



Cash flow Forecasting Model

Animal-health technology and services company

Built an indirect cashflow forecasting model which tracks and consolidates forecasts from over 30 BUs to provide a combined view of cash balances at weekly, monthly and quarterly levels using Power BI

Animal-health technology and services company needs cash flow forecasting model

Picture this...

You’re looking for a Power BI based cashflow forecasting model to reduce the refresh time each week and provide filters along with drill through functionality for tracking variance efficiently and driving accountability during weekly management reviews. Currently, using Excel to consolidate data from 37 BUs which took several hours to consolidate each week. Due to the limitations of Excel modeling you have no visibility into the cashflow variances at a line-item and region level.

You turn to Accordion.

We partner with your team to build an indirect cashflow forecasting model to track and consolidate forecasts from over 30 BUs and provide a combined view of cash balances at weekly, monthly and quarterly levels using Power BI, including:

- 1) Building a data model within Power BI to ingest data from 37 Excel templates filled by BUs in functional currency each week and consolidating the data at an organizational level in USD
- 2) Creating Actual vs Forecast and Forecast vs Forecast dashboards to showcase the variance for any selected period of analysis
- 3) Generating a Forecast Accuracy Analysis report to find the forecast error and the absolute deviation for any period of analysis to enable updating forecasts for line items that are being consistently over or under forecasted

Your value is enhanced.

- You have the Power BI based model saving over 2 FTE hours each week in data review and consolidation
- The waterfall charts created in the variance analysis tabs enabled you to quickly identify major contributors of variance at region/line-item level
- You are able to reconcile the cash balances with the direct method through the model to improve the accuracy of the overall cash forecast

CASH FLOW FORECASTING MODEL

KEY RESULT

- > 2 FTE hours per week saved

VALUE LEVERS PULLED

- BU forecast submission tracking and consolidation
- Variance analysis
- Forecast accuracy tracking
- Scenario analysis

Cashflow Forecasting for Animal-health Technology & Services Company

Situation

- Client was using Excel to consolidate data from 37 BUs which took several hours to consolidate each week. Due to the limitations of Excel modeling client lacked visibility into the cashflow variances at a line-item and region level.
- Partnered with the client to build a Power BI based model which not only significantly reduced the refresh time each week, but also provided filters and drill through functionality to be able to track variance efficiently and drive accountability during weekly management reviews.

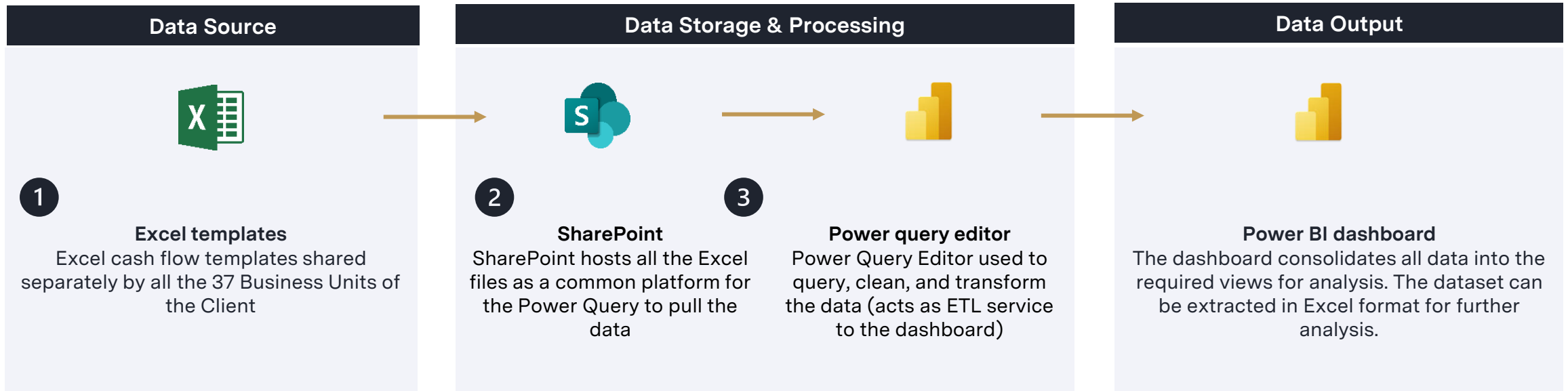
Accordion Value Add

- Built a data model within Power BI which ingests data from 37 Excel templates filled by BUs in functional currency each week and consolidate the data at an organizational level in USD
- Created Actual vs Forecast and Forecast vs Forecast dashboards to showcase the variance for any selected period of analysis
- Generated a Forecast Accuracy Analysis tab which finds the forecast error and absolute deviation for any period of analysis to enable the team to update the forecasts for line items that are being consistently over or under forecasted

Impact

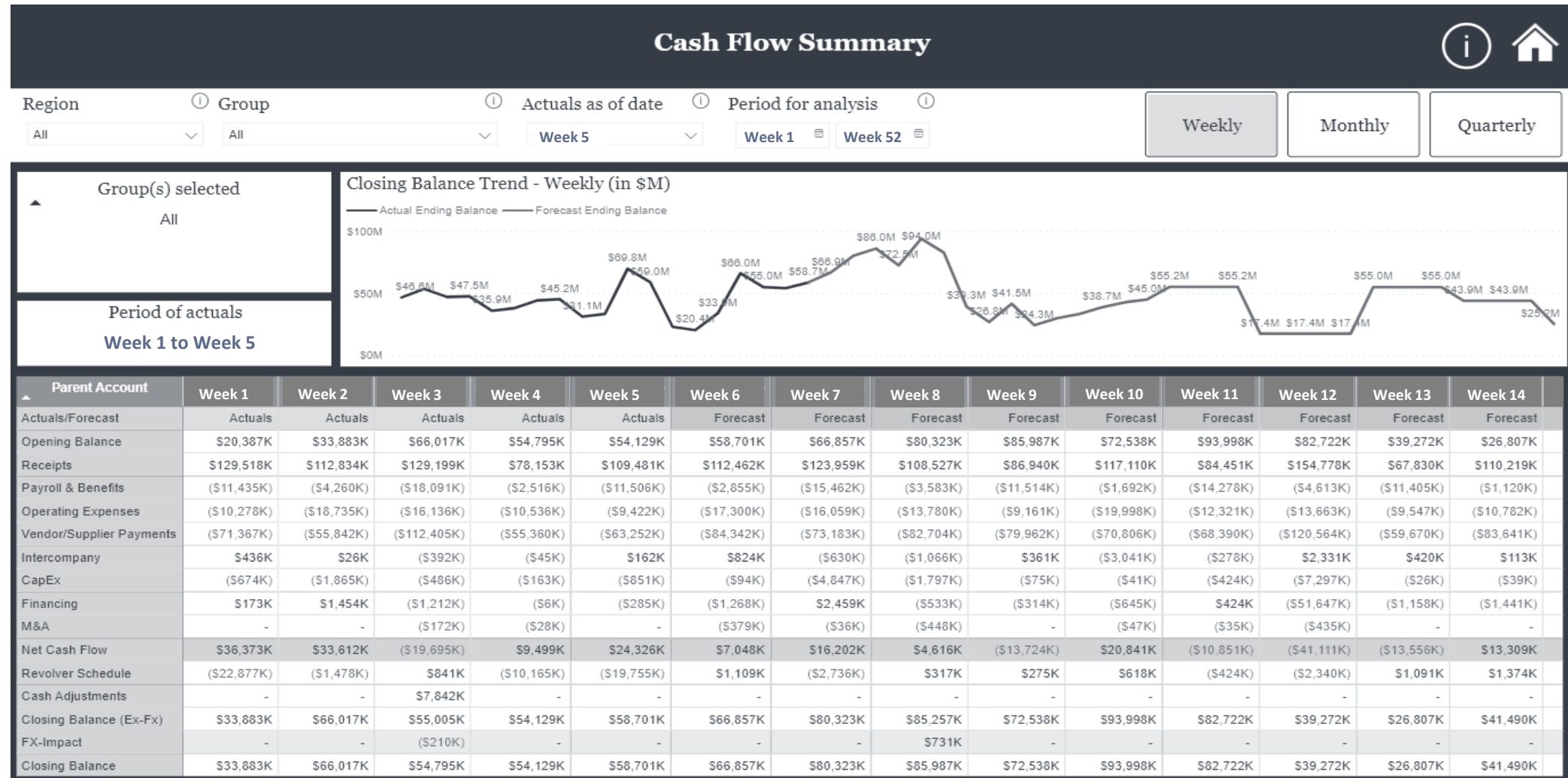
- Power BI based model saved over two FTE hours of the treasury team each week in data review and consolidation
- The waterfall charts created in the variance analysis tabs enabled the team to quickly identify major contributors of variance at region/line-item level
- The model was used by the FP&A team to reconcile the cash balances with their direct method to improve the accuracy of the overall cash forecast

Methodology/ Approach

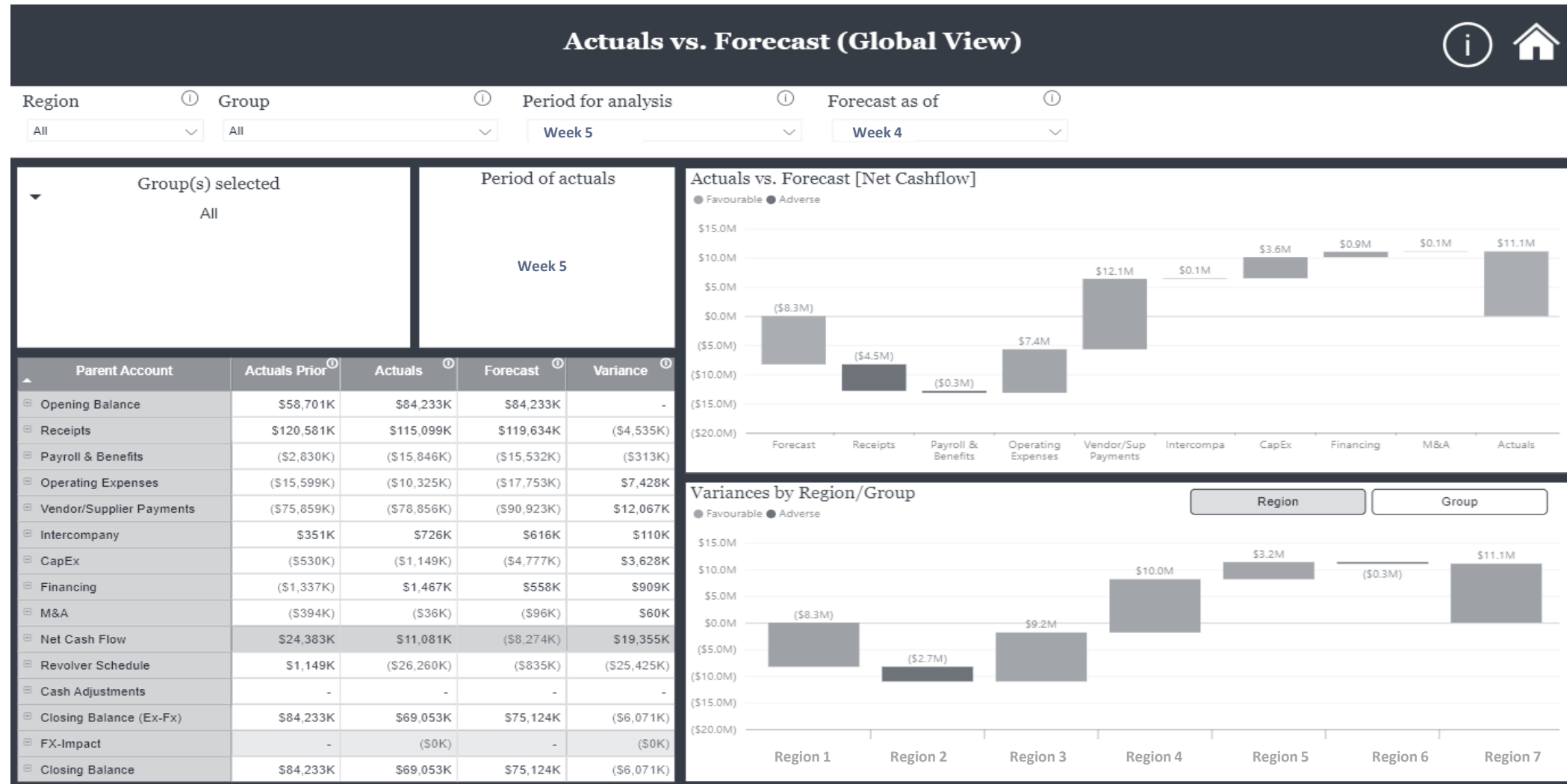


- 1. Data source** - The initial Excel template was developed to include transformation tabs that help in setting up queries for data consolidation.
- 2. SharePoint** - All these excel templates from various groups are consolidated by the Treasury team every week and are stored on to predefined SharePoint folders.
 - **Current week** - Latest Excel files shared by groups are the primary source for actuals data.
 - **History** - All the files (previous and latest) are stored and act as data repository for historical forecasts.
 - **Additional info** - All other additional files and data required for the dashboard including FX rates, submission tracker etc.
- 3. Power query editor** - The transformed data from the query editor is used as the data set to power the Power BI dashboard and this dataset can be updated by refreshing it on Power BI services.



Cash flow summary



Actuals vs. Forecast view



Forecast accuracy analysis

Forecast Accuracy Analysis						 	
Region	Group	Tracking start week	Forecast as of				
All	All	Week 5	T-0				
Group(s) selected All						Notes - The value of tracking signal will always be in between the number of weeks considered in the tracking period. For our analysis, we have considered 4 weeks and hence the signal value oscillates between +4 to -4. - Higher signal values (+2.5 to +4) indicate a consistent under forecasting in all the 4 weeks period considered, whereas lower signal values (-2.5 to -4) indicate consistent over forecasting . Tracking signal value of zero is a perfect forecast. - Lower forecast error and higher absolute deviation indicates that though the overall forecast and actuals are matching, the timing of forecasts is not in line with the actuals.	
Forecast tracking period Week 1 to Week 5						Tracking Signal Definitions - Forecast Error: It indicates the degree and direction of forecasting. Positive value indicates under forecasting and negative value indicates over forecasting. The higher the value, higher is the degree of under or over forecasting. - Absolute Deviation: It indicates the absolute deviation of actuals and forecast for in the tracking period. - Forecast Tracking Period: The selected period under which actuals will be compared with the forecast values and the accuracy is tracked at an aggregate level	
Parent Account		Forecast Error	Absolute Deviation	Tracking Signal	Under/Over Forecasting		
Receipts							
Collections		(\$12,024K)	\$24,931K	-1.93			
Other Receipts		(\$809K)	\$3,449K	-0.94			
Rebates / Margin Reimbursement		\$2,950K	\$12,737K	0.93			
Payroll & Benefits							
Payroll (incl. Commissions & Payroll Tax)		(\$565K)	\$2,060K	-1.10			
Bonuses		(\$434K)	\$524K	-3.31	Over Forecasting		
Severance		(\$491K)	\$717K	-2.74	Over Forecasting		
Benefits / Workers Comp		\$70K	\$532K	0.53			
Operating Expenses							
Rent / Lease Payments		\$97K	\$733K	0.53			
Cash Tax: Direct		\$4,589K	\$7,128K	2.58	Under Forecasting		
Cash Tax: Indirect		\$1K	\$1,597K	0.00			
Freight / Shipping		\$1,563K	\$2,377K	2.63	Under Forecasting		
Bank / Credit Card Fees		(\$438K)	\$3,504K	-0.50			
Other Expenses		\$3,090K	\$4,641K	2.66	Under Forecasting		
Vendor/Supplier Payments							
Vendor/Supplier Payments		(\$6,992K)	\$41,333K	-0.68			
Intercompany							
Trade Receipts		\$1,127K	\$1,127K	4.00	Under Forecasting		
Trade Disbursements		\$351K	\$2,048K	0.69			
Non-Trade Receipts		(\$461K)	\$1,316K	-1.40			
Non-Trade Disbursements		\$149K	\$1,891K	0.31			