

## VARIABLE COST METHOD



## FIXED COSTS AND VARIABLE COSTS



### OBJECTIVES :

1. Variable cost margin,
2. Fixed charges,
3. Formation of the result

## **PREREQUISITE:**

1. *Distinction between fixed costs and variable costs*

## **INTRODUCTION:**

One of the most significant distinctions is going to be the distinction between variable and fixed costs. In a first approach, which is usually sufficient, variable costs will be defined as those whose total varies according to the volume of activity, fixed costs are those whose total does not vary with the volume of activity.

**Fixed costs are always the same, regardless of the turnover generated.**

**Variable costs change in relation to turnover, that is, they increase when turnover increases and decrease when turnover decreases.**

This cost calculation method is based on the possibility of decomposing all the expenses of Firms in two categories:

- Fixed charges (structural charges)
- Variable expenses (operational expenses)

➤ The main objective of this method is to assess the level of turnover from which the company becomes a beneficiary (notion of break even).

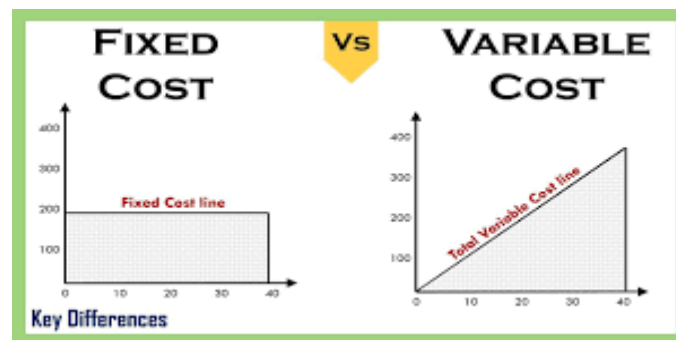
➤ The distinction between variable and fixed charges is useful: to reason its volume of activity and/or its selling price in relation to its financial objectives.

A variable cost is a cost whose total amount fluctuates with the volume of activity. The variable per unit is assumed to be constant. The total variable cost is often represented as a linear equation where the unknown is the volume of activity:

$Y = aX$ , where  $X$  is the total variable amount,  $X$  is the volume of activity and has the unit variable cost.



## fixed costs and variable costs



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**Variable cost estimation is a technique that is often used because it serves several purposes:**

- 1°) It allows to judge the performance of those managers ;
  
- 2°) It allows the overall profitability of products manufactured or sold to be assessed, since from the moment when the total margin on

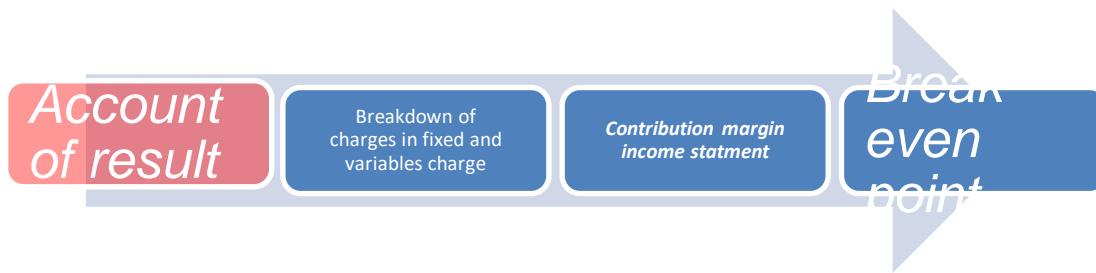
variable cost is greater than the fixed costs, this means that the company begins to make a profit;

➤ 3°) It allows a diagnosis of the profitability of products, from the margin on variable costs they generate. One can choose to develop some, for those with high margin rates or abandon others. However, care must be taken before making a definitive diagnosis of the expected good profitability of a product based solely on the margin criterion, because of the specific fixed costs that the latter may have to bear;

➤ 4°) in the case of subcontracting, it can help to assess the profitability of the operation, since the latter makes it possible to «vary» the fixed costs that constitute wages;

➤ 5°) It also allows for the choice of whether or not to produce more products in

certain cases, because it is the minimum price to be applied for marginal series.



## **I. Principle of the variable cost method**

### **A. Charges used for variable cost calculation**

For the calculation of variable costs, only Variable Expenses (VC) are included.

The total expenses of the period (direct and indirect) must therefore be separated into variable expenses and fixed charges.

### **Objective**

The variable cost method allows for calculating and analyzing variable cost margins by product or activity to measure their performance. This method is relevant when fixed costs are low.

### **The calculation elements**

Variable cost is calculated by product, activity and for the whole activity. Each variable cost is composed exclusively of variable charges.

$$\text{variable cost} = \text{Variable direct charges} + \text{Variable indirect charges}$$

The variable cost margin is calculated by product, by activity and for the whole activity. It measures the performance of a product or activity, its contribution to the absorption of fixed costs and the formation of the result. It represents, for each product, the loss of earnings that would result from its abandonment at the overall level of the company.

$$\text{contribution margin} = \text{Sales} - \text{Variable cost}$$

since The variable cost margin is proportional to turnover. It is therefore useful to calculate the variable cost margin rate.

$$\text{Taux de marge sur coût variable} = \left( \frac{\text{Marge sur coût variable}}{\text{Chiffre d'affaires hors taxes}} \right) \times 100$$

### Consequences

All successive costs calculated (on the same basis as for full costs) will be variable.

It will therefore appear successively:

It will therefore appear successively:

A variable cost of purchase,

A variable cost of production,

Variable cost of production,

A “variable outcome”.

In fact this “variable” result is equal to:

It is called the “Contribution margin ” → CM



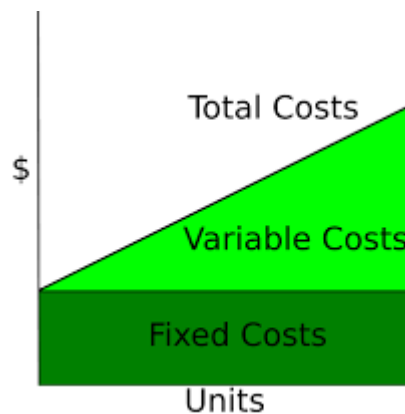
**Note**

General definition of variable and fixed charges:

A variable load is a load that varies according to the activity (we also speak of loads operational),

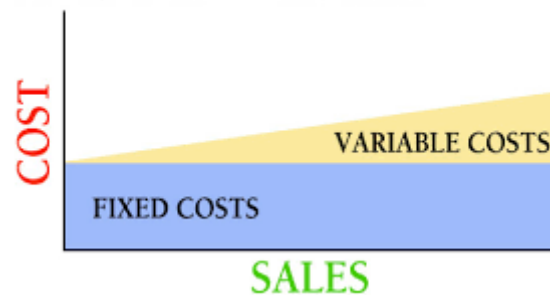
A fixed load is a load that does not vary according to activity (we also speak of loads structure).

Activity that can be measured by quantity produced or sold, turnover, etc





## Variable vs. Fixed Costs



### 2. Fixed charges

For example, the following are included in fixed charges (without special calculations):

Depreciation of fixed assets,

Taxes not based on turnover (property tax, corporate vehicle tax, etc.),

The monthly payroll,

The rent.

In other words, fixed charges do not vary according to activity.

B. Summary of the procedure to be followed with the variable cost method

1) Establish the production flow chart.

2) Complete the indirect burden allocation chart.

Same for full costs, but only indirect variable charges are taken into account. So the statement will give you the information to separate total indirect expenses into variable and fixed charges.

3) Variable purchase cost of materials and supplies purchased.