

# Business One in Action – Why is the parent price in the BOM different from the parent cost produced by the production order?



## Applies to:

SAP Business One, [Logistics](#), Production

## Summary

This article examines how the price of parent item is calculated in a Bill of Materials (BOM) and how the cost of a parent item is determined in a completed production Order. It will then show you the difference between them.

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## Author Bio

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## Why is the parent price in the BOM different from the parent cost produced by the production order?

Please note that unless otherwise stated, all items, excluding the labour item, are managed by the Moving Average valuation method.

In the Bill of Material (BOM,) the 'Product Price' entered/calculated in the 'Product Price' field is only relevant for sales documents in a continuous stock database.

The value entered in the 'Product Price' (by double-clicking the orange arrow) is calculated based on the price of child items in the BOM. For example, a BOM is created for the parent item 'Bicycle'.

The screenshot shows the SAP 'Bill of Materials' window for the parent item 'Bicycle'. The window includes fields for Product No., Quantity, Warehouse, Product Description, BOM Type, Price List, and Distr. Rule. Below these fields is a table listing the components of the bicycle:

#	Item No.	Item Description	Quantity	Warehouse	Issue Method	Price List	Unit Price
1	Frame	Frame	1	01	Backflush	Base Price	GBP 35.00
2	Wheel - 26	Wheel - 26	2	01	Backflush	Base Price	GBP 10.00
3	H_Bar	H_Bar	1	01	Backflush	Base Price	GBP 20.00
4	B_Seat	B_Seat	1	01	Backflush	Base Price	GBP 5.00
5	L10001	Labour	1	01	Backflush	Base Price	GBP 20.00
6						Base Price	

At the bottom of the window, there is a 'Product Price' field, which is currently blank. The 'OK' and 'Cancel' buttons are also visible.

At this stage, the price of the parent item 'Bicycle' is not defined in the price list, 'Base Price'. Consequently, this field is blank for the BOM.

The screenshot shows the SAP 'Base Price' window. The 'Find' field contains the letter 'b'. The table below lists various items with their base and unit prices:

#	Item No.	Item Description	Base Price	Unit Price
18	Bicycle	Bicycle		
19	Bonded	Bonded		
20	Bounded	Bounded		
21	Brownies	Brownies		
22	C_Apples	Cooking Apples	GBP 15.00	GBP 15.00
23	C00001	Motherboard P4 Turbo	GBP 200.00	GBP 200.00
24	C00002	Motherboard P4 Turbo - Asus Chipset	GBP 150.00	GBP 150.00
25	C00003	Intel P4 2.4 GhZ	GBP 65.00	GBP 65.00
26	C00004	Tower Case with Power supply	GBP 17.50	GBP 17.50
27	C00005	WLAN Card	GBP 30.00	GBP 30.00

The 'Product Price' for the item 'Bicycle' will not be updated until the orange arrow, directly above the 'Product Price' field, is clicked.

The screenshot shows the SAP Bill of Materials (BOM) window for 'Bicycle'. The window title is 'Bill of Materials'. The product is 'Bicycle' with a quantity of 1 and warehouse '01'. The BOM type is 'Production'. The price list is 'Base Price' and the distribution rule is 'Base Price'. The table below shows the components:

#	Item No.	Item Description	Quantity	Warehouse	Issue Method	Price List	Unit Price
1	Frame	Frame	1	01	Backflush	Base Price	GBP 35.00
2	Wheel - 26	Wheel	2	01	Backflush	Base Price	GBP 10.00
3	H_Bar	Handle Bars	1	01	Backflush	Base Price	GBP 20.00
4	B_seat	Bicycle Seat	1	01	Backflush	Base Price	GBP 5.00
5	L10001	Labour	1	01	Backflush	Base Price	GBP 20.00
6						Base Price	

At the bottom right, the 'Product Price' field is highlighted with a red box and shows 'GBP 100.00'.

The 'Product Price' is calculated as the sum of all the component items. Hence:  
 Component 1 (Quantity \* Unit Price) + Component 2 (Quantity \* Unit Price) + ....

In this example, the 'Product Price' of the parent item 'Bicycle' is updated to 'GBP 100.00'. This is calculated as follows:

$$\begin{aligned}
 &= (\text{Frame } (1*35)) + (\text{Wheel -26 } (2*10)) + (\text{H_Bar } (1*20)) + (\text{B_seat } (1*5)) + (\text{Labour } (1*20)) \\
 &= 35.00 + 20.00 + 20.00 + 5.00 + 20.00 \\
 &= 100.00
 \end{aligned}$$

When the BOM is updated with this new price, it is also automatically updated in the price list, for the parent item.

The screenshot shows the SAP Base Price window. The search criteria is 'b'. The table below shows the items:

#	Item No.	Item Description	Base Price	Unit Price
18	Bicycle	Bicycle	GBP 100.00	GBP 100.00
19	Bonded	Bonded		
20	Bounded	Bounded		
21	Brownies	Brownies		
22	C_Apples	Cooking Apples	GBP 15.00	GBP 15.00
23	C00001	Motherboard P4 Turbo	GBP 200.00	GBP 200.00
24	C00002	Motherboard P4 Turbo - Asus Chipset	GBP 150.00	GBP 150.00

However, when creating a production order, the price that matters is actually the item costs of the components, as seen in the Item Master Data.

The screenshot shows the 'Item Master Data' dialog box for item 'Bicycle'. The 'Price List' section is highlighted with a red box, showing 'Base Price' as the selected price list and 'Unit Price' as 'GBP 100.00'. Below this, the 'Stock Data' tab is active, with 'Manage Stock by Warehouse' checked. A table below shows warehouse data with a red box around the 'Item Cost' column, which is currently empty for all warehouses.

#	Whse ...	Whse Na...	Locked	In Stock	Committed	Ordered	Available	Item Cost
1	01	General War...	<input type="checkbox"/>					
2	02	02	<input type="checkbox"/>					
3	03	Dropship	<input type="checkbox"/>					
4	04	Consignmen...	<input type="checkbox"/>					
5	Bonded	Bonded	<input type="checkbox"/>					

As previously stated the 'Product Price' visible for the parent in the BOM is the selling price list that will be used in sales documents. It will never be used in the calculation of the item cost when producing the Parent item.

The cost of the parent item received into stock from a production order is based on the quantities of component items issued in the Production Order and their item costs.

Component	Item Price	BOM: Base Quantity	BOM: Price * quantity	Parent Price
Frame	50.00	1	35.00	
Wheel- 26	10.00	2	20.00	
H_Bar	20.00	1	20.00	
B_Seat	5.00	1	5.00	
L10001	20.00	1	20.00	
Parent Price				100.00

Taking the following production order as an example, it shows that there was a 'Planned Quantity' of 10 units for the item 'Bicycle'.

The screenshot shows the 'Production Order' window in SAP. The 'Summary' tab is active, displaying a table of components. The main data fields are as follows:

Type	Standard	No.	Primary	72
Status	Released	Order Date	19.12.2008	
Product No.	Bicycle	Due Date	10.01.2009	
Product Description	Bicycle	User	manager	
Planned Quantity	10 UoM	Origin	Manual	
Warehouse	01	Sales Order		
		Customer		
		Distribution Rule		

  

#	Item No.	Item Description	Base Qty	Planned Qty	Issued	Avail...	UoM	Wareho...	Issue Method
1	Frame	Frame	1	10	10	170		01	Backflush
2	Wheel - 26	Wheel	2	20	20	190		01	Backflush
3	H_Bar	Handle Bars	1	10	10	170		01	Backflush
4	B_seat	Bicycle Seat	1	10	10	170		01	Backflush
5	L10001	Labour	1	10	10			01	Backflush
6									

The total cost of producing these 10 units was GBP 1003.32. This GBP 1003.32 is composed of 'Actual Component Cost' (GBP 953.32) + Actual Additional Cost (GBP 50.00).

The screenshot shows the 'Production Order' window in SAP, with the 'Summary' tab active. The 'Costs' section is highlighted with a red box, showing the following data:

Costs		Quantities	
Actual Component Cost	GBP 953.32	Planned Quantity	10
Actual Additional Cost	GBP 50.00	Completed Quantity	10
Actual Product Cost	GBP 1,003.32	Rejected Quantity	

  

Total Variance		Due Date	10.01.2009
Variance Per Product		Actual Closing Date	
Variance %		Overdue	

Journal Remark: Production Order - Bicycle

To get more information on the Production Cost, please refer to this EoP Wiki Article:

[How are Actual Component and Actual Product Costs computed during a production process?](#)

## **Related Contents**

- [SAP Business One in Action Catalog Page](#)
- [Link to DRC](#) documentation
- For more information, visit the [Business One homepage](#).

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