Identify a Stock's Critical Factors

Seek Factors That Meet All Four Criteria Below

Exceeds Materiality Threshold

Probably Going to Occur

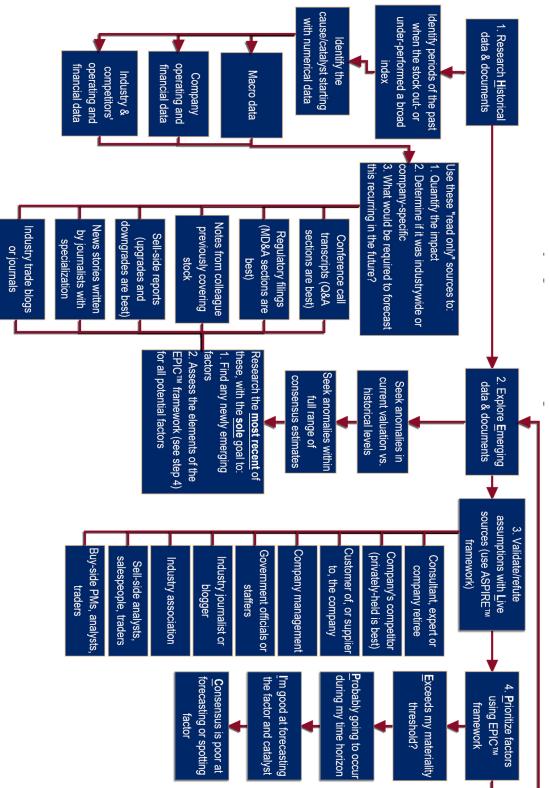
I'm Good at Forecasting

<u>C</u>onsensus is Poor at Forecasting

Critical Factor

Identify a Stock's Critical Factors

HELP™ Framework for Identifying Critical Factors



Identify a Stock's Critical Factors

Identifying a Stock's Critical Factors is Very Important but Not an Exact Science

Mastering the skill of identifying just the few critical factors most likely to move a stock will help you generate more informed insights, forecast with greater precision, make better stock calls, communicate your calls more powerfully, and (if you are a sell-side analyst) increase your client votes. The process described below includes identifying critical factors that have occurred in the past, possibly over one or more decades. To avoid getting sucked into a black hole of time, don't get too detailed in this analysis – remember you're looking for the factors that have caused the stock to significantly out- or under-perform its peers – not learn everything that has occurred during the company's entire history.

Step 1: Research <u>H</u>istorical Data and Documents ("H" of HELP™ Framework)

The purpose of this step is to identify the periods in the past when a stock substantially out- or underperformed its peers and the sector out- or under-performed a broad index. This process is also extremely helpful in identifying a stock's optimal valuation multiple (discussed in a separate QRC and workshop).

A. Collect Data to Identify Periods When the Stock Out- or Under-performed a Broad Index

- Depending on your preference and the ease of using your market data service (e.g. Bloomberg, FactSet, Thomson One, etc.), determine if it's more efficient to work within a workbook that can be automatically updated or stay within the market data application. The goal will be to build this analysis so that <u>it can be easily repeated often</u> in the future for your existing stocks and new stocks added to your coverage.
- Obtain the data series below, going back as far as possible. (Most data collection services will not have forward consensus estimates prior to 1990.) In terms of time intervals (between the data points), requesting weekly data may result in too much information (especially if you can obtain data going back 25 years) while requesting only quarterly data may not capture important anomalies. You'll need to weigh these two issues to strike the right balance.
 - Company-level (if the stock hasn't traded for more than a year, you may want to do this step for 2 or 3 of its closest competitors)
 - Required:
 - (1) Stock's closing price, adjusted for historical stock splits. Avoid using data where the service has adjusted the closing price to include reinvestment of dividends over time because most of the broader or sector indexes (which will be used in this analysis) do not do this (e.g. the S&P 500 is conventionally shown as a price return index which excludes appreciation from dividends). If the closing stock price from your provider includes reinvested dividends, this may reduce the ability to spot periods of significant out- and under-performance of the stock, which is the goal of this step.
 - (2) Rolling <u>next 12 month</u> ("NTM"), also referred to as 12-month forward ("TMF"), consensus EPS, sales or CFPS estimates (<u>ensure the data is not "current" or "trailing"</u> <u>results</u>). Some services will provide a rolling 12-month forward consensus estimate at any point in time, while others will provide only "current fiscal year" ("FY1") and "next

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fiscal year" ("FY2"), which will require an additional step to create a rolling 12-month average.

- (3) The most important company-specific metrics that drive earnings or cash flows (e.g. quarterly sales, margins, volume, pricing, etc.)
- Sector-level
 - Sector stock index (such as consumer staples) closing price.
 - (1) Some sectors have good representative indexes such as the GIC's 24 industry groups, 68 industries and 154 sub-industries.¹ Check to ensure the index has a good representative sample of companies. If it's limited to a small sample (only 2 or 3 companies) that doesn't represent your assigned universe of stocks, look for a broader index or build your own.
 - (2) To build your own, obtain the market capitalization for the sector at each point in time, by adding the market capitalization of the all the companies in the universe. This is not an exact science but it's the fastest way to identify the value the market places on the sector. This still requires adjustments to be made for company-initiated events that impact market cap but do reflect a change in value from the market's perspective (such as a large stock offering or when a company goes private or bankrupt).
 - (3) It's also possible to use sector ETFs as a proxy, but they will not likely go back prior to 1998 when ETFs became more popular.
 - Broad stock index (such as S&P 500) closing price
 - Optional:
 - (1) Sector demand: Sales/volume and average selling price (ASP) for the sector's major businesses lines that can be compared across companies in a sector (e.g. auto sales, mobile handset sales, airline revenue per seat, etc.), which are sometimes available through industry associations
 - (2) Sector supply (capacity factors): Resource utilization rates or any data that measures the degree of sector supply (e.g. airline industry load factor, retail revenue per square foot or meter, etc.)
- Macro-level:
 - A macro factor can impact two sectors in opposing ways and potentially have no impact on a third sector. Complicating matters, a macro factor can have a positive correlation with a sector's stock performance during one business cycle and a reverse for the next. As such, before drawing a sweeping conclusion such as "high oil prices always drive this sector down," it's important to validate cyclical trends over a number of cycles and not just the most recent.
 - To identify if macro data is impacting a specific stock or sector, it's important to display the data in a manner that illustrates the rate of change rather than just a raw number. For

¹ http://en.wikipedia.org/wiki/GICS

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example, 10% unemployment is a disappointing number in isolation but not if it is coming down from 12%. When possible, illustrate the data below in terms of how it is changing over time. Examples of macro factors that impact stocks include:

- (1) Economic volumes such as industrial production (monthly), manufacturing and service levels (reported monthly by the ISM in the U.S.)
- (2) Unemployment (in the U.S. it can be the Employment Situation Report or Weekly Claims for Unemployment Insurance)
- (3) Inflation (consumer and producer prices)
- (4) Interest rates for longer-term borrowing (can include government or corporate bonds)
- (5) Sector-specific macro factors such as global trade, oil prices, seasonal temperatures, currency exchange rates

B. Clean Up the Data

- Smooth artificial spikes caused by special events such as a spin-off or missing data
- Eliminate data for companies when earnings drop to near zero (the P/E will move to infinity); or if there are large periods when companies are not generating earnings, use an earnings yield ratio (E/P)
- For macro data, attempt to use data series that remove monetary inflation if being compared to relative performance of a stock. Almost every data series conveyed in a currency (such as the dollar value of retail sales or GDP) will have an inflation component, whereas most non-currency data (such as relative stock performance and P/E ratios) do not have this element. For data such as retail sales and GDP, the *nominal* number that is reported is the actual dollar amount spent, whereas the *real* number backs out the impact of inflation.
- Put data into its corresponding weekly, monthly or quarterly format so it can be charted

C. Chart the Data to Find Times of Out- or Under-performance

- The objective is to build a chart (preferably automated) to identify the specific time periods when:
 - An individual stock materially out- or under-performs its peers
 - A sector index materially out- or under-performs a broader index
- Chart each company to show how its stock performed relative to its peers and how its index performed relative to the broader market over an extended period of time (10 to 30 years if available). Measuring "performance" is the cumulative change going back to the beginning of the data series. If the stock (or sector index) has had a massive move (such as Apple's stock growing ten times over a relatively short period of time) the fluctuations in the older data in the series may be difficult to see, in which case it may be helpful to break down the series into two or more time periods.
- Identify the periods where the stock substantially out- or under-performs the index and when the sector index substantially out- or under- performs a broad index. Look to see if the stock moves are unique or common across the sector.

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D. Identify Why Historical Anomalies Occurred for a Stock and Sector

The purpose of this step is to identify <u>why</u> a stock substantially out- or under-performed its peers and why a sector index out- or under-performed a broad index

- To identify if material out- or under-performance is due to changes in consensus expectations (which is usually the case), overlay onto the company-specific and sector index relative performance charts above (which should be on one axis), a chart of the stock's forward consensus EPS or P/CF (on the other axis).
 - This will quickly identify those periods when the stock is clearly moving due to changes in growth expectations for EPS or CFPS – the key at this point will be to identify what caused the changed expectations.
 - Unfortunately, not all stock moves are driven by immediate changes in consensus expectations and therefore, it's important to also investigate when a stock (or sector index) substantially out- or under-performs and there are no (or minor) changes to consensus expectations.
- To quickly identify if relative performance is macro-related, create charts that overlay the stock's and sector index's relative performance onto key macro data, such as the type discussed above
- Identify the periods of the most significant out- and under-performance from the prior step
- After the initial conclusions are drawn from the charts above (the stock's relative performance influenced by changes in forward consensus EPS or CFPS expectations as well as macro factors), review the following published documents covering the time period when the anomaly occurred. (If the stock move occurred in January of a given year, and you are reviewing company filings, you will likely need to review those from the first quarter, which may not be published until May for that year don't make a common mistake of looking at the documents filed in January, which are for the prior quarter):
 - The MD&A section of the company's regulatory filing
 - Quarterly call transcript
 - Financial news
 - Industry trade journals/blogs (trade journals often have a "year-end" wrap-up that might be the first place to look when researching longer-term trends)
 - Sell-side analysts' reports (for Buy-side analysts)
 - Internal documents written by you or colleagues following the stock at the time of a major stock move
- While reviewing these documents, record information that will be helpful in forecasting this factor's potential influence in the future, specifically:
 - The probability this anomaly occurs in the future
 - The materiality this anomaly causes on the individual companies

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Step 2: Explore <u>Emerging Data & Documents ("E" of HELP™ Framework)</u>

The purpose of this step is to identify current investment controversies that may potentially be critical factors but have not influenced the stock in the past

- Before speaking with market participants, look for potential current critical factors in the most recent version of the following documents:
 - The MD&A and risks sections of company regulatory filings (Use one of the services that show the specific items that have changed in the current regulatory filing vs. its immediate predecessor filing)
 - Transcripts and related material from recent company presentations
 - Trade journals/websites
 - Notes from colleague(s) who have participated in recent company calls and meetings
 - Sell-side reports (for Buy-side analysts)
- From these documents, record information that could be helpful in forecasting:
 - The probability this factor will impact the company during your investment time horizon
 - The materiality this factor would cause on the company
- Review a valuation comp table to:
 - Identify where there are discrepancies between each company's current valuation and its historical valuation
 - When a company is trading at a significant premium or discount to its peers, determine the cause (It may be due to an impending change to a critical factor)
- Review a full range of sell-side earnings estimates to identify where earnings or cash flow expectations are the widest (Critical factors are often the cause when there is a large dispersion among sell-side estimates)

Step 3: Validate/Refute Assumptions with Live Sources ("L" of HELP™ Framework)

Contact live information sources to get clarity on your list of historical and emerging factors, by specifically answering these questions:

- Would changes in consensus expectations <u>Exceed</u> my materiality threshold *if* this factor were to occur during my investment time horizon?
- Is there a high <u>P</u>robability this factor will become much more certain to occur (or deviate materially from the expected trend) during my investment time horizon?
- Could <u>I</u> accurately forecast this factor and its catalyst with a moderate amount of research? (Do you have everything you need to reliably forecast this factor?)
- Will <u>C</u>onsensus be poor at accurately forecasting (or spotting) this factor?

When the answer is "yes" to all, it is likely a critical factor that can add alpha.

If possible, begin this step by rank ordering the list of historical factors (from Step 1 above), by the magnitude of impact on the stock's performance. To get clarity around the four EPIC[™] questions, speak with the information sources that were closely involved with the stock or sector at the time when the prior anomalies occurred, with the goal of confirming or refuting the critical factor that appeared to have caused the anomaly. Some of the best information sources for explaining historical

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anomalies can be found in Exhibit 1 below (see column labeled "Confirm or Refute Historical Factors").

Speak with the information sources that are currently closely involved with the stock or sector as found in Exhibit 1 below (see column in table below labeled "Assess New or Emerging Critical Factors"), with the goal of answering the four EPIC[™] questions for your list of potential critical factors. Specifically, attempt to put parameters around the future *materiality* and *probability* of each factor. Also, speak with market participants to assess the market psychology to determine if the factor is currently being correctly assessed in the consensus expectations (see column labeled "Assess Market Psychology").

If you have time, meet/speak with company management to:

- Understand if it is aware of those items on your list of potential critical factors; and
- Determine if management has a plan to exploit benefits or mitigate risks of potential critical factors

Step 4: <u>Prioritize Factors Using EPIC™ Framework ("P" of HELP™ Framework</u>)

- Create a table that allows you to rank-order all of your factors on the four elements of the EPIC[™] framework, as show in Exhibit 2 below. Add up the score of each row in the right most column
- You may want to put more weighting on the first two factors because they often are the most important
- If you have trouble assessing a ranking for a factor, and it's probable the factor could rise to the top if you get clarity, it's probably a place to spend additional research time
- Once you feel comfortable with your ranked list, spend your alpha-generating research time on those items at the top of the list which are critical factors and disregard or spend minimal time on all of the other items. (The second part is the most difficult to do and the one that will save you the most time.)
- Add to the list and re-rank on a regular basis (monthly to quarterly) because the importance of some factors will change over time

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Exhibit 1: Helpful Live Information Sources

Source for Information	Pros	Cons	Confirm or Refute Historical Factors*	Assess New or Emerging Critical Factors	Assess Market Psych.
Buy-side analyst or portfolio manager (as source for buy- side or sell-side)	Best place to gauge investor expectations	May not be representative of the larger investor base			•
Company's competitor (publically-traded or privately- held)	Knows the sector and the competitive dynamics	May not be familiar enough with other company's factors to speak with authority. May try to bash the competition	•	•	
Company's executives (including investor relations)	Usually forthcoming about opportunistic factors	Usually downplay or ignore potentially negative factors			
Conference speaker or author of book/academic paper	Usually willing to speak with others	May not fully understand implications for company or stock			
Consultant, expert, or company retiree	Very close to the issue	Can be difficult to find	•	-	
Customer of, or supplier to, the company (publically- traded or privately-held)	First-hand knowledge of the company's value proposition	Contact may not be representative of the larger customer base			
Government officials or staffers	Often the closest to regulatory or legislative changes	Often won't speak on the topic. If so, may not provide accurate forecast			
Industry association or forecasting service representative	Understands complex industry issues	May be biased in the sector's favor and may not fully understand implications for company or stock			
Industry journalist/blogger	May understand complex issues and provide direction to other sources of information	May not fully understand implications for company or stock	•	•	
Sell-side analyst (for the buy- side) considered among top 3 in sector	May be the only place to gauge consensus thinking and to obtain proprietary research	Subjectivity or low-quality work can result in incorrect output	•	•	•
Sell-side salesperson (with deep knowledge of specific stock)	Close to many buy-side investors	Generalist salespeople may not have full understanding of any single stock			
Trader of stock (with deep knowledge of specific stock)	Usually familiar with short-term psychology of stock	May not fully understand company or long-term issues			

Legend: \blacksquare = best first source, \square = good source

* Source must have been active with the stock/company at time of historical anomaly

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Exhibit 2: Example Table of Rank-Ordered Factors (for FDX in 2006)

Factor to Potentially Be Researched	If this factor were to occur or change from trend, it would cause changes in consensus' expectations to <u>E</u> xceed my materiality threshold	This factor will Probably deviate materially from consensus expectations during my investment time horizon	Based on my research on the factor, <u>I</u> 'm good at forecasting this factor and its catalyst (it's not just a guess)	The overall <u>C</u> onsensus will be poor at accurately forecasting or spotting an anomaly for this factor	Total
Cost management/ productivity/ improved network efficiency	5	4	4	5	18
Level of fuel surcharge collected	5	4	4	4	17
Acquisition(s)	5	3	2	5	15
Ground package volume growth	3	4	4	4	15
Domestic Express package pricing/yield	4	3	4	3	14
Ground package pricing/yield	4	3	3	4	14
International Priority package pricing/yield	3	4	3	4	14
International Priority package volume growth	2	4	4	4	14
Service levels other than during the holiday season	3	2	4	5	14
Change in senior management	5	2	2	4	13
Electronic documents reducing need for overnight envelopes	2	4	3	4	13
GDP growth	5	3	2	3	13
Labor cost trends	3	3	3	4	13
Service levels at holiday season	2	2	3	5	12
Domestic Express package volume growth	2	3	4	3	12
Asia-Pacific volume growth	2	3	4	2	11
Change in level of tech shippers vs. non-tech shippers	4	2	3	2	11
Purchase of new aircraft	1	3	3	4	11
Depreciation rate	1	2	2	4	9
Level of major weather disruptions	1	3	2	2	8

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Exhibit 3: Example Table of Critical Factors for Select Stocks (as of early 2015)

Sector or Stock	Critical Factor	Assumption #1	Assumption #2
Airbnb (online travel agency)	Growth of online travel agencies	Rate of market share gains from traditional hotel channels	Cost advantage of online travel agency vs. traditional channels
Amazon.com	Market share shift from traditional retailers	Adoption rate of e-commerce within emerging markets	Adoption rate of mobile apps for retail purchases
IBM	Migration to cloud-based solutions	Rate of growth of cloud-based enterprise applications	Level of security offered in the cloud vs. in-house options
Nike	Top line growth rate keeping up with historical trends	Changes in demand from international markets	Changes in broad athletic activities
NVIDIA (graphics tech)	Growth of virtual reality as mainstream product	Adoption of virtual reality by mass markets	Cost to produce high quality virtual reality devices that can be used in the home
SolarCity	Growth of renewable energy revenue	Changes in energy storage costs	Impact from changes in oil and natural gas prices
The Gap	Apparel pricing deflation	Adoption of off-price and low- price fashion	Use of mobile devices for price discovery
Time Warner Cable	Growth of competing content providers such as Netflix, Amazon and HBO	Customer loyalty for the cable bundle vs. new entrants	Potential growth of cable- provider broadband offering (which is required to access new entrants)
T-Mobile	Competitive pricing among the wireless carriers	Timing when domestic smartphone becomes saturated	Changing regulations
VMware (software)	Growth of Open Source software vs. traditional vendors	Open Source providers going public	IT leaders selling services that rely on Open Source solutions
Walgreens (drug retailer)	Generic drug price inflation	Changes in FDA regulation of non-generic drug manufacturers	Distribution channel consolidation
WMT	Wage inflation	Level at which other competitors raise minimum wage	Efficiency gains by reducing employee turnover

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Generating Sustainable Sources of Insight with ASPIRE[™] Framework

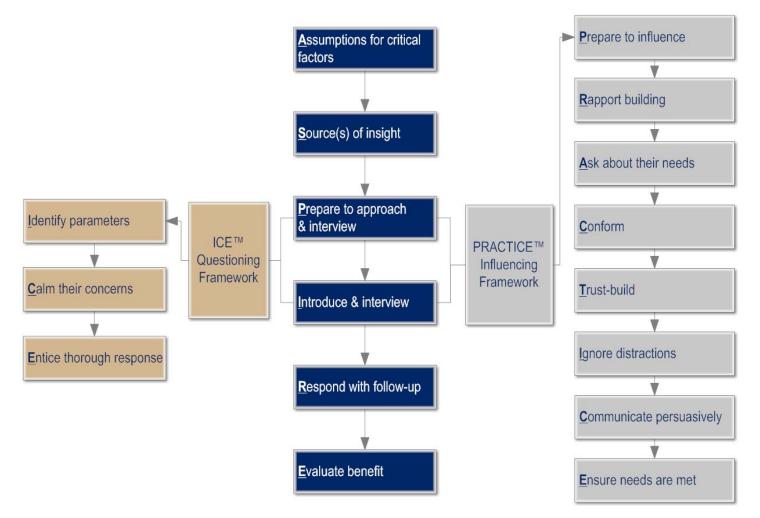
Introduction

The basic ingredient to great stock calls is an out-of-consensus insight, which by definition isn't widely available to the financial markets. This Detailed Reference Card reviews our ASPIRE[™] framework, which is a compilation of the best practices used by analysts to find insightful live sources of information, as well as methods to extract useful insights. As shown in Exhibit 1, our 6-step ASPIRE[™] framework relies on two additional frameworks, which cover skills necessary for successfully *questioning* and *influencing* information sources (each is reviewed separately in its own Detailed Reference Card):

- ICE[™] Questioning Framework
- PRACTICE[™] Influencing Framework

Note: when an information source is financially compensated, such as would be the case when using expert networks, much of the framework below is not required because less concern is placed on *enticing* the interviewee to help.

Exhibit 1: ASPIRE[™], ICE[™] and PRACTICE[™] Frameworks



Explore these concepts in our workshop:Generate Differentiated Insights Through Better Discovery, Questioning and InfluencingChalystSolutionsFor registered AnalystSolutionsPage 1 of 12 ants -- not to be re-distributed Solutions LLC, All Rights Reserved

Generating Sustainable Sources of Insight with ASPIRE[™] Framework

Step 1. Assumptions for Critical Factors

- Focus on identifying only the key assumptions that *must be answered to forecast* the materiality and probability of the critical factors (see Detailed Reference Card, "*Identify and Monitor a Stock's Critical Factors*" to identify 1-4 critical factors for each stock being researched)
 - For example, if the critical factor for a mobile phone handset manufacturer is the amount of growth from emerging markets, the assumption to be answered is "what will drive handset growth above or below consensus' expectations in emerging markets?"
- For most aspects of an analyst's role, including seeking insights from others, we encourage staying intensely focused only on the 1-4 critical factors for a stock, but if time allows, it can be helpful to discuss the next 3-4 factors on an analyst's list, as they may evolve into critical factors over time
- Do not proceed to the next step unless you have created a list of critical factors for a stock because it takes substantial time to find and interview live information sources, all of which is a waste of time if the information source doesn't have insights that help to forecast a critical factor. (To request a template spreadsheet, email us at <u>Info@AnalystSolutions.com</u> and put "IMSCF Excel template" in the subject line)

Step 2. Sources of Insight

- The majority of insights useful for stock picking are obtained from "live" sources but occasionally insights can be gleaned from "read only" sources (e.g. industry blogs, company documents, proprietary databases). For the remainder of this DRC, we will focus on live sources.
- Using the Quick Reference Card, "Information Sources Pros and Cons", select the roles of individuals who can help provide objective insights (the less biased the better) about the assumptions required to forecast each critical factor. Note there are two distinct types of live information sources:
 - Those with roles outside of the financial markets, who often can provide *industry or company expertise*
 - Those with roles within the financial markets, who often can provide background to understand the *historical or current market psychology surrounding a stock*

Roles Outside the Financial Markets

- To find live sources of information that hold roles *outside* of the financial markets, research the following sources, looking for names of individuals who are not employed by company being researched, because management is often biased and likely muzzled (Remember, this step is to just *find* the individuals, not how to connect with them, which will be discussed in the next step):
 - Use online sites such as those below to find individuals formerly employed by the company, currently employed by a competitor (preferably a privately-held competitor) or an expert on the critical factor(s) you're researching:
 - On-line networking groups such as LinkedIn, alumni networks, etc.
 - On-line job boards such as Monster.com and Upwork

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- Topical blogs (to find names of the blogger and those who are mentioned or quoted). Google company names or industry terms followed by "blog" to find potential blogs (e.g. "Parcel industry blog")
- News stories (to find names of the journalist and those being quoted)
 - General press, when the story has a focus on your sector(s)
 - Trade journals focused on your sector(s)
- Industry award winner lists (e.g. "top salesperson of the year")
- Speakers at conferences (even those you don't attend) focused on the critical factor(s)
- Authors of papers, books and presentations
 - Conduct a Google "Advanced Search" and ensure the "file type" is PDF or PowerPoint
 - For books use: <u>http://www.worldcat.org/</u>
 - For papers use: <u>http://www.ssrn.com/en/</u> or <u>http://www.ebscohost.com/</u> (subscription based)
 - You may want to research YouTube, but unless the topic pertains to companies only, you may get too many search results to quickly analyze
- Industry, association and professional society websites
- Databases or lists that contain the names of the largest privately-held companies in your sector (it can be an industry associate directory, or use a service such as Hoovers)
- Search the internet for names of consulting firms that specialize in the sector (if the search doesn't come up with a quick answer, wait until a later step to ask company management)
- You may want to utilize expert networks (if allowed by your firm), but understand the best contacts are probably already speaking to others in the financial community and so they won't be proprietary to your efforts
- If you have access to a budget for third-party research, there are thousands of firms with expertise in conducting research in specialized areas. Integrity Research (<u>integrity-</u> <u>research.com/</u>) is a good starting point for identifying the best third-party research firms for a given project.

Note: the suggestions above do not recommend relying on the management of the company you are researching as an information source, because it's usually not in a position to offer proprietary insights in an ethical and legal manner. This may not hold true in some less-developed financial markets, where management is legally allowed to selectively disseminate information.

Roles Within the Financial Markets

- To find sources of information that hold roles within the *financial markets*:
 - Buy-side analysts should make an effort to:
 - Meet other buy-side analysts when attending industry or company events, as they are often helpful in assessing "what's in consensus?" If you don't know the current consensus thinking about a stock, it's almost impossible to determine if your stock call is out-of-consensus (which is required for almost all successful stock calls)
 - Have at least 3 sell-side analysts per sector in order to assess historical and current critical factors as well as to assess the market psychology surrounding a stock

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 Sell-side analysts should ensure they have an open channel of communications with the most active buy-side analysts as well as internal salespeople and traders who have the greatest interest in their universe of stocks. They are often the best sources of assessing market psychology surrounding a stock and can be helpful in assessing historical and current critical factors

Cultivating Sources of Insight

Great analysts are continually looking for new sources of insight, which doesn't occur on its own. There are activities that can help analysts make new connections (e.g. attending a target-rich conference), or at a minimum, bring the names of industry thought leaders to the analyst's attention (e.g. reading an insightful industry blog). For all of the methods below, focus on those where your involvement will help gain insights that clarify *the assumptions surrounding your stocks' critical factors* (the first step of the ASPIRE[™] framework). Reading an industry blog or attending a conference that offer contacts with no expertise surrounding your stock's critical factors is a waste of time.

- Proactively read relevant industry trade blogs and journals (if possible, have these automatically sent to you or set time aside each week to read). Start by throwing the net wide by subscribing to everything that might be a good source (use "trial subscriptions" when possible) and quickly drop any that are clearly not focused on the 1-4 critical factors for each of your stocks. If you notice insights that may help another analyst within your firm, make sure to pass them along, because that's a key step to getting other analysts to pass insights your way in the future.
- To continually cultivate new information sources, participate in industry events attended by key decision makers, such as conferences, trade shows and annual award banquets, but make sure to:
 - Prescreen to ensure you don't waste your time at an event that doesn't have key decision makers or focus on the assumptions for your critical factor(s)
 - Try to get an advanced list of speakers and attendees to set up meetings with contacts before the event and for emailing them afterward
 - Approach good speakers after their presentations -- they are usually looking to network
 - Attend social events if there's the opportunity to work the crowd (attending a conference's standard evening entertainment for 90 minutes may be fun, but isn't likely to yield as many insights and having one-on-one conversations)
 - If appropriate, find the senior event coordinator and offer to speak at the next upcoming event to provide the financial community's perspective of the industry (this makes the advanced list of attendees, mentioned above, much easier to get)
- Join relevant on-line groups (LinkedIn, industry forums, user groups, etc.)
- Join relevant industry trade groups (you may need to join as an "associate" or "affiliated" member because you're not in the business of selling products or services in that sector)
- Subscribe to relevant industry consulting firms that publish industry reports and white papers
- If you are very specialized and cover only one or two sectors, participate in industry task forces, committees or philanthropies that are likely to include key decision makers (you can often find these via industry associations)

Generating Sustainable Sources of Insight with ASPIRE[™] Framework

- If you're not sure where to start on the lists above, contact the Investor Relations managers of two to three of the companies that are major players in the sector(s) and ask the following questions:
 - Which trade journals do the company's managers subscribe to?
 - Which trade associations does the company belong to and which are the most powerful in lobbying for regulatory change?
 - Which conferences are attended by company management and the financial community?
 - Which industry task forces do company management belong to?
 - Which industry consultants produce the most insightful reports?
- Google the names of the COO, Chief Marketing Officer and other senior executives to see if they
 are quoted by a blogger or speaking at a public event
- It's also helpful to ask for industry contact names from other analysts within your firm, including those who cover sectors that are further up- or down-stream as the sector being researched (e.g. the analyst covering the pharmaceutical sector may find benefit in asking for contacts from the analyst covering the healthcare sector)
- As discussed in our Detailed Reference Card, "*Utilize the PRACTICETM Framework to Influence Others*", the "E" of the framework ("<u>E</u>nsuring needs are met") recommends periodically contacting the information source to offer to help, not just when you need information

Step 3. Prepare to Approach and Interview Information Sources

There are three dimensions to this critical step, which covers *preparation before* conducting an interview:

- 1. Tactics for creating questions that will yield insights (using our ICE[™] framework)
- Tactics to ensure you are prepared to influence the interviewee (using our PRACTICE™ framework)
- 3. Logistics to ensure the interview is a success

We recommend reviewing the entire ICE[™] framework and "P" of our PRACTICE[™] framework (which are found as separate DRCs) before moving to Step 4 of this DRC. We can also provide a QRC "Potential Questions to Investigate When Researching a Company" that may prove helpful as a starting point for assembling your questions.

In addition, follow the best practices for planning the logistics of the interview, which are found below. Note that we use the terms "interview" and "interviewee", which suggests your interaction with information sources will be face-to-face or over the phone, but most of the best practices are also applicable for email exchanges.

Logistics

Follow these best practices when preparing the logistics of your interview:

Phone calls are efficient, which is a good thing, but the benefits of in-person meetings are: 1) easier to build rapport and trust; and; 2) more difficult for the interviewee to deceive in-person than over the phone or email (especially useful for meetings with company management). These

Generating Sustainable Sources of Insight with ASPIRE[™] Framework

benefits must be weighted with the significant time required for travel. Therefore, if travel is required, attempt to meet multiple contacts.

- For in-person meetings, choose an ideal location. Normally you won't have much choice, but if you do:
 - Avoid noisy restaurants: If you've been offered a lunch or dinner meeting, pre-reserve a
 private room or quiet corner. When possible, get a table that has at least 20 percent more
 room than the size of your party so there is plenty of room for taking notes.
 - Avoid meeting outdoors: The weather is unpredictable and you're more likely to be disturbed by noise.
 - Avoid activities that restrict note taking: Playing a round of golf with a C-suite executive is a
 great way to build rapport, but you may not come away with any details beyond what you can
 write on your scorecard using a three-inch pencil.
 - Avoid impersonal spaces (e.g. hotel conference ballroom): If you've been given a one-onone with management during a sell-side conference, ask for a small room so that your interview will feel more personable. If you're given the Grand Ballroom, try to get a private room through the hotel or find a quiet coffee shop.
- Prepare for important conversations by proactively eliminating external and internal distractions:
 - External:
 - Climate, such as room temperature
 - Background noise or activity
 - Interruptions (your phone)
 - Internal:
 - Time constraints (book your return flight so you're not focused on missing your flight or needing to catch an earlier one)
 - Create a list of questions (using the ICE[™] framework) in advance to:
 (1) Avoid being distracted during the interview over concern of what to say next
 - (2) Reduce concerns about characterizing something incorrectly
 - Reduce concerns about anything that needs to occur immediately after the conversation has ended (such as where to go for your next meeting)
 - Try to avoid thinking about personal matters that may be causing underlying anxiety
- For conference calls, ensure everyone has the dial-in number and passcode days in advance.
 Preferably, send out a calendar invitation that includes the details in the event so that it's on everyone's calendars (in their time zones) and available on mobile devices. Use a speakerphone in a quiet room or wear a headset so as to have your hands free to take notes.
- If internal colleagues from other offices are dialing into a conference room where you'll be interviewing management, ask the colleague to take detailed notes (instead of you) which serves two purposes:
 - Management will feel less threatened if they don't see you writing everything down during the interview (but have a notepad available to show you have interest)
 - It allows you to be more focused on leading the interview

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- Make sure to get your colleague's notes immediately after the interview and update with any thoughts that are not in the notes
- In preparing questions for an interview to explore critical factors impacting a company in your assigned universe:
 - Attempt to have at least one question covering a critical factor for every 3 minutes of interview time (i.e. create 10 questions for a 30-minute interview)
 - It can take 3 hours to 3 days to identify the 1-4 critical factors for a stock and so invest the time before your first meeting so that your line of questioning is in areas likely to impact the stock price
 - If interviewing multiple individuals in one day (such as when visiting a company or conference), approach critical factors from multiple angles by asking each interviewee his or her individual perspective (if at a company, check to see if responses are aligned or appear to be based on separate agendas)
 - Ensure to ask questions that will help understand how the interviewee thinks about the critical factors, in addition to the specific answers about the assumptions (the individual may have an entirely different philosophy about the factor that you and the market miss)
 - Do not include questions that can be answered by reviewing public documents
- If you're on the sell-side:
 - For company visits, try to bring clients (the more assets the client controls the better); this can result in more senior management in the lineup and better responses to your questions
 - Make your question list available to buy-side clients just before the meeting or call begins (not any earlier because the list could make its way into the hands of management, which will allow it to rehearse answers and potentially cause their responses to be less transparent). As a value-added element, make the questions available in the future to other clients who are interviewing the same management.

Step 4. Introduce and Interview

This step covers approaching your interviewee and conducting the interview in a manner that will yield the most insights. Before continuing, review the remaining portions of the PRACTICE[™] framework and ensure you are comfortable with the ICE[™] framework, *which make up a good portion of this step* because they cover influencing skills and questioning tactics. Beyond these frameworks, there are a few additional considerations for this step:

- First and foremost, check your ego at the door. The biggest problem with interviews led by equity research analysts occurs when they suffer from "I'm the smartest person in the room" syndrome. If you approach the interview convinced you know more (or are smarter) than the interviewee, you will likely not put them at ease, and in fact may put them on the defensive, which will not yield helpful answers.
- Research shows interviewees accept being led by questions more readily when the interviewer is perceived as an expert or knowledgeable. With this in mind, somewhere early in the exchange, after building rapport, without trying to suggest you're "the smartest person in the room", ask a

Detailed Reference Card (DRC) Generating Sustainable Sources of Insight with ASPIRETM Framework

question that demonstrates you hold sector or company insights the interviewee doesn't have or isn't widely known; it doesn't need to be a material piece of information.

- This prevents interviewees from exaggerating or embellishing for the rest of the interview, because they know you have a good command of the topic
- The interviewee may be more forthcoming because you are "worthy" of higher quality answers
- Explain you will not quote or attribute their thoughts (unless that's what they want). Mid- to low-level managers of publicly-traded companies, as well as many other information sources, are concerned they will be "quoted in the press" (they often don't distinguish between an analyst and journalist). If this occurs when approaching an information source, put their concerns to rest by starting the conversation with, "I won't attribute anything you say unless you want me to." (Sell-side analysts should make sure to put in their notes "do not publish" so they don't forget later.)
- Start by introducing yourself in a polite and transparent manner in the first sentence or two of your conversation or email (this best practice takes elements from "Rapport" building of the PRACTICE™ framework):
 - Your name and firm
 - Role and responsibility
 - Who referred you (can be *incredibly* powerful to mention the name of someone whom the contact knows)
 - If approaching the contact without a pre-arranged appointment (e.g. phone call, email, approaching after they make a presentation at a conference, etc.), start by asking "Can you help me *or know of someone who might be able to help?*" This offers two benefits:
 - It de-risks the exchange because they think you are looking for a *source of information* (which most people will gladly provide) rather than information that they may be reluctant to provide
 - It gives them the sense "If I refer this analyst to someone else, it suggests I don't have the answer." Very often, they'll feel obligated to help you to show you don't need to turn to another expert because they have the answer
 - Reassure the individual that you:
 - Are not selling anything
 - Will keep his/her name anonymous if preferred
 - Here is an example that uses the best practices above and from our PRACTICE[™] framework for influencing: "Hello, my name is Lucas Gallo. I work for Golden Bull Securities as an equity research analyst responsible for researching the pollution control industry. I was referred to you by John Smith (or "...I read your quote in Pollution Control Today") and was hoping you could help me or point me in the direction of someone who is an expert on this topic. I'm not selling anything and not looking for a quote...I'm just seeking an industry expert's view to help me with my research, which I'll gladly keep confidential."
- Qualify the interviewee as quickly as possible, without losing your ability to positively influence
 - It's important to know:
 - Does this interviewee have a full command of the critical factor(s) you are researching?

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- Is the interviewee in a position to forecast the materiality or probability for the assumptions that drive the critical factor(s)?
- If you determine the interviewee cannot help with the elements above, work through a strategy to graciously thank them for their time and move to the next interview candidate
- Focus on one topic at a time
- Don't allow the interviewee to take full control of the interview:
 - In situations when the interviewee may not want to provide answers (such as when interviewing hostile company management):
 - Some interviewees will drag out answers so they don't get more questions from you. After using the tactics found in the ICE[™] framework, if it becomes clear they will not answer a question, move onto the next unless you detect deception and think probing will help with your research.
 - If they start to ask you questions, it may be a form of influencing -- they're trying to boost your ego to show your view matters, sometimes with the hope that you're not going to be so tough on them. It also reduces the amount of time you have to ask them questions.
 - Are the comments consistent with other available data (e.g. public presentations and regulatory filings)?
- Note when interviewees appear to be using too much jargon, they may be hiding insecurity because they don't know the subject well. If you hear too much jargon or acronyms you don't understand, stop the interviewee and ask for an explanation. Don't continue until you're comfortable with the answer.
- When conducting an interview at a company being analyzed, if there's an on-site tour of its operation, observe the intangibles:
 - Are the executive offices:
 - Opulent or run-down?
 - Near the operations or very distant?
 - Do employees take pride in their workspace (desk or factory floor) and show respect for one another?
 - Is the warehouse empty or over-filled?
 - Are assets being fully utilized?

Ending with Purpose

When it comes time to wrap up the conversation, always thank the interviewee and try to add accolades such as "You are the most knowledgeable expert on pollution control I've met." Try to also use at least one the following tactics below to ensure you can harvest additional insights.

- Ask for a referral: "You are such an expert in this area. Do you know of anyone else [at this event] who holds such expertise?"
- Get a commitment on accepting a follow-up conversation: "I found your insights to be incredibly helpful. Would it be okay if I reach out to you early next week to get a copy of the slides you mentioned?"

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- If the meeting didn't have a scheduled end time (such as meeting someone at a conference), explain why it's imperative you exit now, such as "It's been a pleasure meeting with you. I hope you don't mind, but I need to speak to one other individual before they leave this event."
- Hand off to another contact, in person or after the interview: "This has been a great exchange for me. I'd like you to meet another professional who has interest in this same area, who I suspect you'll find quite interesting."

Be Mindful of Non-verbal Communications (i.e. Body Language)

- Research shows 65% to 93% of the message being delivered can be nonverbal, and so for inperson interviews, don't miss these cues (this is another reason why in-person interviews are superior to phone or email exchanges, but they require more time which is why they're aren't always the best option)
- When asking interviewees questions, note their verbal and non-verbal responses. If they quickly and confidently downplay your concerns, you can feel more confident with the answer than if they appear concerned or, worse yet, avoid answering the question.
- There is significant subjectivity involved in reading body language and much practice is required to master these skills. As you'll see below, for every cue there is a qualifier that says you can't rely on it 100% of the time. Further complicating matters, very often the cue must be identified within a split second of introducing the stimulus (e.g., asking the person a question), which leaves opportunity for error.
 - Body gestures: One of the best indicators to watch is the interviewee's demeanor during a meeting. Do they appear happy you're there, or aggravated and on the defensive? If your line of questioning is accusatory (which should be avoided), you might be the cause of the reaction rather than their intent to deceive. These are signs of possible deception:
 - The interviewee not aligning with you, such as leaning away from you, stretched legs toward you, or abnormal distance given the circumstances
 - Blocking moves such as crossed arms and legs
 - Placing obstacles between you, such as a glass of water or a book
 - Conducting diversionary activities, such as playing with an object, clearing off their desk, or fixing their hair while talking
 - A complete lack of normal body movement during the interview, such as no typical gestures to show emphasis
 - Manipulation: Some people are masters of deception and may use techniques to influence you to overlook their deception:
 - Touching you briefly on the shoulder or arm, which is used by restaurant wait staff seeking a bigger tip
 - Mimicking your body movements, such as crossing arms after you do so
 - Mouth:
 - A dry mouth can be sign of deception, which can manifest itself in the form of a person licking lips, clearing throat, making hard swallows, or a cracking voice

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- If a smile is held too long, appears tight, doesn't include eyebrow movement, or the expression looks forced, it could be a sign of deception
- When lips appear tight in response to a question, there could be deception, especially if this hasn't been characteristic of the person during other parts of the interview
- Face:
 - When interviewees cover their mouth, touch their nose, or look down, it may indicate lack of belief in what the speaker is saying (at least for Americans), but it could also be a stress-reliever, which is simply a sign that the person is uncomfortable and isn't necessarily linked to deception
 - If the head is nodding up and down (a typical gesture for yes) and the person is saying no to the question (or vice versa), there could be deception
- Eyes:
 - When the eye pupils are dilated or there is inappropriate closing of the eyes or squinting, it can indicate deception. If you know you're about to ask a controversial question that could lead to deception, stay focused on the eyes to see if pupils dilate or the interviewee squints
 - If the person won't look you in the eyes, you should be on guard for possible deception, but some experts say it only indicates the speaker is having a problem (e.g., trying to form a thought more clearly without distraction)
 - Increased eye blinking can also be a sign that a person is troubled, but once again, not necessarily because of deception
 - Prolonged eye contact may be a trick to convince you of the speaker's sincerity or an attempt to dominate you

Some of the best practices found in the "Non-verbal Communications" section above come from:

- Gordon, Nathan J. and William L. Fleisher, Effective Interviewing and Interrogation Techniques, Amsterdam: Elsevier Academic, Press, 2006
- Navarro, Joe, and Marvin Karlins, What Every Body Is Saying: An Ex-FBI, Agent's Guide to Speed-Reading People, New York: HarperCollins, 2008

Step 5. <u>R</u>espond with Follow-up

- Immediately after the interview:
 - If you find value in the exchange, immediately add the interviewee's details to your contact list because if you don't do it then, it won't get done and you won't have their details when you need insights required for a big stock call
 - Create follow-up reminders for important activities such as such as telling firm colleagues or valuable industry contacts about insights you learned that may impact their companies
- Taking from our PRACTICE[™] framework for influencing, a great way to cultivate a long-term information source is to ensure you have satisfied the "what's in it for them" (WIIFT) after the interview. This may include sending them information they've requested, which will in turn build trust and give them a sense they should reciprocate by sending you information in the future. If they've asked for something during the interview, follow up immediately (don't wait to do this or it's not likely to get done). Within the PRACTICE[™] framework detailed reference card, review the table titled "What's in It for Them (WIIFT) Examples for Information Sources"

Generating Sustainable Sources of Insight with ASPIRE[™] Framework

In short, treat them like you would a client, because that's what they are...they're not paying you a fee like a typical client but they're giving you valuable insights. Routinely, proactively reach out to your most insightful contacts to see how you can fulfill their needs, similar to the way someone tends to a garden to yield a harvest. If the relationship simply becomes you calling for information, it will likely die on the vine

Step 6. Evaluate Benefits from Interviewee

When you make personal connections with information sources, determine quickly how their expertise can help forecast the assumptions that drive the critical factors for your universe of stocks. If it becomes clear they don't have this expertise, see if they have connections to those who can help. If not, be polite but don't spend further time cultivating the relationship as it will consume valuable time you could be spending with better information sources.

Quick Reference Card (QRC) Information Sources Pros and Cons

Individual Conversation

Source for Information	Pros	Cons	Confirm or Refute Historical Factors*	Assess New or Emerging Critical Factors	Assess Market Psych.
Buy-side analyst or portfolio manager (as source for buy- side or sell-side)	Best place to gauge investor expectations	May not be representative of the larger investor base			
Company's competitor (publicly-traded or privately- held)	Knows the sector and the competitive dynamics	May not be familiar enough with other company's factors to speak with authority. May try to bash the competition	\mathbf{r}_{i}	•	
Company's executives (including investor relations)	Usually forthcoming about opportunistic factors	Usually downplay or ignore potentially negative factors			
Conference speaker or author of book/academic paper	Usually willing to speak with others	May not fully understand implications for company or stock	÷.,	•	
Consultant, expert, or company retiree	Very close to the issue	Can be difficult to find	•	•	
Customer of, or supplier to, the company (publicly-traded or privately-held)	First-hand knowledge of the company's value proposition	Contact may not be representative of the larger customer base			
Government officials or staffers	Often the closest to regulatory or legislative changes	Often won't speak on the topic. If so, may not provide accurate forecast			
Industry association or forecasting service representative	Understands complex industry issues	May be biased in the sector's favor and may not fully understand implications for company or stock			
Industry journalist/blogger	May understand complex issues and provide direction to other sources of information	May not fully understand implications for company or stock	\mathbf{r}_{i}	•	
Sell-side analyst (for the buy- side) considered among top 3 in sector	May be the only place to gauge consensus thinking and to obtain proprietary research	Subjectivity or low-quality work can result in incorrect output	÷.,	•	•
Sell-side salesperson (with deep knowledge of specific stock)	Close to many buy-side investors	Generalist salespeople may not have full understanding of any single stock			
Trader of stock (with deep knowledge of specific stock)	Usually familiar with short-term psychology of stock	May not fully understand company or long-term issues			

Legend: \blacksquare = best first source, \square = good source

* Source must have been active with the stock/company at time of historical anomaly

Continue to the next page

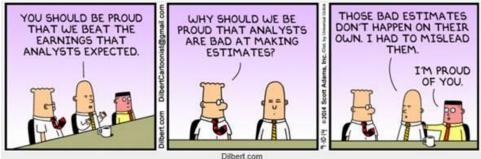
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Quick Reference Card (QRC) Information Sources Pros and Cons

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Source for Information	Pros	Cons
Company-released information	Free. May be only source for certain information	Tends to be biased positively
Data service	Often the best at providing granular product or sector data	Not always provided in a timely manner. Can be expensive. Not proprietary
Economic data	Often reliable and relatively objective	Not company-specific. Past trends don't forecast the future
Financial media	Low cost and somewhat objective	May not fully understand implications for company or stock
Forecasting service	Often the best at forecasting trends for the factor	Not always provided in a timely manner. Can be expensive. Not proprietary
Industry trade journal, website, or blog	Low cost. Somewhat objective. Understands complex issues	May be biased in the sector's favor. May not fully understand implications for company or stock
Proprietary survey	Output is proprietary	Expensive and can take a significant amount of time
Sell-side report (for buy-side analysts)	Easy to access and search (if client)	May be biased by analyst's rating
Third-party research firm	The study answers your specific questions and you own the data	Expensive and can take a significant amount of time

A View from Dilbert...



Quick Reference Card (QRC)

Best Practices for Time Management

Play Offense, Not Defense

- Maximize offensively-focused activities where proprietary insights are most likely to be found. Examples include:
 - Making outgoing phone calls to information sources who offer insights that improve forecast of critical factors
 - Participating in private or small group meetings with industry expert(s) or company management
 - Attending an industry conference where few financial analysts are in attendance
- Stop or minimize defensively-focused activities such as those that may provide background but not alpha-generating insights. Examples include:

Quarterly earnings conference calls (reading the transcript can be done in half the time as listening to the call)

Reading regulatory filings (use services that highlight the information that has changed from the prior filing)

Sell-side-sponsored investor conferences (only attend if one-on-ones are available)

Site tour, especially when no senior management are present (if the tour doesn't cover a potential critical factor, spend time elsewhere)

Apply the 80/20 rule

- As a general rule, 80% of alpha-generating insights come from 20% (or less), of the available information flow – focus on the sources that traditionally yield insights
- Proactively turn off as much of the 80% unproductive information flow in order to reduce the noise

Take Steps to Work More Efficiently

- Utilize a note-taking system that can be quickly searched and cross referenced (see Chapter 5 of Best Practices for Equity Research Analysts)
- Increase your reading speed
- Learn Excel short-cuts if utilizing spreadsheets extensively
- Implement the prioritization skills taught in time management classes. (GTD and FranklinCovey are two of the better ones offered)

Utilize the AnalystSolutions' best practices found in these QRCs, covering specific areas of time management:

- Assessing When to Automate, Delegate, or Outsource
- Best Practices for Delegating

Quick Reference Card (QRC)

Best Practices for Time Management

- Best Practices for E-mail Productivity
- Best Practices for Preventing and Minimizing Disruptions
- Best Practices for Scheduling
- Best Practices for Setting Time Limits

Buy-side Specific:

- Do not give your email address to anyone who can overburden you with unhelpful information
- Unsubscribe from information services and analysts' distribution lists if they don't add value.
- Routinely remind sell-side salespeople of needs and how they can add value.
- Avoid attempting to read every sell-side report on every company, and instead find the two to three analysts in each sector who are the best fit (Bloomberg, StarMine, and FactSet have features to identify sell-side analysts who are the best at forecasting earnings and stock picking). Only watch for ratings changes or other big think pieces from the rest of the sell-side.
- Utilize sell-side or third-party financial models when it doesn't compromise accuracy or insights, such as (see Exhibit 17.2 of *Best Practices for Equity Research Analysts* for details):
 - Creating the model architecture in terms of what's important
 - Building historical data
 - Updating quarterly data

Sell-side Specific:

- Return all non-time-sensitive calls at one block of time during the day (e.g., from 2 to 4 p.m.), delegating some of the less important calls to a junior member of the team.
- Learn how to say "no" diplomatically (e.g., telling a salesperson you're not doing lunch with a small client).

Elements adopted from:

- Lisa J. Downs, The Time Management Process and Scheduling Time and Tasks, American Society for Training and Development (ASTD); B. Eugene Griessman, Time Tactics of Very Successful People, McGraw-Hill, New York, 1994.
- Specific to Research Analysts: James J. Valentine, CFA, Best Practices for Equity Research Analysts, McGraw-Hill, New York, 2011