

Undergraduate Diploma in Business Administration

Module 03 Financial Analysis MQF Level 5 (8 ECTS)

Lecture 8

Phase 3 & 4: Financial Analysis, Interpretations and Forecasting



Lecturer: Christabel Debono

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- 1 Calculate a full set of financial ratios from a real annual report.
- 2 Identify factors that distort ratio analysis.
- 3 Explain what financial forecasting is and why it matters.
- 4 Apply the percentage-of-sales method to forecast income statement lines.
- 5 Identify the key drivers and assumptions behind a forecast.
- 6 Build a basic pro-forma income statement.



Ratios — Carry-over from Lecture 7

Workshop and factors that distort ratio analysis





Practical Workshop

Mediterra Foods — Income Statement

Year ended 31 December 20X5 (€'000)

	2025	2024
Revenue	12,400	11,200
Cost of sales	(8,060)	(7,000)
Gross profit	4,340	4,200
Distribution costs	(1,240)	(1,120)
Administrative expenses	(1,310)	(1,180)
Operating profit	1,790	1,900
Finance costs	(290)	(250)
Profit before tax	1,500	1,650
Tax expense	(450)	(495)
Profit for the year	1,050	1,155

Mediterra Foods plc — Balance Sheet

As at 31 December 20X5 (€'000)

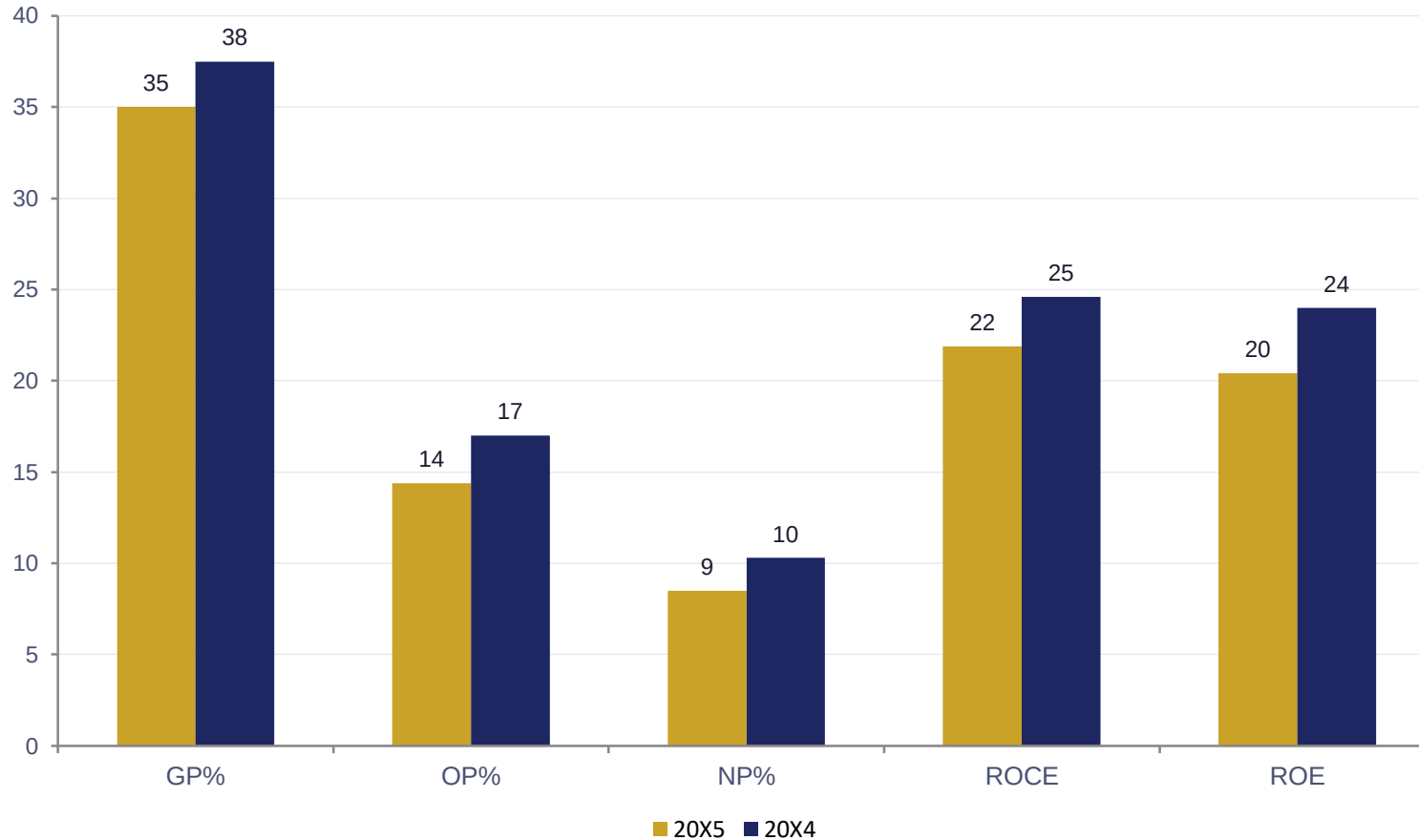
	20X5	20X4
Total non-current assets	7,200	6,620
Inventory	1,610	1,260
Trade receivables	1,870	1,470
Cash	180	450
TOTAL ASSETS	10,860	9,800
Total equity	5,460	4,810
Long-term loans	3,200	2,900
Trade payables	1,420	1,250
Bank overdraft	330	250
Tax payable	450	590

Mediterra Foods plc

Lets Work them out

Mediterra — Profitability

20X5 vs 20X4 · the trend is wrong



THE STORY

Revenue +10.7%

But ALL margins fell:

GP%: 37.5 → 35.0

OP%: 17.0 → 14.4

NP%: 10.3 → 8.5

ROCE: 24.6 → 21.9

ROE: 24.0 → 20.4

Growth-at-cost-of-margin pattern.

Mediterra — Liquidity

Headline ratio LOOKS better — but the truth is hidden underneath

CURRENT

1.66

20X4: 1.52



looks better...

QUICK

0.93

20X4: 0.92

barely moved

CASH

0.08

20X4: 0.22



alarming drop

Mediterra — Working Capital

Cycle has lengthened by 16 days · ~€540k of cash absorbed

65

days

INVENTORY

prior year: —

55

days

RECEIVABLES

prior year: 48

64

days

PAYABLES

prior year: 65

CYCLE

56

days



OVERTRADING WARNING

16 extra days × €34k/day ≈ €540k of cash absorbed by working capital — explains the cash collapse and overdraft growth.

Mediterra — Overall Verdict

Growing but deteriorating · direction of travel is wrong

PROFITABILITY

Down

All margins fell. Net profit down despite higher sales.

LIQUIDITY

Hidden risk

Headline up; cash & quick ratios deteriorating.

EFFICIENCY

Worsening

Cycle +16 days. Receivables stretching. Inventory build-up.

SOLVENCY

Still safe

Gearing moderate. Interest cover comfortable but falling.



Five Factors That Distort Ratio Analysis

Five Distortion Factors

Why ratios can lie

1 Accounting Policies

FIFO vs WAC, depreciation methods, capitalisation choices

2 Window Dressing

Year-end manipulation of inventory, receivables, payables

3 Inflation

Historical-cost figures distort asset values & depreciation

4 Seasonality

Year-end snapshot may be unrepresentative of the year

5 One-off Items

Disposals, restructurings, fair-value moves, acquisitions

1. Different Accounting Policies

Same transaction, different reported numbers — all legitimate under IFRS

INVENTORY VALUATION

FIFO vs Weighted Average changes COS and inventory values — particularly in inflation.

DEPRECIATION

Straight-line vs reducing-balance + useful-life choice = very different fixed-asset values.

REVENUE RECOGNITION

Long-term contracts, subscriptions, bundles — timing differs.

CAPITALISATION POLICIES

Development costs, borrowing costs — capitalised or expensed?

LEASE ACCOUNTING

IFRS 16 standardised most leases, but lease term & discount rate are still judgement.

IMPACT

GP%, ROCE, asset turnover, gearing — all distorted purely by policy choice.

2. Window Dressing

The balance sheet is a single-day snapshot — and management know it



Delay purchases

Year-end inventory artificially low



Chase receivables

Collection rate boosted; cash up



Delay paying suppliers

Trade payables reduced at cut-off



Sale-and-leaseback

Convert fixed assets to cash



Factor receivables

Boost cash, reduce days outstanding

Year-end ratios may look very different from average ratios during the year.

3. Inflation & Historical Cost

Asset values and depreciation become misleading in inflationary times



Asset values understated

Historical cost < replacement cost → ROCE flattered



Depreciation too low

Won't fund replacement → profits overstated



Gross margin flattered

Revenue at today's prices, COS at older costs



Trends deceptive

Nominal growth may hide real-terms decline

4. Seasonality & Year-End Timing

When you take the snapshot matters as much as what's in it

RETAILER • January Year-End

- Inventory: **low** (post-Christmas)
- Cash: **high** (festive sales)
- Current ratio: **looks great**

...even if the same business struggles for cash in October.

RETAILER • August Year-End

- Inventory: **high** (pre-Christmas build-up)
- Cash: **low** (working capital absorbed)
- Current ratio: **looks weak**

...same business, same year, totally different picture.

5. One-off Items

Profit can be flattered or depressed by items unrelated to operations

Disposal gains/losses

Sale of assets or businesses

Restructuring charges

Redundancy, impairments, write-downs

Insurance & litigation

Recoveries or settlements

Fair-value movements

Investments, financial instruments

Acquisitions / disposals

Part-year results, changing scope

FX gains and losses

Multi-currency operations

Companies present "adjusted" profits to strip these out — but adjustments are at management's discretion.

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Financial Forecasting

What it is, why we do it, and how it works



What is Financial Forecasting

Financial forecasting is the process of estimating a company's future financial performance and position, based on historical data, current trends, and explicit assumptions about the future.

⚠ A forecast is NOT a prediction.

It is a structured estimate, conditional on assumptions. Change the assumptions and the forecast changes. The assumptions are everything.

Look back

Use historical data

Look around

Read current trends

Look forward

State your assumptions

Forecast vs. Budget vs. Projection

Forecast

What is most likely to happen?

Best estimate of future performance based on current information.

Budget

What do we commit to deliver?

A target the business sets and uses for control and accountability.

Projection

What if...?

Hypothetical scenarios — used to stress-test plans against shocks or opportunities.

Same numbers, different intent. The label tells the reader how to interpret the figure.

Why do companies forecast?

Different stakeholders, different reasons — same forecast

INTERNAL

Planning

Management sets strategy, hiring, capacity.

EXTERNAL

Financing

Banks and investors require it before lending.

INTERNAL

Cash management

Spotting when cash will run short — early.

INTERNAL

Performance

Comparing actuals vs. forecast flags problems early.

EXTERNAL

Valuation

A company's value depends on expected future cash flows.

One forecast — many users. Each one looks for something different.



Time Horizons

Different horizons need different levels of detail

SHORT-TERM

Up to 1 year

Cash flow, operations,
monthly detail

MEDIUM-TERM

1 – 3 years

Strategic planning, bank
financing

LONG-TERM

3 – 5+ years

Valuation, major capital
decisions

Detail decreases as horizon lengthens — the further out, the more uncertain.

How Forecasting Works – Six Steps

1

Analyse history

Trends, margins,
recurring vs. one-off

2

Forecast sales

Top-down, bottom-
up or trend-based

3

Apply % of sales

Variable lines move
with revenue

4

Identify fixed items

Rent, depreciation,
interest

5

State assumptions

Explicit, justified,
challengeable

6

Build pro-forma

Apply, calculate,
sense-check

The Percentage of Sales Method

Many income statement items move with sales. Forecast each as a % of forecast sales.

Step 1

Calculate each item as a % of historical sales (e.g. $\text{COGS} \div \text{Sales}$).

Step 2

Use the most recent or an average % — whichever is more representative.

Step 3

Apply that % to your forecast sales to get the forecast line item.

MINI-EXAMPLE

If COGS has been 60% of sales for 3 years, and forecast sales are €1.1m $\rightarrow$ forecast COGS = $60\% \times €1,100,000 = €660,000$.

Variable, Fixed and Step Costs

Variable	Fixed	Step
BEHAVIOUR Move with sales	BEHAVIOUR Don't change in the short term	BEHAVIOUR Change in lumps when capacity is added
METHOD Use % of sales	METHOD Forecast separately	METHOD Based on capacity assumptions
EXAMPLES <i>COGS, sales commissions, packaging</i>	EXAMPLES <i>Rent, depreciation, interest on existing debt</i>	EXAMPLES <i>Adding a supervisor, new factory line</i>

Forecast Assumptions

Anyone reading the forecast must be able to challenge the assumptions behind it.

1 Sales growth rate

And the reasoning behind it

2 Gross margin

Stable, improving, or under pressure?

3 Operating expense ratio

Variable share of sales

4 Tax rate

Effective rate to apply

5 One-off items

Anticipated this year only

Common Forecasting Errors



Over-optimism

Sales growth that assumes a perfect world. Always pressure-test.



Forgetting fixed costs

Treating everything as variable inflates margin gains.



Ignoring tax

Easy to skip — but it's the line that turns PBT into Net Profit.



Hidden assumptions

If you can't list them, the forecast can't be challenged.



One-offs as recurring

A one-time gain shouldn't keep showing up next year.



No sense-check

Does the result actually look reasonable next to history?

Workshop

Building a basic pro-forma income statement



Pro-Forma Income Statement

YOUR ASSUMPTIONS

Sales growth	+10% (new marketing campaign + 1 new client)
COGS	60% of sales (no major supplier change)
Operating expenses	20% of sales (mostly variable)
Interest expense	Fixed — no new borrowing
Tax rate	35% of profit before tax

THE TASK

Build the Year 1 column.

In pairs:

- Apply each assumption line by line
- Calculate the subtotals (don't assume them)
- Sense-check: do the margins look right
- Be ready to defend each number

Worked Answer – Year 1 Pro-Forma

Line item	Year 0 (€)	Driver / assumption	Year 1 (€)
Sales Revenue	1,000,000	Grow by 10%	1,100,000
Cost of Goods Sold	600,000	60% of sales	660,000
Gross Profit	400,000	<i>Calculated</i>	440,000
Operating Expenses	200,000	20% of sales	220,000
Operating Profit (EBIT)	200,000	<i>Calculated</i>	220,000
Interest Expense	20,000	Fixed	20,000
Profit Before Tax	180,000	<i>Calculated</i>	200,000
Tax (35%)	63,000	35% of PBT	70,000
Net Profit	117,000	<i>Calculated</i>	130,000

Stress-Testing your Forecast

BASE CASE	DOWNSIDE	UPSIDE
SALES GROWTH +10%	SALES GROWTH +5%	SALES GROWTH +15%
NET PROFIT €130,000	NET PROFIT €110,500	NET PROFIT €149,500
<i>Our worked answer</i>	<i>Slower growth than expected</i>	<i>Marketing lands better</i>

A 5-percentage-point swing in sales growth changes net profit by roughly €20k either way

Multiple Choice Assessment

30 minutes

Individual work

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