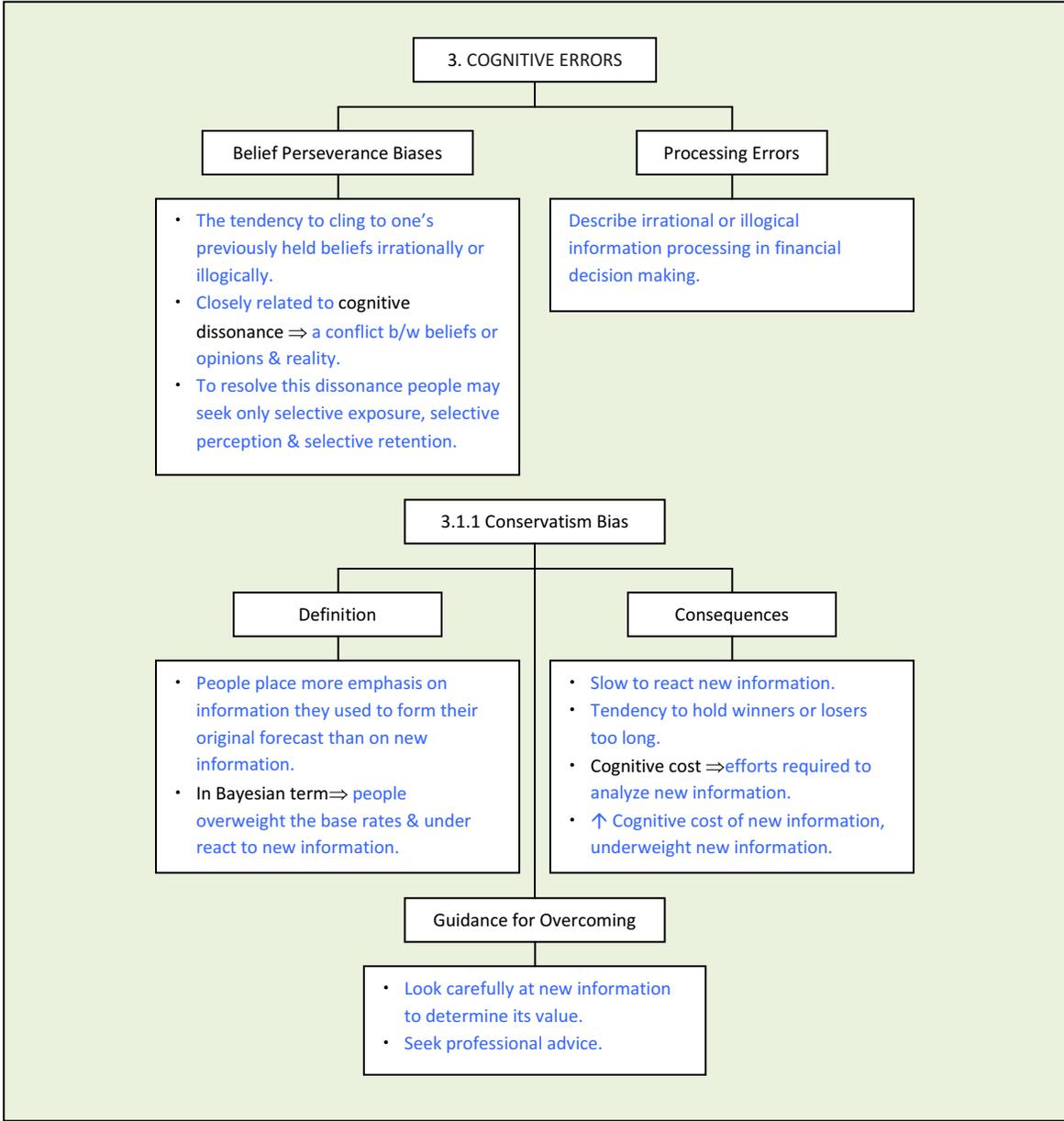
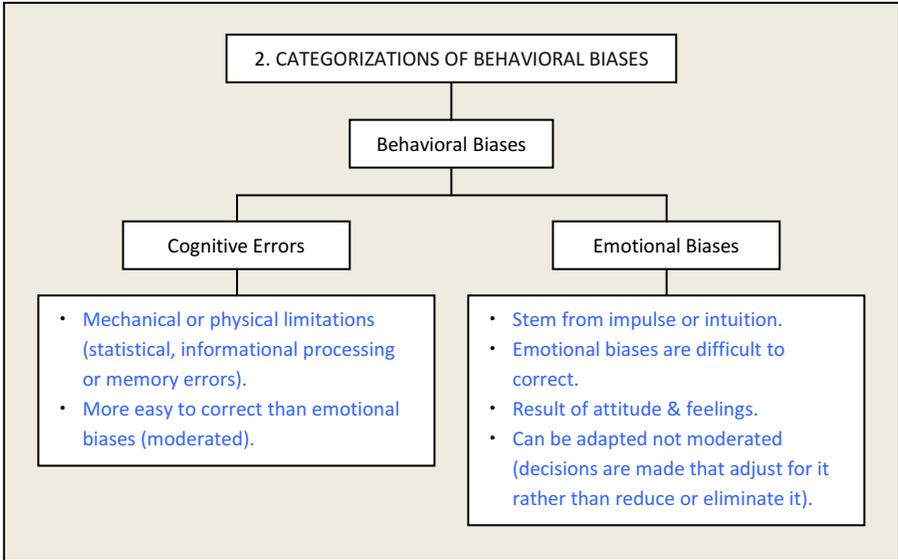


“THE BEHAVIORAL BIASES OF INDIVIDUALS”

FMP= Financial Market Participants



3.1.2 Confirmation Bias

Definition

- People tend to look for & notice what confirms their beliefs & undervalue the contradict views.
- It is a natural response to cognitive dissonance.

Consequences

- Consider only the +ve information & ignore -ve information.
- May be incorrect screening criteria.
- Under-diversified portfolios.
- Employees may overweight employer's stocks.

Guidance for Overcoming

- One should seek out information that challenges one's beliefs.
- Get corroborating support.
- Do additional research.

3.1.3 Representativeness Bias

Definition

- If-then heuristic where individuals classify information into subjective categories using heuristics.
- In Bayesian terms, investors tend to underweight the base rates & overweight the new information.

Types

i) Base-Rate Neglect

Too little weight to the base rate

ii) Sample Size Neglect

- Incorrect assumption ⇒ small sample sizes are representative of population.
- Too much weight to new information.

Consequences

- Emphasis is on new information.
- Use simple classification rather than deal with the mental stress of updating beliefs given complex data (low cognitive cost).

Guidance for Overcoming

- Under reliance on recent performance that results in excessive trading & ↓ return.
- Use a periodic table of investment returns that ensure diversification over return chasing.

3.1.4 Illusion of Control Bias

Definition

- Bias in which people tend to believe that they can control outcomes, when in fact they can't.
- Subjective probability of personal success is ↑.

Consequences

- Excessive trading & inferior performance.
- Less diversified portfolio.

Guidance for Overcoming

- Investors should recognize that investing is a probabilistic activity.
- Seek contrary viewpoints.
- Keep records including reminders outlining the rationale behind each trade.

3.1.5 Hindsight Bias

Definition

- Individuals perceive outcomes (past events) as reasonable & expected.
- People overweigh their predictions because they are biased by the knowledge of what actually happened.

Consequences

- Excessive risk because of false sense of confidence.
- Unfair assessment of money managers & security performance.

Guidance for Overcoming

- Carefully record & examine investment decision.
- Markets move in cycles so expectations must be managed.
- Investment managers must be evaluated relative to appropriate benchmarks.

3.2 Information-Processing Biases

3.2.1 Anchoring and Adjustment Bias

Definition

- Individual seem to be anchored to a value or number & then adjust the number to reflect new information.

Consequences

Investors tend to remain focused on & stay close to their original forecasts.

Guidance for Overcoming

- Less weight to historical information.
- Look at the basis for any recommendations.

3.2.2 Mental Accounting Bias

Definition

- Individual place each goal & the wealth, that will be used to meet each goal, into a separate mental account.

Consequences

- Layered pyramid format portfolios ignoring correlations among assets.
- Consider income & capital gains separately.
- Too much risk in search of ↑ potential current income.

Guidance for Overcoming

- Create a portfolio strategy taking all assets into consideration.
- Total return consideration.

3.2.3 Framing Bias

Definition

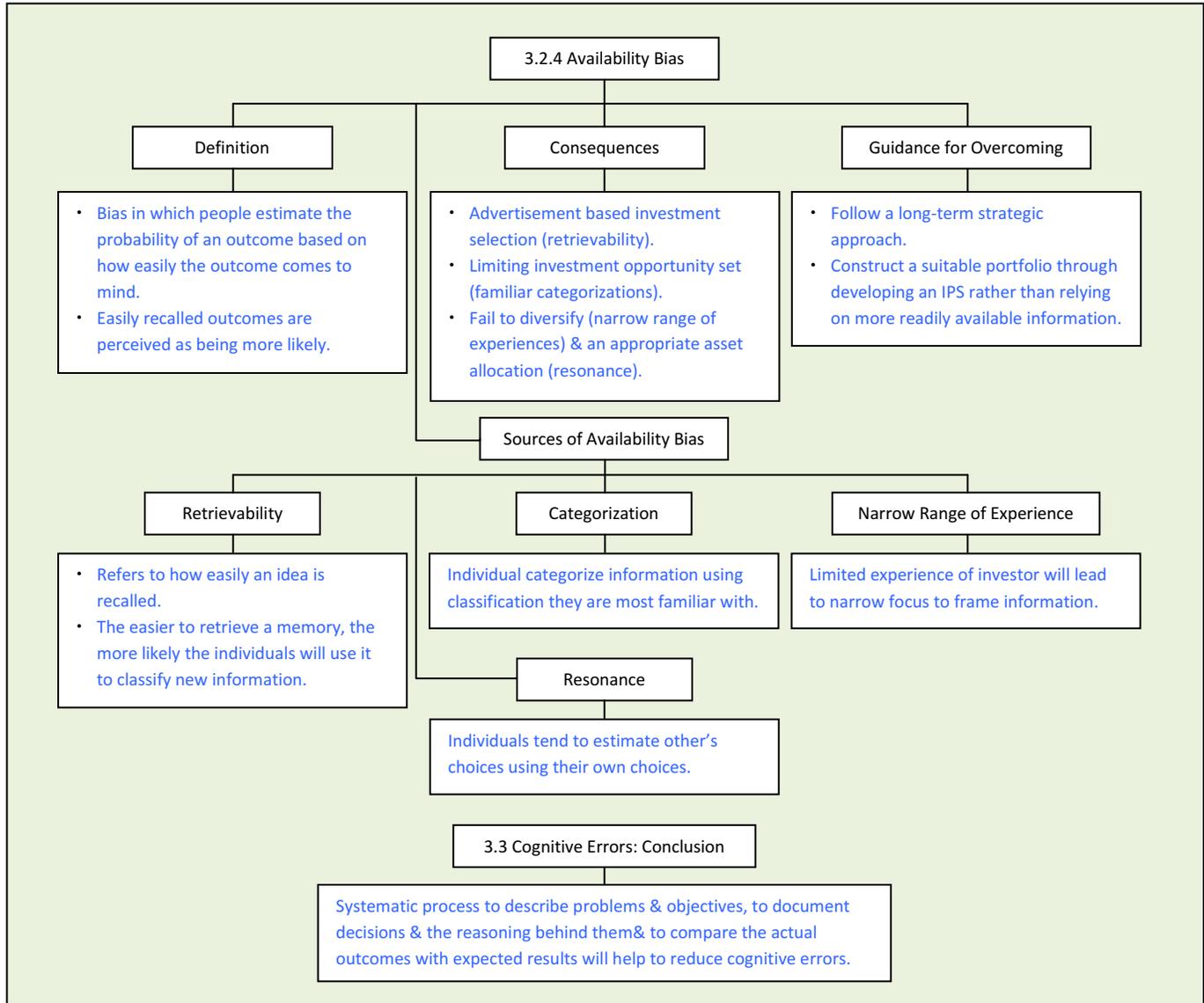
- Bias in which a person answers a question differently based on the way in which it is asked.
- Narrow framing ⇒ investors use too narrow a frame of reference.

Consequences

- More risk averse when presented with a gain frame & more risk seeking when presented with a loss frame (sub optimal portfolios).
- Excessive trading.

Guidance for Overcoming

- Investors should focus on expected return & risk rather than on gain or losses.
- When interpreting investment situations, investor should be neutral & open minded.



4. EMOTIONAL BIASES

- Harder to correct for than cognitive errors.
- Recognize these biases & adapt to them.

4.1 Loss-Aversion Bias

Definition

- Individuals focus on potential gains & losses relative to risk rather than returns relative to risk.
- Disposition effect ⇒ holding losing positions too long & selling gaining positions too quickly.

Consequences

- Hold investments in a loss (gain) position longer (shorter) than justified by fundamental analysis.
- Limited upside potential.
- Excessive trading & riskier portfolio holdings.
- Framing & loss aversion biases may affect FMPs simultaneously.
- House money effect ⇒ investors view profits as belonging to someone else & become less risk averse when investing it.
- Myopic loss aversion ⇒ investors overemphasize short-term gains & losses & weight losses more heavily than gains.
 - Combine aspects of time horizon based framing, mental accounting & loss aversion.
 - Higher than theoretically justified short-term equity risk premium.
 - If frequency of evaluation is ↑, the probability of observing a loss is ↑.

Guidance for Overcoming

- Disciplined approach of investment based on fundamentals.
- Base investment decisions on expectations rather than past performance.

4.2 Overconfidence Bias

Definition

- People feel they know more than they do because they feel they have more or better information or better at interpreting information.

Types

i) Prediction Overconfidence

- Too narrow confidence intervals.
- Poorly diversified portfolios.

ii) Certainty Overconfidence

- Assign too high probabilities to outcomes.
- Excessive trading.

Self-attribution bias ⇒ combination of self enhancing bias (propensity to claim too much credit for success) & self-protection bias (place failure blame to someone or something else).

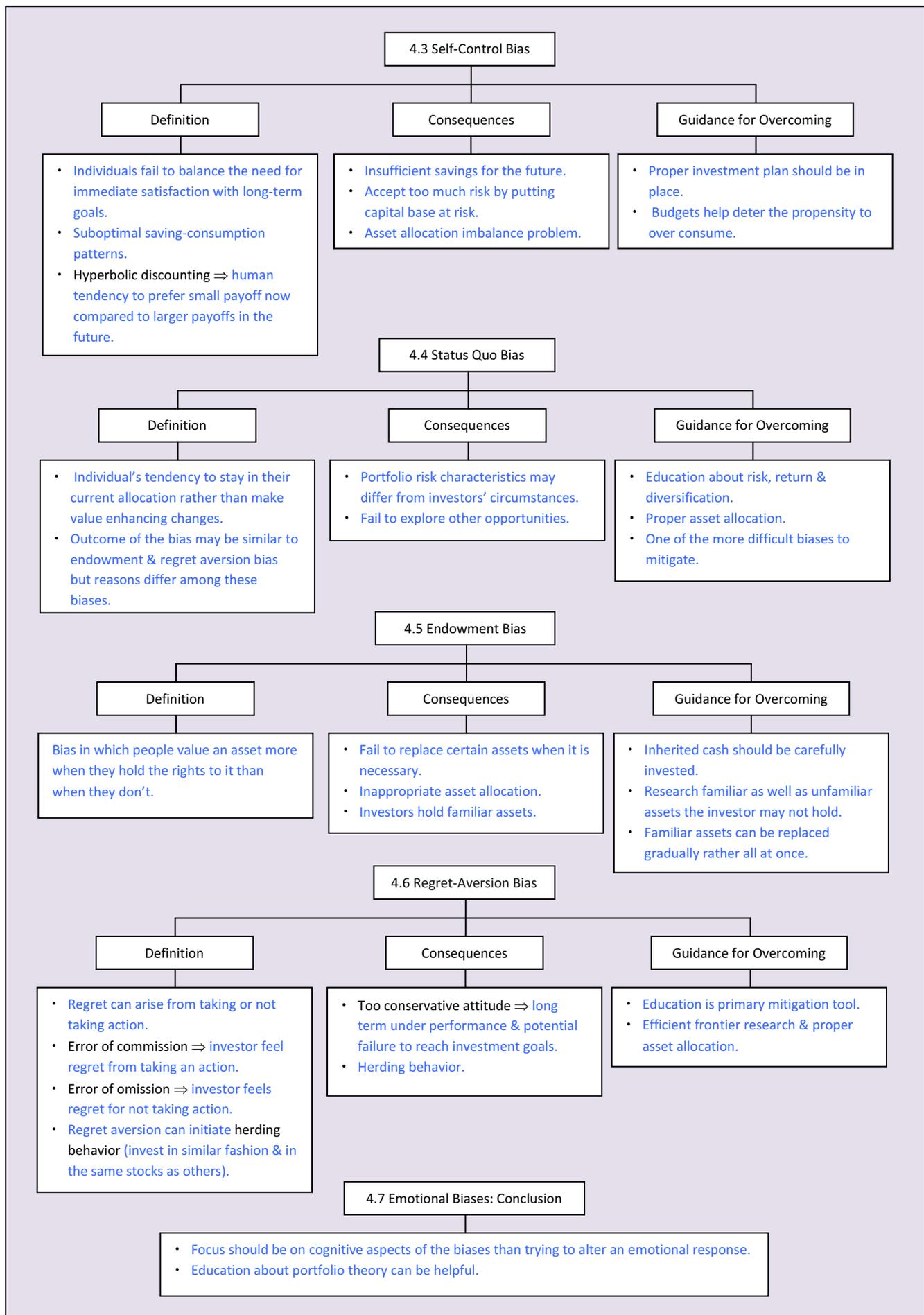
Overconfidence Bias

Consequences

- Underestimate risk & overestimate expected returns.
- Excessive trading & poor diversification.
- ↓Return than market.

Guidelines to Overcome

- Review trading records & calculate portfolio performance.
- Investors should be objective.



5. INVESTMENT POLICY AND ASSET ALLOCATION

Two approaches to incorporate behavioral finance considerations into an IPS are:

Approaches

Goal-Based Investing Approach

- Identify an investor's specific goals & associated risk tolerance.
- Investors are assumed to be loss averse rather than risk averse.
- More attractive approach for investors ⇒ focused on wealth preservation.
- Riskier than appropriate asset allocation.
- Diversification but not efficient portfolios from a traditional finance perspective.
- Risk may better understand but correlations among investments are not considered.

5.1 Behaviorally Modified Asset Allocation

- Standard asset allocation program ⇒ rational portfolio allocation (ignores behavioral biases).
- Investor's interest ⇒ asset allocation that suits the investor's psychological preferences.
- In creating a modified portfolio:
 - Distinguish b/w emotional & cognitive biases.
 - Consider investor's wealth level.
- If a bias is adapted, the resulting portfolio represents an alteration of rational portfolio.
- When a bias is moderated ⇒ resulting portfolio is similar to rational portfolio.

5.1.1 Guidelines for Determining a Behaviorally Modified Asset Allocation

Two Guidelines

Guideline1

- Decision to moderate or adapt biases depends on client's level of wealth.
- Wealthier the client, more likely it is to adapt the biases.

Guideline2

- Decision to moderate or adapt biases depends on the type of behavioral bias.
- Cognitive errors ⇒ moderated.
- Emotional biases ⇒ adapted.

- Wealth is determined based on level of assets & lifestyle.
- Standard of living risk ⇒ risk that a specified life style may not be sustainable.

5.1.2 How Much to Moderate or Adapt

- To modify an allocation, no of asset classes used in the allocation is important consideration.
- Least (most) adjustment to the rational portfolio ⇒ low (high) wealth level client with cognitive bias (emotional bias).
- Middle of the road ⇒ high (low) wealth with cognitive (emotional) biases (need to both adapt & moderate behavioral biases).
- Market participants may move up or down on efficient frontier after considering client's behavioral make up.