Big 5 Canadian Banks

Descriptive Data Analysis

Project Overview

Comparative Analysis of Big 5 Canadian Banks

Identify the most profitable bank

Choose the most reliable bank for investments

Alpha Vantage API

BALANCE_SHEET

This API returns the annual and quarterly balance sheets for the company of interest, with normalized fields mapped to GAAP and IFRS taxonomies of the SEC. Data is generally refreshed on the same day a company reports its latest earnings and financials.

API Parameters

❚ **Required:** `function`

The function of your choice. In this case, `function=BALANCE_SHEET`

❚ **Required:** `symbol`

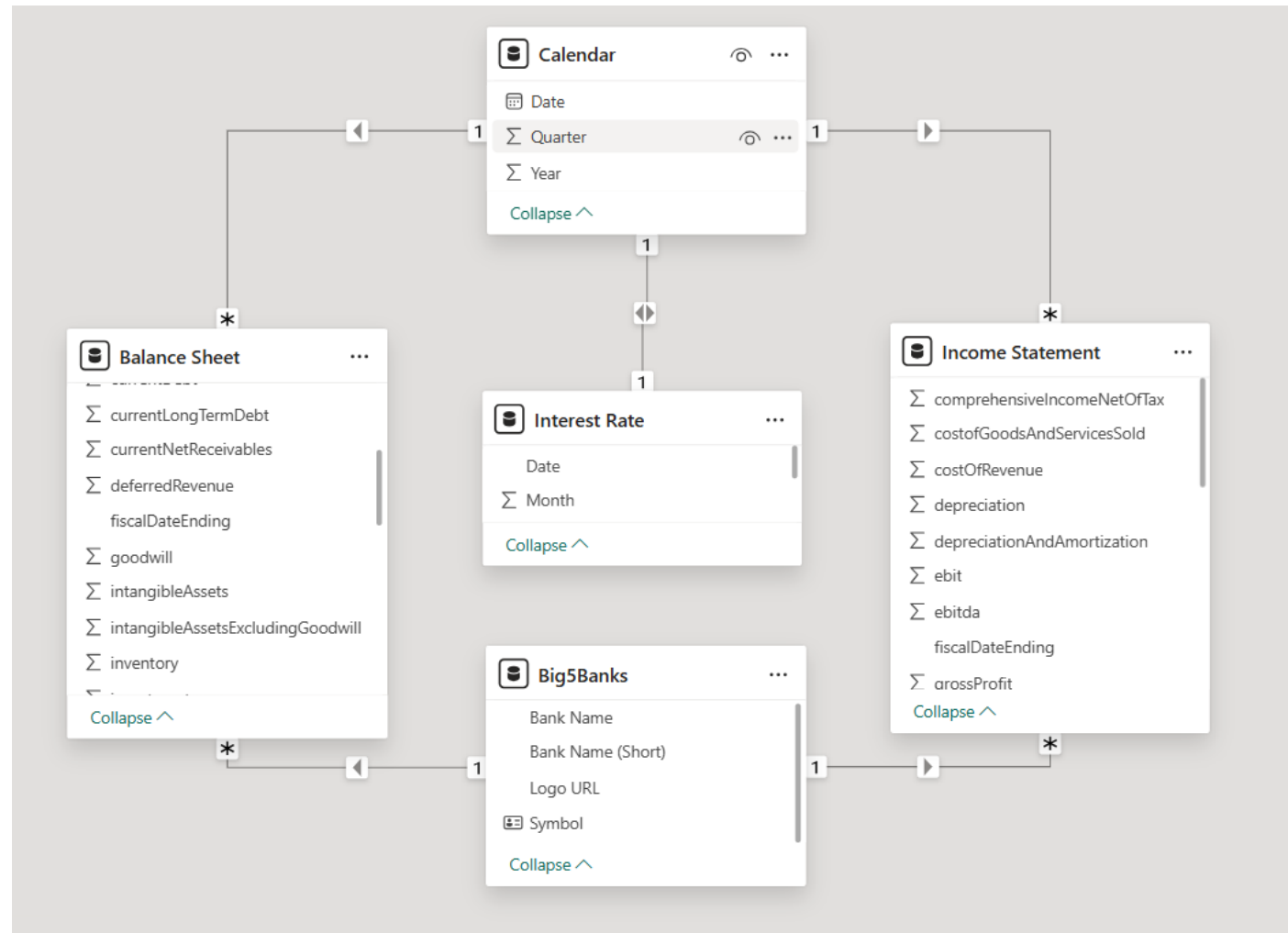The symbol of the ticker of your choice. For example: `symbol=IBM` .

❚ **Required:** `apikey`

Your API key. Claim your free API key here.

Example - annual & quarterly balance sheets for IBM (click for JSON output)

`https://www.alphavantage.co/query?function=BALANCE_SHEET&symbol=IBM&apikey=demo`

Data Modeling
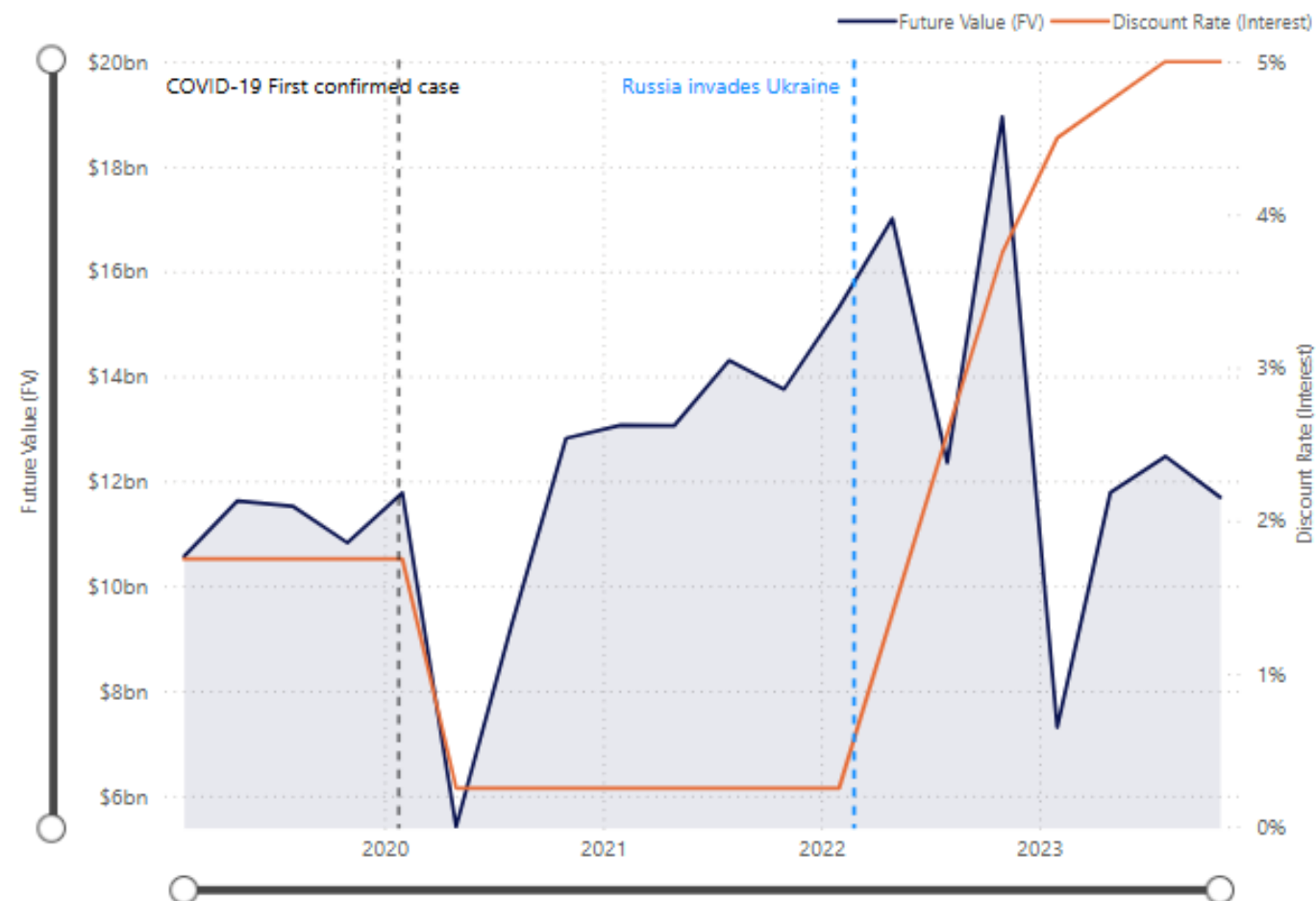
BIG 5 Time Value of Money Overview

Canadian Big 5 Banks

Future Value vs Interest Rate over Time

— Future Value (FV)   — Discount Rate (Interest)

ⓘ Since 2023, RBC is the only showing a consistent increasing in its Future Value.

ⓘ On the other hand, Scotiabank is the only one showing a lower FV at the end of 2023.

COVID-19 First confirmed case

Russia invades Ukraine

Future Value (FV): $20bn, $18bn, $16bn, $14bn, $12bn, $10bn, $8bn, $6bn

Discount Rate (Interest): 5%, 4%, 3%, 2%, 1%, 0%

2020   2021   2022   2023

Financial Analytics Project, TVM

⊘ Live data   Data updated on 25-04-02, 1:25 p.m.

Big 5 Comparison

	BMO	CIBC	RBC	TD	Scotia Bank
Revenue	135.0bn	**102.1bn**	**236.2bn**	225.6bn	154.5bn
Net Income	**3.9bn**	5.0bn	**14.8bn**	10.7bn	7.4bn
Profit Margin	**12.60%**	21.50%	**26.30%**	20.30%	23.20%
Current Ratio	1.217	**1.08**	**2.63**	1.21	1.31
Return on Equity	**2.98%**	3.01%	**3.70%**	3.35%	**2.98%**

Future

Opportunities for Improvement

Automating Data Updates

Integrate Real-Time Financial Data

Enhance Visualizations

Thank You