Interpretation of Financial Statements using Financial Ratios
(Relevant to AAT Examination Paper 7 — Financial Accounting)

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Introduction

In our daily lives, we frequently make comparisons for various types of decision-making. For example, imagine that you are looking to buy a flat in Hong Kong and find the following two advertisements posted by a property agency:

Tseung Kwan O Price: HK$6.8M Gross Area: 657 (sq. ft) Saleable Area: 490 (sq. ft) Modern Design! Green Mountain View!	**Tseung Kwan O** Price: HK$7.2M Gross Area: 915 (sq. ft) Saleable Area: 693 (sq. ft) Modern Design! Green Mountain View!

Which one would you buy? Would you simply choose the one with the lower price? I am certain that you would not simply compare the gross property price of the two properties! Lots of comparisons have to be made before arriving at the final decision. For example, you might care about the number of rooms, the age of the property, and most importantly, you might also compare the price per saleable square foot.

The above daily-life example demonstrates that "numbers" are one of the key elements used in your decision-making process and that adopting a "common measurement unit" is a powerful technique for arriving at your decision.

Turning back to the business world, how would you evaluate the performance of a company or companies engaged in the same industry? Financial statements are a widely used instrument for evaluating the performance of companies. Accounting numbers can help to tell you the story of a company and what is likely to happen with that company in the future. However, does this necessarily mean that a company which earned a profit of $10 million is performing better than one which had a profit of only $8 million? It is imperative that you remember that we can't simply compare the absolute numbers in the raw financial statements. Just as in the example of buying property mentioned above, the magic of evaluation is to adopt a "common measurement unit" — in this case, financial ratios.

Financial ratio analysis

Financial ratio analysis is a commonly used method for evaluating the financial health and performance of companies. Through the use of simple mathematical calculations on the relationship between numbers in the financial statements, we can compare a single company's performance over time on a year-by-year basis (trend analysis) or compare different companies at the same point in time (cross-sectional analysis). Financial ratios are commonly categorized into five areas: profitability, management efficiency, liquidity, solvency and investment ratios. Let's take a look at each of these types of ratios one-by-one.

Profitability

Profitability ratios are mainly used to assess a company's ability to generate returns from its operations. Profitability is an important indicator for measuring the financial performance of companies. Usually, the higher the ratios, the better the financial performance of the company. Different ratios are tailored to assessing different areas of the company.

The *gross profit ratio* is helpful for evaluating a company's pricing strategies and its ability to control direct costs. In practical terms, the gross profit ratio will normally be consistent with the company's business model. That is to say, a company selling luxury goods would normally have a higher gross profit margin, while a low gross profit margin would be appropriate for a company supplying basic necessities.

The *net profit ratio* is arrived at after taking into consideration the net operating expenses of the company. Therefore, a comparison between the gross profit ratio and net profit ratio is meaningful in assessing the company's ability to manage its operations effectively. The greater the difference between the gross profit ratio and the net profit ratio, the greater the proportion of profit that is being used to cover operating expenses.

Return on capital employed (ROCE) goes a little bit further, by exploring the relationship between profit and the capital invested in the company. This ratio measures the effectiveness of the company in utilizing its resources to generate returns for the company. Changes in ROCE may be attributable to various causes, such as changes in the company's profit margins, assets and interest-bearing liabilities.

Management efficiency

Management efficiency ratios are particularly important for trading companies, as they measure companies' effectiveness in utilizing their assets to generate income. These ratios help to evaluate the efficiency of companies' operations.

The *inventory turnover* ratio measures the efficiency of the purchase and sales strategies of the company. This ratio is a measure of the number of days that inventories are held by the company. Usually, a lower inventory holding period is preferred. A higher inventory holding period may imply an excessive inventory; this may either be due to various internal factors, such as poor inventory management or inappropriate marketing strategies, or to unfavourable changes in the external environment, such as a downturn in the economy.

The *receivables collection period* measures the effectiveness of the company's credit policy towards its customers. This ratio is a measure of how long it takes the company to collect cash from its credit customers. A short receivables collection period is preferred. A long receivables collection period may indicate that long credit terms are being offered to customers, ineffectiveness of the collection team, or financial difficulties on the part of the company's customers. A long collection period is undesirable because it may harm the company's liquidity position.

In contrast, the *payables payment period* helps to identify the company's credit policy and its ability to settle debts with its suppliers. This ratio is a measure of the number of days needed for the company to settle its bills with its suppliers. A long payables payment period may have either positive or negative causes. On the one hand, it may

indicate that the company is able to maintain a good relationship with its suppliers so as to enjoy a long credit period. However, on the other hand, it may be also be a signal of liquidity problems, with the possibility that the company is unable to settle its debts with its suppliers.

Liquidity

Liquidity is one of the key indicators in assessing the financial status of a company. It mainly measures whether or not the company has sufficient resources to meet its short-term debts. A high ratio typically indicates a low risk of default on the company's payments.

The *current ratio* focuses on the relationship between the current assets and current liabilities of the company. A ratio of 2:1 is usually regarded as an acceptable level. A high current ratio may be an indication of operational inefficiency, e.g. with excessive inventory or long outstanding receivables. However, special attention must also be paid if the company has a low current ratio, because a low ratio may indicate that the company is not in good financial health.

The *quick ratio* (also known as the *acid test ratio*) is similar to the current ratio but it is more concise, by excluding inventories from the current assets. It shows the relationship between liquid assets and current liabilities. A ratio of 1:1 is regarded as being a good general rule of thumb. A high quick ratio may indicate that the company is accumulating excessive liquid resources and limiting its profit-generating opportunities, while a low quick ratio may imply that the company is at risk of being unable to pay its short-term debts when they come due.

Solvency / Capital structure

Calculating *Solvency / Capital structure* helps to identify going concern issues and evaluates the fund-raising capability of the company. In contrast to liquidity, this ratio measures the long-term sustainability of the company.

The *gearing ratio* is one of the most important indicators for measuring the long-term financial leverage of the company. This ratio measures the proportion of funds that is generated from debt financing. Usually, a high gearing ratio represents greater financial risk, while a low gearing ratio implies greater financial stability. However, this does not mean that a company should seek to reduce its debt financing to zero. Sometimes, debt financing brings benefits to the company, such as allowing the company to enjoy lower financing costs and greater profit-generating capability. Therefore, the proportion of debt financing relative to shareholders' equity may depend on a number of factors, such as the current economic situation, the level of interest the company has to pay, and the stability of the company.

Investment

Investment ratios are used to assess the worthiness and attractiveness of an investment. Such ratios indicate the market's expectations regarding the risk and return of the company.

The *price-earnings ratio* (P/E ratio) is the most commonly used ratio in valuing the potential of an investment. A high P/E ratio may imply either that a company's stock is

overpriced or that the company has better long-term earnings potential. However, if a high P/E ratio is supported by low earnings per share, this may impair the confidence of investors in choosing to invest funds in the company.

Dividend cover provides an interpretation of the company's dividend policy. It measures the proportion of profits that is payable to shareholders. A high dividend cover may imply that the company is paying a relatively low dividend and retaining a relatively greater portion of its profits for the future development of the company.

Conclusion

Financial ratios are not simply "numbers". These ratios not only help us to compare the performance and financial status of a company across different years, but also to evaluate the strengths and weaknesses of a company by comparing its performance with its competitors or industry averages. With the help of the non-financial information disclosed by the company, financial ratios can provide a simple technique for gaining a more detailed picture of the company.