FINANCIAL REPORTING CONSIDERATIONS

Interest Rates and Inflation

Contents

Overview

As companies prepare for year-end financial reporting, it's important to consider the implications of inflation and rising interest rates, which can affect financial reporting in many ways, as discussed below. Many of the financial reporting areas affected involve impairment or valuation analyses, which often hinge on discounted cash flow models. As a result, developing estimates of future cash flows and related inputs (e.g., discount rates) may be more challenging than in prior periods. Management also should avoid over-relying on historical trends in these uncertain times.

Key financial reporting considerations include:

- Inventory
- Financial Instruments, including trade receivables
- Impairment of non-financial assets
- Business combinations
- Hedging
- Debt
- Supplier finance program obligations
- Leases
- Revenue recognition and loss (onerous) contracts
- Employee benefits
- Share-based payments
- Taxes and realizability of deferred tax assets
- Government grants and assistance
- Risks and uncertainties
- Going concern
- SEC reporting and disclosure requirements

While most of our discussion below focuses on the measurement of various accounts in the financial statements, it's important to remember that US GAAP often requires disclosure of significant judgments and estimates and changes in judgments and estimates from prior periods. These requirements can be topic-specific, or broad, such as the requirements in ASC 250, *Accounting Changes and Error Corrections*. In addition, ASC 820, *Fair Value Measurements*, requires disclosures in a variety of circumstances. The importance and sensitivity of judgments and estimates increases in times of economic uncertainty. So don't forget the importance of good disclosures when preparing the financial statements.

Financial Reporting Considerations

INVENTORY

Inflation can increase the cost of raw materials, wages, energy to produce goods, and fuel costs to transport raw materials and finished goods. If sales prices don't increase correspondingly, for example, due to long-term fixed-price contracts, or demand decreases for non-essential goods (or changing to lower priced goods), companies may be required to write down inventory to the lower of cost or market if using LIFO or retail inventory method, or the lower of cost or net realizable value for all other methods.

FINANCIAL INSTRUMENTS

Inflation and rising interest rates can affect the fair value of all types of financial instruments. For example:

- Receivables may be more at-risk if the counterparties are now more unlikely to pay, depending on how inflation affects cash flows
- Fixed interest-rate securities (e.g., bonds) may decline in fair value

Equity securities accounted for under the measurement alternative in ASC 321, *Investments in Equity Securities*, may be at risk for impairment and equity method investments may also be at risk for other-than-temporary impairment, depending on how inflation affects the investee's cash flows and market perceptions of the risk related to the investee's company and industry, among other factors.

Banks also need to consider whether borrowers may be less likely to repay their loans (especially floating-rate debt) if compression in margins due to inflation decreases profitability. On the other hand, lenders should consider that prepayment risk may also be higher on floating-rate debt, which may affect the measurement of loans. Banks should reassess whether their pools of loans continue to have similar risk characteristics, or whether to revise those pools and measure expected credit losses individually.

All companies should disclose qualitative and quantitative information about the allowance for credit losses (e.g., allowances for bad debts or doubtful accounts), including estimates and assumptions.

See our publications, ***BDO Knows CECL 2019: FASB Topic 326, Financial Instruments – Credit Losses***, and ***Troubled Debt Restructurings for Creditors and Vintage Disclosures***, for more information.

IMPAIRMENT OF NON-FINANCIAL ASSETS

Depending on the nature of an asset, US GAAP requires different impairment models:

- Goodwill and indefinite-lived intangible assets (e.g., certain brand names) are evaluated when impairment indicators exist, in addition to annually. If a quantitative impairment test is required, then the company will need to determine the fair value of the reporting unit (after the adoption of ASU 2017-04) or the implied fair value of the goodwill (before the adoption of ASU 2017-04).
- Long-lived assets (e.g., property, plant and equipment, right-of-use assets under leases) are tested for impairment when factors indicate the asset may not be recoverable, first using undiscounted cash flows. If the asset isn't recoverable (i.e., the carrying amount is more than the undiscounted cash flows), then the company measures the asset at its fair value and recognizes an impairment.

When companies use a discounted cash flow approach to measure fair value of an asset or reporting unit, a higher discount rate decreases fair value. Therefore, companies may have more assets at risk for impairment than last year, due to the increase in interest rates. **See below for discussion on how interest rates impact the determination of discount rates.**

Management also should carefully consider forecasted cash flows. Inflation may cause a company's costs to increase. If sales prices don't increase correspondingly, for example, due to long-term fixed-price contracts, or demand for the company's goods and services decreases due to higher prices, then margins and profits may compress, which decreases the fair value of the asset.

See our publication, ***Accounting for Goodwill Impairment Assessments***, for more guidance. This publication also discusses the proper ordering of impairment tests.

BUSINESS COMBINATIONS

In a business combination, the acquirer recognizes most acquired assets and liabilities at fair value, with some exceptions described in ASC 805, *Business Combinations*. Management may determine the fair values using a discounted cash flow technique. It is important to carefully estimate future cash flows and use an appropriate discount rate in times of inflation and rising interest rates. The discount rate should reflect the weighted-average cost of capital (WACC) of the acquired business, and not the WACC of the acquirer. **See below for more discussion on determining the WACC**.

HEDGING

Inflation may lead companies to hedge interest rate risk. As the accounting can be complex, management should consider the requirements under ASC 815, *Derivatives and Hedging*, before concluding on the appropriate accounting treatment.

DEBT

Companies may struggle to repay their debt because of inflation and rising interest rates. Management may renegotiate debt terms, including payment terms, interest rates, or debt covenants. Management also should determine the proper classification of debt upon a covenant violation or default under ASC 470, *Debt*.

In addition, management should consider disclosure requirements in ASC 470 related to matters such as:

- Expected debt refinancing
- Defaults
- Modifications and extinguishments

See our publication on ***Troubled Debt Restructuring, Debt modification and Extinguishment*** for more guidance.

SUPPLIER FINANCE PROGRAM OBLIGATIONS

Inflation and rising interest rates may cause more companies to use supplier finance programs. These programs (also referred to as reverse factoring, payables finance, or structured payables arrangements) allow a buyer to offer its suppliers the option to be paid for confirmed valid invoices by a third-party finance provider before the invoice due date. The buyer in a program typically:

- Enters into an agreement with the finance provider (e.g., a bank) to set up the program
- Purchases goods and services from suppliers with a promise to pay later
- Notifies the finance provider of the supplier invoices it has confirmed as valid

Suppliers may then ask for advance payment from the finance provider for those confirmed invoices. These programs often help both parties, as the buyer often negotiates a longer payment term for its purchases, while the supplier finances its receivables at a lower interest rate than if it obtained its own financing and collects the funds immediately.

Management needs to determine the appropriate accounting and presentation for these programs. Good controls are critical to ensure that the accounting and financial reporting functions are aware of the existence and terms of the programs, which may require increasing coordination with the purchasing and treasury functions.

Companies also should appropriately disclose the existence of these arrangements. The FASB recently issued ASU 2022-04, *Disclosure of Supplier Finance Obligations*, which creates new disclosure requirements to enhance the transparency of supplier finance programs for users of the financial statements. For more guidance on these requirements, see our publication, ***Disclosure of Supplier Finance Program Obligations***.

BDO Insight: Even though companies don't have to adopt ASU 2022-04 yet, SEC staff have commented on the lack of transparency by companies that use supplier finance programs and identified potential disclosures in MD&A if these programs are material. As discussed in Division of Corporation Finance's CF Disclosure Guidance in Topic 9A, SEC registrants should disclose the following:

- Reliance on these programs to manage cash flow
- Material impacts on the balance sheet, statement of cash flows or liquidity
- Material terms of the programs
- Guarantees by subsidiaries or the parent
- Material risks to the company if the program ends
- Amounts payable related to these programs at the end of the reporting period

LEASES

Higher interest rates can affect a lessee's incremental borrowing rate (IBR), which it uses to measure the right-of-use asset and lease liability for a new lease or upon certain modifications. The IBR is the rate that the lessee would pay to borrow over a similar term, and with a similar security, the funds necessary to obtain an asset of similar value to the right of use asset in a similar economic environment. Private company lessees can elect to use the risk-free rate, rather than their incremental borrowing rate, as a practical expedient, by asset class. An increase in the IBR (or risk-free rate) decreases the lease liability and right-of-use asset, compared to a lower IBR. Management should be careful to determine the right IBR (or risk-free rate) for each new or modified lease, and not just assume that the rates used for prior leases still apply.

Variable lease payments also affect the measurement of right-of-use assets and liabilities. Variable lease payments that depend on an index or a rate are included in the lease payments and are initially measured using the index or rate at the commencement date. Later changes in the index or rate are recognized as variable lease payments (i.e., in profit or loss), unless the lessee remeasures the lease payments for another reason. That is, the asset and liability are not remeasured unless the lease is modified.

See our publication, ***Accounting for Leases under ASC 842***, for more guidance.

REVENUE RECOGNITION AND LOSS (ONEROUS) CONTRACTS

Some companies that recognize revenue over time under ASC 606, *Revenue from Contracts with Customers*, measure progress toward satisfying the performance obligation using input methods (e.g., actual costs incurred compared to total estimated costs to satisfy the performance obligation). Those companies should consider how inflation affects the estimate to complete the performance obligation, which affects the percent complete and therefore, the revenue recognized.

Considering inflationary pressures, management should be alert for contract modifications, which can affect revenue recognition, including the following:

- Changing payment terms (e.g., from fixed-price to variable)
- Discounting prices

However, some contracts may already include inflation index adjustments. An increase in price under the original terms of the contract is not a contract modification, but rather a change in the transaction price.

ASC 606 prohibits a company from recognizing revenue if it is not probable that the company will collect all the consideration to which it will be entitled. In this time of inflation and rising interest rates, management should be alert for a significant deterioration in a customer's ability to pay or request for extended payment terms after contract inception and reassess whether it is probable that it will collect the remaining consideration under the contract for future goods and services. If so, the company shouldn't recognize any more revenue. In contrast, the collectability of existing receivables is measured under ASC 326 or other applicable GAAP, **as discussed above**.

Contracts also may become onerous (i.e., loss contracts) due to an increase in costs without a corresponding increase in revenue, for example, for long-term fixed-price revenue contracts. ASC 605-35, *Construction-Type and Production-Type Contracts*, has guidance for separately priced extended warranty and product maintenance contracts. However, more generally, liabilities for expected future operating losses should not be accrued unless required by specific guidance in US GAAP, which is limited on this point.

See our publication, ***Revenue from Contracts with Customers***, for more guidance.

EMPLOYEE BENEFITS

Inflation can affect actuarial assumptions used in measurement of defined benefit plans and other long-term employee benefits. For example, higher interest rates on corporate bonds typically lead to higher discount rates in actuarial valuations, which decreases post-retirement obligations. Assumptions about future salary increases and health care costs also should be reassessed considering inflation. Management also should consider how inflation and rising interest rates affect future funding requirements.

SHARE-BASED PAYMENTS

The risk-free rate is one of the inputs to option-pricing models. In times of rising interest rates, management needs to determine the appropriate risk-free rate to use when determining the fair value of an option for measuring share-based payment expense.

Additionally, the SEC staff guidance states that it generally is not appropriate to exclude periods of historical share price volatility when estimating the expected volatility of a share-based payment award.

Inflation can lower demand for goods and services and increase costs, thereby compressing margins and profits. Management needs to consider how this affects its estimates of the likelihood of vesting for any share-based payments with performance conditions. If management modifies share-based payments to make vesting conditions easier to meet considering inflation or other factors, management needs to determine the appropriate accounting for the modification under ASC 718, *Compensation-Stock Compensation*.

TAXES AND REALIZABILITY OF DEFERRED TAX ASSETS

Management must evaluate all available evidence to determine whether to recognize a valuation allowance for deferred tax assets. ASC 740, *Income Taxes*, allows management to consider four sources of taxable income in this evaluation:

- Taxable income in prior carryback years
- Future reversals of existing taxable temporary differences
- Tax planning strategies
- Future taxable income exclusive of reversing temporary differences

It can be even more difficult than normal to project future taxable income in times of rapid inflation, and this source is already the most subjective of the four sources of taxable income listed above. As a result, management should carefully evaluate whether to recognize a valuation allowance.

GOVERNMENT GRANTS AND ASSISTANCE

Companies that receive government grants and assistance need to determine the appropriate accounting and assess whether the disclosure requirements of ASC 832, *Government Assistance*, apply. The requirements are effective for financial statements issued for annual periods beginning after December 15, 2021, but early application is allowed.

IN SCOPE

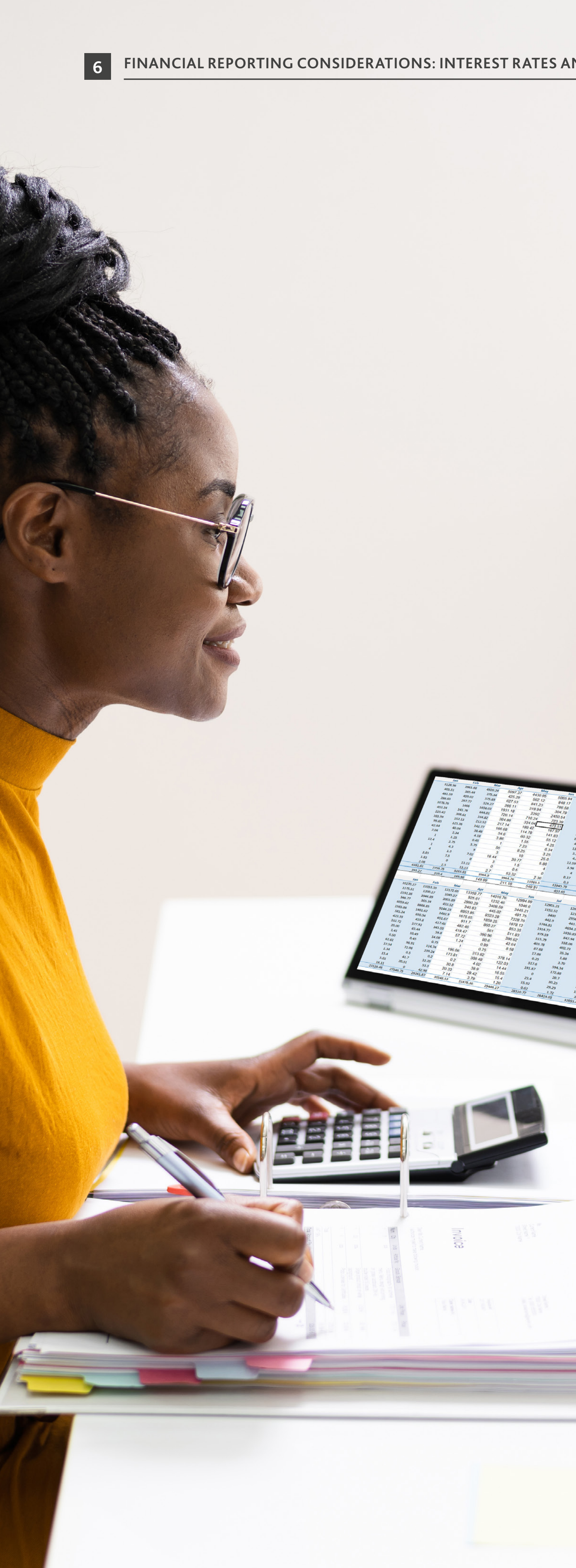
- Businesses that account for a transaction with a government by applying a grant or contribution model **by analogy** to other accounting guidance, for example:
  - IAS 20, *Accounting for Government Grants and Disclosure of Government Assistance*
  - ASC 958-605, *Not-For-Profit Entities — Revenue Recognition*

OUT OF SCOPE

- Transactions within the scope of other US GAAP, for example:
  - ASC 470, *Debt*
  - ASC 740, *Income Taxes*
  - ASC 606, *Revenue from Contracts with Customers*
- Entities within the scope of ASC 958, *Not-for-Profit Entities*
- Employee benefit plans within the scope of:
  - ASC 960, *Plan Accounting — Defined Benefit Pension Plans*
  - ASC 962, *Plan Accounting — Defined Contribution Pension Plans*
  - ASC 965, *Plan Accounting — Health and Welfare Benefit Plans*

See our publication, ***Annual Disclosure Requirements for Business Entities Receiving Government Assistance*** for more guidance.

BDO Insight: Transactions with a government include assistance from domestic, foreign, local (for example, city, town, county, and municipal), regional (for example, state, provincial, and territorial), and national (federal) governments and entities related to those governments. Examples of entities related to governments include departments, independent agencies, boards, commissions, and component units. Entities also may receive government assistance from intergovernmental organizations, nongovernmental organizations or government-sponsored enterprises authorized to administer assistance on behalf of a government.



RISKS AND UNCERTAINTIES

ASC 275, *Risks and Uncertainties*, requires disclosure of risks and uncertainties that could significantly affect the amounts reported in the financial statements in the near term. Risks and uncertainties can stem from the nature of a company's operations, the use of estimates in the preparation of the financial statements, or significant concentrations in a company's operations. Inflation and rising interest rates affect many company's operations, though the extent varies. If it becomes known prior to the issuance of the financial statements that it is at least reasonably possible that significant estimates will change in the near future and the change would be material, companies should add disclosure.

Companies may have concentrations that present greater risk to the financial condition or results of operations, such as customers, suppliers, geographic locations, and products. When management is aware that a concentration exists that makes it vulnerable to a risk of loss in the near term and it is at least reasonably possible that events or circumstances may occur that could cause a severe impact in the near term, ASC 275 requires incremental disclosure. If a company has a concentration in an activity or areas affected by certain macroeconomic trends (e.g., meaningful change in customer buying behaviors or cancelling of orders due to inflationary pressures), disclosure of the potential near-term impact should be disclosed. These disclosures are essentially "early-warning" disclosures designed to draw attention to areas of risk or known trends or uncertainties. These disclosures are similar to the SEC's requirement to discuss known trends or uncertainties within MD&A as highlighted on the next page, as well as to provide "early-warning" disclosures in the disclosures of critical accounting estimates.

BDO Insight: The impact of inflation and rising interest rates, in addition to supply chain challenges and residual effects of COVID may each present unique risks and uncertainties as well as specific operational and financial statement effects. Management should carefully evaluate the impact of each macroeconomic factor separately to determine the appropriate reporting and disclosure consequences. The SEC staff may comment on disclosures that commingle these factors into one risk, uncertainty, or effect.

GOING CONCERN

If a company is particularly hard-hit by inflation with respect to cash flow forecasts, or has floating-rate debt, management may need to consider its assessment of the company's ability to continue as a going concern.

SEC Reporting and Disclosures

Registrants should consider whether inflation and rising interest rates may affect SEC filings, as discussed below and in our publication, ***2022 SEC Reporting Insights***. The SEC staff reiterated this theme at the AICPA & CIMA Conference on Current SEC and PCAOB Developments in December 2022. Read our publication, ***SEC Conference Highlights*** for more information.

REGULATION S-K ITEM 101, *DESCRIPTION OF BUSINESS*

A registrant should describe its business and how it operates. It also should include discussion of recent events, competition, regulation, and seasonality. Inflation and rising interest rates, along with other factors related to COVID or supply chain challenges, may cause a registrant to change how its business operates, its strategy, how it engages with its customers, or its approach to its supply chain (such as where it sources its raw materials). If changes already occurred, or if the registrant plans to make changes in in the future, the disclosures should address such changes.

REGULATION S-K ITEM 105, *RISK FACTORS*

Risk factors should include material risks that a registrant faces. Some risks may relate to the overall economy, some to the industry or geographic area in which a registrant operates, and some may be unique to the registrant. Management should disclose specific, rather than general, information about risk factors that address economic conditions, inflation, rising interest rates or geopolitical matters directly affecting the Company.

REGULATION S-K ITEM 303, *MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS (MD&A)*

MD&A focuses on management's perspective on the business results, or where the registrant tells its own story. Known trends and uncertainties that had, or are reasonably likely to have, a material impact on the registrant's operations should be discussed. The impacts of interest rates, inflation, COVID, and supply chain challenges may present known trends for certain types of organizations and likely present a myriad of uncertainties for other organizations. Companies that experienced material effects to date, or reasonably expect a material impact in the future, on their financial condition, results of operations, or liquidity due to these factors should include robust discussions of these circumstances.

REGULATION S-K ITEM 305, *QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISKS*

A company is required to disclose its exposure to market risks, such as interest rate risk, credit risk, foreign currency risk, and commodity price risk, and how the registrant manages these risks. Registrants should consider disclosing how inflation and rising interest rates are affecting the registrant, and how they are managing these risks.

Determining the Discount Rate

A common theme in the discussion above is the effect inflation has on discount rates. Determining an appropriate discount rate can be complex and often requires help from specialists.

The discount rate should reflect a market assessment of the time value of money and risks specific to the asset(s). Therefore, the inputs should reflect the company's market characteristics and risks that market participants would price in at the valuation date.

DETERMINING THE RISK-FREE RATE

A discount rate is derived from various inputs and assumptions, but generally the risk-free rate is the starting point. The risk-free rate is the rate that the government will pay on borrowings. It is "risk free," because the likelihood of the government defaulting on its debt is low. When the Federal Reserve raises interest rates to combat inflation, the risk-free rate generally increases because the market expects a higher return on investments. It's important to select the risk-free rate that is appropriate for the geographical location in which the business operates, and for an appropriate period based the specific item being measured.

NOMINAL VS. REAL DISCOUNT RATES

When modelling future cash flows in an inflationary environment, it is crucial to use the correct type of discount rate, depending on whether the cash flows include or exclude the effects of inflation.

TYPE OF CASH FLOWS	DESCRIPTION	DISCOUNT RATE USED
Nominal	Includes the effects of inflation	Nominal rate
Real	Excludes the effects of inflation	Real rate

The real interest rate is the interest rate that takes inflation into account, and is calculated as follows:

Nominal Rate - **Inflation Rate** = **Real Rate**

Therefore, the nominal rate is generally higher than the real rate because it includes the effect of inflation. Similarly, nominal cash flows are generally higher than real cash flows, which is one reason it's important to match the type of cash flows to the correct type of rates. Most companies determine the nominal cash flows and nominal rates, which is based on their weighted average cost of capital.

WEIGHTED-AVERAGE COST OF CAPITAL

The equation to calculate the weighted average cost of capital (WACC) is as follows :

OPTIMAL CAPITAL STRUCTURE

$$WACC = K_d \times [D/(D+E)] + K_e \times [E/(D+E)]$$

COST OF DEBT

K_d = Interest rate x (1- tax rate)

- Interest rate
- Tax rate

COST OF EQUITY

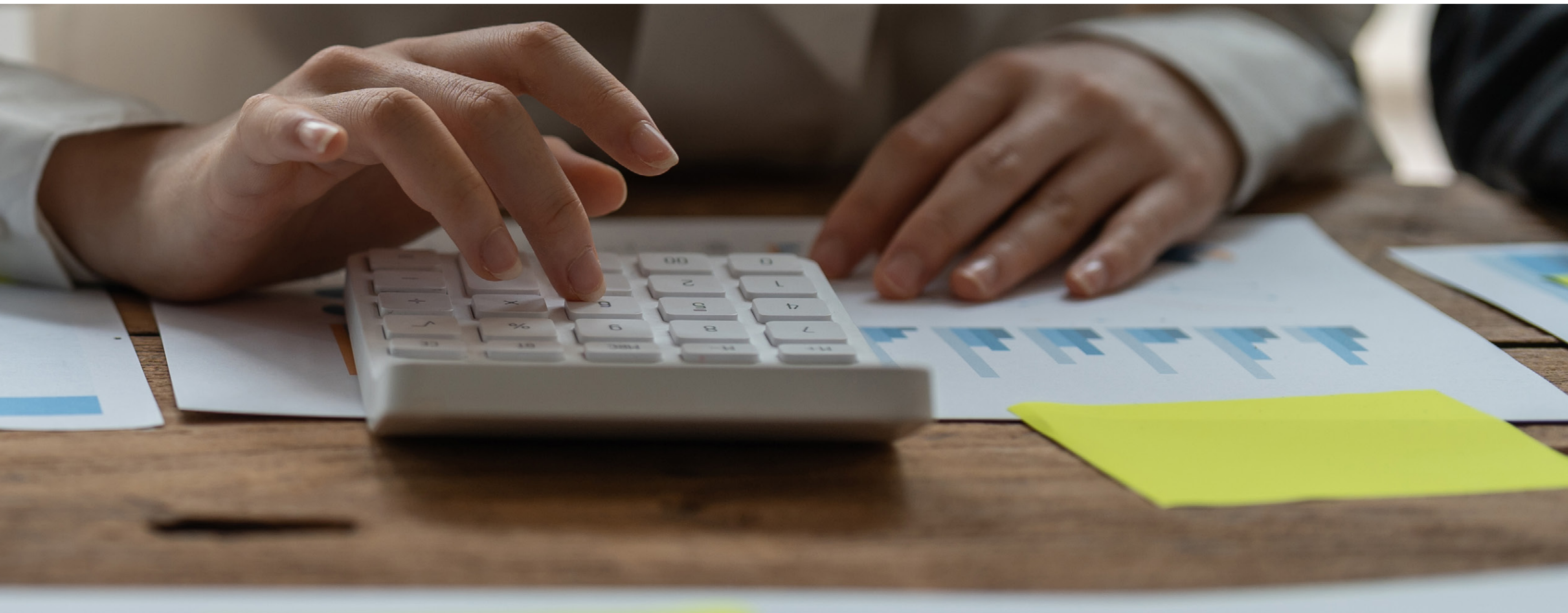
K_e = Rf + (Beta x EMRP) + Alpha

- Risk free rate of return
- Beta
- Equity market risk premium
- Alpha
  - Small company risk premium
  - Company-specific risk premium
  - Other

The WACC computes a discount rate based on a company's cost of debt and cost of equity based on its target capital structure, which often is based on the capital structures of a comparable basket of listed companies.

- A company's cost of debt in a WACC reflects the pricing of debt at the assumed target capital structure. The interest rate used in the WACC typically equals the risk-free rate plus the default premium which aligns with the company at the target capital structure.
- A company's cost of equity is typically calculated using the Capital Asset Pricing Model (CAPM), which uses a risk-free rate as a starting point and adjusts for market risk, company risk and other risk factors. The higher the risk associated with the cash flows, the higher the risk premium applied and therefore the higher the cost of equity.

As a result, when the Federal Reserve increases interest rates to address inflation, thereby increasing the risk-free rate, this can affect the WACC.



Conclusion

Inflation and rising interest rates can affect financial reporting in many ways, depending on the company and industry. Management should avoid over-reliance on the past. Rather, these uncertain times call for careful judgments and estimates of future cash flows and other inputs into the financial statements.

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