portfolio construction forum

CONFERENCE

Thinking about the woods AND the trees

I've been thinking about… modern portfolio construction

Presentation Michael Kitces, Director, Pinnacle Advisory Group

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Modern Portfolio Construction

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Modern Portfolio Construction

Earthquake Strikes Washington DC!

Aftermath of the Washington DC Earthquake

Modern Portfolio Construction

- Shaun reviews the competition

Portfolio #1: Positions	%age
Domestic Large-Cap Index	25%
Domestic Small-Cap Index	15%
EAFE International Index	20%
AIG Commodity Index	20%
Domestic Gov't Bond Index	5%
Quality Corp Bond Index	10%
Cash	5%

Aggressive Client

Early 2008

Portfolio #2: Positions	%age
Domestic Large-Cap Index	15%
Domestic Small-Cap Index	5%
EAFE International Index	10%
AIG Commodity Index	10%
Domestic Gov't Bond Index	15%
Corp Bond Index	35%
Cash	10%

Conservative Client

Early 2009

Same Client!

Modern Portfolio Construction

- Overview
  - The Current World of Traditional Portfolio Construction
    - Active vs Passive
    - Implementing Asset Allocation
  - The Changing Face of Portfolio Construction
    - Challenges to the existing theoretical framework
    - The emerging new framework
  - The New Face of Modern Portfolio Construction
    - Making decisions within, and amongst, asset classes
    - Differentiating portfolio construction and implementation by varying portfolio manager styles
  - Components of Modern Portfolio Construction
  - Risks, Concerns, & Challenges of Portfolio Construction
  - What Kind of Portfolio Manager Are You?

Modern Portfolio Construction

- The Current World of Traditional Portfolio Construction - Two Camps
  - Passive Strategic Asset Allocation – Gene
    - Markets are efficient
    - Active managers are not identifiable
    - Active management is a poor business model
  - Active Management – Peter
    - Active managers who deliver alpha do exist
    - Effective active managers can be selected in advance
    - Consumers will pay to improve their financial situation

Modern Portfolio Construction

- Asset Allocation in Portfolio Construction
  - Applies regardless of passive/active debate
  - 3-input model (Modern Portfolio Theory)
    - Built in 1950's
    - Based on expected returns, volatility, and correlations
  - Differentiates volatility of overall portfolio from volatility of its component parts
  - Results in one "efficient frontier" set of portfolio solutions from which client selects
  - Asset allocation defines location on efficient frontier
    - Primary determinant of portfolio volatility (BHB study)

Modern Portfolio Construction

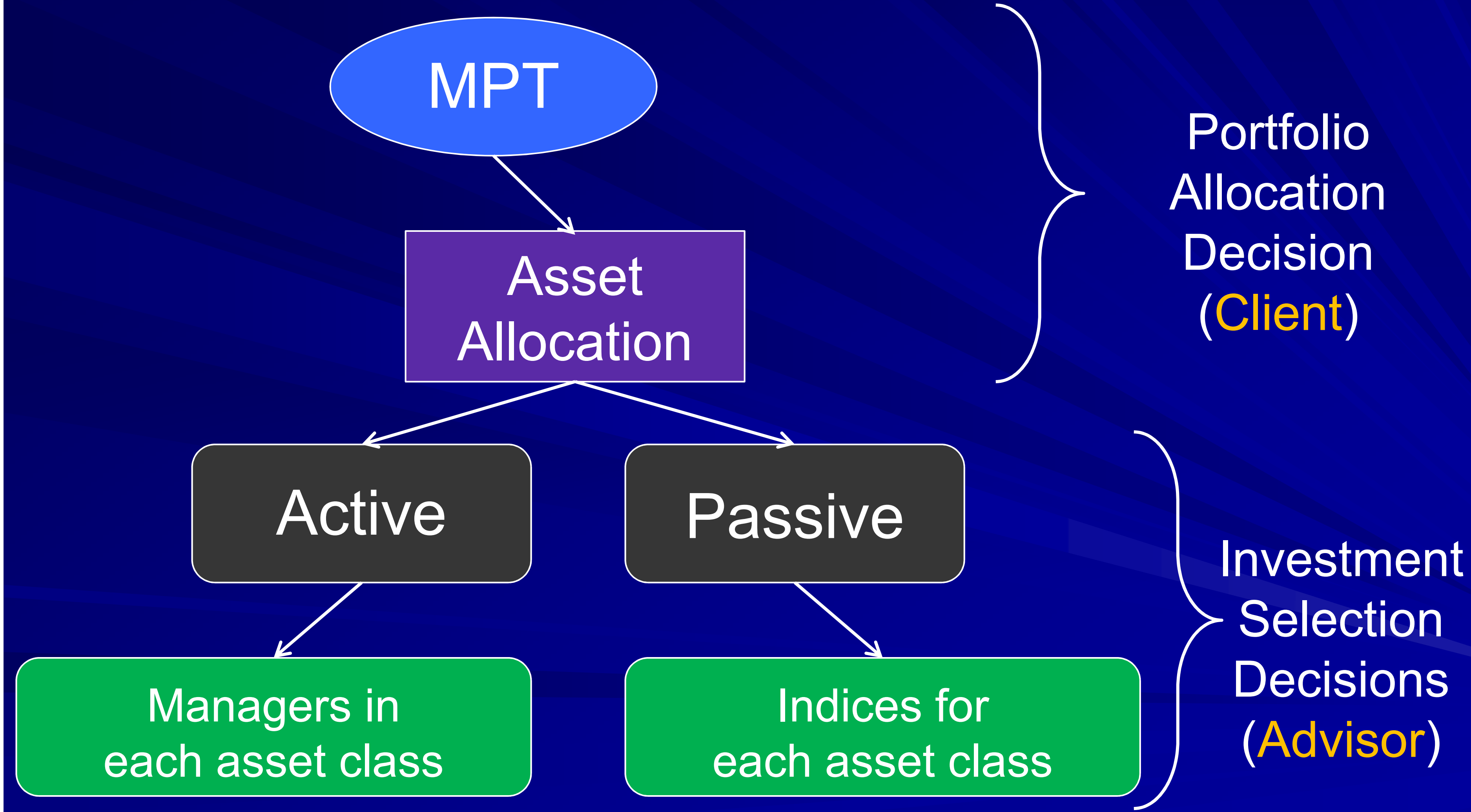
- Implementing Asset Allocation in Portfolio Construction
  – Client chooses asset allocation on efficient frontier & associated risk/return goals via risk tolerance
  – Active vs Passive portfolios often have remarkably similar asset allocations, but differ in whether they are implemented using active or passive components.
  – Investment philosophy then determines how the asset allocation categories are filled out
    - Index funds to fill each asset class
    - Active managers to fill each asset class

Modern Portfolio Construction

- Investment Selection for Asset Allocation
  - Advisor implements investments to fill asset classes
  - Passive selection criteria
    - Indices that fit the appropriate asset class
    - Focus on index construction and “representativeness”
    - Focus on “risk” of tracking error from targeted asset class
    - Huge focus on cost/fees
  - Active selection criteria
    - Managers who work within the appropriate asset class
    - Focus on staying within asset class/style box/etc.
    - Focus on value (alpha) provided relative to cost/fees

Modern Portfolio Construction

- Traditional Portfolio Construction



Modern Portfolio Construction

- The Changing Face of Portfolio Construction
  – Realizing the limitations of the current framework
    - Markets aren't efficient; bubbles/mispricings happen
    - Imbalances are difficult to see, but not impossible
    - Being in the right/wrong asset class can overwhelm the effectiveness or incompetence of a manager in that asset class
    - Changing economic dynamics change the definition of what's safe & what's not
  – Should asset allocation design assumptions be static in the first place?

Modern Portfolio Construction

Misunderstanding Markowitz

"The process of selecting a portfolio may be divided into two stages. The first stage starts with observations and experience and ends with beliefs about the future performances of available securities. The second stage starts with the relevant beliefs about future performance and ends with the choice of portfolio. This paper is concerned with the second stage."

- Markowitz, *Portfolio Selection*, 1952

Modern Portfolio Construction

- Using MPT for Portfolio Construction
  - MPT was intended as a process to take the inputs (return, volatility, and correlation) to provide an output (the optimal allocation balancing risk and return)
  - It does *not* address what those inputs should be in the first place, or how to determine them
  - How *should* you develop the inputs to determine an appropriate portfolio?

Modern Portfolio Construction

- Markowitz on MPT inputs

  "To use the E-V rule in the selection of securities we must have procedures for finding reasonable [estimates of expected return and volatility]. These procedures, I believe, should combine statistical techniques and the judgment of practical men. My feeling is that the statistical computations should be used to arrive at a tentative set of [mean and volatility]. Judgment should then be used in increasing or decreasing some of these [mean and volatility inputs] on the basis of factors or nuances not taken into account by the formal computations…"

Modern Portfolio Construction

- Markowitz on MPT inputs (con't)

  "…One suggestion as to tentative [mean and volatility] is to use the observed [mean and volatility] for some period of the past. I believe that better methods, which take into account more information, can be found."

  \- Markowitz

Modern Portfolio Construction

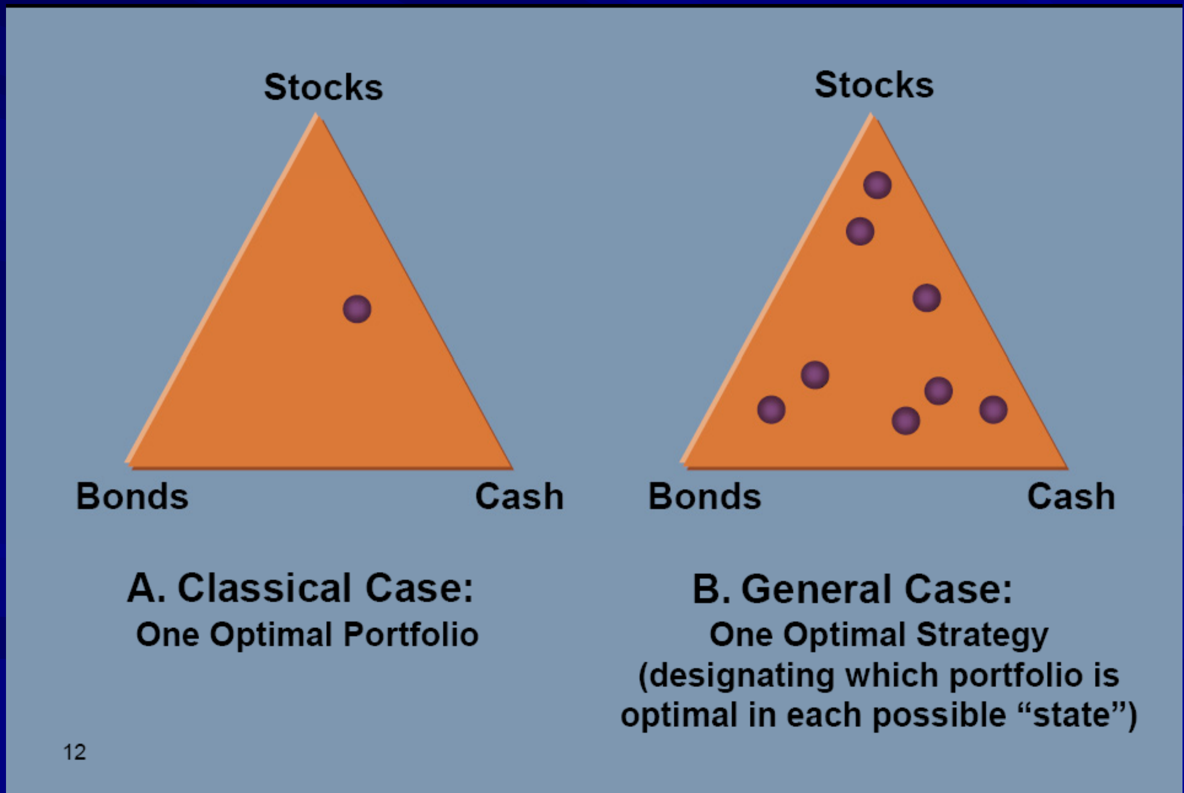
- The theory of the Strategic Approach
  - Efficient Markets Hypothesis (EMH)
    - Based on a 'rigorous' quantitative model…
      - …that requires subjective inputs!?
  - Relies on theoretical assumptions
    - No transaction costs to buy or sell.
    - All investors have the same information & same time horizon.
    - Investors are rational & risk averse.
    - Investors all view risk the same way.
    - Investors are indifferent to tax consequences.
    - Liquidity is infinite.
    - Investors can lend or borrow at the risk-free rate
    - Politics and investor psychology don't move the market.

Modern Portfolio Construction

- The theory of the Tactical Approach
  - Adaptive Market Hypothesis (AMH)
    - Prices reflect as much information as dictated by the combination of market conditions and market participants (investors, market makers, brokers, lenders, clients, etc.).
    - Behavior can affect markets
    - Individuals make mistakes, but learn and adapt
    - Competition drives adaptation and innovation
    - Markets evolve as this process takes place
  - Evolving markets mean:
    - Risk/return tradeoff will vary over time
    - Strategies will go in and out of favor
    - Risks will shift across markets and asset classes

Modern Portfolio Construction

- Economic and Investment Uncertainty
  - – If the economic and investment environment is not stable, there cannot be one true solution.



Source: H. Woody Brock, Strategic Economic Decisions Inc.

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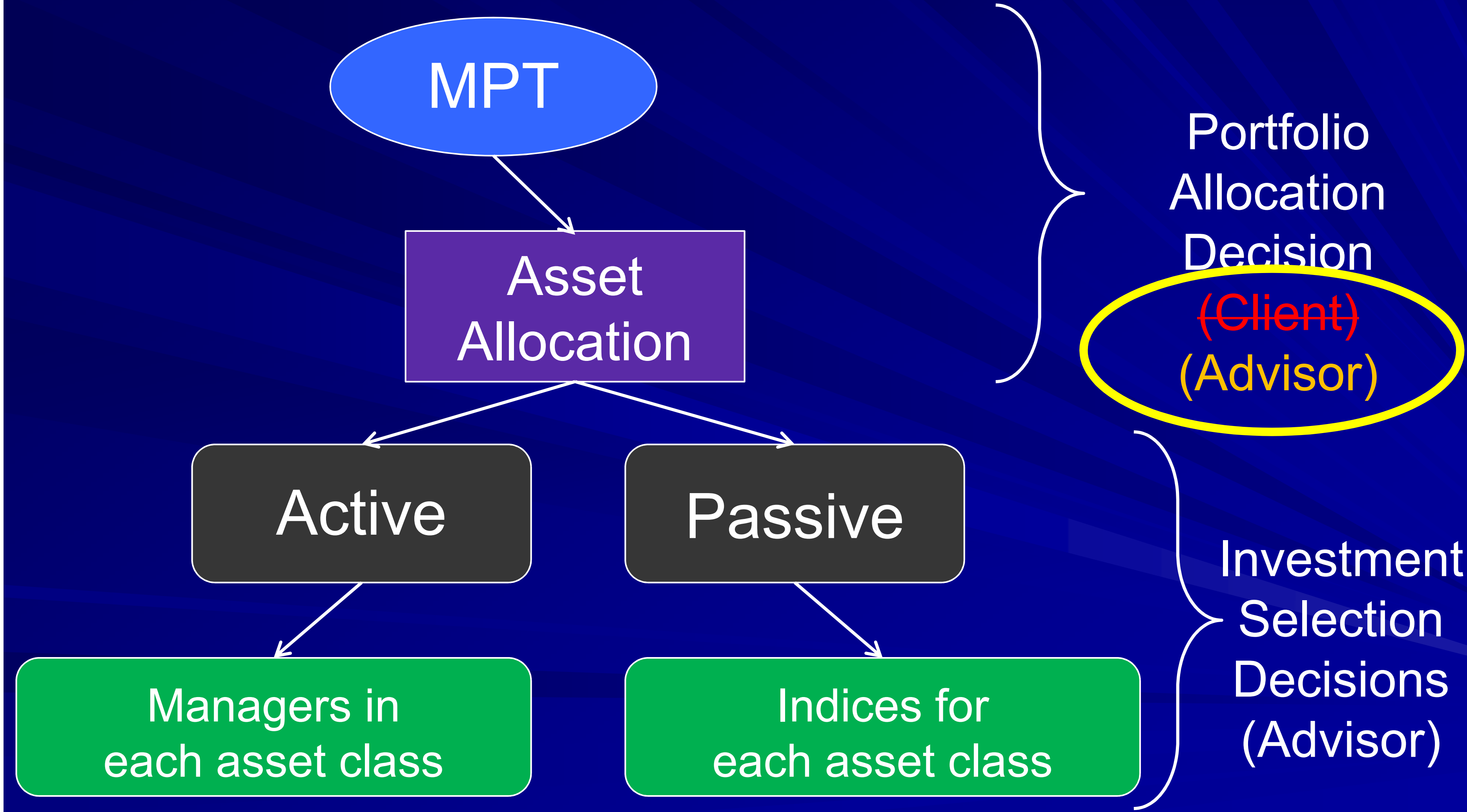
Modern Portfolio Construction

- New Face of Modern Portfolio Construction
  - Evolving economic markets mean evolving inputs to portfolio design
  - Optimal allocations will change over time based upon those evolving inputs
  - If asset allocation is the primary determinant of portfolio volatility, why don't we make more (active) asset allocation decisions?

Modern Portfolio Construction

- New Face of Modern Portfolio Construction



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Modern Portfolio Construction

- New Face of Modern Portfolio Construction
  - Active vs. Passive management at the asset allocation level – the portfolio manager
    - Passive, "strategic" asset allocation
    - Active, "tactical" asset allocation
  - Once asset allocation approach is chosen, *then* active vs passive is further implemented via investment selection
    - Passive, index-based investment selection
    - Active, manager-based investment selection

Modern Portfolio Construction

- New Face of Modern Portfolio Construction

Portfolio Manager Styles

Investment Selection Style		Asset Allocation Style: Active	Asset Allocation Style: Passive
	Active	Manager-Based Tactical Asset Allocation (active, active)	Manager-Based Strategic Asset Allocation (passive, active)
	Passive	Index-Based Tactical Asset Allocation (active, passive)	Index-Based Strategic Asset Allocation (passive, passive)

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- Differences in Portfolio Manager Style leads in turn to significant differences in portfolio construction and implementation
  - Investment philosophy
  - Investment vehicles
  - Implementation/trading platforms
  - Research/resources
  - Client communication

Modern Portfolio Construction

- Index-Based Strategic Asset Allocation
  - Investment philosophy:
    Markets are efficient
  - Investment vehicles:
    Index mutual funds & ETFs
  - Implementation/trading platforms:
    Buy and systematically rebalance; model-based
  - Research/resources:
    MPT-based asset allocation tool
  - Client communication:
    “Stay the course” and accept (tolerable) market volatility

Modern Portfolio Construction

- Manager-Based Strategic Asset Allocation
  - Investment philosophy:
    Active Managers can deliver focused value
  - Investment vehicles:
    Active mutual funds (& other active vehicles?)
  - Implementation/trading platforms:
    Buy managers & monitor; rebalance for drift; may be model-based or client-specific
  - Research/resources:
    MPT-based asset allocation tool
    Manager search-and-selection software
  - Client communication:
    The search for Alpha

Modern Portfolio Construction

- Index-Based Tactical Asset Allocation
  - Investment philosophy:
    Markets may be efficient *within* asset classes, but not *amongst* them
  - Investment vehicles:
    ETFs (& index mutual funds?)
  - Implementation/trading platforms:
    Model-based; block trading across all client portfolios
  - Research/resources:
    Macroeconomics; relative value measures
  - Client communication:
    Tactical shifts to seek out opportunity and avoid risk

Modern Portfolio Construction

- Manager-Based Tactical Asset Allocation
  - Investment philosophy:
    Markets inefficient, within & amongst asset classes
  - Investment vehicles:
    Active mutual funds
  - Implementation/trading platforms:
    Typically model-based; manager changes occur across all client portfolios
  - Research/resources:
    Macroeconomics; relative value measures
    Manager search & selection tools
  - Client communication:
    Managing risk tactically while also searching for Alpha

Modern Portfolio Construction

- New Face of Modern Portfolio Construction

Sources of Alpha

Investment Selection Style

All styles still participate in Beta

Asset Allocation Style

	Active	Passive
Active	"Double" alpha	Manager Search-&-Selection Alpha
Passive	Portfolio Management Alpha	There Is No Alpha!

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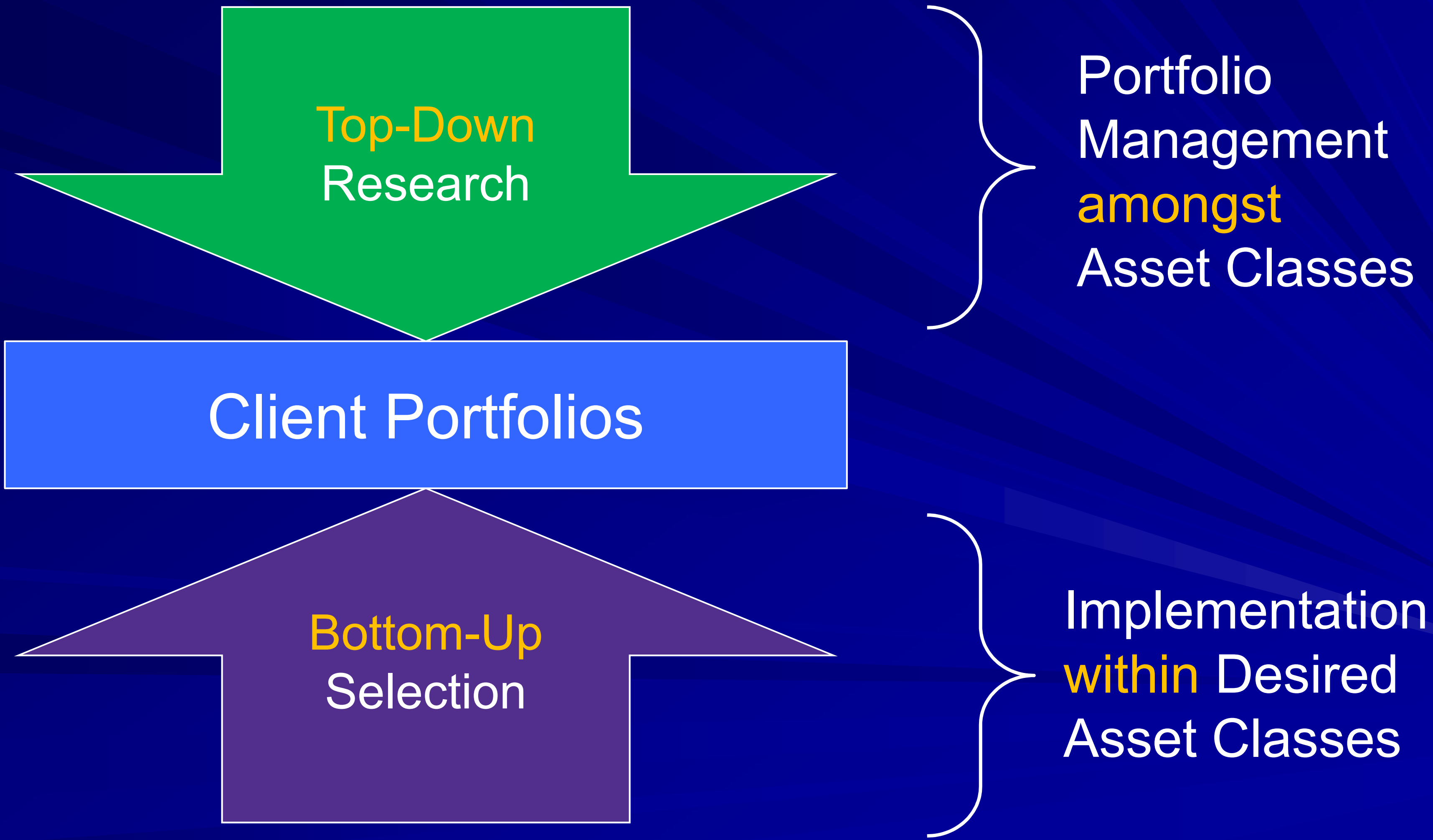
Modern Portfolio Construction

- Components of Modern Portfolio Construction



Modern Portfolio Construction

- Components of Modern Portfolio Construction
  - Top-down
    - Macroeconomic research
    - Absolute & relative valuation measures
    - Market/Cycle analysis
    - External factors and exogenous events
  - Bottom-up
    - How are investment holdings constructed?
    - Manager search-and-selection
    - Liquidity, trading efficiencies, etc.
  - Implementation Timing
    - Technical Analysis?

Modern Portfolio Construction

- Risks/Concerns in Modern Portfolio Construction
  - – Index-based Strategic (passive, passive)
    - Tracking error
    - Market volatility
    - Markets deliver sub-standard returns
  - – Manager-based Strategic (passive, active)
    - Managers underperform benchmark
    - Managers "drift" out of intended asset classes
    - Markets deliver sub-standard returns

Modern Portfolio Construction

- Risks/Concerns in Modern Portfolio Construction
  - Index-based Tactical (active, passive)
    - Asset classes remain irrational too long
    - Tracking error within asset classes
    - Portfolio underperforms diversified benchmark
      - What benchmark!?
  - Manager-based Tactical (active, active)
    - Managers underperform within asset classes
    - Managers “drift” out of intended asset classes
    - Portfolio underperforms diversified benchmark
      - Still don’t know what benchmark!?

Modern Portfolio Construction

- Implementation Challenges for New World of Modern Portfolio Construction
  - Strategic approaches allow for alpha, but leave portfolio subject to headwinds/tailwinds of economic events and favored/unfavored asset classes
  - Tactical approaches require new depth of macroeconomic and valuation research process (and/or resources to help deliver it)
  - Significant difficulties in benchmarking tactical portfolios with dynamic asset allocations
  - Integrating investment selection with tactical decisions
  - If being successful relies on forecasting, will some advisors be better forecasters than others?

Modern Portfolio Construction

- New World of Modern Portfolio Construction
  - What Kind of Portfolio Manager Are You? What's Your Manager Style?
    - Where do you try to generate your alpha?
    - Do macroeconomic and valuation factors influence your portfolio construction?
    - Are you using active vehicles or passive?
    - What aligns with your investment philosophy?

Modern Portfolio Construction

- New World of Modern Portfolio Construction

Investment Selection Style		Asset Allocation Style: Active	Asset Allocation Style: Passive
	Act.	Manager-Based Tactical	Manager-Based Strategic
	Pass.	Index-Based Tactical	Index-Based Strategic

← Forecasting

- Where can you create value for clients?

Modern Portfolio Construction

- New World of Modern Portfolio Construction
  - Forecasting – Be aware of your surroundings
    - Investment Selection is like studying the trees
    - But you also need to be aware of what's happening to the entire woods
    - Is there a fire you're not aware of?

    - Is it blowing in your direction?
  - It can pay to watch out for forest fires… even if you're not always right!
    - …What can YOU do to forecast more effectively?

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