Detailed Reference Card (DRC)

Best Practices for Making Accurate Stock Recommendations

Best Practices for Making Accurate Stock Recommendations Using the TIER™ System:

Target realistic price(s)

When forecast is reliable (discussed in preceding framework), derive a range of price targets by applying an objective and defendable valuation multiple(s) and method(s) (using our SHARE™ framework)

Identify & forecast catalyst(s)

If price target differs materially from current stock price, identify and forecast catalyst(s) most likely to lead to convergence

Ensure ideal entry point

Make stock recommendation, if:

- The out-of-consensus element (FaVeS™) is well-researched; and
- The catalyst is likely to occur during the investment time horizon; and
- The risk-adjusted return to the price target is better than alternative investments; and
- There are no clear near-term risks that will offer a better execution point

Review performance & thesis

Remove stock recommendation if:

- The risk-adjusted return to price target is below alternative investments; or
- Out-of-consensus view or catalyst is not likely to occur during investment time horizon

Detailed Reference Card (DRC)

Best Practices for Making Accurate Stock Recommendations

***Perspectives* for <u>G</u>enerating Informed Insights (these fall under the "G" of our GAMMA PI™ framework, and are critical *<u>before</u>* starting TIER™)**

Perspectives for:
Generating Informed Insights

Accuracy vs. Speed: Successful research balances the need to collect enough insights to be reasonably accurate, without spending so much time that the new insights are ultimately discovered by the broader markets

Be unique: The key to developing unique insights is to have unique information sources (relying heavily on widely-available data will not lead to alpha-generating stock calls)

Focus on critical factors: Successful analysts narrow their research focus to a few (usually 2-4) critical factors per stock in an effort to develop uniquely *differentiated* insights not found in consensus (we recommend using AnalystSolutions' 4-step process for identifying and monitoring a stock's critical factors)

Don't drown: Some analysts are asked to cover too many stocks, which prevents them from developing *differentiated* insights required for successful stock calls

Detailed Reference Card (DRC)

Best Practices for Making Accurate Stock Recommendations

***Perspectives* for Accurately Forecast (these fall under the first "A" of our GAMMA PI™ framework, and are critical *before* starting TIER™)**

Perspectives for: Accurately Forecast

Don't look for precision if it doesn't add value:

Minimal research time should be dedicated to forecasting:

- Required rate of return for equity or the risk-free rate. Nobody has the perfect number. There are experts who can provide great precision, but even these come with a list of caveats. Great stock picks come from identifying a critical factor missed by the market -- not from computing a DCF variable
- Factors that cannot be forecast with accuracy (e.g. commodity prices, the next recession, political unrest)

Analyze analysts: Buy-side analysts, who use sell-side analysts for financial forecasting, should check with third-party services to ensure that the ones they use have a good track record of high forecast accuracy

Avoid blind faith: Analysts should avoid the common rookie mistake of having forecasts higher than consensus, simply based on greater faith in an unproven or weak management team

Assume you're wrong: When analysts' financial forecasts differ materially from consensus, they should assume their forecasts are wrong until they can substantiate otherwise (the collective wisdom of consensus is often correct). Steps to find the most valid "consensus" estimate:

- If there is a material difference between the most accurate sell-side analysts ("informed" consensus) and the overall consensus number, put more weight on the accurate forecasters
- Ensure the published consensus estimate includes many estimates, and is not isolated to just a few who happen to have forecasts for the time period being reviewed (such as 2 or 3 years out)
- Ensure the individual estimates are not stale, and that there is no disagreement in terms of special items that may be in the number

Detailed Reference Card (DRC)

Best Practices for Making Accurate Stock Recommendations

***Procedures* for Target Realistic Price(s) (Step 1 of TIER™ which includes the SHARE™ framework):**

Create an accurate financial forecast(s)

Conduct research to develop informed insights about the few critical factors most likely to move a stock, following the ENTER™ quality framework (discussed in Chapters 8 and 23 of *Best Practices for Equity Research Analysts*), to derive a base-case financial forecast more accurate than consensus. Create plausible upside and downside forecasts to stress test the base-case scenario.

Select valuation method(s)

Identify the most common valuation method used for valuing the stock and potential new methods likely to be used at time of price target (driven by company or sector changes). Consider using an alternative valuation method only if it will help in identifying a mis-priced stock.

Historical & current sentiment

Identify if a stock's current valuation is 1) on trend compared to past; and 2) in line with stocks that have similar characteristics

Adjust for future time period

Adjust the current multiple for the future price target by assessing: 1) The future direction of strongly-correlated company-specific and macro variables; and 2) Comparisons with other stocks that have similar prospects

Range of multiples and price targets

Apply the appropriate valuation multiple(s) to the financial forecasts to derive a range of price targets, which provides an objective risk/return profile:

- Rather than set a single-point price target, set a range of targets, based on upside, downside and base-case scenarios above
- In advance of making a stock recommendation, set a range of exit thresholds (they may be within the "upside" and "downside" scenarios), which will reduce biases from creeping into decisions at a later date
- Help reduce anxiety by rigorously developing a "worst-case" scenario before recommending the stock (which may be worse than the "downside" scenario)

Evaluate as circumstances change

Update price target when:

- There is a new financial forecast, including as time passes, leading to new forward forecast period (e.g. "next 12 months" changes each month)
- There is a justifiable cause to revise the multiple (not just reverse engineering)
- There is a justifiable cause to revise the method (use this sparingly)

Utilize the framework on this page in our workshop: Apply Practical Valuation Techniques for More Accurate Price Targets

Perspectives **for Target Realistic Price(s) (Step 1 of TIER™)**

Momentum stocks can defy rational valuations: Rapidly growing stocks (e.g. technology) are often owned by momentum players, and can defy rational valuation levels until approaching more average growth levels

Avoid "incrementalism": Avoid raising your price targets in small, incremental steps while waiting for “further clarification” because it prevents others from seeing the true upside in your call

Perspectives for:

TARGET REALISTIC PRICE(S)

Beware of the temptation to use unproven valuation methods: Avoid new valuation methods, because it’s not clear they are necessary. The “price-to-eyeballs” method used to justify valuations at the peak of the dot-com era is noteworthy.

Avoid hitching your recommendation to simplistic valuation arguments: Stock recommendations based solely on the expectation that a stock’s valuation multiple will be re-rated (void of an impending financial forecast change), or that the market will change its preferred valuation methodology, are rarely successful. (Sell-side analysts may lose client trust and respect from buy-side clients when these calls lack support.) Major changes to valuation methodologies or multiples tend to occur only when companies or sectors are:

- At the peak or trough inflection points of the business cycle
- Moving from one phase to another of a company's or industry's life cycle (e.g. growth to maturity)
- Going through a major secular transformation or restructuring

Detailed Reference Card (DRC)

Best Practices for Making Accurate Stock Recommendations

***Procedures* for Identify & Forecast Catalyst(s) (Step 2 of TIER™):**

Identify & forecast potential catalyst(s)

For stocks being recommended (buy or sell), identify and forecast potential catalysts that would need to occur in order for the market to accept your out-of-consensus thesis. Be specific by estimating the future earnings or cash flow impact in areas such as:

- Pricing
- Volume
- Costs
- Margins
- Free cash flow
- Returns
- EPS growth rate

Focus on catalysts that meet the optimal criteria

Narrow down to the optimal catalyst(s) and ensure it meets all of these criteria:

- Pertains to a critical factor that is material enough to move the stock
- Likely to occur during the investment time horizon
- Not currently appreciated by the market
- Can be forecast with some level of certainty

Proactively prepare for next catalyst

For recommended stocks, proactively put dates in a calendar for the following types of events, with the expectation that information pertaining to a catalyst will emerge and move the stock:

- Outcome of your proprietary research (field trip, survey, etc.)
- Company-sponsored analyst meetings and calls
- Earnings releases
- The company's annual pricing, volume, or earnings guidance or projection
- Deadlines for new legislation, regulations, or court case outcomes
- Prescheduled announcements by the company's customers, competitors, or suppliers (sometimes announced at major industry conferences)
- New product releases or significant product extensions
- Interim sales data for the company or the sector
- Non-deal investor roadshows

Detailed Reference Card (DRC)

Best Practices for Making Accurate Stock Recommendations

***Perspectives* for Identify & Forecast Catalyst(s) (Step 2 of TIER™):**

Perspectives for step:

IDENTIFY & FORECAST CATALYST(S)

Ensure your catalyst has a defined timetable:

Predict the catalyst before recommending a stock, or suffer the risk noted by John Maynard Keynes when he said, "Markets can remain irrational a lot longer than you and I can remain solvent."

Don't equate a "cheap stock" to a "good idea": Avoid recommending low-valuation stocks simply because they are "cheap" – often stocks are cheap for a reason, otherwise known as a value trap. Identify a reliable and likely catalyst that will make them "less cheap."

Review "value" stock calls that no longer screen as "value":

If a stock experiences a strong move and no longer looks cheap, identify a major catalyst that will justify higher valuations or attract a new class of investors (e.g., GARP or growth) before assuming the stock will move any higher.

Use "change in valuation" sparingly: Stock recommendations tend to fail when they are based solely on the analyst's expectations that: the stock's valuation multiple will be re-rated (void of an impending financial forecast change); or the market will change its preferred valuation methodology

Utilize the framework on this page in our workshop: Master the Stock Call Techniques of Highly Experienced Analysts

Detailed Reference Card (DRC)

Best Practices for Making Accurate Stock Recommendations

Procedures for Ensure Ideal Entry Point (Step 3A of TIER™), Validate Your View

Avoid costly psychological shortcuts

Avoid the mind traps we've identified as "costly psychological shortcuts" that tend to appear early in the process, including familiarity, availability, and recency biases as well as over-reliance on heuristics.

Ensure call is differentiated (FaVeS™)

Ensure the stock recommendation is differentiated from the consensus thinking in at least one of the areas below (the FaVeS™ framework discussed in Chapter 20 of *Best Practices for Equity Research Analysts*):

Forecast of financial results, such as EPS or cash flow

Valuation multiple or methodology

Sentiment of the market toward the stock (void of an impending change to the forecast or valuation multiple/method)

Avoid Pollyannaish or hopeful thinking

Avoid the mind traps we've identified as "Pollyannaish or hopeful thinking" which include confirmation, over-confidence, self-attribution and optimism biases

Weigh risk as well a return

Among the universe of available stocks to recommend, ensure factors beyond just absolute return are given priority as part of the pending recommendation (i.e. risks). These often include:

- Predictability of earnings or cash flow forecasts that drive thesis
- Conviction in the catalyst occurring and moving the stock to the price target
- Reliability that management will deliver on its goals
- Timing for when the catalyst will occur (e.g. next month or 2 years from now?)

Ensure no imminent danger

Ensure there are no clear near-term risks that will offer a better execution point, such as the company falling short of current quarter expectations. This may seem like common sense, but too often an analyst will recommend a stock based on a long-term thesis and fail to appreciate that the stock will remain weighed down in the near-term. Examples include:

- Current quarter's consensus expectations are opposite your long-term view
- A large class of investors are still exiting (growth investors selling after a stock appears to be moving into the maturity phase)
- The current economic cycle appears to be reaching its peak
- A large management lock-up is about to expire

Document thesis

Avoid the "loss-aversion" mind trap by documenting the thesis and the price target specifics before making the recommendation. Also establish a stop-loss price to reduce the downside risk and as a place to re-evaluate if the unique insight isn't playing out as expected.

Sleep on it

Before changing a rating, reduce anxiety and the overreaction bias by contemplating it overnight (assuming time allows). "Sleeping on it" usually provides more objectivity than making a quick decision during a workday.

Utilize the framework on this page in our workshop: Master the Stock Call Techniques of Highly Experienced Analysts

Detailed Reference Card (DRC)

Best Practices for Making Accurate Stock Recommendations

Procedures **for Ensure Ideal Entry Point (Step 3B of TIER™), Assess and Influence the Market's View**

Monitor trading data

Monitor trading data to understand the motivations of the current stock holders

- Changes in the types of investors who own the stock (e.g. value, GARP, growth, momentum). This can be done with Bloomberg's HDSM function. and FactSet's "Comprehensive Ownership Detail Report")
- Short interest
- Company insider buying and selling
- Movement of stock compared to company's debt yield or CDS spreads

Know consensus

Analyze the consensus estimate, specifically determining:

- How many analysts comprise "consensus" (more than 1 or 2 in outer years?)
- Are their estimates disparate or similar?
- Are any estimates stale?
- Does the consensus of the most accurate analysts differ from the overall consensus?

Survey market sentiment

Assess market sentiment about the stock and sector (which is done by the best buy-side and sell-side analysts) by surveying experienced buy-side and sell-side analysts, sell-side salespeople, traders, and investor relations contacts. Investigate:

- Biggest investor concerns (may or may not be a critical factor)
- Expectations that are above or below the published consensus
- The names and types of stocks receiving the most/least attention (where is everyone spending their time and what's being ignored?)
- General view toward the market (bullish or bearish) and risk (risk-on or risk-off)

Avoid following the herd

Avoid the mind traps we've identified as "Following the herd" which include overreaction and momentum biases

Monitor technical indicators

Monitor technical indicators to the extent they provide a better understanding of a stock's momentum (beware they will not predict inflection points).

Influence the market

In order to get the consensus' thinking to come around to the analyst's out-of-consensus view:

- Sell-side analysts should publish their view and influence key market participants
- If allowed by their firm, buy-side analysts should inform the most influential sell-side analysts of their thesis, but only after the buy-side analyst's firm has built a position in the stock

Detailed Reference Card (DRC)

Best Practices for Making Accurate Stock Recommendations

Perspectives for Ensure Ideal Entry Point (Step 3 of TIER™), Part 1: General

General perspectives for: **ENSURE IDEAL ENTRY POINT**

Keep it simple: the more complex the investment thesis, the more things can go wrong or be misunderstood by the market.

Don’t be a contrarian just to be a contrarian – the market tends to be right more than it’s wrong. But when individual stocks or sectors appear to be moving too far too fast for irrational reasons (not based on fundamentals), consider the contrarian view.

Understand that shorting stocks has unique challenges: Shorting stocks (without a corresponding long) is a challenge because equities, as an asset class, rise over time.

Spending time to avoid the blow-up is useful: Don’t waste time researching non-critical factors, but also understand conducting research on critical factors and then deciding not to recommend the stock can be very valuable. Namely, avoiding the blow-ups is often one of the best contributors to a successful stock picking record.

Understand that the "right time and place" for a stock call can be determined by the market's risk appetite: Avoid making individual stock calls in isolation of the market’s appetite for risk (i.e. resist recommending weaker companies when the market’s risk appetite is waning, such as near the end of an economic cycle). The market’s relative appetite for risk can be gauged by monitoring:

- Treasury yields
- VIX
- The size of the deal calendar
- Recent stock performance of:
  - Weak companies versus stable companies
  - Emerging markets versus developed markets
  - Small cap versus large cap

Be adaptable to different investment styles: No single investing style will be successful over every time, period. Analysts should have a toolbox containing different approaches and know when to use them.

Know why you differ: If the upside to your price target is materially different than the expected upside in the broader market, determine which of your areas disagrees with consensus:

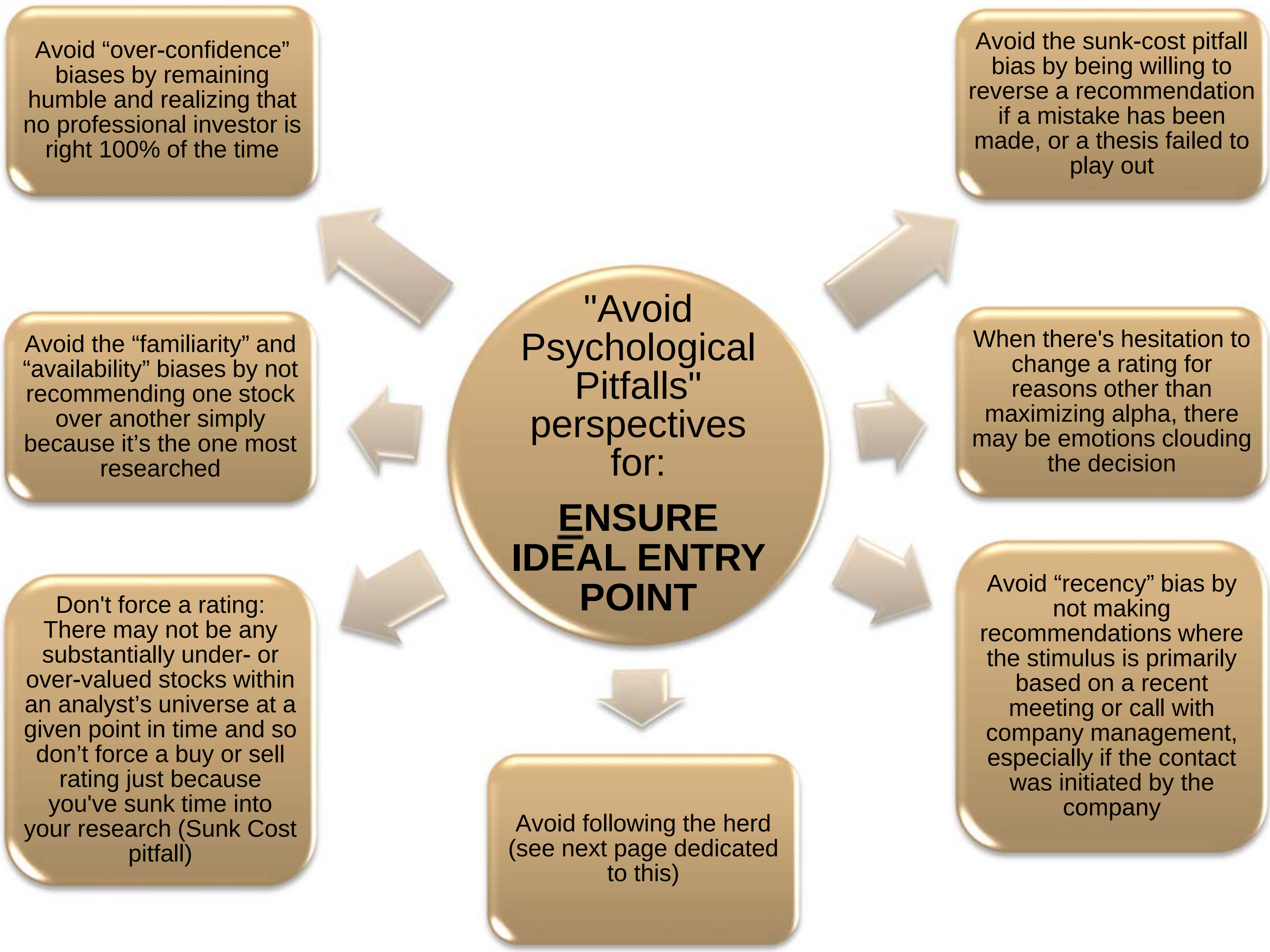
Financial forecast?

Valuation multiple?

Detailed Reference Card (DRC)

Best Practices for Making Accurate Stock Recommendations

***Perspectives* for Ensure Ideal Entry Point (Step 3 of TIER™), Part 2: Avoid Psychological Pitfalls**



Detailed Reference Card (DRC)

Best Practices for Making Accurate Stock Recommendations

Perspectives for Ensure Ideal Entry Point (Step 3 of TIER™), Part 3: Avoid Following the Herd

"Avoid Following the Herd" perspectives for:

ENSURE IDEAL ENTRY POINT

Increase the urge to sell when everyone loves a sector or stock, and buy when no one wants to own it. Be especially cautious when a stock or sector has had strong relative performance for multiple quarters, by asking, "Who is left to buy?" A few telltale signs to sell are when:

- Valuation is reaching or exceeding peak levels
- All or almost all sell-side analysts have buys on a stock
- The general view in sell-side reports and the financial press is, "It's different this time," or, "Nothing can go wrong."
- The stock no longer reacts positively to good news

Observe when bad news no longer makes stocks go down, or when good news no longer makes them go up; it's a sign that market psychology is shifting

Observe when a stock continually overreacts in one direction to news flow during a relatively short period of time, because it could be a sign of irrational buying or selling.

To be successful in deep value investing, watch for investors to capitulate before building a position

Use a short squeeze as a short-term selling opportunity, due to the panic buying (these tend to be short lived, and as such, shouldn't be used as the rationale for setting a price target.)

If long a stock, avoid panicking when other investors who are short the stock attempt to over-blow the impact of negative news flow.

Before making a recommendation, determine where your psyche is on the "greed vs. fear" spectrum compared with consensus. If it's in the same place as consensus, the trade may simply be following the herd.

When a stock appears to have dropped too much due to new concerns, avoid waiting for the market to get "greater clarity" about the risk, because it will be too late. **The lack of clarity creates an opportunity to exploit!**

If a substantial move in a stock was missed, be hesitant to chase it such as jumping on the bandwagon. Making the same trade as everyone else begs the question, "Who's going to take the other side of the trade when you want to get out?"

Making impulsive stock calls usually leads to problems

Understand that human emotions cause markets to always overreact on the upside and downside – nimble investors can exploit this

Utilize the framework on this page in our workshop: Master the Stock Call Techniques of Highly Experienced Analysts

Detailed Reference Card (DRC)

Best Practices for Making Accurate Stock Recommendations

***Perspectives* for Ensure Ideal Entry Point (Step 3 of TIER™), Part 4: Factors Influenced by Company Management**

“Factors impacted by company management” perspectives for:

ENSURE IDEAL ENTRY POINT

The "cockroach theory" is not just theory: Don’t under-appreciate something otherwise deemed a “minor” issue with a company, that could foretell of bigger problems

Are you being objective or courting favor?: If there is concern about upsetting company management (or clients) based on a rating change, there’s likely a bias negatively influencing objectivity about the change

Be aware of companies that attack: Be leery of companies that ridicule sell recommendations or short-sellers, because they often have something to hide. (If the concerns were baseless, the company should remain quiet and prove the market wrong with impressive performance.)

Does management have enough skin in the game: To have a high conviction about a buy recommendation, the stock should be a large portion of top management’s net worth (or management is acquiring more stock). Conversely, question a high conviction buy-rating if management has been selling stock.

Management should focus on execution: Be cautious of management when it spends more time talking about its stock price or stock performance than running its business

Question management guidance when:

- Always bullish
- Product order lead times are coming down
- It says "It's different this time"
- It says higher revenue growth will offset declining margins
- It looks to cost cutting or assets sales to drive most of its earnings growth

Utilize the framework on this page in our workshop: [Master the Stock Call Techniques of Highly Experienced Analysts]

Detailed Reference Card (DRC)

Best Practices for Making Accurate Stock Recommendations

***Procedures* for Review Performance and Thesis (Step 4 of TIER™)**

Dynamically rank and review

Review your comparison ("comp") table regularly (i.e. daily or a few times each week). To provide the best analysis, the table should:

- Update stock prices automatically
- Update your EPS (or CFPS) and consensus' forecasts automatically
- Include for each stock:
  - Valuation relative to an index
  - Valuation relative to stocks in other sectors with similar growth and return characteristics
  - Historical relative valuation parameters (on a forward-looking basis)
  - The upside/downside to price target, adjusted for risk
- Allow for quick sorting based on the metrics above

Avoid "fear of failure"

Avoid the mind traps we've identified as "Fear of failure" which include sunk cost fallacy, loss-aversion, anxiety and snakebite effect

Review original documentation

Periodically review your original thesis (as documented at the time of the original recommendation, such as in your model, report or presentation) for these reasons:

- When a stock call is going well, avoid the over-confidence and self-attribution biases by reviewing if the thesis is truly playing out or if it is more luck
- When a stock goes poorly, be disciplined about using the stop-loss thresholds created at the time of the original recommendation. Due to the "loss aversion" psychological pitfall, it's much more difficult to create objective stop-loss points when a stock has not played out as expected.

Re-think recommendation if thesis wanes

If new, reliable information comes to light that derails the basis of the stock call, do an about-face on the rating as quickly as possible. It will be painful, but not as bad as living with a stock thesis that's never going to play out.

Re-think recommendation if catalyst is ineffective

If the key catalyst for the stock recommendation occurs and the stock doesn't move to the price target, strongly re-think the recommendation and avoid the temptation to find another catalyst to justify the recommendation.

Review unbiased comparisons

Avoid sunk-cost, loss-aversion and other biases by periodically (once a month or quarter):

- Masking the company names/tickers within the comp table, looking only at the numbers to see if the ratings appear correct relative to potential risk-adjusted returns
- Ask, "If I switched firms tomorrow, would my stock recommendations at the new firm match my current ones?" If not, investigate why

Avoid placing blame or denying responsibility

When a stock call goes poorly, avoid placing blame on others for a bad stock call, or saying, "The surprise couldn't have been foreseen." Instead, ask yourself these questions:

- What could have been done to know about this surprise earlier?
- Did anyone else see this coming (sell-side or buy-side)?

Utilize the framework on this page in our workshop: [Master the Stock Call Techniques of Highly Experienced Analysts]

Perspectives for Review Performance and Thesis (Step 4 of TIER™)

Perspectives for: REVIEW PERFORMANCE AND THESIS

Don't mistake good stock picking with a bull market: Always evaluate performance relative to a similar basket of stocks. (This also holds true when evaluating company management's comments about its stock performance.)

Mistakes can be valuable lessons: Stock calls that go bad can have some salvage value, as long as the shortcoming is analyzed and internalized to avoid a similar bad call in the future

Automation will lead to more frequent reviews: Automate your comp table by having it draw key data directly from market data providers (and possibly from your financial models). This will reduce the laborious manual entry process which increases the frequency that this valuable table is reviewed.

Avoid "fear of failure" mind traps: Accept that past losses shouldn't impact future decisions

Overview of TIER™ Framework for Making Accurate Stock Recommendations