

BUNKERSPOT

BANKING ON CHANGE

FINANCING SHIPPING'S
ENERGY TRANSITION

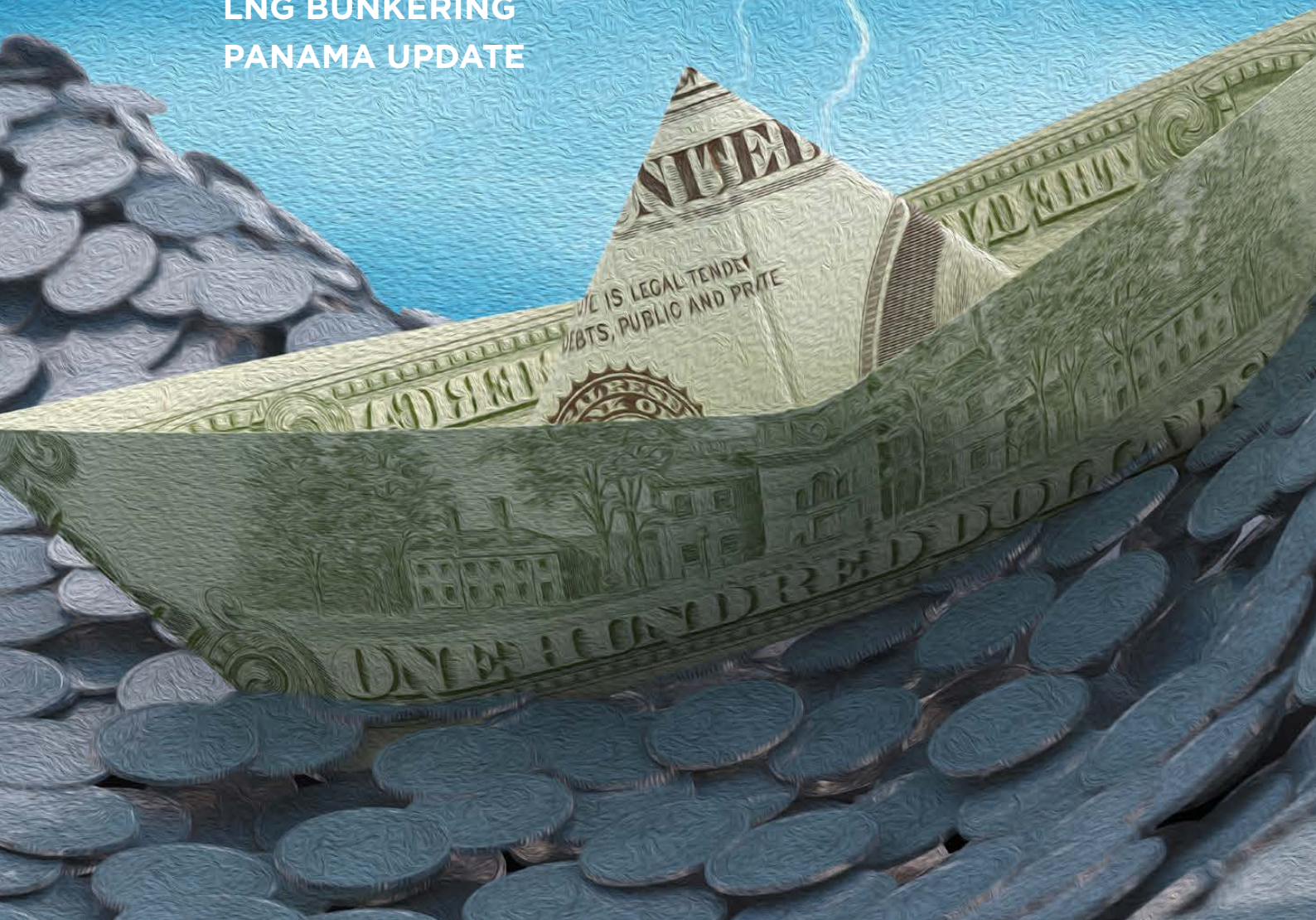
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Banking on change

Shipping's energy transition will certainly come with a very high price tag. **Sebastian Blum** and **Sebastian Fenk** of KfW IPEX-Bank talk to Lesley Bankes-Hughes about financing the decarbonisation journey



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The International Maritime Organization's (IMO) initial greenhouse gas (GHG) emissions reduction targets are well known and often quoted. Its ambitions of cutting shipping's carbon emissions by 40% by 2030 (from a 2008 baseline) and reducing the industry's greenhouse gas emissions (GHG) by at least 50% by 2050 will be challenging for the sector to realise, and the bar may be set even higher when the IMO revisits these initial targets (set out in 2018) in 2023.

Many industry stakeholders have voiced their frustrations over what they see as a reluctance by the UN body to be more proactive and agile in taking a lead on shipping's energy transition and, as shown by Europe's Green Deal, there is a groundswell of opinion which is pushing for unilateral action on GHG reductions in shipping in order to get initiatives moving and – hopefully – encourage the IMO to step up the pace on global regulation.

Since the IMO delivered its initial GHG targets, the discussion around the new marine fuels and propulsion technologies that will be required to get shipping to low or zero emissions has intensified. Technological innovation and cross-sector collaboration on research and development will be needed to turn words into actions, but scale of investment that will be required to move shipping to 'zero' cannot be underestimated.

A study published at the start of 2020 by

University Maritime Advisory Services (UMAS) and the Energy Transitions Commission on behalf of the Global Maritime Forum (before the economic impact of the COVID-19 pandemic on shipping began to be fully felt) put a price tag of \$1-\$1.4 trillion on halving shipping's CO₂ emissions between 2030 and 2050. If the full decarbonisation of shipping by 2050 is the endgame, then the investment required balloons to \$1.9 trillion.

Investors will need to have some very deep pockets indeed to meet this scale of financial commitment. There have already been some proposals to bridge the 'money gap', such as a \$5 billion R&D fund put forward for discussion at the IMO by a number of industry associations. However, progress on this at the recent meeting of MEPC 75 was not as substantive as many had hoped for and the subject has been kicked down the road to be revisited in 2021.

The European Commission has also called for the creation of an Ocean Fund to make shipping more efficient and reduce its carbon footprint, using revenue from its proposed emissions trading system for shipping, which could come into effect as early as 2022. Likewise, commodities giant Trafigura has suggested the introduction of a carbon levy of \$250-\$300 per tonne of carbon dioxide equivalent on bunker fuels to make zero and low carbon fuels more competitive with fossil-based fuels.

While such market-based measures may go

some way to support R&D on new fuels, there would still be a massive shortfall in terms of what is required for research and then, importantly, the commercial scaling up of these products.

And, of course, this is only part of the story – once the new fuels are proven, a global – or at the very least a comprehensive regional – supply infrastructure has to be put in place, and shipowners then have to make the all-important decisions about fleet renewal and the fuels those newbuildings will consume.

At present, shipyard activity is at an historic low as a result of the devastating impact of the Coronavirus pandemic on global trade and national economies, and banks will no doubt be cautious in lending to shipping during what is expected to be a volatile and uncertain post-pandemic recovery period. Furthermore, many well-known banking names took the decision to exit shipping finance altogether – or at least reduce their exposure to it – after the global economic crisis of 2008. Towards the end of 2019, Petrofin Bank Research, in its annual survey, highlighted that over \$44 billion in finance for shipping had been removed from banks' portfolios over the course of that year. At that point, the cumulative total of the top 40 banks' lending to shipping was \$300.7 billion – the lowest figure since Petrofin began its review of the global shipping portfolio at the tipping point of 2008.

However, just as there are owners who are proving to be first movers in shipping's

energy transition, there are also banks who have already engaged in this discussion and who are increasingly willing to extend loans for the construction of ships running on alternative fuels or using propulsion technologies, such as batteries.

Frankfurt-headquartered KfW IPEX-Bank is a case in point. The bank is responsible for Export and Project finance business within the KfW Group and has a focus on transport and infrastructure, having regard to environment and climate protection.

In October this year, the bank signed a €40 million loan agreement with the Grimaldi Group subsidiary, Finnlines, for the construction of a hybrid Ro-Ro vessel. The ship is one of three to be built by China's Nanjing Jinling Shipyard, and the vessels are slated for delivery in 2021-2022, when they will operate on North and Baltic Sea routes.

In addition to using lithium-ion batteries which enable zero-emission operation whilst in port, the vessels also feature energy saving technologies such as air lubrication systems and propeller-rudder systems.

Over a year before, in July 2019, Finland's Tallink Group and KfW IPEX-Bank also signed a loan agreement to finance a new €247 million gas-powered fast ferry, *MyStar*, currently under construction at the Rauma Marine Construction yard and scheduled for delivery in late 2021.

Staying with the LNG-fuelled vessel sector, the bank has also structured the financing for three AIDA Cruises' vessels: the *AIDANova*, the *AIDACosma*, due for delivery in 2021, and a third cruise ship that will follow in 2023.

The bank has also provided loans towards the financing of three of CMA CGM's series of nine 23,000 TEU containerships – the *CMA CGM Jacques Saadé*, *CMA Champs Elysees* and the *CMA CGM Palais Royal*.

As Sebastian Blum, Director Maritime Industries, explains, KfW IPEX-Bank's mandate is to support the German and European export industries. 'We have been active for more than 40 years in shipping – first supporting German shipyards and financing their exports and then more and more projects where German or European equipment producers are supplying to vessels built in Asia,' he says.

In terms of vessel segment financing, the bank is 'very strong' in cruise, supporting projects in European shipyards across Finland, Germany, Norway, France and Italy. Cruise ships account for over half of the bank's shipping portfolio and the balance is distributed across other segments, such as containerships, gas and oil tankers and Ro-Ro/RoPax ferries. In its lending to

owners and equipment suppliers, the bank also uses export credit financing instruments.

According to Blum, conversations about how the bank can support cleaner shipping have been underway for a number of years. 'Since 2012, we have had a green shipping working group inside the bank,' he says. 'We have tried to identify particular green shipping projects and also speak about this in conferences, [emphasising] that we want to be part of this energy transition financing.'

He acknowledges that it has taken time for momentum to grow on such projects, but he says that IMO 2020 and growing regulatory pressure on shipping to reduce its GHG emissions profile have moved the discussions along.



'We are in active discussions with ship-owners and also equipment suppliers and they are now more interested. Two or three years ago, we had the first movers but now the others are following up and we are now in deep conversation with them.'

Sebastian Fenk, Director of Maritime Industries, agrees that some of the bank's shipping clients have been 'ahead of the curve' in the energy transition and in terms of KfW IPEX-Bank's approach to potential projects, he notes that: 'We will look at any kind of technology that is feasible and that helps to reduce CO₂ in maritime transportation.'

However, he highlights that some fuels, such as LNG and LPG, are more advanced in terms of technology and supply infrastructure. Methanol-fuelled vessels and sectors such as ferries which are adopting electric/hybrid propulsion are also viewed as being receptive to more mature alternative technologies.

However, fuels such as ammonia and hydrogen are still 'far away from

being at a scale where you can say they are commercially viable,' he says.

'How we look at this as a bank, then the technology is not the main driver – it needs to be safe but the drivers are also the commercial aspects [of the technology] and the credit ratings behind it.'

There are also other factors that will inform a bank's appetite for risk, and obviously this will include who is asking for the loan.

'We have to look at who we are talking to and what are the risks we are taking. For a big corporate with a big balance sheet, there is definitely a bit more "fire-power" to test different things – and that is important to us,' notes Sebastian Blum.

'The first movers have been the big companies because they can take the biggest risks,' he says. He highlights the example of LNG-fuelled vessels, where market growth initially came with LNG retrofits for smaller containership companies which were financially supported through government subsidies. However, it was only when the 'big hitters', such as the cruise ship companies and container liners, entered the fray that the LNG bunkering infrastructure became more widely available.

'This is something very basic, but it is important for us to analyse, and we are also looking for assurance on the risks involved in using the different technologies,' says Blum.

'It is also difficult for us to evaluate the new technology or the asset value of the new vessel because there is not a real market for it, and that is why we need the protection of the balance sheet of the owner or we can use export credit agency (ECA) cover for these kinds of financing structures.'

'We need to assess what this asset will be worth in 8-10 years, and it's difficult to know whether the technology here is the winning one or whether at the end it doesn't make the race – this is something that we have to be very careful about.'

Gauging asset value may become easier to calculate when a second-hand market for alternative fuelled (principally LNG-fuelled) vessels begins to take shape, but Fenk says that it is little early in the day for such a market.

'They are just coming to the water now but you can see that there is a future order book so the uncertainty is less than before. The fact that the fleet is growing with some of the LNG-fuelled ships entering operation is a good sign for us as a bank.'

While government and regional subsidies play a crucial role in nurturing innovation in alternative marine fuels and vessel technology – often for many years – there comes a point when a product or technology has to demonstrate its commercial viability and 'go it alone'.

Blum agrees that as technologies mature and the sums begin to add up, then banks will become less risk averse. 'You can take the German renewable energy transition as a good example,' he suggests. 'On the production side, at some point in time the energy becomes cheaper and more available and you then have the supply infrastructure; this is the way it goes and at the end the bank can take the risk.'

While LNG was promoted as a fuel to achieve full compliance with the IMO's 0.50% global sulphur cap, introduced at the start of 2020, the publication of the IMO's initial GHG targets certainly altered some industry stakeholders' perception of the 'clean' credentials of the fuel in that it only goes some of the way to cutting CO₂ emissions. LNG has been labelled by some commentators as a 'transitional' or 'bridging fuel', although LNG advocacy groups would point to the development of synthetic LNG or bioLNG as ways of further reducing its CO₂ emissions and giving it longevity as a marine fuel.

Sebastian Fenk takes issue with the LNG naysayers. 'I think we disagree that LNG runs the risk of becoming a stranded asset. We are of the opinion that LNG has a positive effect on the CO₂ issue in shipping.'

'There are some issues if you talk about methane slip – this needs to be controlled but it can be – and therefore I think [LNG] is needed and will play its part in the transition of the maritime industry. Especially if you consider that dual fuel engines can be adapted to synthetic environmentally friendlier fuels in the future.'

This is one of the reasons why looking ahead, KfW IPEX-Bank also sees opportunities in the retrofit market. While newbuilds can begin their lifecycles running on new fuels, significant energy efficiencies can also be achieved across the existing global fleet through the installation of equipment such as new optimised propellers or rotor sails.

The bank has made a foray into the retrofit market once before. In 2014, when oil prices were high, it promoted a retrofit financing scheme to facilitate vessel efficiency and, thereby, pare back on expensive bunker costs. However, interest in retrofitting waned following the massive oil price collapse in 2015, but Blum does think with new IMO regulations, such as the vessel efficiency short-term measures agreed at November's meeting of the Marine Environment Protection Committee (MEPC 75), the retrofit market will become more buoyant.

However, this optimism comes with a caveat. 'Normally, it is an older vessel to be retrofitted which already has financing attached to it, so [the issue is] whether you can go to your

existing bank and ask for a top up of the existing finance to do the retrofit,' Blum explains.

'So what we are trying to develop is a scheme where [an owner] might have financing with several other banks but there could be a solution where we wrap the retrofit financing within the ECA cover of the export agency where the equipment comes from, such as Germany or Norway,' he said.



Sebastian Fenk

'I think we disagree that LNG runs the risk of becoming a stranded asset. We are of the opinion that LNG has a positive effect on the CO₂ issue in shipping'

'We then try to find a structure within the balance sheet of the client where in some cases we don't need the assets or the mortgage as a security. This is something that has worked quite well in the past, usually with a repayment period of 3-5 years and that we are proposing to existing and new shipping clients.'

In June 2019, 11 major shipping banks developed and launched the Poseidon Principles, which require financial institutions to disclose the climate alignment of their shipping portfolios with the IMO's 2050

GHG reduction strategy. Since then there have been more signatories to the Principles, and they currently represent over \$150 billion in loans to international shipping – more than 30% of the global shipping finance portfolio.

KfW IPEX-Bank was on the drafting committee of the Principles and is also part of the Global Maritime Forum. Sebastian Fenk was involved at the drafting stage of the Principles and is supportive of the initiative which, he says, will go a long way to improving transparency in the shipping sector'.

However, the bank has not yet signed up to the Principles. Fenk explains that KfW banking group (the parent company of IPEX) is currently implementing a group wide sustainable finance strategy. 'Once this has been agreed, we will evaluate how the Poseidon Principles fit in,' he says.

He highlights the importance of getting Asian investors and banks to sign up to the growing number of sustainability initiatives and he also emphasises that sustainability should be seen from a much broader perspective than CO₂ emissions reduction, encompassing other key areas such as ship recycling.

Shipowners have some difficult and expensive decisions ahead about fleet renewal in the context of IMO 2030 and 2050 objectives, and while those banks who are still in the business of shipping finance are working out what their lending strategies will be in the new era of alternative fuels, other sources of funding may also be available.

Blum acknowledges that some key players have left the shipping finance space and he also points to the current very low vessel order book during this period of uncertainty and market volatility. Other investors who have 'a lot of liquidity and who are hungry for clean assets' could potentially enter the market, he suggests, while some companies are issuing green bonds and those firms that are able to may go to the capital markets. 'For the rest it is a broad spectrum of maybe debt funds,' he says.

'Above all, the important thing is adherence to the regulations, so you know what you are investing in and then everybody can develop their plans.'

'The different actors have to align and then decide – and then the different actors can take action.'

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