Operational Excellence and Performance Architecture

MODULE SUMMARY

This module connects finance to operating performance. It builds unit economics, including contribution margin, customer acquisition cost, lifetime value, payback and cohorts, and shows how to design measures that are tied to decisions, controllable, timely and hard to game. It sets out a KPI tree, a scorecard and a review cadence, then treats working capital, throughput, customer profitability, pricing, retention, cost behavior and variance analysis with fictional examples. Links to Modules 2, 3, 5, 6 and 14 appear throughout. A fictional distributor case, boardroom questions, a scorecard with owners and targets, a monthly review agenda and a self assessment follow.

MODULE AT A GLANCE

Core question	How does a CFO connect finance to daily operations, so that every leader knows the numbers that matter, controls them, and answers for the cash and profit they produce?
Why it matters to the CFO	Strategy becomes results through operating decisions, and clear measures, owners and a steady review rhythm turn those decisions into profit and cash.
Key sources	KPMG working capital studies (2025); McKinsey interview with the Nestle CFO (2025); Deloitte working capital page and CFO Signals (2026); US Bureau of Labor Statistics (2026); CBIZ (2025).
Executive artifact	A KPI tree and scorecard with owners and targets for a fictional company, and a timed monthly operating review agenda.

Important notice. This material is provided for educational and informational purposes only and does not constitute accounting, tax, legal, investment, or other professional advice. Readers should consult qualified professionals in accounting, tax, legal, and other relevant services before acting on any information presented. Fictional companies and figures are used for teaching and are labeled as such. The maturity ratings are an educational framework and have not been validated against a broad population of finance executives.

1. Executive overview and learning objectives

A note on Pillar V. The first three modules of this pillar looked outward, at strategic foresight, at other countries and at the tax and trade rules that cross borders. This module looks inward, at the daily work by which a plan becomes profit and cash. A strategy that is sound on paper can fail in the warehouse, in the sales team or in the receivables ledger, and the failure is usually invisible to the executive team until the quarter has closed. The remedy is a system of measurement, ownership and review that brings the operating facts to the people who can change them while there is still time to do so. That system is what this module calls performance architecture.

The core question. How does a chief financial officer connect finance to the daily work of the business, so that every leader knows which numbers matter, controls them, and is held accountable for the cash and profit they produce? The question has a technical side, which concerns how to calculate the economics of one customer, one unit or one hour of a constrained machine, and a human side, which concerns how to set targets that people accept, how to hold meetings that change decisions and how to keep measures from being gamed. A CFO who masters only the technical side produces accurate reports that nobody uses. A CFO who masters only the human side produces lively meetings about numbers that are wrong or irrelevant.

Why this matters over the next five years. The sources read for this module are advisory and survey based, and they should be weighed as such, but they point in a consistent direction. In an interview published by McKinsey on October 23, 2025, the chief financial officer of Nestle described moving the finance team toward indicators that shape profit, cash flow and the balance sheet before results appear, reviewing about 40 areas of performance each month on a data dashboard and not on slides, and requiring the owner of each indicator to explain a shortfall. KPMG reported on October 17, 2025, from a sample of more than 2,700 United States public companies, that the cash conversion cycle, which is the number of days between paying for inputs and collecting from customers, stood at 89 days in 2024 against 83 days in 2020, with inventory days rising from 73 to 80. The US Bureau of Labor Statistics reported on September 3, 2026 that labor productivity in the nonfarm business sector rose 2.2 percent over the four quarters to the second quarter of 2026. Deloitte leaders wrote on April 14, 2026, in an opinion piece based on the fourth quarter 2025 CFO Signals survey, that digital transformation of finance was the leading priority of North American CFOs, and that nearly half planned to use artificial intelligence to find cost reduction opportunities. The practical meaning is that cash, productivity and cost are again at the center of the CFO's agenda, and that the tools for measuring them are improving faster than the habits for acting on them.

Terms used in this module. Unit economics means the revenue and cost attached to one unit of the business, such as one customer, one order or one product, so that the reader can judge whether growth adds value or only adds volume. **Contribution margin** is revenue less the costs that vary with the unit, and it is the amount available to cover fixed costs and profit. **Customer acquisition cost (CAC)** is the sales and marketing spending needed to win one new customer, and **lifetime value (LTV)** is the contribution margin that a customer is expected to generate over the life of the relationship. A **key performance indicator (KPI)** is a measure chosen to show progress toward an objective that matters. **Days sales outstanding (DSO)** is the average number of days that customers take to pay, **days inventory outstanding (DIO)** is the average number of days that inventory is held, and **days payable outstanding (DPO)** is the average number of days that the company takes to pay its suppliers. The **cash conversion cycle (CCC)** equals DSO plus DIO less DPO. **Return on invested capital (ROIC)** is operating profit after tax divided by the capital invested in the business, a measure treated in Module 5. The **Theory of Constraints** is a method that improves a system by finding and relieving its single most limiting step. **Cost to serve** is the cost of the activities, such as order handling and delivery, that a customer causes beyond the cost of the goods sold. Other terms are defined where they first matter.

What the module covers. Section 2 sets out the concepts: unit economics, the qualities of a good measure, the system of strategy, goals, metrics, targets, cadence, accountability and incentives, working capital, productivity, customer economics, cost management and the link between performance and operational risk. Section 3 supplies tools whose arithmetic was verified in Python, a programming language widely used for financial modeling: a unit economics model with cohort payback for a fictional subscription company, a KPI tree and dashboard, a working capital improvement with cash release, a throughput example, a measurement of artificial intelligence productivity, a cost to serve analysis, a discount rule, retention economics, operating leverage and a variance analysis. Section 4 places a fictional distributor before a decision about its least profitable customers, Section 5 prepares the boardroom, Section 6 supplies the executive artifact, and Section 7 reports the research that was read.

How the module connects to the others. Module 2 treats intelligent finance transformation and the automation of finance work, and the measurement of productivity gains in Section 3 should be read with it. Module 3 treats data, analytics and decision intelligence, and every measure in this module depends on the definitions, lineage and quality that module describes. Module 5 treats strategic capital allocation, and the ROIC tree of this module shows which operating levers move the return that Module 5 asks the board to earn. Module 6 treats enterprise strategy and competitive advantage, including pricing power, and the discount and customer profitability work below puts numbers on those ideas. Module 14 treats the finance workforce, and the owners, skills and incentives of a performance system are matters of organization design that it covers. Module 12 treats crisis management and financial resilience, and Module 18 treats global business, so that a company operating abroad should read the working capital and cost to serve work with both. Readers who wish to go further should consult the Master Class in this series on Treasury, Liquidity and Working Capital, which treats the cash conversion cycle and the management of liquidity in much greater depth than is possible here.

A necessary caution. Nothing here is accounting, tax, legal or securities advice. The treatment of revenue, inventory, customer incentives, supplier terms and restructuring costs in the financial statements, the tax effects of changes in pricing or structure, and the employment law that governs targets and incentives all depend on facts and jurisdictions that only the company knows. The reader must consult qualified professionals in accounting, tax, legal and human resources before acting on any matter in this module. The companies and figures in the worked examples are fictional, and the benchmarks quoted from outside sources describe other populations and are not targets for any particular company.

Learning objectives. After completing this module the reader should be able to do the following. Each objective is tested by the self assessment in Section 8.

1. Calculate contribution margin per unit, customer acquisition cost, lifetime value, payback and cohort economics for a subscription or distribution business, and explain what each figure hides when it is shown as an average.
2. Design a measure that is tied to a decision, controllable, timely and hard to game, distinguish leading from lagging indicators, build a tree that links enterprise value to operating drivers, and recognize the common pathologies of measurement, including Goodhart's law.
3. Describe the parts of a performance system and set out a review cadence, a scorecard with owners and targets, and a monthly operating review in which each number has one accountable owner.
4. Compute DSO, DPO, DIO and the cash conversion cycle, value an improvement in working capital as cash released and as a change in ROIC, and state the trade offs with customers and suppliers.
5. Apply the Theory of Constraints to find the bottleneck in a process, show why improving other steps adds no throughput, and measure the productivity effect of automation and artificial intelligence on evidence

and not on claims.

6. Analyze customer profitability and cost to serve, set pricing and discount rules from break even volumes, value retention, explain activity based costing, fixed and variable cost and zero based budgeting in plain terms, and run a variance review that closes the loop from insight to action.

2. Conceptual foundations and frameworks

Unit economics: the economics of one. A company that earns a profit in total may still lose money on the units that it is working hardest to grow, and a company that loses money in total may be building units that are each profitable and will pay back. The remedy for both confusions is to calculate the economics of a single unit, and to do so before the aggregate figures hide the pattern. The unit depends on the business: a subscriber for a software company, an order or a customer for a distributor, a seat on a flight, a pound of product, or an hour on a machine that limits output. Whatever the unit, the method is the same. Start with the revenue that one unit brings, subtract the costs that rise and fall with it to reach the contribution margin, and then ask what it cost to obtain the unit and how long the unit stays. Exhibit 1 sets out the measures in the order in which they are normally built.

Exhibit 1 Unit Economics Measures and Their Traps

Measure	Definition	Formula in the form used in this module	What it tells the CFO and its main trap
Contribution margin per unit	Revenue per unit less the costs that vary with the unit	Price per unit less variable cost per unit	Whether the unit can cover fixed cost. The trap is treating a cost as fixed because it is hard to attribute, when it rises with volume
Customer acquisition cost (CAC)	Sales and marketing spending to win one new customer	Total acquisition spending in a period divided by new customers won in the same period	What growth costs. The trap is counting only advertising and leaving out sales salaries, commissions and onboarding
Customer lifetime value (LTV)	Contribution margin a customer is expected to produce over the whole relationship	Contribution margin per period divided by the churn rate per period; a discounted form divides by the churn rate plus the discount rate	What a customer is worth. The trap is a long assumed life that no cohort has ever shown
LTV to CAC ratio	Value obtained for each dollar spent to win it	LTV divided by CAC	Whether growth creates value. The trap is a ratio that looks healthy on blended averages while one channel destroys value
Payback period	Time to recover the acquisition cost from contribution	CAC divided by contribution margin per period	How long cash is at risk. The trap is ignoring churn, which lengthens the true payback
Cohort economics	The cash and retention record of a group of customers acquired in the same period, followed over time	For each month, survivors and cumulative contribution per original customer	Whether newer cohorts are better or worse than older ones. The trap is averaging all customers together

Source: author's synthesis, stated from the author's own knowledge. Definitions of CAC and LTV vary between companies, and the reader should state the definition used whenever a figure is shown to a board or to investors.

What makes a measure good. A company can measure almost anything, and the real difficulty lies in choosing the few measures that deserve the attention of busy people. Four tests, applied together, remove most of the poor candidates. The first is that the measure must be **tied to a decision**, so that someone can say what they would do differently if the number moved. A measure that nobody would act on is a statistic and not an indicator. The second is that the measure must be **controllable** by the person who owns it, at least in large part, because holding a manager accountable for a number that the manager cannot influence breeds frustration and excuses. The third is that it must be **timely**, available soon enough to change the outcome, since a perfect figure that arrives six weeks late describes history. The fourth is that it must be **hard to game**, meaning that it should be difficult to improve the number without improving the underlying reality. Exhibit 2 applies the four tests, with a fifth question about definition that every CFO should add, namely whether two competent people would compute the same figure from the same data.

Exhibit 2 Five Tests of a Good Measure

Test	The question to ask	A weak measure shows	A strong measure shows
Tied to a decision	What will someone do differently if this moves?	Headcount reported without any hiring or redeployment decision attached	Cost to serve per order, which informs pricing, minimum order size and routing
Controllable	Can the owner change the number through their own actions?	A sales leader judged on days payable, which procurement controls	A procurement leader judged on days payable and on supplier price, together
Timely	Is the figure available while the outcome can still be changed?	A customer retention rate known only after the contract year has ended	Weekly usage of the product by each account, which warns of churn months ahead
Hard to game	How could someone improve the number without improving the business?	Orders shipped, which rises if shipments are split into small parcels	Orders delivered on time and in full, measured by the customer's receipt
Clearly defined	Would two competent people compute the same figure from the same data?	Customer count with no rule for dormant or merged accounts	Active customers defined as those with a paid order in the last 90 days, with a written rule for merged accounts

Source: author's synthesis, stated from the author's own knowledge. The examples are illustrative. The fifth test follows from the practice described by the Nestle CFO, in McKinsey (October 23, 2025), of aligning KPI definitions across functions before building analytics.

Leading and lagging measures. A **lagging** measure reports an outcome that has already occurred, such as revenue, margin or cash collected. A **leading** measure reports a condition that tends to precede an outcome, such as the number of qualified opportunities, the share of orders ready to ship, or the weekly usage of a product. Both are needed. Lagging measures settle the account and are hard to dispute, while leading measures give time to act and are easier to dispute. The Nestle CFO described the point in the McKinsey interview with the example of a new product, for which the questions that shape the result are whether it has distribution, whether consumers try it and whether they buy it again, and she said that the aim is to shape outcomes and not merely to react to them. A sound set of measures pairs each important lagging outcome with the leading indicators that the evidence suggests move it, and revisits the pairing when the evidence changes. Exhibit 3 gives examples.

Exhibit 3 **Pairing Outcomes With Leading Indicators**

Outcome that matters (lagging)	Leading indicators that tend to precede it	How the CFO should treat the link
Revenue from existing customers	Product usage, support tickets, share of accounts with an executive sponsor, renewal discussions started on time	Test the link in past cohorts before relying on it, and drop an indicator that has not predicted anything
Gross margin	Discount approvals above the guideline, mix of new orders, supplier price notices	Review weekly, since margin lost in the quote cannot be recovered at the invoice
Cash collected	Invoices issued within two days of delivery, disputed invoices by age, promises to pay broken	Assign each to the person who can resolve it, and track the age of disputes, not only the total
On time delivery	Orders released to the warehouse by cutoff time, stock availability at order entry, carrier capacity booked	Use the earliest reliable signal, and accept that it will sometimes give false alarms
Employee turnover	Engagement pulse results, overtime hours, time since last promotion or pay review	Respect privacy and employment law, and consult counsel before using individual data

Source: author's synthesis, stated from the author's own knowledge. The leading indicators are illustrative, and each company must test them against its own history. The McKinsey interview (October 23, 2025) describes distribution, trial and repeat purchase as the leading questions for a new product.

How measures go wrong. A measure is a proxy for something that matters, and a proxy can be improved without improving the thing it stands for. The observation is often called **Goodhart's law**, named for the British economist Charles Goodhart and commonly stated, in a form due to the anthropologist Marilyn Strathern, as the remark that when a measure becomes a target it ceases to be a good measure. The attribution and the wording are given here from the author's own knowledge. The CFO meets the law in many forms. A sales team paid on bookings signs contracts that the customer cannot afford to keep. A plant measured on the efficiency of every machine builds inventory that nobody ordered. A support team measured on the time to close a ticket closes tickets that are not resolved. A finance team measured on days to close the books closes early and corrects later. Exhibit 4 lists the most common pathologies and the usual defense against each.

Exhibit 4 **Common Pathologies of Measurement and Their Defenses**

Pathology	What happens	Typical example	Defense
Gaming the number	The figure improves while the reality does not	Shipping empty cartons at quarter end to record revenue, or reclassifying overdue invoices as disputed	Audit the definition and the source data, and pair the measure with a quality check that is hard to move in the same way
Local optimization	A part of the system improves at the expense of the whole	A purchasing team buys in large lots for a lower price and the company carries excess stock	Measure the outcome at the level of the whole flow, for example total landed cost and inventory days together
Short term bias	Current results improve by spending future results	Cutting maintenance or training to meet a quarterly cost target	Add a measure of the asset or capability that is being consumed, and set targets over more than one period

Pathology	What happens	Typical example	Defense
Measure fixation	People attend to what is measured and neglect what is not	Delivery speed rises while product quality, which is not measured, falls	Use a short balanced set, and ask each quarter what important thing is not being measured
Metric proliferation	Too many measures dilute attention and invite selective reading	A dashboard of eighty items in which no one can say which five matter	Limit each owner to a few measures, and retire a measure when it no longer informs a decision
Target ratcheting	A good result leads to a higher target, so people hide capacity	A team that beats its target by a wide margin keeps the surplus unreported	Set targets from evidence about the underlying driver and explain the logic, not only the number

Source: author's synthesis, stated from the author's own knowledge. The statement of Goodhart's law and the attribution to Charles Goodhart and Marilyn Strathern are given from the author's own knowledge and were not confirmed in a source read for this module.

Performance architecture: the system and not the dashboard. A set of measures does not make a performance system, in the same way that a set of bricks does not make a house. The system has seven parts that must fit together: a **strategy** that says where the company will win, **goals** that translate the strategy into what must be achieved, **metrics** that show progress, **targets** that set the level and the date, a **cadence** of meetings in which results are reviewed and decisions taken, **accountability** that names one owner for each number, and **incentives** that reward the behavior the system is meant to produce. A weakness in any part defeats the others. A company with excellent metrics and no cadence has reports and no decisions. A company with a strong cadence and a weak link between targets and incentives will find that the best people in the meeting are those who negotiate the lowest targets. Exhibit 5 describes each part, the question it answers and the sign that it has failed.

Exhibit 5 The Seven Parts of a Performance System

Part	The question it answers	Sign that it is working	Sign that it has failed
Strategy	Where will we win, and what will we not do?	Leaders can state the three priorities without notes	Every function has its own priorities and they conflict
Goals	What must be true in the next one to three years?	Each goal can be traced to a strategic priority and to an owner	Goals are lists of activities and not of outcomes
Metrics	How will we know we are making progress?	A short set, each tied to a decision and defined in writing	Dozens of measures, with disputed definitions
Targets	How much, by when, and why that level?	Targets rest on evidence about the driver and are reviewed when facts change	Targets are last year plus a percentage, set by negotiation
Cadence	When do we review, and what do we decide?	Fixed meetings, a standard pack, decisions and actions recorded and followed	Meetings review the past, and actions disappear
Accountability	Who answers for this number?	One name against each number, with the authority to change it	Shared ownership, which means no ownership
Incentives	What behavior do we reward?	Rewards depend on outcomes the person controls and cannot easily game	Rewards depend on a single measure that can be moved by harming another

Source: author's synthesis, stated from the author's own knowledge. Module 14 treats incentives and organization design, and Module 15 treats the cultural change that a performance system needs.

Two familiar frameworks in plain terms. The **balanced scorecard**, developed by Robert Kaplan and David Norton in the early 1990s, groups measures into four perspectives, namely financial results, customers, internal processes, and learning and growth, on the argument that financial results alone describe the past and that the other three describe the sources of future results. **Objectives and key results (OKRs)**, popularized in technology companies and described by John Doerr in his 2018 book, set a small number of ambitious objectives for a period, usually a quarter, each with a few measurable key results, and they are normally reviewed and scored openly. These descriptions are from the author's own knowledge. The two serve different purposes and are often confused. The scorecard is a standing view of the health of the business, with targets that persist, while OKRs are a way of focusing effort on a few changes in a given period. A company can use both, provided the CFO makes clear which numbers belong to the standing scorecard and which belong to the current set of objectives. Exhibit 6 compares them.

Exhibit 6 The Balanced Scorecard and OKRs Compared

Feature	Balanced scorecard	Objectives and key results
Purpose	A standing view of the health of the business across four perspectives	Focus on a few important changes in a given period
Typical period	Reviewed monthly, with targets for the year	Set and scored each quarter, with some objectives carried forward
Number of items	Perhaps twelve to twenty measures for the enterprise, a handful for each owner	Three to five objectives, each with about three key results
Targets	Expected to be met, and a shortfall calls for explanation and action	Deliberately ambitious, so that a score below full marks may be normal, which must be agreed in advance
Main risk	A long list that nobody acts on, and measures that persist after they stop mattering	Treating a stretch target as a commitment, or using the score in pay decisions without care
Where the CFO adds most	Definitions, data quality, link to the financial model and the review rhythm	Linking key results to the budget, so that ambition does not outrun resources

Source: author's synthesis, stated from the author's own knowledge, including the attributions to Kaplan and Norton and to Doerr. The descriptions were not confirmed in a source read for this module.

Working capital: the cash that operations tie up. A company that sells on credit, holds stock and buys on credit has money invested in the day to day cycle of its business, and the size of that investment is governed by three averages. DSO measures how long customers take to pay, DIO how long goods wait before they are sold, and DPO how long the company takes to pay its suppliers. A day of each is worth a specific sum of cash, which makes working capital a field in which finance can show its value in dollars and in which the improvements, being operational, belong to sales, supply chain and procurement and not to finance alone. Exhibit 7 gives the formulas in the form used in this module. The Master Class in this series on Treasury, Liquidity and Working Capital treats the cash conversion cycle, the forecasting of cash and the financing of working capital in depth.

Exhibit 7 Working Capital Measures, Formulas and Owners

Measure	Formula (365 day year)	Cash value of one day	Who controls it
Days sales outstanding (DSO)	Accounts receivable divided by revenue, times 365	Revenue divided by 365	Sales, billing, credit and collections, with customers
Days inventory outstanding (DIO)	Inventory divided by cost of goods sold, times 365	Cost of goods sold divided by 365	Supply chain, planning, purchasing and sales through forecast accuracy
Days payable outstanding (DPO)	Accounts payable divided by cost of goods sold, times 365	Cost of goods sold divided by 365	Procurement and accounts payable, with suppliers
Cash conversion cycle (CCC)	DSO plus DIO less DPO	Not a single figure, since each component has its own base	The CFO, as owner of the whole, with the three function leaders as owners of the parts
Net working capital	Receivables plus inventory less payables	Not applicable	The CFO, who reports it and ties it to ROIC

Source: author's synthesis of standard definitions, stated from the author's own knowledge. Companies differ in the base used for DPO and DIO, with some using revenue, and a comparison with another company or with a benchmark is valid only if the same definition is used.

Productivity and the Theory of Constraints. Productivity is the amount of output obtained from a given amount of input, and the usual forms are output per labor hour, output per machine hour and revenue per employee. At the level of a country the US Bureau of Labor Statistics publishes the measure for the nonfarm business sector, and its release of September 3, 2026 reported that labor productivity grew 2.2 percent over the four quarters to the second quarter of 2026, with output up 2.5 percent and hours worked up 0.2 percent. Inside a company, a rise in output per hour is welcome, but the Theory of Constraints, set out by the physicist Eliyahu Goldratt in his 1984 novel The Goal, explains why such a rise may produce nothing. In any process with several steps, one step has the lowest capacity, and the output of the whole process cannot exceed that of the **bottleneck**. An hour lost at the bottleneck is an hour lost to the entire system, whereas an hour saved at any other step produces more stock waiting in front of the bottleneck and no more finished goods. The attribution to Goldratt and the description of the method are from the author's own knowledge. The method is practical because it tells management where to look first, and Exhibit 8 gives its five focusing steps in plain terms.

Exhibit 8 The Five Focusing Steps of the Theory of Constraints

Step	In plain terms	Question for the CFO	Common error
1. Identify the constraint	Find the step that limits the output of the whole process	Where does work wait the longest, and which step runs at full capacity while others wait for it?	Naming the busiest or most expensive step, which is not necessarily the limiting one
2. Exploit the constraint	Get the most from the constraint as it is, without new spending	Is the constraint ever idle, starved of material, or making product that is later scrapped?	Letting the bottleneck stop for breaks, changeovers or missing parts

Step	In plain terms	Question for the CFO	Common error
3. Subordinate everything else	Pace the other steps to the constraint, so that they feed it and do not outrun it	Do upstream steps release work faster than the constraint can take it?	Rewarding every step for its own efficiency, which builds stock
4. Elevate the constraint	If more output is still needed, add capacity at the constraint through investment	What does extra capacity at this step earn, and where will the constraint move next?	Buying capacity at a step that is not the constraint
5. Repeat	When the constraint moves, return to step 1 and do not let old rules persist	Have the targets and incentives that were built around the old constraint been reset?	Treating the first improvement as permanent

Source: author's summary of the method associated with Eliyahu Goldratt, stated from the author's own knowledge. The US Bureau of Labor Statistics release of September 3, 2026 (Productivity and Costs, Second Quarter 2026, Revised) was read for the national figures quoted in the text.

Customer economics and cost management. Revenue by customer is easy to report, and profit by customer is hard, because the costs of serving a customer are spread across order handling, picking, delivery, returns, credit and support, and are normally recorded in the ledger by type of expense and not by customer. **Activity based costing (ABC)** is a way of assigning those costs to customers, products or orders in proportion to the activities that each one causes. The method is simple in outline. Gather the cost of each activity into a pool, choose a measure of how much of the activity is used, such as orders handled or deliveries made, divide the pool by the total usage to obtain a rate, and then charge each customer the rate times its own usage. The result is a profit figure for each customer or segment that reflects the work that it creates, and which often differs sharply from the view given by gross margin. Other approaches to cost serve different purposes, and the CFO should know which to use for which question. Exhibit 9 compares the principal ones.

Exhibit 9 Approaches to Cost Management Compared

Approach	In plain terms	Best used for	Main limit
Fixed and variable analysis	Separate costs that move with volume from those that do not, and compute contribution and break even	Pricing, volume decisions and the effect of a fall in demand	Many costs are mixed, and the split changes with the time horizon
Activity based costing	Assign the cost of activities to customers or products by the use of each activity	Customer and product profitability, minimum order rules, delivery charges	Needs activity data, and the pools and drivers must be kept current
Zero based budgeting	Build each cost line from zero each cycle and justify it against the work to be done, instead of starting from last year	A cost reset after growth, an acquisition or a change in strategy	Costly to run every year, and can reduce capability if applied without judgment
Incremental budgeting	Start from last year and adjust for known changes	Stable costs with good control	Carries forward old waste, since nothing forces a review
Target costing	Start from the price the customer will pay and the margin required, and work back to the allowed cost	Product design and sourcing	Needs a credible price view and a design process able to respond

Source: author's synthesis, stated from the author's own knowledge. The CFO Technical Accounting MasterClass treats the accounting for inventory and cost of sales, while this module treats the use of cost information in decisions.

Operational accountability and the link to risk. A performance system fails most often at a human point and not a technical one: a number has no owner, an owner lacks the authority to change it, or an explanation is given and nothing follows. Three habits repair this. The first is an **owner for every number**, a single named person whose role includes both the result and the levers that move it. The second is the **variance review**, in which the difference between actual and plan is explained in terms of its causes, which are normally price, volume, mix, cost rate and timing, and not merely described. The third is **closing the loop**, which means that each insight is converted into a decision, an owner and a date, and that the next meeting begins with the actions of the last. Performance and risk are two views of the same operations, because a measure that drifts often signals a risk, and a risk that is realized appears first as a measure that drifts. Module 10 treats enterprise risk, and a **key risk indicator** is a measure chosen because it warns of a loss event before the loss occurs. Exhibit 10 links common operating measures to the risks they may signal.

Exhibit 10 Operating Measures Linked to Risks They May Signal

Operating measure	Risk it may signal	Early warning to watch	Response owner
Days sales outstanding by customer	Credit loss and liquidity strain	A rise of more than ten days in a major account, or growth in disputed invoices	Corporate Controller, with the Chief Commercial Officer
Share of spend with a single supplier	Supply interruption and price dependence	A supplier above a set share of a critical input, or a late delivery trend	Vice President, Procurement
Order lines shipped per labor hour	Operational disruption, safety and quality failure	A fall below the band for several weeks, or a rise in overtime	Vice President, Logistics
Discount approvals above guideline	Margin erosion and weak pricing control	Rising count of exceptions and approvals given after the quote	Head of Sales
Orders delivered on time and in full	Loss of customers and penalties under contract	Misses concentrated in a few customers or lanes	Vice President, Logistics
System downtime of order or billing systems	Revenue interruption and control failure	Repeated incidents, or recovery times above the stated objective	Chief Information Officer

Source: author's synthesis, stated from the author's own knowledge. The indicators are illustrative, and Module 10 and Module 12 treat risk management and resilience.

3. Practical applications and tools

The tools of this section are worked on fictional companies. **Marlowe Analytics** is a fictional subscription software company, and it supplies the unit economics, the cohort, the channel comparison and the retention example. **Calder Distribution** is a fictional distributor of industrial supplies with revenue of 400.0 million dollars, and it supplies the KPI tree, the dashboard, the working capital improvement, the cost to serve analysis, the operating leverage and the variance example, and it is also the subject of the case in Section 4. **Brightwater Components** is a fictional machining company that supplies the throughput example. No real company is described, all amounts are in dollars unless stated, and every sum, ratio and percentage was computed in Python and checked by assertion.

A. Unit economics of a subscription business. Marlowe charges an average of 500 dollars a month per customer, and after the cost of hosting, support and payment processing, which vary with the customer, it keeps 78 percent, so that the contribution margin is 390 dollars a month. About 2 percent of customers cancel each month, which implies an average life of 50 months and an annual retention of 78.5 percent. Marlowe spent 3.6 million dollars on sales and marketing in the last quarter and won 600 new customers, so that its

blended customer acquisition cost is 6,000 dollars. The lifetime value, defined here as the contribution margin per month divided by the monthly churn rate, is 19,500 dollars, and the ratio of lifetime value to acquisition cost is 3.25. A more careful version discounts the future contribution at 1 percent a month, about 12.7 percent a year, which gives a lifetime value of 13,000 dollars and a ratio of 2.17. The simple payback is the acquisition cost divided by the monthly contribution, which is 15.4 months. Exhibit 11 shows the build.

Exhibit 11 Unit Economics of Marlowe Analytics (Fictional)

Line	Amount	How it is computed
Average revenue per customer per month	500 dollars	Given
Variable cost per customer per month	110 dollars	Hosting, support and payment processing, 22 percent of revenue
Contribution margin per customer per month	390 dollars	500 less 110
Monthly churn	2.0 percent	Given, from observed cancellations
Average customer life	50 months	One divided by monthly churn
Annual retention	78.5 percent	One less monthly churn, raised to the twelfth power
Customer acquisition cost (blended)	6,000 dollars	3.6 million dollars of spending divided by 600 new customers
Lifetime value, simple	19,500 dollars	390 divided by 0.02
Lifetime value, discounted at 1 percent a month	13,000 dollars	390 divided by (0.02 plus 0.01)
LTV to CAC, simple and discounted	3.25 and 2.17	19,500 divided by 6,000, and 13,000 divided by 6,000
Simple payback	15.4 months	6,000 divided by 390

Source: fictional company, computed in Python. The discounted form assumes that contribution is received at the start of each month and that a customer cancelling in a month pays nothing for it. The 3.25 and 2.17 are ratios of undiscounted and discounted value to the same acquisition cost.

What the ratio depends on. A ratio of 3.25 sounds comfortable, since a frequently quoted rule of thumb among software investors asks for three, but the rule is a convention and not a law, and it conceals the sensitivity of the answer to two inputs that management does not fully control. Exhibit 12 varies monthly churn from 1.5 to 3.0 percent and acquisition cost from 4,800 to 7,200 dollars. The lifetime value moves from 26,000 dollars to 13,000 dollars, a swing of half, when churn doubles, and the simple ratio runs from 5.42 in the best corner to 1.81 in the worst. The lesson for the CFO is that churn deserves at least as much attention as acquisition spending, because it enters the value of every customer already won as well as every customer yet to come, and that a company whose churn drifts upward by one point can be growing and destroying value at once. The practical consequence is that the review of acquisition spending should always be held together with the review of retention, in the same meeting and by leaders who can see both.

Exhibit 12 LTV to CAC Ratio by Churn and Acquisition Cost (Fictional)

Monthly churn	Lifetime value (simple)	Ratio at CAC 4,800	Ratio at CAC 6,000	Ratio at CAC 7,200	Discounted ratio at CAC 6,000
1.5 percent	26,000 dollars	5.42	4.33	3.61	2.60
2.0 percent	19,500 dollars	4.06	3.25	2.71	2.17
2.5 percent	15,600 dollars	3.25	2.60	2.17	1.86
3.0 percent	13,000 dollars	2.71	2.17	1.81	1.62

Source: fictional Marlowe Analytics, computed in Python. Contribution margin is 390 dollars a month in every cell. The discounted ratio uses 1 percent a month. The conventional rule of a ratio of three is a rule of thumb stated from the author's own knowledge.

Averages hide the channels. The blended figures conceal three channels with very different economics. Exhibit 13 separates them. The paid digital channel wins 300 customers a quarter at 7,000 dollars each, but they cancel at 2.7 percent a month, so that the ratio is only 2.06 and the payback is 17.9 months. Referral and partner customers cost 3,000 dollars, stay far longer, and show a ratio of 14.44, yet they are only one customer in six. Weighting the channel lifetime values by the number of customers won gives 23,111 dollars, which exceeds the 19,500 dollars obtained from the blended churn of 2.0 percent. The two differ because the average of the values of customers with unequal lives is higher than the value of an average customer, a point that makes the simple blended formula conservative, and that makes the channel view the better guide to where to put the next dollar. A CFO who sees these rows asks whether paid digital should be cut, repriced or improved at the point of onboarding, and the answer depends on whether the high churn is a feature of the channel or of the product offered through it.

Exhibit 13 Marlowe Analytics: Economics by Acquisition Channel (Fictional)

Channel	New customers	CAC (dollars)	Spending (millions)	Monthly churn	LTV (dollars)	LTV to CAC	Payback (months)
Paid digital	300	7,000	2.10	2.7 percent	14,444	2.06	17.9
Outbound sales	200	6,000	1.20	1.5 percent	26,000	4.33	15.4
Referral and partner	100	3,000	0.30	0.9 percent	43,333	14.44	7.7
Blended	600	6,000	3.60	2.0 percent	19,500 (23,111 weighted)	3.25	15.4

Source: fictional company, computed in Python. Contribution is 390 dollars a month in each channel. The blended churn is the customer weighted average of the channel rates, and the weighted LTV is the customer weighted average of the channel LTVs.

Cohort economics and the true payback. A **cohort** is the group of customers won in the same period, and following one cohort over time shows what the average hides, namely how many remain and how much contribution they have returned against the cost of winning them. For a cohort that churns at 2 percent a month, the share still active after t months is 0.98 raised to the power t, and the cumulative contribution per original customer is 390 times (1 less 0.98 to the power t) divided by 0.02. Because customers leave while the payback clock runs, the true payback is later than the simple figure of 15.4 months. The cohort recovers its cost of 6,000 dollars per customer after 18.2 months, which means the nineteenth month in whole months, and by the end of the third year it has returned 10,077 dollars per original customer, with 48.3 percent of the cohort still active. Exhibit 14 gives the path.

Exhibit 14 **Cohort Payback for a Cohort With 2 Percent Monthly Churn (Fictional)**

Months since acquisition	Customers still active (percent)	Cumulative contribution per original customer	Net of acquisition cost of 6,000
0	100.0	0	(6,000)
3	94.1	1,147	(4,853)
6	88.6	2,226	(3,774)
12	78.5	4,198	(1,802)
15	73.9	5,098	(902)
18	69.5	5,945	(55)
19	68.1	6,216	216
24	61.6	7,492	1,492
36	48.3	10,077	4,077

Source: fictional Marlowe Analytics, computed in Python. Active share is 0.98 to the power of the months elapsed. Cumulative contribution is 390 times (1 less that share) divided by 0.02, with contribution received at the start of each month. Figures in parentheses are negative.

How the CFO uses these results. The first use is in the plan, where the unit economics set the limit on acquisition spending: with the figures above, Marlowe may spend freely on referral and partner programs, should examine paid digital, and cannot judge any of them without cohort data that show whether newer cohorts retain as well as older ones. The second is in the quarterly business review, where the CFO should ask for the ratio by channel and by cohort, with the definition of each term on the page. The third is in the discussion with investors and lenders, who increasingly test these figures, and who will notice if the company reports a payback that ignores churn. For a distribution business the same logic applies with different units: the contribution of an order or an account replaces the contribution of a subscriber, the cost of winning a new account replaces CAC, and the repeat purchase rate of a cohort of accounts replaces the survival curve. The analysis of cost to serve later in this section applies the same logic to a distributor.

B. A KPI tree for Calder Distribution. A KPI tree starts with the financial outcome that the owners care about and breaks it into the operating drivers that produce it, level by level, until each branch ends in a measure that one person can influence. Calder has revenue of 400.0 million dollars, cost of goods sold of 304.0 million, a gross profit of 96.0 million, cost to serve of 32.0 million that rises with activity, and fixed costs of 38.0 million, which leave an operating profit of 26.0 million. After tax at 25 percent the operating profit is 19.5 million. Invested capital consists of net working capital of 66.76 million, being receivables of 52.60, inventory of 45.81 less payables of 31.65, plus fixed assets of 60.0 million, a total of 126.76 million. The return on invested capital is therefore 15.38 percent. Against an assumed cost of capital of 10 percent, the economic profit, which is the return above the cost of capital multiplied by the capital employed, is 6.82 million dollars. Module 5 treats economic profit and the cost of capital in detail. The return can be written as the product of two ratios, the after tax profit margin of 4.875 percent and the turnover of invested capital of 3.16 times, and each ratio can be traced to drivers that a named person controls. Exhibit 15 sets out the tree with current values, twelve month targets and owners.

Exhibit 15 KPI Tree: From Economic Profit to Operating Drivers at Calder Distribution (Fictional)

Level	Measure	Now	Target	Owner	Decision it informs
1	Economic profit (millions of dollars)	6.82	11.07	Chief Executive Officer	Where to invest and where to withdraw capital
2	Return on invested capital (percent)	15.4	19.8	Chief Financial Officer	The overall test of operating performance against the cost of capital
3	After tax operating margin (percent)	4.88	5.58	Chief Financial Officer	Whether growth and cost are earning a return
3	Turnover of invested capital (times)	3.16	3.55	Chief Financial Officer	Whether the balance sheet is sized to the business
4	Gross margin (percent)	24.0	24.6	Chief Commercial Officer	Pricing, discounts and mix of what is sold
4	Cost to serve per order (dollars)	100.31	96.00	Vice President, Operations	Minimum order size, delivery charges and routing
4	Fixed costs (millions of dollars)	38.0	38.0	Chief Financial Officer	Hiring, facilities and systems commitments
4	Days sales outstanding	48	42	Corporate Controller	Credit limits, billing accuracy and collection effort
4	Days inventory outstanding	55	49	Vice President, Supply Chain	Stocking levels, forecast accuracy and slow stock clearance
4	Days payable outstanding	38	41	Vice President, Procurement	Supplier terms, the timing of payment and any discount taken
4	Fixed assets turnover (times)	6.7	6.7	Vice President, Operations	Capital spending on warehouses, vehicles and equipment

Source: fictional company, computed in Python. Economic profit is (ROIC less 10 percent) times invested capital. The targets are those that, taken together, give the target ROIC: gross margin of 24.6 percent, cost to serve of 96.00 per order on 319,000 orders, fixed costs unchanged, and days of 42, 49 and 41, with revenue unchanged at 400.0 million. Module 5 treats ROIC.

The value of one unit of each driver. A tree is useful only if it directs effort, and effort should go where a unit of improvement is worth the most. Exhibit 16 converts a standard unit of each driver into dollars and into points of return on capital, holding the other drivers constant. One point of gross margin on revenue of 400 million dollars is worth 4.0 million in operating profit, 3.0 million after tax, and 2.37 points of ROIC, which is more than any other single driver in the table. One day of receivables is worth 1.096 million of cash, and one day of inventory or payables 0.833 million, since inventory and payables are measured against the smaller base of cost of goods sold. A dollar of cost to serve on each of 319,000 orders is worth 0.319 million before tax. The ranking tells the CFO, for example, that a one point improvement in margin through discount discipline adds as much to ROIC as about eighteen days of receivables, and the CFO can then ask which is easier to obtain in the company as it is. The comparison is of return and not of cash, since the margin gain is a recurring profit and the receivables gain is a one time release of capital.

Exhibit 16 **Value of One Unit of Each Driver at Calder Distribution (Fictional)**

One unit of improvement in	Operating profit (millions)	After tax profit (millions)	Cash released (millions)	ROIC after the change (percent)	Gain in ROIC (points)
One point of gross margin	4.000	3.000	None	17.75	2.37
One dollar of cost to serve per order	0.319	0.239	None	15.57	0.19
One day of days sales outstanding	None	None	1.096	15.52	0.13
One day of days inventory outstanding	None	None	0.833	15.48	0.10
One day of days payable outstanding	None	None	0.833	15.48	0.10
One percent of fixed costs	0.380	0.285	None	15.61	0.22

Source: fictional company, computed in Python from the base figures of the KPI tree: ROIC 15.38 percent on invested capital of 126.76 million. Cash released reduces invested capital one for one, and interest on the cash is ignored. A point of gross margin is 1 percent of revenue of 400.0 million, taxed at 25 percent.

The dashboard. A dashboard turns the tree into a monthly view. Each row has a measure, an owner, the actual value, the target, the gap and a status, and the rule that sets the status should be written down so that nobody can argue about the color. In Exhibit 17 the rule is that a measure is green if it meets or beats the target, amber if it falls short by no more than 10 percent of the target, and red if the shortfall is greater. The figures are those of the KPI tree and the cost to serve analysis, with a few additional operating measures, and they show a company that is behind its targets on most counts, with the cash conversion cycle and the share of revenue in accounts that fail the contribution floor furthest away. The CFO should resist the temptation to add rows, since the discipline of the dashboard comes from its brevity, and should instead ask whether each row is tied to a decision and has a single owner who can explain the movement without notes.

Exhibit 17 **Monthly Dashboard With Status Rule (Fictional Calder Distribution)**

Measure	Owner	Actual	Target	Gap (negative is behind)	Gap as percent of target	Status
Return on invested capital (percent)	Chief Financial Officer	15.4	19.8	(4.4)	(22.3)	Red
Revenue retained from existing accounts (percent)	Chief Commercial Officer	96.5	97.5	(1.0)	(1.0)	Amber
Gross margin (percent)	Chief Commercial Officer	24.0	24.6	(0.6)	(2.4)	Amber
Average discount off list price (percent)	Head of Sales	6.2	5.5	(0.7)	(12.7)	Red
Cost to serve per order (dollars)	Vice President, Operations	100.31	96.00	(4.31)	(4.5)	Amber
Orders delivered on time and in full (percent)	Vice President, Logistics	91.5	95.0	(3.5)	(3.7)	Amber
Order lines shipped per warehouse labor hour	Vice President, Logistics	24.0	26.0	(2.0)	(7.5)	Amber

Measure	Owner	Actual	Target	Gap (negative is behind)	Gap as percent of target	Status
Revenue in accounts below the contribution floor (percent)	Chief Commercial Officer	5.0	3.0	(2.0)	(66.7)	Red
Days sales outstanding	Corporate Controller	48	42	(6.0)	(14.3)	Red
Days inventory outstanding	Vice President, Supply Chain	55	49	(6.0)	(12.2)	Red
Days payable outstanding	Vice President, Procurement	38	41	(3.0)	(7.3)	Amber
Cash conversion cycle (days)	Chief Financial Officer	65	50	(15.0)	(30.0)	Red

Source: fictional company, computed in Python. Status is green if the gap is zero or better, amber if the shortfall is within 10 percent of the target, red if beyond. Lower is better for discount, cost to serve, below floor revenue, DSO, DIO and CCC. The ROIC target is the value implied by the other targets. Figures in parentheses are negative.

The cadence. The dashboard is useful only if it is read at a rhythm that matches how fast each measure can change. The McKinsey interview describes a monthly review of about 40 areas with owners explaining shortfalls, and the principle can be adapted to a company of any size by assigning each measure to the cadence at which action is still possible. Exhibit 18 sets out a standard rhythm. The daily huddle deals with what must be fixed today, the weekly meeting with leading indicators, the monthly review with the full scorecard and the variances, the quarterly review with strategy and targets, and the annual cycle with the refresh of the tree itself. The CFO owns the calendar, the pack and the follow up of actions, which are the three things that most often decay.

Exhibit 18 A Standard Performance Review Cadence

Rhythm	Who attends	Inputs	Decisions taken	Output
Daily huddle (15 minutes)	Operations and logistics leads, a finance partner when cash is tight	Orders in, orders out, stock outs, carrier problems, cash receipts of the day	What to expedite, what to re-route, which customers to call	A short action list, closed within the day
Weekly commercial and operations meeting (60 minutes)	Sales, operations, supply chain, finance	Leading indicators: quote discounts, backlog, stock cover, past due invoices by age	Pricing exceptions, stock actions, collection priorities	Updated forecast of the next four weeks and an action log
Monthly operating review (120 minutes)	Chief Executive Officer, function heads, finance, with owners presenting their own measures	The scorecard, variance analysis, cost to serve exceptions, forecast revision, risk indicators	Corrective actions, resource moves, forecast changes, escalations	Decisions with owner and date, and the revised forecast
Quarterly business review (half day)	Executive team, with board members invited as needed	Trends and cohorts, customer profitability, capital projects, competitor and market information	Changes to targets, priorities, pricing policy and investment	Revised targets and an updated KPI tree
Annual planning and target setting	Executive team and board	Strategy, budget, the KPI tree, the incentive plan design	Targets for the year, the list of measures, incentive terms	The scorecard for the year, with definitions and owners

Source: author's synthesis, stated from the author's own knowledge. The McKinsey interview with the Nestle CFO (October 23, 2025) describes a monthly review of about 40 KPI areas on a dashboard with owners explaining underperformance. The durations are suggestions.

C. Working capital: a verified improvement with cash release. Calder carries receivables of 52.60 million dollars, which is 48 days of sales, inventory of 45.81 million, which is 55 days of cost of goods sold, and payables of 31.65 million, which is 38 days of cost of goods sold, so that its cash conversion cycle is 65 days. Management sets a twelve month plan to reduce DSO to 42 days through cleaner billing and earlier action on past due accounts, to reduce DIO to 49 days by clearing slow stock and improving the forecast, and to extend DPO to 41 days by aligning payment dates with the terms already agreed with suppliers. Revenue and cost of goods sold are held constant so that the effect of the days can be seen alone. Each day of receivables is worth 1.096 million dollars, and each day of inventory or payables 0.833 million, so that the plan releases 6.58 million from receivables, 5.00 million from inventory and 2.50 million from payables, 14.07 million in all, and shortens the cycle from 65 to 50 days. Net working capital falls to 52.69 million and invested capital to 112.69 million, so that the return on invested capital rises from 15.38 to 17.30 percent with no change in operating profit. Exhibit 19 sets out the before and after positions. If the released cash replaces borrowing at 7 percent, the saving is 0.985 million a year before tax and 0.739 million after tax at 25 percent. The release itself is a one time event, so the CFO should present it as cash and not as profit, and should keep the improvement from reversing by holding the owners to the new days.

Exhibit 19 Working Capital Improvement and Cash Release at Calder Distribution (Fictional)

Measure	Before	After	Change
Days sales outstanding	48	42	-6
Days inventory outstanding	55	49	-6
Days payable outstanding	38	41	+3
Cash conversion cycle (days)	65	50	-15
Accounts receivable (millions of dollars)	52.60	46.03	(6.58)
Inventory (millions of dollars)	45.81	40.81	(5.00)
Accounts payable (millions of dollars)	31.65	34.15	+2.50
Net working capital (millions of dollars)	66.76	52.69	(14.07)
Invested capital (millions of dollars)	126.76	112.69	(14.07)
Return on invested capital (percent)	15.38	17.30	+1.92
Cash released (millions of dollars)	None	14.07	One time

Source: fictional company, computed in Python. Receivables are revenue of 400.0 million times days over 365, and inventory and payables use cost of goods sold of 304.0 million. Operating profit after tax is held at 19.5 million. The cash released is the fall in receivables and inventory plus the rise in payables. Figures in parentheses are negative.

The trade offs, and a comparison with the outside evidence. Every day gained in working capital is taken from a customer or a supplier, or from the safety that stock provides, and the CFO should therefore price the trade. Take payables first. Extending DPO by three days frees 2.50 million dollars, worth about 0.175 million a year at 7 percent. If, however, suppliers responded by raising prices by half of one percent on half of the 304.0 million of purchases, the cost would be 0.76 million a year, more than four times the interest saved. The break even price increase on the affected purchases is only 0.115 percent. The same logic applies to early payment discounts offered by suppliers. Exhibit 20 shows the annualized return from taking a discount,

computed as the discount divided by the price paid, multiplied by 365 over the number of days by which payment is advanced, and compares it with the 7 percent cost of borrowing.

Exhibit 20 Annualized Return From Early Payment Discounts (Fictional Terms)

Supplier terms	Days of payment advanced	Annualized return from taking the discount (percent)	Against borrowing at 7 percent
1 percent if paid in 10 days, net 30 days	20	18.4	Take the discount
2 percent if paid in 10 days, net 30 days	20	37.2	Take the discount
2 percent if paid in 10 days, net 45 days	35	21.3	Take the discount
1 percent if paid in 15 days, net 60 days	45	8.2	Take the discount

Source: computed in Python. Annualized return is discount divided by (100 less discount), times 365 over the days advanced. The terms and the 7 percent borrowing rate are assumptions. Whether a discount is taken depends also on the company's liquidity and on the accounting and tax treatment, on which the reader should consult qualified professionals.

Outside figures may be used to prompt questions, though not to set targets. KPMG reported, in an article published October 17, 2025 on a sample of more than 2,700 United States public companies, that the cash conversion cycle was 89 days in 2024 (90 days in 2023 and 83 in 2020), with DIO of 80 days, DSO of 51 days and DPO of 42 days. The page gave the median cycle by sector as 146 days for healthcare, 118 for information technology and 102 for industrials, and gave the cycle by company size as 120 days for small companies, 100 for medium and 65 for large. The page did not say whether the overall figures are medians or averages, nor how they were calculated, and a company that compares its own days with them must use the same definitions. Deloitte's page on working capital optimization, which carries no date, describes anonymized client cases, among them $5.4 million of opportunities identified for a $60 million software company with $2.8 million realized over three months, and $42 million realized over four months by a $2 billion manufacturer. These are marketing case studies whose method was not stated, and they show what is claimed, not what is typical. KPMG's paper on cash flow, undated but carrying 2025 notices, argues that a dedicated leader in the CFO's organization, who links incentives to working capital measures, can break down the silos in which the improvement stalls. The point is consistent with the ownership structure of the KPI tree above.

D. Throughput and the constraint: a verified example. Brightwater Components makes machined parts in five steps that run in sequence: cutting, machining, heat treatment, finishing and packing. The plant runs 80 hours a week, and each step has a different capacity in units per hour, shown in Exhibit 21. Heat treatment, at 38 units an hour, is the slowest, so that the plant can ship at most 38 units times 80 hours, or 3,040 units a week, whatever the other steps can do. Each unit sells for 120 dollars and carries 45 dollars of material, so that its **throughput**, defined in this method as the sale price less the truly variable cost, which here is the material, is 75 dollars. The weekly throughput of the plant is 228,000 dollars, the operating expense of labor and overhead is 150,000 dollars a week, and the weekly profit is 78,000 dollars. Measured conventionally, output per labor hour is 1.267 units on 2,400 labor hours. The table also shows what happens if every step is run at full capacity, as a measure of local efficiency would encourage: cutting alone would push out 1,760 more units a week than heat treatment can absorb, and at 55 dollars of material and labor invested in each unit, that is 96,800 dollars of cash added to the floor each week with no sale to match.

Exhibit 21 **Step Capacities and the Constraint at Brightwater Components (Fictional)**

Step	Capacity (units per hour)	Weekly capacity at 80 hours	Utilization needed to match the constraint (percent)	Extra units a week if run at full capacity	Role
Cutting	60	4,800	63.3	1,760	Feeds the constraint
Machining	45	3,600	84.4	560	Feeds the constraint
Heat treatment	38	3,040	100.0	None	Constraint
Finishing	50	4,000	76.0	None	Waits for the constraint
Packing	70	5,600	54.3	None	Waits for the constraint

Source: fictional company, computed in Python. The constraint is heat treatment at 38 units an hour. Extra units are the capacity above 38 per hour at the two steps that feed heat treatment, times 80 hours. Finishing and packing cannot ship more than the constraint delivers, so that they show no extra units.

Choosing among improvements. The plant manager proposes four courses, and Exhibit 22 compares them. The first, to speed cutting from 60 to 80 units an hour, adds nothing to throughput and a good deal of stock, because cutting is not the constraint. The second, eight hours of overtime a week at heat treatment at an extra cost of 6,000 dollars, adds 304 units and 22,800 dollars of throughput, a net gain of 16,800 dollars a week, and costs no capital. The third, a second heat treatment oven that lifts that step to 76 units an hour, moves the constraint to machining at 45 units an hour, so that the plant gains only 45 times 80 less 3,040, or 560 units a week, rather than the 3,040 more that the oven alone might suggest. At 600,000 dollars of capital and 4,000 dollars a week of extra operating cost, the net gain is 38,000 dollars a week and the payback is 15.8 weeks. The fourth, a machining cell at 350,000 dollars that lifts machining to 60 units an hour, moves the constraint again, this time to finishing at 50 units an hour, and adds 400 units and a net 27,000 dollars a week, with a payback of 13.0 weeks. Taken together the third and fourth raise weekly profit from 78,000 to 143,000 dollars. The paybacks assume that customers will buy the extra units at the same price, an assumption that the CFO must test, since a plant that elevates its constraint past the demand of its market has simply moved the bottleneck to sales.

Exhibit 22 **Improvement Options Compared by Their Effect on Throughput (Fictional)**

Option	Constraint afterward	Units a week	Change in throughput (dollars a week)	Extra weekly cost	Net weekly gain	Capital	Payback (weeks)
A. Speed cutting to 80 an hour	Heat treatment, 38 an hour	3,040	None	None	None	None	None
B. Overtime at heat treatment, 8 hours	Heat treatment, 38 an hour	3,344	22,800	6,000	16,800	None	At once
C. Second heat treatment oven	Machining, 45 an hour	3,600	42,000	4,000	38,000	600,000	15.8
D. Machining cell, after C	Finishing, 50 an hour	4,000	30,000	3,000	27,000	350,000	13.0

Source: fictional company, computed in Python. Throughput is 75 dollars a unit (120 sale price less 45 material). Option B lifts heat treatment from 80 to 88 hours at 38 units an hour. Option C raises heat treatment to 76 an hour. Option D raises machining to 60 an

hour, and finishing at 50 an hour then limits the plant. Paybacks are capital divided by the net weekly gain and assume that the extra units can be sold.

Lean and continuous improvement, at a high level. Lean is a body of practice, developed largely in Japanese manufacturing, whose central idea is to remove waste, meaning any activity that consumes resources without adding value that the customer would pay for. Its typical targets are waiting, excess stock, unnecessary movement, defects and overproduction. Continuous improvement is the habit of making many small changes, each tested and standardized, by the people who do the work. These descriptions are from the author's own knowledge. The two ideas fit well with the Theory of Constraints, which tells a company where waste matters most, and with the performance system of this module, which gives each improvement an owner and a measure. The CFO's part is to measure improvements in money, to separate savings that reach the profit and loss account from those that only free capacity, and to decline to count savings that would have occurred anyway, a standard that the Nestle CFO described in the McKinsey interview.

E. Measuring the productivity of automation and artificial intelligence. Tools that automate tasks and assist analysts have been adopted widely, and the claims made for them are large. The Deloitte leaders writing in CFO Dive on April 14, 2026 reported that 87 percent of the CFOs surveyed expected artificial intelligence to be very or extremely important to finance operations in the coming year, and cited a separate Deloitte finance trends report in which 21 percent of finance leaders saw tangible value from it. The distance between expectation and demonstrated value is the CFO's opportunity, since a measured result is worth more than a claimed one. A sound method has four parts. Set a baseline before the tool is introduced, measuring the time and the error rate of the task. Compare users with a comparable group, or the same users before and after. Count an hour as saved only if it was redeployed to other valuable work or removed as cost, because an hour that is released and then lost in the day produces no value. Finally, include the cost of the tool, of review and of correction of its errors. Exhibit 23 shows a fictional example in which a survey of users claimed 120 hours a week of savings and a time sample verified 48, which reduced the claimed value of 386,880 dollars a year to 154,752 dollars before the cost of the tool, and to 118,752 dollars after it. Module 2 treats the finance applications and Module 14 the effect on skills and organization.

Exhibit 23 Claimed and Verified Productivity of an Analyst Assistant Tool (Fictional)

Line	As claimed in a user survey	As verified by a time sample	Note
Hours saved per week	120	48	Verified hours were those redeployed to other work or removed from overtime
Loaded cost per hour (dollars)	62	62	Salary, benefits and overhead per hour for the analysts concerned
Value per year (dollars)	386,880	154,752	Hours times 52 weeks times 62 dollars
Cost of the tool and of review (dollars a year)	Not counted	36,000	Licenses, administration and checking of outputs
Net value per year (dollars)	Not computed	118,752	Verified value less cost

Source: fictional example, computed in Python. The ratio of claimed to verified hours is 2.5 to 1. The 87 percent and 21 percent figures in the text are reported by Deloitte leaders in CFO Dive (April 14, 2026) and are not verified here. The reader should consult employment counsel before using time data on individual employees.

F. Cost to serve and customer profitability. Calder sells to about 8,930 customers in four segments, and its ledger shows a single line of 32.0 million dollars for cost to serve. The finance team gathers that cost into five

activity pools and assigns each pool to customers by the activity that drives it, as Exhibit 24 shows. Order handling of 6.4 million is divided by the 319,000 orders placed, which gives 20.06 dollars an order, picking and packing of 9.6 million by the 1,154,000 order lines, which gives 8.32 dollars a line, delivery of 11.2 million by the 319,000 deliveries, which gives 35.11 dollars a delivery, returns and claims of 2.4 million by the 16,160 returns, which gives 148.51 dollars a return, and credit and collections of 2.4 million by the 319,000 invoices, which gives 7.52 dollars an invoice. The rates are averages across all customers, and a more refined model would set them separately for different types of delivery, though a model this simple is usually enough to show where the money is made and lost.

Exhibit 24 Cost to Serve: Activity Pools, Drivers and Rates at Calder Distribution (Fictional)

Activity pool	Cost (millions of dollars)	Driver	Driver volume	Rate per unit (dollars)
Order handling	6.4	Orders	319,000	20.06
Picking and packing	9.6	Order lines	1,154,000	8.32
Delivery	11.2	Deliveries	319,000	35.11
Returns and claims	2.4	Returns	16,160	148.51
Credit and collections	2.4	Invoices	319,000	7.52
Total	32.0			

Source: fictional company, computed in Python. Each rate is the pool divided by the total driver volume. The five pools sum to the 32.0 million of cost to serve in the KPI tree. Activity based costing is described from the author's own knowledge. Driver volumes are fictional.

What the analysis shows. Exhibit 25 charges each segment for its own activity. On gross margin the ranking is the reverse of the ranking on contribution. Occasional and online customers earn the highest gross margin, 30.0 percent, and strategic accounts the lowest, 21.0 percent, which suggests that the company should grow the first and squeeze the second. Once the cost to serve is charged, the strategic accounts, who order in large lots of 10,000 dollars on average, cost only 1.5 percent of revenue to serve and leave a contribution of 19.5 percent. The occasional and online customers, whose average order is 200 dollars, cost 44.1 percent of revenue to serve and lose 2.82 million dollars, a contribution of minus 14.1 percent. The small accounts earn a contribution of 8.6 percent, which is below the 9.5 percent of revenue that fixed costs represent, so that they do not carry a proportionate share of the fixed costs either. Charging 7 percent for the receivables that each segment carries changes the result only a little, giving 27.64, 30.17, 5.44 and minus 2.93 million dollars. Cost to serve per order is not highest in the tail, and is highest for the strategic accounts at 151.83 dollars, since they take more lines and more returns per order. The decisive figure is the cost per dollar of sales, and the lesson is that a unit of cost must be set against the revenue of the same unit.

Exhibit 25 Customer Segment Profitability After Cost to Serve (Fictional Calder Distribution)

Segment (customers)	Revenue (millions)	Gross margin (percent)	Cost to serve (millions)	Cost to serve (percent of revenue)	Margin after serving (millions)	Margin after serving (percent of revenue)	Average order (dollars)
Strategic accounts (30)	150.0	21.0	2.28	1.5	29.22	19.5	10,000
Core accounts (400)	160.0	24.5	7.59	4.7	31.61	19.8	2,500

Segment (customers)	Revenue (millions)	Gross margin (percent)	Cost to serve (millions)	Cost to serve (percent of revenue)	Margin after serving (millions)	Margin after serving (percent of revenue)	Average order (dollars)
Small accounts (2,500)	70.0	27.6	13.31	19.0	5.99	8.6	500
Occasional and online (6,000)	20.0	30.0	8.82	44.1	(2.82)	(14.1)	200
Total (8,930)	400.0	24.0	32.00	8.0	64.00	16.0	1,254

Source: fictional company, computed in Python. Margin after serving, called contribution in the text, is gross profit less cost to serve, before the fixed costs of 38.0 million, which are not allocated. The contribution of 64.0 million less fixed costs gives the operating profit of 26.0 million. Gross profit by segment is a fictional input. Figures in parentheses are negative.

G. Pricing and discount discipline. A discount is the cheapest way to win a sale and the most expensive way to hold a margin, and the arithmetic explains why. If a company gives a discount of d percent of price on a product whose contribution margin is m percent of price, the volume must rise by d divided by (m less d) for the same total contribution to be earned. At a 5 percent discount, a product with a 40 percent contribution margin needs 14.3 percent more volume to break even, but a product with a contribution margin of 24 percent, which is Calder's gross margin, needs 26.3 percent more, and on Calder's true contribution margin of 16 percent, after the variable cost to serve of 8 percent of revenue, a 5 percent discount needs 45.5 percent more volume. Exhibit 26 gives the full table. Few salespeople would promise a rise in volume of 45 percent in return for a 5 percent discount, yet most discounts are granted on the hope of a smaller rise than that. Module 6 treats pricing power as part of competitive advantage, and the practical rule for the CFO is to set discount authority by margin: a small allowance for the sales representative, a larger one that requires approval before the quote leaves the building, and a record of every exception that is reviewed weekly with the leading indicators.

Exhibit 26 Percent Volume Rise Needed to Offset a Price Discount (Percent)

Discount (percent of price)	Volume rise needed at 16 percent contribution margin	At 24 percent	At 40 percent
2	14.3	9.1	5.3
3	23.1	14.3	8.1
5	45.5	26.3	14.3
8	100.0	50.0	25.0
10	166.7	71.4	33.3

Source: computed in Python from the formula d divided by (m less d), where d is the discount and m the contribution margin, both as a percent of the original price. The 16 percent margin is Calder's contribution after cost of goods sold and variable cost to serve. The 24 percent is its gross margin, and the 40 percent is an illustrative high margin product.

H. Churn and retention economics, with a verified example. Retaining a customer is usually worth more than winning one, because the cost of acquisition is spent once while the contribution recurs. Return to Marlowe, which has 8,000 customers, a contribution of 390 dollars a month per customer and a monthly churn of 2 percent. The discounted value of the existing base is the number of customers times 390 divided by the sum of churn and the 1 percent monthly discount rate, or 104.00 million dollars. A retention program, at a cost of 0.6 million dollars a year, is expected to lower monthly churn to 1.7 percent, which would save about 24 customers a month from the base of 8,000. The value of each remaining customer rises from 13,000 to 14,444

dollars, and the value of the base to 115.56 million, a rise of 11.56 million. Treating the program as a permanent cost, its present value at 1 percent a month is 0.05 million a month divided by 0.01, or 5.00 million, so that the net value is 6.56 million dollars. The program pays for itself if it lowers churn by more than 0.14 points, from 2.0 to about 1.86 percent, which is a modest hurdle. The example makes three assumptions that the CFO should state when presenting it: that the effect on churn is real, which a controlled test should confirm, that it lasts as long as the spending continues, and that new customers acquired later are ignored. Exhibit 27 sets out the calculation.

Exhibit 27 Value of a Retention Program at Marlowe Analytics (Fictional)

Line	Without the program	With the program	Note
Customers in the base	8,000	8,000	Closed base, new customers ignored
Monthly churn (percent)	2.0	1.7	Assumed effect of the program
Customers lost per month	160	136	Number of customers times churn
Value of one customer (dollars)	13,000	14,444	390 divided by (churn plus 0.01)
Value of the base (millions of dollars)	104.00	115.56	Customers times value of one
Rise in the value of the base (millions of dollars)	None	11.56	With less without
Present value of program cost (millions of dollars)	None	5.00	0.6 million a year as a perpetuity at 1 percent a month
Net value of the program (millions of dollars)	None	6.56	Rise in value less cost

Source: fictional example, computed in Python. The benefit and the cost are both treated as perpetual, which keeps the comparison consistent. The break even churn of 1.86 percent solves 8,000 times 390 divided by (churn plus 0.01) equal to the base value of 104.00 million plus the program cost of 5.00 million.

I. Fixed and variable cost, and operating leverage. The split between fixed and variable cost governs how profit responds to changes in sales. Calder's variable costs are the cost of goods sold of 304.0 million and the cost to serve of 32.0 million, which together are 84 percent of revenue and leave a contribution margin ratio of 16 percent, or 64.0 million, against fixed costs of 38.0 million. The assumption that the whole of the cost to serve is variable is a simplification, since a warehouse has fixed elements, and the CFO should state it. The **degree of operating leverage**, which is contribution divided by operating profit, is 2.46, so that each one percent change in revenue changes operating profit by about 2.46 percent. A fall in revenue of 5 percent reduces profit from 26.0 to 22.8 million, a fall of 12.3 percent, and the break even revenue, at which operating profit is nil, is 237.5 million, or 59.4 percent of the present level. Exhibit 28 shows the range. The figures give the CFO two practical uses. They show how much of a revenue shortfall the company can absorb before a covenant or a cash need is reached, a matter for Module 12, and they show that a cost in the fixed column is a commitment that deserves the scrutiny of a zero based review, while a cost in the variable column can be managed by volume and price.

Exhibit 28 **Operating Leverage at Calder Distribution (Fictional)**

Change in revenue	Revenue (millions)	Contribution at 16 percent (millions)	Fixed costs (millions)	Operating profit (millions)	Change in operating profit (percent)
-10 percent	360.0	57.6	38.0	19.6	-24.6
-5 percent	380.0	60.8	38.0	22.8	-12.3
Base	400.0	64.0	38.0	26.0	None
+5 percent	420.0	67.2	38.0	29.2	+12.3
+10 percent	440.0	70.4	38.0	32.4	+24.6

Source: fictional company, computed in Python. Contribution is 16 percent of revenue (cost of goods sold of 76 percent and variable cost to serve of 8 percent). Fixed costs are held at 38.0 million. The degree of operating leverage is 64.0 divided by 26.0, or 2.46. Break even revenue is 38.0 divided by 0.16, or 237.5 million.

J. Operational accountability: variance analysis and closing the loop. The monthly review is where the system either earns its keep or becomes ritual. Its central tool is the variance analysis, which explains the difference between budget and actual operating profit in terms that point to an owner and an action. Calder budgeted a volume of 2.00 million units at an average price of 200.00 dollars and a variable cost of 168.00 dollars a unit, with fixed costs of 38.0 million, for a budgeted operating profit of 26.0 million. The actual figures were 1.96 million units at 199.00 dollars, with a variable cost of 168.60 and fixed costs of 38.4 million, giving revenue of 390.04 million, contribution of 59.58 million and operating profit of 21.18 million, which is 4.82 million, or 18.5 percent, below the budget. The variance is split into four parts by changing one factor at a time. The volume variance is the change in units at the budgeted unit contribution of 32 dollars, which is minus 1.28 million. The price variance is actual units times the change in price, minus 1.96 million. The cost rate variance is actual units times the change in unit variable cost, minus 1.18 million, and the fixed cost variance is minus 0.40 million. The four sum exactly to the total, as Exhibit 29 shows.

Exhibit 29 **Variance Analysis of Operating Profit: Budget Against Actual (Fictional Calder Distribution)**

Item	Budget	Actual	Effect on operating profit (millions of dollars)	Owner who can explain it
Volume (millions of units)	2.00	1.96	(1.28)	Chief Commercial Officer
Average price per unit (dollars)	200.00	199.00	(1.96)	Head of Sales
Variable cost per unit (dollars)	168.00	168.60	(1.18)	Vice President, Operations
Fixed costs (millions of dollars)	38.00	38.40	(0.40)	Chief Financial Officer
Operating profit (millions of dollars)	26.00	21.18	(4.82)	Chief Executive Officer

Source: fictional company, computed in Python. Volume variance is (actual less budget units) times the budgeted unit contribution of 32.00. Price variance is actual units times the price change. Cost rate variance is actual units times the change in variable cost per unit. Four parts sum to the total of (4.82). Figures in parentheses are negative.

Reading the variance. The price variance, at 1.96 million dollars, is the largest of the four and is more than the volume shortfall, which suggests that discounts, and not lost customers, were the main leak, a message that the headline revenue shortfall of only 2.5 percent against budget would hide. The cost rate variance of 1.18 million points to freight or labor rates and belongs to operations. The fixed cost overspend of 0.40 million is small but is the only one that the CFO owns directly. The value of the exercise lies in the next step, because a

variance that has been explained and not acted on is a report. The meeting should leave with a short list of decisions, each with an owner, a date and a measure of success, and the next meeting should begin by reading the list. Exhibit 30 shows such a list for the example.

Exhibit 30 Action Log That Closes the Loop From Variance to Decision (Fictional)

No.	Insight from the variance	Decision	Owner	Due	Measure of success
1	Price variance of 1.96 million dollars exceeds the volume shortfall	Require approval before the quote for any discount above 5 percent, and review all exceptions weekly	Head of Sales	Next month	Average discount at or below 5.5 percent of list
2	Variable cost per unit rose by 0.60 dollars	Re-tender the two largest freight lanes and report the saving	Vice President, Procurement	Within 60 days	Cost to serve per order at or below 96.00 dollars
3	Revenue of 20.0 million dollars sits in accounts below the contribution floor	Introduce a minimum order value and a delivery charge for those accounts (Section 4)	Chief Commercial Officer	Board paper in 30 days	Share of revenue below the floor at or below 3 percent
4	Fixed costs exceeded budget by 0.40 million dollars	Hold hiring in support functions until the run rate is explained	Chief Financial Officer	Next month	Fixed costs at or below 38.0 million
5	The cash conversion cycle is 15 days above target	Name an owner for each of the three days measures and report weekly	Chief Financial Officer	Within 14 days	Owners named, first weekly report issued

Source: author's template, completed with the fictional example. Each action has one owner, one date and one measure, and the first item of the next monthly review is the status of every action on the list.

4. Executive case study and decisions

The company (fictional). Calder Distribution, whose economics are set out in Section 3, is a fictional distributor of industrial supplies with revenue of 400.0 million dollars, an operating profit of 26.0 million and a return on invested capital of 15.4 percent against a cost of capital of 10 percent. All figures in this case are fictional, and the company, the segments and the people have no relation to any real ones. For three years the board has asked why profit does not grow in proportion to revenue, and the chief executive has proposed a program to grow the occasional and online segment and the small accounts, which report the two highest gross margins in the company, 30.0 and 27.6 percent, with marketing spending and promotional pricing. The CFO has been asked to bring a recommendation to the board meeting in thirty days.

The trigger. The cost to serve analysis of Exhibit 25 shows that the occasional and online segment loses 2.82 million dollars a year after the cost of the activities it causes, that the small accounts earn a contribution of only 8.6 percent of revenue, below the share needed to carry the fixed costs, and that the strategic and core accounts earn about 19.5 to 19.8 percent. The chief executive does not dispute the arithmetic but fears that raising prices or minimum order values in the tail will drive away customers who may later buy more, and the head of operations warns that the cost savings from serving fewer small orders will not appear unless routes and shifts are changed. The facts are collected in Exhibit 31.

Exhibit 31 **Calder Distribution: Facts of the Case (Fictional)**

Item	Fictional fact
Revenue, gross profit and operating profit	400.0 million dollars, 96.0 million (24.0 percent) and 26.0 million (6.5 percent)
Cost to serve and fixed costs	32.0 million dollars, treated as variable with activity, and 38.0 million, treated as fixed
Occasional and online segment	6,000 customers, revenue 20.0 million, gross margin 30.0 percent, cost to serve 8.82 million, contribution (2.82) million
Small accounts	2,500 customers, revenue 70.0 million, gross margin 27.6 percent, cost to serve 13.31 million, contribution 5.99 million
Core and strategic accounts	Contribution 31.61 and 29.22 million dollars, or 19.8 and 19.5 percent of revenue
Option B assumptions	Small accounts: price up 4 percent, volume down 12 percent. Online: price up 6 percent through a delivery charge and a minimum order, volume down 30 percent. Loss of 0.5 percent of core contribution
Option C assumptions	Exit the online segment and the smallest 1,000 small accounts (10 percent of small account revenue, 25 percent of its cost to serve). Loss of 2 percent of core contribution
Cost removal	Cost to serve is assumed to fall in proportion to activity. The stress test below assumes that only half of it falls
Decision date	Board meeting in thirty days

Source: fictional case, using the cost to serve model of Section 3. Contribution is gross profit less cost to serve. The attrition, price and spillover assumptions are management judgments and not forecasts. Figures in parentheses are negative.

The options. Three courses are open. Option A leaves the commercial model as it is and carries on, which keeps operating profit at 26.0 million. Option B reprices and redirects the tail, with a delivery charge and a minimum order in the online segment and a price rise for the small accounts, accepting some loss of volume. Option C withdraws from the segments that lose money, by exiting online and the smallest of the small accounts. For each option the finance team computes the change in contribution in each affected segment, the spillover onto core accounts, and the effect on operating profit, with the results in Exhibit 32. Option B raises operating profit by 3.27 million dollars to 29.27 million, and Option C by 3.59 million to 29.59 million. Option B also releases 1.40 million of receivables, and Option C 2.32 million, as customers with their balances leave. On base assumptions, Option C is better by 0.32 million dollars.

Exhibit 32 **Effect of Each Option on Operating Profit, Base Assumptions (Fictional)**

Option	Small accounts (millions)	Online segment (millions)	Core spillover (millions)	Change in operating profit (millions)	Operating profit (millions)	Cash from receivables (millions)
A. Continue as now	None	None	None	None	26.00	None
B. Reprice and redirect the tail	1.75	1.69	(0.16)	3.27	29.27	1.40
C. Exit the tail	1.40	2.82	(0.63)	3.59	29.59	2.32

Source: fictional case, computed in Python. Option B for small accounts: gross profit 19.3 times 0.88 plus revenue 70.0 times 0.88 times 4 percent, less cost to serve 13.31 times 0.88, compared with a base contribution of 5.99. The online segment follows the same method with 30 percent loss of volume and a 6 percent price rise. Figures in parentheses are negative.

The stress test and regret. The ranking on base assumptions favors the exit, and a CFO who stopped there would recommend it. The assumptions that carry the result are, however, the least certain ones, and Exhibit 33 tests them one at a time and together. If attrition in the tail is twice as high as assumed, Option B gains 2.71 million and Option C is unchanged, since it has already exited. If the spillover onto core accounts is three times as high, Option B gains 2.96 million and Option C only 2.33 million. The decisive test is the third, in which only half of the cost to serve is actually removed, as the head of operations warned. Option C then loses 2.49 million, because the gross profit leaves with the customers and half of the cost stays behind, while Option B still gains 1.15 million, since most of its gain comes from price. With all three stresses together, both options lose money, B 1.85 million and C 3.75 million, and doing nothing would have been better. The last row shows the largest regret of each option, which is the most that the option falls short of the best course in any scenario: 3.59 million for A, 1.85 million for B and 3.75 million for C.

Exhibit 33 Stress Test and Regret by Option (Fictional)

Scenario (change in operating profit, millions of dollars)	A. Continue	B. Reprice and redirect	C. Exit the tail	Best option
Base assumptions	None	3.27	3.59	C
Attrition in the tail twice as high	None	2.71	3.59	C
Spillover onto core accounts three times as high	None	2.96	2.33	B
Only half of the cost to serve is actually removed	None	1.15	(2.49)	B
All three stresses together	None	(1.85)	(3.75)	A
Largest regret across the scenarios	3.59	1.85	3.75	B

Source: fictional case, computed in Python. Regret is the difference between the best option in a scenario and the option shown. In the fourth scenario half of the cost to serve that each option would remove stays in the cost base. The scenarios apply the same stresses to both options as described in the text. Figures in parentheses are negative.

The recommended path. The recommendation is Option B now, with a decision rule that moves selected accounts to Option C after two quarters. The reasoning has five parts. First, on base assumptions the exit is better by only 0.32 million dollars, and Option B captures nearly all of that with no irreversible step. Second, Option B has the smallest largest regret, 1.85 million against 3.75 million for the exit, and it is the only option that does not lose money if the cost savings prove to be only half real. Third, the spillover onto core accounts, the assumption that no one can estimate well, is small under Option B and larger under Option C, and a lost customer relationship cannot be restored at the price at which it was lost. Fourth, a pricing test yields information that an exit does not, since the response of small accounts to a delivery charge will show within two quarters which accounts value the service. Fifth, the plan names an owner for the cost, the head of operations, who will be accountable for removing it through route and shift changes, and its progress will be shown each month by cost to serve per order.

The decision rule should be recorded in the board paper so that the later choice follows from an agreement made in calm conditions. After two quarters, an account that remains below the contribution floor after the new charges is moved to self service, to a minimum order that it does not meet, or to exit, and the review of that list becomes a standing item of the monthly operating review. The CFO should also record what would change the recommendation: evidence that the loss of volume is much greater than 30 percent in the online segment would favor a faster exit from it, and evidence that the cost of serving cannot be removed would favor keeping the volume and raising prices further. The chief executive's growth program is not rejected. It is

deferred until growth in a segment adds contribution, which is a condition that the scorecard can test.

What a weaker answer misses. A weaker answer reads the gross margin by segment and concludes that the company should grow the tail, which misses that gross margin omits the cost of the activities that the tail causes. A second weak answer sees the loss in the online segment and exits at once, which misses that the saving exists only if the cost is removed, that the recommended exit loses 2.49 million when half of the cost remains, and that the gross profit leaves immediately while the cost leaves slowly. A third looks at cost to serve per order, in which the tail is not the highest, and misses that the cost must be set against revenue per order. A fourth reports the result without an owner, a date or a measure, and the program fades by the following quarter. A fifth treats the probabilities of customer loss as facts and does not run the stress test. A strong answer states the decision, the numbers, the stress and the regret, the conditions that would change it and the owners on a single page, and says plainly which inputs are management judgments.

5. Boardroom discussion and key takeaways

A board that approves a plan approves, in effect, a set of operating targets, and it is entitled to ask how each was derived, who owns it and how the company will know in time if it is slipping. Module 9 describes how the board and its committees oversee management, and the audit committee will have a particular interest in the integrity of the definitions and the data behind the scorecard, which Module 3 addresses. The questions in Exhibit 34 may be asked by any director, and the CFO should be ready to answer each with evidence and without defensiveness.

Exhibit 34 Questions Directors Should Ask and How the CFO Should Be Ready to Answer

Question a director should ask	What a ready CFO can say
What does one customer, one order or one unit earn after the costs that vary with it, and how long does it take to recover what we spent to win it?	The unit economics with the definitions, the channel and cohort views, and the sensitivity to churn (Exhibit 11, Exhibit 13, Exhibit 14)
Which measures do we manage by, and for each one, what decision does it inform and who owns it?	The tests of a good measure, the KPI tree with owners and the list of pathologies watched (Exhibit 2, Exhibit 15, Exhibit 4)
Which operating drivers move return on capital the most, and where is management spending its effort?	The value of one unit of each driver, and the dashboard with its status rule (Exhibit 16, Exhibit 17)
How much cash is tied up in receivables, stock and payables, what could be released, and what would it cost us with customers and suppliers?	The working capital plan, the cash released, the return effect and the price of the trade offs (Exhibit 19, Exhibit 20)
Where is the constraint in our main processes, and are we spending money anywhere else?	The constraint analysis and the comparison of options by effect on throughput (Exhibit 21, Exhibit 22)
Which customers and products make money after the cost of serving them, and how are discounts controlled?	The cost to serve model, the segment table and the discount rules by break even volume (Exhibit 25, Exhibit 26)
When results miss the plan, how do we learn why, and what happens next?	The variance bridge, the action log and the monthly review agenda (Exhibit 29, Exhibit 30, Exhibit 36)
What would warn us early that an operating risk is becoming a loss?	The key risk indicators linked to the scorecard, with owners and escalation (Exhibit 10, Exhibit 35)

Source: author's synthesis, stated from the author's own knowledge. The exhibits cited are those of this module and use fictional companies.

Key takeaways. Six lessons stand out. The first is that the economics of one unit should be computed before the totals are celebrated, because a business can grow every aggregate figure while losing money on the units that drive its growth, and averages, whether of customers, channels or segments, hide the very differences that decide where to invest. The second is that a measure earns its place by being tied to a decision, controllable by its owner, timely, defined in writing and hard to game, and that Goodhart's law is a fact of organizational life and not an exception. The third is that a performance system consists of strategy, goals, metrics, targets, cadence, accountability and incentives, so that a failure in any one defeats the others. The fourth is that working capital and productivity are fields in which finance can show its value in dollars, provided that the CFO prices the trade offs and directs improvement at the constraint, since an hour saved anywhere else adds only stock. The fifth is that customer profitability after cost to serve often reverses the picture given by gross margin, and that the savings it promises are real only if somebody removes the cost. The sixth is that insight has value only when it ends in a decision with an owner and a date, and that the monthly review should begin with the list of actions from the last one.

Common mistakes. The most frequent mistakes are to build a dashboard before choosing the decisions it serves, to give an owner a number that the owner cannot influence, to set targets by adding a percentage to last year, to count savings that would have occurred anyway, to extend payment terms without asking what suppliers will charge for them, and to use blended averages in the board paper because the detail is inconvenient. The remedy in each case is to return to the tests of a good measure and the five elements of the review, and to ask of every number who owns it, what it is worth, and what will be done differently if it moves.

6. The executive artifact: a KPI tree and scorecard, and a monthly operating review agenda

The executive artifact has two parts. The first is a KPI tree and scorecard for a company, with an owner and a target for each measure, a definition of the amber and red thresholds, a source and a frequency, and the decision that the measure informs. Exhibit 35 shows the completed example for the fictional Calder Distribution, built from the tree of Section 3. The reader should complete the same table for the reader's own company, starting with the measures that sit at the top of the tree and working down only as far as the decisions require. The second part is the agenda for the monthly operating review, with the time given to each item, a lead, the question that the item must answer and the output that it must produce, shown in Exhibit 36.

Exhibit 35 Executive Artifact, Part 1: KPI Tree and Scorecard With Owners and Targets (Fictional Calder Distribution)

Measure (level in the tree)	Decision it informs	Owner	Target	Red beyond	Source and frequency
Return on invested capital (percent) (1 to 2)	Where capital is invested or withdrawn	Chief Financial Officer	19.8 percent	Below 17.8 percent	General ledger and balance sheet, monthly
Revenue retained from existing accounts (percent) (3)	Which accounts to protect and which to review	Chief Commercial Officer	97.5 percent	Below 87.8 percent	Billing and customer relationship system, monthly
Gross margin (percent) (4)	Pricing, discount authority and mix	Chief Commercial Officer	24.6 percent	Below 22.1 percent	General ledger and quote system, monthly
Average discount off list price (percent) (4)	Discount approvals and training	Head of Sales	5.5 percent	Above 6.1 percent	Quote system, weekly

Measure (level in the tree)	Decision it informs	Owner	Target	Red beyond	Source and frequency
Cost to serve per order (dollars) (4)	Minimum order, delivery charges and routing	Vice President, Operations	96.00	Above 105.60	Cost to serve model, monthly
Orders delivered on time and in full (percent) (3)	Carrier choice, warehouse staffing and customer escalation	Vice President, Logistics	95.0 percent	Below 85.5 percent	Transport system and customer receipts, weekly
Order lines shipped per warehouse labor hour (4)	Shift staffing and process changes	Vice President, Logistics	26.0	Below 23.4	Warehouse system and timekeeping, weekly
Revenue in accounts below the contribution floor (percent) (4)	Which accounts to reprice or exit	Chief Commercial Officer	3.0 percent	Above 3.3 percent	Cost to serve model, quarterly
Days sales outstanding (4)	Credit limits and collection effort	Corporate Controller	42	Above 46	Receivables ledger, weekly
Days inventory outstanding (4)	Stocking levels and clearance of slow stock	Vice President, Supply Chain	49	Above 54	Inventory system, weekly
Days payable outstanding (4)	Supplier terms and payment timing	Vice President, Procurement	41	Below 37	Payables ledger, monthly
Cash conversion cycle (days) (2)	Whether the cash plan is on course	Chief Financial Officer	50	Above 55	Balance sheet, monthly

Source: fictional company, with actual values and the status rule shown in the dashboard exhibit. Red beyond is 10 percent worse than the target, the threshold used in the status rule. Targets are those that together imply the target ROIC. The reader should complete the same table for the reader's own company.

Exhibit 36 Executive Artifact, Part 2: Monthly Operating Review Agenda (120 Minutes)

Clock (minutes)	Item	Minutes	Lead	Pre read and the question to answer
0 to 10	Opening, decisions required and actions closed since last month	10	Chief Executive Officer	Actions from the last review, with status. Which actions are closed, late or blocked, and which decisions are needed today?
10 to 25	Cash and the cash conversion cycle	15	Chief Financial Officer	Cash conversion cycle, owners of DSO, DIO and DPO. Are the three owners on course to the targets, and what blocks them?
25 to 45	Growth: retention, pricing and discounts	20	Chief Commercial Officer	Retention, discount exceptions, average discount and the pipeline. Is margin being protected in the quote, and which accounts are at risk?
45 to 65	Operations: service level, productivity and constraint	20	Vice President, Operations	On time in full, lines per labor hour, the constraint. Where is the constraint this month, and is anything else being improved at its expense?

Clock (minutes)	Item	Minutes	Lead	Pre read and the question to answer
65 to 85	Cost to serve and customer profitability exceptions	20	Chief Financial Officer	Cost to serve per order, accounts below the contribution floor. Which accounts need repricing, a minimum order or exit, and is the cost actually being removed?
85 to 105	Variance explanation and forecast revision	20	Chief Financial Officer	Variance bridge of price, volume, cost rate and fixed cost. What explains the gap to plan, and does the forecast need to change?
105 to 115	Risk indicators and escalations	10	Chief Information Officer and Chief Risk Officer	Key risk indicators and incidents. Which indicator has crossed its threshold, and who has been told?
115 to 120	Decisions, owners and dates read back	5	Chief Executive Officer	The list of decisions with owner and date. Does every decision have one owner, one date and one measure?
Total	Eight items	120	Chair: Chief Executive Officer	The finance team circulates the pack two working days before, and owners present their own measures without slides

Source: author's template, stated from the author's own knowledge. Durations total 120 minutes. The principle of a monthly review in which owners explain shortfalls from a dashboard is described by the Nestle CFO in McKinsey (October 23, 2025). The time given to each item should be adjusted to the company.

Rules for the review. Five rules keep the meeting useful. The pack is circulated two working days before, so that the meeting is spent on decisions and not on reading. The owner of each number presents it, and explains the cause of any miss before the finance team does. A measure that is red for two months in a row requires a written recovery plan with a date. No new measure is added without one being retired, and no action is closed without evidence of the result it was to achieve. The CFO records the decisions in the action log during the meeting, reads them back in the last five minutes and issues them within a day.

7. Research and Perspectives from the Leading Firms

The publications below were found by search, and each page was opened before it was described. Where a page returned only part of its content, or did not state a date, an author or a figure, the description says so and states only what was returned. The models of Sections 3 and 4, namely the unit economics, the KPI tree, the working capital improvement, the throughput example, the cost to serve model, the discount table, the retention example, the operating leverage, the variance bridge and the tail decision, are the author's own and not taken from these pages. Statistics are given with their source and date, and none is offered as a benchmark for a particular company. The table lists seven pages in all, three from firms that sell advice, one from a professional services firm serving the middle market, one from an opinion piece by two advisers of one of those firms, one from a podcast transcript published by a consulting firm and one from a government statistical agency, and the reader should weigh each accordingly.

Exhibit 37 Publications Used in This Module

Source	Title and URL	What it says
KPMG (US)	KPMG, Working capital trends in the US market (published October 17, 2025, displayed October 30, 2025, last modified February 2, 2026; no byline). https://kpmg.com/us/en/articles/2025/working-capital-trends-us-market.html	Reports, for more than 2,700 US public companies, a cash conversion cycle of 83 days in 2020, 90 in 2023 and 89 in 2024, with inventory days of 80 in 2024 against 73 in 2020, receivables days of 51 and payables days of 42, and gives the cycle by sector (healthcare 146 days, information technology 118, industrials 102) and by company size (120, 100 and 65 days). The page did not state whether the figures are medians or averages, or any dollar amount of cash tied up
KPMG (US)	KPMG, The leadership advantage in cash flow: Turning cash management into a strategic asset (undated, with notices for 2024 and 2025; authors not stated). https://kpmg.com/kpmg-us/content/dam/kpmg/pdf/2025/the-leadership-advantages-in-cash-flow.pdf	Argues that analysts use ROIC and working capital measures to judge how a company balances growth, liquidity and profitability, lists levers (aligned metrics and accountability, supply chain, inventory control, payment terms, receivables and payables operations) and recommends a dedicated leader who links incentives to working capital measures. It gave no figures
McKinsey	McKinsey, How Nestle's CFO sharpens focus across a global portfolio (podcast, edited transcript, October 23, 2025). https://www.mckinsey.com/capabilities/strategy-and-corporate-finance/our-insights/how-nestles-cfo-sharpens-focus-across-a-global-portfolio	Describes a monthly review of about 40 KPI areas on a data dashboard, with KPI owners explaining underperformance, a shift toward leading indicators, a cost savings target tied to funding growth with a refusal to count savings that would have happened anyway, and a priority on aligning KPI definitions in ERP data. It is an interview and reports no results of the approach
Deloitte (US)	Deloitte, Optimizing Working Capital, page headed Manage Working Capital to unlock liquidity for your business (no date; footer 2026). https://www.deloitte.com/us/en/services/consulting/services/working-capital-optimization.html	Describes order to cash, procure to pay and forecast to fulfill cycles and a four phase approach (make it visible, urgent, happen, stick), and gives anonymized cases, including $5.4 million of opportunities for a $60 million software company with $2.8 million realized over three months and $42 million realized over four months by a $2 billion manufacturer. The method for the figures was not stated, and the page promotes the firm's services
Deloitte leaders (in CFO Dive)	Steve Gallucci and Ed Hardy of Deloitte, CFOs face expanded mandate, pressures in a volatile 2026: Deloitte (CFO Dive opinion piece, April 14, 2026). https://www.cfodive.com/news/cfos-face-expanded-mandate-pressures-volatile-2026-deloitte/816558/	Reports from the fourth quarter 2025 CFO Signals survey that confidence of North American CFOs rose to its highest level since 2021, that digital transformation of finance is the top priority for 2026, that 87 percent expect AI to be very or extremely important to finance operations and that nearly half plan to use AI to find cost reduction opportunities, and cites a separate Deloitte report in which 21 percent of finance leaders see tangible value from AI. The sample size and method were not stated

Source	Title and URL	What it says
US Bureau of Labor Statistics	BLS, Productivity and Costs, Second Quarter 2026, Revised (news release USDL 26-1434, September 3, 2026). https://www.bls.gov/news.release/archives/prod2_09032026.htm	Reports for the nonfarm business sector labor productivity up 1.4 percent at an annual rate in the quarter and 2.2 percent over four quarters, output up 2.5 percent and hours up 0.2 percent over four quarters, and unit labor costs up 1.4 percent over four quarters. All quarterly changes are seasonally adjusted
CBIZ	CBIZ, Key Dashboards for Middle-Market CFOs (October 3, 2025; no author named). https://www.cbiz.com/insights/article/key-dashboards-for-middle-market-cfos	Recommends dashboards for financial performance, cash flow including the cash conversion cycle, revenue and margin by segment, operational efficiency (cost per unit or customer, utilization, delivery cycle time) and benchmarking (DSO, DPO, CAC, customer duration and lifetime value). It gave no statistics or targets

Each page was opened and the descriptions follow what the tool returned. A PwC Pulse Survey page dated June 18, 2024 was also opened and is not cited because it predates the 2025 and 2026 window. No publication of EY, Grant Thornton, RSM US, BDO USA, Baker Tilly, Crowe, Forvis Mazars, Moss Adams, CohnReznick, CLA or EisnerAmper was read for this module, and none is cited.

What the research agrees on. The sources differ in kind, from an interview with a chief financial officer to an opinion piece, a government statistical release, two papers of a single firm and two pages that promote services, and they should not be read as one body of evidence. They agree on a few practical points. Cash and working capital deserve a named owner and a link to incentives. A short dashboard, reviewed at a fixed rhythm with owners explaining their own numbers, is the working form of a performance system. Leading indicators are worth building, and definitions should be aligned before analytics are built on them. Finance leaders expect automation and artificial intelligence to matter, and the evidence for realized value in the sources read is thin, which is why Section 3 insists on measurement.

How a CFO can use the research. The KPMG study of working capital supplies a set of questions for the board, such as how the company's days compare on the same definition, but not targets. The McKinsey interview shows a rhythm of review that a company of any size can copy in miniature. The Deloitte case studies are a reminder that realized cash is a fraction of identified opportunity, so that plans should be set on what has been realized. The BLS release supplies the national backdrop against which a company's own productivity can be judged, with the caution that a national average of the whole business sector is not a benchmark for one plant. The CBIZ list is a check on whether a dashboard has the usual categories.

Limits of the evidence. Four cautions apply. The first is that the KPMG data describe United States public companies and their method was not stated on the page, so that they are poor targets for a private company or a company in another market. The second is that the Deloitte pages are written by a firm that sells working capital and finance transformation services, and the case results are anonymized and unverified. The third is that the McKinsey piece is a conversation and not a study. The fourth is that the survey percentages reported in the Deloitte opinion piece come without sample sizes. For these reasons, the module sets targets from the company's own drivers and not from outside averages, and it states plainly which figures are assumptions.

A practice for the reader. A CFO who relies on outside statistics in a board paper should keep a short register of them, with the source, the date, the population described and the definition used, so that a figure that is quoted in one meeting can be compared on the same basis in the next. The register costs little, shows the directors which statements are current, and prevents two common errors: comparing the company's own days measures with an outside figure that was computed in another way, and repeating a survey percentage long after the survey has been superseded. The same register should note which of the company's own figures are measured and which are assumed, since the credibility of a performance system depends on

keeping that line clear.

8. The ten question self assessment

Rate each statement from 1 to 5 using the scale below, and mark one box in each row. The ratings must rest on actual experience or documented evidence, such as a unit economics model you built, a KPI tree you maintain, a working capital plan you delivered, a cost to serve analysis you ran or a variance review you chaired, and not on confidence. A rating of 1 means Unprepared: limited understanding and no meaningful application. A rating of 2 means Developing: conceptual familiarity, relying heavily on others. A rating of 3 means Competent: able to apply the capability independently in conventional situations. A rating of 4 means Advanced: the capability is integrated into strategy and delivers measurable results. A rating of 5 means Future-ready: enterprise wide impact, anticipation of change and the development of others.

No.	Statement of demonstrated capability	1	2	3	4	5
1	I calculate contribution margin, acquisition cost, lifetime value, payback and cohort economics for my business, and I show them by channel or segment and not only as averages.	☐	☐	☐	☐	☐
2	Each measure on my scorecard is tied to a decision, has one owner who controls it, is timely, is defined in writing and is hard to game.	☐	☐	☐	☐	☐
3	I pair each major lagging outcome with leading indicators that I have tested against history, and I watch for gaming, local optimization and other pathologies of measurement.	☐	☐	☐	☐	☐
4	I can draw a KPI tree from economic profit or return on capital to the operating drivers, with an owner and a target for each branch, and I know what one unit of each driver is worth.	☐	☐	☐	☐	☐
5	I run a review cadence from the daily huddle to the annual cycle, with one named owner for every number and decisions read back at the next meeting.	☐	☐	☐	☐	☐
6	I know our DSO, DIO, DPO and cash conversion cycle on a stated definition, I have valued an improvement as cash released and as return, and I have priced the trade offs with customers and suppliers.	☐	☐	☐	☐	☐
7	I know where the constraint lies in our main processes and direct improvement at it, and I measure the productivity effect of automation and artificial intelligence on evidence and not on claims.	☐	☐	☐	☐	☐
8	I have analyzed customer profitability after cost to serve, and I set discount authority and pricing rules from break even volumes.	☐	☐	☐	☐	☐
9	I understand our fixed and variable cost structure and operating leverage, and I use activity based and zero based methods where they fit.	☐	☐	☐	☐	☐
10	I run variance analysis that separates price, volume, cost rate and fixed cost effects, I close the loop with an action list, and I link operating measures to risk indicators.	☐	☐	☐	☐	☐

Total score: _____ out of 50. Ten statements rated from 1 to 5 give a minimum of 10 and a maximum of 50 points. Exhibit 38 gives the proposed interpretation. The scale is that of the source proposal for this program, and the statements are specific to this module.

Status of this module. Module 19 is not one of the five critical modules named in the proposal, which are Modules 1, 5, 9, 10 and 13, so the rule that a score below 30 of 50 blocks the highest designation does not apply to it as proposed. A low score here may nevertheless weaken the effect of a strong score elsewhere, since the capital allocation of Module 5 and the enterprise leadership of Module 13 depend on the operating discipline that this module describes.

Exhibit 38 Proposed Interpretation of the Module 19 Score

Score	Reading	Suggested use
10 to 19	Unprepared	Study the module in full, compute the unit economics and the days measures for your own company on stated definitions, and list the measures you now report with their owners and the decisions they inform
20 to 29	Developing	Draft a KPI tree for your company, test each measure against the five tests, and run one cost to serve or customer profitability analysis on real data
30 to 39	Competent	Set up the monthly review with an action log, value a working capital plan as cash and return, and add a stress test to each major operating decision
40 to 45	Advanced	Run the full cadence from daily to annual, retire measures that no longer inform decisions, and link the scorecard to risk indicators and incentives
46 to 50	Future-ready	Develop successors in operating judgment, share the models and the review practice across the company, and shape the board's view of how performance is measured

These bands are proposed program standards and have not been empirically validated against a broad population of finance executives. Module 19 is not designated a critical module in the proposal.

Development actions by pattern. A single total can hide the pattern behind it, so look at which statements received the lowest ratings. Exhibit 39 suggests three actions for each pattern.

Exhibit 39 Development Actions for Low Score Patterns

Low scores on	Pattern	Three suggested development actions
Statements 1 and 4	Economics gap: growth and effort are directed by averages and totals	1. Build the unit economics, the channel view and the cohort table of Exhibit 11, Exhibit 13 and Exhibit 14. 2. Draw the tree of Exhibit 15 for your company. 3. Compute the value of a unit of each driver as in Exhibit 16
Statements 2 and 3	Measure design gap: measures are chosen by availability and are easily gamed	1. Apply the five tests of Exhibit 2 to every measure you report. 2. Pair each lagging outcome with leading indicators as in Exhibit 3. 3. List the pathologies of Exhibit 4 that you see and name a defense for each
Statements 5 and 10	Cadence and accountability gap: reviews describe the past and actions fade	1. Adopt the rhythm of Exhibit 18. 2. Prepare the variance bridge and action log of Exhibit 29 and Exhibit 30. 3. Run the agenda of Exhibit 36 for three months and read back the decisions each time
Statements 6 and 7	Cash and productivity gap: cash is tied up and effort is spread across steps	1. Compute the days and the cash released as in Exhibit 19, and price the trade offs of Exhibit 20. 2. Map the constraint and test options as in Exhibit 21 and Exhibit 22. 3. Measure an automation benefit on evidence as in Exhibit 23

Low scores on	Pattern	Three suggested development actions
Statements 8 and 9	Customer and cost gap: profit by customer is unknown and discounts are unmanaged	1. Build the activity pools and the segment table of Exhibit 24 and Exhibit 25. 2. Set discount authority from Exhibit 26. 3. Compute operating leverage as in Exhibit 28 and choose among the approaches of Exhibit 9

Source: author's suggestions. The mapping of statements to patterns is the author's proposal, and ratings should rest on experience or documented evidence.

A twelve month plan for the reader. The module is most useful when it is turned into a plan with dates. In the first month the reader should list the measures now reported, with the decision and the owner of each, apply the five tests, and compute the unit economics and the days measures on stated definitions. In the second and third months the reader should draft the KPI tree and the dashboard with a status rule, begin the weekly review of leading indicators, and run a cost to serve analysis on one year of order data. In the fourth to sixth months the reader should set targets from the drivers, agree owners, start the monthly operating review with an action log and test a discount rule against the break even volumes. In the second half of the year the reader should deliver one working capital improvement and one constraint improvement and measure each in cash and throughput, review incentives with the human resources and audit committees using Module 14, and extend the scorecard with key risk indicators. At the end of the year the reader should repeat the self assessment of this section and compare the result with the first, using documents and not impression. The most valuable output of the year is not a model or a dashboard but a habit, namely that each leader arrives at the monthly review knowing the numbers they own, the causes of any gap and the action they propose.

9. Currency check and sources

Currency check: this field changes quickly, and the statistics, survey results and published guidance shown here may already have changed. The pages in Exhibit 37 were opened in October 2026. The following were confirmed on pages read: the KPMG figures on the cash conversion cycle, inventory, receivables and payables days, sector and size (KPMG, published October 17, 2025); the content of the KPMG paper on cash flow; the description of the review rhythm, leading indicators and savings approach in the McKinsey interview of October 23, 2025; the content of the Deloitte page on working capital and its anonymized cases; the Deloitte survey percentages as reported in CFO Dive on April 14, 2026; the BLS productivity release of September 3, 2026; and the dashboards recommended by CBIZ (October 3, 2025). The following come from the author's own knowledge and were not confirmed in a source read: the definitions and formulas of unit economics, CAC, LTV, payback and cohorts; the rule of thumb of an LTV to CAC ratio of three; Goodhart's law and its attribution to Charles Goodhart and Marilyn Strathern; the balanced scorecard of Robert Kaplan and David Norton and the OKR method as described by John Doerr; the Theory of Constraints of Eliyahu Goldratt and the five focusing steps; the descriptions of lean and continuous improvement; the method of activity based costing, zero based budgeting and target costing; the break even volume formula for discounts; the annualized return from early payment discounts; the formula for operating leverage and the variance analysis method; and the review cadence and the agenda. The companies and all figures in the exhibits are fictional, and all sums, ratios, percentages, probabilities and counts were computed in Python and checked by assertion. The benchmarks quoted from outside sources describe other populations and are not targets for any company. This module is educational and is not accounting, tax, legal, employment or securities advice. Readers must consult qualified professionals in accounting, tax, legal and other relevant services before acting, and matters such as the accounting for revenue, customer incentives, inventory and restructuring, the tax effect of changes in pricing or structure, and the employment law that governs targets, incentives and the use of data on individual employees in particular require the advice of qualified advisers. The scorecards, agendas, checklists and formulas shown here are proposed program standards and examples, not rules of any regulator, and each company must adapt them to its business, its agreements and the law of the places in which it operates.

Sources: KPMG, Working capital trends in the US market (2025); KPMG, The leadership advantage in cash flow (undated, 2025 notice); McKinsey, How Nestle's CFO sharpens focus across a global portfolio (October 23, 2025); Deloitte, Optimizing Working Capital (undated page); Steve Gallucci and Ed Hardy of Deloitte, CFOs face expanded mandate, pressures in a volatile 2026, CFO Dive (April 14, 2026); US Bureau of Labor Statistics, Productivity and Costs, Second Quarter 2026, Revised (September 3, 2026); CBIZ, Key Dashboards for Middle-Market CFOs (October 3, 2025). Titles, dates and URLs are as shown in the exhibit of Section 7.