

Indicative reference costs for budgeting purposes: freight, insurance, and quality assurance

Version Q4 2021 – 18 November 2021

This information will be updated periodically, with the latest made available [here](#)

Below are updated indicative reference costs for freight, insurance, and quality assurance as a percentage of product value for some key product categories to guide budgeting.

This information is based on 2019 - 2021 transactional data from the Global Fund's Pooled Procurement Mechanism and forecasts for 2022 based on current knowledge.

Whilst Insurance and quality assurance reference costs are relatively straightforward to estimate, freight costs are more complex to estimate as a proportion of product value as they are not directly related to product value and freight cost are further complicated by the impact of COVID-19 control measures and restrictions on the movement of goods between and within countries.

This approach comes with some limitations by design that are exacerbated by the current COVID-19 context - the following considerations are therefore essential to consider and contextualize for each specific situation.

Freight

1. Freight costs are contingent upon several factors, such as, but not limited to
 - Weight and volume (density)
 - Geography (origin, destination)
 - Delivery arrangements (modality, route, incoterm, final in-country destination)
 - Product-specific characteristics (temperature requirements, packaging, type of equipment needed)
 - Other factors such as oil price, global trade economics, supply & demand, port/airport infrastructure, as well as global disruptions or local crisis.

Determining freight budgets is further complicated as airlines further implement minimum pricing methodologies that disproportionately impact smaller shipments as

they will be charged the minimum price regardless of size. In this situation during implementation, the PPM Procurement Agents will be able to propose alternative ways to lessen such impact including through consolidating shipments, modal optimization, and use of courier services.

2. Whilst for simplicity, the guidance on budgeting of freight costs has been presented as a percentage of product value. This approach has limitations especially for categories that are not very homogeneous in their weight/volume/cost characteristics. Similarly, this can be the case for specific orders that may not have a typical composition.

Because of the variability resulting from the above factors, the median and interquartile range (25th / 75th percentiles) have been presented for specific judgements to be made (including potentially outside of these ranges). Additionally historical costs for similar products using similar freight modalities should be used for validation.

Another important consideration when looking at such percentages of value over time is when unit prices decrease, this percentage approach will result in increased numbers purely as a factor of the mathematics as the cost of moving the product has not decreased. This can appear quite dramatic for categories such as PPE where unit prices have fallen by 50% since 2020. This would mean that with the same freight costs, freight cost expressed as a percentage of product cost would have doubled.

As mentioned above, the percentage approach has some assume level of homogeneity and typicality. Some categories can contain items with very different characteristics of volume, weight, and value. For this reason, it is challenging to provide indicative reference costs for categories such as diagnostics, laboratory, and medical supplies, and “other pharmaceuticals” as product specifications can vary significantly. Medical and laboratory supplies being particularly challenging that can range from equipment or supplies with high value and low volume to very low value bulky items such as cardboard safety boxes. For such categories, referencing previous actual or specifically quoted costs should be a major input into the consideration.

Air freight can be many times more expensive than ocean freight; almost all products are advised to be shipped by ocean if shipment volumes are sufficient, products’ shelf-life are not too short or when low-temperature-controlled transit conditions can be met.

With thoughtful planning, container volumes can reach most countries by ocean freight. LLINs, and IRS, should be transported by ocean only. Most PPE should be shipped by ocean, except any urgently required volumes in the context of the response to COVID-19. Indicative quantities for key products to fill shipping containers for economical shipment is provided in a subsequent table below.

Indicative freight costs ¹ as proportion of product value: by freight modality ²						
Product categories	Ocean			Air		
	25 th percentile	median	75 th percentile	25 th percentile	median	75 th percentile
ARV	2%	4%	8%	8%	17%	55%
ANTMs	7%	10%	16%	17%	36%	70%
Essential Medicines (including COVID-19 therapeutics)	12%	20%	38%	12%	40%	121%
LLINs	20%	20%	26%	N/A*		
IRS	N/A**	6%	N/A**	N/A*		
HIV-RDT	6%	11%	19%	11%	17%	33%
Malaria-RDT	14%	20%	28%	26%	42%	83%
Laboratory & medical Supplies	See detailed table below					
Viral load and early infant diagnosis	N/A**	12%	N/A**	11%	16%	33%
Condoms & lubricants	18%	25%	34%	N/A*		
PPE	5%	11%	22%	N/A*		
COVID-19 Ag-RDTs	N/A**	< 5%	N/A**	6%	9%	14%
COVID-19 PCR tests		N/A**		7%	13%	16%

* Air freight is not recommended for these products that would have prohibitive air costs. Most PPE should be shipped by sea except any urgently required volumes in the context of the response to COVID-19.

** Insufficient data to provide robust guidance.

Indicative freight costs ³ as proportion of product value: by freight modality ⁴						
Laboratory & medical supplies sub-categories	Ocean			Air		
	25 th percentile	median	75 th percentile	25 th percentile	median	75 th percentile
Analyzer consumables (including Covid-19)	N/A**			20%	41%	61%
General consumables	50%	111%	154%	63%	125%	233%
Imaging equipment	N/A**			36%	39%	59%
Medical equipment	36%	36%	36%	32%	36%	36%
Other laboratory reagents	23%	23%	23%	64%	148%	172%

** Insufficient data to provide robust guidance.

Indicative feasible quantities: Ocean-freight ⁵			
Unit	20ft container	40ft container	High capacity 40ft container
Pack of "1-month" ⁶	50,000 - 75,000	90,000 - 150,000	
Single courses	300,000 - 360,000	660,000 - 750,000	
Single RDT	300,000	625,000	
Single LLIN	9,400 - 17,045	20,530 - 35,230	22,700 - 40,250
"Single" PPE		600,000	

¹ Based on 2019 - 2021 transactional and forecasts for 2022 based on current knowledge, DAP incoterm

² See the [Category and Product-level Procurement and Delivery Planning Guide](#) for indicative lead times by product category.

³ Based on 2019 - 2021 transactional and forecasts for 2022 based on current knowledge, DAP incoterm

⁴ See the [Category and Product-level Procurement and Delivery Planning Guide](#) for indicative lead times by product category

⁵ Actual quantities per container may vary mainly according to item size, packaging type and pelleting requirements and configuration; partially filled containers with quantities well below these thresholds may not be workable and/or cost-efficient by sea.

⁶ Or equivalent multi-month packs (e.g., 90 or 180 tablets), although thresholds will be lower.

Insurance

Additional country risk insurance surcharge for high-risk countries may apply to the below.

Indicative insurance costs as a proportion of product value and freight cost	
Pharmaceuticals (ARVs, ANTM, Essential Medicines, COVID19 Treatments)	0.1400%
Vector Control (LLINs, IRS)	0.4386%
Diagnostics (HIV-RDTs, Malaria-RDTs, GeneXpert, COVID-19 Diagnostics)	0.3856%
Laboratory and medical supplies	0.3856%
Condoms & lubricants	0.0781%
COVID-19 PPE	0.1400%

Quality Assurance/Quality Control (QA/QC) costs

QA/QC costs apply to product categories where there is a mandatory pre-shipment testing as per the Global Fund's Quality Assurance Policy.

Indicative QA/QC costs as proportion of product value	
IRS	5.0%
LLINs	1.0%
Condoms & lubricants	4.8%