



Market Analysis Whitepaper

**A Triangulated Approach
to Analyzing TAM**

INTRODUCTION

In the fast-paced world of private equity (PE), making well-informed investment decisions is critical to delivering returns to limited partners (LPs) and maintaining a competitive edge.

However, economic uncertainty, shifting market dynamics, and increased competition have become the norm, which means private equity firms face unprecedented pressure to conduct thorough and precise evaluations of their potential investments. Investors see a mounting risk of executing deals without an informed understanding of tariff exposure, supply chain dynamics, and key market drivers.

While ongoing economic volatility appears likely to remain the defining feature of the global economy in the short term, this is not to suggest that all volatility should be considered negative. Unexpected *demand* for a target's goods or services is a form of volatility all its own, and in many cases, presents distinct (and often unforeseen) challenges, despite what might manifest as attractive upside.



All of this can present as addled confusion, and in some cases can be crippling to investors analyzing and exploring investment lanes in a target space. This confusion often results in a lack of certainty about a target's viability, potentially slowing or negatively impacting the go/no-go calculus.

Because of this volatility over the past several years, as market conditions have changed across investment lanes, Martec has fielded an inordinate number of requests to mitigate uncertainty and de-risk deals.



Confidence and Clarity Through Triangulation

Investors who understand the role and appropriate application of research and strategic consulting in the deal process are well positioned to maximize ROI and minimize otherwise undiscovered risks. Martec's unique Triangulation approach to quantifying and qualifying Total Available Market (TAM) analyses has repeatedly provided an antidote that brings clarity and confidence to otherwise unclear or unknown investment dynamics.

Sometimes conducted as one module among a broader Commercial Due Diligence project, TAM Analysis is the first layer to understanding overall market opportunity and includes Serviceable Available Market (SAM), and Serviceable Obtainable Market (SOM), with a target's actual market share at the core of understanding potential upside.



One of the most common metaphors used to describe the relevance of market risk to commercial due diligence comes from the old adage “**a rising tide lifts all boats**”, suggesting that, regardless of the attractiveness, size, growth, sophistication, customers, etc., of the company, the overall market expansion or contraction can easily make the difference when it comes to achieving meaningful returns.



That's why understanding market dynamics is critical to mitigating deal risk, forecasting growth accurately, and deploying an appropriate growth strategy. Evaluating and upgrading the capabilities of the ship is an important exercise, as is understanding and adapting to the waves.

Market analysis continues to be the most popular element of commercial due diligence requested by private equity clients. Inside we explore differentiated tactics to enhance the accuracy, transparency, and utility of your next market sizing and forecasting effort.



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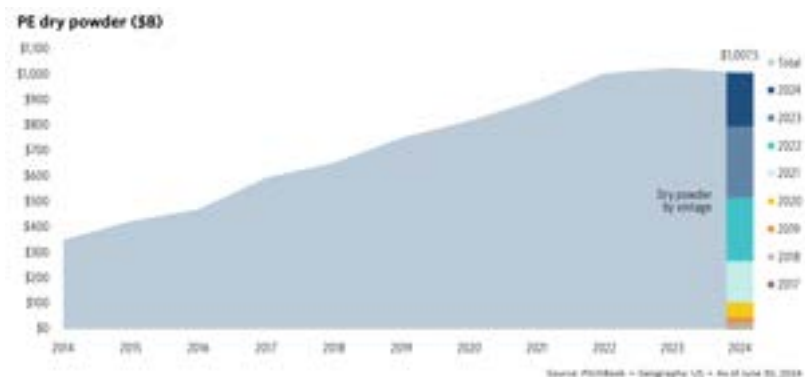
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Chapter 1: TAM Overview

The economic landscape today is vastly different from that of just a few years ago. Market volatility, higher interest rates, and a backlog of capital – the proverbial “dry powder” – have created something of a perfect storm for heightened competition and risk. Investors are increasingly cautious, as exit opportunities have slowed and valuations have become more unpredictable. In such an environment, commercial due diligence serves as an essential tool for private equity firms to de-risk deals and identify the most promising opportunities.



Total dry powder in the United States continues to climb, recently surpassing the \$1 trillion mark. While investors are in the business of deploying this capital, the compound effects of supply chain and market uncertainty - combined with unattractive valuations (selling price) - have driven a large number of investors to increase hold times, and to proceed with less speed and more caution when it comes to new platform investments.

Limited Partners (LPs) are increasing pressure on PE firms with extended hold times to sell.

In the interest of their investors (accredited, institutional, retail, and otherwise), LPs have a responsibility to seek attractive and timely returns. LPs apply this pressure in a variety of ways from direct calls to accelerate the return of capital, to writing smaller checks, to requests for greater transparency from General Partners (GPs). On the other side of the coin, PE GPs need to achieve reasonable returns to sustain fundraising. Overall fundraising has decreased in recent years.

In this environment with extended hold times, GPs are challenged to produce a track record that will attract and maintain LPs amid increased competitive tension with other GPs.



Several key factors have made TAM Analysis more critical now than ever:



1. Volatility and Economic Uncertainty

Post-pandemic recovery has been uneven, and many industries are experiencing unpredictable shifts in demand and performance. Some sectors that thrived during the pandemic are now stabilizing, while others are still struggling to recover. For private equity firms, it's vital to understand whether a company's performance is a reflection of temporary conditions or long-term, systemic issues with staying power. Without this understanding, firms run the risk of making investments based on outdated assumptions, which can result in poor performance post-acquisition.



2. Mismatched Valuations

There is currently a significant mismatch between the sellers' asking prices and the willingness of buyers to meet those prices. Sellers, having benefited from the boom following the COVID-19 era, are often reluctant to adjust their expectations downward, even as market conditions soften. Commercial due diligence (CDD) allows buyers to better assess whether a company's asking price is justified, helping to avoid overpaying for an asset that may not deliver the expected returns.



3. Increased Competition for Attractive Assets

With over \$1T in undeployed capital across the private equity industry, competition for high-quality assets is fierce. In many cases, firms are bidding against each other for a limited number of strong targets, driving up prices. Thorough and strategic commercial due diligence provides private equity firms with the insights needed to make informed bids, helping to ensure that they are not overpaying or entering into a bidding war for an asset that doesn't warrant such competition. Dry powder (capital waiting to be invested) is at an all time high, and it continues to pile up!



4. Weaker Quality of Available Companies

Many high-quality businesses are delaying a sale due to currently lower valuation multiples, meaning that some of the companies currently on the market may not be the best performers. This creates an additional layer of risk, as investors must be more diligent than ever in uncovering hidden weaknesses in target companies. We are seeing cases in which sellers try to proverbially “put lipstick on the pig” to make their businesses look more attractive than they truly are. Comprehensive CDD can help lift the veil to uncover such risks before a deal is finalized.

Key Strategic Questions and Decisions

Private equity firms that engage in a TAM study gain access to a wealth of specialized knowledge that goes far beyond financial analysis. Commercial due diligence in this area delves deep into the business model, market environment, competitive positioning, customer relationships and growth opportunities.

1. De-Risking the Deal

One of the primary objectives of TAM analysis is to thoroughly assess and mitigate the risks associated with an acquisition. This includes understanding economic trends, market dynamics and target vulnerabilities.

2. Go-to-Market Intelligence

In addition to identifying risk, TAM Analysis provides valuable insights into how the target company can succeed in an existing or new marketplace. This includes understanding customer needs, assessing competitors' strengths and weaknesses, and evaluating market trends. With this intelligence, private equity firms can develop more effective post-acquisition strategies, ensuring that the company is well positioned for growth.

3. Maximizing Value Creation

TAM Analysis isn't just about identifying risks – it's also about finding opportunities. Thorough CDD can reveal strategic options for increasing a portfolio company's value, such as identifying new markets, purchase drivers, technologies, etc.

Diligence Priorities: Value Creation vs. Risk Mitigation		
Value Creation	Type of Diligence	Risk Mitigation
63%	Technology	36%
57%	Operations	36%
56%	Commercial	41%
47%	ESG / S&D	49%
51%	HR	45%

Source: West Monroe survey data as of Q4 2021; n=100 Private Equity Leaders

4. Cost Savings and Efficiency

While some private equity firms may hesitate to invest in expert-led TAM Analysis due to perceived costs, the reality is that such work can save (or make) significant money in the long run. Additionally, conducting thorough due diligence upfront can prevent costly mistakes and reduce the need for expensive course corrections post-acquisition.

5. Supporting Post-Acquisition Strategy

TAM Analysis – particularly elements of the “Bottom-Up Insights” (to be explored in detail later in this whitepaper) – can play a key role in shaping a company’s post-acquisition strategy. By providing insights into market opportunities, Bottom-Up Analysis equips private equity firms with the knowledge they need to hit the ground running. In fact, this leg of the triangulation stool can help to effectively set the priorities for the first 100 days after acquisition, ensuring the company is well prepared to execute its growth plan, both in the short term and over the broader long-term strategic time horizon.

Because of the increased importance and increasing complexity of the aforementioned factors, Martec advocates for a full **Triangulation** approach when conducting a pre-deal TAM analysis (the full methodology is explained in the following chapter): **Top-Down Insights, Bottom-Up Insights, and Published Reports.**





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Chapter 2: The Value of Triangulation in TAM Studies

You may ask yourself, “Why do I need to consider a triangulated approach for a TAM project?” No investigation is complete without carefully reviewing all of the relevant evidence. At Martec, we believe each leg of the triangulation stool serves a purpose, but may not answer the entire market analysis question on its own:

- ▲ Published data often is useful as a starting point, but has accuracy and growth limitations, and can become outdated over time. Often management teams have also collected their own first-party data that can offer a helpful piece to the overall puzzle.
- ▲ Top-Down Insights focus on “what was sold” into the target market, but typically don’t include robust statistical insights such as purchase incidence, purchase frequency, preferred channel, or other purchaser-centric metrics.
- ▲ Bottom-Up Insights (if there is time to explore them) reveal “what was purchased” by a target’s market. Such inputs are sometimes studied post-deal, when there is more time and context through which to analyze them and apply them to a target’s GTM strategy.

As competition intensifies and risks increase across investment sectors, the insights gained from a comprehensive TAM Analysis can mean the difference between a successful investment and a costly mistake. By investing in these insights, PE firms can ensure they have a complete understanding of the target’s market, competitive position, and growth potential, positioning themselves for success in every deal.

Published Information

The first leg of Martec's triangulation methodology includes a variety of published or readily available information sources, including multi-client reports, internal sales data, and other existing data sources (warranty registrations, previous survey data, import data, FOIA details, etc.).

Most TAM Analyses begin with an exhaustive review of published articles and reports to provide baseline intelligence on the target market.

However, published reports can sometimes be highly inaccurate, and the practice of applying an assumed growth rate to research completed several years prior can complicate the process and often distort the results. Due to recent and persistent volatility, many markets have changed significantly in a very short time and continue to do so.

That said, these information sources can still provide a starting point for updating and triangulating market size information.



Top-Down Analysis

The second leg of Martec's triangulation methodology includes an in-depth qualitative assessment of "what was sold." Insights are gathered from a variety of subject matter experts, value chain participants, and other industry insiders. These insights provide a high-level understanding of market size, share, dynamics and trends. In our rapidly evolving business environment, expert respondents often have their "fingers on the pulse" of current market conditions and can provide valuable insights into industry drivers, competitor activities, M&A activity, and overall market conditions.

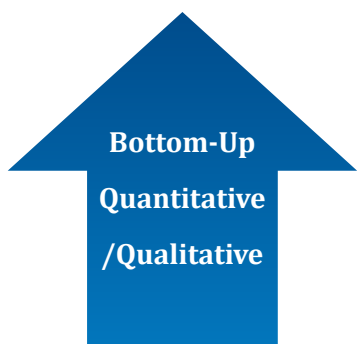


- **Market Size**
- **Competitive Share**
- **Projected Growth**
- **Growth Drivers and Barriers**
- **Competitor Activities**
- **M&A Activities**

Top-Down Analysis relies on "The 80-20 Rule." Many (but not all) markets are characterized by 20% of businesses controlling 80% of the market. We strive to bring those market leaders into the conversation whenever sizing a market.

Bottom-Up Insights

Finally, the third leg of Martec's triangulation methodology includes a survey or, more often, direct conversations with decision makers, purchasers and users of a product or service to determine "what was purchased".



- **Purchase Incidence**
- **Dollars Spent**
- **Brands Purchased**
- **Channels Used**

Data gathered from the survey or in-depth interviews is focused on understanding purchase incidence, spending (either by product or across a set time period for more frequently purchased items), brands purchased, channels used and more. Secondary reports are typically unreliable in providing accurate customer purchase intelligence and often require further validation. Instead, we prefer to conduct in-depth interviews with key customers and potential customers, who can provide more accurate, timely and precise knowledge of their purchase behaviors. These insights provide a baseline by which we "build up" a market size based on population, market concentration, purchase incidence and spending.

Survey insights can help answer four key questions about the end-use customer:



What? Did you purchase product X? How many did you purchase?



When? When did you last purchase product X? How often do you purchase product X?



Where? From where did you purchase product X? What percentage of product X purchases are from distributors, retailers, online, etc.?



Who? What brand of product X did you purchase? What percentage of your product X purchases were brand A, brand B, etc.?

These what, when, where, and who questions can be adapted for large, infrequently purchased capital equipment and small, more frequently purchased products/consumables.

It is only through the combination of all three information sources that one can triangulate a true, data-informed market size. When taken together and examined in totality, this intelligence triangle allows us to zero in on a much tighter, far more precise, and further validated range of a given market size.

So What? Now What?

Knowing a target's market viability is challenging under any circumstances. The uncertainty created by the persistent volatility that has transcended geography and investment sector has only served to further complicate go/no-go decision making.

Despite ongoing disruptions and challenges, market volatility often can provide opportunities for investors looking to validate a portfolio company's (portco) viability, make strategic acquisitions, or expand portcos into new markets or categories.

Whether in crisis mode or during stable economic conditions, a triangulated market assessment can provide the insights needed to make key strategic decisions and provide valuable intelligence on potential investments.



Investors should consider market analysis when:

- 1. Doing “White Space” Work:** When an investor is looking for opportunities to vet and consider or is assessing the overall attractiveness of a market. This is often desirable in the investment thesis development stage and in the origination role for a fund.
- 2. With Signed Letter of Intent (LOI):** When the investor needs to quickly but reliably analyze the size of a specific target’s market as a component of commercial due diligence.
- 3. Post-Deal:** Once the portfolio company has been acquired, the investor now owns the company and needs to position it for growth and value creation.
- 4. To Assess a Growth Opportunity:** When an investor identifies a strategic growth opportunity to add a new solution or to approach a new sector and audience (whether by organic growth and capital deployment or inorganic addition through add-on identification), there is a need to accurately validate the available volume and value of this additional sector (TAM/SAM/SOM). Quantifying the opportunity and weighing the effort will ensure that the ‘view is worth the climb’ while providing valuable information about the feasibility of the strategic growth opportunity.

No matter where you are in the deal-consideration timeline, The Martec Group has a team of experts ready to answer your questions and steer you toward a solution to meet your needs.



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Chapter 3: TAM Analysis Using Top-Down Insights

How to Validate and Confirm Market Size via In-depth Interviews

Keep in mind, when conducting market size analyses, we often are venturing into the great unknown, in some ways. It may seem counterintuitive, but most companies cannot tell you the size of their markets with any measure of certainty.

Given that, it is very challenging to know whether they are gaining or losing market share at any given point. While they know their own company's sales data, market growth could, in fact, be outpacing their revenue growth. What could look good in an internal spreadsheet may reveal vulnerabilities in the context of the broader market size.

What's more, market size and growth estimates are especially important to understand considering an acquisition.



Even if your target is satisfied that they have an acceptable understanding of their market size (even if it is imprecise), not fully validating the size of that market can be a recipe for disappointment...or even disaster!

While Martec espouses the full employment of its unique Market Size Analysis Triangulation methodology whenever appropriate (some markets/products may not easily lend themselves to a “what was purchased” customer survey), it could be argued that a robust, qualitative, Top-Down market analysis and TAM/SAM/SOM effort is the key to unlocking a breadth of market insights, including:

- ▲ **Market size**
- ▲ **Competitive share**
- ▲ **Go-to-market insights (channel share)**
- ▲ **Anticipated market growth**
- ▲ **Growth drivers and barriers (headwinds and tailwinds)**

Without Top-Down analytics as part of the market sizing equation, companies run the risk of placing faith in two sources of data (mass market secondary reports and customer surveys) that have proven at times to be unreliable and substandard pictures of reality.

Trust But Verify

A top-down approach to market analysis is the key to validating and corroborating what gets reported when conducting bottom-up research — similar to a reporter seeking secondary sources for every lead or comment they get from a single source. The more exhaustive a top-down analysis is, the more diligent the corroboration of other data sources will be.

Top-Down research is almost always qualitative in nature and typically involves in-depth interviews with high-level respondents who can sometimes be difficult to reach, if you don't have the processes and connections in place to gain access to the key players.



Success for a robust Top-Down analysis include a wide variety of factors:

Explore the complete value chain. Martec endeavors to study the entirety of the supply, distribution and retail chain. We learn the key players up and down that entire spectrum and focus on several key questions: Who controls the market? Who are the secondary players? What is each player's share of the market? Who is driving change/growth in the market? And many others.

Know what is publicly available. Public companies are required to submit filings that are accessible and can be scoured for valuable intel regarding sales and other important data points. While these filings may not reveal revenue for a specific market, geography or product, they often provide valuable clues to that intelligence.

Talk to the experts. Consultants to a given sector are also great sources of reliable intelligence. Martec contacts relevant trade associations, analysts and other industry experts that provide expertise the major players within a given market either cannot or will not.

Apply the 80/20 rule. Many markets adhere to the 80/20 rule, in which 20% of businesses control 80% of the market — with consolidation, this is more common today than ever before. It is important to bring the market leaders into the conversation and conduct in-depth qualitative interviews with industry experts at the largest players in the market.

Take nothing as gospel. There's an old saying in journalism, "If your mother tells you she loves you, verify it." The same might be said of the information gathered during market analysis studies. Without a fully triangulated approach, false claims and erroneous assumptions could provide faulty intelligence, jeopardizing the decisions your team makes when evaluating that data.

What Can We Learn from a Top-Down Analysis?

While triangulating or validating the size of a particular market is the primary goal of any robust top-down market analysis, the insights garnered often include a much broader set of objectives:



Competitive share – Your target may know how they are doing, and how their revenue has changed over the past five years; but do they know how their competitors are doing? What is their revenue? Has it grown over past several years? What has driven that growth?



Market Segmentation – Which industry verticals or segments dictate the market you are targeting? Have those segments shifted over the years? Are any new verticals developing with unique product or service needs?



Go-to-market insights (channel share) – Is your target selling its products through the preferred channels? Are new channels emerging that should be explored?



Market growth – Do industry experts expect the market to grow, contract, or stay flat?



Growth drivers and barriers – What headwinds and tailwinds are out there, and what does it mean relative to the future of the market size?

Putting the Pieces Together to Reveal the Puzzle

We often compare market size analysis to doing a jigsaw puzzle without the box top. You know there's a picture there, but until you start putting all of the pieces together, you don't really know what you're looking at. As the pieces come into place, however, the image begins to reveal itself. And even if you're missing a single piece here or there, you can extrapolate enough data from the pieces you do have so as to fill in the blanks.

In market analysis studies, the more pieces you can find, the clearer — and more reliable — the picture becomes. It's no longer a puzzle but, in fact, a reliable picture of the market.

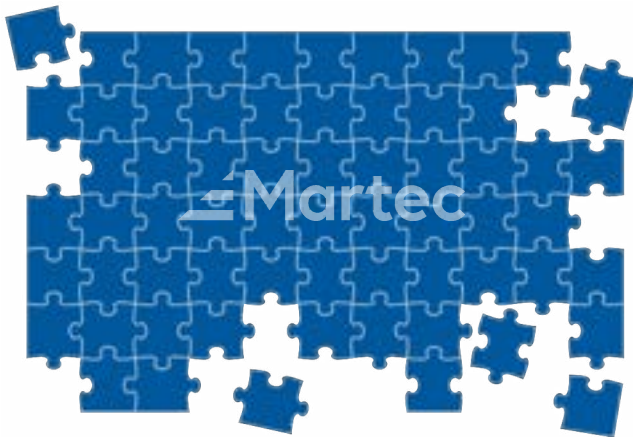




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Chapter 4: Market Sizing Using Bottom-Up Insights

The Quantitative Counterpart to Top-Down's Qualitative Insights

As noted previously, while published reports can be a good starting point when conducting market analysis, they can sometimes be inaccurate and too reliant on presumptive and extrapolated inferences. Top-Down Insights, as examined in detail, provide an in-depth, up-to-the-minute qualitative view of “what was sold” by key market players, yielding actionable (albeit high-level) insights into market size, historic and anticipated market growth, and competitive share.

Top-Down Insights

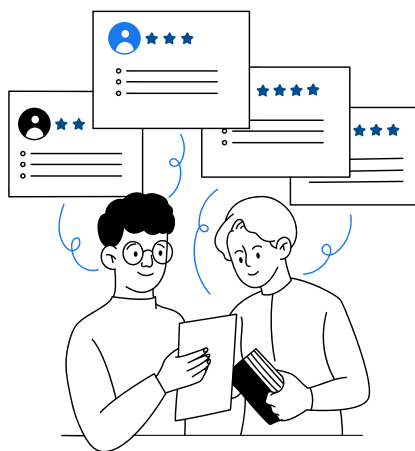
And value chain participants provide a framework of market conditions, drivers/barriers, relative size/share, etc.

Published Information
Published or available information sources, including multi-client reports, internal sales data, or other publicly existing data sources, etc.



Bottom-Up Insights

Well-designed discussions with a group of decision makers/purchasers across the target industry/solution provide a backdrop of insights regarding purchases/spending, brands, etc.



The third leg of the stool — Bottom-Up Insights — uses a quantitative survey-based methodology to get a clear picture of “what was purchased.” Pairing quantitative purchase insights with qualitative Top-Down Insights provides a holistic understanding of the market from both a seller and purchaser perspective.

Bottom-Up purchaser insights typically are captured through a survey of industry participants, including decision makers, purchasers, and end users of a product or service. The data gathered provide a baseline understanding of purchase frequency, purchase incidence, spending, brands purchased and preferred, channels used, and more.

Bottom-Up survey insights provide answers to four key questions about the end-use customer:



What? Did you purchase product X? How many did you purchase? This provides an understanding of purchase incidence, which is a key multiplier when building market size from the bottom up.



When? When did you last purchase product X? How often do you purchase product X? This also can be a screening question to ensure only recent purchasers are included in the survey.



Where? From where did you purchase product X? What percentage of product X purchases are from distributors, retailers, online, etc.? Such intelligence provides an understanding of channel share and channel preferences.



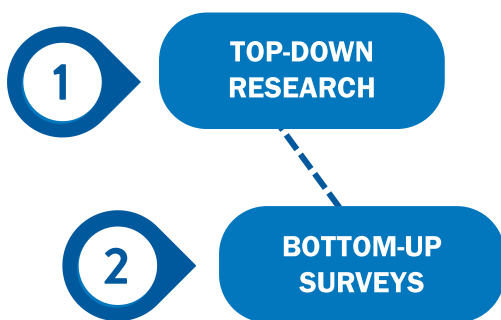
Who? What brand of product X did you purchase? What percentage of your product X purchases were brand A, brand B, etc.?

These insights provide a baseline understanding of market/brand share and can be the building blocks to develop buyer personas grounded in real-world data and purchasing activities.

How and Where Bottom-Up Insights Fit In

Typically — but not always — Bottom-Up surveys are completed after Top-Down research has been conducted (although these phases can be completed concurrently based on client timing needs). In many cases, as we mentioned earlier, in the PE space, Bottom-Up insights often are studied after the deal has been consummated. This provides additional time and context through which to analyze the insights and appropriately apply them to the target's GTM strategy.

The meaningful and deep conversations with Top-Down industry experts and finger-on-the-pulse stakeholders help to strengthen Bottom-Up survey design and allow for greater clarity of the market being analyzed.



The real value of Bottom-Up Insights is the granular customer insights these surveys provide.

In addition to the core what, when, where, and who questions, these surveys can provide valuable insights into both the target's and their competitors' customers:

- ▲ What drives purchase and/or brand decisions?
- ▲ Which industries/segments prefer which brand? And, more importantly, why?
- ▲ What do high-value customers "look like?" This may include core demographics/firmographics, market segment, geographic location, etc.



Further, Bottom-Up Insights (when appropriately paired with Top-Down Insights) can be used to create a statistical model for the broader market, allowing our clients to identify/target specific geographic areas based on performance, anticipated market growth, etc.

Selecting Representative Market Samples: Rather than surveying an entire market, we can target specific Metropolitan Statistical Areas (MSAs) based on key factors such as size, economic growth, and market diversity. These regions may represent small, medium, and large markets with varying growth rates.



Building a Statistical Model: The collected data from surveyed MSAs can be extrapolated using statistical modeling techniques to provide a granular understanding of a larger group of MSAs. This technique utilizes all aspects of Martec's market size triangulation approach.

Top-Down Insights provide a holistic view of a particular market across a defined geographic area (i.e., North America, U.S. only, etc.)

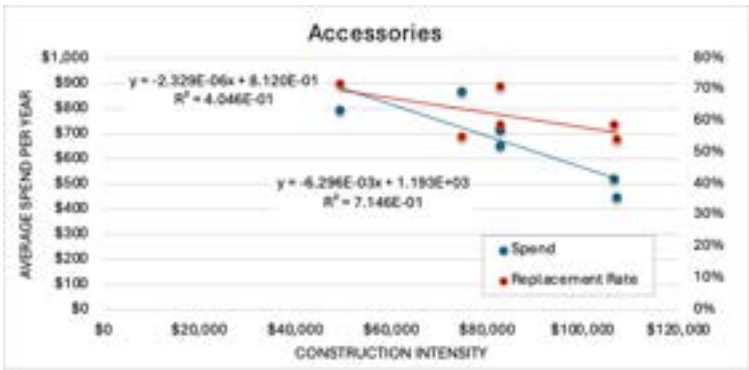
Targeted Bottom-Up Insights within core/representative MSAs provide detailed purchase insights that are used to model the market for a large number of MSAs

Secondary data and published reports (Census Bureau data, MSA-level economic data, and many others) provide the means to build a statistical model yielding granular insights across a large number of non-surveyed MSAs

Martec has developed our proprietary models for manufacturing clients to identify underperforming geographic areas; high-growth opportunities; and potential locations to add sales representatives.

The key benefit of Martec’s statistical modeling technique is its ability to estimate market size across numerous and diverse geographies (MSAs) without needing to conduct thousands of individual surveys. For example, to provide statistically significant insights across the Top-50 MSAs would require at least 15,000 online surveys (50 MSAs X 300 completes per MSA).

Instead, we can survey a much more manageable and economical 1,500 to 2,000 respondents within representative MSAs and extrapolate those insights via statistical modeling.



Bottom-Up as One Leg of a Stool

While Top-Down research will give you a fair representation of “the big picture,” as told by industry experts, Bottom-Up Insights provide the granular details that fill in the blanks with remarkable specificity and, therefore, actionability. Of course, Bottom-Up Insights have their shortcomings (which is why we keep emphasizing the importance of triangulation). Most significantly, they rely on the memory recall of fallible humans.

All of this is to say: Bottom-Up Insights play a critical role in market size analysis by providing direct, consumer-driven data. However, they should not act alone and are most beneficial when paired with a robust Top-Down analysis.





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Chapter 5: Market Sizing is Not a One-Time Event

Focus on the Big Picture, not a Snapshot in Time

Throughout this book, we've extolled the value of using both Top-Down and Bottom-Up analyses, in conjunction with other available information, as the ideal way to triangulate a given market. In a perfect world, market analyses include all three methodologies to ensure the "triangulation stool" has three solid legs and firm standing.

In a similar vein, we believe it is important to caution against doing such analysis in a vacuum, or as a one-time evaluation. In a nutshell, things can change...and they often can change quickly. This is especially true in times of volatility and market dynamism, like what we've experienced over the past five years. What is true today might not be true tomorrow. And what was true yesterday may not be the complete story of where we are today.



Accordingly, we believe the best practice is to approach market analysis studies holistically — both vertically and horizontally.

By vertically, we mean depth: the triangulation approach and application of both quantitative and qualitative methodologies described in depth throughout this whitepaper. This approach will help ensure the totality of relevant inputs is being considered, such that deep, authentic, meaningful and complete insights can be attained and analyzed.

Horizontal Analysis refers to considering the full timeline of relevant events that make what we learn about the current market size more relevant, clear, and actionable. It's not only a point in time (the present) that we need to understand, but rather the past, present, and future of a given market, so the intelligence can provide a competitive advantage for our clients, both today and in the future.

In other words, it's not just a matter of sizing the market, but rather understanding why and how our clients should respond, position and innovate to improve their market standing, future outcomes, and overall profitability.



Horizontal Analysis: Past, Present, and Future

The best place to start is at the very beginning. And the beginning almost always occurred in the past — not where we sit today. For a full-spectrum, horizontal Market Analysis, we study, analyze, and understand the three primary chapters in the market's history.

Historical Market Growth. We often begin by looking at trends and data from the past three to five years in the market being studied.

- ▲ Has the market expanded, contracted, or remained stagnant?
- ▲ What are the influencing factors that contributed to, or even caused, the change...or lack thereof?
- ▲ Did a major player enter or exit the market?
- ▲ Were there technological advancements or other innovations that impacted the market size?
- ▲ Was there an identifiable shift in market demand or consumer preference and behavior?
- ▲ And what, if any, relevance does historical events have on the present and future of the market?

Present Market Size. Of course we want to understand the current reality as well. But we want to make sure we fully understand the complete picture of the market as it exists today. The only way to do that is triangulation — the synthesis of published reports, Top-Down Analysis, and Bottom-Up insights. Once we feel confident about what the past says about our present state of affairs, we can begin to “predict” the future.

Projected Market Growth/Contraction. Having meaningful conversations with the sometimes difficult-to-reach industry players with a finger on the pulse of market dynamics, can provide a deep understanding of what the “insiders” are expecting, projecting, and possibly even “betting” on. We rely on these expert voices to reliably project and predict if significant changes or external factors are coming down the pike and what impact they may have on the current market.

- ▲ Perhaps there’s a game-changing market trend or significant innovation on the horizon. (There were few clamoring about the future of AI not too long before it emerged as a world-changer, for example).
- ▲ Perhaps what we learn will suggest that the market is poised to grow steadily (or even exponentially).
- ▲ Maybe the market is due to contract because it’s becoming oversaturated or obsolete.
- ▲ In some cases, cost considerations may cause customers to consider older, low-tech solutions that “get the job done” at a much lower cost.

A prime (and recent) example demonstrating the need for horizontal analysis is the automotive industry...specifically electric vehicles. While media reports were extremely bullish about the near-term future of the electric vehicle market, industry insiders recognized that access to the raw materials needed for battery manufacturing was problematic, and consumer adoption in the real world was far underperforming versus often pie-in-the-sky projections.

These prognosticators and subject matter experts are out there; you just need to know where to find them and how to access their inside intelligence. Without them, the market analysis is missing an important piece of the puzzle.



Headwinds, Tailwinds, and How to Tack for Smooth Sailing Ahead

To truly understand the external forces and future events with the potential to either bolster or hinder market growth and your profitability, it's best to examine them in totality. And not just once. Market Analysis is most effective when it's executed in a time-series fashion, keeping the proverbial finger on the market pulse, both today and in the future. Conceding that the only constant is change, it would be incomplete at best, and dangerous at worst, to assume that a single study capturing a snapshot in time is enough to inform the decisions you will make in the future.

If you take the long view, on the other hand — looking both backward and forward — you can more confidently project future market realities, allowing you to better plan for today and the future. Whether facing headwinds or being bolstered by tailwinds, strategic decisions should be grounded in the most accurate read on reality, whether it's in product development, a merger and acquisition strategy, market diversification, or even marketing and advertising plans.



Who, What, Where, When, Why

They're all important to consider and understand, so you know how to optimize and strategize for whatever the future may hold. These meaningful questions often require a more holistic understanding of the market...including both vertical and horizontal market size insights.

Because, as they say, past performance is no guarantee of future results.





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TAM and Tires

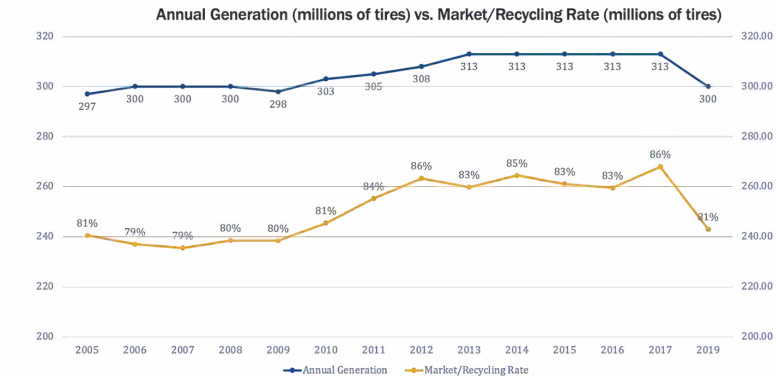
A practical example of how nuanced market intelligence can make or break a market size analysis comes from Martec's work with one of the largest tire recyclers in the U.S.

At the time of the engagement (2021), the company was being marketed for sale by its private equity sponsor, and the diligence was shaped by pandemic recovery. Vehicle miles traveled—a primary driver of tire wear—had dropped sharply in 2020. Understanding how quickly those miles (and thus replacement cycles) would return to pre-COVID levels was central to forecasting demand.



The **supply side** required careful segmentation. Passenger cars, light trucks, and heavy-duty on- and off-road trucks each produced tires with different lifespans, unit volumes, and rubber content. Martec triangulated multiple data streams: syndicated databases tracking vehicles in operation and miles driven, long-term (15-year) production and recycling statistics showing that roughly 85–90% of new annual tire production was offset by recycled volumes, and primary interviews with industry experts: recyclers, dealers, and collection operators.

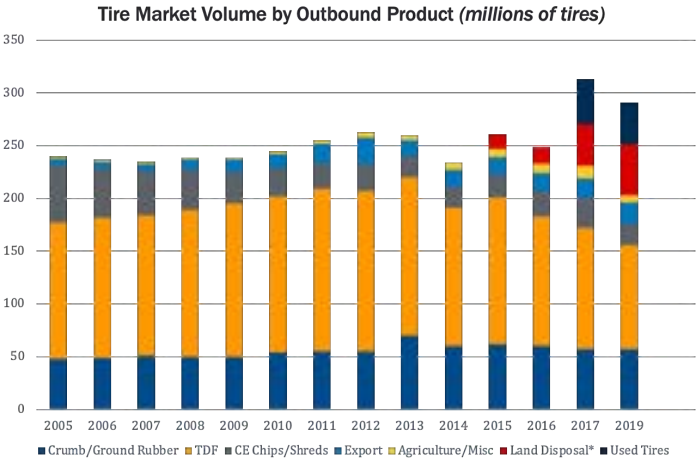
The research team confirmed that, while there were far more tires in use than newly produced each year, the recycling stream tracked closely with new production, meaning recycled supply was both constrained and relatively predictable in aggregate.



Source: Scrap Tire News, Recycling Research Institute, Washington DC, USA

The **demand side** proved equally complex. Recycled tires flowed into a spectrum of applications:

- ▲ **Resale as used tires**, where traders relied on historical quality from suppliers and often purchased sight unseen
- ▲ **Crumb rubber** for playgrounds and landscaping mulch, often mandated in school projects for safety reasons
- ▲ **Agricultural uses**, where shredded rubber supplemented soil stabilization
- ▲ **Exports**, where whole or partial tires were shipped abroad
- ▲ **Tire-derived fuel (TDF)**, burned in cement kilns, power plants, and paper mills under both long-term contracts and spot sales



Source: Scrap Tire News, Recycling Research Institute, Washington DC, USA

Each of these markets carried distinct demand cycles, pricing, and reputational considerations. For example, playground mulch benefited from positive sustainability perceptions, while TDF faced environmental scrutiny, despite its efficiency as a fuel substitute.

What made the analysis especially instructive was the role of **regionality**. Recycling economics are highly sensitive to logistics: sourcing used tires and delivering recycled output both become cost-prohibitive beyond a defined radius.

Martec's analysis showed that the company's Serviceable Available Market (SAM) was not national in scope but constrained by geography. In practice, the recycler could realistically access about half of the total U.S. TAM, given its facility footprint and contract network.

The outcome gave the private equity sponsor a reliable, data-driven basis for its acquisition decision. By modeling both supply- and demand-side dynamics, calibrating TAM against regional SAM boundaries, and validating assumptions through triangulated data, Martec demonstrated that the company was well-positioned to capture meaningful growth.



Example Cost Modeling

Example Cost Modeling (Annual)	Use
Labor	\$\$\$
Perishable Items	\$
Electric Power	\$\$\$
Depreciation	\$\$\$
Wire Free Rubber Nuggets (\$/ton Revenue)	\$\$\$\$\$
Total Annual Cost	\$\$\$\$
Pre-Tax Income	\$\$\$\$\$\$
Operating Cost Per Ton	\$

This case underscores a core theme of market intelligence in market size and TAM analysis: true market sizing is not about inflating categories or straight-lining growth, but about carefully balancing inputs, outputs, and real-world constraints to provide data-informed confidence in investment theses.



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Market sizing is challenging under any circumstances. The uncertainty created by the persistent volatility that has transcended geography and industry sector has served to further complicate these endeavors.

Despite ongoing disruptions and challenges, market volatility can often provide opportunities for companies looking to increase their share, make strategic acquisitions, or expand into new markets or categories. Whether in crisis mode or during stable economic conditions, a fully triangulated market assessment can provide the insights needed to make key strategic decisions and provide valuable intelligence on current and emerging markets.

Understanding More About Your Markets

Do you need help understanding one or more of your targets' markets, or help optimizing your target or acquired company's market position? Let's have a conversation about what you need to know and how Martec can help answer your questions. Together we can understand both your portfolio's current markets and how that market will look in the next several years.



Want to Learn More?

Thank you for exploring this market analysis whitepaper. Our commercial due diligence experts are often asked for redacted work product or a summary of directly relevant to experience to a specific sector of interest. We are always ready to share helpful details and materials.



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