FINANCIAL MODELLING 2026

Participant Manual

Foundations, Excel for FM, and Modelling the Components

Days 1 to 6 | Built around the Henderson Manufacturing case

Facilitator: Oladele Odugbemi
Programme: FM 2026 | 13 days | Hybrid (online and physical)
Standard: FAST - Flexible, Appropriate, Structured, Transparent

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Accounting Yard | www.accountingyard.com | learn.accountingyard.com
2/5 Idowu Ajao Street, Ajao Estate, Anthony Village, Lagos

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How to use this manual

This manual is your written companion for the first six days of Financial Modelling 2026. The slide decks carry the story in class. The workbooks let you build with your hands. This manual is the reference you keep, the one you reach for at your desk three months from now when you have forgotten exactly how the receivables waterfall worked.

It is organised in three parts that match the class:

- **Part 1 - Foundations.** What a model is, why we build one, the skills you need, the anatomy of a model, and the FAST standard that holds it all together.
- **Part 2 - Excel for Financial Modelling.** The 20 percent of Excel that does 80 percent of the modelling work.
- **Part 3 - Modelling the Components.** Building revenue, cost, working capital, fixed assets and debt, anchored to the Henderson Manufacturing case.

Throughout, look for three kinds of box: a Pro Tip in amber, an Analogy or Note in blue, and a Do and Don't comparison. Every concept carries an example. Each part ends with quick checks, and the full answer key sits at the back.

> **NOTE**
> Colour convention used across every model and every workbook: blue text is an input you can change, black text is a formula, green text is a link pulling from another sheet, and red flags a warning or an external link. Learn this first. It is the fastest way to read any model.

Part 1 - Foundations of Financial Modelling

LEARNING OBJECTIVES

By the end of this part you will be able to:

1. Define a financial model in one sentence and name the single decision it serves.
2. Tell a model apart from a static report, a budget tracker and a black box.
3. List the five components of a model and say what each one holds.
4. Explain the four FAST principles and the working habits that follow from them.
5. Build a timing flag and explain why it beats a nested IF.
6. Run the four audit checks on any model: balance, cash, sense and scenario.

Estimated self-study time: about 3 hours, plus 30 minutes for the quick checks.

Companion files: FM2026_Day1_Foundation_Deck.pptx (the Day 1 slides) and FM2026_Day2-3_Excel_Workbook_STARTER.xlsx, sheet Read Me, to preview the colour convention.

What a financial model is

A financial model is a structured, mathematical representation of a business, built in Excel, that turns assumptions about the future into projected outputs which support a decision. Three words carry the weight. Structured: inputs, workings and outputs each have their place. Mathematical: it runs on logic, formulas and links, not free text. Decision-driven: it is built to answer one specific question.

ANALOGY - Google Maps for your business

A model is the Google Maps of your business. You put in where you are, your historicals, and where you want to go, your assumptions. It shows you the route, the cost, the time, and what happens if you take a different turn.

A signature line from the class is worth keeping: *"a model is only as good as the thinking behind it."* The spreadsheet is the easy part. The judgement behind the assumptions is the job.

What a model is not

DO

- It is a forward-looking decision tool
- It is a flexible engine: change an input, see the impact
- It is a communication layer for board, lender and investor
- It is a living artefact, updated, refined and audited
- It is a transparent, auditable chain of logic

DON'T

- A static report, numbers locked, no scenarios
- Accounting records that only look backward
- A budget tracker showing actuals against plan only
- A formatting exercise: pretty, but with no logic
- A black box only the builder understands

A common question in class: is modelling the same as forecasting, or the same as programming? Forecasting is one use of a model. Programming it is not, though it borrows three good habits from

software: test as you build, version your files, and document your logic. Modelling is structured spreadsheet logic with finance knowledge layered on top.

Why we build models: the four use cases

1. **Strategic decisions.** Open another outlet, hire five staff, buy that machine. A model prices the alternatives before cash is committed.
2. **Fundraising and investment.** Investors want to see the return and the risk. No model usually means no money.
3. **Budget and forecast.** Annual plans, rolling forecasts and monthly variance all sit on top of a model.
4. **Valuation and M&A.** DCF, comparables and deal modelling. Every transaction lives or dies on the model.

> **PRO TIP**
> If you cannot name the decision the model serves, you do not yet need the model. Model the decision rule before you model the numbers.

The skills a modeller blends

Excel is one of four skills, and not the most important. Accounting tells you how the three statements connect, so the balance sheet actually balances. Finance gives the numbers meaning: time value of money, cost of capital, ratios. Business sense tells you whether an assumption is sane. A 200 percent growth rate is a typo, not a forecast. Excel is the vehicle, not the destination.

The anatomy of a model

Every well-built model has five components and one simple flow.

Component	What it holds
1. Cover page	Title, version, author, date and a model map. The front door.
2. Table of contents	Every sheet listed and linked. Navigation for the reader.
3. Assumption sheet	Every input, in one place, coloured blue. The control panel.
4. Working schedules	Revenue, cost, assets, debt, working capital, tax. The engine room.
5. Outputs	The three statements, a DCF, ratios and a dashboard. The answer.

The flow is input, processing, output. **You only ever type into blue input cells.** Everything else is a formula. Break that one rule and the model stops being auditable.

The FAST standard

FAST is an open modelling standard, maintained by the FAST Standard Organisation and used by thousands of modellers worldwide. The full standard runs to dozens of rules, but four words sit at its heart, and a handful of practical habits follow from them.

Principle	What it means in practice
Flexible	Change a key driver and the model updates with its integrity intact. Achieved through simplicity, not clever devices.

Principle	What it means in practice
Appropriate	Reflect the business faithfully without drowning in detail. The model is a representation of reality, not reality itself.
Structured	Rigorous, consistent layout. Timelines sit in the same columns on every sheet. Consistency is the golden rule.
Transparent	Simple, clear formulas that another person can follow. Break calculations into steps.

The habits that follow from FAST

- **Consistency is the golden rule.** Lay out every sheet the same way. Time runs left to right, in the same columns, everywhere.
- **One row, one formula.** The formula in the first forecast column copies unchanged across the row. A reviewer checks one cell, not twenty.
- **Flags, not nested logic.** Handle timing with a row of 0s and 1s, never by burying conditions inside a calculation.
- **Break it into steps.** If you cannot read a formula aloud, split it. Press Ctrl and the left bracket to trace any link.

The flag technique

A flag is a row of 0s and 1s. Multiply any value by the flag and it shows only when the timing is right. This is the single most useful habit in the standard, and it is the fix for the nested-IF confusion that slows every cohort down.

	Q1	Q2	Q3	Q4
Repayment due flag	0	0	1	1
Scheduled repayment	0	0	250	250

```
scheduled repayment = repayment_amount * flag_row
```

Read it aloud: the repayment shows only in the quarters where the flag is 1. No nested IF, no hidden condition, nothing to misread. We use flags for debt, depreciation and collections.

Why models fail, and how to audit yours

Five failures account for most broken models: bad assumptions, broken links, hard-coded values buried in formulas, single-scenario tunnel vision, and no checks. The fix for all five is structure, transparency, and a check cell that must equal zero.

- **The balance check.** Assets equal liabilities plus equity, every year. The check cell equals zero.
- **The cash check.** Closing cash on the balance sheet ties to the cash flow statement.
- **The sense check.** Do the margins, growth and ratios look like a real business?
- **The scenario check.** Switch to the worst case. Does the model still hold together?

DO

- One input, one cell, referenced everywhere
- Keep assumptions on their own sheet

DON'T

- Type the same number into ten cells
- Hard-code a value inside a formula

- Let time flow left to right, consistently
- Build a check cell that must equal zero
- Colour-code: blue input, black formula, green link

- Mix inputs and calculations on one sheet
- Trust a model you have never checked
- Overwrite a formula with a typed number

Key takeaways: Part 1

- A model is structured, mathematical and decision-driven. If you cannot name the decision, you do not yet need the model.
- You only ever type into blue input cells. Everything else is a formula.
- Five components, one flow: cover, contents, assumptions, workings, outputs.
- FAST holds it together: Flexible, Appropriate, Structured, Transparent. Consistency is the golden rule.
- Flags carry all timing, and a check cell that must equal zero is the heartbeat of the model.

COMMON MISTAKE FROM THE 2025 COHORT

A formula divided by a cell called Divisor, and half the class typed the same question: "You typed the divisor, please how?" and "Where is the divisor saved?" The lesson is transparency: introduce every named range before you use it, and never let a reader wonder where a number lives. The fix is a three-minute drill: Formulas, Define Name, Divisor, then check the Name Box.

Part 2 - Excel for Financial Modelling

LEARNING OBJECTIVES

By the end of this part you will be able to:

1. Navigate and select with the keyboard (Ctrl + Arrow, F2, F4, Ctrl + 1) without reaching for the mouse.
2. Write a custom number format that displays naira billions as readable millions.
3. Choose the right reference, relative, absolute or mixed, and lock it with F4.
4. Write every IF with a deliberate false branch, and use IFERROR only on errors you have diagnosed.
5. Replace VLOOKUP with XLOOKUP or INDEX and MATCH in any lookup.
6. Build a Base, Best, Worst scenario switch with data validation and INDEX and MATCH.

Estimated self-study time: about 4 hours of hands-on practice, spread across the week between classes.

Companion files: FM2026_Day2-3_Excel_Workbook_STARTER.xlsx (sheets Read Me, Shortcuts, Practice Data, Referencing, IF AND OR, Custom Format, Lookups, SUMIFS SUMPRODUCT, Scenario Switch, Self-Check) and FM2026_Excel_Skills_Home_Practice.xlsx.

You do not need all of Excel. You need the slice that builds and audits a model. This part is that slice. Practise it in the Excel for FM workbook between classes.

Navigation and speed

ANALOGY - The backroads of Lagos

Anyone can follow the main road on the map. The driver who knows the backroads still gets there in traffic. Shortcuts keep your hands on the keys so your thinking never breaks to reach for the mouse.

Shortcut	What it does	Where in the model
Ctrl + Arrow	Jump to the edge of a data block	Navigating long schedules
Ctrl + Shift + Arrow	Select to the edge of a block	Grabbing a whole forecast row
Alt + =	AutoSum the range above or left	Totals on every schedule
F2	Edit the active cell in place	Inspecting what a formula points to
F4	Toggle the dollar signs	Locking an assumption cell
Ctrl + 1	Open the Format Cells box	Custom number formats
Ctrl + ;	Stamp today's date	Dating and versioning a sheet
Alt H V S	Paste Special menu	Paste values, formats or formulas
Ctrl + Enter	Fill the selection with one entry	Filling a row without dragging
Ctrl + [	Trace the cell a formula points to	Auditing links across sheets

PRO TIP

Select a range, type the formula once, then press Ctrl + Enter. The same formula fills every selected cell with its references adjusting. No dragging means no accidental overwrite of the cell below.

BUILD IT NOW

Open FM2026_Day2-3_Excel_Workbook_STARTER.xlsx, sheet Shortcuts. Drill each shortcut against the Practice Data sheet until your hands know it without looking, then complete the Your turn block.

Custom number format

A raw 1,889,859,744 is unreadable in a meeting. Custom format changes how a number displays without changing the value, so every formula stays exact. A format has up to four sections, separated by semicolons: positive; negative; zero; text. Each comma after the number divides the display by a thousand.

You want	Format code	Result
Millions, one decimal	#,##0.0,, "M"	1,889.9 M
Negatives in red brackets	#,##0;[Red](#,##0)	(1,889,859,744)
Naira sign	"NGN "#,##0	NGN 1,889,859,744
A label that still computes	"QTR "0	QTR 3 (value is still 3)

NOTE

Open the Format box with Ctrl + 1. The hash sign shows a digit only if present; the zero forces a digit. So "QTR "0 displays a descriptive label on a row that still behaves as a number in your formulas.

BUILD IT NOW

Open FM2026_Day2-3_Excel_Workbook_STARTER.xlsx, sheet Custom Format. Recreate each of the four format codes on the sample numbers, then complete the Your turn block.

Cell referencing: the dollar sign that runs the model

- **Relative, A1.** Moves with the formula when you copy it. Good for row-by-row maths.
- **Absolute, $A$1.** Locked solid. Always points to the same cell. Good for a single assumption.
- **Mixed, $A1 or A$1.** Locks the column or the row, but not both. The workhorse of schedules.

To convert a naira price list to dollars using one FX rate, lock onto the rate and let the prices vary:

```
price_usd  =  price_ngn / $C$2     ( copy down: C7 becomes C8, but $C$2 never drifts )
```

PRO TIP

If you copy a formula and the answer looks wrong, check your dollar signs first. Nine times out of ten that is the bug. Press F4 to cycle a reference through the four states.

BUILD IT NOW

Open FM2026_Day2-3_Excel_Workbook_STARTER.xlsx, sheet Referencing. Convert the price list with one locked FX cell, then complete the Your turn block. If your copied formula drifts, press F4 and watch the dollar signs.

Named ranges: where the divisor lives

A named range gives a cell a plain-English name you can use in any formula. Select the cell, go to Formulas then Define Name, type a clear name like Divisor with no spaces, and it appears in the Name Box. Now =Sales / Divisor reads like English and does not break if rows move.

PRO TIP
Name only stable, important inputs: the tax rate, the FX rate, the divisor. Do not name every cell, or the Name Box becomes its own kind of mess.

BUILD IT NOW
Still on sheet Referencing in FM2026_Day2-3_Excel_Workbook_STARTER.xlsx: create the named range Divisor exactly as in class, Formulas, Define Name, Divisor, then rewrite the division formula to use the name and confirm it appears in the Name Box.

Logic: IF, nested IF and IFERROR

Every IF has three parts: a logical test, a value if true, and a value if false. The third part is the one people forget. Omit it and Excel quietly returns FALSE, which becomes a 0 and silently breaks a total. Always write the false branch on purpose.

```
= IF( logical_test , value_if_true , value_if_false )

grade  =  IF( margin < 0.1, "Red", IF( margin < 0.2, "Amber", "Green" ) )

safe_margin  =  IFERROR( 1 - cost / revenue , 0 )
```

WATCH OUT
IFERROR hides the symptom. If you do not understand why an error appears, you may be masking a real broken link. Suppress only errors you have already diagnosed.

BUILD IT NOW
Open FM2026_Day2-3_Excel_Workbook_STARTER.xlsx, sheet IF AND OR. Write each IF with all three arguments, then combine AND and OR in the grading drill and complete the Your turn block.

Lookups: pull the right number

Avoid VLOOKUP in a model that will grow. It counts columns, so inserting a column silently points it at the wrong one with no error. Use one of these instead.

- **XLOOKUP, on Microsoft 365.** Looks left or right, returns a default if nothing matches, and does not care where columns sit.
- **INDEX and MATCH, on any version.** MATCH finds the row, INDEX returns the value from any column. Survives an inserted column.

```
= XLOOKUP( id, ids, prices, 0 )            ( 365 )

= INDEX( prices, MATCH( id, ids, 0 ) )     ( any version )
```

BUILD IT NOW

Open FM2026_Day2-3_Excel_Workbook_STARTER.xlsx, sheet Lookups. Solve the same lookup twice, once with XLOOKUP and once with INDEX and MATCH, then insert a column and watch which formulas survive.

Aggregation and dates

- **SUMIFS.** Add values that meet one or more conditions. The backbone of any schedule. =SUMIFS(sales, region, "Lagos", yr, 2026).
- **SUMPRODUCT.** Multiply two lists and add the results in one step. Perfect for volume times price across many products.
- **EOMONTH, EDATE, DATE.** Build period-end dates and shift dates by months. Drive the whole timeline off one start-date cell.

PRO TIP

Never type a row of dates by hand. Drive every date off one start cell with EOMONTH. Change the start, and the whole timeline shifts.

BUILD IT NOW

Open FM2026_Day2-3_Excel_Workbook_STARTER.xlsx, sheet SUMIFS SUMPRODUCT. Build the regional totals with SUMIFS, the volume-times-price total with SUMPRODUCT, and drive the date row off one start cell with EOMONTH.

Scenario tools: one switch, three futures

Build a dropdown with Data, Data Validation, List, and type Base, Best, Worst. Then point an assumption at it. The cleanest, most portable way to read the switch is a small scenario table and a lookup, so every assumption changes when you flip the dropdown.

```
selected_growth  =  INDEX( growth_column, MATCH( scenario, scenario_names, 0 ) )
```

DO

- Put spaces around operators so formulas read
- Reference one assumption cell everywhere
- Use XLOOKUP or INDEX / MATCH, never VLOOKUP
- Drive dates off one start cell with EOMONTH
- Keep one scenario switch on the assumption sheet

DON'T

- Cram formulas with no spaces
- Hard-code the same number into many cells
- Rely on VLOOKUP in a model that will grow
- Type a row of dates by hand
- Hide an IFERROR over an error you have not diagnosed

BUILD IT NOW

Open FM2026_Day2-3_Excel_Workbook_STARTER.xlsx, sheet Scenario Switch. Build the dropdown with data validation, point an assumption at it with INDEX and MATCH, then flip Base, Best, Worst and watch the numbers move. Finish on sheet Self-Check and score yourself before Day 4.

Key takeaways: Part 2

- Shortcuts keep your hands on the keys: Ctrl + Arrow to jump, F4 to lock, Ctrl + 1 to format, Ctrl + [to trace.
- Custom formats change the display, never the value. Two commas after the number scale the display to millions.
- The dollar sign runs the model: relative moves, absolute locks, mixed is the workhorse of schedules.
- Look up with XLOOKUP or INDEX and MATCH. VLOOKUP breaks silently when a column is inserted.
- One scenario switch on the assumption sheet, read by INDEX and MATCH, re-prices the entire model.

COMMON MISTAKE FROM THE 2025 COHORT

A participant spotted it live: "In IF function, there must be logical value, true value and false value, but in this there is no false value." An IF with no false branch quietly returns FALSE, which becomes a zero and silently breaks a total. Write the false branch on purpose, every time, even when it is just a zero or an empty string.

Part 3 - Modelling the Components

LEARNING OBJECTIVES

By the end of this part you will be able to:

1. Push a lazy growth assumption down to a defensible root driver, in at least four industries.
2. Build revenue as volume times price, with capacity, utilisation, seasonality and sales mix made explicit.
3. Model working capital from days assumptions and build the receivables collection waterfall.
4. Build a fixed asset movement schedule where depreciation starts at the put-to-use date.
5. Model a term loan and a revolver, and resolve the revolver circularity with iterative calculation.
6. Surface the six KPIs a decision-maker reads, and keep the balance check at zero throughout.

Estimated self-study time: about 6 hours, ideally one component per sitting.

Companion files: FM2026_Day4-6_Modelling_Components_STARTER.xlsx (sheets Rev-Manufacturing, Rev-Hospitality, Rev-Logistics, Rev-QSR, SG&A, Working Capital, Fixed Assets, Borrowing, Checks), FM2026_Day4-6_Modelling_Components_ANSWER_KEY.xlsx and FM2026_Financial_Model_Home_Practice.xlsx.

Now we point every Excel tool at a real model. Each component is an assumption turned into a schedule that flows into the three statements. We build them in the order a model needs them, all anchored to Henderson Manufacturing.

Sourcing your data

Getting the data is often the hardest part of the whole job, and harder still in Nigeria where few companies are listed. Five sources cover most needs.

5. Stakeholder interviews. Sit with the owner, the sales lead, operations. Their reality is your first dataset.
6. Research and AI. Industry reports, benchmarks, market sizes. Use AI to gather and structure quickly, then verify.
7. Competitor financials. Even a foreign comparable shows you the structure: margins, cost mix, the shape of the P&L.
8. Historical audited accounts. Compute the gross margin trend and the receivable, payable and inventory days. The past anchors the forecast.
9. End-user needs. A lender wants covenants. A CEO wants drivers. Build for the decision the model must serve.

NOTE

Institutional data sources include Refinitiv, S&P Capital IQ, Bloomberg, PitchBook, Mergermarket and Dealogic. Free and still credible: NGX and SEC filings, CBN economic data, the National Bureau of Statistics, the World Bank, and Trading Economics.

The assumption sheet

The assumption sheet is the cockpit. Every lever the model responds to sits here, coloured blue, labelled, and never repeated anywhere else. Change a number here and the whole model re-prices. That is the F in FAST. It carries the general inputs, revenue, cost and SG&A, capex and depreciation, working capital, debt, tax and equity, plus the one scenario switch that drives everything.

> **PRO TIP**
> A peer answered it best in class: blue is hard-coded, black is a formula. Make that the first thing a new reader learns about your model.

Revenue: the engine

One equation sits under everything: **Revenue = Volume x Price.** Four drivers sit behind it: price, volume, seasonality and sales mix. Name all four before you type a formula.

Push a generic driver to a specific one

> **ANALOGY - The child who was not promoted**
> A child is not promoted to the next class. Why? There is always a root cause. Volume is the same. Saying volume grows 10 percent is lazy. What drives it? For an app business, users times orders per user, where users are sign-ups minus churn. Now you have something you can defend.

This was the heart of the 2025 Glovo and Shuttlers exercise. Glovo revenue is driven by monthly active users, orders per user, the delivery fee and commission, and crucially failed transactions feeding churn. Shuttlers is driven by riders and routes, fare per seat, trips per day, bus capacity used, the B2B versus B2C split, and the weekend drop when the service does not run.

Installed capacity versus what you actually make

> **ANALOGY - The car's top speed**
> A car can do 200 km per hour. That is its installed capacity. You rarely drive it that fast. What you actually produce is utilisation times capacity. Ask the client for installed capacity, do not accept a finished output number with no root.

Henderson illustrates it: installed capacity of 420,000 units a year, with production growing then capped by that ceiling. Volume is capacity times utilisation, and it must match the model's grain, annual, quarterly or monthly. Mixing grains is a top source of error.

> **BUILD IT NOW**
> Open FM2026_Day4-6_Modelling_Components_STARTER.xlsx, sheet Rev-Manufacturing. Build volume as capacity times utilisation, cap it at installed capacity, and complete the Your turn block. Check yourself against FM2026_Day4-6_Modelling_Components_ANSWER_KEY.xlsx only after you have tried.

Sales mix and SUMPRODUCT

Most businesses sell more than one thing. SUMPRODUCT multiplies the volume list by the price list and adds the results in one step, with no helper column per product. Same total units can give very different revenue depending on the blend, so model the mix explicitly.

```
revenue  =  SUMPRODUCT( volumes , prices )
```

Hospitality: whole numbers matter

A hotel models volume as rooms times occupancy times days in the month. A room cannot be half occupied, so ROUND to a whole number. Then revenue is SUMPRODUCT of nights sold and the rate per night. Match the volume logic to the unit being sold: a room night, a seat, a cover, a delivery.

Growth and scenarios

To grow a number by 8 percent you multiply by 1.08, not 0.08. The 1 keeps the original; the 0.08 adds the growth. Forget the 1 and you wipe out the base. Single-year growth applies once; cumulative growth compounds. The scenario switch feeds both price and volume growth, so flipping the dropdown re-prices revenue in every period.

```
next_period  =  prior_period  *  ( 1 + growth )
```

Revenue drivers across industries

Industry	Revenue driver
Manufacturing	Capacity x utilisation x price, by product mix
Retail	Stores x footfall x conversion x basket size
Hospitality	Rooms x occupancy x nights x rate
Real estate	Lettable units x occupancy x rent x escalation
Financial services	Loan book x net interest margin, plus fees
Transport and logistics	Trips x seats or tonnes x load factor x fare
QSR	Outlets x covers per day x ticket size
Startup (app)	Users x orders x value, net of churn

Startup or mature?

Be honest about the growth curve. A startup will not move from 10 million today to 100 billion tomorrow. Only asset-light businesses scale that fast: Paystack, Flutterwave and Interswitch can, because they add users without building factories. A bank cannot, because to grow it must build branches and add capital. Model a startup from its funnel, users, conversion, retention, then unit economics. Model a mature business from its audited history.

> **BUILD IT NOW**
> Open FM2026_Day4-6_Modelling_Components_STARTER.xlsx, sheet Rev-Hospitality. Model rooms times occupancy times nights times rate, and ROUND the nights to whole numbers. Then repeat the pattern on sheets Rev-Logistics and Rev-QSR: same logic, different drivers.

Cost of sales

Keep variable and fixed costs apart. Variable cost moves with every unit: raw materials, direct labour, packaging. Model it per unit, then times volume. Fixed cost holds regardless of volume within a range: factory rent, the plant manager. Grow it by inflation only. If gross margin is 40 percent, cost of sales is 60 percent of revenue.

NOTE

Henderson holds figures in millions, so the model divides by a named cell called Divisor (1,000,000) to keep schedules readable. Real Henderson variable costs include raw materials at 226 per unit and utilities at 66.2 per unit, both grown by inflation, with fixed costs for rent, operating labour and other.

SG&A

SG&A is selling, general and administrative expense: salaries, rent, energy, software, marketing. Everything it costs to run the business that is not the direct cost of the product. There are three ways to model it.

10. Grow by inflation. Simple and safe for a stable business: last year times one plus inflation.
11. Percentage of revenue. SG&A as a fixed share of sales, for example 2 to 2.5 percent. Scales with the top line.
12. Detailed by driver. Build the big lines using the 80-20 rule. Staff cost alone is often 40 to 60 percent of SG&A. Energy and diesel, and FX-linked software, are the next usual suspects.

Match the method to the business stage: launch invests ahead of revenue, growth is often a percentage of revenue, maturity is flat and grown by inflation, decline is deliberate cost-cutting.

BUILD IT NOW

Open FM2026_Day4-6_Modelling_Components_STARTER.xlsx, sheet SG&A. Model the same cost base all three ways, inflation, percentage of revenue and detailed by driver, and see how far apart the answers land.

Working capital

ANALOGY - The money tied up in running the business

You sold the goods but the customer has not paid. You bought the stock but it sits in the store. Your supplier is still waiting for his money. That gap is working capital, and it is why a profitable business can still run out of cash.

The cleanest method is from days. Trade receivables are revenue divided by days in the year, times receivable days. Inventory is cost of sales divided by days, times inventory days. Payables are cost of sales plus SG&A, divided by days, times payable days.

Item	Days (example)	Driver
Trade receivables	25 to 40	Revenue
Inventory	19 to 80	Cost of sales
Trade payables	41 to 45	Cost of sales (plus SG&A)

PRO TIP

Derive days in the year dynamically as year-end minus year-start plus one. Then leap years take care of themselves and you never hard-code 365. State whether your payables use cost of sales alone or cost of sales plus SG&A. Both appear in practice.

The receivables collection waterfall

This schedule confused half of the 2025 class, and the lesson learned was simple: show the math before opening Excel. Of every quarter's sales, 50 percent is collected that quarter, 30 percent the next, and 20 percent the quarter after.

Sales of…	Collected Q1	Q2	Q3	Q4
Q1 (1,000)	500	300	200	-
Q2 (1,000)	-	500	300	200
Q3 (1,000)	-	-	500	300
Total collected	500	800	1,000	500

Read down each column. Each quarter's cash is the sum of three contributions: 50 percent of this quarter, 30 percent of last, 20 percent of the one before. Closing receivable is opening plus sales minus collected. Build it as a movement schedule, not one giant formula.

> **BUILD IT NOW**
> Open FM2026_Day4-6_Modelling_Components_STARTER.xlsx, sheet Working Capital. Turn the days assumptions into receivables, inventory and payables, then build the 50/30/20 collection waterfall as a movement schedule and complete the Your turn block.

Fixed assets

A fixed asset schedule is a movement schedule: opening net book value, plus additions, minus depreciation, minus disposals, equals closing. This same shape repeats for inventory, receivables, debt and equity, so learn it once and reuse it.

```
closing_NBV = opening + additions - depreciation - disposals
```

Acquisition date is not put-to-use date

Under IAS 16, depreciation does not start when you pay. It starts when the asset is available for use. You may buy a machine in March but only switch it on in June. So a model needs two dates, and depreciation keys off the second.

Each new asset starts depreciating in its addition year. A flag does the timing. Use greater-than-or-equal so the asset depreciates in the year it is added, and include a residual value cell so the formula generalises beyond zero scrap.

```
new_depreciation = IF( model_year >= addition_year, ( cost - residual ) / life, 0 )
```

> **NOTE**
> Henderson uses straight-line depreciation, a 30-year life for new additions and 25 years for the existing asset base. Each capex vintage sits on its own row and switches on once the model year reaches its year. The PPE cases also show the monthly version, where an asset stops depreciating once it is fully written down.

> **BUILD IT NOW**

Open FM2026_Day4-6_Modelling_Components_STARTER.xlsx, sheet Fixed Assets. Build the movement schedule, give each capex vintage its own row, and key depreciation off the put-to-use year with a flag. Include the residual value cell.

Modelling borrowing

A loan is another movement schedule: opening debt, plus drawdown, minus repayment, equals closing. Interest accrues on the balance and is charged to the income statement; interest paid is the cash outflow, and the two are not always equal in the same period. Moratorium periods and the end-of-facility date are both handled with flags, never buried in one long formula.

The revolver

ANALOGY - A company credit card

A revolver is a facility the business draws on when cash runs short and repays when cash is healthy again. Interest is charged only on the balance drawn. Exactly like a credit card. It is what stops a model ever showing impossible negative cash.

It handles four situations: short on cash with nothing drawn (draw to cover the gap), short with a balance owing (draw more), surplus with a balance owing (repay), and surplus with nothing owing (hold the cash). The cash shortfall or surplus comes from the cash flow statement.

Why the revolver feels circular

Interest depends on the revolver balance, the balance depends on the cash shortfall, and the shortfall depends on interest. The model chases its own tail. This circular reference is expected here. The clean fix is to charge interest on the average of the opening and closing balance, then enable iterative calculation so Excel resolves the loop.

```
revolver_interest  =  AVERAGE( opening, closing )  *  rate
```

13. File, Options, Formulas.
14. Tick Enable iterative calculation.
15. Set calculation to manual so the file stays fast.
16. Press F9 to recalculate on demand.
17. Add revolver interest into the existing total interest line so both the income statement and cash flow legs flow automatically.

BUILD IT NOW

Open FM2026_Day4-6_Modelling_Components_STARTER.xlsx, sheet Borrowing. Build the term loan movement schedule with a moratorium flag, then the revolver: charge interest on the average balance and enable iterative calculation under File, Options, Formulas.

KPIs your model should surface

KPI	What it tells you
Gross margin	Revenue less cost of sales, over revenue. Health of the core product.
Revenue growth	Year on year. Is it driven, or just assumed?
Cash conversion cycle	Receivable days plus inventory days minus payable days. How long cash is trapped.
Debt to equity	How geared the business is. Lenders watch this closely.
Interest cover	Operating profit over interest. Can the business service its debt?
Free cash flow	Cash after running and investing. The number that pays lenders and owners.

BUILD IT NOW

Open FM2026_Day4-6_Modelling_Components_STARTER.xlsx, sheet Checks. Wire the balance check, the cash check and the scenario check, and make every one read zero before you call the build done.

Key takeaways: Part 3

- Revenue is volume times price. Push every generic growth number down to a root driver you can defend.
- Keep variable and fixed costs apart: variable per unit times volume, fixed grown by inflation only.
- Working capital comes from days assumptions, and the receivables waterfall is a movement schedule, not one giant formula.
- Every schedule is opening, movement, closing, and depreciation starts at the put-to-use date, not the payment date.
- The revolver stops impossible negative cash. Charge interest on the average balance and let iterative calculation resolve the loop.

COMMON MISTAKE FROM THE 2025 COHORT

The receivables collection waterfall confused half the 2025 class: "How did you get the sales value?" recurred for a whole afternoon. The fix is to do the maths on paper first, 50 percent of this quarter plus 30 percent of last plus 20 percent of the one before, and only then open Excel.

Close behind it: the revolver, which needed two passes before it landed, and deferred tax, where the income statement takes the movement, closing minus opening, never the balance.

The Henderson Manufacturing case

Henderson is the manufacturer you build across the programme: a five-year, fully integrated, three-statement model with a DCF on top. These reference figures (in naira millions) show the shape of a finished build, so you can sense-check your own.

Key assumptions

Assumption	Value
Installed capacity	420,000 units per year
Inflation	3 percent a year
Company income tax	35 percent
Raw materials / utilities per unit	226 / 66.2 (grown by inflation)
Receivable / inventory / payable days	about 40 / 80 / 41
Senior debt interest / annual repayment	6 percent / 25 per year
Useful life: new / existing assets	30 years / 25 years
Dividend payout	20 percent of net income (none on a loss)

Illustrative outputs, five forecast years

Measure	Y1	Y2	Y3	Y4	Y5
Net revenue	252	233	280	280	266
EBITDA	73.5	44.5	81.4	70.1	46.1
Net income	42.6	25.0	54.2	44.2	25.1
Gross margin	31%	21%	31%	27%	19%
Senior debt	175	150	125	100	75
Debt to equity	0.78	...	...	...	0.32

NOTE

Two honest lessons from the real 2025 file. First, the balance-sheet check is the heartbeat of the model: a single hard-coded plug in one year tripped the check to Error, exactly the kind of thing the check exists to catch. Second, label your sheets and rows carefully. Typos in tab names slow every reader down.

Best-practice quick guide

The pre-class checklist

- Excel installed: Microsoft 365 preferred for dynamic arrays, otherwise 2019 or later.
- Two screens, or a 13-inch or larger laptop. Models are wide.
- Drive folder access tested before each class.
- Headphones and a tested microphone for the virtual cohort.
- Screen zoom set to 130 percent so the room can follow along.

The ten habits of a clean model

18. Every input is blue, lives once, on the assumption sheet.
19. Every schedule is opening, movement, closing.
20. One row, one formula, all the way across the timeline.
21. Flags carry all timing. No timing logic buried in calculations.
22. Drive the timeline off one start-date cell.
23. Push every generic driver to a real, defensible one.
24. State your choices: payables basis, days convention, residual value.
25. Separate deferred tax from current tax.
26. Build a check cell that must equal zero, and watch it.
27. Save versions day by day, so you can always step back.

Quick-check questions

Test yourself. The answer key follows on the next page.

Part 1: Foundations

Q1. Which best describes a financial model?

A) A static report of last year's results
B) A forward-looking tool that turns assumptions into decisions
C) A formatting exercise to impress the board
D) A backup of the accounting records

Q2. In the input, processing, output flow, which cells do you type into?

A) Any cell that needs a number
B) Only the blue input cells
C) The output cells, then work backwards
D) Whichever cell is fastest

Q3. What does the S in FAST stand for?

A) Simple
B) Structured
C) Standardised
D) Sequential

Q4. A flag row is used to...

A) Colour cells for decoration
B) Turn a value on or off by timing
C) Mark errors in red
D) Hide confidential numbers

Q5. A financial model is best described as:

A) A budget for the next financial year
B) A forecast prepared by management for the bank
C) Past results, cleaned of one-offs, plus new ideas and assumptions, organised in spreadsheet logic
D) A discounted cash flow valuation
E) A summary of historical financial statements

Q6. Which of the following is NOT one of the five components of a financial model?

A) Cover page
B) Table of contents
C) Assumption sheet
D) Workings and schedules
E) External audit report

Q7. Best practice for modelling colour conventions specifies:

A) Hard-coded inputs in red, formulas in green
B) Hard-coded inputs in blue, formulas in black
C) All cells in black, no colour distinction
D) Hard-coded inputs in yellow, formulas in red

E) Rainbow colours to show importance

Q8. On a balance sheet check, the formula Total Assets minus (Total Liabilities plus Total Equity) should equal:

A) Retained earnings
B) Net income
C) Cash
D) Zero
E) It varies by year

Part 2: Excel

Q9. You copy =B2/$C$2 from row 2 down to row 5. Row 5 becomes...

A) =B5/$C$5
B) =B2/$C$2
C) =B5/$C$2
D) =B2/$C$5

Q10. Why avoid VLOOKUP in a growing model?

A) It is slower than INDEX
B) Inserting a column can silently break it
C) It cannot look up text
D) It only works on 365

Q11. Applying #,##0.0,, "M" to 4,600,000,000 displays...

A) 4,600,000,000
B) 4,600.0 M
C) 4.6 M
D) 460.0 M

Q12. When is IFERROR risky?

A) When the formula divides
B) When you do not know why the error appears
C) When the result feeds a chart
D) It is never risky

Q13. A scenario selector cell holds 1 (Best), 2 (Base) or 3 (Worst). The formula =INDEX(B5:B7, selector), where B5 is Best, B6 is Base and B7 is Worst, will:

A) Always return the Best case
B) Return the value in the row matching the selector, flipping the whole model when the selector changes
C) Average the three scenarios
D) Return the Worst case only
E) Cause a circular reference error

Part 3: Components

Q14. A client says volume grows 10 percent a year. The best response is to...

A) Accept it

B) Ask what drives the volume and model that
C) Cut it to 5 percent
D) Use last year's number

Q15. Sales are 1,000 a quarter, collected 50/30/20. Cash collected in Q3 is...

A) 500
B) 800
C) 1,000
D) 1,500

Q16. Under IAS 16, depreciation starts when the asset is...

A) Ordered
B) Paid for
C) Available for use
D) Fully insured

Q17. Revolver interest is best charged on...

A) The opening balance
B) The closing balance
C) The average of opening and closing
D) Last year's balance

Q18. Customers pay 50 percent in the same quarter, 30 percent the next quarter and 20 percent two quarters later. Q4 sales are NGN 100m, Q3 sales were NGN 80m, Q2 sales were NGN 60m. Q4 cash collection is:

A) NGN 100m
B) NGN 86m
C) NGN 74m
D) NGN 60m
E) NGN 50m

Q19. Under IAS 16, depreciation of a fixed asset begins on:

A) The contract date
B) The invoice date
C) The acquisition date
D) The date the asset is available for use as intended by management
E) The first day of the next financial year

Q20. A company has a NGN 50m revolving credit facility. It draws NGN 15m, then later repays NGN 5m. The rate is 12 percent a year. The interest charge for the period is:

A) 12 percent on NGN 50m
B) 12 percent on NGN 35m, the unused portion
C) 12 percent on the average drawn balance, roughly NGN 12.5m times 12 percent
D) 12 percent on NGN 20m, the draw plus the repayment
E) Zero, revolvers do not charge interest

Q21. A deferred tax liability is NGN 8m at the start of the year and NGN 9.75m at the end. What appears on the income statement?

A) NGN 9.75m as a deferred tax expense

B) NGN 8m as a deferred tax expense
C) NGN 1.75m as a deferred tax expense, the movement
D) NGN 17.75m as a deferred tax expense, the sum
E) Nothing, deferred tax is a balance sheet item only

Q22. Which of the following is NOT a typical financial covenant?

A) Debt service coverage ratio minimum 1.2 times
B) Debt to equity maximum 0.6 times
C) Gross margin minimum 25 percent
D) Interest coverage ratio minimum 3 times
E) Number of employees maximum 100

Q23. On the statement of cash flows, interest actually paid is classified as:

A) Always operating activities
B) Always investing activities
C) Always financing activities
D) Either operating or financing, a permitted choice under IAS 7, applied consistently
E) Always operating, disclosed only in the notes

Q24. When forecasting working capital, receivable days are calculated as:

A) Receivables divided by cost of sales, times 365
B) Receivables divided by revenue, times 365
C) Revenue divided by receivables, times 365
D) Receivables times inventory, divided by 365
E) Receivables divided by net income, times 365

Looking ahead: three valuation teasers

These three questions preview the valuation work of Days 11 and 12: WACC, free cash flow and terminal value. Attempt them now, nobody is grading you, and the answer key explains each one. If they feel hard, good. They are supposed to.

Q25. The formula for WACC is:

A) (Cost of debt plus cost of equity) divided by 2
B) Cost of debt times (1 minus tax rate) times debt over total capital, plus cost of equity times equity over total capital
C) Cost of debt times debt over equity, plus cost of equity times equity over debt
D) Risk-free rate plus beta times the equity risk premium
E) Cost of equity divided by (1 minus the debt ratio)

Q26. Free cash flow to firm (FCFF) is best described as:

A) Net income plus depreciation
B) EBITDA minus capex
C) EBIT times (1 minus tax rate), plus depreciation, minus capex, minus the change in working capital
D) Net income minus dividends
E) Operating cash flow minus investing cash flow

Q27. Terminal value in a DCF using the Gordon growth model is:

A) Final year FCFF times (1 plus g)
B) Final year FCFF divided by WACC
C) Final year FCFF times (1 plus g), divided by (WACC minus g)
D) Final year FCFF times (WACC minus g)
E) Final year EBITDA times an exit multiple

Answer key

Question	Answer	Why
Q1	B	A model is forward-looking and decision-driven, not a report.
Q2	B	You only ever type into blue input cells; the rest are formulas.
Q3	B	FAST is Flexible, Appropriate, Structured, Transparent.
Q4	B	A flag is a 0/1 row that switches a value on by timing.
Q5	C	A model processes historicals plus assumptions; budgets, forecasts and DCFs are its outputs, not the model itself.
Q6	E	The five components are cover, contents, assumptions, workings and outputs. An audit report sits outside the model.
Q7	B	Blue inputs, black formulas: the 30-year banking convention that makes audit trivial.
Q8	D	Assets equal liabilities plus equity, so the check must read zero. Do not plug; find the leak.
Q9	C	Relative B2 moves to B5; absolute $C$2 stays locked.
Q10	B	VLOOKUP relies on a column number that breaks on insertion.
Q11	B	Two commas scale to millions: 4.6bn shows as 4,600.0 M.
Q12	B	Suppressing an undiagnosed error can mask a real broken link.
Q13	B	INDEX returns the row matching the selector, so the entire downstream model flips with one cell.
Q14	B	Ten percent is an output; model the driver behind it.
Q15	C	50% of Q3 + 30% of Q2 + 20% of Q1 = 500 + 300 + 200 = 1,000.
Q16	C	Depreciation starts when the asset is available for use.
Q17	C	Average balance handles uncertain timing within the year.
Q18	B	50 + 24 + 12 = NGN 86m. The receivables waterfall, the most-asked question of 2025.
Q19	D	IAS 16: the put-to-use date, not the contract, invoice or payment date.
Q20	C	A revolver charges interest only on the drawn balance, computed on the average over the period.
Q21	C	The P&L takes the movement, 9.75 minus 8 = 1.75m. The balance stays on the SOFP.
Q22	E	Covenants are quantitative financial tests. Headcount is operational, not a financial covenant.
Q23	D	IAS 7 permits operating or financing for interest paid; choose one and apply it consistently.
Q24	B	Receivables carry at billed-out price, so revenue is the denominator. Inventory days use cost of sales.
Q25	B	WACC weights each source of capital by its share, with debt cost taken after tax. Option D is CAPM, the cost of equity.

Q26	C	FCFF starts from taxed EBIT, adds back depreciation, and subtracts capex and the working capital movement.
Q27	C	Gordon growth: cash flow grown one year, divided by WACC minus g, then discounted to today.

AI in Financial Modelling (2026)

AI has moved into the modeller's toolkit, and pretending otherwise helps nobody. The question is not whether to use it, but how. A participant in the 2025 AI session put it best: "we should delegate to AI, not abdicate to AI." This chapter shows you what to delegate, what to keep, and how to brief the machine properly.

What AI does well

- Drafting formulas. Complex IF nests, INDEX and MATCH structures, SUMPRODUCT patterns. Describe the logic in plain English and let it draft the first version.
- Explaining errors. Paste a #REF! or a circular reference warning and ask what is wrong. It is a patient debugging partner at two in the morning.
- Researching assumption benchmarks. Industry growth rates, typical margins, inflation outlooks, comparable company structures. It gathers and organises quickly; you verify before anything touches the model.
- Drafting commentary. First drafts of variance notes, assumption descriptions and board narrative, which you then edit for accuracy and tone.

What remains the modeller's job

- The logic. AI can write a formula; it cannot decide that volume should be capacity times utilisation. Structure and drivers are your call.
- The accuracy. AI output looks correct and may not be. Build the same logic both ways and reconcile: its answer and your manual build should agree.
- The judgement. Assumption setting, source validation and the sense check. A 200 percent growth rate is still a typo, whoever typed it.
- The confidentiality. Client data is yours to protect. What you paste into a public tool may leave your control permanently.

> **ANALOGY - A sharp junior analyst**
> Treat AI like the sharpest junior analyst you have ever hired, on their first day. Fast, tireless, impressive drafts, and no idea how your client actually makes money. You would never send their work to a partner unreviewed. Same rule here: AI drafts, you review every figure before it goes anywhere.

The CRAFT prompt template

Most weak AI output is really a weak brief. CRAFT is the fix: give the machine Context, Role, Action, Format and Target output, the same way you would brief that junior analyst.

Letter	What you give
C - Context	The business, the model, and where this task fits.
R - Role	Who the AI should act as: a research analyst, an Excel reviewer, a patient tutor.
A - Action	The specific task, stated as a verb: gather, draft, explain, check.

F - Format	The shape of the answer: a table, a formula, three bullet points.
T - Target output	What done looks like, so you can judge the answer against it.

WORKED EXAMPLE - Researching QSR growth benchmarks for Lagos

Context: I am building a five-year financial model for a quick-service restaurant chain with eight outlets in Lagos.

Role: act as a research analyst covering the Nigerian consumer food-service market.

Action: gather recent revenue growth benchmarks for QSR chains operating in Lagos and wider Nigeria, with the name, date and publisher of every source.

Format: a short table of source, year, growth rate, and a one-line note on how reliable the source is.

Target output: a defensible growth range I can cite on my assumption sheet as the root driver behind outlet revenue.

When the answer comes back, verify each source actually exists, then record the range and the citations on your assumption sheet. The benchmark informs your assumption; it does not become your assumption automatically.

Three safety rules

- **1.** Verify everything. Every figure, every source, every formula. AI is confident even when it is wrong, and confident-but-wrong is the most expensive kind of wrong in a model.
- **2.** Cite sources on your assumption sheet. If AI research informed an assumption, the source, date and link sit next to the number. An assumption nobody can trace is an assumption nobody should trust.
- **3.** Never paste confidential client data into a public AI tool. Anonymise first, or use approved enterprise tools. When in doubt, leave it out.

PRO TIP

Five habits of people who use AI well in modelling: brief with CRAFT; ask the AI to explain its understanding before it executes; demand cell references and traceability, never opaque calculations; build the same logic both ways and reconcile; and document where AI was used and where it was not.

Glossary

69 terms from Days 1 to 6, in plain English. If a word from class is not here, ask in the group, and it will join the next edition.

Absolute reference. $A$1. Locked solid; it points to the same cell no matter where the formula is copied. Press F4 to set it.

Assumption sheet. The single sheet that holds every input, in blue. The model's control panel.

Balance check. The cell proving assets equal liabilities plus equity in every period. It must read zero; if it does not, find the leak, never plug it.

Capex. Capital expenditure. Money spent buying long-lived assets.

CAPM. Capital asset pricing model. Cost of equity as the risk-free rate plus beta times the equity risk premium. Arrives properly on Day 11.

Cash conversion cycle. Receivable days plus inventory days minus payable days. How long cash is trapped in operations.

CBN. Central Bank of Nigeria. A free, credible source for exchange rates, interest rates and monetary data for your assumptions.

Check cell. Any cell built to read zero when the model is healthy. The model's smoke alarm: cheap to install, priceless when it goes off.

Circular reference. A formula that depends on itself, directly or through a loop. Expected with a revolver; resolved with iterative calculation.

Colour convention. Blue for inputs, black for formulas, green for links pulling from another sheet, red for warnings or external links.

Cost of sales. The direct cost of what you sell: raw materials, direct labour, packaging. Mostly variable, so model it per unit times volume.

Covenant. A condition in a loan agreement, for example a minimum interest cover, that the borrower must keep.

CRAFT. A template for briefing AI: Context, Role, Action, Format, Target output. A good brief gets a good draft.

Current tax. The tax charge payable on this year's taxable profit. Kept strictly separate from deferred tax.

DCF. Discounted cash flow. A valuation that discounts future free cash flows to today using a discount rate.

Debt to equity. Total debt divided by equity. How geared the business is. Lenders watch it closely.

Deferred tax. Tax arising from timing differences between accounting and tax rules. Modelled by its movement, separate from current tax.

Depreciation. Spreading the cost of a fixed asset over its useful life. Starts when the asset is available for use.

Divisor. The named cell, often 1,000,000, that a model divides by so naira billions display as readable millions. Now you know where it is saved.

Drawdown. Cash received from a loan facility. The plus line in the debt movement schedule.

DSCR. Debt service coverage ratio. Cash available for debt service divided by interest plus repayments due. Lenders often require at least 1.2 times.

EBITDA. Earnings before interest, tax, depreciation and amortisation. A rough proxy for operating cash generation.

EOMONTH. The Excel function that returns a month-end date. One start cell plus EOMONTH drives the entire timeline.

FAST. An open modelling standard: Flexible, Appropriate, Structured, Transparent.

FCFF. Free cash flow to firm. Taxed EBIT, plus depreciation, minus capex and the working capital movement. Cash for all capital providers.

Fixed cost. Holds regardless of volume within a range: factory rent, the plant manager. Grow it by inflation only.

Flag. A row of 0s and 1s used to switch a value on or off by timing.

Forecast period. The future years the model projects, usually five, sitting to the right of the historical years.

Free cash flow. Cash left after running and investing in the business. The number that pays lenders and owners.

FX rate. The exchange rate assumption. One cell, named, referenced everywhere a currency converts. CBN publishes the official rates.

Gearing. The share of debt in the capital structure. High gearing magnifies returns on the way up and pain on the way down.

Gordon growth model. Terminal value as the final-year cash flow grown one year, divided by WACC minus growth. A Day 11 topic worth meeting early.

Grain. The time step of the model: annual, quarterly or monthly. Volume, price and dates must all match it. Mixing grains is a top source of error.

Gross margin. Revenue less cost of sales, divided by revenue.

Hard-coded value. A number typed inside a formula. The silent killer of auditability. Numbers live on the assumption sheet, nowhere else.

IFERROR. Wraps a formula and returns a safe value when it errors. Use only on errors you have already diagnosed.

INDEX and MATCH. The lookup pair that survives inserted columns. MATCH finds the position, INDEX returns the value.

Installed capacity. The maximum a business can produce. Actual output is capacity times utilisation.

Interest cover. Operating profit divided by interest expense. Can the business service its debt?

Inventory days. How long stock sits before it sells. Inventory divided by cost of sales, times days in the year.

Iterative calculation. The Excel setting (File, Options, Formulas) that lets a deliberate circular loop, like the revolver, settle by repeated passes.

KPI. Key performance indicator. The handful of numbers a decision-maker actually reads. Your model should surface them, not bury them.

Mixed reference. $A1 or A$1. Locks the column or the row, not both. The workhorse of schedules.

Moratorium. A repayment holiday at the start of a loan. Handled with a flag, never buried in a nested IF.

Movement schedule. Opening balance, plus and minus the period's movements, equals closing balance. The shape of most schedules.

Named range. A plain-English name given to a cell so formulas read clearly and survive moved rows.

NBS. National Bureau of Statistics. Free Nigerian data on inflation, GDP and sector output, ideal for benchmarking assumptions.

Net book value. Cost less accumulated depreciation. What the balance sheet carries an asset at.

NGX. Nigerian Exchange. Listed-company filings on NGX are a free source of comparable financials and margin structures.

Payable days. How long you take to pay suppliers. Payables divided by cost of sales, times days in the year. State whether your basis adds SG&A.

Receivable days. How long customers take to pay. Receivables divided by revenue, times days in the year.

Residual value. What an asset is worth at the end of its life. Depreciate cost minus residual, so the formula generalises beyond zero scrap.

Retained earnings. Opening balance plus net income minus dividends. A favourite hiding place for balance-sheet leaks.

Revolver. A revolving credit facility drawn when cash is short and repaid when cash is surplus. Interest on the drawn balance only.

Scenario switch. The one dropdown, Base, Best, Worst, on the assumption sheet that re-prices the whole model.

Seasonality. The pattern inside a year: December trade for retail, the rainy season for logistics, term time for schools. Model it, do not average it away.

Sensitivity analysis. Changing one input at a time to see which assumptions move the answer most. Those are the ones to research hardest.

SG&A. Selling, general and administrative expense. The overhead of running the business.

SOFP. Statement of financial position, the balance sheet. Where deferred tax balances live, and where the balance check earns its keep.

SUMPRODUCT. Multiplies two lists and adds the results in one step. Volume times price across many products, no helper columns.

Terminal value. The value of all cash flows beyond the forecast period. Often most of a DCF, so treat its inputs with respect. Teased here, built on Day 11.

Three-statement model. Income statement, balance sheet and cash flow, fully linked, so one input change flows through everywhere.

Utilisation. The share of installed capacity actually used. A car that can do 200 km/h mostly does 80.

Variable cost. Moves with every unit produced: raw materials, direct labour, packaging. Per unit, times volume.

WACC. Weighted average cost of capital. After-tax cost of debt and cost of equity, each weighted by its share of total capital.

Waterfall (receivables). The schedule spreading each period's sales over the periods the cash actually arrives, for example 50/30/20.

Working capital. Receivables plus inventory minus payables. The cash tied up in day-to-day operations.

Working capital days. The days assumptions, receivable, inventory and payable, that turn P&L lines into balance sheet positions.

XLOOKUP. The modern lookup on Microsoft 365. Looks left or right, returns a default when nothing matches, and ignores column positions.

About Accounting Yard

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