Shipping is a highly cyclical industry, as Figures 2.1, 2.2 and (later) Figure 5.4 show. To realize exceptional returns in shipping, it is critical to get the timing right when acquiring or selling tonnage, going for longer-term charters or running ships in the spot market. Of course, there have always been distinct cycles in shipping markets. In 2009, for instance, the Economist asked, “How long can the good times last for the shipping industry?” Figure 2.1 shows that, while shipping rates were still strong in 2009, they headed for a collapse soon after. Recent booms have largely been the result of growth in world trade, much of it attributable to China’s rapid economic expansion. But, as economies develop, their foci typically tend to shift from raw-material imports, primarily from manufacturing, toward a service/consumerism economy. A country’s overall growth rate also typically tends to slow down as part of such transition (see Figure 1.1, which illustrates this for China, Germany, Japan, and Korea).

New investments in shipping are high when there are peaks in freight rate and often come in the form of initial public offerings (IPOs) involving private equity funds. Relatively small, family-dominated firms may parcel together assets and then sell a minority stake through companies registered in so-called countries of convenience, such as the Marshall Islands, that typically enjoy a very light regulatory regime. Another major trend has been a strong push toward larger ships to gain cost efficiencies. Figure 2.3 gives a picture of the evolution in size of various ship types. Size developments have been largest in the container ship segment.

The world’s largest container liners, such as Maersk Line, Mediterranean Shipping Company (MSC), and CMA-DGM, have clearly benefitted from this size development, demonstrated by their aggressive investment in newbuildings. These companies also tend to have relatively lower cost-of-capital than smaller container lines, which tend to be the losers as they cannot afford to build as many new, efficient ships, and do not enjoy the same low cost-of-capital as the industry leaders.
However, there is speculation that the trend toward ever-larger container ships is likely to stop for several significant reasons including:

- lack of port capacity and loading/unloading constraints,
- overcapacity, i.e. difficulty in finding sufficient cargo, except in the largest ports, and
- water-depth constraints.

So increasing size seems unlikely to be sustainable, even though the trend has improved the cost efficiency of maritime shipping that facilitates trade. See Rodrigue (2017a) for an admirable analysis of these issues.

Much of the future of the shipping industry is likely to depend on the growth of China’s economy and the absolute increase in its imports. Figure 2.4 shows China’s iron ore imports. While the rate of raw material imports is falling, the absolute growth in China’s economy remains strong – hence the expected increase in absolute dry bulk imports.

Unfortunately, the world’s economic outlook, as a whole, does not look equally strong (Figure 2.5): in fact the only major bright spot seems to be China.

Today’s general shipping freight rates are indeed low. Figure 2.6 illustrates the example of the Panamax bulk carrier segment. Tanker markets are not much stronger. Figures 2.7 and 2.8 give the spot rates for a very large crude carrier (VLCC) and one year tc rates for a product tanker, respectively.

A key factor that has kept tanker rates relatively strong, compared to dry bulk carriers, is the use of tanker capacity as floating storage. Another is the relatively longer distances large tankers travel per leg when the general
oil price level is low. Some countries and individual speculators hope for increases in oil prices, and so store relatively cheap oil while waiting for an upturn. Figure 2.9 illustrates the significance of floating storage.

All of this demonstrates that shipping is a highly cyclical industry, with freight rates typically oscillating greatly. This is nothing new. But it seems that the periods with relatively depressed rates have become longer compared to periods with more reasonable rate levels.

Only a balance between tonnage supply and demand can generate sustainable and acceptable freight rates. However, the likelihood of sustained periods with reasonable freight rates seems to be low due to new
shipbuilding capacity, the speed with which new ships can be built, and the abundance of capital that can be mobilized effectively for investment in shipping. For this reason, decisions about timing (i.e. in/out, long/short), innovation, and financing will become more critical than ever.

Figure 2.3 Largest ship classes in service (in meters), 2015 (Source: Economist, October 2015)

Figure 2.4 Chinese iron ore imports (Source: Marsoft, 2015)
Research Approaches to the Shipping Industry

Let’s take a look at some theoretical issues affecting the shipping industry, as a background to the current status of the shipping industry.

Economists have traditionally taken a macroeconomic view of shipping, with a focus on integrating the various markets into an overall dynamic market framework, based on the balance between supply and demand. This approach has been effective in understanding the long-term trends in the shipping industry. However, it has also been criticized for ignoring the role of technological advancements and market dynamics that are increasingly significant in the modern shipping industry.

For example, the rapid growth of e-commerce has led to a surge in the demand for faster and more reliable shipping services, which has put pressure on traditional shipping companies to adapt their operations. The rise of blockchain technology has also offered new possibilities for enhancing transparency and reducing fraud in the shipping industry, but its widespread adoption remains a challenge.

In conclusion, while the macroeconomic approach remains a valuable tool for understanding the overall trends in the shipping industry, it is essential for researchers to consider other factors that are shaping the industry, such as technological advancements and market dynamics. By doing so, they can provide a more comprehensive understanding of the shipping industry and its future trajectory.
The most advanced work on this is by Beenstock and Vergottis (1993), who draw on earlier research, including seminal works by Tinbergen (1931, 1934) and Koopmans (1939).
Recently, the major trend in shipping research seems to have shifted toward a microeconomic orientation, focusing more on the supply/demand (im)balance within specific industries. Zannetos’s (1966) work on the tanker industry represents an early example. Karakitsos and Varnavides (2014) summarize much of this research, as does Glen (2006). The shipping forecasting firm, Marsoft, founded in 1976 and led by Dr Arlie Sterling, an MIT-trained economist, is developing supply/demand (im)balance forecasts for a number of shipping segments.

It is interesting, however, that Karakitsos and Varnavides (2014) also seem to be attempting to turn the clock back toward a more macroeconomic point of view. This is supported by the institutional research done by Stopford (2009) and Lorange (2005, 2009).

There have been many more research efforts, focusing on specific aspects of research in shipping. However, I will restrict myself to looking at only five here.

**Risk Preferences of Shipowners.** Lorange and Norman (1971) studied the risk preferences of independent Norwegian tank-ship owners and found that a clear majority were risk-prone. Their findings were corroborated by Eckbo (1977). Not surprisingly, all the identified risk-prone owners, save one, were out of business some thirty years later.

**Managing Risk in Business Cycles.** This has been studied by many, including Lorange and Sterling (2010, 2013), and it is important to note that many major publicly traded shipping companies now publish information about their approach to risk in their annual reports – this is borne out by the

![Figure 2.9 Floating storage (Source: Marsoft, 2015)](https://doi.org/10.1017/9781108347945.003)
case studies in this book, in particular Western Bulk and TORM. The key issue is to become better able to apprehend the management of risk, seen as a proactive element of shipping decisions, especially when it comes to ordering, selling, financing, and chartering, based on a view of in/out, long/short in specific ship markets and the cycles to which the company is exposed.

**Paper Trading.** The variations in freight rates are greater in periods with strong shipping markets than when shipping markets are low. This is because there tends to be more variety between the various freight closings actually obtained then, and so a better opportunity to achieve positive results from what might be seen as arbitrage. This allows companies to take advantage of such opportunities through paper trading when shipping markets are strong. Rather than trading based on a particular ship’s full deadweight carrying capacity, trading can be based on lower volumes (Adland and Cullinane, 2005).

**Sticking to Forecasts.** A recent study by Lorange and Sterling (2015) indicates that many decision-makers in shipping elect not to act on specific forecasts of shipping market segment development, such as those provided by Marsoft, but prefer to wait and hope for more favorable rates.

**Corporate Histories.** There is an abundance of studies of corporate histories. Particularly good ones detail Odfjell (Tenold, 2006), Hoegh (Bakka, 1997), and RCCL (Kolltveit, 1995). There are also historical books about the shipping industry, among which those that cover the development of shipping in specific countries may be particularly valuable (Lorange, 2004).

So, in general, there are a lot of developments in research into the shipping industry and we can expect even more in the future, now that more general approaches from several business sectors are becoming more directly applicable, such as organizational behavior (networks, culture), finance (asset intensity, private equity), and innovation theories.

However, despite all these considerations, there are two fundamental factors that characterize winning strategies in successful traditional shipping companies: good timing and having an outstanding organization.

- **Good timing in decision-making.** This implies that a senior executive – the leader – must have a good feel for expected development(s) in the shipping market(s) in which the company is active. I discuss this in more detail later, when I focus on forecasting – that is, the importance of recognizing major turning points in markets. In particular, how can timing decisions be assisted by inputs from forecasting firms such as Marsoft, major ship-brokers, or investment houses focusing on shipping? Many senior shipping executives occasionally choose to ignore such
forecasts, perhaps relying on following the paths other shipping executives take at the time. Exposure to risk might also be a function of whether leaders get in/out and/or long/short decisions right. It is critical to be clear about risk exposure and the company’s margin of safety.

– Being an outstanding organization. This is, in part, a matter of having a strong team, characterized by a “we, we, we” culture rather than a bunch of prima donnas with a “me, me, me” attitude. The ability to mobilize an organization to be ready for prompt and speedy decisions is a key characteristic of a good shipping company. Thus, it might be preferable and easier to act speedily if some functions are outsourced and companies specialize in a narrower part of the shipping value chain. It is also essential to avoid arrogance and encourage a culture where appropriate respect is shown to the doers who truly create value. Giving credit where it is due is perhaps more critical in shipping organizations than in many other organizations, partly because of the relatively large pay-off scale of most major shipping projects, partly because of the dominance by the few at the top in shipping organizations (appropriately “top-down” oriented), and partly because of the family dominance so common in many shipping companies. It may be that family members active in a particular shipping organization want to “shine” and take all the credit but the opposite can equally be the case: family members might deserve complimentary feedback, but do not get it. Others might feel that their family position helps them look good. All in all, a healthy organizational culture is key.

It is also important for shipping organizations to have top-quality competencies where they count. What constitutes critical competencies depends on the specific strategy that a shipping company follows. But three sets of competencies seem particularly key: market, technical, and financial focus.

**Market Focus.** Typically this has been the province of the shipping firm’s chartering organization, concentrating on the market outlook in a particular niche or niches. A project organization also might have a market focus, working closely with specific customers. Specific brokers provide market-related inputs, as do forecasting firms such as Marsoft. External resources, such as the board of directors, might be drawn upon but they would have to be involved on a consistent and continuing basis to be of much use. In the end, top management or the CEO is increasingly central when it comes to market competencies.

**Technical focus.** Today, a technical focus mainly implies a shipping’s organization’s ability to pull off innovations. These have to happen
relatively rapidly, often building incrementally on what already exists. It is critical for senior management to have a vision or overview of how several small innovations can be bundled into one or more aggregate innovations. The key word here is *creativity*, i.e. “thinking outside the box,” as opposed to an operations-oriented focus. To label these innovations “disruptive” has too negative a connotation – “enabling” is more accurate. Here, too, an outstanding CEO will excel.

**Financial Focus.** A financial focus is increasingly important, given the growing importance of financial engineering. Most traditional shipping banks have largely withdrawn from the sector and more specialized financial syndication of specific projects has taken over, frequently tapping into private equity. One of the aims of this book is to shed light on asset-light shipping strategies, underscoring the growth in importance of cutting-edge financial competence.

So, while there seem to be two main ways of positioning superior shipping firms in a class of their own (an in/out, long/short focus on getting it right in shipping cycles or a specialized industrial focus), there is a lot more to be said about underlying specifics when considering successful shipping strategies. Let us now discuss each of these further.

**Owning vs. Managing vs. Operating**

In an earlier book (Lorange, 2009), I proposed that traditional shipping companies could have three distinct functions:

- Owning ships, which includes the financial side, i.e. ship financing.
- Managing ships, which includes chartering policies and execution, i.e. generating revenue by running ships.
- Operating ships, which includes crewing ships, running ships, preparing for (re)classification and docking.

Some corporations, like DHT International, are active in all three functions while others are active in only one. For example, Seaspan is solely in shipowning, Western Bulk focuses on ship management, and V-ships is one of several firms engaged in operating ships.

I have previously proposed a fourth function – brokerage (Lorange, 2009). While this is an important activity, it is usually performed by independent brokerage houses and not part of most shipping companies. Exceptions include Maersk Brokers, owned by A.P. Møller-Maersk, and BBC Chartering, owned by Briese Shipping, both of which run at arm’s length from their parent companies. In general, a shipping company must have at least some in-house chartering competence, usually a senior management function. This is then
complemented by market-tracking insights provided through independent brokers. Thus, we find that a typical shipping company falls into one of three main functions – owning, managing, or operating – with chartering an independent activity handled by shipbrokers outside the company.

**Cycle-Based vs. Industrial Strategies**

I have suggested that shipping companies can follow one of two basic strategies. The first is taking advantage of major market cycles by going in/out and/or long/short, relying on good timing. The second is a so-called industrial shipping strategy, based on nurturing a long-term relationship with a shipper, designing purpose-built ships for a specific trade, and establishing long-term contracts. This represents a more stable strategy, with steady long-term cashflow. The assumption, of course, is that the other party (charterer) is solid enough to be able to pay its charter payments. The degree of financial gearing might be higher, in this case, than might be the case when following a cycle-based strategy – for example, it would be realistic for the owner to have to settle for less financial leverage.

Figure 2.10 lists some of the differences in strategy and their implications, above all when it comes to how leadership should be practiced.

A successful cycle-based strategy would have to be executed relatively speedily. To a large extent, success would be a function of good timing when it comes to in/out and/or long/short decisions. The predominant management style in this case would be top-down, with a relatively small

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<th>COMMODITY STRATEGY</th>
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<td>Trading; more cyclical</td>
<td>Industrial; more stable</td>
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<tr>
<td>Top-down</td>
<td>Bottom-up</td>
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<tr>
<td>Timing: in/out; long/short</td>
<td>Delivery service</td>
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<td>Flexibility</td>
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<td>Buy low / Sell high</td>
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<td>Low cost</td>
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<td>Asset Base</td>
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Figure 2.10 Cyclical vs. industrial strategies (Source: Peter Lorange, 2007)
top management team, in many cases the president or CEO alone, running the show. The quality of top management, its understanding of the relevant market cycles, and its “feel” for timing will be critical. In many such instances, the shipping firm is privately owned, with the president or CEO holding a high ownership stake. Group-based decision-making, often touted as the best way of leading, would not work here.

For shipping companies pursuing an industrial strategy, the situation is different. Here a broader set of competencies is called upon to devise a tailored approach to meet the specific needs of a customer. Some of these capabilities might be from within the company, while others would have to be drawn from outside sources. A close dialogue with customers is critical. Implementing an industrial shipping strategy implies a networked approach, involving more people and taking longer than pursuing a cyclical strategy. In this case, a bottom-up management style is more appropriate.

So far, I have described asset-light versus asset-heavy strategies, as well as the division of a shipping company’s key functions into owning, managing, or operating. These dimensions are illustrated in Figure 2.11 and do, of course, work together.

It goes without saying that, in practice, many shipping companies pursue several strategies in parallel. However, each strategic archetype requires a unique set of skills. For archetype one, a deep feel for the specific business segment is key. This contrasts with strategic archetype two, trading with a need to understand how to use market imperfections when attempting to match freight contracts with available ships, and maintaining a satisfactory level of risk while doing this, i.e. trading expertise. This again contrasts dramatically with the skill set needed for archetype three, networked. Here the ability to work as an effective team is crucial: a “we, we, we” attitude, listen-and-learn relationships, and building confidence with the customer. Finally, archetype four, financial, requires another distinctly different skill set, the ability to delineate term, conditions for sale, lease-back deals, and so on. The leadership of any shipping company has to realize that both competence-based and cognitive limitations have to be faced when pursuing a mix of these strategic archetypes. It might be more realistic to focus on developing the organizational capabilities to execute one strategic archetype well.

These four strategic options can apply to any shipping segment – types (wet, dry, container), sizes, major tracks, etc. Here too, it would be wise to show respect for a company’s cognitive limits. Extending activities over different shipping segments implies the need to develop several unique skill sets. For example, it’s no small task to understand in depth the very different market cycle patterns for both large VLCC tankers and Panamax bulk carriers. Cognitive limitations may well be a factor here.
I experienced this for myself when I ran my own shipping company, S. Ugelstad. We used to own several types of ships: Great Lakes–size bulk carriers, reefers, anchor-handling tugs, and platform offshore supply ships (PSVs). The financial results were poor, particularly from operations, which were always in the red. Gradually, however, the company became more focused when it came to ship types. Also, I made substantial sums by selling ship assets that no longer fit with the vision to become a specialized PVC company. Profitability increased dramatically. In the end, I was in a position to focus on just one business cycle outlook, with a finite set of customers and competitors, all of whom I knew. My more focused strategy helped ameliorate the cognitive limitations I had demonstrated earlier.

**Shipping Freight Rates**

When it comes to market cycles in shipping, we should remember that shipping is a relatively mature industry, and the expectation is that past

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<th>Asset intensity</th>
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<tr>
<td>Type of Strategy</td>
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<tr>
<td>Cyclical</td>
<td>Strategy I: Classical</td>
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<td>Strategy II: Trading</td>
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<td>Industrial</td>
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<td>Strategy IV: Financial</td>
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<td>- sale / lease back</td>
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Figure 2.11 Four strategic shipping archetypes (Source: Peter Lorange, 2017)
cyclical patterns will continue in the future and tend to be “normal” (see Figures 2.2 and 2.6–2.8).

What impact will this have on strategy? Traditionally, for shipowning firms, buying and selling steel – that is, ships – is critical. Shipowners will try to buy low and sell high and will try to “go long” (i.e. enter into relatively long charter parties) when the market cycle is up, and “go short” when it is down. It is also important to have the lowest possible operating costs. A low break-even point is always an advantage, particularly in weak markets. Attention to costs and break-even points is always crucial for shipowners.

Some shipowners also operate in special segments of shipping markets. Long-term ship financing still requires commitment of “safe” income streams. Uncertainties about the residual value of ships may trigger refinancing during downturn periods. Many banks will be lenient when it comes to granting payment extensions to shipowners, but hesitant when it comes to triggering defaults on loans. They may even allow the shipowner to make interest payments without providing a down payment – all to facilitate the continuing viability of a given ship project until the next market upswing. In/out decisions may be key when it comes to working with banks and financial institutions to salvage bad loans. And, in the end, everything is based on an understanding of industry cycles and freight rate expectations, by shipowners and bankers alike. As always, it is essential for an owner to have a reasonably strong cash position and good liquidity to withstand cash-drains during downturns.

A well-developed relationship with the financial sector to deal with long-term credit facilities might benefit shipping companies, giving them the flexibility to suspend down payments and/or interest payments on loans, say, until the freight market turns up again. This will help them cope with the effects of market downturns and a (hopefully) temporary inability to service the debt.

Shipping markets tend to be atomistic, exhibiting more or less perfect competition. However, there also tends to be a so-called prequalification clause for shipping companies attempting to obtain a particular charter party. This might exclude ships over a certain age from competing for a given freight, particularly when it comes to transporting oil. Still, normally, the price offered for the freight service determines (in large measure) who gets the deal – the lower the offer, the better the chances. There are usually many suppliers, with very little industry concentration, in the shipping sector. Further, there are usually many sources of demand for shipping services – again with relatively little concentration on the demand side of the industry, particularly when it comes to bulk shipping. All in all, these tendencies, particularly in the bulk sector, underscore an
atomistic or fragmented pattern, with highly diverse supply and demand. Finally, ship types – basic oil carriers and, to a greater extent, bulk carriers – are usually very similar, i.e., interchangeable, which further adds to the commodity orientation of shipping markets and services. Ships may vary enormously in terms of size, speed, age, etc. Nevertheless, there is a strong correlation between freight rates for various ships. For instance, a falling market for very large ships also tends to force down freight rates for smaller ship categories, but this cascading effect usually comes with a time lag. Basically, rates for newer ships tend to fall in similar ways as rates for the same type of older tonnage.

The key to success for shipowners operating in classic atomistic markets is to understand better the importance of timing in their decisions and, above all, to learn to anticipate turning points in the relevant freight rate market. Companies that provide forecasts for the freight rate markets, particularly when they focus on turning points, are in high demand. Forecasting alternative scenarios for various shipping markets is very difficult. Nevertheless, there are a number of organizations in the forecasting business, including Marsoft (one the leaders), Jefferies & Company, Inc., Maritime Strategies International (MSI), China Ship Economy Research Center, Clarkson/Platou, and Drewry’s. The fundamental focus here is to come up with an optimal strategy for each ship. Later, I will discuss how to explore strategic archetypes for the future, which might imply more consolidation on both sides (supply and demand), more of a fleet focus, and integrated IT platforms, in the style of Uber, Amazon.com, etc.

Decision-Making Focus

It goes without saying that speed is critical when it comes to taking advantage of movements, such as freight rates in particular. It is not enough just to have a good feel for when to go in/out and/or long/short based on a general understanding of how particular market cycles are expected to move and expected turning points. Execution, or the “will to manage” (Bower, 1968), is also needed – above all when it comes to speedy decision-making. Organizations that follow commodity-based strategies, i.e. attempting to position themselves favorably relative to an evolving freight rate curve, tend to adopt top-down strategic decision-making. The owner, or perhaps a few executives at the top, calls the shots – usually fast. There tends to be little room or time to go into detail and reach some sort of consensus among several executives. Obviously, this sort of strategy depends on a degree of consistency of judgment over time by those at the top.
Particularly essential is the need for strict discipline toward risk and resistance to following the herd. As already noted, in a study of risk propensity among Swedish and Norwegian VLCC tanker owners, I found that a surprisingly large number of owners were risk-prone (Lorange and Norman, 1971). That was over forty years ago. All but one of those companies is out of business today.

**Locking in Strong Rates**

There may be an increase in time charters relative to reliance on spot markets during periods with very high rate levels, and vice versa when rates are low. Time charter rates are not usually route-dependent, that is, they do not tend to be higher on some routes than on others. Trip charters can be an exception; here there may be rate differences depending on the routes.

**More Financially Oriented Players**

New financially oriented players have come into the industry, particularly from private venture funds. This financial sector is abundant with relatively easy capital, and thus relatively low cost of capital for capacity expansions. Funds for new projects are often readily available from this sector, which, unlike more traditional financial institutions such as banks, may see shipping as offering particularly interesting investment possibilities. Newbuilding projects have particularly benefited from investment from this source. But is this resulting in too much supply? Interestingly, several banks, traditional players in the shipping industry, are exiting, probably because of prolonged expected supply-demand imbalance.

Some shipowners are going directly to investors rather than through traditional banking channels – not just to access liquidity but also to save on financing costs. The private venture fund Carlyle, for instance, is working with the large container ship owner Seapen on this basis. Similarly, York works closely with Costamare and Oaktree has been central in the financial restructuring of TORM.

**Currency Fluctuations**

Currency developments for the dollar, the euro, the BRIC (Brazil, Russia, India, China) currencies, and others can be of major significance for ocean shipping, and can lead to sophisticated hedging/put-call options, in/out financial-engineering-based activities, etc. Currency conditions are clearly related to newbuilding contracts but also affect chartering.
activities. One way to reduce currency exposure is to arrange for a ship’s newbuilding financing and charter rates to be in the same currency. Forecasting currencies is difficult, but nevertheless a critical part of a competent chief financial officer’s function. Cost of capital can differ widely with different currency rates, depending on inflation pressure and devaluation outlooks. It can be tempting but it may be risky to finance a new ship in a speculative currency. This also applies to interest rates and so-called interest swaps.

**Liquidity**

Forecasting of liquidity is an important part of the overall portfolio planning for shipping firms. Good liquidity represents a buffer. The amount of reserve liquidity is a function of the risk-taking propensity of a firm’s management. It is also important to have sufficient liquidity to be active in the derivatives markets, particularly in the forward freight agreements (FFA) market, and an understanding of the impact of liquidity on exposure to counter-party risk.

It should be pointed out that the banking sector’s willingness and ability to provide peak liquidity through new financing to the shipping sector is not solely a function of the strength of the shipping markets. It is also a function of the banking sector’s general willingness to provide new financing, which in turn will be affected by exposure to large losses, such as the recent losses in ship financing. And, some banks, for example DnB, the world’s largest ship finance bank, seem to put particular emphasis on the quality of a specific shipping company’s management and strategy. Such judgment calls are, of course, relatively subjective. A large liquidity reserve also builds trust in a company. A good approach might be to take advantage of relatively favorable financial markets when they are positive, to secure additional funding, even though, strictly speaking, such additional funding might not be needed, at least not immediately.

How can this be done? For public companies, additional equity offerings might be raised at times when the stock market evaluates the firm’s stock relatively highly. For all shipping firms, privately held as well as public, additional loans might be taken out when interest rates are favorable. A similar set of conditions might call for the issuance of bonds—these would be secured after loans, but ahead of equity capital, in case of liquidation.

A commodity-based strategy, developed around positioning on a freight-rate cycle, should be based on the firm’s ability to ride out even lengthy periods of depressed freight rates. For this, sufficient
liquidity reserves are critical. So, too, is a good understanding with key banks regarding potential liquidity traps, to avoid the bank “pulling the plug.” It tends to be easier for banks to agree to forgo the payment of interest than to delay down payments of the principal.

**Biases Surrounding Randomness and Uncertainty of Data**

Forecasting the markets for shipping is not easy. Wrong assumptions can clearly impact the accuracy of forecasts. What does seem clear is the need to be prepared for uncertainty – that is, through scenarios rather than single-point forecasts. There are some genuine biases when it comes to dealing with randomness and uncertainty, all well articulated by Taleb (2004). He raises the key question of whether we may at times take our beliefs and the quality of our knowledge a little too seriously. Taleb claims that there is a human tendency to underestimate randomness and that we need to distinguish between charlatans (his characterization) and genuine visionaries. Success is sometimes the result of pure luck – being in the right place at the right time – which must not be mistaken for skill, superior ability, or rare insight. This type of luck cannot be replicated because it is obtained by chance.

So, we may have some real problems of deduction, trying to deduce future patterns for shipping markets from the expectations we have, based on the past. There may be a bias toward survivorship, whereby we view the wisdom of the winners through the lenses of the survivors. When we concentrate on the relatively few winners and ignore the many losers, past events will always look less random than they actually were (hindsight bias). These reservations, set out elegantly and convincingly by Taleb (2004), do not represent a reason for not employing forecasting analysts.

Skills *do* count, but probably less when it comes to highly random environments, such as shipping markets, than when it comes to others (e.g. dentistry). Although it’s best to be as prepared as possible, of course, these are all aspects of cultivating security so that the shipping markets can be handled with healthy scepticism. During economic booms, in particular, it is important to bear in mind that most shipping markets are fundamentally mature. And during prolonged down-cycles, it is perhaps important to remember that there will eventually be an upturn. Cultivating scepticism must not be mistaken for an unwillingness to make decisions.

There may be many non-traditional factors that, taken together, seem to call for a different mode of predicting future opportunities. Innovations, leading to the development of so-called eco-ships, are particularly good examples of this.
This contrasts with the more traditional approach, which is to look at a detailed base-case scenario for shipping market development. Failing to predict adequately the recent weakness of markets, may have led shipowners to make entry decisions too soon, leading to financial losses.

**Why Are Executives Not Acting on Market Forecasts – Especially When They Are Negative?**

Many executives tend to be slow – sometimes too slow – when it comes to decisions about entering or exiting an investment (Satinover, 2014). Perhaps it should be left to the psychological profession to look deeper into the “whys” of this; meanwhile, there are several factors that can contribute to it, all the kind that open-minded executives should be able to monitor and act upon.

**Clear Business Focus**

It is important to operate in only one or at most a few shipping business segments, to have a better chance of understanding the specific market cycles at work in a given segment, and the company’s position in a given business cycle. The shape of a cycle is determined by how supply develops relative to demand. This involves new ship capability from the yard, competitors’ chartering decisions, customers’ planned needs, etc. Hands-on familiarity with all the actors and what they are up to is essential.

**Awareness of Cognitive Limits**

Each major type of shipping market features its own freight-rate outlook – tankers are different from bulk carriers, container ships, and offshore supply ships. Even within each of these major categories there are differences: VLCCs differ from Suezmax or product tankers; capesize bulkers differ from Panamax or handysize bulkers; large container ships differ from feeders; anchor handlers from platform supply ships (PSVs); and so on. For a decision-maker it may be beneficial to focus on one or at most a few types of freight rate scenarios, and to try to understand the key factors driving supply and demand here, including key customers, competitors, newbuilding orders, and lay-ups or scrapping. With too much diversification across types of freight scenarios, the decision-maker may simply fall short relative to more focused decision-makers when it comes to the quality of in/out, long/short decisions made.

Many decision-makers have a tendency to overestimate their cognitive abilities to deal with complexity. As a result, they may not fully appreciate
the merit of focusing. In my experience, I know of only one top shipping
executive who seemed to be able to make successful strategic decisions
(in/out, long/short) in several segments of shipping at the same time,
namely the legendary Maersk Mc-Kinney Møller. He seldom made tim-
ing mistakes even though he was simultaneously heavily engaged in
VLCCs, especially tankers, bulk liners, offshore drilling rigs, and so on.
Most of us find it necessary to focus to have an improved chance of
doing well in terms of decision-making in our chosen segment.

The Top-Down/Bottom-Up Balance

Too much bottom-up decision-making runs the risk of long and incon-
cclusive debate, so much so that an opportunity may be long gone by the
time the firm is ready to decide. Speed is absolutely critical in shipping.
Organizational resistance due to self-interest can hamper timely decisions
to get out and/or go long. For instance, decisions about getting out, and to
some extent going long, may be the responsibility of executives who
realize that by getting out, i.e., selling, they could contribute to the
elimination of their own jobs, or, by going long, eliminate a lot of work
in their chartering department.

In contrast, there are also dangers where a strong top-down culture is
called for. What if the person at the top lacks the “feel” for when to sell in
a cycle? It often makes sense to have a team of, say, two to three senior
executives charged with decision-making, after first having engaged in
high-level brainstorming.

Herd Mentality

Situations easily arise where the actions of one decision-maker can
spark off similar actions among others; this can continue over
a considerable period of time. There may be an element of comfort
in doing the same thing as several other people, or there may be an
element of fear of being left behind, for example, when it comes to
ordering new ships. These types of behavioral decisions are contrary
to what might be viewed as rational when it comes to cycle-based
analysis.

The Desire to Be “Right”

For many shipping executives there may be a strong desire to feature as one
of the more insightful in the industry – with a reputation for really under-
standing how to take advantage of shipping markets. Regrettably, and too
often, this means that many senior executives do little more than copy those they view as industry leaders. This is strongly related to “herd mentality.”

*Financing*

Ship financing often implies fixed contracts on down payments/termination of loans. But these might not coincide with the options involved when taking advantage of market cycles. Financing considerations can add inflexibility, which in turn leads to missed in/out, long/short opportunities.

*Contracts Regarding Own Deliverables*

Long-term chartering or contracts of affreightments with shippers essentially bind a shipowner to delivering a certain amount of output, over a certain period of time; this can be over several years. This, too, can limit the shipowner’s flexibility to take advantage of cycles in the freight market.

*Insider Trading*

For publicly traded companies there are strict rules applying to members of the board of directors and senior management when it comes to purchasing or selling stocks. Basically, this is not allowed when the firm is considering a major transaction, such as a purchase or sale of ship(s) and/or M&A moves. In practice, this may lead to blocking out significant time periods on the calendar, perhaps making it difficult to exercise in/out and/or long/short decisions. While these rules do not apply to non-public corporations, there are often strong ethical reasons for not making use of information that is not available to all for personal trading.

*Top Management’s Bonuses/Incentives*

Incentives can be linked to increasing sales, building the size of an owned and/or merged fleet, etc. Regrettably, these types of incentives may lead to dysfunctional decision-making: for example, ordering new tonnage without regard to the existing state of the business cycle, and/or chartering its tonnage at the top, or near the top, of the cycle.

*The Ship Acquisition Process*

The traditional view when it comes to the decision whether to buy a new ship, and, if so, of what type, has focused heavily on naval design, project management, contact negotiations with shipyards and financing.
A primary emphasis is to come up with a well-thought-out set of choices when it comes to the basic design of a new ship.

In my experience, however, a series of market considerations might be even more fundamental, such as ensuring proper timing of such decisions (in/out, long/short).

Thus, it would be important to understand the basic ship market cycle that applies to the type of ship being considered (wet – large, medium or small; dry – large, medium or small; container – large, medium or small; LNG/LPG, and so on). Where does the company sit in this cycle? Needless to say, attempts to acquire more ships (newbuildings or second-hand) will ideally be made when the market is low and avoided when the market is high, when conversely a company will prefer to sell, and lock in some profit.

A second market-based consideration, complementary to understanding the company’s position in the overall cycle, is to consider the ratio of newbuilding orders today to ship capacity “in the water” in a given segment. The time to acquire more ships is when this ratio is low; the time to sell is when it is high.

Another market-driven consideration is whether to go for newbuilding or a secondhand ship.

Here a company will consider the price for a secondhand ship in a given segment (say, two, five, or ten years old) relative to the newbuilding price for a similar type of ship. When this ratio is sufficiently low, say, representing more than a 30 percent discount from the price of a five-year-old secondhand ship relative to a similar newbuilding, a company might consider buying a secondhand ship. As of mid-2017, this “discount” was around 40 percent for a five-year-old handysize bulk-carryer, indicating that buying a secondhand ship of this type is preferable relative to buying a newbuilding.

Another issue to be considered when deciding between a newbuilding or secondhand ship is the development of shipyard capacity. In mid-2017 there were around 370 active shipyards; in 2008, before the global economic downturn, there were as many as 930. If we consider the number of shipyards actually taking newbuilding orders, the change is even more dramatic – fewer than 50 in mid-2017 as against 700 in 2008. It should be kept in mind, however, that quite a lot of shipbuilding capacity could be reactivated relatively easily and quickly, if there were an upturn in the market.

When purchasing a secondhand vessel, close attention should be paid to some specific factors, analogous to purchasing a secondhand car. The ship should be thoroughly inspected by naval engineering experts,
particularly the state of the main engine as well as auxiliaries, the quality of tank coatings, and spotting corrosion. The ship’s technical journals should be inspected to find out more about past incidents of off-hire and the reasons for them. Then, the ship’s classification details must be considered. Has it recently gone through a full classification? Or is a mandatory classification coming up soon? The latter might be expensive, particularly when docking is involved, and the price should be adjusted accordingly.

Future regulatory requirements might also imply the need to invest in modification, and, again, should be reflected in the price:

- Ballast-water treatment systems, for all ships from August 2017, or from the time of an upcoming major classification, as well as for all newbuilding, of course.
- Installation of scrubbers, particularly when the use of low-sulphur fuels might not lead to sufficiently clean emissions.
- Installation of additional filtering capabilities to meet SOx and NOx emission requirements, if not already done.

What more can be said when it comes to key strategic considerations for acquiring ship additions to a fleet? Before continuing, let me reiterate that the key strategic driver when it comes to the acquisition of additional ships is timing. The price has to be reasonable. Thus, ship market conditions will be crucial to this strategy. I have briefly touched on traditional ship acquisition decisions, relating to naval design, yard negotiations, and project management. There are two further important strategic considerations.

Typically, when a ship is to become part of the established value chain of a firm – for example, part of a container line’s fleet, a shipping company’s fleet to serve its contracts of affreightment (CoA) commitments, or part of an industrial shipper’s fleet – newbuildings are often preferred. In this case, the cash-flow considerations relating to newbuilding would typically be tied to the solidity/quality/robustness of the value chain that the ship will become part of, allowing for quite heavy debt financing.

If, in contrast, the ship is intended to be part of a so-called asset-play strategy (buy low or sell high) a secondhand ship might yield a higher payoff. It is important that the degree of debt leverage remains low in such cases, so that the cash flow remains positive during the holding period, and no additional cash injections are required from the owners. These ships typically operate in the spot market, or are part of a pool during (hopefully) short periods between its purchase and its sale.

I have argued that a shipping company’s fleet can be considered as a strategic entity. This has several implications. It is important for a given company’s fleet to be relatively homogeneous. This implies that a series of
newbuildings with standardized designs might be ordered at the same
time, typically from one yard. The financing of such a newbuilding series
also calls for the yard’s cooperation. While ship financing schemes to
make a yard’s quoted prices more attractive are explicitly forbidden
within OECD (except for fishing vessels), this practice of “building”
ship newbuilding and financing is quite common in China, Korea, and
Japan. It goes without saying that the combined cost of newbuilding
together with financing will be decisive. Today it is more difficult than
ever to find sources of finance so these combined schemes – newbuildings
and financing – have become particularly attractive.

The acquisition of new ships, as a fleet issue, implies important cost
 savings for the shipowner in other areas, too:
– The system of spare parts might allow for simplification and
cost savings.
– Crew training might be considerably easier, in that the degree
of interchangeability could be higher between those ships that
particular crew members work on.

Conclusions

I have shown that the shipping industry is highly cyclical, with large
savings in freight rates, as well as in ship values. A balance between supply
and demand is key. However, with the advent of large new sources of
capital, above all from venture funds, as well as the increased speed of
building new tonnage, periods of oversupply seem to have become longer,
with rather lower freight rates and ship values for relatively longer periods
of time. Good timing remains an essential issue, however, and to achieve
it, a strong organization is more crucial than ever.

So-called industrial shipping has become an increasingly attractive way
of doing shipping, with tailor-made tonnage being offered to satisfy
a particular shipper, who, in return might provide a longer-term charter.
Thus, given a more predictable, relatively stable cashflow an owner might
be able to secure more favorable financing.

Positively, there are more recent strategic developments that have
emerged, primarily, to ameliorate excessive risk-taking. Prominent here
is so-called paper trading.

To be explicit, it is critical to understand an owner’s propensity toward
risk, and ability to make decisions consistently in line with it. Here, too,
there are biases among many shipowners when it comes to acting on
freight/ship rates forecasts.