



Commercial Assessment and
Strategy Whitepaper

INSIGHTS GLOBAL
ENABLING INTELLIGENT DECISIONS

**How to successfully assess
your commercial position
and benchmark your tank
terminal against competitors**



INSIGHTS GLOBAL



TABLE OF CONTENTS

Introduction	3
The case of Mr. Taylor	3
Insights Global's Company Assessment Report ('Compass')	5
Strategy consultancy	9
Appendix: Insights Global Tank Terminal Market Models	12



INTRODUCTION

The liquid bulk market is incredibly dynamic. How do you make sure that you, as a terminal operator, keep up to date with all the developments, and don't miss new opportunities to grow your business?

In this whitepaper, we'll explore the fundamentals of the tank terminal industry, the benefits of market intelligence and continual commercial assessment of your business, and how strategy consultancy can help you prepare your terminal for the future.

Foresights through Insights

The market dynamics of the tank terminal are not only influenced by macro-economic trends like oil prices, taxes, trade costs, and interest costs. As a tank terminal operator, you understand (petro)chemical factors like trade flows, logistics, and storage rates also have a powerful influence on your business.

Furthermore, (future) legislation and regulation regarding emissions and environmental impact of the (petro)chemical industry can have a profound effect on the market. For instance, since the introduction of the IMO 2020 regulation, we already see significant shifts in the storage market for fuel oil and gasoil.

So how can you make sure your tank terminal is ready for tomorrow? It all starts with understanding where you are today. In this whitepaper, Insights Global will share essential aspects to consider when you want to benchmark your performance against your competitors, and how a company assessment can help you to create a solid strategy for the future.

THE CASE OF MR. TAYLOR

To illustrate the value of hiring expertise advisors, we will use the virtual case of Mr. Taylor, CEO at a medium-sized tank terminal in a large European port we'll call 'Taylor Tank Terminal' or 'TTT.'

TTT has been operating for over fifty years and is in good financial shape. However, a few years ago, a prominent tank terminal company has opened a new terminal in the same port. Even though the opening of the new terminal hasn't lead to lower occupancy rates for TTT, Mr. Taylor starts to feel the heat of the new competition. To gain a better understanding of TTT's current market position, he wants to benchmark the company's performance against his direct competitors.

Mr. Taylor has already been working at TTT for almost thirty years, so he has much experience in the tank terminal industry. Nonetheless, he is not quite sure where to begin with the commercial assessment of his terminal. Needless to say, Mr. Taylor has a good understanding of the operational

Insights Global strives for better functioning markets in energy and chemical markets by enabling intelligent decisions.

performance of his own terminal. He has heard the other terminals in the port are also doing quite well, and he sees that the berths of competing terminals in the same harbor are often quite busy. However, he doesn't have access to hard data to support this 'gut feeling.'

His experience and business instinct have always served Mr. Taylor well in the past, but he understands that nowadays, real data is king.

Many consultancy firms offer commercial assessments and benchmarking reports, but most (if not all) of these firms have limited experience in the supply chain of international petroleum and (petro)chemical industries. While these firms will have access to general macroeconomic figures and some publicly available data specific to the tank terminal industry, they lack understanding of the dynamics, drivers, and trade flows in this particular domain of the oil and chemical value chain.

So what should Mr. Taylor do to gain a better understanding of TTT's current position in the market?

For starters, Mr. Taylor should read the next section.



How to successfully assess your commercial position and benchmark your business against competitors

While it may sound like a truism, you can only prepare for tomorrow when you understand where you are standing today. That's why a commercial assessment will not only offer you a better understanding of your current business, but it will also help you prepare for the challenges and opportunities the future might bring.

A commercial assessment will study all the economic, commercial, and operational aspects of your terminal. Think of it as a periodic checkup at your doctor: We will check your company's vital signs and verify whether all of your 'organs' are functioning as they should.

This means:

- ▶ gaining a better understanding of how location, infrastructure, and connectivity impact the operation of your tank terminal.
- ▶ examining the competitive landscape through SWOT analyses and benchmark your terminal's performance against your competition.
- ▶ analyzing the future outlook of logistics, supply, demand, imbalances, trade flows, and storage rates.

Not only will this offer you an excellent understanding of your business, but it will also help to identify the pain points of your operation.

INSIGHTS GLOBAL'S COMPANY ASSESSMENT REPORT ('COMPASS')

With our Company Assessment report ('Compass'), we aim to provide you with an X-ray overview of the economic and operational performance of your tank terminal and the market it operates within. In our report, we analyze all the different aspects and variables that have an impact on your business. This makes our 'Compass' report an invaluable tool for navigating the tank terminal market.

For 'Compass' research projects, we use our Insights Global tank terminal reality market models, a highly effective practical approach and research methodology. The research methodology aims to provide factual and data-driven conclusions and projections in line with how terminal markets function in reality (not just theory).

During our research, we cover the following topics:

- ▶ Location, Connectivity, and Infrastructure
- ▶ Competitive Landscape
- ▶ Logistical Factors and Trade Flows
- ▶ Storage Rates

Our commercial assessment report also contains scenario analysis and sensitivity analysis that quantifies the impact of significant business risks concerning your assets. When applicable, commercial contracts with existing clients will also be analyzed.

Back to Mr. Taylor

Understanding the need for a comprehensive company assessment by an expert advisor, Mr. Taylor tasks Insights Global with creating a 'Compass' report for his TTT Tank Terminal.

The 'Compass' report will give Mr. Taylor a clear overview of the commercial outlook of his terminal assets. Studying a wide array of factors and variables, as described above, we extensively analyze the economic, operational, and commercial performance of the terminal.

Mr. Taylor also wants to know how he can differentiate his terminal from the other terminals in the port, so at this request, we will also benchmark the tank terminal's commercial position against its competitors.

Because of our unparalleled market intelligence, we have access to data on storage rates, production capacities of refineries and chemical plants, logistical performance, and product flow data.

Taking into account relevant market dynamics like inventory levels, arbitrage and trade flows, changes in product specifications, and variation in vessel sizes, this data allows us to compare (and thus benchmark) commercial performance of tank terminals around the world.

In our benchmarking report, we will answer five main questions:

- ▶ What are the current capabilities and services of the tank terminal?
- ▶ What is the local and global market outlook for chemicals and oil products?
- ▶ What are the main strengths, weaknesses, opportunities, and threats for the tank terminal?
- ▶ How does the performance of the terminal compare to that of its competitors?
- ▶ Which potential growth areas and revenues development do we identify?

To answer these questions, we'll carefully study several factors relating to Mr. Taylor's terminal.

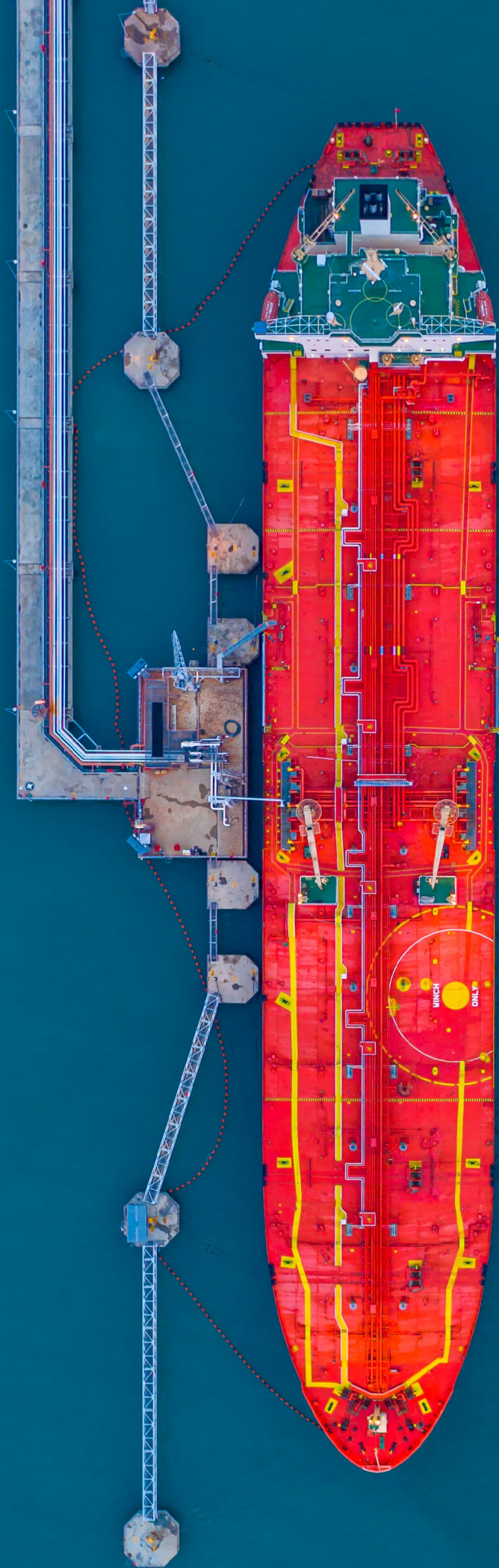
Location factors

Locational aspects are analyzed by studying regional markets with regards to local activity, infrastructure and main trade flows that are applicable and relevant for the specific product market segments, like the Amsterdam Gasoline market, the Antwerp Chemicals market, the Rotterdam Bunker fuel market or the Singapore middle distillates market and the Houston methanol market.

Competitive and commercial factors

We determine the competitive position and the commercial outlook by analyzing developments and outlook in relevant market fundamentals and market dynamics.

Specifically, we analyze the different relevant KPIs like tank occupancy and utilization rates, tank turns, and berth occupancy rate compared to competitors. Because of our database and broad access to external databases, we can benchmark these KPIs against other terminals quickly.



Market outlook

In our market research, we deploy our extensive market intelligence.

We have access to data on

- ▶ Storage rates
- ▶ Logistical performance
- ▶ Product flow data
- ▶ Production capacities refineries and chemical plants

Also, our own tanks terminal database contains valuable, comprehensive information you can't get anywhere else.

We also have developed forecasting models based on econometric research that enables scenario planning. Moreover, we confirm research results with our market contacts on the ground.

So what does this mean for Mr. Taylor's terminal?

After an extensive research process, we present Mr. Taylor with our conclusions. Our analysis shows that thanks to its excellent location, high demand, and healthy throughput rates, the TTT tank terminal is performing well.

Because of the strategic location of the port and the favorable economic climate, we find out that other terminals in the terminal are also performing well, confirming Mr. Taylor's impressions. However, during our benchmark study, we identified a few distinctive features that give TTT a competitive edge over nearby terminals.

Because of the relatively low berth occupancy rates, there is room for more transshipment business at the terminal. Our market intelligence shows that for this port, demand for transshipment is growing and because the other terminals in the harbor have higher occupancy rates, they will not be able to respond to extra demand. Additionally, this extra room for growth can also attract additional tank storage volumes.

STRATEGY CONSULTANCY

Pleased by the findings in the company assessment and the analysis of the existing business processes of the TTT tank terminal, Mr. Taylor wants to know if there are further opportunities to expand on his core business. Even though TTT's portfolio is already quite diverse, Mr. Taylor values a flexible and resilient business model for his terminal.

He asks Insights Global to help him develop a better view on the current and future opportunities and limitations of his terminal.

By creating a new long-term business plan for TTT, our consultants will determine the strategy for both short and long term, including vision and targets. Working towards a 5-year plan, we review all relevant value chain reports, local intelligence, and other relevant market sources/studies and translate these into actionable insights for Mr. Taylor and his company.

For instance, during the earlier company assessment, we already identified the excellent road access and truck loading facilities at the terminal. With impending new regulations regarding the bio-ethanol content in gasoline, this could make TTT an interesting biofuel blending hub and distribution point for local gas stations.

Extensive analysis quickly shows that competing terminals will not be able to respond to this trend. Our team starts working together with TTT on a business plan to determine the targets, market strategy, and action plan for both the short and long term. These targets and strategies are based on fact-based internal and external analysis.

After carefully defining different scenarios and putting the business plan through different theoretical paces, our experts conclude that a move into biofuels will be very beneficial to Mr. Taylor's terminal.

Meet your ideal independent advisor

How do you identify the perfect independent advisor with the required knowledge and experience in the industry to assess the commercial performance of your terminal and benchmark your results against your competitors?

Most consultancy firms will follow their usual method: they will study market outlook, client contracts, Opex, Capex, and Ebitda.

While all these aspects are essential in assessing the commercial performance of your terminal, they will not give you the complete picture. To fully understand the current and future value and performance of your terminal, you need access to more specific data.

Global expertise, local knowledge

Insights Global is in the perfect position to offer you a comprehensive commercial assessment of your tank terminal. Insights Global does not only own and operate the leading online platform and database for the terminal industry, [tankterminals.com](https://www.tankterminals.com), but also has ample experience in market intelligence, competitive benchmarking, and strategy consultancy.

Insights Global's competitive value comes from collecting and understanding data on

- ▶ The terminal's location
- ▶ Infrastructure
- ▶ Activity level
- ▶ Logistical performance
- ▶ The competitive environment
- ▶ Commercial position
- ▶ The business outlook for relevant market segments
- ▶ Business drivers
- ▶ Local dynamics

Only if and when you partner with an advisor who understands the industry and will provide you with the essential and detailed insights, you will be able to assess the commercial performance of your terminal correctly.





Given the complexity and dynamic character of the tank terminal industry, we will look at a wide range of operational factors, like throughput levels, contract structures, jetty occupancy rates, and commercial occupancy of storage tanks.

Not only will we deliver you a balanced a comprehensive overview of the performance of your company, we will also be able to identify growth opportunities for your terminal, so you'll be better prepared for the future ahead.


What's in a name?

General consultancy firms may have been able to provide Mr. Taylor with general (global) insights, but what you need is relevant detailed insights - global.

How can you make sure your tank terminal is ready for tomorrow? It all starts with understanding where you are today.

To succeed, you will need advice from highly experienced experts in the tank terminal business. Join our next Market Update webinar and discover how the Insights Global can transform your business.

Register for webinar

 Stationsweg 1b, 4811 AX Breda, Nederland

 info@insights-global.com

 +31850662500

www.insights-global.com



APPENDIX: INSIGHTS GLOBAL TANK TERMINAL MARKET MODELS

Enabling intelligent decisions

Insights Global is an independent market research company specialized in international petroleum and (petro)chemical industries. We offer market data, market analysis reports, consultancy, and training services to support smart commercial decision making.

We understand the real complexities and realities, which we translate to clear market and commercial outlooks in our tailored reports.

Not surprisingly, Insights Global owns and operates the leading online platform and database for the terminal industry:

TankTerminals.com

Our customers praise us for being fast, factual, and actual because our data-driven conclusions are always cross-checked on the ground.

For instance, we visually check the Rhine barge flows fill rate, and we can SEE the berth occupancy for Mr. Smiths TankTerm. Our local contacts in ports will confirm reported congestion in ports.

That's why you will find our people at headquarters in the Netherlands making many international phone calls, day to day.

Insights Global Analysis Framework

In a Market Assessment and Company Position project, the focus is on developing a view on the top line of the business.

However, it is also crucial to conduct a detailed analysis of the terminal characteristic and performance indicators. Insights Global has the required in-depth expertise and an extensive network in the tank terminal market.

And don't forget, Insights Global owns tankterminals.com, a database that provides the detailed terminal data you need to make smart decisions. To help you understand our tank terminal market model, it is essential to comprehend Tank Terminal functions and capacity.

Tank Terminal Functions

A tank terminal can have various functions for its clients. Consider:

- ▶ Logistical purposes
- ▶ Trading platform
- ▶ Strategic storage

Tank terminals are likely to support a combination of these functions. See **Figure A** below for tank terminal function details.

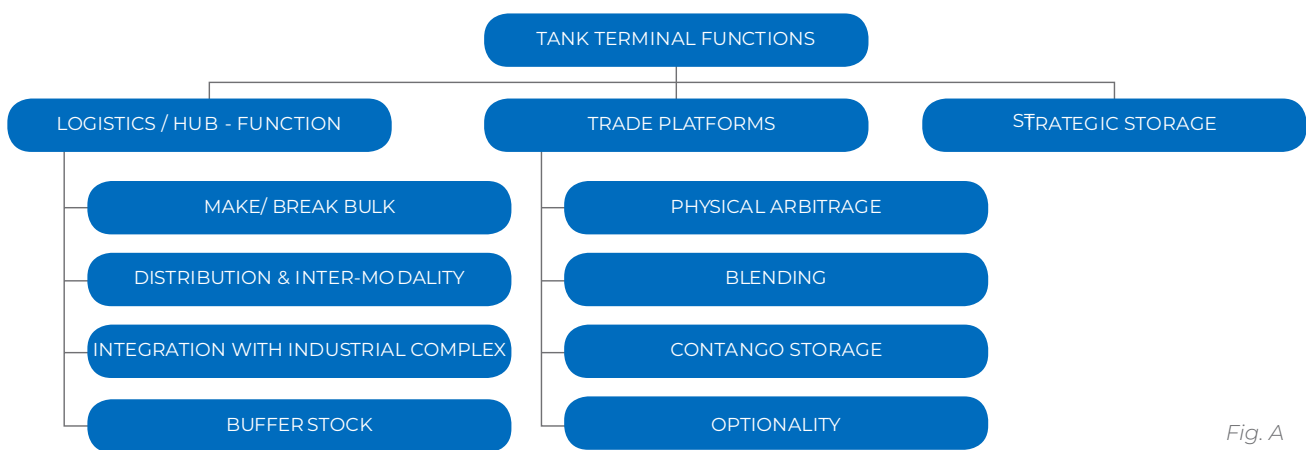


Fig. A

Each function has its commercial specifics and requires a distinct analysis approach.

Tank terminal capacity

When looking at the economic performance of tank terminals, the two main factors are:

1. Storage rates

The price tank terminals get for renting out their tank capacity

2. Occupancy rates

The percentage of capacity that has been rented out to customers

Revenues for renting tank capacity is equal to:

Storage rate X Occupancy rate X Terminal capacity

Example:

An oil terminal of 1 million cbm storage capacity has a monthly storage rate of €3 per cbm.

The occupancy rate on a yearly basis: **90%**.

The yearly revenues are $12 \times 3 \times 1 \text{ million} \times 0.95 = \mathbf{€34.2 \text{ million}}$

For liquid bulk terminals, storage rates or rental fees are often used as an all-in fee. However, sometimes revenues are based on throughput instead of storage capacity. Also, terminals have separate rates for (un)loading trains and trucks, extra throughputs, nitrogen, heating, and other storage-related services.

There is no standard terminal situation!

Depending on market circumstances, a terminal that functions excellent in specific high-value segments can ask premium storage rates and will find enough demand to rent out its tank capacity.

However, the continually changing markets alter clients' requirements and shift profit potential and demand between market segments.

To identify which market variables are relevant and how these variables influence commercial circumstances for tank terminals, Insights Global has developed a conceptual model.

Insights Global's Tank Terminal Commercial Performance Model

Figure B below shows the relation between market circumstances and economic performance. In this model, market fundamentals drive market dynamics. A terminal with a good fit for these market dynamics will find that their storage rates are supported.

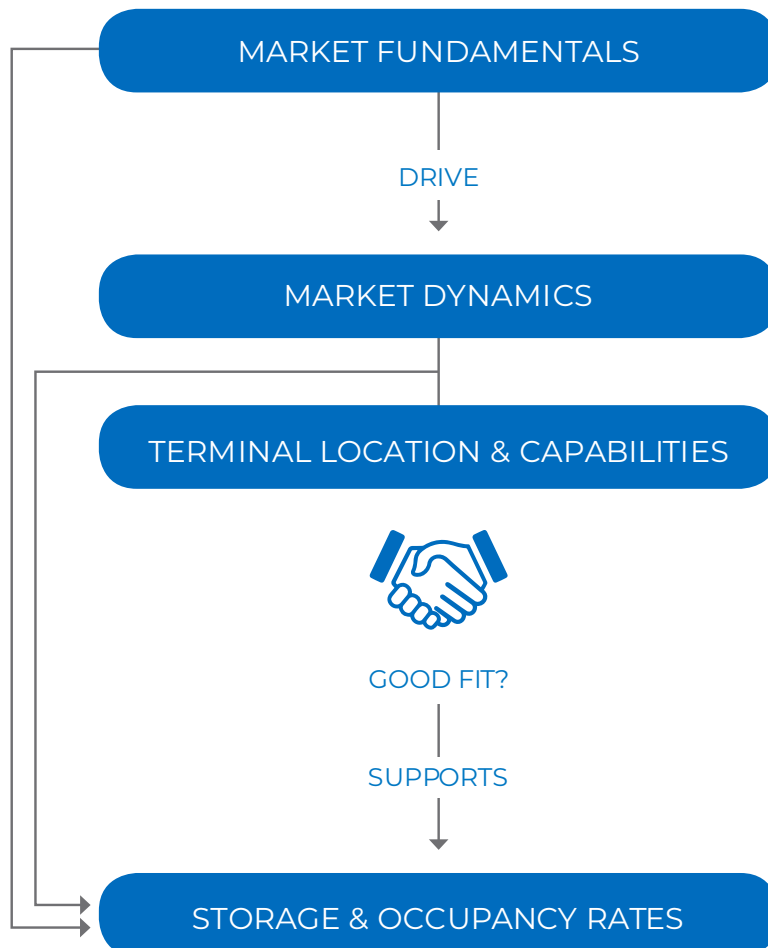


Fig. B

Figure C (below) shows the structure of both market fundamentals and market dynamics applicable to the tank terminal sector.

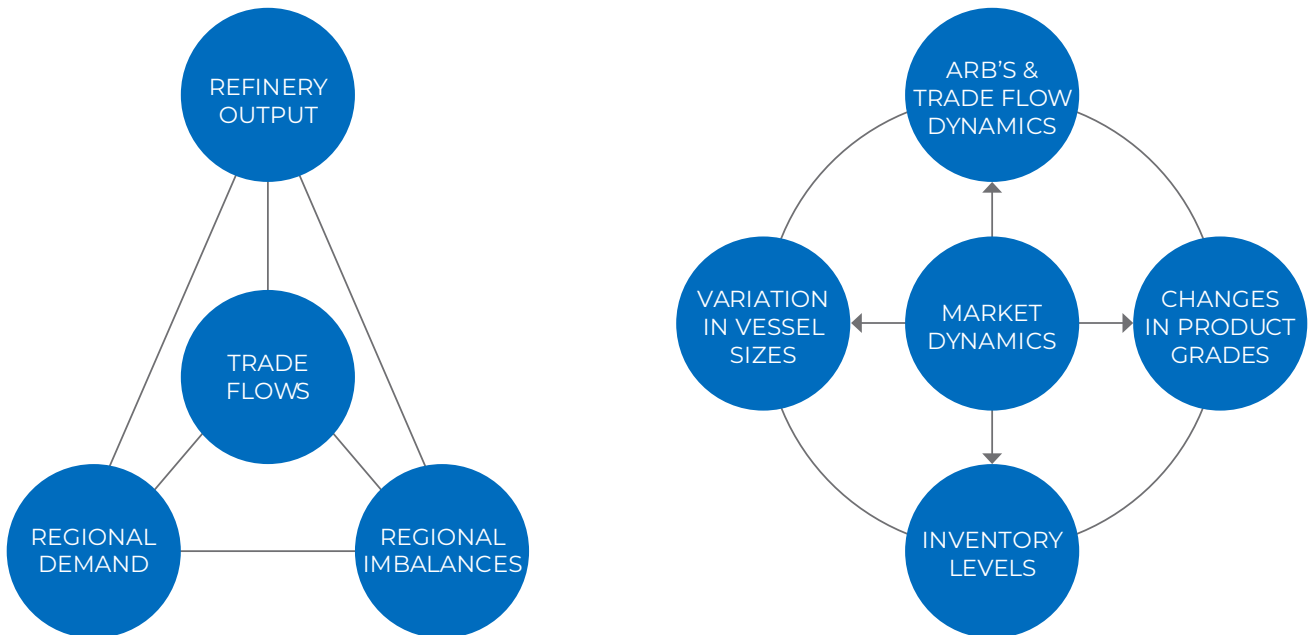


Figure C: Detailed graphical representation of 'Market Fundamentals' and 'Market dynamics' as part of the INSIGHTS GLOBAL conceptual model Tank Terminal economic performance (left diagram: Market fundamental 'Logistics' in more detail; right diagram: Market dynamics).

The distinction between market fundamentals and market dynamics lies mostly in the difference in the rate of change. Market fundamentals tend to be more stable compared to market dynamics.

Meanwhile, market dynamics have a direct relation to operational activities at tank terminals.

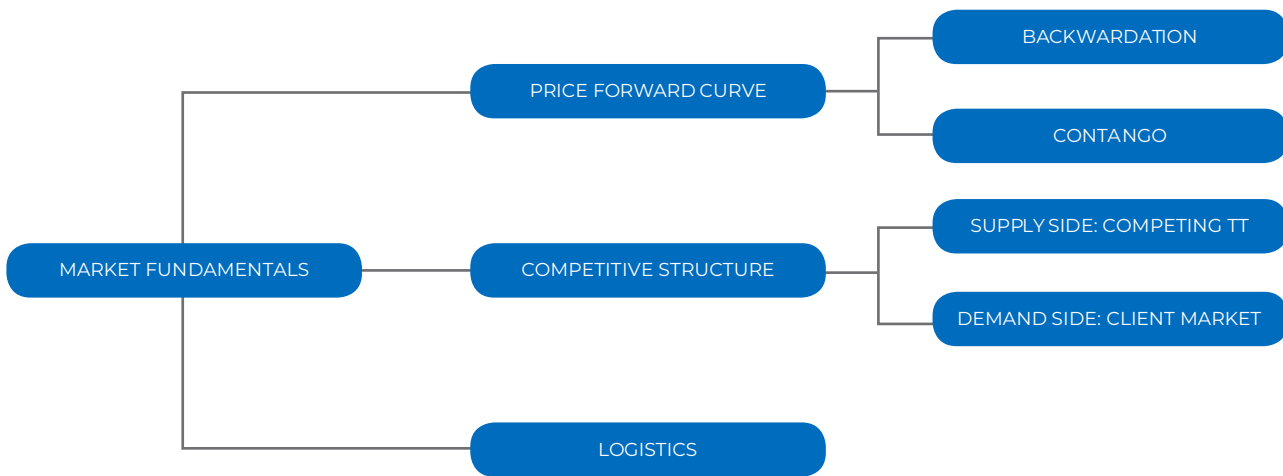
The main focus points in our market assessment reports are related to market fundamentals:

- ▶ logistics
- ▶ forward curve outlook
- ▶ competitive structure

You will also find dedicated chapters on each of these subjects in our market assessment reports. When appropriate and relevant, the expected impact on market dynamics and corresponding tank terminal operations will also be addressed.



MARKET FUNDAMENTALS



We need to pay close attention to market fundamentals as they influence the economic performance of tank terminals.

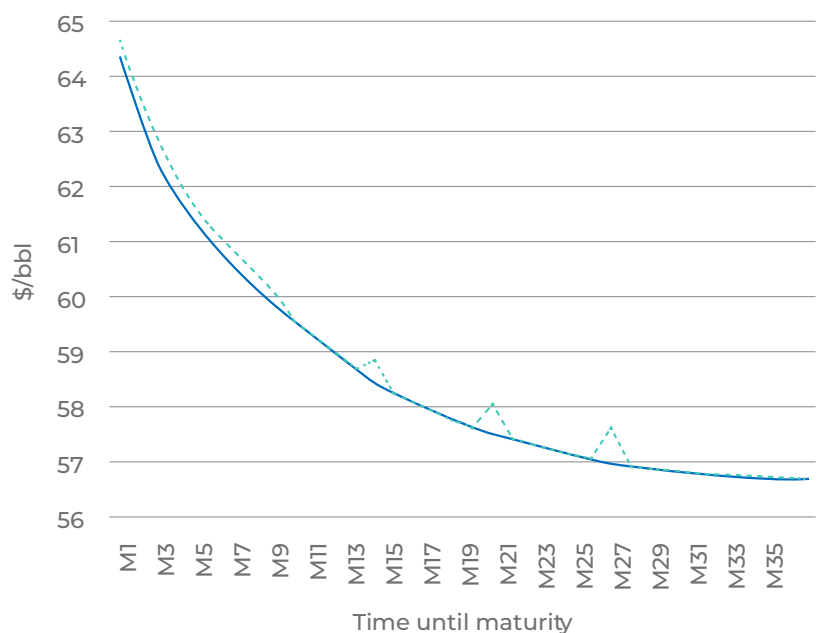
Relevant market fundamentals for the oil storage business are:

- ▶ The shape of the forward curve.
- ▶ The competitive market structure.
- ▶ The logistical factors: supply, demand, imbalances, and trade flows.

For chemical storage, forward curves are not relevant because there are no financial derivatives markets for chemicals.

Ice Brent Crude Forward Curve

(Oil) futures markets determine the shape of the forward curve. The oil price forward curve can be upward sloping (contango) or downward sloping (backwardation). In a backwardated market, there is less demand for tank storage than in the case of a contango. Inventory levels are also lower in a backwardation compared to a contango. Both demand and tank availability is therefore affected, and this influences the commercial setting.



Supply and demand in a competitive market

The competitive market structure consists of a supply-side and demand-side market structure. Tank capacity and market shares of various terminal operators are vital factors that determine the supply-side competition.

The number of players, their size, and diversity are critical factors on the demand-side of the market. Both demand- and supply-side competition influence the economic performance of the terminals.

Factors that influence Tank Terminal demand

Tank terminals are part of the oil and chemical products supply chain, and therefore logistical considerations such as local product demand, regional refinery and chemical plant output, and trade flows are very relevant. Developments in these factors influence the demand and requirements for tank terminal capacity.

Product demand levels

Inventories are needed at various locations in the supply chain to balance variations in supply and demand. Inventory levels managed by suppliers should be set at sufficient levels to ensure proper service levels.

The minimum inventory level needed for a specific service level is proportional to - amongst other factors - the volume that is supplied from that inventory point.

Strategic storage requirements are proportional to oil product and chemical consumption levels.

If consumption in a particular region is declining, less inventory is needed to balance variations in supply and demand, and less is needed for security of supply reasons.

Oversupply

A frequently occurring situation related to both logistics and forward curves is a global oversupply of crude oil or oil products; Supply and demand will be structurally out of balance, and as a result, inventory levels rise to balance physical oil markets.

Tank terminal capacity is needed to store the excess product, and to stimulate players to hold on to such inventories, a **contango** price forward curve emerges.

Because of the nature of the crude oil and oil products markets, such periods of oversupply and contango tend to last for quite some time, sometimes lasting over three years. This requires a considerable amount of spare tank capacity.

Trade flows

If in a specific location or region, there is an imbalance between refining or chemical plant output (production) and consumption, this difference will sooner or later be imported or exported from or to other regions, see **Figure D**. To facilitate these trade flows, tank storage capacity is needed.

The more significant the imbalance, the more tank storage capacity is required. If these trade flows travel over vast distances, transport lots become more substantial to capture economies of scale and lower freight costs per ton. Because tank-sizes are generally related to transport lot-sizes, this also increases the demand for tank storage capacity.

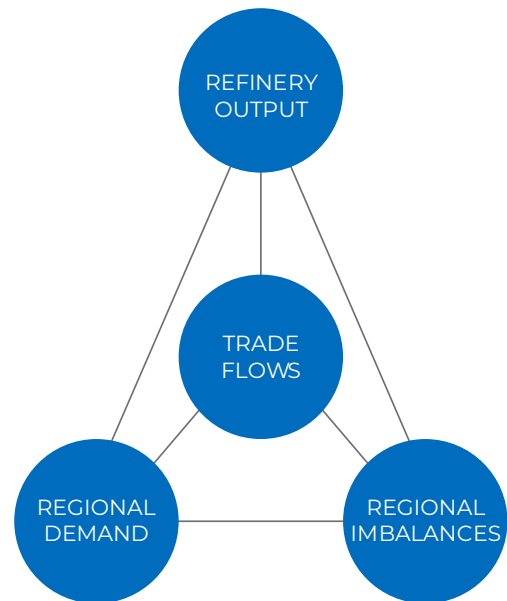


Fig. D

Market Dynamics

The market fundamentals described in the previous section are closely linked to market dynamics (**Figure E**).

Relevant market dynamics for the oil storage business are:

- ▶ Inventory levels
- ▶ Arbitrage and trade flows
- ▶ Changes in product specifications
- ▶ Variation in vessel sizes

These market dynamics have a direct influence on operations and terminal requirements. A terminal that adapts to these dynamics better and faster than competitors is likely to show superior commercial performance.

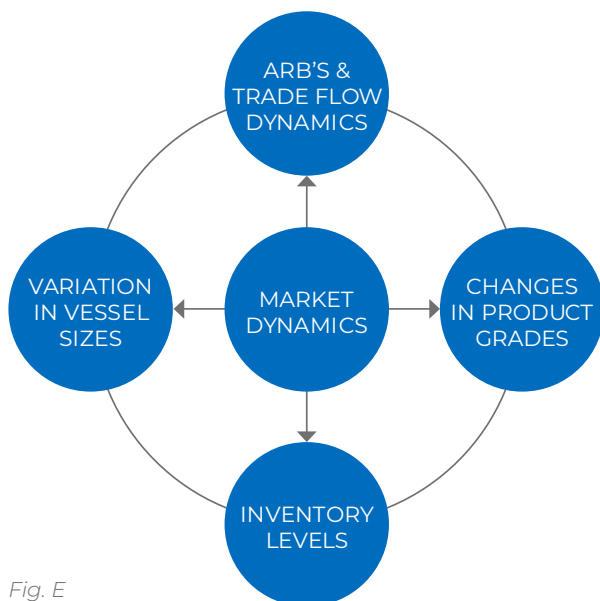
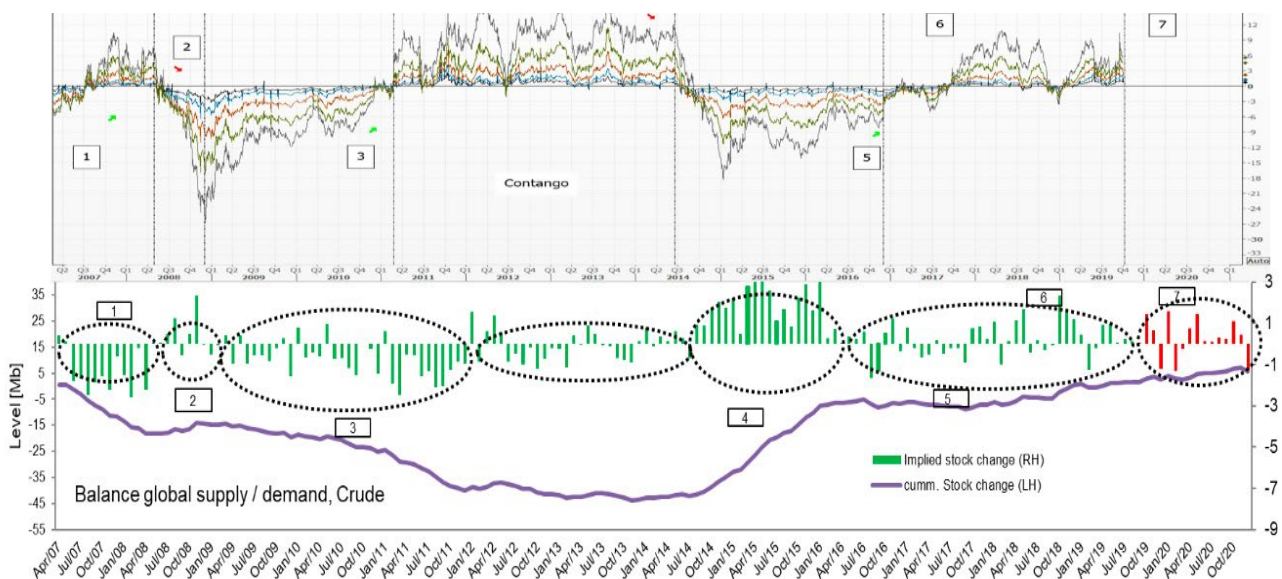


Fig. E

Inventory levels

The shape of the forward curve and global imbalances between supply and demand are both related to inventory levels. In an oversupply situation, inventory levels are likely to rise, and the forward curve is expected to be in contango. High inventory levels reduce tank capacity availability and create a shortage in the market. Furthermore, the contango supports storage rates.

But we can also turn this around: In a tight market, inventory levels are low, and the forward curve is likely to be in backwardation. Low inventory levels increase tank availability, and the backwardation weighs on storage rates.



Source: EIA, Ice Europe

Grade is good

Arbitrage and trade flow dynamics and variation in vessel sizes are linked to each other and logistical fundamentals, as highlighted in the Marketing Fundamentals section of this White Paper. Changes in oil product grades are related to fuel demand and fuel requirements, which is part of the fundamental 'logistics.' A market that requires more different grades of product needs more tanks to segregate such grades.



INSIGHTS GLOBAL