

# **THE INSTITUTE OF CHARTERED SHIPBROKERS**

## **2022 November ICS Examiner's Report**

### **Economics of Sea Transport & International Trade (EST)**

#### **General comments**

I am happy to present the November 2022 Economics of Sea Transport & International Trade Examiner's Report. The pass rate is once again, well above average.

An appreciable number of essays submitted, as is the norm, had an introduction, a well-structured body, with arguments anchored on sound theory and practice and, supported by examples from industry, with a brief and sound conclusion. It is highly recommended that candidates present their essays in a standard format as described above.

Candidates are once again, reminded that additional marks are earned by those candidates that make appropriate and relevant use of maps, as well as graphs and diagrams. To secure a pass, candidates are required to demonstrate an understanding of the key concepts and terminologies in the course, such as for example, supply and demand model, macroeconomics, protectionism, utility, economies of scale, marginal costs, break even analysis, elasticity, intra and inter industry trade, and balance of trade deficit. Definition of key term and concepts, also earn candidates additional marks.

**1. Consider and discuss the impact of high crude oil and energy prices on world economic recovery and shipping.**

Surprisingly, this question was not popular and did not produce very good marks!

This question required candidates to highlight the centrality of the oil and energy and their impact on world economic recovery and shipping.

An emphatic and bold discussion on issues such as:

- Central role of oil and energy, especially on the developed economies
- high oil and energy prices ability to derail the fragile global economic recovery, particularly after COVID19, reduced global GDP
  
- Increased cost of food, basic household needs, manufacturing including comments on the state of world economy, particularly that of the OECD countries with their heavy dependencies on oil and gas.
- reduced consumer spending as petrol prices impact the motorist.

**Shipping**

- increased bunker prices and input costs leading to increased freight rates with resulting decline in world economic activity, trade and shipping.
- reduced earnings for the shipping industry, investment in ship building, infrastructural developments and investments etc  
EU Green deal - specific impact on shipping
- Decarbonisation of shipping agenda

“The International Maritime Organization (IMO) has set an ambition to reduce the carbon intensity of emissions from shipping by at least 40% by 2030, and 70% by 2050, compared with 2008 levels. To achieve this, the shipping industry needs to unite in taking urgent action.” Mention of specific actions and impact on Balance sheets.

**2 Within the dry bulk market, describe ALL the following:**

- a) the users of grain**
- b) The main importers and exporters for these cargoes**
- c) The impact of current geopolitical issues, on global grain production, trade and food prices**

This was a very popular question and produced some very good essays! The best essays identified the uses of grain; human foods and drinks, feedstocks, edible oils, raw materials for industries, and seed.

Five major exporters: Russia, Ukraine, USA, Australia and Canada.

Five major importers China, Egypt, Turkey, Sub Saharan Africa and Asia.

Included comments on: year on year variations in production and movement, droughts, crop failures and climate change and disasters, food shortages, crop failures and disasters in key production and consumption areas , impact of Russia- Ukraine crisis.

**3. Explain the concept of "the production possibility frontier", as it relates to international trade and shipping. Use suitable graphs to support your answer.**

The least popular question, but produced the best essays! Candidates that scored the highest marks defined the concept, and supported their answer with a suitable graph.

The production possibility frontier (PPF) is a curve that illustrates the variations in the amounts that can be produced of two products if both depend upon the same finite resource for their manufacture.

- shows how much an economy can produce given existing resources, the different choices that an economy faces.

- demonstrates the point that any nation's economy reaches its greatest level of efficiency when it produces only what it is best qualified to produce and trades with other nations for the rest of what it needs.

Brief comments on Absolute Advantage and comparative advantage.

For example, increasing the output of goods will have an opportunity cost of fewer services or consumer goods, for an economy.

Reallocating scarce resources from one product to another involves an opportunity cost.

- If more resources are devoted to capital goods (e.g. building new factories) then in the short-term, consumption will go down, in the long term, however, the nation could/ should aim to become more productive and cost competitive, engage in trade and benefit from the gains thereof.

**4. Using a diagram to support your answer, explain how the "break even model" is used to determine the minimum freight rate.**

This was another very popular question and produced very good essays supported by suitable graphs.

The question required candidates to explain how the model is used determine the minimum freight rate and that:

Break-even analysis entails the calculation and examination of the margin of safety for a company based on the revenues collected and associated costs, and that the model is based on four basic assumptions. - the vessel is taken as the basic unit of analysis, costs and revenues are assumed to be liner total variable costs rise in constant proportion to output and total revenues also rise in constant proportion to output, the market is perfectly competitive and the freight rate is fixed.

**5. Within the tanker market, describe ALL the following:**

**a) LNG Market**

**b) the main importing and exporting countries of LNG.**

**c) three factors that impact the LNG market, in the short and long term.**

- Sanctions against Russia: alternative sources, investment and development.

This was one of the most popular and very well answered questions. Candidates were required to provide a brief description of LNG market, and its challenges and growing importance.

- Main exporting countries - Qatar, Australia, Malaysia, Nigeria, Indonesia, Algeria, Russia & Trinidad & Tobago.

- Main importing countries - Japan, China, South Korea, India, France, Spain, UK & Italy.

Factors that impact the LNG market, short, medium and long term, the best essays included:

- Russian sanctions, US Climate legislation, Infrastructural investment and development and increased global demand.

- aggressive search for alternative sources & future growth areas: Africa, Asia and other regions.

- US Climate legislation, massive investment, advanced research and development facilities and funding – Inflation Reduction Act.

- infra-structural development opportunities in ship building, terminals, pipelines, land/ sea and production and distribution facilities and services.

- increased global demand: demand for natural gas around the world is growing , so production will increase to meet this demand, world LNG trade is expected to more than double by 2040.

## **6. Identify and comment on the factors that influence an owners/operators choice of flag.**

This was one of the most popular and well answered questions. The best answers: included:

- a ship-owner's operators' decision to choose a flag is based not only on economic factors but, equally on political, defensive, legal and institutional factors.
- cost: registration fees, annual tonnage taxation, and crewing costs and
- acceptability: not every flag is welcomed in every country

commercial or political reasons: why a particular flagged vessel should be used in a particular trade.

## **7. Discuss the continued impact of the Russia – Ukraine conflict on world economic recovery, growth and development.**

This question required candidates to discuss the continued impact of the Russia-Ukraine war on world economy, recovery, growth and development.

Brief Background:

“The global economic crisis sparked by the coronavirus pandemic will have ramifications stretching well beyond one of the deepest world recessions in modern history. The post-crisis landscape will see a sharp intensification of the inequality debate, accelerating economic nationalism and pressures on the institutions of macro-economic policymaking.”

Russia – Ukraine War

“The Russian invasion of Ukraine has disrupted global energy markets, generating the biggest surge in crude-oil prices since the 1970s. The consequences for global growth will be significant: higher energy prices alone are likely to reduce global output by nearly 1 percent by the end of 2023”.

- world economy: geopolitical issues, productivity, trade and investment, stock markets & financial market losses, etc.
- US Economic performance and impact on world economy and recovery.
- global economic recession and recovery measures-region based examples.
- supply chain disruptions and impact on recovery- region based examples.

**Q8 Define All of the following topics:**

**a. Derived Demand Elasticity**

**b. Long run cost**

**c. Supply elasticity**

**d. Opportunity cost**

This was a straight forward question and required to candidates to provide, concise definitions of the topics.

Derived Demand Elasticity

Freight shipping is an intermediate part of a process of production and the demand for shipping, like the demand for raw materials or intermediate goods, is a derived demand. The demand is derived from the consumers' demand for the final product.

Derived demand has a particular set of rules relating to its elasticity:

Rule 1 There are few, if any substitutes for shipping.

Rule 2 Although there may be alternative sources of the product, these too will normally require transportation by sea.

Rule 3 Freight rates are a small proportion of final costs.

**b. Long run cost:**

Defined as the period of time in which it is possible to vary all input quantities used in producing a given level of output. In the long run fixed costs do not exist. This is because every element used in the production process can be varied.

**c. Elasticity of supply** is measured as the ratio of proportionate change in the quantity supplied to the proportionate change in price. The responsive of supply to changes in freight rates is influenced by the time period allowed for that response. By permitting the stock of vessels to alter; supply is more flexible than it is in the period when the stock of vessels is fixed. One extreme case is to imagine how shipping markets respond in an even shorter time frame.

**d. Opportunity cost:** is an important part of a company's decision-making processes. The next best thing that a person can engage in, is referred to as the opportunity cost of doing the best thing and ignoring the next best thing. It is a key concept in economics because it implies the choice between desirable, yet mutually exclusive results. Opportunity cost is a Keynesian term which has come into popular use in recent decades.