

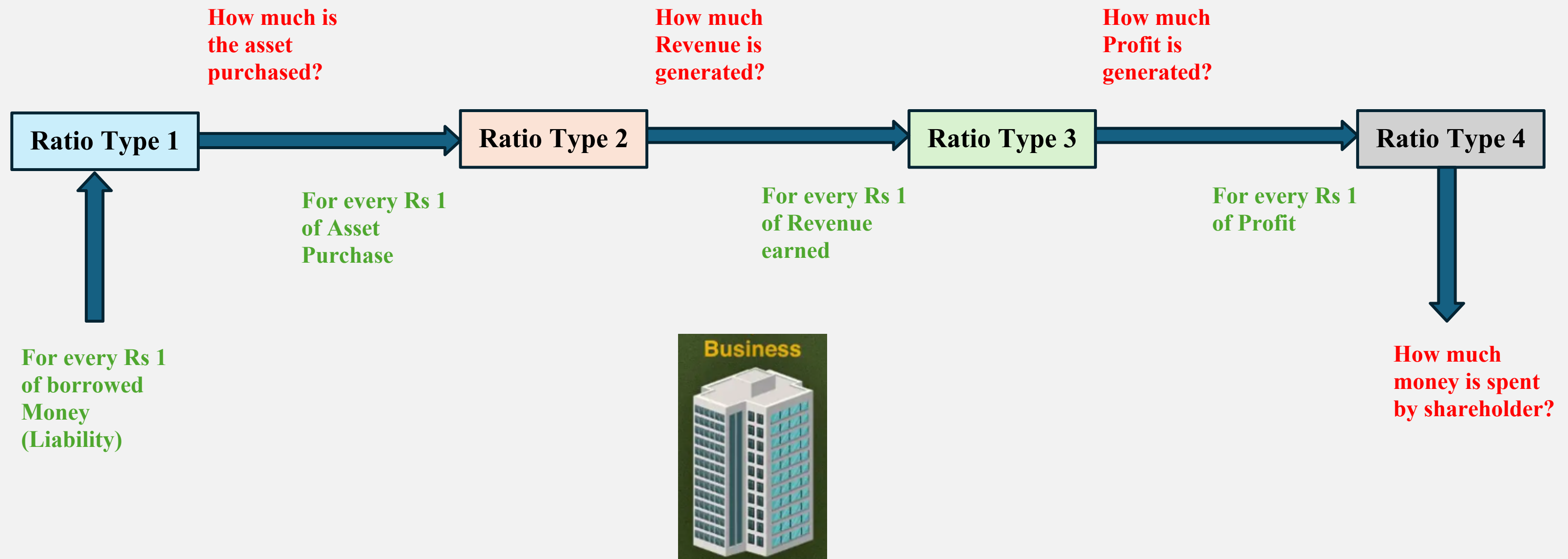


# Session 21

# Financial Ratio Analysis: Measuring Financial Health of a Business

In previous sessions, we learned that financial statements help us assess a firm's financial health. But what exactly do we mean by “financial health”?


**Key Questions to Explore:**




# Integrated Analysis: Time Series & Cross-Sectional Analysis

To assess the financial health of a firm, we will use **two dimension**:

## Time Series Analysis

- Compares a **firm with itself over multiple time periods**
- Helps identify trends and improvements or declines in performance over time
-  **Example:**  
We will analyze the financial health of TCS from 2022 to 2025

## Cross-Sectional Analysis

- Compares a **firm with its competitors** during the **same time period**
- Helps evaluate how a company is performing relative to others in the industry
-  **Example:**  
We will compare TCS and Infosys from 2022 to 2025

# LO 3 & 4

- **Financial Ratio Analysis for Business Performance Evaluation**
- **Integrated Analysis of an Business Financial Health**

# Ratio Type # 1: Liquidity Ratio



Riya notices that her **accounts receivable** and **inventory** are increasing, which leaves her with **low cash**.

At the same time, her **accounts payable** to the supplier is due soon. She wonders:

☞ ***“Do I have enough current assets to repay my current liabilities?”***

# Ratio Type # 1: Liquidity Ratio

## ? What is Liquidity?

Liquidity refers to a firm's ability to pay its short-term bills and obligations on time.  
In simple terms — can the company quickly turn its assets into cash to pay what it owes?

## Liquidity Ratios

To measure this ability, we use Liquidity Ratios.  
These ratios give us a quick health check of the company's **short-term financial strength**.

## In this course, we focus on:

- Current Ratio
- Quick (Acid-Test) Ratio
- Cash Ratio

# Current Ratio

## Why Use This Ratio?

Check if the firm has enough short-term assets to pay bills when due.

## How to Calculate?

Current Ratio =

## How to Interpret?

**More than ₹1 of current assets per ₹1 of liability — healthy liquidity**

Exactly ₹1 of current assets per ₹1 of liability — neutral position

**Less than ₹1 of current assets — potential liquidity risk**

### *\*Note:*

- The Current Asset = Cash & Cash Equivalent + Marketable Securities + Account Receivable + Inventory + Prepaid Expenses*

## 🧠 Question to Learners



**Which of the following 2 components of Current Assets is the least liquid ?**

(Hint: 💬 Think about which asset takes the longest to convert into cash.)

- a. Cash & Cash Equivalents
- b. Marketable Securities
- c. Trade (or Account) Receivables
- d. Inventory
- e. Prepaid Expense

🤔 **Follow-up Question:**

Now that you've identified one component of current assets is less liquid, do you think we need a better ratio to measure liquidity more accurately?

# Quick Ratio (or Acid Test)

## Why Use This Ratio?

Check if the firm can pay short-term bills using only the most liquid assets

## How to Calculate?

Quick Ratio =

## How to Interpret?

**More than ₹1 of quick assets per ₹1 of liability — healthy liquidity**

Exactly ₹1 of quick assets per ₹1 of liability — neutral position

**Less than ₹1 of quick assets — potential liquidity risk**

# Cash Ratio

## Why Use This Ratio?

Check if the firm can pay short-term bills using **only cash and cash equivalents**

## How to Calculate?

Cash Ratio =

## How to Interpret?

**More than ₹1 of cash & equivalent assets per ₹1 of liability — healthy liquidity**

Exactly ₹1 of cash & equivalent assets per ₹1 of liability — neutral position

**Less than ₹1 of cash & equivalent assets — potential liquidity risk**

**Cash Ratio > 1 is generally considered healthy but if the Cash ratio is very high, would you be concerned?**

# Review Question 1

ElectroMart has a significantly higher Cash Ratio than RetailRise. However, a credit analyst expresses concern about ElectroMart's overall financial strategy.

What is the most plausible explanation?

- a. ElectroMart's Quick Ratio is lower than RetailRise's.
- b. ElectroMart has a large amount of illiquid intangible assets not shown here.
- c. Holding excessive cash can indicate poor working capital management and an opportunity cost.
- d. ElectroMart's current liabilities are growing faster than its cash balance.

Financial Item	RetailRise Ltd.	ElectroMart Inc.
Cash & Cash Equivalents	400	1,200
Marketable Securities	200	300
Accounts Receivable	1,800	600
Inventory	3,000	1,500
Prepaid Expenses	100	200
Total Current Assets	5,500	3,800
Accounts Payable	2,500	1,800
Short-Term Debt	500	200
Other Current Liabilities	700	600
Total Current Liabilities	3,700	2,600

# Review Question 2

- Calculate Current Ratio and Quick Ratio
- Just before Navratri, RetailRise uses its cash to purchase an additional ₹300 Crores of inventory.

a) Calculate Current Ratio and Quick Ratio

b) What is the immediate impact of this transaction on its Current Ratio and Quick Ratio?

- a. Current Ratio improves; Quick Ratio improves.
- b. Current Ratio remains unchanged; Quick Ratio improves.
- c. Current Ratio remains unchanged; Quick Ratio worsens.
- d. Current Ratio worsens; Quick Ratio worsens.

Financial Item	RetailRise Ltd.	ElectroMart Inc.
Cash & Cash Equivalents	400	1,200
Marketable Securities	200	300
Accounts Receivable	1,800	600
Inventory	3,000	1,500
Prepaid Expenses	100	200
Total Current Assets	5,500	3,800
Accounts Payable	2,500	1,800
Short-Term Debt	500	200
Other Current Liabilities	700	600
Total Current Liabilities	3,700	2,600

# Solution

**RetailRise:**

Current Ratio (Original) =  $5500/3700 = 1.48$

Quick Ratio (Original) =  $2400/3700 = 0.64$

Current Ratio (New) =

CA =  $(400-300) + 200 + 1800 + (3000+300) + 100$

CL = 3,700

CR =  $5500/3700 = 1.48$

Quick Ratio (New) =

CA – Inventory – Prepaid Expense =  $(400-300) + 200 + 1800$

CL = 3700

QR = 0.56

**Current Ratio remains unchanged; Quick Ratio worsens.**

Financial Item	RetailRise Ltd.	ElectroMart Inc.
Cash & Cash Equivalents	400	1,200
Marketable Securities	200	300
Accounts Receivable	1,800	600
Inventory	3,000	1,500
Prepaid Expenses	100	200
Total Current Assets	5,500	3,800
Accounts Payable	2,500	1,800
Short-Term Debt	500	200
Other Current Liabilities	700	600
Total Current Liabilities	3,700	2,600

# Review Question 3

- Calculate Current Ratio and Quick Ratio
  - RetailRise launches a successful campaign, collecting ₹400 Crores out of its ₹1,800 crores outstanding Accounts Receivable in cash.
- a) Calculate Current Ratio and Quick Ratio
- b) What is the impact on its Current Ratio and Quick Ratio?
- a. Both ratios improve.
- b. Both ratios remain unchanged.
- c. The Current Ratio improves, but the Quick Ratio remains unchanged.
- d. The Quick Ratio improves, but the Current Ratio remains unchanged.

Financial Item	RetailRise Ltd.	ElectroMart Inc.
Cash & Cash Equivalents	400	1,200
Marketable Securities	200	300
Accounts Receivable	1,800	600
Inventory	3,000	1,500
Prepaid Expenses	100	200
Total Current Assets	5,500	3,800
Accounts Payable	2,500	1,800
Short-Term Debt	500	200
Other Current Liabilities	700	600
Total Current Liabilities	3,700	2,600

# Solution

**RetailRise:**

Current Ratio (Original) =  $5500/3700 = 1.48$

Quick Ratio (Original) =  $2400/3700 = 0.64$

Current Ratio (New) =

CA =  $(400 + 400) + 200 + (1800 - 400) + 3000 + 100$

CL = 3,700

CR =  $5500/3700 = 1.48$

Quick Ratio (New) =

CA – Inventory- Prepaid Expense =  $(400 + 400) + 200 + (1800 - 400)$

CL = 3700

QR =  $2400/3700 = 0.64$

**Both ratios remain unchanged.**

Financial Item	RetailRise Ltd.	ElectroMart Inc.
Cash & Cash Equivalents	400	1,200
Marketable Securities	200	300
Accounts Receivable	1,800	600
Inventory	3,000	1,500
Prepaid Expenses	100	200
Total Current Assets	5,500	3,800
Accounts Payable	2,500	1,800
Short-Term Debt	500	200
Other Current Liabilities	700	600
Total Current Liabilities	3,700	2,600

# Review Question 4

ElectroMart has a lower Current Ratio but a higher Quick Ratio than RetailRise.

	RetailRise	ElectroMart
Current Ratio	1.48	1.46
Quick Ratio	0.84	0.89

What does this discrepancy most likely indicate?

- A) ElectroMart has a significantly smaller inventory balance relative to its current liabilities.
- B) RetailRise has a large amount of cash tied up in illiquid marketable securities.
- C) ElectroMart has a much higher level of short-term debt.
- D) RetailRise has higher proportion of AP relative to current liabilities.

Financial Item	RetailRise Ltd.	ElectroMart Inc.
Cash & Cash Equivalents	400	1,200
Marketable Securities	200	300
Accounts Receivable	1,800	600
Inventory	3,000	1,500
Prepaid Expenses	100	200
Total Current Assets	5,500	3,800
Accounts Payable	2,500	1,800
Short-Term Debt	500	200
Other Current Liabilities	700	600
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# Session 22

- Excel:

Calculate Liquidity Ratio  
Create Graph

- Cross-sectional & Time-series Analysis

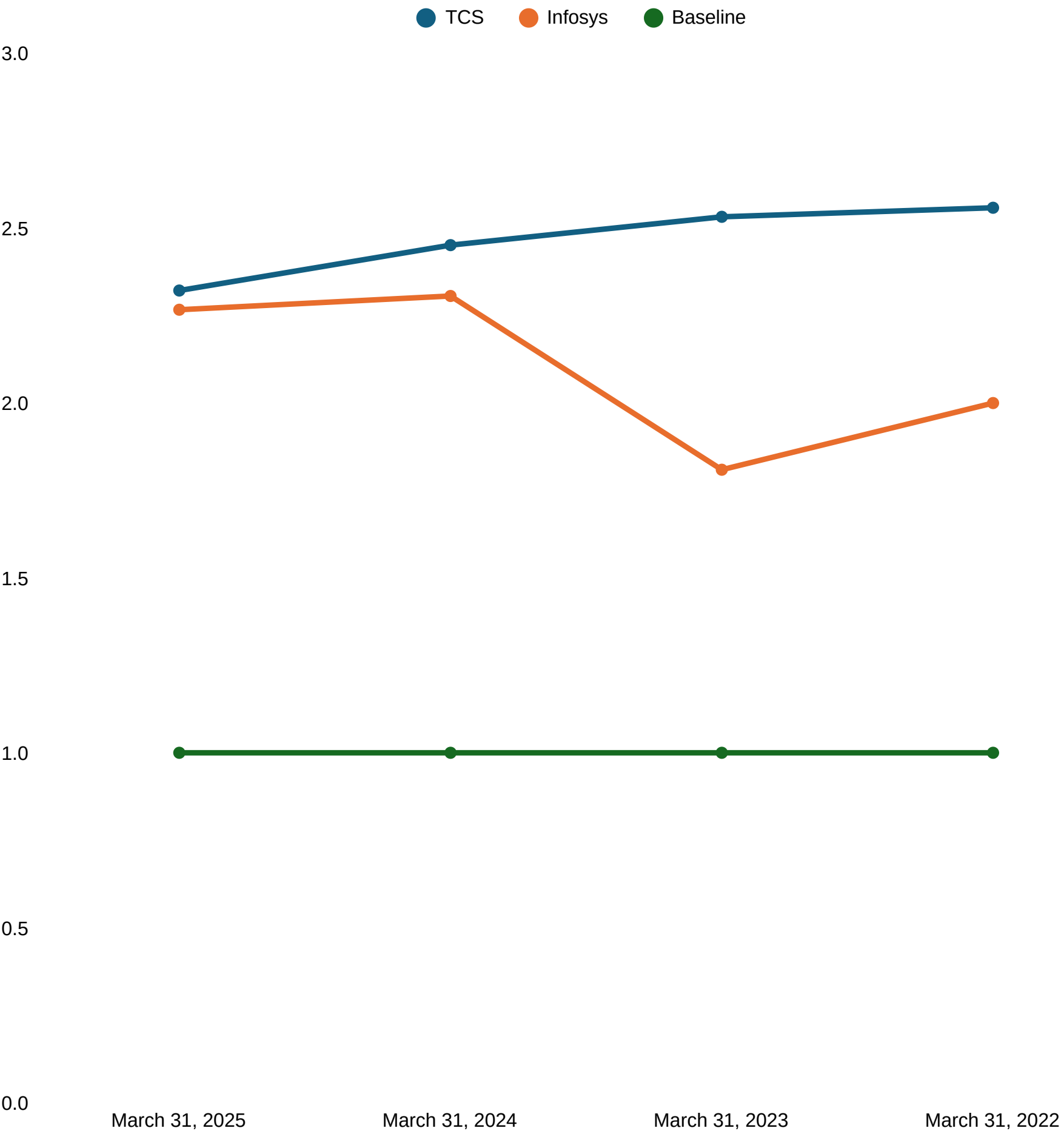
## TCS & Infosys: Current Ratio (Calculations & Graph)

- Calculate the **Current Ratio** for TCS and Infosys from year 2022 to 2025 using excel template.
- Draw the ‘Line Graph’ for Current Ratio for TCS and Infosys from year 2022 to 2025.

(Note: Reverse the order of years from oldest to latest)



# Current Ratio (Time-Series Analysis)



Based on the ‘Current Ratio’ graph, perform below analysis and write this in your report:

## TCS:

a. The health of TCS from liquidity perspective (Current Ratio) based on Baseline

b. The health of TCS from liquidity perspective (Current Ratio) based on last 4 years

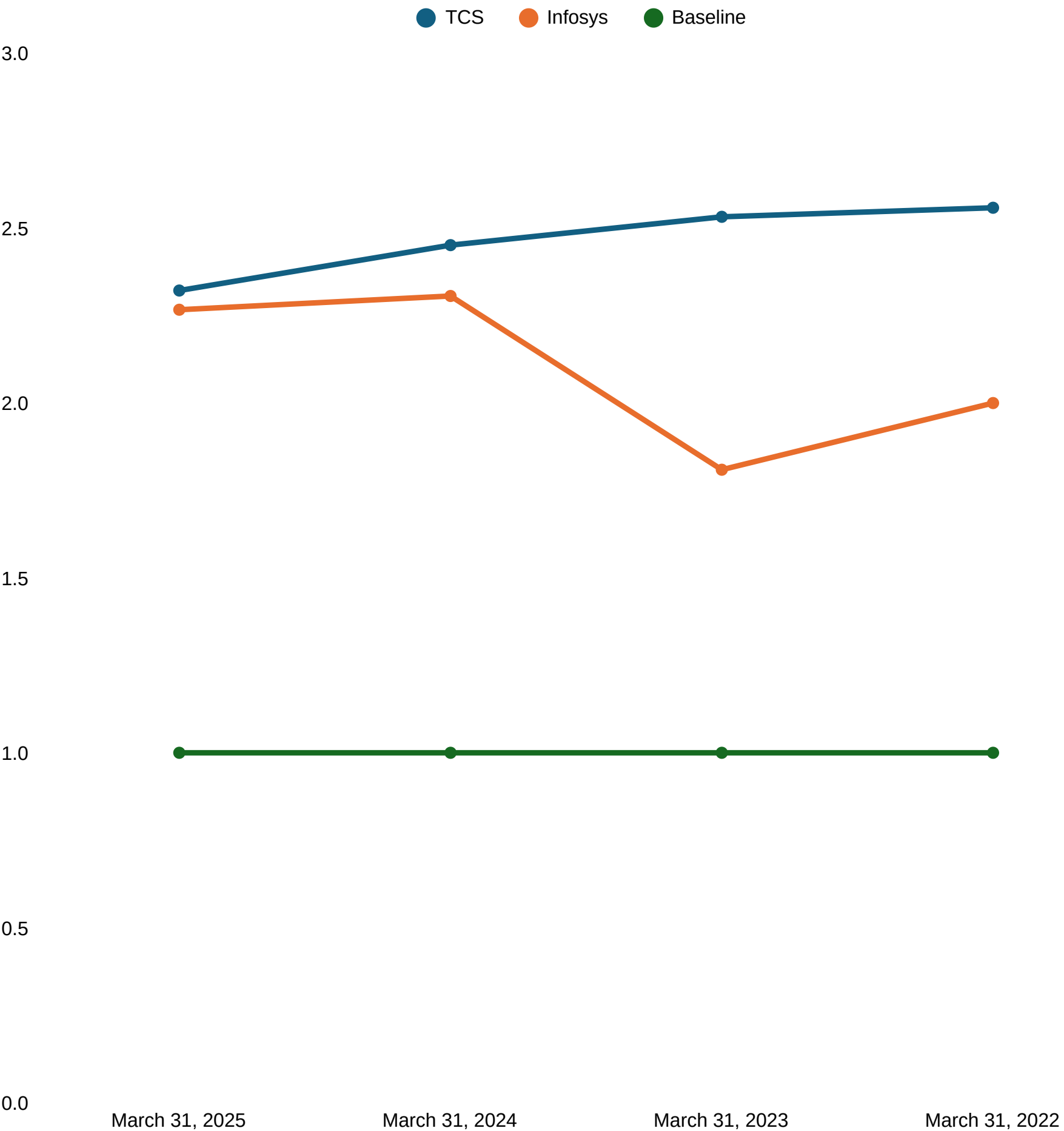
c. Both current asset and current liability increased in the Balance Sheet. However, current ratio declined.

You are now concerned after noticing this trend in current asset and current liability and decided to check following in the balance sheet:

- Which Current Asset (covered in class) **decreased** the most? What is % decrease of this current asset in last 4 years?



# Current Ratio (Time-Series Analysis)



Based on the 'Current Ratio' graph, perform below analysis and write this in your report:

## Infosys:

a. The health of Infosys from liquidity perspective (Current Ratio) based on Baseline

b. Both total current asset and total current liability increased from 2022 to 2023. However, current ratio declined drastically from 2.00 to 1.81.

You are now concerned after noticing this trend in 2023 and decided to check following in the balance sheet:

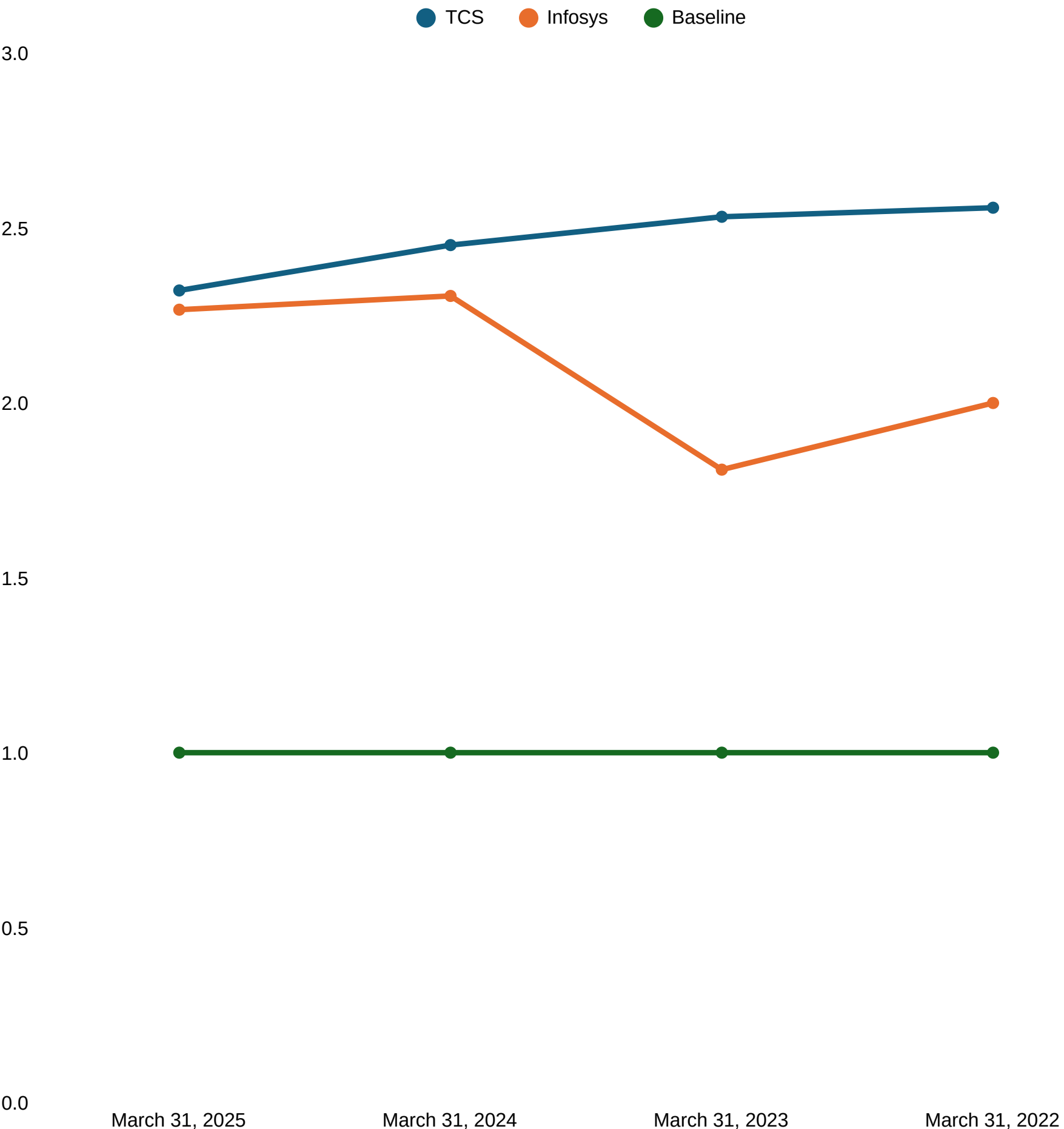
- Which Current Asset (covered in class) **reduced** the most? What is % decrease in this current asset?

c. From 2023 onwards, the current ratio improved:

- Which Current Asset (covered in class) **improved** the most? What is % increase in this current asset?



# Current Ratio (Cross-Sectional Analysis)



Based on the 'Current Ratio' graph, perform below analysis and write this in your report:

a) The health of TCS & Infosys from liquidity perspective (Current Ratio) based on last 4 years

Both total current asset and total current liability increased from 2022 to 2025. However,

- TCS current ratio is declining (2.56 to 2.32)
- Infosys current ratio decreased in 2023 but eventually is improving (2.00 to 2.27)

You are now concerned after noticing this trend and decided to check following from balance sheet:

- TCS: Which Current Asset (covered in class) **reduced** the most? What is the % decrease in last 4 years?
- Infosys: Which Current Asset (covered in class) **improved** the most? What is the % increase in last 4 years?
- Based on this, what can you say about **cash ratio** in last 4 years?

b) From 2022 to 2023, TCS saw a **-43%** drop and Infosys saw a **-30%** in **cash & cash equivalent**. What happened in IT industry during this period? **Use AI to find**



# TCS & Infosys: Quick and Cash Ratio (Calculation & Analysis)

Perform similar for quick ratio and cash ratio:

Step 1: Calculation & Graph

Step 2: Time Series Analysis

Step 3: Cross-Sectional Analysis