International Chamber of Shipping

LEADERSHIP INSIGHTS

Issue no: 10 | March 2022

New fuels are no threat to Singapore, says Caroline Yang

DECISION MAKER: CAROLINE YANG

Biggest bunker port gears up for future fuels

Singapore's bunkering sector has changed once and it can change again, says Caroline Yang

As chief executive of Singapore's Hong Lam Marine (HLM) – which operates one of the larger fleets of bunker tankers in the world's biggest bunkering port – Caroline Yang is well placed to reflect on how future fuels might affect its role in a zero-carbon world.

In her 30 years with the company, she has already seen a number of changes to the republic's bunkering operations, especially with the introduction of mass-flow meters (MFMs) since 2017, the implications of the 2020 sulphur cap and now COVID.

So although the prospect of LNG, methanol, ammonia and hydrogen replacing traditional fossil fuels presents new challenges and opportunities, Yang believes it will not diminish Singapore's pivotal role as a global bunkering hub.

COVID restrictions require contactless bunkering operations (image: Hong Lam Marine)

These new fuels might be produced in locations determined by the availability of the solar and wind power needed to make e-fuels, rather than oil in the ground, but Singapore has no natural resources and only about 20% of the fuel it supplies is refined locally, with the bulk of it already brought in from elsewhere. So "a bunkering centre is not dependent on the source [of its fuel]". What matters is "where you can get the most competitive fuel", she said.

On top of that, Singapore has a holistic bunkering ecosystem that combines supply chains and regulation. "We have traders, refiners, storage, arbitrators and lawyers, and we have a strategic location". In addition, "we have regulators who actively promote the services in the port" so "we are not going to lose our position just because we don't have the [fuel] source" she said.

Market changes

HLM's business model is based on chartering its 23 bunker tankers, most of which are no more than 10 years old, to provide fuel delivery services mainly to oil majors. Before 2020, that model was unusual; now a number of other operators are following suit.

"The landscape has changed a bit since the 2020 sulphur cap was implemented", Yang said. When HFO was the main product delivered, it could be treated as a commodity and loads could be comingled. But low-sulphur fuel is "very proprietary in nature", Yang said. This has "skewed [the market] towards the bigger players and traders ... and the oil majors", with dedicated chartered bunker tankers more suitable for delivering such specific blends.

The introduction of MFMs "was a complete game changer. It really cleaned up the market", Yang said. They were made mandatory for HFO in 2017 and gas oil in 2019, but HLM was the first company to proactively participate in early trials in 2010 and was the first operator to be certified to use MFMs for custody transfer.

Some suppliers had feared that the market would reduce with the use of such measurement technology but shipowners welcomed it, she said, with volumes increasing. "More ships came into Singapore to take bunkers because now they are assured that there is integrity in the complete bunkering system", she said.

MFMs came into their own once COVID arrived and contactless bunkering operations were stipulated, preventing crew from the receiving ship boarding the bunker barge and *vice versa*. After more than a year of working this way, "this is no longer an issue", Yang said.

Future fuels

Although Singapore's future as a bunkering port may seem secure, it nonetheless has to prepare for the transition. "We really need to be in the game", Yang said, and the Maritime and Port Authority of Singapore

Singapore's first ship-to-ship LNG bunker delivery took place in March 2021 (image: FueLNG)

> MFMs "really cleaned up the market"
> **Caroline Yang**

(MPA) has identified LNG as the transition fuel. An LNG terminal is in service and about 200,000 tonnes of LNG fuel were delivered in Singapore last year. There is one LNG bunker tanker currently approved to provide ship-to-ship LNG bunkering. It is operated by FueLNG, a joint venture between Keppel Offshore & Marine and Shell Eastern Petroleum, and two more are expected to go into service this year. Delivery trials of biofuels have also been initiated and more are expected this year.

As Singapore is looking to diversify its new fuel offerings with biofuels, ammonia and methanol to name a few, "standards are very important", Yang said. To this end, the government agency Enterprise Singapore is developing standards for their delivery and the Singapore Shipping Association (SSA) – of which Yang is President – is part of its Technical Committee. No date has been set for the standard to be delivered; "it's taking some time", Yang said.

One reason for the delay is because "we want to see a clearer pathway" towards understanding how ships will use the new fuels. "Then we can build the infrastructure and the ships to carry those fuels" she said. To some, this might seem like a chicken-and-egg situation, since shipowners might want to be sure there was adequate infrastructure before investing in new fuels, but Yang insisted this was not the case.

"Development of standards must demonstrate actual trials and delivery", she said. "Then we can start to build on it. Right now, infrastructure investment is through joint ventures [and] the industry is counting on early market movers to create the demand and supply".

These moves will come, she said, because pressures coming from climate change and net-zero goals mean that "many bigger companies are taking a stance" on their preferred fuels to achieve decarbonisation "so you will see some pathways coming up".

> "Development of standards must demonstrate actual trials and delivery"
>
> **Caroline Yang**

Respect, responsibility and relationships

When Caroline Yang was first elected as president of the Singapore Shipping Association (SSA) in June 2019 she realised that the position brings with it a degree of respect. "Whatever I say is taken very seriously", she told *ICS Leadership Insights*, which enables her to "move the needle" on industry issues.

But that ability must be used responsibly; "I must make sure that I'm moving it for the majority of the industry", she said. And that means working with others, such as via what she called Singapore's 'tripartism' in which industry, unions and government work together.

One outcome of that cooperation was the Singapore Shipping Tripartite Alliance Resilience (SG-STAR) Fund, with Yang chairing its governance committee. It was set up in August 2020 by Singapore's Maritime and Port Authority (MPA), the SSA, two Singapore seafarer unions and supported by international bodies including ICS, ITF and IMEC to provide funds to support countries that adopt best practices for crew change.

Crew change remains a challenge, she said, even in Singapore where she estimated that 4-500 crew changes are now being made each day. But this is only half pre-pandemic levels thanks, to a large extent, to the requirements imposed by the seafarers' home countries, such as the need for the seafarers to have a PCR test and/or quarantine in Singapore.

Vaccinations should have been addressed globally, she said, estimating that only 50-60% of crew have so far been vaccinated. In Singapore, the Sea and Air Vaccination Exercise (SAVE) and the SSA-led Seafarers Vaccination Programme (SeaVax) have vaccinated more than 8,000 non-resident crew and seafarers. "If every country does their part, we'll get all our crew vaccinated", she urged.

ICS announces decarbonisation summit

The board of the International Chamber of Shipping (ICS) has announced plans to host a high-level summit, called Shaping the Future of Shipping, to address the challenge of decarbonisation.

ICS will work with partners to convene shipowners, ministers, maritime, energy and infrastructure leaders with the challenge of bringing forward a tangible path to decarbonise the sector. The closed-door meeting will be held in London the day after a dinner on Monday, 20 June 2022 at the National Maritime Museum in Greenwich to mark the organisation's Centenary.

Esben Poulsson, chairman of ICS said "Business is about getting things done so the board has decided to use the moment when we mark our 100 years at the helm of shipping to bring the leaders of our industry, plus leaders from other sectors and policymakers, together to agree a tangible path forward based on reality and not just wishful thinking."

Video of Patricia Espinosa, Executive Secretary, UNFCCC, at the ICS conference at COP26 (image: ICS/Stewart Hemley)

Further details of the Centenary Dinner are available here. To enquire about attending the Centenary Dinner contact us here. Details of the Shaping the Future summit will be released in due course.

Free movement of Ukranian and Russian crew essential

ICS has warned of supply chain disruption should the free movement of Ukrainian and Russian seafarers be impeded.

The Seafarer Workforce Report, published in 2021 by BIMCO and ICS, reports that 1.89 million seafarers were then operating over 74,000 vessels in the global merchant fleet.

Of this total workforce, 198,123 (10.5%) of seafarers are Russian. Ukraine accounts for 76,442 (4%) of seafarers of which 47,058 are officers and 29,383 are ratings. Combined they represent 14.5% of the global workforce.

Flag state performance table released

The annual ICS Shipping Industry Flag State Performance Table has identified reporting on seafarer well-being as a "casualty of the pandemic".

Released at the end of January, this year's table highlights a drop in levels of reporting on the status of national ILO labour standards, including the 2006 Maritime Labour Convention (MLC), underscoring the severe administrative pressures of the pandemic and the ongoing 'crew change crisis' on seafarers, governments and the industry alike. The table's criteria assessing flag states' reporting on ILO labour standards, including the MLC, revealed a 6-percentage point decrease in Flag States successfully meeting their obligations.

The findings were an outlier against a generally strong performance across the board from most Flag States, on criteria such as Port State Control (PSC) records and ratification of international conventions.

Further findings from the report can be accessed here.

Just Transition Maritime Task Force progresses

The Just Transition Maritime Task Force, launched by ICS, ITF and UN Global Compact during COP26, will hold its first industry peer learning group in March.

The Task Force will coordinate efforts with governments, industry, workers and their representatives to ensure a people-centred green transition. Its first phase of research will focus on the green training and upskilling needs to decarbonise the maritime industry and the green job potential of new fuels.

A core driver will be how maritime can achieve an equitable transition between the global north and south to avoid a two-tier shipping industry and create opportunities for all.

For those interested in finding out more contact us here.

US increases market dominance in LNG; exports set to rise

Just six years after the first large-scale shipments of LNG from the continental US in February 2016 – which was only three months after the US Senate lifted a ban on US crude oil exports – the country is now the world's top producer of LNG and is expected to become its leading exporter later this year.

Bloomberg reported in early February that this new US dominance would be triggered by two developments: Venture Global LNG was then poised to load its first cargo from its export terminal in Cameron, Louisiana and Cheniere Energy Inc was nearing completion of an expansion project at its Sabine Pass liquefaction project, also located in Cameron, Louisiana.

Other media cited Platts as reporting that an LNG carrier was scheduled to load Venture Global's first cargo, bound for Japanese energy provider JERA (**J**apan's **E**nergy for a New E**ra**) and at the time of writing, on 20 February, AIS data confirmed that a ship was in the port, suggesting that the terminal is now operational.

Meanwhile, Cheniere Energy Inc announced on 4 February "substantial completion" of Train 6 at its facility, achieved ahead of schedule and within budget, its announcement said. It quoted the Chairman, President and CEO of Cheniere Partners, Jack Fusco, saying that now, with a total of nine trains across its Sabine Pass and Corpus Christi projects, "the Cheniere liquefaction platform is the second largest in the world".

Venture Global LNG's export terminal, seen here in September 2021, will help make the US the global leader in LNG exports (image: Venture Global LNG)

Bloomberg went on to predict that once Venture Global's US$5.8 billion export terminal was fully open, the US will have the capacity to ship 13.9 billion ft^3 (394 million m^3) of LNG per day, more than the current top producers Australia and Qatar. That figure refers to the volume of the gas pre-liquefaction, which reduces it by a factor of about 1:600 for loading on a ship.

Even this is a small fraction of the nation's LNG production capacity, according to the US Energy Information Administration (EIA). In a forecast issued on 17 February, it said that US natural gas production will increase to an average of 104.4 billion ft^3 per day in 2022 and then further increase to a record-high 106.6 billion ft^3 per day in 2023.

> "We could see more seasonal volatility"
>
> **Jamison Cocklin**

Cargo and bunker security

For shipping, there are two main implications for this development: its impact on global LNG trading and its relevance for the growth in LNG as a marine fuel, especially in the current geopolitical climate.

US gas shipments to Europe reached record highs in December and January, which attracted such a glut of ships into the trade that in early February spot rates went negative, Natural Gas Intelligence reported. The author of that report, Jamison Cocklin, told *ICS Leadership Insights* that "strong demand from both Europe and Asia are keeping the market tight" and that, looking ahead, "as the call for US LNG increases abroad along with available capacity, it is possible that we could see more seasonal volatility in the shipping market".

Peter Keller is chairman of SEA-LNG, an organisation that encourages LNG use as marine fuel. "We now have a relatively stable place from which to get LNG. ... You don't have to worry about getting it from Russia [or] from some other place; you can get it from politically stable environments", he said.

Nonetheless, he put the development into context: "Qatar and the Middle East are really quite stable these days" and there is no shortage of LNG available around the world, with some locations yet to be developed.

Handle with care: data should be assessed before use

It has been said that 'data is the new oil' because of the value it contains. Even apparently trivial data – sometimes called 'digital exhaust' – can be exploited as a widely available resource. But with so much information available, how is shipping making the most of what is available?

For shipping, trade data is a key input to its strategic decisions and one international body central to its collection is the United Nations Conference on Trade and Development (UNCTAD). Its secretary General, Rebeca Grynspan, told *ICS Leadership Insights* that "with data-driven research and decision-making headway, I have decided to strengthen our work on statistics ... to provide this important public good to our stakeholders, including the seaports".

Anu Peltola is UNCTAD's Acting Head of Development Statistics and Information and she described her department's main task as to collect and provide data on trade, development and related topics to benefit external users, alongside supporting UNCTAD's own activities.

And she believes that businesses could make more use of it than they do. Because it is freely available online via the UNCTADSTAT portal, it is not possible to be certain who uses UNCTAD's data, but based on specific requests her department receives, it is mainly government agencies, researchers and students. As for individual companies, "I am not sure that they do [make use of it]", she said, yet the data "provides lots of possibilities for adding value and making use of it for business purposes".

Shipping, in particular, is well served by UNCTAD's data, she suggested; "we keep reviewing new data sets that could potentially be useful for whoever is interested in maritime trade". In particular, she mentioned a new transport cost data set that UNCTAD is developing "that will improve the quality of

Some data – such as coal exports from Australia to China – is not easy to obtain (image: Port of Newcastle)

Crunch the numbers, or follow a hunch?

In a world of data, is it ever right to follow a hunch? "I am sure it is", remarked Niels Rasmussen, Chief Shipping Analyst at BIMCO. "If it wasn't, then everybody would be doing the same thing." In any case, "you will never be right when you forecast", he said. "The forecast might tell you a likely direction, but ... the decision makers will have to take that forecast and decide how much faith they put in it".

Anu Peltola, UNCTAD's Acting Head of Development Statistics and Information, agrees. "We can't avoid it," she said. "Data can't dictate our decisions." It is difficult to capture reality in figures, she went on "so we can't avoid using our full capacity as human beings to make conclusions". Data must inform a decision but "one always has to be critical: review, compare, select".

At VesselsValue, Cargo Analysts George Delaney believes that hunches should be tested against the data. "It's becoming increasingly difficult for industries to ignore the importance of using big data", he said. So although "hunches can be a serious advantage for an industry expert ... the power of data and analytics comes in their ability to, if necessary, support or question hunches". That, he said, "can lead to better decision making on all levels of business".

Mike Powell, Chief Business Officer at StratumFive, which provides ship operational data services, put it like this: "You could just bet on a horse, but even most gamblers will be evaluating some data, so hunches need support."

information available to calculate emissions and transport costs by route", she said.

The project still has two years to run and, at present, only one year's data – covering 2016 – is available online but later years will be added, followed by earlier data, Peltola said.

At shipping organisation BIMCO, its Chief Shipping Analyst Niels Rasmussen analyses capacity supply and demand data to provide reports for its members. To determine the supply side of the balance, he uses third-party fleet and orderbook figures coupled with other data such as from AIS transmissions to obtain ship speed.

"On the demand side, it becomes more troublesome." Customs data, for example, might provide good data for the container trades, but it can be complex to assess, since tonnage figures will depend on the cargo loaded in each box.

Tramp operations are even more difficult to estimate. For example, he has looked at the iron ore trade between Australia and China but the amount that Australia's customs authorities said had been exported was "very much different from what China's customs believed had been imported". There may be good reasons for that, but "you have to decide what you believe and that's not an easy feat".

When it comes to operational data, Mike Powell, Chief Business Officer at StratumFive, used a motor racing analogy to consider how up-to-date and complete data must be to be useful in decision making. "In a Formula 1 environment you'd need to do a little better than occasionally kicking the tyres and checking the oil if you want to win".

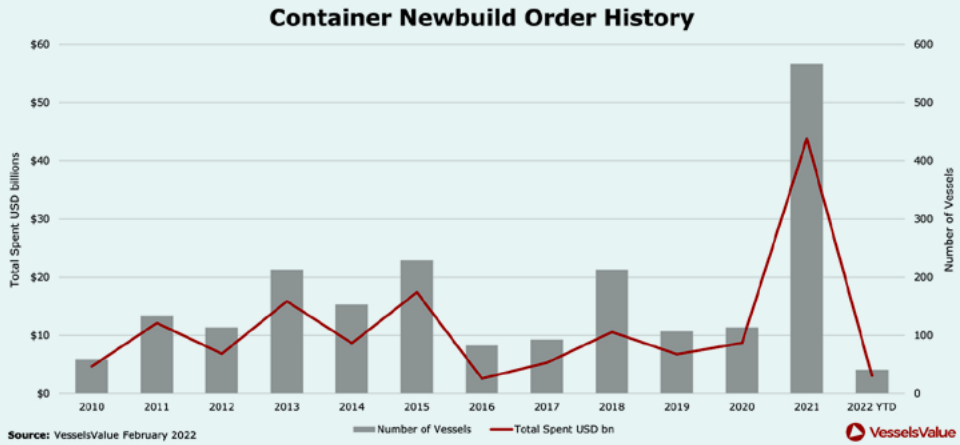
For some operators, gaining insights quickly requires data to be collected frequently and delivered as soon as possible after collection, he said. "The further an operation moves away from those requirements, the longer it takes to deliver the insight, so there is an opportunity cost", he said. For example, "if an operation uses noon reports, a lot can happen in 24hrs. Positions every six minutes gives better opportunities to link performance to specific conditions".

And in his experience, customers want data but with analytical tools able to handle large and fast data streams. "Standard reports have a place, but customers also require some configurability in analysis to focus on their particular requirements", he said.

He is also seeing more applications of operational data for policy and investment decisions, especially "with increased regulation and initiatives such as the Poseidon Principles and Sea Cargo Charter, which indicate an appetite for more data and assurance from operations."

Financial data is clearly vital for making such decisions. George Delaney, Cargo Analyst at VesselsValue (VV), said that its services are used by organisations including banks, funds, leasing companies, shipowners, operators, governments and professional services. Its database covers secondhand transactions, newbuild orders (see box) and demolition sales, which it can combine with fleet information to support commercial, financial and policy decisions.

While this sort of diverse range of data enables businesses to make more informed and reliable decisions for investments or policies, "no single dataset will provide all the insight for all decisions made by a company", he said.



Container newbuilds set a record in 2021

Last year was a record-breaking year for the container newbuilding market, Felix Mathes, Container Analyst at VesselsValue said. A total of 563 vessels with a combined capacity of 4.39 million TEU were ordered, up by 394% compared to 2020. They will add 18% to the global container fleet. In 2022, another 211 vessels with a TEU capacity of 1.27 million are due to be delivered, with a further 96 in 2023.

> "You have to decide what you believe and that's not an easy feat"

Malaysian shipowners chase green goals

Shipping backs Malaysia's environmental and economic agenda, but needs support

Port of Tanjung Pelepas became the first container terminal in Malaysia to surpass 11 million TEU in a year (image: APM Terminals)

Malaysian shipowners are committed to achieving net-zero carbon emissions by 2050, said Mohamed Safwan Othman, who is president and group managing director of OSV operator Dinastia Jati and, since December 2021, chairman of the Malaysian Shipowners Association (MASA). But raising the finance needed to achieve this is currently an obstacle. "We are having lots of discussion with Malaysian banks and international banks for them to understand this cannot be seen as a short-term investment", he added.

He also stressed the need to work in partnership with clients. "We need a clearer picture, especially from our clients, in terms of where we want to go and the timeframe we need to follow". With the deadline in mind, "between now and 2050, a lot more discussion is needed between vessel owners and our clients and other stakeholders in order to achieve the target", he said.

At a national level, in September last year, Prime Minister Datuk Seri Ismail Sabri Yaakob committed to making the country carbon-neutral by 2050. At present, Malaysia imports large quantities of coal and is ranking fifth among LNG exporters thanks to state-owned Petronas, which made the same pledge in relation to its own operations.

Nationally, achieving this goal means that gas will initially replace coal for electricity generation while renewable energy from solar, biomass and biogas is built up; this is planned to reach 31% of power supply by 2025. Petronas has operated onshore solar farms in Malaysia since 2013 and is now also established in India with expansion planned into Dubai and Vietnam.

Notably absent from either plan is domestic windpower and Safwan explained why: "Unfortunately, we do not have strong enough winds in Malaysia to have wind farms." This is in contrast with elsewhere in the region, where typhoons are a risk, "but not in Malaysia", he said.

However, there is significant hydro-electricity produced and used in the Sabah and Sarawak regions on Borneo, with Sarawak Energy being Malayasia's largest renewable energy producer.

Economic impact

Malaysia's shipping sector is not one that the country can afford to ignore. Thanks mainly to its five port authorities and their eight ports, along with cruising, fishing and offshore operations, shipping-related business provides about 40% of the nation's GDP, according to the Malaysian Investment Development Authority (MIDA).

Malaysia ranks fifth in the world for LNG exports (image: Petronas)

But shipowning and operating themselves contribute only a single-digit share to that figure, and Safwan believes that can be increased. There appears to be support for his view within government: on 7 January, Transport Minister Datuk Seri Dr Wee Ka Siong said that "more needs to be done in terms of ports and shipping development for the country to fully optimise the usage of our maritime resources, infrastructure and expertise".

The minister had been speaking at an event at the Port of Tanjung Pelepas (PTP) to mark that port becoming the first container terminal in Malaysia to surpass 11 million TEU in a year, along with a record combined total of 13.58 million TEU for Port Klang's Westport and Northport during 2021.

Ports and shipping also feature in the Twelfth Malaysia Plan, which spans 2021-2025. In November 2021, MIDA said the plan anticipates "transforming the logistics ecosystem for greater efficiency" with digitalisation across the maritime supply chain as one of its priorities.

Domestic priorities head MASA's agenda

At the top of MASA's agenda to boost shipping's economic contribution is cabotage. This is a campaign that has roots going back to 1980, when Malaysia's 1952 Merchant Shipping Act was amended to reserve domestic trade to Malaysian-flagged vessels. But in June 2017, the regions of Sabah, Sarawak and Labuan were removed from that protection, followed in April 2019 by vessels involved in repairing subsea cables, a decision that was reversed in November 2020.

MASA welcomed that development and in the same month also called for the 2017 regional exemption to be reversed, citing the difficulties the industry was facing from the COVID pandemic, among other arguments.

MASA is also keen to see domestic operators given priority for carrying international cargoes, and its president, Mohamed Safwan Othman, mentioned Malaysia's coal imports as an example of an unbalanced trade. The national power generator, Tenaga Nasional Berhad, brings in 40 million tonnes per year in about 420 shipments spread across hundreds of vessels, he said, yet only six ships in this trade are Malaysian-flagged.

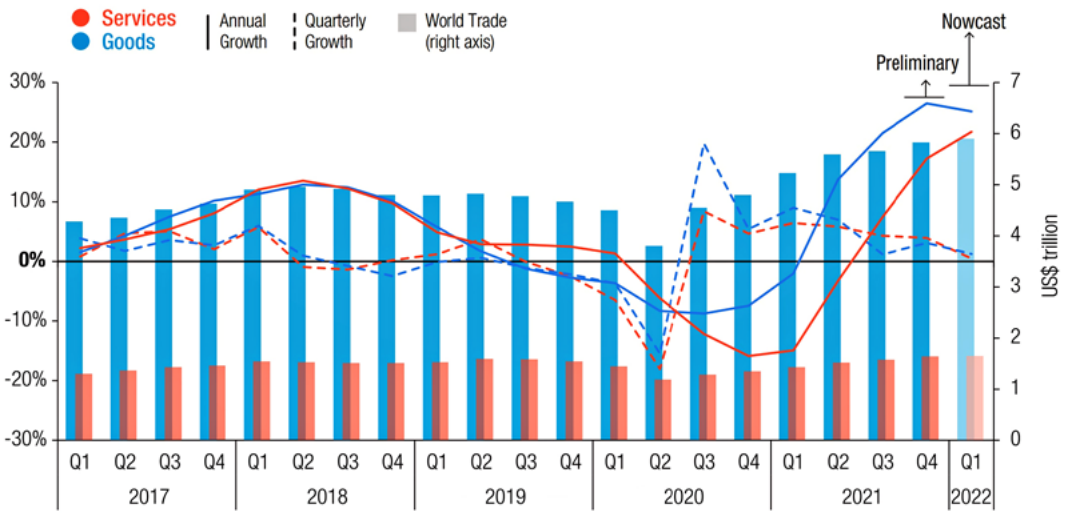
"We're not against international companies", he explained, but local operators should be given the opportunity to transport cargoes first, especially those for government-linked companies. "If none of the local owners are interested, the international players are definitely welcome", he said. "It's important to protect local shipowners, but at the same time, to collaborate with international players".

There is collaboration between industry and government, in particular thanks to a Shipping Master Plan, which spans 2017-2022, although COVID has delayed some of its ambition Safwan said. One of its main pillars is to increase the tonnage registered under the national flag. As part of this strategy, a National Shipping Council was revived, which met only twice before the pandemic struck, but Safwan is hopeful that a further meeting will take place by the end of March.

Industry profile

Malaysia's seventh Maritime Week was due to take place as this issue was published, organised by MASA. Despite COVID travel restrictions, a number of international speakers were scheduled to speak and visitors were expected from fellow ASEAN nations.

Global trade sets a record for 2021



Source: UNCTAD calculations based on national statistics. Quarterly growth is the quarter-over-quarter growth rate of seasonally adjusted values. Annual growth refers to the last four quarters. Figures for Q4 2021 are preliminary. Q1 2022 data is from a January UNCTAD nowcast

The value of global trade reached a record level of about US$28.5 trillion in 2021, an increase of about 25% compared with 2020 and about 13% more than in pre-pandemic 2019, according to UNCTAD's latest Global Trade Update, published on 17 February.

It said the growth "was largely the result of increases in commodity prices, subsiding pandemic restrictions and a strong recovery in demand due to economic stimulus packages".

A summary of the report's findings noted that most growth took place during the first half of the year, but continued through the second half, in particular during Q4, based on preliminary figures.

Those suggest that, in those three months, trade in goods increased by almost US$200 billion to reach a record US$5.8 trillion for the quarter, while trade in services rose by US$50 billion to reach US$1.6 trillion. During that quarter, all major trading economies saw imports and exports rise well above pre-pandemic levels in 2019, the summary notes.

Looking ahead, UNCTAD does not rule out further growth but says it will be less than in 2021 because the developments that drove last year's growth are likely to abate. It also noted that the International Monetary Fund has revised its world economic growth forecast downwards by 0.5 points and highlighted ongoing logistic disruptions and rising energy prices.

International Chamber of Shipping

ICS is the principal international trade association for merchant shipowners and operators, representing all sectors and trades and over 80% of the world merchant fleet.

For more ICS contacts:
www.ics-shipping.org/contact-us/

Contact us
International Chamber of Shipping
7th Floor, Walsingham House, 35 Seething Lane,
London EC3N 4AH
☎ +44 (0) 20 7090 1460
info@ics-shipping.org
www.ics-shipping.org

ICS contacts
Tanya Blake, ICS Communications Manager
tanya.blake@ics-shipping.org
☎ +44 (0) 7498 871353

Paul Gunton, ICS Newsletter Editor
paul.gunton@ics-shipping.org
☎ +44 (0) 7776 441192

Design and layout
Phil McAllister Design
phil@philmcallisterdesign.com
☎ +44 (0) 1273 737481

Press and Communications
Duncan Bray, Woodrow Communications
☎ +44 (0) 7972 224445

Sales
Richard Emsley
richard.emsley@ics-shipping.org
☎ +44 (0) 7730 289459