The FB Fraud Auditor's Handbook

A Practical Guide to Key Ratios and Red Flags

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Foreword

I recall a case involving a well-regarded regional food distributor, a company celebrated for its consistent, predictable returns. For years, its financial health seemed unshakable. The fraud, when we found it, was not a sudden, dramatic event, but a slow, creeping decay hidden beneath the veneer of stability. The perpetrator was a long-trusted logistics manager who had exploited an outdated inventory system to run a "ghost" distribution network, diverting prime goods and covering his tracks with manipulated spoilage reports.

The initial red flag was not a glaring error, but an anomaly that seemed too small to matter: a slight but persistent increase in the **Inventory Spoilage Level**, coupled with an **Inventory Turnover Ratio** that defied logic for those specific goods. It was this small tear in the fabric of their "stable" operations that, when pulled, unraveled a multi-year, multi-million dollar fraud scheme.

That experience solidified a core principle for me: stability is not a shield against fraud; it is merely a different type of camouflage. This guide is born from that principle. It is designed to equip you with the forensic mindset needed to look past the surface of stability and identify the subtle inconsistencies that often signal deeper issues.

An Introduction from the Field

With over two decades of experience leading risk management and internal audit functions across multiple countries, I've seen firsthand how stability can breed complacency. The most complex frauds I've uncovered were not in volatile startups, but in established, stable companies where trust was high and scrutiny was low. This guide codifies the approach I've applied when establishing audit functions and investigating financial irregularities. It's about knowing where to look and what questions to ask to see the story unfolding beneath the surface.

Guiding Principles for This Assessment

This guide serves as a foundational set of principles for your preliminary assessment. The ratios within are designed to act as a metal detector: they will signal potential anomalies, but further investigation is always required. As you approach this work, keep these core professional principles at the forefront:

- ☑ **Maintain Professional Skepticism:** Don't accept answers at face value. Always ask "why?" and "how do you know?". Trust, but verify through independent evidence.
- ☑ **Understand the Business Context:** Numbers without context are meaningless. Before you analyze a ratio, understand the business process that generates it.
- ☑ **Leverage Technology:** Manual sampling is no longer sufficient. The modern auditor must think like a data scientist. Your ability to extract, transform, and analyze 100% of transactions is paramount.
- ☑ **Collaborate and Escalate:** Your greatest resource is your team and leadership. Discuss anomalies to gain a fresh perspective, and follow a strict protocol for escalating confirmed findings.

Financial Indicators of Potential Fraud

The numbers on a financial statement tell a story. When I see sudden, illogical deviations from historical trends or industry benchmarks, I pay close attention. These are often the first tracks left by a fraudster.

Table 1: Financial Ratios as Fraud Indicators

Financial Ratio	Formula	Ideal Benchmark & Meaning of Deviation
Gross Margin %	$\frac{\text{Revenue} - \text{COGS}}{\text{Revenue}}$	**Benchmark:** Stable and consistent. **Higher:** Suspicious (fictitious revenue, understated COGS). **Lower:** Can indicate unrecorded sales, rising costs.
Days Sales Outstanding	$\frac{\text{Accts. Receivable}}{\text{Revenue}} \times \text{Days}$	**Benchmark:** Very low and stable. **Higher:** Red flag (fictitious sales, lapping schemes).
Inventory Turnover	$\frac{\text{COGS}}{\text{Average Inventory}}$	**Benchmark:** Industry-specific (e.g., 4-8x/month). **Lower:** Red flag (obsolete/overstated inventory). **Higher:** Can indicate inventory theft expensed via COGS.
Cash Flow to Net Income	$\frac{\text{Cash Flow from Ops}}{\text{Net Income}}$	**Benchmark:** Close to 1.0 over time. **Lower:** Red flag ("paper profits", aggressive accounting).

Supervisor's Note for Analysis

Gross Margin: Don't just accept a "good" margin. Use analytics to compare margin trends across all locations. Scrutinize the General Ledger for large, manual journal entries to COGS at period-end.

DSO: Request an aged receivables report. Who are the oldest debtors? Are they legitimate? For an F&B group, scrutinize inter-company receivables.

Inventory Turnover: This is where technology is a game-changer. Recommend using ETL scripts within their ERP (SAP, Dynamics 365) to detect irregular inventory movements in real-time.

Leverage and Covenants: Always obtain loan agreements. Scrutinize debt covenants. Is the company close to breaching a ratio? This pressure is a powerful motivator for fraud.

Additional Ratios for Consideration

- **Quick Ratio (Acid-Test):** $\frac{\text{Current Assets} - \text{Inventory}}{\text{Current Liabilities}}$. A sudden drop can indicate siphoning of cash/receivables.
- **Debt-to-Equity Ratio:** $\frac{\text{Total Liabilities}}{\text{Shareholders' Equity}}$. A high or increasing ratio reflects heightened financial pressure.

Operational Indicators of Potential Fraud

While financial statements can be manipulated from the top down, operational fraud is often a ground-up problem. It happens in the kitchens and at the registers. These schemes are harder to spot on a balance sheet.

Table 2: Operational Ratios as Fraud Indicators

Operational Indicator	Formula	Ideal Benchmark & Meaning of Deviation
Food Cost Variance	Actual Food Cost % - Theoretical Food Cost %	**Benchmark:** Close to zero. **Higher:** Red flag (theft, waste, unrecorded comps).
Void/Discount Ratios	$\frac{\text{Value of Voids}}{\text{Gross Sales}}$	**Benchmark:** Set by policy; benchmark employees against peers. **Higher:** Red flag (theft, collusion).
Inventory Spoilage Level	$\frac{\text{Cost of Spoilage}}{\text{Purchases}}$	**Benchmark:** Stable and low (e.g., < 4-10%). **Higher:** Red flag (concealing theft).
Supplier Concentration	% of spend with top 5 suppliers	**Benchmark:** Stable, diversified base. **Lower (many new vendors):** Red flag (fictitious vendors, kickbacks).

Supervisor's Note for Analysis

Voids/Discounts: Move beyond simple sorting. Use Python or analytics tools to process 100% of transactions. Flag outliers based on multiple variables: employee, time of day, cash vs. card.

Spoilage: Cross-reference spoilage logs with inventory data. High spoilage for long-shelf-life items makes no sense and could indicate theft.

Supplier Anomalies: Analyze the vendor master file for duplicate names with different bank accounts, or vendor addresses matching employee addresses. Apply Benford's Law analysis to payment data to identify fabricated amounts.

Additional Ratios for Consideration

- **Labor Cost Percentage:** $\frac{\text{Total Labor Cost}}{\text{Total Sales}}$. Unusually low % could indicate off-the-books labor; high % could mask ghost employees.
- **Average Check Size:** $\frac{\text{Total Sales}}{\text{Number of Transactions}}$. A sudden decrease for a specific employee might indicate under-ringing of sales.

Case Study: The Inflated Ingredient Scheme

This case study illustrates how combining financial and operational analysis can uncover a sophisticated fraud scheme hidden within a stable company.

The Situation

"Gourmet Provisions Inc." (GPI), a supplier of premium ingredients, showed stable revenues and consistent gross margins for three years, despite industry-wide price inflation. A routine audit was initiated to review procurement and inventory controls.

Step 1: The Financial Anomaly (The Red Flag)

The first point of analysis was the **Gross Margin Percentage**. While management was proud of its stability, our team viewed it with professional skepticism. How could margins remain flat when the market cost of their core products had increased by over 15%? This prompted a look at the **Inventory Turnover Ratio**. We found that while overall turnover was acceptable, turnover for specific high-cost goods was slowing down. This was a direct contradiction: popular items should be selling quickly, not sitting in the warehouse.

Step 2: Pivoting to Operational Analysis

The contradiction suggested the issue was not with sales, but with the recorded cost of goods. We turned our attention to the operational data, specifically the procurement process. Our analysis of **Supplier Concentration** revealed a new vendor, "Global Fine Foods," which had become the primary supplier for the exact categories of goods whose turnover was slowing.

Step 3: The Investigation (Applying the Techniques)

With a specific vendor and product category identified, we initiated a deep-dive investigation:

- **Vendor Due Diligence:** A background check on "Global Fine Foods" revealed it was a shell company registered to a residential apartment.
- **Invoice Analysis:** Using data analytics, we found the invoice numbers were perfectly sequential—a classic sign of fabrication.
- **Price Comparison:** We benchmarked prices from "Global Fine Foods" against market rates and found a consistent 20-25% premium.
- **Internal Controls Review:** We discovered the Senior Procurement Manager had sole authority to approve new vendors and invoices for his categories.

The "Aha!" Moment: Unraveling the Scheme

The pieces came together. The Procurement Manager had set up the shell company himself. He was purchasing goods at market price and selling them to his own employer at an inflated cost. This artificially inflated COGS masked the real impact of price inflation, which is why the **Gross Margin Percentage** appeared deceptively stable. The slowing **Inventory Turnover Ratio** was a byproduct of the inflated carrying value of the goods.

Case in Point

This case is a powerful reminder that financial stability can be an illusion. Without challenging the "good news" of a stable margin and connecting it to operational data, this multi-million dollar fraud would have continued indefinitely. It demonstrates that true forensic analysis lies in integrating financial data, operational metrics, and an unwavering sense of professional skepticism.

A Concluding Thought

The ratios and techniques in this guide are instruments of inquiry. They provide a structured way to question the narrative of stability and to look for the subtle dissonances that may signal misconduct. However, tools are only as effective as the professional who wields them. Data can show you *what* is happening, but only a deep understanding of the business context, combined with an unwavering professional skepticism, can lead you to *why*.

Ultimately, our role is to bring clarity and truth to complex situations. Your diligence and structured thinking are what separate a hunch from a finding. Stay curious, stay skeptical, and embrace the digital transformation of our profession to become a more effective guardian against fraud.