



## General Description

The VCFI (Valencia Containerised Freight Index), aims to provide guidance on the evolution of export freight rates from the Port Authority of Valencia (PAV) and be the European reference for certain shipping routes from the Mediterranean, using a methodology very similar to the Shanghai Containerised Freight Index (SCFI). This index reflects the evolution of the market rates for the export of full containers by sea from Valenciaport on a monthly basis.

The VCFI provides valuable information on a key factor for defining port competitiveness, such as freight rates. The publication of the VCFI represents a significant change in the sector as it provides the port community with information that was confidential until now. This exercise in transparency will help the various users of the port to make better decisions.

On the one hand, this information will help shippers as it will have a composite index that will mark the market trend. The VCFI will serve as a barometer of the health of the market, showing the supply and demand of maritime transport for the major trade routes from Valencia. This will serve shippers as a tool to predict the evolution of freight rates within their markets of interest, which is a key determinant of the cost of their export operations.

On the other hand, it will also be useful for operators that offer such services, providing a benchmark for the evolution of their own freight rates and those on the market.

As a result, the VCFI will promote the operation of a more transparent market and one that has better information available for decision-making, resulting in a more efficient market.

In the first stage, the VCFI consists of a composite aggregated index, and in subsequent methodological developments, sub-indexes will be constructed in greater detail with a breakdown by the geographical areas defined in the construction of the index. In particular, Valenciaport's export destinations have been grouped into 13 geographic areas that correspond to the main traffic corridors from Valencia. Within these areas 42 ports have been selected to represent 60% of the export container traffic from Valenciaport and whose rates will serve as a reference for calculating the index.

Geographic area VCFI	Reference ports
<b>WESTERN MEDITERRANEAN</b>	Casablanca (MA), El Djazair (DZ), Tunisia (TN)
<b>ATLANTIC EUROPE</b>	Felixstowe (GB), Hamburg (DE), Antwerp (BE)
<b>EASTERN MEDITERRANEAN</b>	Alexandria (EG) Ashdod (IL) Piraeus (GR) Istanbul (TR)
<b>FAR EAST</b>	Shanghai (CN), Hong Kong (HK), Port Kelang (MY), Singapore (SG), Busan (KR), Tokyo (JP), Kaohsiung (TW), Bangkok (TH), Ho Chi Minh City (VN)
<b>MIDDLE EAST</b>	Jeddah (SA), Jebel Ali (AE)
<b>USA - ATLANTIC CANADA</b>	New York (US), Montreal (CA), Houston (US), Miami (US)



<b>CENTRAL AMERICA AND CARIBBEAN</b>	Veracruz (MX), Cartagena (CO) Altamira (MX), Caucedo (OJ)
<b>ATLANTIC LATIN AMERICA</b>	Santos (BR), Buenos Aires (AR)
<b>WEST AFRICA</b>	Luanda (AO), Bata (GQ), Dakar (SN)
<b>AFRICA EAST COAST</b>	Durban (ZA), Port Elisabeth (ZA)
<b>PACIFIC LATIN AMERICA</b>	Callao (PE), San Antonio (CL)
<b>INDIAN SUBCONTINENT</b>	Nhava Sheva (IN), Kandla (IN)
<b>BALTIC COUNTRIES</b>	Saint Petersburg (RU), Helsinki (FI)

## Calculation methodology

At the operational level, for the proper functioning of the system and its continuity with the due guarantees, the Valenciaport Foundation, alongside the Port Authority of Valencia and the panelists participating in the index, have defined a work system based on the following principles: commitment to the provision and quality of data; statistical confidentiality and methodological rigour and, finally, timeliness and punctuality in their dissemination.

Conceptually, the VCFI is a quantitative index that enables the objective measurement and comparison of the data relating to sea freight rates from the port of Valencia. This index has been created based on information obtained from primary data sources, formed by twelve top level panelists that operate in the port of Valencia, including freight forwarders and shipping companies. On a monthly basis, the panelists send the freight rate data of the month ending at the request of the Valenciaport Foundation. The composite index is calculated after receiving and checking the individual monthly data on the export freight rates for each of the ports, obtaining the average freight rates for each port, which will be entered into the composite index with its corresponding weighting. Taking into account that the freight rates of certain sea routes are negotiated in dollars, the exchange rates published monthly by the European Central Bank will be used for conversion to the euro. The rate provided by the panelists includes the ocean freight spot rate and the following surcharges:

- Bunker Adjustment Factor (BAF)/ Fuel Adjustment Factor (FAF)/ Low Sulphur Surcharge (LSS)
- Emergency Bunker Surcharge (EBS) / Emergency Bunker Additional (EBA)
- Currency Adjustment Factor(CAF)/ Yen Appreciation Surcharge (YAS)
- Peak Season Surcharge(PSS)
- War Risk Surcharge(WRS)
- Port Congestion Surcharge (PCS)
- Suez Canal transit Fee/Surcharge (SCS)/ Suez Canal Fee (SCF)/ Panama Transit Fee (PTF)/ Panama Canal Charge (PCC).



The index is calculated with the following formula:

$$f_j = \sum_{i=1}^n \frac{t_{ij}}{n}$$
$$VCFI = \sum_{j=1}^m k_j * f_j$$

Where:

= average freight rate for Port j

$t_{ij}$  = freight rate informed by the panelist i for the Port j

n = number of panelists for the Port j

$k_j$  = weighting factor for the Port j

m = number of ports

First, the average freight rate per port ( $f_j$ ) is calculated using the data received for that port by all panelists. Second, a weighting factor is applied to the average freight rate according to the weight of the port within Valenciaport traffic, resulting in the final index.

As the objective is to represent the evolution of freight rates over time, we opted not to show its evolution in absolute values, but present it in the form of a number index, the VCFI. This is a statistical measure that reflects the evolution over a period of a particular variable, in this case the freight rates, with respect to a base or reference period. The basis of the composite index will be 1,000 points and the base of the period will coincide with the beginning of the publication, that is to say, January 2018.

This index aims to be a reference index in the Western Mediterranean, as the Shanghai Containerized Freight Index is for the Asian region. We will monitor the relevance and practical utility of the publication of the VCFI, analysing new needs and priorities and developing new supplementary statistical indicators.

It will be published in a timely manner, on the second Friday of each month at 12:00 CET (or CEST when applicable). If the index will not be published as planned, recipients shall be notified in advance.

The VCFI project will be audited annually, in order to ensure that the Valenciaport Foundation guarantees the confidentiality of statistics, faithfully follows the methodology of the VCFI and that the information published is truthful.