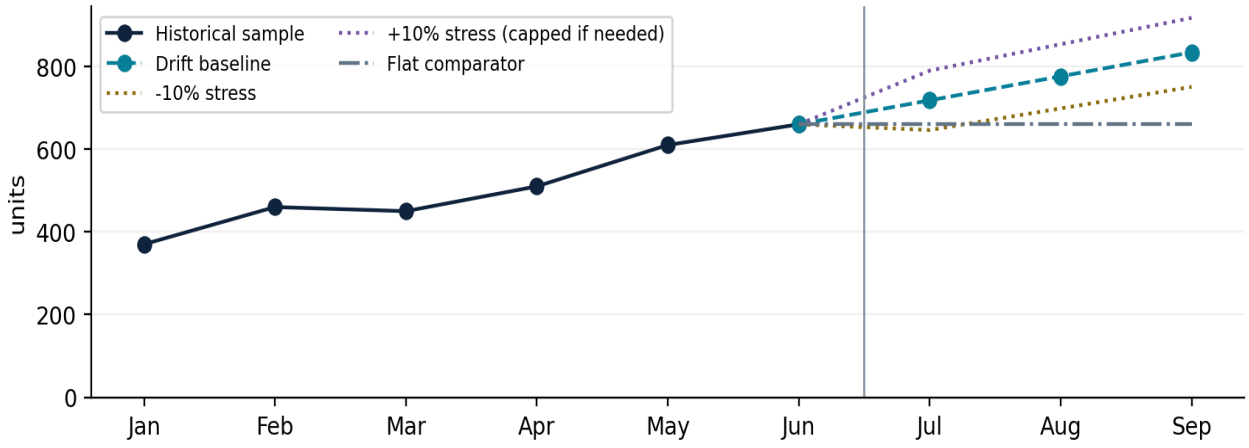
Inventory & replenishment

Forecasting & Trend Projections

Projection cut-off: 30 June 2026 | July-September planning illustration. This is a worked historical example, not a current forecast. Synthetic data; no customer records or actual post-June outcomes are used.

Planning question

What usage range should replenishment planning accommodate?



Projection summary

June actual	Average monthly change	Q3 drift baseline
660	58	2,328

The drift baseline continues the January-June average absolute monthly change. The flat comparator holds June constant. Stress lines apply an assumed +/-10% adjustment; they are not probability bounds.

What can be used for planning

Compare usage scenarios with item-level stock, receipts and lead times. Opening balances are needed to project closing stock; do not infer them from usage alone.

All inputs are synthetic. Baseline extrapolation is a transparent example method, not a validated demand model or a performance guarantee.

Method & historical checks

Reproducible baseline

Average monthly change = (June - January) / 5 = (660 - 370) / 5 = 58 units per month. Raw horizon-h baseline = June + h x average monthly change, for h = 1, 2, 3.

Negative values are bounded at zero. For the hotel examples, room-night projections are also bounded by known available room-night capacity. Bounds are stated explicitly; capacity is unknown for the other examples.

Three chronological one-step checks

Train on January-March and predict April; extend through April and predict May; extend through May and predict June. At each origin, both methods use only data available before the predicted month. Errors are absolute differences in the KPI unit.

Test month	Actual	Flat	Drift	Flat error	Drift error
Apr	510	450	490	60	20
May	610	510	556.7	100	53.3
Jun	660	610	670	50	10

Diagnostic	Flat comparator	Drift baseline
Mean absolute error (MAE)	70	27.8

How to interpret the check

Drift MAE is lower than the flat comparator in these three one-step tests. This is a small historical diagnostic, not evidence of durable superiority. The drift example is not selected or tuned by this result.

Only three forecast errors are available. There is no independent multi-quarter test, no validated seasonal pattern and no three-month-ahead accuracy estimate. A real scope requires more history and horizon-appropriate validation.

KPI definition

Monthly issued units for the comparable synthetic inventory set. June issues are 660; stock valuation and availability are separate measures.

Scenario assumptions & decisions

July-September values (units)

Period	-10% stress	Drift base	+10% stress	Flat comparator
Jul	646.2	718	789.8	660
Aug	698.4	776	853.6	660
Sep	750.6	834	917.4	660
Q3 total	2,095.2	2,328	2,560.8	1,980

Tables show one decimal where needed; monetary summary values are rounded to whole EUR. Fractional counts are planning averages, not partial completed events. Calculations and totals use unrounded values.

Meaning of the stress cases

Lower stress = 90% of the bounded drift baseline; upper stress = 110%, subject to known hotel capacity. The 10% adjustment is an illustrative planning choice. It is not estimated from forecast errors, assigned a likelihood or presented as a confidence interval.

Industry / area assumptions

Comparable units and item coverage are assumed. Stock issues are a usage proxy and may differ from unconstrained demand.

Proposed actual-versus-plan review

When July actuals are available, reconcile the KPI definition and reporting cut-off first. Record actual minus baseline and its percentage of baseline. If actuals sit outside the illustrative stress cases, investigate the driver and revise the assumptions; this is a proposed planning trigger, not a statistical anomaly rule.

Repeat the calculation with each accepted new period, compare the drift and flat baselines, and keep a dated log of assumptions and revisions. No post-June actuals are supplied here, so actual forecast performance is not claimed.

Source and scope

ReTriev dashboard sample data: related sales, finance and operating datasets

Forecasting setup is optional and scoped to the selected KPI and feasible history. Predictive machine learning, cash forecasting, causal attribution and recurring updates are not implied by this example.