Bloomberg Spreadsheet Analysis - Module 3

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BQL for Equities

Introduction to BQL for Equities

Welcome to Module 3: BQL for Equities. In this module, you'll advance Summit Capital's investment process by applying Bloomberg Query Language (BQL) to analyze equities. Previously, the team identified promising countries using macroeconomic data. Now, the strategy shifts to filtering stocks, comparing companies, and analyzing valuation metrics. By the end of the module, you'll be able to: filter companies by sector, geography, and financial metrics; aggregate data to uncover trends and valuation opportunities; perform peer comparisons to make informed investment decisions; and retrieve and analyze both historical and forecasted equity data for valuation and trend analysis. Let's get started!

Filtering for Investment Opportunities

Summit Capital is refining its investment strategy by building on the macroeconomic insights from Module 2. Ritika, the Portfolio Manager, focuses on identifying stocks in stable, high-growth economies. To support this, Jordan, the Equity Analyst, narrows the universe of investable equities. The team references Edgewood Securities' sell-side sector research for insights into market valuations across key regions. Using BQL, Jordan screens for stocks in the U.S., Canada, the U.K., and Australia—markets chosen for their stable inflation and strong GDP growth. To ensure investability, they filter for companies with a market capitalization over $5 million. To maintain liquidity and institutional-grade investment quality, they also require an average daily trading volume above $100 million. This refined output ensures that selected stocks align with Summit Capital's macroeconomic strategy while meeting standards for liquidity and investment quality.

In this guided practice, you'll build Jordan's BQL query step by step as he screens for investable equities. The process begins with the `filter` function, which is a core BQL component used to refine a dataset by applying specific conditions to a defined universe. Drag `filter` next to `= BQL`. Next, define the equity universe by dragging `EquitiesUN(active, primary)` next to `filter`. To narrow the scope to relevant regions, Jordan filters for equities domiciled in the U.S., Canada, the U.K., and Australia—markets selected in Module 2 for stable inflation and strong GDP growth. Drag `country_of_domicile` after the equity universe. Then apply a market cap filter to exclude small-cap stocks by dragging `current_market_cap > 5,000,000` after `country_of_domicile`. For liquidity, Jordan adds a filter to include only stocks with an average daily trading volume above $100 million over the last 60 days. Because this metric is calculated, define it as a variable using the hashtag symbol: `#Average_Daily_Volume = avg(turnover, 30d) over last_60d`. Drag `#Average_Daily_Volume > 100,000,000` next to the market cap filter. Next, drag `name` to specify that stock names should be included in the output. Then insert the custom variable definition `#Average_Daily_Volume = avg(turnover, 30d) over last_60d` next to `name` to ensure the filter is properly computed. Finally, specify that the query results should be displayed in U.S. dollars by dragging `currency = USD`. With all components in place, you've now built Jordan's query step by step. Try practicing it on your own by arranging the syntax in the correct order to complete the query.

Now that you've built Jordan's BQL query step by step, it's time to deepen your understanding with some hands-on practice. Ideally, you should have access to Excel and the Bloomberg Terminal, as this provides

the most effective environment for learning and applying BQL. However, if you don't have access, you can still complete the activity. Click "Continue" to begin.

Analyzing Historical and Forecasted Sector Performance

With the initial stock screening complete, Summit Capital advances to the next phase of its investment process. Portfolio Manager Ritika ensures that the selected equities align with long-term trends and sector stability. Using BQL, Equity Analyst Jordan retrieves data for sectors such as Financials, Utilities, and Consumer Staples—areas that historically perform well in stable or declining interest rate environments. To evaluate market trends and reduce volatility, Jordan pulls three key metrics: 5-year percentage price change to assess historical performance, best target price as an estimate for future valuation, and the forward P/E ratio to understand valuation expectations. This data enables Summit Capital to compare historical and forecasted trends, ensuring stock selections are aligned with broader sector momentum and financial stability.

To analyze Financials and Consumer Staples, Jordan needs to identify the correct tickers—and that's where `SECF <GO>`, Bloomberg's Security Finder function, comes in. SECF allows users to search Bloomberg's universe of securities and statistics to find relevant instruments quickly. Using SECF, Jordan can locate the correct sector index tickers for Financials and Consumer Staples, ensuring his BQL query retrieves accurate data. He navigates to `SECF <GO>`, selects `Index/Stats` as the category, and searches using sector keywords like "Financials" or "Consumer Staples," just as he did for Utilities. In the next activity, you'll practice using `SECF <GO>` to find the tickers Jordan needs to complete his query. Let's get started!

In this next activity, you'll be working in Excel and the Bloomberg Terminal to modify a BQL query. If you don't have access right now, you can still proceed. However, we highly recommend using both Excel and Bloomberg during this course to gain hands-on experience—this is the most effective way to build your BQL skills. When you're ready, go ahead and get started.

Screening for Sustainable High-Dividend Stocks

After assessing sector performance in stable industries, Summit Capital shifts focus to identifying stocks that generate sustainable dividend income—a key priority for the university endowment. Since Utilities, Financials, and Consumer Staples typically offer strong dividend yields, Jordan applies additional filters to find stocks that provide consistent income while maintaining financial stability over time. While high dividends are appealing, Summit Capital emphasizes the need for sustainability. To identify high-dividend yield stocks with solid fundamentals, Jordan uses BQL to apply three key conditions: (1) a payout ratio below 70% to prevent overextended dividends, (2) a free cash flow yield above 3% to ensure payouts are backed by real earnings, and (3) operation in stable economies with inflation below 3%.

You've previously used the `filter` function to refine datasets, and now you'll apply it again—this time twice—to further narrow the selection. Begin by dragging `filter filter` next to `= BQL`. Jordan is screening for active, primary equities to ensure that he's selecting tradable stocks, so drag `EquitiesUN(active, primary)` next to `filter`. Next, define the geographic filter by dragging `country_of_domicile` after the equities universe. Jordan is focusing on Utilities, Financials, and Consumer Staples within countries that have strong economies. Now, to ensure dividend sustainability, drag `dividend_payout_ratio < 70%` to the query. This ensures selected companies aren't overextending dividends, preserving future financial stability. Then, check for financial robustness by dragging `free_cash_flow_yield > 3%`, helping to ensure that dividends are supported by actual earnings. For output, Jordan wants the names of the selected stocks, so drag `name` next to the query. Finally, specify the currency format by dragging `currency = USD` to complete the syntax. With all elements in place, you've now walked through Jordan's dividend sustainability screening query step by step—ready for hands-on practice to arrange the syntax yourself.

To ensure Summit Capital's approach aligns with broader market trends, Jordan consults Edgewood Securities, a sell-side firm known for providing research and execution services. Edgewood's latest sector research supports a similar strategy for screening dividend stocks. Their clients prioritize sustainable dividend oppor-

tunities, and their screening is based on a refined version of Jordan's original BQL query. With this data, Summit Capital fine-tunes its stock selections, integrating both its own BQL-driven analysis and Edgewood's sell-side insights.

As we saw in the lesson, Summit Capital is refining its dividend stock selections using research from Edgewood Securities. Their objective is to identify high-dividend stocks that are both sustainable and financially sound. Now it's your turn to apply this approach by constructing Jordan's BQL query step by step. While some parts of the query will be familiar from previous lessons, others will introduce new syntax—such as the `Top` function—to further refine stock selection. Let's get started!

Now that you've explored how Jordan incorporates sell-side insights into his BQL query, it's time to put that knowledge into action. In the next section, you'll work through real-world scenarios to reinforce when and how to use `Top()`. Then, you'll get hands-on practice constructing your own query. Let's get started!

Forecast Dividend Sustainability

With a shortlist of high-dividend stocks in place, Summit Capital's team takes the next step: ensuring these companies can maintain their dividend payouts over time. While current yields are informative, long-term investors like the university endowment must also evaluate whether companies can sustain payouts in the future. A company's dividend payout ratio reflects the proportion of earnings distributed as dividends—a stable ratio indicates reliability, while a rising one may warn of cuts if earnings fall behind. To assess sustainability, Jordan expands his analysis by pulling projected dividend payout ratios for the next two fiscal years. This allows him to compare historical trends with future expectations, identifying stocks that are likely to sustain dividends. By integrating both current dividend strength and future sustainability, Summit Capital ensures that its portfolio aligns with the income needs of the university endowment.

Summit Capital has identified high-dividend stocks, but Jordan must ensure these companies can sustain payouts over time. A company's dividend payout ratio indicates how much of its earnings are distributed as dividends; a stable ratio suggests reliability, whereas a rising ratio could signal potential future cuts if earnings do not keep pace. To assess long-term sustainability, Jordan pulls projected dividend payout ratios for the next two years using BQL's Forecast Period Offset (FPO), where FPO=1 retrieves the forecasted payout ratio for next year and FPO=2 retrieves the projection for two years ahead. By comparing historical and forecasted ratios, Summit Capital ensures its portfolio aligns with the university endowment's long-term income requirements. Now, let's complete Jordan's BQL query step by step.

Now that you understand dividend sustainability, it's time to apply it. Jordan has built part of the query, but still needs to retrieve the correct data. First, he wants to retrieve the most recent payout ratio and remove any missing values. To accomplish this, he should use the `dropNA` function, which ensures that missing values are excluded from the dataset. Next, Jordan needs to retrieve the projected dividend payout ratio for next year, which requires using the correct Forecast Period Offset (FPO). By applying `FPO=1`, he can pull next year's forecasted payout ratio. Finally, Jordan ensures all results are displayed in U.S. dollars by adding `Currency="USD"` to maintain consistency across the data. Now that you've built the query step by step, it's time to test your skills. You can choose between two paths: *Data Retrieval*, where you will complete only the data retrieval portion of Jordan's query by dragging and dropping the correct syntax; or *Expert Mode*, where you'll complete the full query, with some extra syntax added to challenge your critical thinking. Select your path to begin.

Identifying Undervalued Stocks

With a sustainable dividend-paying portfolio in place, Portfolio Manager Ritika now shifts focus to ensuring Summit Capital isn't overpaying for these investments. She specifically looks for undervalued stocks with strong free cash flow, focusing on Utilities, Financials, and Consumer Staples—sectors that typically perform well in stable or declining interest rate environments. To identify these opportunities, Jordan uses BQL to screen for stocks in these sectors, filtering for companies trading below their sector's average price-to-earnings

(P/E) ratio. This analysis provides Ritika with a clearer picture of mispriced opportunities—stocks that trade at a discount relative to their peers—while ensuring Summit Capital's investments remain aligned with its macroeconomic strategy.

Jordan refines his stock selections by identifying undervalued opportunities using a comparison between a stock's price-to-earnings (P/E) ratio and its sector average. In BQL, this is achieved with the `groupavg` function, which calculates the average P/E ratio across stocks within the same sector. First, each stock is assigned a sector classification using Bloomberg's Industry Classification System (BICS) with `classification_name BICS 1`. Then, `groupavg(PE Ratio, #sector)` computes the sector average. By filtering for stocks with P/E ratios below their group average, Jordan isolates those trading at a discount relative to peers. This ensures Summit Capital identifies strong, income-generating companies that are also attractively priced, aligning with its macroeconomic strategy.

To refine Jordan's BQL query in Excel, we filter the universe to include only companies within the Technology sector and identify undervalued stocks by comparing each company's price-to-earnings (P/E) ratio to the sector average. Specifically, we retrieve only those companies whose P/E ratio is lower than the average P/E ratio for the Technology sector, and from this filtered list, we select the top 10 stocks with the lowest P/E ratios. This approach ensures a targeted and consistent screening process focused on identifying potentially undervalued opportunities within a specific sector.

Identify Companies with Strong Revenue Growth

To enhance the portfolio of undervalued stocks in rate-sensitive sectors, Portfolio Manager Ritika aims to ensure that the selected companies also exhibit strong revenue growth to support long-term performance. Using BQL, Jordan refines the stock selection by identifying the top 10 companies within the Financials, Utilities, and Consumer Staples sectors that demonstrate the highest revenue growth. This approach ensures that Summit Capital focuses on firms that are not only undervalued but also possess strong fundamental momentum. By integrating both valuation and growth metrics, Ritika gains a comprehensive perspective on investment opportunities that align with Summit Capital's broader macroeconomic objectives.

Forecast Revenue Growth

With high-revenue-growth companies already identified, Summit Capital moves to the next phase—ensuring these firms are positioned for sustained future success. To refine the selection, Jordan uses BQL to compare historical revenue growth with forecasted performance, recognizing that past growth alone does not guarantee continued momentum. By retrieving projected revenue growth over the next three years, Jordan ensures the chosen stocks are not only strong today but are also expected to expand further. These forward-looking insights allow Ritika and Jordan to sharpen their investment strategy, focusing the portfolio on companies with long-term growth potential.

Performing Peer Comparisons

With revenue growth forecasts in hand, Summit Capital's final step is to benchmark its selected stocks against industry peers to ensure they are competitively valued. Recognizing that even fundamentally strong companies may be overpriced relative to their sector, Jordan leverages BQL to perform a peer comparison using research insights from Edgewood Securities. He screens for P/E ratios below the sector average to avoid overvalued stocks, analyzes total returns over the past year to gauge performance, and incorporates sector return benchmarks to validate decisions. Using this approach, he ranks the top five stocks per sector—specifically in Financials, Utilities, and Consumer Staples—ensuring that Summit Capital's portfolio reflects a balanced strategy focused on both growth potential and valuation discipline.

Conclusion

Summit Capital finalizes its equities strategy by ensuring that all stock selections are backed by key analytical insights. Jordan's report outlines the strengths of investing in stable sectors with undervalued stocks,

highlights risks such as overvaluation, and identifies opportunities including high free cash flow and robust dividend yields. Acting on this analysis, Ritika fine-tunes the equity picks while Raj prepares the portfolio for necessary adjustments. With equities in place, the team pivots to fixed income investing, using BQL to evaluate bonds, analyze yield trends, and assess credit risk, continuing their data-driven investment approach.