

MARITIME STRATEGIC EVALUATION FOR ISRAEL 2021/22

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Maritime Policy & Strategy Research Centre
המרכז לחקר מדיניות ואסטרטגיה ימית

Government Subsidies for the Maritime Sector Around the World: Commercial Shipping, Efficiency and Improved Productivity, Shipyards, Air Pollution, Research and Development, etc.¹

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Introduction

Countries around the world help their maritime sector through subsidies.² This assistance is given in areas like infrastructure, research and development, air pollution, manpower, energy, and shipping. Subsidies serve to advance goals such as the ability to compete in the international system, prevention of environmental pollution, and maintenance of a maritime fleet for periods of national emergency. Countries employ a variety of subsidies such as tax breaks, easing of payments and extending credit under favorable terms. Experience from around the world shows that subsidies can help advance political aims but there are also cases of failures and damage.

This article presents subsidies in several fields within the maritime sector, which are in use around the world. The article will not go into details on tax benefits, which are discussed in an article in the Maritime Strategic Evaluation for Israel 2020/21.³ The article presents ways in which subsidies are applied and several advantages and disadvantages that have been identified due to their use in the various countries. Due to the limited scope of this article, it does not cover all of the fields of the maritime sector, nor does it cover all of the pros and cons of applying subsidies. The article presents examples for the use of subsidies in countries such as the United States, China, Sweden, South Korea and Singapore. Finally, conclusions will be presented which may serve Israel, should it come to decide on the use of such tools.

¹ This article is not to be considered as consulting, legal or other and should not be used for any purpose beyond its academic purpose. Due to the scope limitation the article does not contain all the issues and complexities of the presented subjects.

² There are various definitions for the term subsidy. There are also several ways to categorize subsidies. For further reading: G. Schwartz & B. Clements "Government subsidies," *Journal of Economic Surveys*, 13(2) (1999), 119–148; European parliament. Directorate general for internal policies. *Global Fisheries Subsidies*, 2013, p. 21; P. J. Barwick, M. Kalouptsidi & N. B. Zahur, *Industrial policy implementation: Empirical evidence from China's shipbuilding industry*. Working paper, Cornell University and Harvard University, 2021.

³ Ofir Kafri, "Tax Benefits under Special Tax Regimes for the Shipping Industry," In Shaul Chorev and Ehud Gonen (eds.), *Maritime Strategic Evaluation for Israel 2020/21* (Haifa: Maritime Policy & strategy Research Center, University of Haifa, 2021), pp. 326–335.

Subsidies in various fields of the maritime sector

Subsidies for shipyards and for shipbuilding in local shipyards

Subsidies for the shipping sector and for shipbuilding are given by various countries such as China, South Korea, and the United States.⁴ Subsidies are given for various matters in shipyards, such as labor costs, infrastructure development, and technology application. Examination of test cases around the world shows that while subsidies in the shipyards industry can have undesirable consequences, certain subsidies succeed even if sometimes temporarily.⁵

China employed various subsidies to support its shipyard industry in areas such as production, investment and infrastructure.⁶ China has succeeded in increasing its share of the global shipbuilding market, among other things, thanks to the government assistance policy.⁷ It is important to note that while some of the subsidies were successful, others were unhelpful and even distorted the sector.⁸ An example of a subsidy that was implemented is the Scrap and build subsidy scheme, for which new ships were ordered from Chinese shipyards. The official goal of the program

⁴ See for example the China case study: Center for Strategic and International Studies. *Hidden Harbors: China's State-backed Shipping Industry*. July 8, 2020.

⁵ OECD. (2017). *Imbalances in the Shipbuilding Industry and Assessment of Policy Responses*. OECD Publishing, Paris, pp. 22–68.

⁶ For further reading on subsidies and the development of the shipbuilding industry in China, see the following sources: OECD. (2021). *Report on China's shipbuilding industry and policies affecting it*. OECD Science, Technology and Industry Policy Papers No. 105. OECD Publishing, Paris; L. C. Lee Daniel and P. Parmentier. (2021). *State-owned enterprises in the shipbuilding sector*. OECD Science, Technology and Industry Policy Papers, No. 98. OECD Publishing, Paris.

⁷ Beyond subsidies, the success in enlarging the shipbuilding industry in China is attributed to additional reasons, such as relatively low manpower costs and setting up shipyard groups. For more elaboration: M. Kamola-Cieślak (2021). *Changes in the Global Shipbuilding Industry on the Examples of Selected States Worldwide in the 21st Century*. *European Research Studies*, 24(2B), 98–112.

⁸ In the Chinese case, subsidies that helped lower production costs and increased investment were more successful. Furthermore, subsidies which were focused on efficient companies were more successful than subsidies which were given to all of the companies in the industry. Subsidies which were intended to bring new players into the sector were considered less successful. To a certain extent, subsidies caused overcapacity in the shipbuilding industry. This overcapacity was exacerbated during periods of low demand for ships. For more elaboration: P. J. Barwick, M. Kalouptsidi, & N. B. Zahur (2021). *Industrial policy implementation: Empirical evidence from China's shipbuilding industry*. Working paper, Cornell University and Harvard University.

was to have old, polluting ships scrapped, to increase business in the shipyards and to strengthen the sector.⁹

Another example is Japan, which provided subsidies, among other things, for training and temporary transfer of manpower from the shipyard industry to other sectors due to downsizing.¹⁰ In the Swedish case, subsidies were provided for the shipyard industry in the past, when it was experiencing difficulties. For example, support was provided for research and development, for purchasing of ships, etc. The purpose of the subsidies was to help cope with a slump in orders and thus prevent unemployment and the collapse of the shipyards. The subsidies were discontinued in 1985 due to increasing costs and economic unfeasibility. Despite the subsidies, there was a decline in shipbuilding capacity in the early 1980s. The sector, which suffered from competitive difficulties, shrank considerably after the subsidies were discontinued.¹¹

In the United States, the Merchant Marine Act of 1936 created a subsidy which addresses the building of ships of certain kinds in local shipyards – Construction Differential Subsidy (CDS) – which was applied until 1983.¹² One of the goals of the subsidy was to help shipyards in the United States through paying part of the price difference for building ships in local shipyards compared with competitors in other countries.¹³

Government publications claimed that the subsidy is one of the drivers of distortions in the shipbuilding industry. The shipyards had been suffering, among other things, from problems in their managerial innovation and streamlining, and

⁹ M. Kalouptsi, (2018). Detection and impact of industrial subsidies: The case of Chinese shipbuilding. *The Review of Economic Studies*, 85(2), 1111–1158.

¹⁰ The shipbuilding industry manpower headcount in Japan shrank from 185,000 in 1980 to 91,000 in 2008. For further reading on the shipbuilding industry in Japan: OECD. (2016). *Peer Review of the Japanese Shipbuilding Industry*. OECD Publishing, Paris.

¹¹ OECD. (2017). *Imbalances in the Shipbuilding Industry and Assessment of Policy Responses*. OECD Publishing, Paris, pp. 44, 50, 56–57; B. Carlsson, *Industrial subsidies in Sweden: macro-economic effects and an international comparison*, *The Journal of Industrial Economics* 32(1) (1983), pp. 1–23.

¹² For further reading about the subsidy and its impact on the economy and on the shipbuilding sector in the United States: U.S. Congressional Budget Office. *U.S. Shipping and Shipbuilding: Trends and Policy Choices*. 1984, pp. 101–107.

¹³ U.S. Department of Transportation. Maritime Administration. *The Maritime Administration's First 100 Years: 1916–2016*. Last updated: March 25, 2019; R. C. Moyer (1977). Maritime subsidies: problems, alternatives and tradeoffs. *The Journal of Industrial Economics*, pp. 53–68.

the subsidies perpetuated and even exacerbated these problems, to a certain extent. A government report recommended that future subsidies focus on the problems which had impacted the shipyards' competitiveness, such as faulty efficiency and obsolete infrastructures.¹⁴ Nowadays, shipyards receive grants for improving efficiency, competitiveness and quality of work, as well as for training and manpower improvement.¹⁵ In addition, under the Federal Ship Financing Program (Title XI), credit guarantees are given for the shipbuilding in the United States and for improving the infrastructures in the shipyards.¹⁶

Subsidies for commercial shipping

Some countries provide subsidies for owners and operators of ships of various kinds, for operating the craft, for buying and selling of tools, repairs, etc. The subsidies are given in various forms such as credit under preferred terms, guarantees, tax benefits, grants and reduction of compulsory payments.¹⁷ In addition, subsidies are given by the purchase of shares, service provision agreements, debt write-offs etc.

For example, China finances upgrading of Chinese-owned shipping companies through a variety of subsidy programs like grants and loans under preferred terms.¹⁸ Other countries, for example Japan, give loans under favorable terms to shipping companies from state-owned banks. In addition, countries like Spain and France grant, under certain conditions, state guarantees for credit extended to shipping companies.¹⁹

Another example is the United States, which provided assistance in financing operating expenses of local shipping companies which met certain conditions. The subsidy was called Operating Differential Subsidy (ODS).²⁰ The assistance was

¹⁴ U.S. Congress. Office of Technology Assessment. *An Assessment of Maritime Technology and Trade*. Washington, D.C.: OTA-O-220. October 1983, pp. 85–116.

¹⁵ U.S. federal register. journal of the federal government of the United States. *Small Shipyard Grant Program; Application Deadlines*. A Notice by the Maritime Administration on October 1, 2021.

¹⁶ U.S. Federal Ship Financing Program (Title XI). Last updated: October 6, 2020.

¹⁷ See for example subsidies which are given in the form of tax benefits for the shipbuilding industry worldwide: O. M. Merk (2020). Quantifying tax subsidies to shipping. *Maritime Economics & Logistics*, 22(4), 517–535.

¹⁸ *Reuters*. China gives 4 shipping lines \$293 mln to upgrade fleets. September 30, 2014; COSCO Shipping Holdings. Annual report. 2020.

¹⁹ International Transport Forum Policy Papers. 2020. *Maritime Subsidies Do They provide Value for Money?* OECD, pp. 24–25.

²⁰ U.S Maritime Administration. *The Maritime Administration's First 100 Years: 1916–2016*. Last updated: March 25, 2019.

intended to make the operating costs of United States shipping companies equal to those of other countries, whose costs were lower. The payments were given for wages, insurance and other expenses.²¹

Another example is South Korea, which in 2018 established a body called KOBC (Korea Ocean Business Corporation), which provides subsidies to shipping companies and other entities in the maritime sector.²² It was established as part of a multi-year plan intended to deal with problems in the maritime sector, such as the reduced competitiveness and a growing technological disparity. The plan is part of a strategy intended to turn South Korea into a leading power in the global maritime sector by 2030.²³ Until the end of 2020, KOBC helped companies in the maritime sector with a total of 5 trillion South Korean Won.²⁴ It provides assistance and services, such as guarantees for investments, acquisition and operating vessels under preferred terms for the shipping companies, and acquisition and mediating shares of shipping companies. In addition, it invests in maritime infrastructures around the world in order to, among other things, reduce the costs of the shipping industry.²⁵

Manpower subsidies

Certain countries like Norway, Germany, South Korea, and Israel provide subsidies related to manpower in the maritime sector. In some of the countries, the subsidies are given due to a decline in the use of local manpower in shipping.²⁶ This, among

²¹ G. McCalley (1978). *Approval of Operating-Differential Subsidies under Section 605 (c) of the Merchant Marine Act of 1936: A New Standard for "Adequacy"*. *Duke Law Journal*, 1978(1), 252–270.

²² Korea Ministry of Oceans and Fisheries. *Strategy to Become a Global Leader in Shipping*. June 29, 2021.

²³ According to the South Korean government, the program is successful and there is an improvement in certain parameters of the maritime sector, such as revenues from shipping. It should be noted that there are other factors, such as favorable conditions for business in the global maritime industry, which affect the improvement trend besides the multi-year plan and the activity of the KOBC. Therefore, the extent to which the subsidies have had an effect is currently unclear. For further reading on the strategy for development of the maritime sector, milestones and success indices of the program: Korea Ministry of Oceans and Fisheries. *Sectoral Policies. Backgrounds-Strategies for Becoming a Shipping Powerhouse*.

²⁴ Fitch Ratings. *Fitch Assigns Korea Ocean Business Corporation's First-Time 'AA-' IDR; Outlook Stable*. March 30, 2021.

²⁵ Korea Ocean Business Corporation. *Management Strategy*. 2018.

²⁶ In the case of Britain, difficulties arose due to the use of a tonnage tax to deal with the drop in the use of local manpower in shipping. For more elaboration on the following sources: V. Gekara (2010). "The stamp of neoliberalism on the UK tonnage tax and the implications for British

other things, is due to competition with lower-cost manpower from other countries such as the Philippines.

The subsidies are given in areas such as financing wages, assistance in training and studies and funding insurance. The assistance is provided, among other things, in the form of grants and tax benefits.²⁷ For example, in Singapore there is an MCF-Manpower program which provides subsidies for training and improvement of manpower. Assistance is also given to improving the human resources management.²⁸ Another example is the United Kingdom, which provides a program of assisting the funding of training for maritime positions, named SMaRT (Support for Maritime Training).²⁹

Subsidies for improving efficiency and increasing productivity

Subsidies for improving efficiency are offered by several countries. For example, Singapore offers several programs for improving productivity and efficiency – for example the MCF-Productivity program. This program provides assistance for the adoption of technologies, as well as for improving work processes.³⁰

Research and development subsidies

Subsidies for research and development are granted in various areas such as ship propulsion technologies, hardware and software in information systems, information gathering sensors and pollution reduction systems. Countries such as France, the United States, Germany and the United Kingdom provide subsidies for research in the maritime domain.³¹ For example, the MIINT-RD program in Singapore, which provides subsidies for development of technologies in the maritime industry and their implementation.³² Another example is the European Union, which provides subsidies for research in a variety of areas within the maritime domain.³³

seafaring", *Marine Policy* 34, pp. 487–494; H. Leggate and J. McConville (2005). "Tonnage tax: is it working?", *Maritime Policy & Management*, Vol. 32(2), pp. 177–186.

²⁷ [Maritime Subsidies Do They provide Value for Money?](#) pp. 13–14, 20.

²⁸ Maritime and Port Authority of Singapore. [Maritime Cluster Fund \(MCF\)](#). Last Updated: July 1, 2021.

²⁹ U.K Maritime and Coastguard Agency. [Support for maritime training \(SMaRT\)](#). Last updated: July 1, 2021.

³⁰ [Maritime Cluster Fund \(MCF\)](#).

³¹ [Maritime Subsidies Do They provide Value for Money?](#) p. 16.

³² Maritime and Port Authority of Singapore. [Maritime Innovation and Technology \(MINT\) Fund](#). Last Updated: 5 April 2021.

³³ European Commission. [Funding & Tenders portal](#). European Maritime and Fisheries Fund (EMFF).

Development of maritime shipping lanes

Subsidies for developing shipping lanes are intended to assist, among other things, in the reduction of pressure on overland transport infrastructure, reducing air pollution and creating new transport routes. For example, the United States provides grants for development of infrastructure for local shipping lanes.³⁴ The European Union offers grants for development of maritime transport routes such as the assistance program of the CINEA (European Climate, Infrastructure and Environment Executive Agency).³⁵

Subsidies for development and improvement of port infrastructure

Countries help improve and develop ports by various means, including grants and loans. For example, in the United States, the PIDP (Port Infrastructure Development Program) allocates grants on a competitive basis for improving infrastructure for transferring goods through ports, specifically for achieving objectives such as improving safety, efficiency, and for reducing the effects of climate change.³⁶ Another example is the European Union, which offers subsidies for development of ports as part of several initiatives such as the European Regional Development Fund (ERDF).³⁷

Subsidies for preserving a civilian fleet for times of war or for national emergencies

In the United States, the MSP (Maritime Security Program) pays civilian shipping companies to place ships and maritime infrastructures at the disposal of the Department of Defense (DOD) in case of an emergency.³⁸ The United States pays for a certain number of civilian ships, which have been selected to be available upon demand. Civilian merchant vessels of various kinds are selected for this program. The vessels are registered in the United States, are engaged in international trade and are suitable for the needs of military transport. In addition, the program gives the Department of Defense access to maritime transport infrastructures such as terminals and other facilities, logistics management services and manpower.³⁹

³⁴ U.S. Maritime Administration. *America's Marine Highway*. Last updated: September 3, 2021.

³⁵ European Commission. *Maritime – Projects by transport mode*.

³⁶ U.S. Maritime Administration. *About Port Infrastructure Development Grants*. Last updated: April 21, 2021. <https://www.maritime.dot.gov/PIDPgrants>

³⁷ European Commission. *Maritime Ports*. Last update: September 26, 2021.

³⁸ U.S. Department of Homeland Security. *United States Coast Guard. Flag State Control Division (CG-CVC-4). Maritime Security Program*.

³⁹ U.S. Department of transportation. Maritime Administration. *Maritime Security Program (MSP)*. Last updated: February 4, 2021; U.S.A Federal Register. *Daily Journal of the United States*

Subsidies for reducing air pollution

Air pollution due to shipping and port activities worldwide causes considerable harm to the health of the population and the environment. Its effect on climate change is expected to increase in the future with the expected increase in pollution from shipping.⁴⁰ Studies show that air pollution from shipping around the world has resulted in death, disability and chronic harm to health.⁴¹ Israel's ports, particularly the Haifa Port area, suffer from severe air pollution due to the activities in the ports and the shipping.⁴²

Air pollution due to shipping activity is currently being discussed internationally. Attempts to reduce the air pollution are being done at the international level, in some of the countries and in some of the shipping companies and in the ports.⁴³ Subsidies are another tool that can in certain cases help in this area, in addition to regulation.⁴⁴

There are countries which are planning or are working to provide subsidies for reducing air pollution from shipping, among them Germany, Singapore, the United

Government. Maritime Security Program. 12.01.2017; U.S.A Congressional Research Service. U.S. Maritime Administration (MARAD) Shipping and Shipbuilding Support Programs. January 8, 2021.

⁴⁰ According to an estimated forecast, maritime shipping's share in gas emissions, such as carbon dioxide, is set to increase from 2,2% in 2012 to around 17% of the global gas emissions in 2050; D. Heine & S. Gäde (2018). Unilaterally removing implicit subsidies for maritime fuels. *International Economics and Economic Policy*, 15(2), 523–545.

⁴¹ V. Eyring, I. S. Isaksen, T. Berntsen, W. J. Collins, J. J. Corbett, O. Endresen, ... & D. S. Stevenson (2010). Transport impacts on atmosphere and climate: *Shipping. Atmospheric Environment*, 44(37), 4735–4771; V. Eyring, J. J. Corbett, D. S. Lee, & J. J. Winebrake (2007). Brief summary of the impact of ship emissions on atmospheric composition, climate, and human health. Document submitted to the Health and Environment sub-group of the International Maritime Organization, 6.

⁴² Israel. Ministry of Environmental Protection. *Feasibility study conducted with Ministry of Environmental Protection funding: Ships in the ports of Ashdod and Haifa create severe NOx and SOx air pollution*. 28.11.2019; State Comptroller. *Special Comptroller Report Aspects of government measures regarding environmental pollution in the Haifa Bay*. June 2019.

⁴³ Examples of attempts to reduce shipping air pollution: S. Gössling, C. Meyer-Habighorst & A. Humpe (2021). A global review of marine air pollution policies, their scope and effectiveness. *Ocean & Coastal Management*, 212, 105824; International Maritime Organization. *IMO's work to cut GHG emissions from ships*; T. Lee & H. Nam (2017). A study on green shipping in major countries: in the view of shipyards, shipping companies, ports, and policies. *The Asian Journal of Shipping and Logistics*, 33(4), 253–262.

⁴⁴ Voluntary measures taken by ship owners and ports, which are reliant solely on subsidies without regulation are sometimes insufficient. Due to the dire consequences to public health, it has been claimed that it would be better to combine these two tools in order to achieve a better-optimized outcome.

Kingdom, South Korea and Norway.⁴⁵ Such subsidies are given to ships, ports and other entities. The assistance includes benefits in port fees, taxes, registration costs in the shipping register, implementation of cleaner technology, and services provided to ships which meet certain criteria. In addition, subsidies are given for scrapping old ships and building less-polluting ones, etc.⁴⁶

For example, in order to reduce pollution from shipping activities, the New York and New Jersey Port Authority runs the Clean Vessel Incentive (CVI) and in Singapore there is a Green Ship Programme.⁴⁷ Another example is countries like Denmark, Sweden and Netherlands, where discounts are given on port payments and services related to air pollution reduction.⁴⁸ Yet another example is countries like the United Kingdom, which provide subsidies for research and development intended to reduce shipping pollution.⁴⁹ The European Union helps in funding testing of possibilities for improving port infrastructures in favor of reducing air pollution.⁵⁰

Subsidies for fuel and energy

Subsidies are given for polluting fuels which are in use in shipping, and sometimes a tax exemption is given on the outcome of the pollution from these fuels.⁵¹ For

⁴⁵ See for example, [programs in Singapore, the United Kingdom, South Korea and Norway in this field: Singapore. Maritime green initiative. 2021; U.K Department for Transport. Clean maritime plane. 2019; Norwegian Ministry of Climate and Environment. The Government's action plan for green shipping. 2019; Korea Ministry of Oceans and Fisheries. Sectoral Policies – Shipping Ports Maritime Affairs. "2030 Greenship-K Promotion Strategy" to Dominate the Global Green Ship Market.](#)

⁴⁶ For further reading on the advantages and disadvantages of using policy tools such as subsidies in dealing with air pollution from shipping: P. Balcombe, J. Brierley, C. Lewis, L. Skatvedt, J. Speirs, A. Hawkes, & I. Staffell (2019). How to decarbonise international shipping: Options for fuels, technologies and policies. *Energy conversion and management*, 182, 72–88.

⁴⁷ Subsidies for reducing air pollution from shipping, which are given in Singapore and in New York: Maritime and Port Authority of Singapore. [Extension of the Green Ship Programme under the Maritime Singapore Green Initiative](#). Shipping Circulars No. 12 of 2019; Port Authority of New York and New Jersey. [Clean Vessel Incentive Program](#).

⁴⁸ Finnish Transport and Communications Agency. [Economic incentives to promote environmentally friendly maritime transport in the Baltic Sea region](#). May 11, 2020, pp. 80–83.

⁴⁹ U.K Department of Transport. [£20 million fund to propel green shipbuilding launched](#). March 22, 2021.

⁵⁰ For example, subsidies from the European Union for funding an activity in Barcelona port in Spain, which is intended to test technologies for air pollution reduction: World Ports Sustainability Program (WPSP). [Port of Barcelona implements alternative fuel use to improve air quality](#). January 28, 2019.

⁵¹ For more information on fossil fuel subsidies in various countries, see the following database: OECD. [Fossil fuel support data and Country Notes](#).

example, Italy, Portugal, Australia and Greece exempt certain types of shipping activities from paying excise tax on fuels. Countries such as Sweden and Finland exempt local commercial shipping from an energy tax. These subsidies make it difficult to transition to less-polluting fuels and sometimes create the conditions for less efficient and economical use of polluting fuels.⁵²

Many countries provide subsidies on the use of cleaner energy from shipping activity. The subsidies are supposed, among other things, to help narrow the gap between the costs of regular, polluting fuels which are cheaper, and less-polluting energy. For example, Sweden subsidizes the use of electricity from a land-based infrastructure by hoteling ships in order to reduce air pollution. Another example is the European Union, which has been involved in funding electricity-powered ferries. Recharging infrastructure were built for the ferries in two ports in Sweden and Denmark.⁵³ These subsidies are intended to reduce the severe health damage caused to the population due to shipping air pollution.⁵⁴

Subsidies for fishing vessels

China, the United States, South Korea, the European Union countries and many other countries offer government subsidies in the fishing shipping industry.⁵⁵ The global subsidies of the fishing sector total \$35.4 billion in 2018 terms.⁵⁶ Subsidies are given for acquisition and building of vessels, vessel repairs and manpower costs. Additional assistance is given – for example purchasing of surplus fishing products, improving port infrastructures and the logistics chain in the sector and funding of research. Studies and reports from international organizations have claimed that certain fishing subsidies have led to overfishing, which has been harmful to the marine environment and to the fishing industry.⁵⁷ As a result, in some cases,

⁵² For further reading on energy subsidies: Maritime Subsidies Do They provide Value for Money? pp. 22–23, 32–33, 45–46, 59–60.

⁵³ OECD. ITF. Decarbonising Maritime Transport. The Case of Sweden. 2018.

⁵⁴ J. J. Corbett, J. J. Winebrake, E. H. Green, P. Kasibhatla, V. Eyring, & A. Lauer (2007). Mortality from ship emissions: a global assessment. *Environmental science & technology*, 41(24), 8512–8518.

⁵⁵ For further reading on fishing subsidies in various countries: W. E. Schrank, & U. Wijkström (2003). *Introducing fisheries subsidies*. Rome: Food and Agriculture Organization of the United Nations.

⁵⁶ U. R. Sumaila, N. Ebrahim, A. Schuhbauer, D. Skerritt, Y. Li, H. S. Kim, ... & D. Pauly (2019). Updated estimates and analysis of global fisheries subsidies. *Marine Policy*, 109, 103695.

⁵⁷ OECD Review of Fisheries 2020. OECD Publishing, Paris.

countries have given subsidies to reduce fishing.⁵⁸ Currently there is an international effort in place regarding fishing subsidies, where one of its goals is the prevention of further damage to fisheries around the world.⁵⁹

Advantages of using subsidies in the maritime sector

There are several advantages to using subsidies in the maritime sector.⁶⁰ The following advantages are a partial list, resulting from experience gained worldwide:

1. Subsidies can help advance state goals in the maritime sector which would otherwise have been difficult to achieve. Sometimes a state has to intervene, in the absence of any other interested party, or in the absence of ability to advance certain goals which are in the national interest.
2. In certain cases, subsidies can help solve an economic, structural or other failure in the maritime sector. This is due to the fact that in some cases there is an interest, in the maritime sector, to maintain the current state or there is no sufficient incentive to alter the state in the private sector.
3. In some cases, subsidies help retain and develop international competitive capability in the shipping sector.
4. Subsidies can improve efficiency, output and innovation in the maritime sector if they are planned and implemented correctly and optimally.
5. Subsidies can help advance areas in which the process sometimes has an inherent financial risk, such as long-term and/or costly research and development.

Failures in the use of subsidies in the maritime sector

1. A situation may arise in which organizations which receive subsidies will benefit from an advantage over competitors and, as a consequence, the market will suffer from distortion and competition will be negatively affected. It has been claimed that in some cases this happened in the fishing industry.⁶¹ In other cases,

⁵⁸ Martini, R. and J. Innes. (2018). Relative Effects of Fisheries Support Policies. OECD Food, Agriculture and Fisheries Papers, No. 115. OECD Publishing, Paris; European parliament. Directorate general for internal policies. *Global Fisheries Subsidies*. 2013.

⁵⁹ World Trade Organization (WTO). Factsheet: Negotiations on fisheries subsidies.

⁶⁰ For further reading on the advantages of using subsidies: M. B. J. Clements, M. G. Schwartz, & R. Hugounenq (1995). *Government subsidies: concepts, international trends, and reform options*. International Monetary Fund, pp. 6–8; WTO. World Trade Report. *Exploring the links between subsidies, trade, and the WTO*. 2006.

⁶¹ European parliament. Directorate general for internal policies. *Global Fisheries Subsidies*. 2013, p. 13.

a tonnage tax, which included also onshore facilities like terminals, distorted the competition.⁶²

2. There are cases where subsidies do not create the right conditions for achieving the planned outcome.⁶³ This may result in the subsidy becoming a state expense devoid of any benefit. These cases are caused by various factors, such as mistaken planning and application of the subsidy. In some cases, countries do not recognize failed subsidies due to the lack of impact studies after they have come into use.⁶⁴ An example of such a failure is the case of a subsidy in China, which was intended to encourage re-registration under the state flag of ships which had moved to foreign shipping registries. In this case, China offered marginal benefits, which did not amount to an incentive to reregister and the plan failed.⁶⁵
3. High levels of investment or complexity of the process of receiving the subsidy sometimes constitute an obstruction, which prevents the optimal application of the subsidy.
4. Subsidies can in certain cases be detrimental to processes of restructuring and innovation, as well as being detrimental to good quality management. Subsidies can sometimes introduce a distortion in the market, which then discourages attempts for improving services because the revenues or the profit are guaranteed. An example of this is subsidies which were given in the past in the shipbuilding industry in the United States, which had been suffering from efficiency problems, problematic management and outdated infrastructure.⁶⁶
5. Subsidies, which had not been properly analyzed or designed, taking into consideration their potential impacts, can lead to erroneous results and even be

⁶² [Maritime Subsidies Do They provide Value for Money?](#)

⁶³ Finnish Transport and Communications Agency. Economic incentives to promote environmentally friendly maritime transport in the Baltic Sea region. 11 May 2020, pp. 63–65.

⁶⁴ A study of the ITF and OECD claims that countries rarely conduct annual impact studies on maritime subsidies. In addition, the study criticizes the quality of the studies in this field, which have been made public. For further reading: [Maritime Subsidies Do They provide Value for Money?](#) pp. 34–36.

⁶⁵ China gave incentives under the STFSR (special tax-free ship registration) policy, which were intended to attract the Chinese shipping back to the Chinese register after they had moved to flags of convenience. The plan failed due to bureaucratic obstructions and insufficient incentives. For more elaboration: J. Chen, K. Li, X. Liu, & H. Li (2017). The development of ship registration policy in China: Response to flags of convenience. *Marine Policy*, 83, 22–28.

⁶⁶ U.S. Congress, Office of Technology Assessment. An Assessment of Maritime Technology and Trade. Washington, D.C.: U.S., OTA-O-220. October 1983.

harmful.⁶⁷ For example, subsidies which spurred growth in fishing fleets and in fishing activity were among the causes for harm to the sustainability of fisheries in certain areas of the world and, later on, to a shrinking of the sector in several countries.⁶⁸

6. Domestic and external processes can influence the results of subsidies given in the maritime sector in a given country. Certain areas in the maritime sector are sometimes influenced by events in other sectors of the state's economy and by developments in the international system. As a result, subsidies might fail and become harmful. For example, there is a cyclic process in the global shipyard industry, which leads to fluctuations in the demand for certain kinds of vessels. As a result, subsidies, which are given to increase shipyard business, can be less successful in times of decline in global demand.⁶⁹

Analysis and conclusion

Subsidies in the maritime sector can be an important, efficient tool for Israel in order to achieve its goals. The experience in application of subsidies worldwide shows that properly-planned application, focused and optimal use of this tool can help advance issues which are in the national interest. At the same time, subsidies which have been specified, planned and implemented wrongly can be harmful and cause resources to be wasted.

Following are some conclusions from the use of subsidies in the maritime sector in various countries. These conclusions are not a comprehensive listing of all of the experience in the field around the world, but they can serve as a source that will be helpful for decision-making in this field in Israel:

1. The purposes of providing the subsidy must be specified in order to be able to optimally plan and implement the tools which will be used. This way it will also be possible to assess the success of the subsidy and to make adjustments if necessary.

⁶⁷ Sometimes there are unforeseen consequences to the use of subsidies. M. B. J. Clements, M. G. Schwartz, & R. Hugounenq (1995). *Government subsidies: concepts, international trends, and reform options*. International Monetary Fund.

⁶⁸ Patrick, L. (2010). *OECD Insights. Fisheries While Stocks Last?* OECD Publishing; *OECD Review of Fisheries 2020*. OECD Publishing, Paris.

⁶⁹ C. Ferrari, M. Marchese, & A. Tei. (2018). *Shipbuilding and economic cycles: a non-linear econometric approach*. *Maritime Business Review*; OECD. (2017). *Imbalances in the Shipbuilding Industry and Assessment of Policy Responses*. C/WP6(2016)6/FINAL. OECD Publishing, Paris.

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2. To the extent possible, a subsidy is supposed to deal directly and pointedly with a specific issue. It is better not to use a sweeping benefit with the intention that perhaps part of it will trickle down and help achieve the goal. Sweeping subsidies which do not directly, pointedly address the problem sometimes have undesired consequences, cause inefficient expenditure of resources and introduce distortions in the marketplace.
 3. Before implementation, it is advisable to identify the subsidy's effects, including on other sectors. In the course of implementing the subsidy, effects which had not been identified from the outset have to be examined and adjustments to the subsidy need to be made accordingly.
 4. The optimal, most effective type and aspect of the subsidy need to be identified and implemented. For this, it is advisable to carry out an early examination of the characteristics of the problem, the impacts on the domestic market and on the international market and so forth.
 5. It is recommended that all of the possible options be explored, in addition to the subsidies, in order to match the optimal tool for the issue we are working to address. Additionally, the possibility of including other tools along with the subsidies should be examined, in order to reach the desired outcome. There are cases where other tools are preferable to subsidies, for example, using structural changes in the maritime sector and regulation, which is unrelated to subsidies.
 6. It is important to identify the reasons for the problem we are seeking to fix through the use of subsidies. Sometimes the causes require different handling, rather than subsidies. There are even cases where the use of subsidies will exacerbate or perpetuate failures, which are harmful to the efficient, optimal business in the shipping sector.
 7. If using a subsidy, which succeeded in solving a problem in another country, it has to be adapted to the characteristics and environment of the local maritime sector. It should be noted that in some cases subsidies, which were successful in a specific situation and environment, have failed when applied to other countries without sufficient adjustment.
 8. Subsidies should be planned in such a way that they will prevent obstructions to their optimal application and to the achievement of the goals for which they are applied in the first place. Experience around the world shows cases of administrative, regulatory, economic obstructions, which impaired the implementation of subsidies.
 9. While the subsidy is in use and following it, it is recommended that it be re-evaluated. This includes, among other things, its effect and degree of accomplishment of the goals that had been set. According to the results, if necessary, adaptations and changes will be made.