The relationship between investment, profit and cash flow

Profit is revenue minus costs. Cash flow refers to the actual movement of funds in and out of the business. It is therefore possible for a profitable business to become insolvent or bankrupt. You can see this in the example of the Chinon Snack Company in Section 3.7.1 (/study/app/y12-business-management-a-hl-may-2024/sid-351-cid-174702/book/the-difference-between-cash-flow-and-profit-id-39318) where, despite being profitable, the business faced a liquidity problem because it had a –$5000 net cash flow.

Investment is the purchase of a fixed asset (such as a machine or a factory). It is also referred to as capital expenditure. Investment therefore usually requires a large initial cash payment, and this could have a negative impact on the business's cash flow.

Figure 1. Investment is also referred to as capital expenditure.

Credit: Sean Gladwell, Getty Images

Managers and investors often track free cash flow, or the cash that is left over once operational costs have been paid. Having excess free cash flow allows public companies to buy back their own shares or distribute to investors. In other cases, as in the case study below, free cash flow is used for capital investments.

Case study

TSMC, based in Taiwan, is the world's largest producer of semiconductor chips. The demand for semiconductors has been increasing globally as they are used in more and more products; not just in traditional electronic devices. Cars and manufacturing machinery, for example, now also use large numbers of semiconductors. The COVID-19 pandemic created further demand for electronics, as people switched to online schooling and work. In December 2021, TSMC's gross profit margin was 53%.

In 2022, as a result of this growth and the free cash flow that it generated in 2020 and 2021, TSMC announced a 46.7% year-on-year increase in investments into factories that will produce advanced 3- and 5-nanometre chips. TSMC believes that semiconductors are entering a period of higher-than-average growth, due to growth in autonomous driving and factory automation. The company believes that this growth justifies the large investment.

However, some shareholders are concerned that TSMC may build too much additional production capacity. If demand for semiconductors declines, the large investment in factories might not pay off. Shareholders are also concerned that, if other semiconductor manufacturers make the same investments, there will be an oversupply of chips and a decline in price and revenue for TSMC.

(Adapted from this article in the Financial Times (https://www.ft.com/content/56f339cc-2c8f-41f0-b685-4a7875eb90f4).)

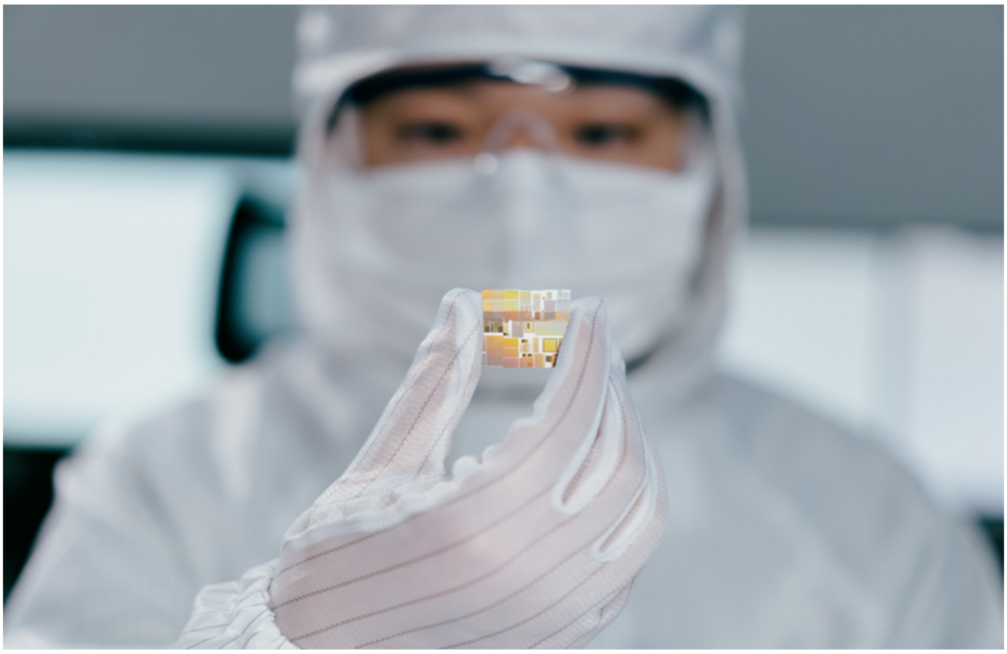

Figure 2. TSMC is a leading producer of semiconductors.
Credit: sinology, Getty Images

Questions

1. Explain one advantage and one disadvantage of TSMC using its excess free cash flow to invest into new factories. [4 marks]
2. Explain two possible threats facing TSMC. [4 marks]

Cash flow and ratios

In Subtopic 3.5 (/study/app/y12-business-management-a-hl-may-2024/sid-351-cid-174702/book/the-big-picture-id-39042) and Subtopic 3.6 (/study/app/y12-business-management-a-hl-may-2024/sid-351-cid-174702/book/the-big-picture-id-39311) you studied profitability and debt ratios. These ratios are closely linked to cash flow as well, although the link is not often direct.

Gross profit margin and profit margin

Positive profit margins generally mean that a business should be able to cover its costs of production and operation. However, if the business sells on credit (and most businesses do) and customers do not pay on time, high profitability may not prevent the company from running out of cash.

Debtor days and creditor days (HL only)

Debtor days measures how quickly a business can collect payment, and creditor days measures how quickly a business pays the money it owes as trade credit to its suppliers. To manage its cash flow effectively, it would be helpful for the business to minimise the number of debtor days and maximise the number of creditor days.

Figure 3. Ratios are closely connected with cash flow.

Credit: Prapass Pulsub, Getty Images