# Exercise 1: Multi-Tool Financial Statement Analysis

Session 1: AI Fundamentals & Research Strategies

Duration: 45 Minutes

Target Company: ExxonMobil (XOM)

## 1. Scenario & Objective

You are an Investment Analyst at a global asset manager. Your Portfolio Manager (PM) has asked for a **"Flash Note"** on ExxonMobil (XOM) ahead of an investment committee meeting this afternoon.

**Your Goal:**

Use the "AI Trinity" workflow to rapidly gather market context, analyze the Annual Report for risks, calculate key growth metrics, and benchmark against peers.

**Tools Required:**

1. **Perplexity AI** (for real-time market context)
2. **Claude** (for deep document reading - *requires PDF upload*)
3. **ChatGPT** (for quantitative Python calculation)
4. **Gemini** (for peer comparison tables)

## Part A: Market Context & Sentiment (Perplexity)

Time Estimate: 10 Minutes

Goal: Understand what the market is saying right now before diving into historical docs.

Step 1: Open Perplexity.

Step 2: Use the following prompt to gauge current sentiment.

**Prompt:** "Act as a financial analyst. Provide a briefing on ExxonMobil (XOM) covering:

1. Current analyst consensus rating (Buy/Sell/Hold) and price targets.
2. The top 3 bear cases and top 3 bull cases cited by major banks in the last 90 days.
3. Any significant legal or regulatory news from the last month."

**Step 3:** Validation

* Click two citations to verify the analyst ratings are recent (within 3 months).
* *Note:* If Perplexity cites a source older than 6 months, refine the prompt: "Focus only on reports from [Current Year]."

## Part B: Deep Document Analysis (Claude)

Time Estimate: 15 Minutes

Goal: Extract structured data and qualitative insights from the Annual Report (10-K).

Step 1: Download the latest ExxonMobil Annual Report (10-K) [Instructor Note: Provide Link/File].

Step 2: Upload the PDF to Claude.

Step 3: Use a "Chain of Thought" prompt to extract specific metrics.

**Prompt:** "I am uploading the 10-K for ExxonMobil. I need you to act as a Forensic Accountant.

First, read the 'Risk Factors' section and the 'Management Discussion and Analysis' (MD&A).

Then, perform these steps:

1. Identify the top 3 emerging risks that were NOT present in the previous year's report (look for new language).
2. Extract the following financial metrics for the last 3 years into a Markdown table: Revenue, Net Income, Capital and Exploration Expenditures, and Free Cash Flow.
3. Summarize the management's commentary on 'Energy Transition' or 'Low Carbon Solutions'.

Do not summarize the whole document. Focus only on these requests."

**Step 4:** Validation

* Go to the page in the PDF where the table is located. Does the AI's table match the PDF exactly? Check units (millions vs. billions).

## Part C: Quantitative Analysis (ChatGPT)

Time Estimate: 10 Minutes

Goal: Use Python to calculate growth rates and ratios accurately (avoiding AI math errors).

Step 1: Copy the "Revenue" and "Net Income" data extracted by Claude in Part B.

Step 2: Open ChatGPT (ensure GPT-4/4o is selected).

Step 3: Use the "Code Interpreter" prompt.

Prompt: "I have the following financial data for ExxonMobil for the last 3 years:

[Paste Data Here, e.g., 2023: $344B, 2022: $413B...]

Write and execute a Python script to calculate:

1. The Year-over-Year (YoY) growth rate for each year.
2. The Net Profit Margin for each year.
3. The Compound Annual Growth Rate (CAGR) over the period.

Output the results in a clean text format."

**Step 4:** Review the Code

* Click "View Analysis" or "Show Code" to ensure the formula used for Margin is Net Income / Revenue.

## Part D: Peer Comparison & Reporting (Gemini)

Time Estimate: 10 Minutes

Goal: Visualize the data against competitors.

Step 1: Open Gemini.

Step 2: Request a live comparison table.

Prompt: "Create a comparison table for ExxonMobil (XOM), Chevron (CVX), and Shell (SHEL).

Compare them on the following metrics:

* P/E Ratio
* Dividend Yield
* Market Cap
* Return on Equity (ROE)

Export this table to Google Sheets." (If using Gemini Advanced, otherwise ask for a CSV format).

**Step 3:** Final Synthesis (The "Flash Note")

* Combine the insights into a 5-bullet point summary in your own notes:
  + **Consensus:** [From Part A]
  + **Key Risks:** [From Part B]
  + **Growth Trend:** [From Part C]
  + **Valuation vs Peers:** [From Part D]

## Questions

* *Which tool did you find most reliable for the specific numbers?*
* *Did Claude find a risk factor that you might have missed by skimming?*
* *Did ChatGPT's Python calculation differ from any mental math you did?*