

# Output Multiplier

## Output Multiplier Explained

The output multiplier represents the total output produced by all industries in response to a dollar increase in final demand for an industry's output. There are two types of output multipliers: i) simple ii) total.

The simple output multiplier consists of the direct and indirect effects, while the total output multiplier includes the consumption induced effects.

Using the computer and peripheral equipment industry as an illustration, an initial \$1 million increase in final demand will increase output in the economy by \$1.44 million. If consumption induced effects are included, output will increase by \$1.60 million.

| Description                 | Amount         |
|-----------------------------|----------------|
| Direct Effects              | \$1.00m        |
| +                           |                |
| Indirect Effects            | \$0.44m        |
| +                           |                |
| Consumption Induced Effects | \$0.16m        |
| <b>Total</b>                | <b>\$1.60m</b> |

Simple Multiplier = 1.44

Total Multiplier = 1.60

1

2

3

4

## Change in Final Demand



A change in final demand for an industry's output creates an economic impact that is greater than the initial change. Let's assume that there is a \$1 million increase in final demand for computers.

1

2

3

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## Direct Effects



1

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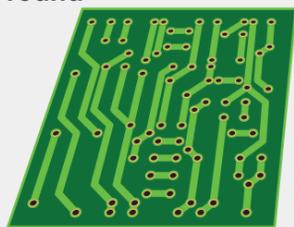
## Indirect Effects

The increase in computer production creates a ripple effect along the supply chain:

1<sup>st</sup> round

Output  
+\$0.30m

The increase in computer production raises demand for computer parts (e.g. disk drives) and spurs suppliers to raise production.

2<sup>nd</sup> round

Output  
+\$0.09m

As suppliers (e.g. circuit board manufacturers) raise production, they require more inputs. Hence, the demand for other inputs also increases.

Subsequent rounds



Output  
+\$0.05m

This ripple effect continues along the entire supply chain until production needs are met.

1

2

3

4

## Consumption Induced Effects



Employment

Industries hire more workers to produce additional output. Hence, employment and income levels rise.

Spending



Output  
+\$0.16m

This spurs increased purchases of goods and services by households, thereby creating new final demand, which generates new output to meet demand.

## Other Impact Analysis

The economic impact per dollar increase in final demand for an industry's output can also be measured in terms of:



Value-added

The additional amount of value-added generated.



Imports

The additional amount of imports required to support increased production.



Employment

The increase in number of jobs as a result of increased production.



Income

The increase in household income as a result of increased employment.