Four Types of Money Managers and Their Performance Metrics

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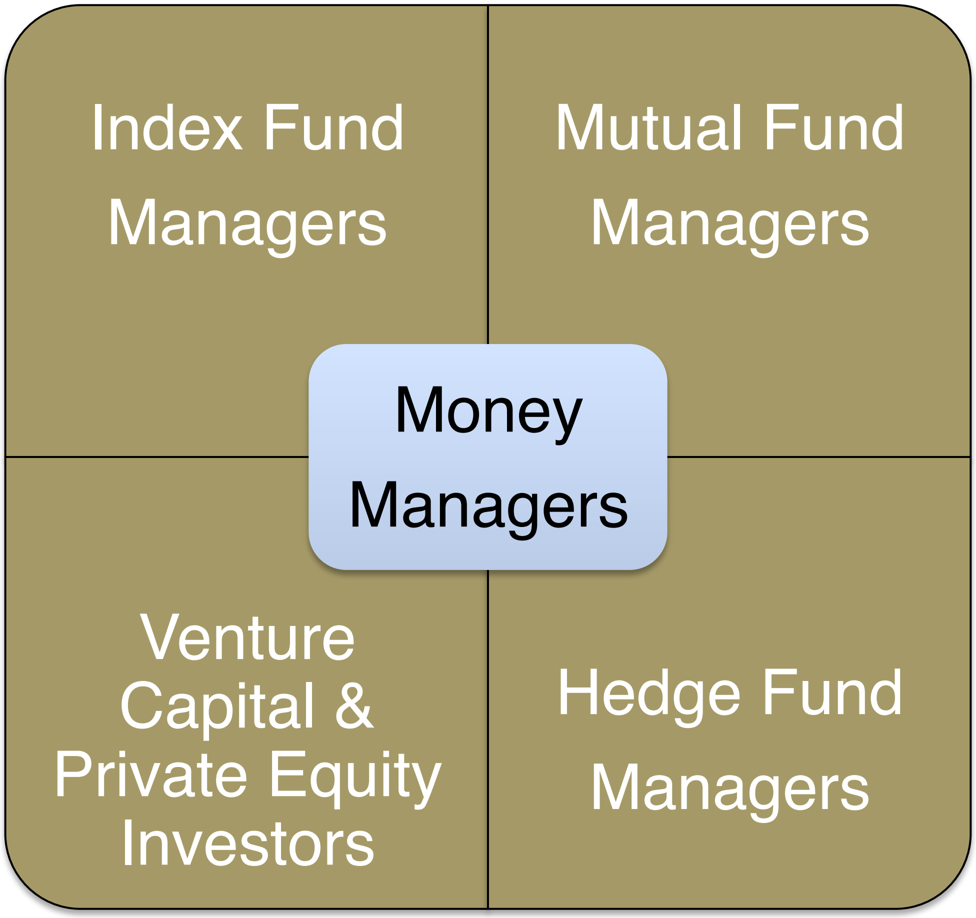

Index Fund Managers
Mutual Fund Managers
Money Managers
Venture Capital & Private Equity Investors
Hedge Fund Managers

Index Fund Managers

Stock indexes track performances of entire market

S&P 500

^GSPC

$$\left(\frac{\text{stock price}}{\text{per share}}\right)\left(\text{\#shares tradeable}\right)$$

$$= \text{Market capitalization}$$

$$(\$52)(\$5{,}000{,}000)$$

$$= \$260 \text{ million}$$

S&P 500

Total market capitalization

Approx. $15 trillion

S&P 500

Market-capitalization weighted index

$$\frac{\$666\text{ billion}}{\$15\text{ trillion}}$$

$$= .0444$$

$$=4.44\%$$

Index investing =
passive investing

S&P 500

SPDR® S&P 500® ETF

“SPY”

Expense Ratio

$$\frac{\text{\$\$ spent on operating fund}}{\text{total market value of fund assets}}$$

SPY

Expense ratio
0.0945%

($135 billion)(.000945)
= $127 million

iShares Trust - iShares Core S&P 500 ETF (IVV)

Vanguard S&P 500 ETF (VOO)

Mutual Fund Managers

Judged on 3 measures

1. Excess return
2. Tracking error
3. **Information ratio**

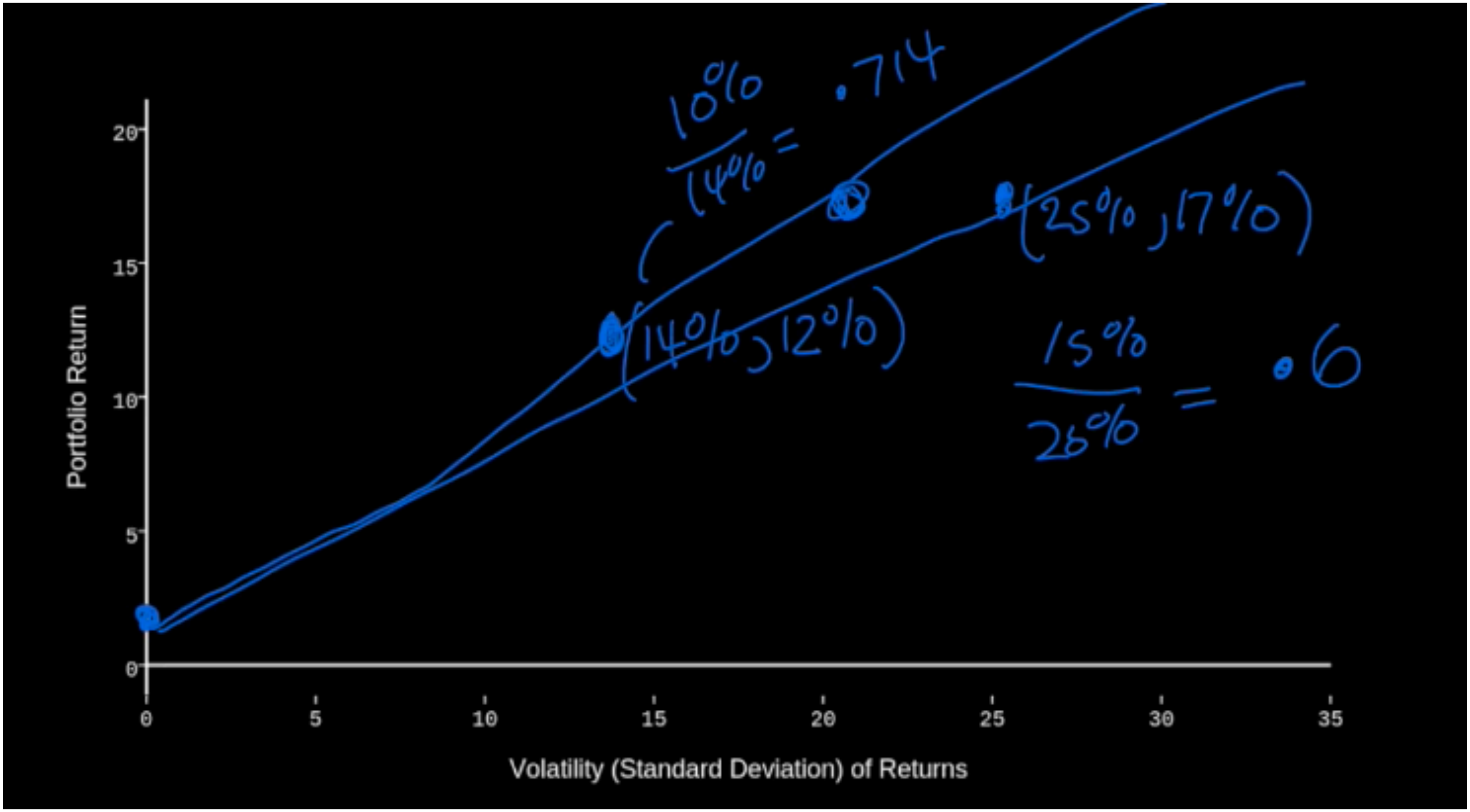
$$\frac{\text{Excess return}}{\text{Tracking error}} = \text{Information ratio}$$

Markt	Manager	"excess
25%	27%	2%
10%	12%	2%
−4%	−2%	2%
−18%	−23%	−5%

$$\frac{1.79\% \text{ excess return}}{3.03\%}$$

3.03% "Tracking Error"

IR = .59



Portfolio Return
Volatility (Standard Deviation) of Returns
0
5
10
15
20
25
30
35
10%/14% = .714
(14%, 12%)
(25%, 17%)
15%/25% = .6