Market Assessment and Analysis
Parity Pricing

Parity pricing is used to compare prices across borders. Parity price analysis is a standard method of equating (or comparing) prices in one place with those in another, typically across international borders. There are two types of parity prices: import parity and export parity.

Parity pricing refers to making prices of a commodity in one location equivalent to the same commodity in another location, usually in a different country. It accounts for the difference in prices of a given commodity across distances or across borders.

Import parity price is the value of a commodity bought from another country in a location within the country (usually the port of entry). It can help to determine whether importing a particular commodity is cheaper or more expensive than producing and procuring it within the country at a given location within the country. Import parity prices are measured as the Cost, Insurance and Freight (CIF) price.

Export parity price is the value of a commodity sold at a specific location in a foreign country but valued at a specific location in the country from which it originated. It measures whether a country’s exports are competitive with the same commodity produced in another country. Exports are valued as Free on Board (FOB) price.

Which parity price applies to which situation depends on which side of the transaction you stand or whose incentives you want to consider. An importer is interested in the import parity price and this will serve as an indicator of whether it is worth it to buy the commodity, pay for shipping, handling and local transport costs. An exporter is interested in the export parity price and this will serve as an indicator of whether their commodity is competitive with the same type of commodity located in a market across the border.

Once all costs associated with moving the commodity to that foreign market are deducted from the price at the foreign location, is there a price difference remaining?

Example of the Use of Parity Pricing

Consider cotton being exported from Ouagadougou, Burkina Faso to Liverpool, England.

In the eyes of an importer in Liverpool, the import parity price of the same cotton is the local price of cotton in Ouagadougou plus all transport and insurance costs to ship the cotton to Liverpool plus unloading charges at the port.

However, from Burkina Faso’s point of view, it is more useful to calculate the export parity price valued at Ouagadougou, because we want to compare it with other cotton prices in Liverpool and see if our export price is competitive, after adjusting for shipping costs.

Also we want to compare it with local prices and determine whether there is an incentive to export cotton to Liverpool or not.

For the cotton to be competitively priced, an importer, after paying shipping costs, must find it cheaper or equivalently priced when comparing it to alternative cotton imports prices in Liverpool.

Also, if the export parity price in Ouagadougou is higher than the local price of cotton then it is worthwhile exporting to Liverpool, otherwise we might as well sell the cotton locally.

There are standard **formulas for calculating parity prices**. CIF and FOB prices are available for a number of major ports or trade hubs. Large-scale and commercial traders frequently use these prices in making purchase and sales decisions. The South Africa Futures Exchange (SAFEX) regularly reports parity prices relevant to South African trade.

### Elements of CIF (Cost Insurance Freight) and FOB (Free on Board)

<table>
<thead>
<tr>
<th>Item</th>
<th>Element</th>
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</table>
| CIF  | **Includes:**  
• FOB cost at point of export  
• Freight charges to point of import  
• Insurance charges  
• Unloading from ship to pier at port  
**Excludes:**  
• Import duties and subsidies  
• Port charges at port of entry for taxes, handling, storage, agents’ fees, and the like |
| FOB  | **Includes:**  
All costs to get goods on board – but still in harbor of exporting country:  
• Local marketing and transport costs  
• Local port charges including taxes, storage, loading, fumigation, agents’ fees and the like  
• Export taxes and subsidies  
• Project boundary price  
• Farm-gate price |


Parity prices for South Africa can be used to evaluate how likely it would be for South African grain to fill a food gap within the region, a country or a particular sub-national region of a country within the region. In some sub-national border regions, local maize from Malawi, Zambia and Tanzania may be more competitive than South African maize. In this case, such local maize flows would reduce somewhat the need for formal and informal cross border flows from South Africa to fill national food gaps.

### FOB USA and Argentine maize prices compared to white maize SAFEX nearby Jan 2000 – April 2007

**International and SAFEX prices**

The combined effects of high international grain prices as well as limited availability in South Africa have acted to dramatically increase South African domestic prices of maize as indicated by price movements since January on SAFEX. Prices for the nearby contract increased steadily in May and June after having dropped to US$233/MT in April, from a peak of US$261/MT in March. The SAFEX prices are moving in tandem with international prices, which are driven by overall global demand. Rising international prices, and hence import parity, is likely to keep SAFEX prices at much higher levels for most of the marketing year, making South Africa’s maize less competitive when compared to neighboring Malawi, Zambia and Tanzania.
Unfortunately, the data on all other costs are often missing so it may only be possible to make a partial adjustment with existing data. Additional data could be collected to complete the calculations or estimated costs could be used and noted. Finally, even where it is impossible to calculate reasonably accurate parity prices due to data limitations, an analysis of markets should consider the influence that these types of costs would have on prices and narrowing the price gap between markets and countries.

### Import Parity Price for Imported Rice to Northern Togo

<table>
<thead>
<tr>
<th>Description</th>
<th>USD/MT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vietnam Rice 15% Brokens (FOB)</td>
<td>150</td>
</tr>
<tr>
<td>Ocean Freight to Ho Chi Minh, Vietnam to Lome, TOGO</td>
<td>90</td>
</tr>
<tr>
<td><strong>Sub-Total – Cost and Freight</strong></td>
<td><strong>240</strong></td>
</tr>
<tr>
<td>Import Duty (5%)</td>
<td>12</td>
</tr>
<tr>
<td>Sales Tax (15%)</td>
<td>36</td>
</tr>
<tr>
<td>Processing Fees</td>
<td>2</td>
</tr>
<tr>
<td>Port Handling Fees</td>
<td>3.5</td>
</tr>
<tr>
<td>ECOWAS Charges (.5% of C&amp;F)</td>
<td>1.2</td>
</tr>
<tr>
<td>ITSH (Bulk handling charges)</td>
<td>2</td>
</tr>
<tr>
<td><strong>Sub-Total</strong></td>
<td><strong>296.7</strong></td>
</tr>
<tr>
<td>Inland freight to Dapango</td>
<td>70</td>
</tr>
<tr>
<td>CIF &amp; SH Dapango</td>
<td><strong>377.7</strong></td>
</tr>
<tr>
<td><strong>Cost of Locally Produced Rice</strong></td>
<td><strong>350</strong></td>
</tr>
</tbody>
</table>

Where price differences exist, once accounting for transaction costs, commodity flows can still be impeded by government restrictions, banditry and civil unrest, seasonally inaccessible road access as well as market participants’ real or perceived risks.

Calculating parity prices, accounting for price differentials and utilizing information on trade flows, including cross border flows provides a more accurate picture of supply. The improved assessment of supply, gives a more accurate estimate of food gaps which can help streamline the humanitarian response – better tailor the response (food, cash, policy action), target areas and populations requiring food and reduce the overall volume and costs of the programme.