

From Budget Control to Signal-Based Finance

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Most organizations are obsessed with budgets and forecasts, not because they are accurate, but because they create the feeling of control. In a complex, uncertain reality, the budget functions as a cognitive anchor. It turns ambiguity into numbers, assigns ownership, and creates the comforting illusion that the future is manageable, if only we plan hard enough.

The problem is not that budgets are wrong. The problem is that reality does not care.

When reality inevitably diverges from the plan, organizations rarely respond by questioning the underlying economic trajectory. Instead, the forecast is adjusted. Deviations are explained, assumptions revisited, external factors cited. The system absorbs the shock by rewriting the narrative. Control becomes retrospective storytelling, and drift accumulates quietly because it is rationalized rather than confronted.

In intensive care, doctors do not manage patients against the original treatment plan. They continuously monitor heart rate, oxygen saturation, blood pressure, and organ function. If vital signs move outside tolerance, intervention is immediate, even if the treatment plan was looking sound an hour earlier. No doctor explains away falling oxygen levels by adjusting yesterday's assumptions. Control is anchored in live signals, not in plans or intent.

Finance does the opposite. Performance is monitored through the budget, and emerging stress is interpreted through the lens of plan variance. Early signals, pricing erosion in specific segments, working capital friction by customer cluster, structural cost creep, often remain invisible because they do not map cleanly onto a budget line.

Budgets are structurally lagging instruments. They are effective at coordinating intent, priorities, and resource allocation, but they are inherently weak at detecting emerging risk. This is not a cultural failure. It is an architectural one. The real question, therefore, is not how to make budgets better, but how to move beyond plan-centric control.

This is where AI can change the discussion. Not as a forecasting tool, and not as a faster reporting engine, but as a continuous pattern recognition layer across operational and financial data. AI makes it possible to detect anomalies, behavioral shifts, and emerging fault lines without first asking how they relate to the budget. It allows finance to observe the economic engine directly, rather than through a planning abstraction.

A concrete example from my own experience could make this tangible.

For four years I was in the Board of Eurailscout. Eurailscout operated trains packed with measurement equipment that continuously monitor the rail network. Data flowed into a central platform where AI detected small deviations long before they became

visible defects. The logic was simple but powerful: continuous, system-wide monitoring of infrastructure, not periodic inspection against a plan. Their services covered the full operational reality of the railway system: track geometry, signaling, rail condition, overhead lines, surroundings and switches. Small deviations were identified early and reported centrally, allowing the rail operator to intervene precisely or adjust its maintenance schedules, long before failure occurred.

This is the blueprint finance should follow. Not focusing digital transformation on better budgets or faster reporting, but on continuously monitoring the full economic system, products, services, customers, costs, and working capital, using AI to surface weak signals early, independent of the plan.

That inevitably leads to the uncomfortable question: do we still need budgets?

The answer is likely yes, but not as the operating system of control. Budgets should define intent and allocation. Control should be anchored in real-time signals, tolerance thresholds, and trajectory risk, with the budget as a reference point, not the arbiter of truth. The next evolution of finance is not budget less chaos. It is a shift from plan-centric reassurance to signal-driven control. From explaining deviation to acting on it. From defending models to confronting friction.

AI does not remove the need for judgment. It restores it, by forcing finance to confront reality earlier than comfort allows.