# BCG MATRIX: PORTFOLIO ANALYSIS IN CORPORATE STRATEGY

The BCG Matrix (also known as the Boston Consulting Group analysis, the Growth-Share matrix, the Boston Box or Product Portfolio matrix) is a tool used in corporate strategy to analyze business units or product lines based on two variables: relative market share and the market growth rate. By combining these two variables into a matrix, a corporation can plot their business units accordingly and determine where to allocate extra (financial) resources, where to cash out and where to divest.

- **The main purpose of the BCG Matrix is therefore to make investment decisions on a corporate level.** Depending on how well the unit and the industry is doing, four different category labels can be attributed to each unit: Dogs, Question Marks, Cash Cows and Stars. This article will cover each of these categories and how to properly use the BCG Matrix yourself.

## Example: Samsung's Product Portfolio

- Samsung is a conglomerate consisting of multiple strategic business units (SBUs) with a diverse set of products. Samsung sells phones, cameras, TVs, microwaves, refrigerators, laundry machines, and even chemicals and insurances. **This is a smart corporate strategy to have because it spreads risk among a large variety of business units.** In case something might happen to the camera industry for instance, Samsung is still likely to have positive cash flows from other business units in other product categories. This helps Samsung to cope with the financial setback elsewhere. However even in a well balanced product portfolio, corporate strategists will have to make decisions on allocating money to and distributing money across all of those business units. Where do you put most of the money and where should you perhaps divest? The BCG Matrix uses Relative Market Share and the Market Growth Rate to determine that.

- **Relative Market Share**

The creator of the BCG Matrix used this variable to actually **measure a company's competitiveness**. The exact measure for *Relative Market Share* is the focal company's share relative to its largest competitor. So if Samsung has a 20 percent market share in the mobile phone industry and Apple (its largest competitor) has 60 percent so to speak, the ratio would be 1:3 (0.33) implying that Samsung has a relatively weak position. If Apple only had a share of 10 percent, the ratio would be 2:1 (2.0), implying that Samsung is in a relatively strong position, which might be reflected in above average profits and cash flows. The cut-off point here is 1.0, meaning that the focal company should at least have a similar market share as its largest competitor in order to have a high relative market share. **The assumption in this framework is that an increase in relative market share will result in an increase in the generation of cash**, since the focal company benefits from economies of scales and thus gains a cost advantage relative to its competitors.

- **Market Growth Rate**

The second variable is the *Market Growth Rate*, which is used to **measure the market attractiveness**. Rapidly growing markets are what organizations usually strive for, since they are promising for interesting returns on investments in the long term. The drawback however is that companies in growing markets are likely to be in need for investments in order to make growth possible. The investments are for example needed to fund marketing campaigns or to increase capacity. High or low growth rates can vary from industry to industry, but the cut-off point in general is usually chosen around 10 percent per annum. This means that if Samsung would be operating in an industry where the market is growing 12 percent a year on average, the market growth rate would be considered high.

**Question Marks:**

Ventures or start-ups usually start off as *Question Marks*. Question Marks (or Problem Children) are businesses operating with a low market share in a high growth market. They have the potential to gain market share and become Stars (market leaders) eventually. If managed well, Question Marks will grow rapidly and thus consume a large amount of cash investments. **If Question Marks do not succeed in becoming a market leader, they might degenerate into Dogs** when market growth declines after years of cash consumption. Question marks must therefore be analyzed carefully in order to determine whether they are worth the investment required to grow market share.

**Stars:**
*Stars* are business units with a high market share (potentially market leaders) in a fast-growing industry. Stars generate large amounts of cash due to their high relative market share but also require large investments to fight competitors and maintain their growth rate. **Successfully diversified companies should always have some Stars in their portfolio** in order to ensure future cash flows in the long term. Apart from the assurance that Stars give for the future, they are also very good to have for your corporate’s image.

- **Cash Cows**

Eventually after years of operating in the industry, market growth might decline and revenues stagnate. At this stage, your Stars are likely to transform into *Cash Cows*. Because they still have a large relative market share in a stagnating (mature) market, profits and cash flows are expected to be high. Because of the lower growth rate, investments needed should also be low. **Cash cows therefore typically generate cash in excess of the amount of cash needed to maintain the business.** This ‘excess cash’ is supposed to be ‘milked’ from the Cash Cow for investments in other business units (Stars and Question Marks). Cash Cows ultimately bring balance and stability to a portfolio.

- **Dogs:**

Business units in a slow-growth or declining market with a small relative market share are considered Dogs. These units typically break even (they neither create nor consume a large amount of cash) and generate barely enough cash to maintain the business's market share. These businesses are therefore not so interesting for investors. Since there is still money involved in these business units that could be used in units with more potential, **Dogs are likely to be divested or liquidated.**
Example :

The **BCG Matrix** is a well-known management model for analyzing a company's product portfolio. 'BCG' stands for Boston Consulting Group, a well-known consultancy company that developed the BCG matrix in the 1970s.

The BCG matix contains the following four components:

- Stars
- Cash cows
- Dogs
- Question marks (also known as Problem Childs)

In the BCG matrix, market growth and market share of the products (or service) of a company are compared to each other. This allows a company to determine whether they should invest in a product or whether they should de-invest, or even stop the product altogether. View a BCG matrix example below.

**Cash cows - BCG Matrix example**

**The cash cows** in the BCG Matrix are the products that have been on the market for some time. They have ended up in the so-called maturity stage of the product lifecycle. A product that can be classified as a cash cow in the BCG Matrix generally has a high market share, a reasonable margin, and limited growth or a slight decrease. The costs are low. The production line is largely recouped, and there is a limited investment in marketing. With cash cows it is important that you as a company optimize the profit. So go see how you can, for example, optimize processes and thus reduce costs. An example of a product that can be classified as a 'Cash Cow' is the Philips energy-saving lamp.

**Stars - BCG Matrix example**

**The stars** in the BCG Matrix are products at the start of the product lifecycle. The growth and market share are high. Because the product is at the start of the product lifecycle, the margins are usually also high. A lot is being invested in marketing. It is important for a company to have stars. Here you can earn big money. To get stars, for example, a company must invest in product development. If you have a star as a company, the strategy for this product must be aimed at gaining as much market share as possible. An example of a product that can be classified as 'Star' in the BCG Matrix is the LED lamp from Philips.

### Dogs - BCG Matrix example

**The dogs** in the BCG Matrix are products at the end of the product lifecycle, or products that have had to compete against the competition. The margins are low, the market share is low and the market barely grows or even shrinks. The company will no longer invest in marketing. Many companies will choose not to produce the product at all. An example that can be considered as a ‘Dog’ in the BCG Matrix is the plasma TV from Philips.

### Question marks - BCG Matrix example

**The question marks** in the BCG Matrix are the products of which the future is not entirely certain. The market growth is high, but the market share low. The company must make the choice: invest in marketing, and try to make the product a 'Star', or let the product flow down to become a ‘Dog’, or in other words stop investing and even stop the product in the future. The strategy for products that have been designated as a question mark must either be focused on growth (to turn the product into a star) or on cost savings (to turn the product into a cash cow). An example that can be considered as a ‘Question mark’ in the BCG Matrix is the tablet from Philips. The market is growing very fast, but it takes a fortune in marketing to gain a large market share in this. The question mark is sometimes referred to as 'problem child' in other explanations about the BCG matrix.

### Create BCG matrix

Below we show a diagram in which questions are explained again about how to make a BCG matrix.

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| **STARS** Which products or services grow the fastest and have the highest margins? You need to focus on this and invest in it. | **QUESTION MARKS** Which products or services have the potential to become very large, for example because the market is very large, but you only have a small market share? You have to choose: will it be a dog or a star? |
| **CASH COWS** Which products or services generate a good turnover in a stable way? How can you optimize the profit from this? | **DOGS** Which products or services do not grow or show a shrinkage and the market is also no longer interesting, e.g. by competition? You must stop this! |

### Create an alternative BCG matrix

- The BCG matrix is an excellent tool for analyzing the products or services of a company. However, you can also use the model to determine the priority for other matters within a company. For example, you can analyze your customer portfolio using the BCG matrix. How does this work? List all your customers, and determine the margin and (potential) growth per customer. It will soon become clear which customers are making real money. The customers with whom a lot of money is earned and where much growth can be expected are your **stars**. Customers who do have a high turnover, but whose margins or growth are lower, can be qualified as **cash cows**. Customers who can potentially generate a lot of revenue (for example because it is a large company), but where relatively little is earned can be qualified as **question marks**. You can qualify **dogs** that cost a lot of work, where there is little revenue, and where there is little potential to earn. Maybe you should say goodbye to these customers and use your sales and marketing power to get more out of the question marks and the stars. Also make sure that your cash cows are not forgotten. Start thinking about how you can optimize the profit of these customers.
- Also don't forget to repeat this analysis once in a while. Clients that you first qualified as a question mark and still fall into this segment after a year, you may have to qualify as dogs. Focus on customers that are making a profit or that can achieve growth!
- When Nokia's sales results started to decline at the beginning of 2000, the BCG matrix was also used there. Unfortunately, the implementation of the outcome did not go as planned and the company fell even further into the abyss. Read here the whole Nokia story .