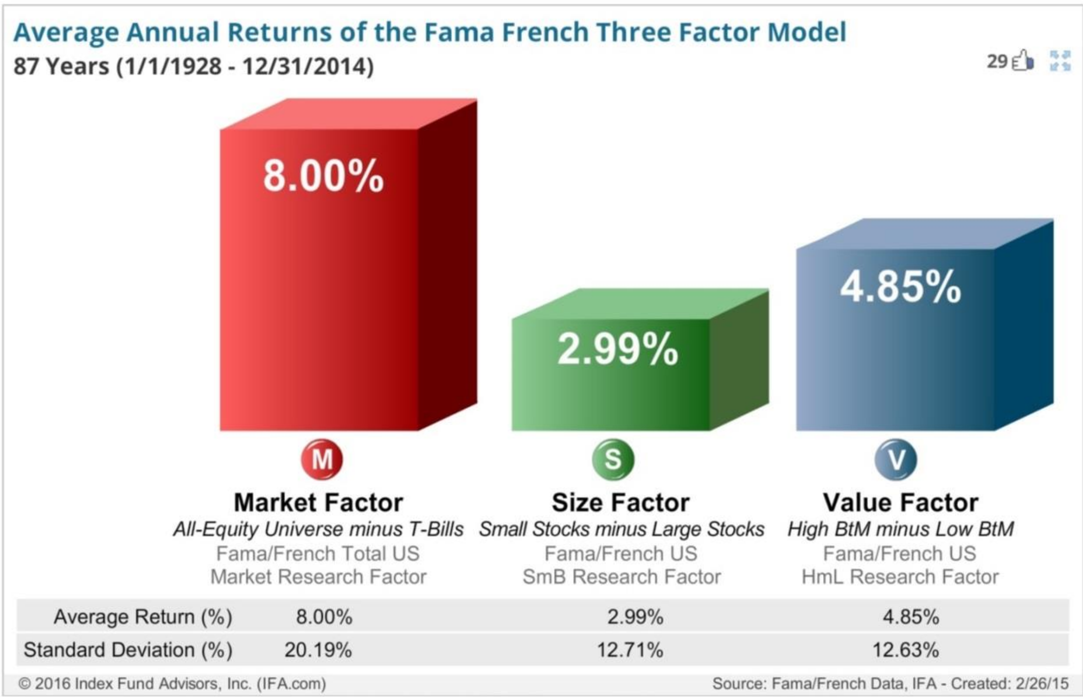
Fama-French Three-Factor Model

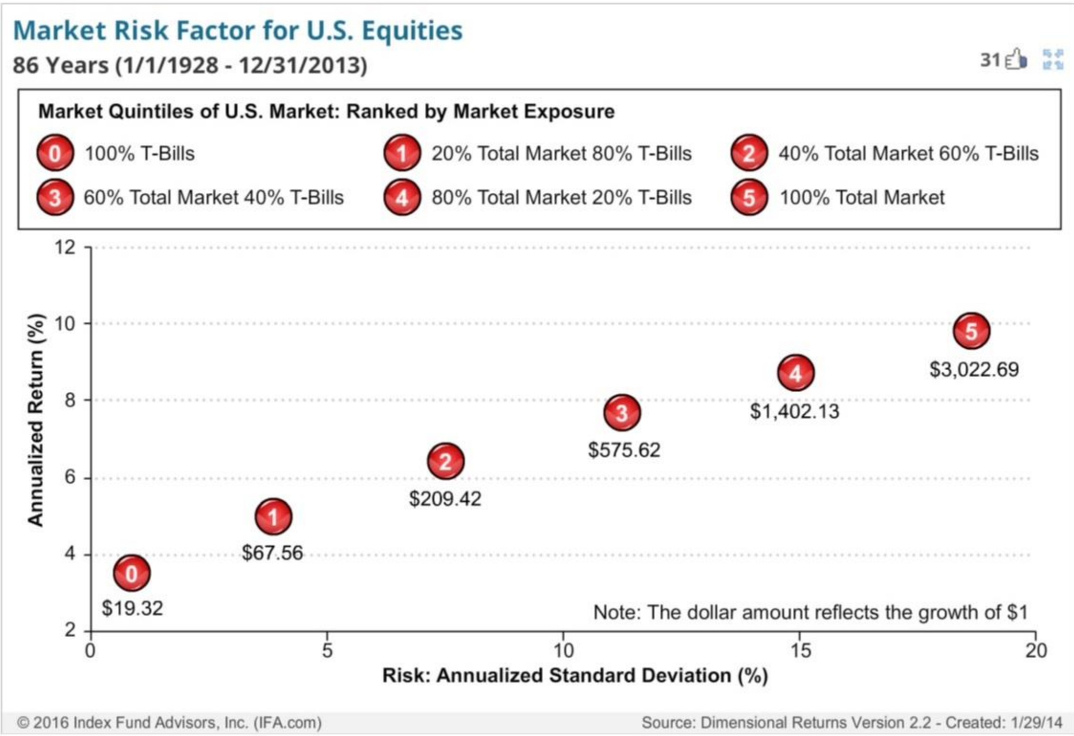
Reference (IFA)

https://www.ifa.com/articles/dimensions_of_stock_and_bond_returns/



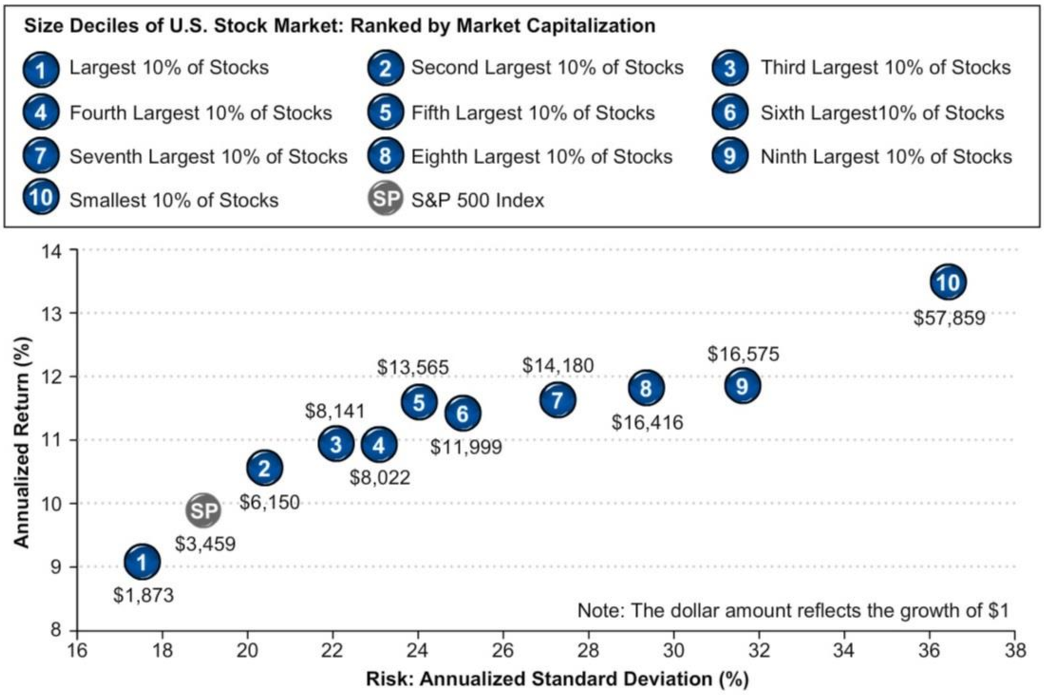


- Return ~ Risk
  - Risk factor 1: Market factor
    Market performs better, return higher
  - Risk factor 2: Size factor
    Size smaller, return higher
  - Risk factor 3: Value factor
    More like a value stock, return higher



Size Risk Factor for U.S. Equities

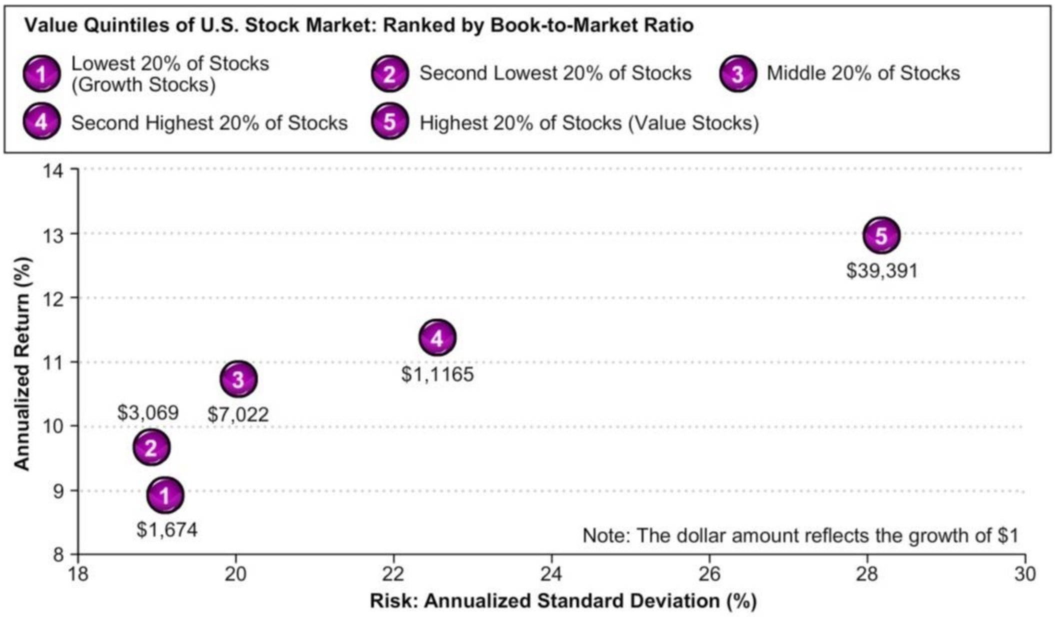
87 Years (1/1/1928 - 12/31/2014)



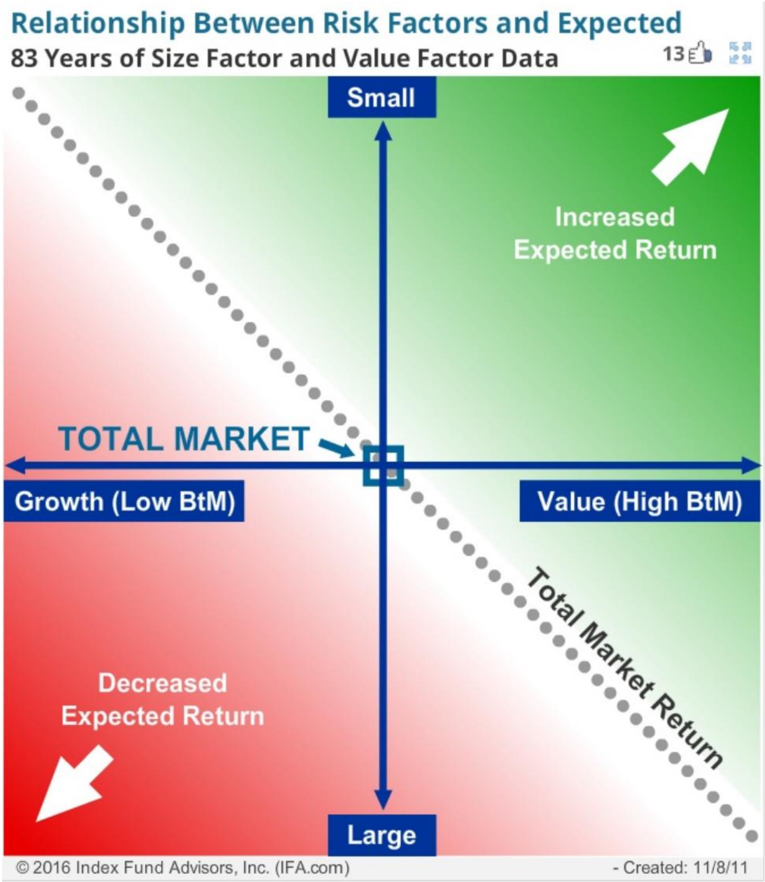
 Sources: © Morningstar, Inc., Dimensional Returns Version 2.2 - Created: 3/16/15

Value Risk Factor for U.S. Equities

87 Years (1/1/1928 - 12/31/2014)



 Source: Dimensional Returns Version 2.2 - Created: 3/16/15



Relationship Between Risk Factors and Expected
83 Years of Size Factor and Value Factor Data
13
Small
Increased
Expected Return
TOTAL MARKET
Growth (Low BtM)
Value (High BtM)
Total Market Return
Decreased
Expected Return
Large
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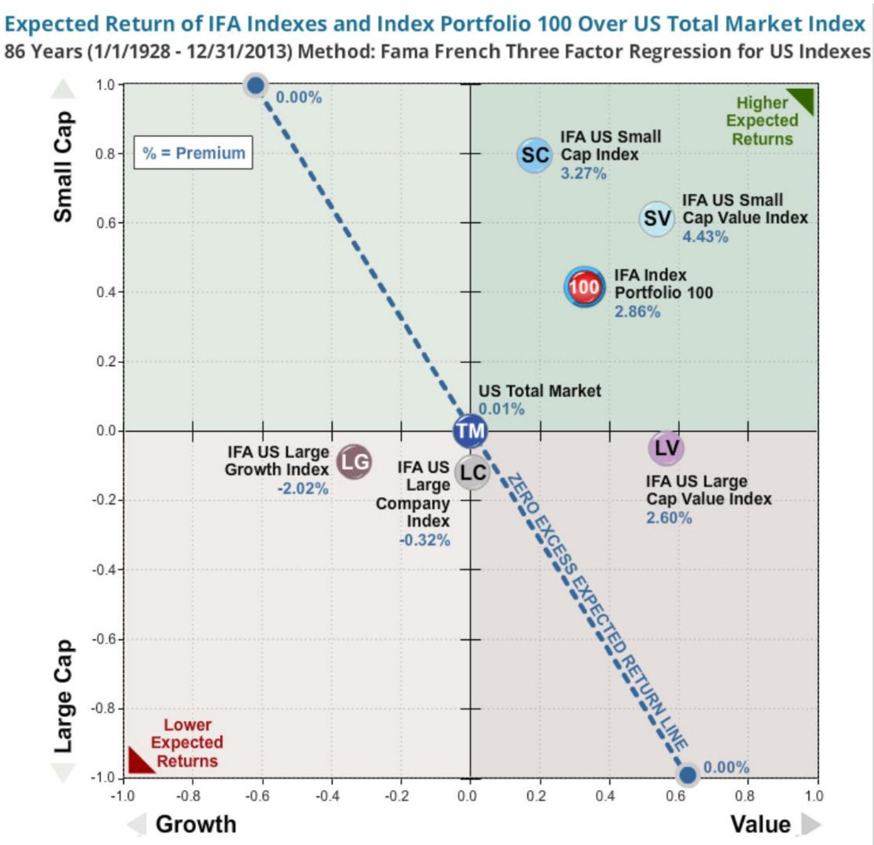
- Created: 11/8/11



Expected Return of IFA Indexes and Index Portfolio 100 Over US Total Market Index
86 Years (1/1/1928 - 12/31/2013) Method: Fama French Three Factor Regression for US Indexes
Small Cap
Large Cap
Growth
Value
% = Premium
Higher Expected Returns
Lower Expected Returns
0.00%
IFA US Small Cap Index 3.27%
IFA US Small Cap Value Index 4.43%
IFA Index Portfolio 100 2.86%
US Total Market 0.01%
IFA US Large Growth Index -2.02%
IFA US Large Company Index -0.32%
IFA US Large Cap Value Index 2.60%
ZERO EXCESS EXPECTED RETURN LINE
0.00%
SC
SV
100
TM
LG
LC
LV
1.0
0.8
0.6
0.4
0.2
0.0
-0.2
-0.4
-0.6
-0.8
-1.0