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Mintec Analytics

Differences between

Cost & Weight

Percentage Models

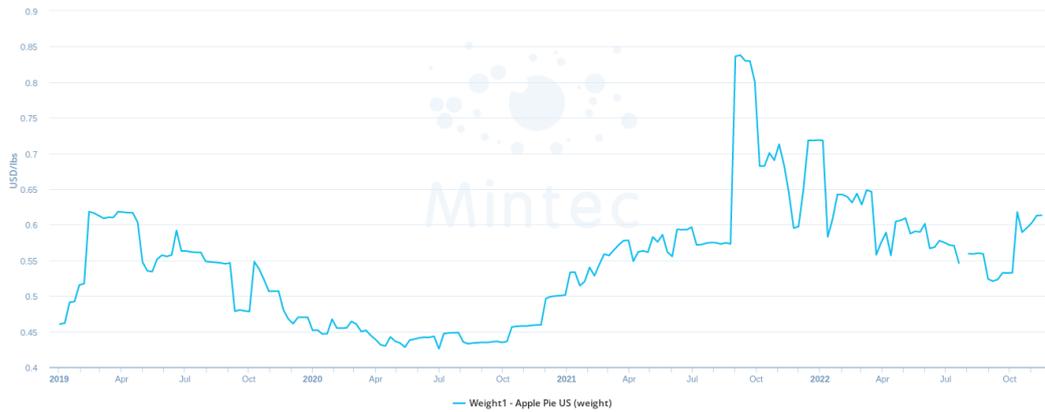
/Example – Apple Pie

Here is the make up of the models discussed in this document.

	Series Used	Recipe Weight %	Cost % on 01/01/19	Cost % on 01/01/22
Apple	6V07	56%	81.17%	85.41%
Milling Wheat	WHTC	17%	3.19%	3.14%
Sugar	S14N	8%	4.40%	4.06%
Raisin	5U15	3%	9.53%	5.26%
Palm Oil	OR07	2%	1.71%	2.12%

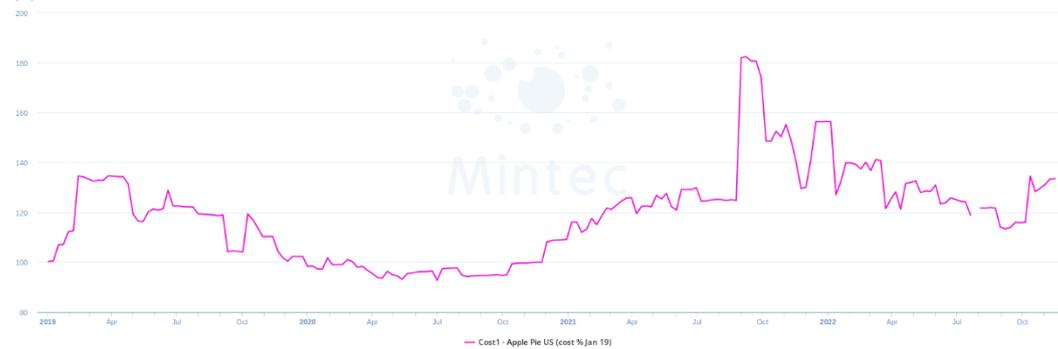
This is how the above recipe would look in Mintec Analytics using a **Weight Percent** Model

Apple Pie US (weight)



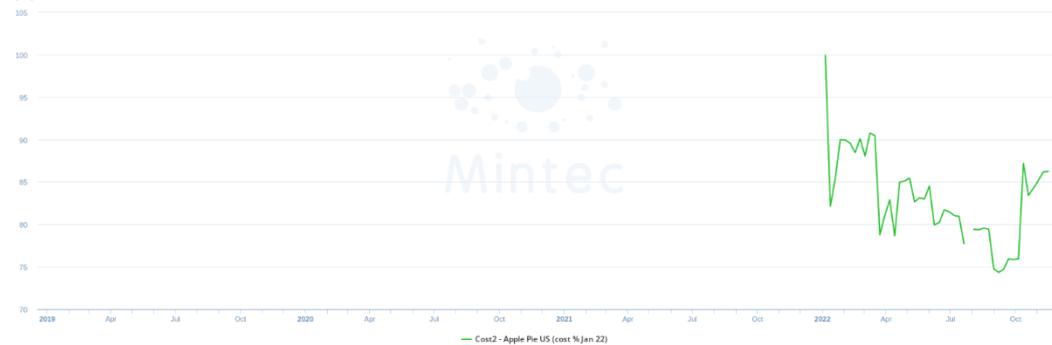
This is how the above recipe would look in Mintec Analytics using a **Cost Percent** Model indexed to *January 1st 2019*

Apple Pie US (cost % Jan 19)



This is how the above recipe will look in Mintec Analytics using a **Cost Percent** Model indexed to *January 1st 2022*

Apple Pie US (cost % Jan 22)



/Cost Percentage models

Cost Percentage models are also known as **Cost Breakdown** models.

For the apple pie example used, the highest weight of raw materials in the recipe are the apples (56% of the overall weight) and the flour (17%), but flour/wheat is a low-cost raw material. Therefore, the cost percent of the flour would make up around 3% of the total cost. The apples are a high-cost raw material and so they make up over 80% of the overall cost.

A cost % model uses the **percent of the overall cost** to add importance to each raw material

Cost Percentage models are expressed as an Index, therefore show only the percentage movement of the price over a period *not the final price*.

/Cost % - Pros and Cons

Pros

- Easier to get the underlying information.
 - A supplier would likely rather tell the buyer that apples are 80% of cost than state the actual weight used in its recipe.
- Inconvertible units (such as indexes, energy units etc) can be included in the model
- Less detail needed to include the other cost elements (such as energy, labour and transport)

Cons

- Can be too simplistic to get a truly accurate trend.
 - They should be used as a guide to trend rather than price.
- Need to know what time period that cost % relates to.
 - The cost percent changes depending on the price of the raw material.
- Only expressed as indexes – percentage movements only
- Less available information produced by Mintec Analytics to understand all the different price movements

/Weight Percentage models

Weight Percentage models are also known as a **Should Cost** models or **COGS – Cost of Goods Sold**.

From the example, we know the highest weight of raw materials in the apple pie recipe are apples and flour – making up 73% of the overall weight. These weightings don't change very much over time, unlike the cost percent.

A weight % model uses the percent of the overall weight to add importance to each raw material

Weight Percentage models are expressed as a *final price*, therefore showing what the product would cost. They can then be indexed in a dashboard to show the percentage price movement over a period.

/Weight % - Pros and Cons

Pros

- You can be much more confident in the accuracy of the trend and price
- More information available in Mintec Analytics to understand how all the different commodities price movements are influencing the overall price (Model Breakdown).
- The time period is less relevant.
 - If the recipe hasn't changed the model will still reflect the accurate price, no matter how much the prices change.

Cons

- It is much harder to get this level of detail from a supplier
- Adding in labour, energy and transport is more complicated.
 - You need to have very granular detail to relate it to an individual product
- Added detail on actual cost could cause some suppliers to argue more with the overall make up of the model

/Conclusion

Which model type you choose will depend on

- Availability of underlying data
 - Do you have access to the actual recipe weightings? If not, would the supplier give that detail to you?
- Accuracy required
 - Do you need to know the final price or just the percentage movement overall?
 - Do you want to include other costs like energy, transport and labor?
- Use case of the model
 - Are you planning to use the model in a negotiation with a supplier? If so, are you negotiating on the actual final price or the percentage movement from a point in time
 - Are you using it with customers explaining why prices have risen? If so, you will probably need more detailed information to explain your argument



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