OPPORTUNITIES FOR IMPROVING CORPORATE BUDGETING AND THE FINANCIAL FORECASTING PROCESS

by

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ABSTRACT

This thesis focuses on how the financial planning and budgeting department of a corporation can improve its annual budget and financial forecasting processes.

A series of interview were conducted to better assess the main issues and how they can be improved.

Thesis Supervisor: Xavier Giroud
Title: Ford International Career Development Professor of Finance

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ACKNOWLEDGEMENTS

My special thanks to my thesis Supervisor Xavier Giroud.

My special thanks to my husband who has been my friend and my partner in this long journey. Through it all, he persisted…

My special thanks to my son Joao, my little giant, my love, my life. You have been a courageous little man this year. Your happiness, your kindness has touched me and our community…. and you persisted….

My special thanks my daughter Maria Clara, my small courageous warrior, my love, my life. You have been a courageous little warrior this year. Your magic and imagination have enchanted our lives. …. and you persisted….

This year I studied, I cried, I embraced every challenge. This year I left my job, my family, and my country to embrace the challenges of this year. I went to school every day on a bicycle and studied and learned for hours. My husband took care of the house and the children, and we supported each other.

To all women out there, I persisted and we all will persist …. always….

SECTION I

INTRODUCTION

Budgeting and forecasting are done by the financial planning and budgeting department inside the financial organization of a firm. How can these departments improve their budgeting and forecasting exercises?

Background

Most organizational charts and matrix structures vary according to industry segment. However, three position are generally present in all matrix structures (see Figure 1):

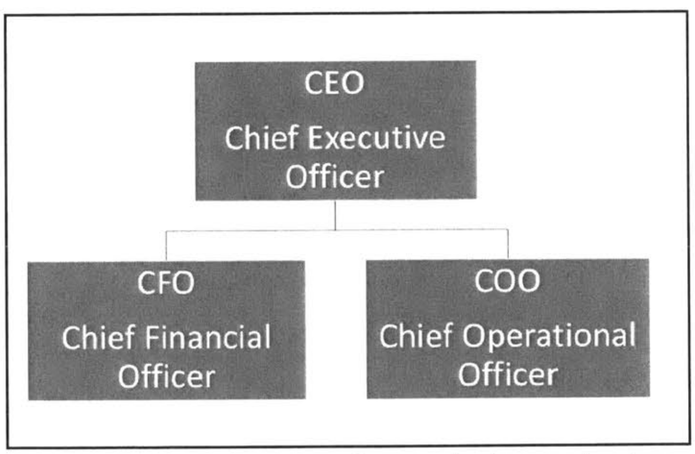

Fig. 1. Top management in a typical organization

- **CEO (Chief Executive Officer):** the highest-ranking executive in the corporation. Primary responsibilities include making major corporate decisions and managing operations.

- **COO (Chief Operating Officer):** the corporate executive who oversees ongoing business operations within the company.
- **CFO (Chief Financial Officer):** the corporate executive responsible for managing all financial tasks. This person is also responsible for financial planning, record-keeping, and reporting to higher management. The CFO typically subdivides his responsibilities and assigns them to different departments.

Departments

Within the typical CFO role in a firm, there may be three departments, depending on the size of the company or the industry. These departments can be large and complex. These are the three main areas under the CFO (see Figure 2):

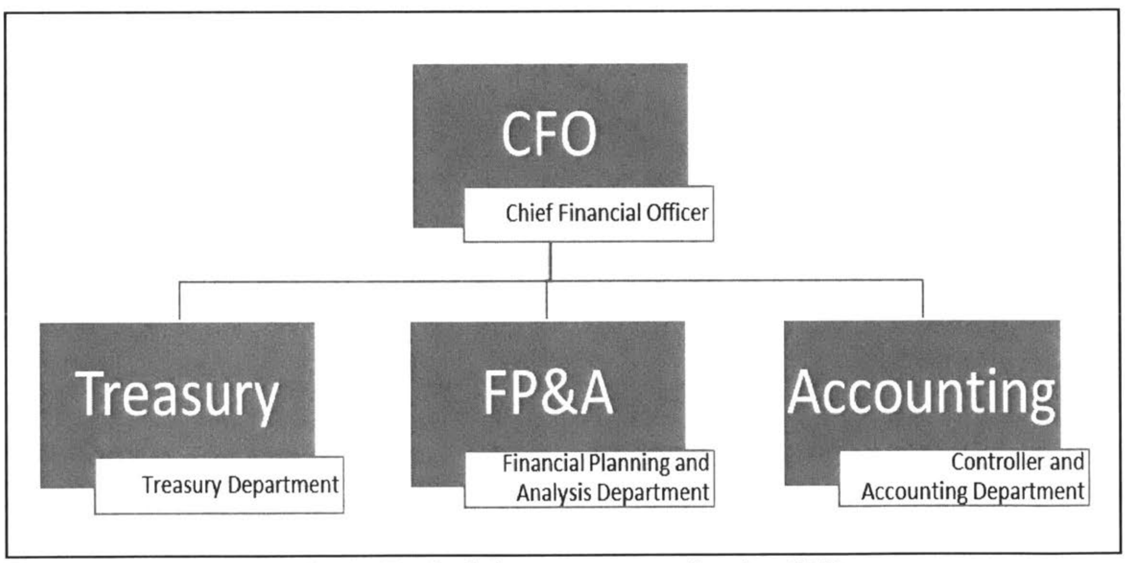

Fig. 2. Typical departments under the CFO

- **Treasury Department:** critical tasks include: liquidity management; tax planning, cash flow, pension planning; managing internal capital by investing and lending to subsidiaries; timely disbursement of payments.

- **Financial Planning and Analysis Department**: business forecasting, annual and quarterly budgeting and forecasting.
- **Accounting Department:** Payroll, accounts receivable, cash payments, accounts payable, procurement and inventory, property accounting, reporting and financial statements, financial controls, among others.

This thesis will focus on the Financial Planning and Analysis Department (FP&A). Typically, there is a director or vice president responsible for the FP&A department, who reports to the CFO. This department is well known for being the "critical eyes" of the company. It is responsible for reporting anomalies, trends, and deviations; it keeps track of what is happening in and around the departments, and tracks how departments are meeting their goals.

FP&A also is responsible for compiling and analyzing an organization's long-term financial strategy. In addition to creating an extended financial plan, FP&A also generates management reports, analyzes financial trends, calculates the monetary effects of potential business decisions, and advises corporate leaders. The FP&A department uses a variety of tools to do its jobs. These include: corporate performance management software; budgeting, planning, and forecasting software; core financial management systems; and EPR (enterprise resource planning) platforms.

There are two basic financial planning techniques that assist corporations in decision making: (1) annual or quarterly budgeting provides an expectation or estimation of revenue, cost, and overall results for the future, and (2) financial forecasting. While budgeting and forecasting seem to be similar, there are differences between the methods.

Methods

According to David McCann (2016), there are three methods for budgeting and forecasting: annual/quarterly budgeting, rolling financial forecasting, and zero-based budgeting. I describe each briefly below.

Annual Budgeting. This exercise takes place prior to the end of the firm's fiscal year. It is a strategic planning and goal setting exercise involving the management team, where goals are set and the team is held accountable for future results. The exercise focuses on future financial statements, such as the firm's anticipated income statement, balance sheets, and cash flow statement. Other expectations, such as head count and capital expenditure, are also discussed since these factors have a direct impact on the financial statements. The annual budget is prepared based on historical data and, most importantly, an estimate the amount of revenues and expenses a company may incur over a future period. The annual budget is most important since the management team is held accountable for the numbers. Many bonuses are set based on budget results and goals, and the budget becomes a guide for measuring the company's progress throughout the year.

Annual budgeting is a resource-intensive process that involves the FP&A team as well as teams from other departments in the company. Headquarters usually requests all subsidiaries to run a budget exercise, and management is held accountable for the results. Such a budget exercise lasts from two to six months, and there is considerable feedback between headquarters and the subsidiaries. The final round of the budgeting exercise is done at the beginning of the following year. Headquarters will run a final analysis and submit an estimate to market or, if it is a privately held company, the estimate will be kept internally.

The budget exercise locks everyone into an annual cycle. Investors can look back and review, based on the past 12 months, how the company did compared to the stated plan, what actually occurred, and what were the variances. The annual budget process reinforces managerial accountability and encourages value creation among the management team members.

Rolling Forecasting: This exercise can be done quarterly or monthly or both, and generally is conducted only internally by the corporation. It allows the firm to focus on continuous improvement rather than striving to hit year-end numbers that may be achieved at the expense of future operations. There are many advantages to using rolling forecasts since, in reality, business does not stop at the fiscal year-end. Continuous monitoring and broader explanations bring flexibility and mobility to the forecast cycle.

The FP&A Department works closely with the Accounting department to monitor all month-end results. Most companies will have a month-end result review, where it will compare the rolling forecast against the annual budgeting. Every year many hours are allocated to the annual budgeting process, during which strategies are defined, plans are presented and goals are approved. However, once the budgeting time is over, the management team goes back to work on the day to day activities and the rolling forecast captures this scenario more appropriately.

Zero-Based Budgeting: This is an exercise that can be done monthly, quarterly, or annually. Typically, it is done by companies that are under heavy financial strain and face the need for strong cost-cutting efforts. Therefore, management will request each department to consider zero expenses, and all expenses must be justified for each new period. Every headcount and cost is analyzed as to its necessity and cost. This is a typical approach for companies that must make lasting cost-cutting measures.

Budgeting Calendar

Most companies maintain a budgeting and forecasting calendar, whether for annual budgeting, quarterly financial forecasting, or even monthly/weekly financial forecasting. On one hand, financial forecasting enables executives to monitor the firm's position at top of the market while making ongoing evaluations and comparisons. On the other hand, an annual budgeting exercise draws a line in the sand and forces people to make decisions while also involving cross-department interactions. Both processes are different, although they have similarities; however, the end goal of most plans is to maximize profit potential and to remain aligned with the company's mission statement, values, and objective.

SECTION 2

LITERATURE REVIEW

According to James Wahlen, Stephen Baginski, and Mark Bradshaw (2014), in their book *Financial Reporting, Financial Statement Analysis and Valuation: A Strategic Perspective*, "the value of an investment is a function of its expected future payoff conditional on the risks inherent in those payoffs" (p. 761). That reasoning puts great emphasis on the FP&A Department because this department provides key indicators of the firm's future. According to the authors, "the purpose in a building financial statement forecast is to develop unbiased expectation for a firm's future earnings, cash flows, and dividends that you can use to estimate the firm's share value" (p. 762). They go on to point out other purposes for budgeting and financial forecasting, such as credit analysis, corporate management, and mergers and acquisitions.

The authors cite four basic steps that should be done to produce an accurate budget exercise (p. 763):

Step 1—Consider the economics of the industry.

When forecasting and budgeting, the FP&A department needs to consider the industry that the firm is part of. An example is the automobile industry. If Toyota wants to have a strong budget and financial forecast, it needs to evaluate the context of the industry, and compare itself with other large players in the industry such as Audi, Honda, and Nissan.

Step 2—Define and verify the competitive advantages and risks of the firm's strategy.

One way a company can identify different budgeting and financial forecasts against its competitor is to point out the firm's strong competitive advantages. And vice versa, the only way a firm can identify a weak budget and financial forecast is when there is a significant risk.

Step 3—Verify the quality of the firm's accounting.

This step is crucial. If the company is found to have uncertain books and dubious results, the market will have considerable diminished trust in the management of the company.

Step 4—Check the firm's drivers of profitability and risk.

What are the strengths and weaknesses of the company? What are the actions needed to resolve the weaknesses? All corporate leaders need a clear idea of what are the firm's weaknesses and strengths.

In addition to these four basic steps, Wahlen et al. recommend general forecasting principles that should always be followed (p. 764):

- *"The forecast should project the firm's future operations, investing, and financial activities."* For example, if an automotive company plans to double its sales, and all its plants are running at full capacity, the company needs to include in its forecast plans for a new plant, together with the increase in sales. How much will a new plant cost and how much will it produce? All such questions must be addressed.

- *"The objective of forecasting is to produce reliable and realistic expectations of the future earning, cash flows, and dividends, which determine that future payoffs to the investment."*
- *"Forecast should avoid wishful thinking."*
- *"Financial statement forecasts should be comprehensive."* For example, a constant margin or constant growth based on historical data makes little sense and does not reflect accuracy.
- *"Financial statement forecasts must be internally consistent."* For example, assuming an increase in the number of cars sold (per the financial statement), the automobile company needs an increase of inventory (balance sheet). Consequently, an increase in cost of goods sold and the cash-flow statement should capture all such movements. All the financial statements should add and articulate among each other.
- *"Financial statement forecast assumptions must have external validity."* Basically, a firm's forecast should show common sense. If a real estate company were working on a 2008 budget, and it was fully aware of the 2007-08 subprime mortgage crisis, it would make little sense for the budget to show an increase in sales.

Wahlen, et al., developed a 7-step forecasting plan, which is shown in Figure 3 below.

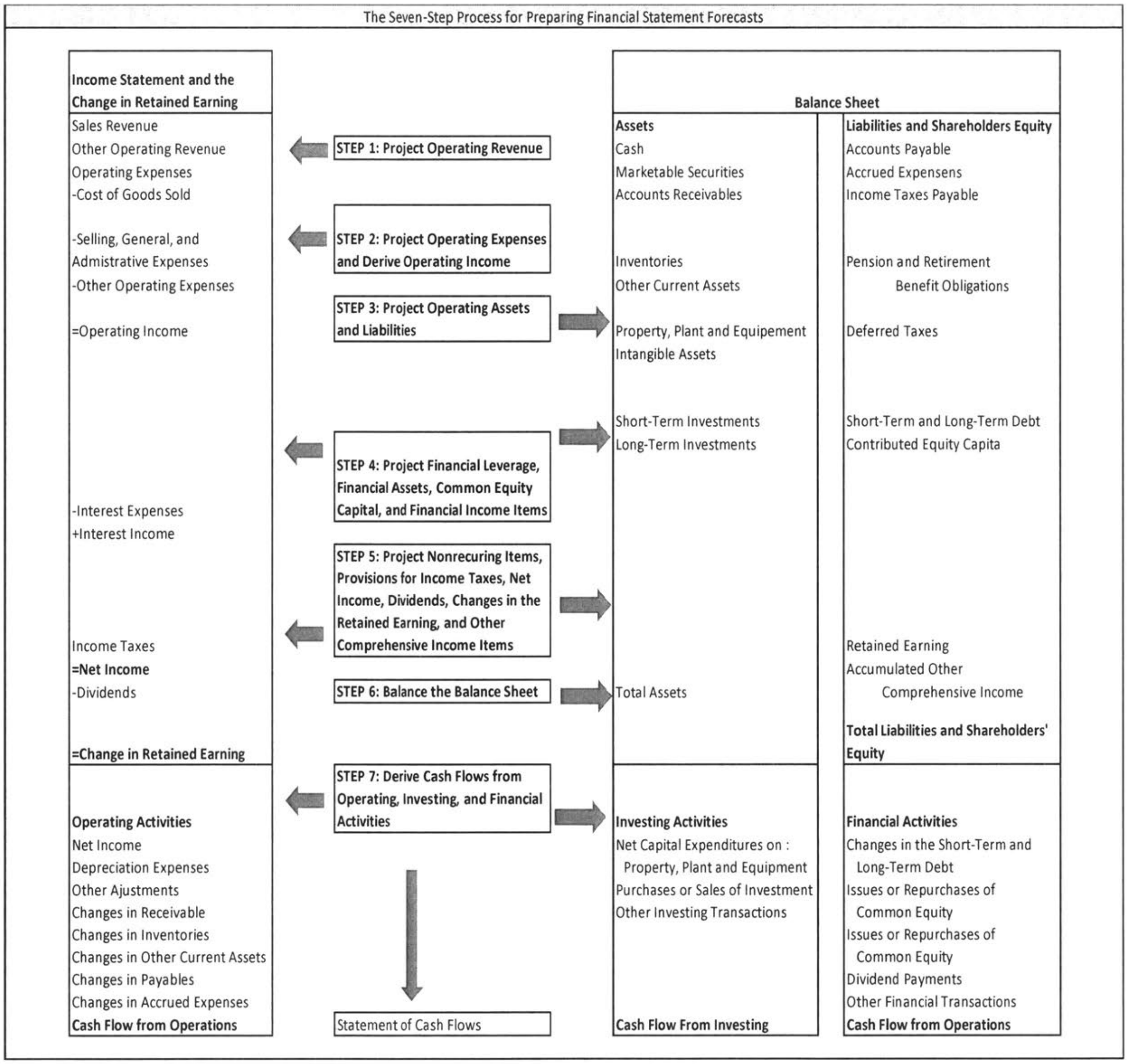

Fig. 3. Seven-step process for preparing financial statement forecasts

Source: Wahlen, et al., p. 765

Step 1. Project Revenue: sales of products and delivery of services to customers.

Step 2. Project Expenses: cost of goods sold; sell, general, and administrative expenses (SG&A) and others

Step 3. Project Operating Assets: what is necessary to support Steps 1 and 2 (i.e., cash, receivables, etc.)

Step 4. Project Financial Liability: what is necessary to support the 3 steps above? For example, how much capital will be needed for growth? Where is funding coming from? Is debt going to increase? If so, will it have the same interest rate?

Step 5. Project Non-Recurring Gains and Losses: requires careful analysis since once a non-recurring loss occurs, it indicates that other non-recurring losses will happen. For example, restructuring charges will generate non-recurring losses and gains; however, research indicates that many other non-recurring losses will follow, such as lawsuits or firm restructuring.

Step 6. Project Balance Sheet: all these steps need to be reflected on the balance sheet.

Step 7. Project Statement of Cash Flow: all steps need to reflect cash in and cash out.

These steps are interdependent but do not necessarily have to be performed sequentially. How and when the steps are done depends on the management team and expectations for the company. However, the FP&A department needs to finalize and put together all the final checks to ensure that the plan is safe and sound. These steps validate the process and highlight its organization.

It is crucial that the budgeting and financial forecast articulate the three basic financial statements inside a company. A company cannot increase its sales without increasing inventory. Therefore, all financial statements must balance, and it is important that the FP&A department works on regular iterations and seek input and communication before delivering the final budget and financial forecast.

SECTION 3

INTERVIEWS

I conducted series of interviews with CFO, controllers, and analysts to better understand, from an insider perspective, how an FP&A department works. I developed a series of questions which we discussed, and their answers are presented here.

Interview with:
Randy Garrison, VP-Finance, SAP
Lance Holbert, Senior Director, Financial Advisor, SAP
Tuesday, January 31, 2017, 4:00 to 4:45 PM EST

Randy Garrison and Lance Holbert work for SAP Finance. SAP is a German multinational software corporation that makes enterprise software to manage business operations and customer relations. SAP has some software that specializes in budget and forecasting, and the company is a leader in the industry. Randy and Lance work closely with many multinationals to develop powerful, next-generation software that caters to corporate FP&A departments.

At the beginning of their interview, Garrison and Holbert gave a brief overview of budgeting and forecasting in general. They explained that a budget is period-centric and is focused on milestones, such as month-end, quarterly, or annual timeframes. They pointed out the necessity for a fluent and reactive forecasting process. Both believe that the value-added contribution of the FP&A Department comes from a fluent and dynamic forecast.

According to them, most budgeting and forecasting is still done solely in Excel and remains very manual. There is software available that consolidates all the financial data, and such software will provide better comparisons of the data. However, the FP&A team may still struggle to find the correct tool(s) and data-gathering processes needed for building a strong forecast.

According to Garrison, the pressure to innovate has never been greater nor managing the risks more difficult. There is a big push for CFOs to have appropriate tools on hand to create accurate and precise forecasting. But Garrison also believes that acquiring the right technological know-how is only one of several issues facing CFOs today. Many are preoccupied with more immediate challenges, such as whether their own finance teams can weather the storm of month-end-closings and numerous forecasts.

Garrison also noted that CFOs of large companies need to prepare their organizations for the "age of disruption." According to Garrison, most CFOs are concerned with how well the FP&A department is working. However, Garrison believes CFOs should also be concerned with threats from new technologies that could disrupt the industry and have a major impact on every player. Many companies have been driven out of the market because they did not see a disruption occurring. One recent example is Blackberry, which was at one time was widely considered to be the most prominent smartphone vendor in the world. But it did not recognize and respond to the disruptions caused by Android and Apple mobile phones, and subsequently Blackberry suffered a dramatic loss of market share and is still struggling to return to the major markets. Time will tell whether its effort is successful or not.

Holbert shared his thinking on how organizations are redefining finance to focus on gaining instant financial insights for decisions in the moment, and the foresight to predict what is coming next. According to Holbert, the FP&A Department is large and focused primarily on data gathering. He believes there is a disconnect between the accounting and the financial planning organizations. Consequently, the FP&A team ends up searching for answers far more than they should.

Holbert foresees a month-end process that will be more dynamic and real-time. He raised the following question: "Why do we close the books once a month close? It is a herculean exercise." He mentioned that as a consequence of a more dynamic close, the FP&A team will be less constrained for time, and consequently the department will deliver a more robust forecast. According to Holbert, FP&A spends 75% of its time working on data gathering. With a more dynamic month-end, the team can focus on strategy and value-added activities to build a stronger forecast.

I asked Garrison what the next step or next software might be for financial planning and budgeting. According to him, the next step is machine learning software. An algorithm will be used to capture and incorporate external factors into financial forecasting. He also mentioned the need to incorporate externalities such as economic situations and political instability.

Interview with:
Julia Mello
Controller Regional Latin America, Vermeer International
Monday, April 18th, 2017 3:00 PM-3:45 PM EST

Julia Mello works as Controller Latin America for Vermeer International. Vermeer is a manufacturer of farm equipment, headquartered in the United States. It is a family-owned company with some 3,000 employees. Julia oversees Controller activities for Latin America.

Q1: Please talk about a successful month-end close

Mello began by saying: "A number of things must happen for a successful month-end close." She said there are many numbers and account reconciliations so that capability must exist somewhere, either in the ERP or a specialized system. "But really, it's a bigger process than that, so you really need something to track the various tasks. There are a lot of different people involved, and each has his/her own assignment. One of the challenges is tracking all of that as you're trying to get the results closed and reported to headquarters. Who still owes me what? Also knowing what's expected of you as a contributor to this process."

According to Mello, the problem is that many ERP systems lack good workflows and the process tracking needed to manage the financial close process. She also pointed out that an important step in the month-end close is reconciling intra-company transactions. She believes reconciliation of intercompany transfers can be cumbersome and hold up the month-end process. She cited an example: "If one of my divisions sold to another division, that's not really a net sale, so in the end I need to eliminate that transaction." She continued: "If the hardware division sold something to the software division, but the software books don't show that it bought something from hardware, then you have a problem that is flagged, and someone has to figure out why."

Q2: Can you talk about the collaboration between the FP&A team and the Accounting department?

According to Mello, Accounting and the FP&A team have a love-hate relationship. She said: "Collaboration is another key element in the financial-close cycle. A controller who spots a problem in a particular division must alert that division so it can reconcile the problem and determine what went wrong or is missing. This is an example where the FP&A team will fight for a correct number inside the division while the Accounting team is looking for a total result. When this happens, it can be very stressful. We are all tired and we want to close the results. The issue is very small but as the Accounting department points out, a journal entry is the same amount of work for a different amount of dollar impact."

Mello said: "There's a lot of management here with the process, the workflow, and then collaborating with other people involved in this process. Being able to communicate with them, ideally within the system, is important."

Q3: Do you see a difference between forecasting and budgeting?

"Yes, it is a very different process, and it uses a different type of interaction. The forecasting is monthly or quarterly. Annual budgeting is large, extensive, and involved with cross-functional departments."

Q4: Do you think FP&A has to deal with politics inside the company?

"Unfortunately yes, we end up having to manage politics and ego. Sometimes I feel like we are the only adults in the meetings. I always ask my team to be calm and make sure to have the facts down" She continued: "Especially during the annual budget, when capital is allocated to different departments and headcounts are cut down or increased, people get very unfriendly and territorial. Most of the time we learn about issues before upper management knows the information."

Q5: Do you see value in the annual budgeting cycle?

"Honestly, I have had many discussions about this with my staff, and I don't see the value in an annual budgeting cycle. It is time-consuming, highly politicized, and stressful for the team. We work for hours during the period, and numbers are everywhere when we compare to actual results. It is very clear to us that some of the managers are just buying time, and they will not deliver their results. I see entire business units having negative net income for an entire year, then all of a sudden in the budget number the BU has profitable results for the foreseeable year. At the end of the day, the CEO and his/her executives are responsible for the numbers. But we always have to give a tough recommendation and probability of achievement for the numbers. I am in favor of dynamic forecasting where there is a logical flow and we can see the results. But I know it will not be reality for the FP&A team. We will have to endure many more annual budgeting process."

Interview with:
Cosmin Pitigoi
Vice President of Budgeting and Forecasting, PayPal
Wednesday, February 15th, 2017 11:00 AM-11:45 AM EST

Cosmin Pitigoi is Vice President of Budgeting and Forecasting for PayPal Holdings, an American company operating a worldwide online payments system that supports online money transfers and serves as an electronic alternative to traditional paper methods like checks and money orders. The company operates as a payment processor for online vendors, auction sites and other commercial users.

In 2014 eBay announced plans to spin off PayPal into an independent company by mid-2015, and this was completed on July 18, 2015. On July 20, 2015, PayPal had its second IPO.

Q1: What are the main drivers when you are working on an annual budgeting process?

Pitigoi said: "Bear in mind that PayPal is a new public company, we are not a mature public company. There is a lot happening here. We grew a lot in a very short time frame. We went through a lot of growth in the last few years. Therefore, we have to capture all the growth and expansions during the year we have forecasted. We usually look at outside trends, inside trends, key initiatives, and our internal strategies. It is all part of the puzzle."

Q2: How many budgets and financial forecasts do you have?

"Early in the year we have a strategic plan of 3 years. Then in the fall we have the annual budget process, and we also have quarterly and monthly. So we have two large budget processes: the three year and the annual, and then we have two forecasts, quarterly and monthly.

Q3: Do you see company using dynamic forecasting?

"No I don't see that happening. Many goals and bonus are set by the annual budget process. I don't see that going away."

Q4: You mentioned that PayPal is evolving and maturing. What externalities do you look at when you are building an annual or a three-year budget?

"PayPal moves around $228 billion in 30 currencies across more than 190 nations, generating a total revenue close to $8 billion. Our profit is closely related to local economies, so I always check macro and micro economies, GDP, employment rate, consumer buying power, and competitors. I have to look at many different data analyses when building an annual budget.

Q5: How is the pressure during the budget cycle?

"The budget cycle is very stressful, I would say the most stressful time for us. It is where bonuses are set and resources allocated. The process can be political and stressful. I have to look at the overall results and numbers. My assessment is independent of the BUs, and everybody is protecting their turf. So we have pressure when building the budget process. At my level I have to provision and adjust for possible fallouts, hedging —looking for everything at my level. At the end of the day the market will look at the overall result, so hedging and positioning end up playing an important role, and I have to make the assessment as to who is being overly optimistic and who is sandbagging. I need to be flexible during budget time."

SECTION IV

DISCUSSION:
IMPACTS AND OUTCOMES OF FORECASTING AND BUDGETING

Predictions

Financial forecasts and budgets are built on a firm's ability to predict the future based on historical data and market predictions. A good example of a regrettable forecast occurred in 2007 when former Microsoft CEO Steve Ballmer said flatly: "There's no chance that the iPhone is going to get any significant market share." Ballmer's unfortunate prediction impacted not just the sales of many companies but also impacted Microsoft's financial budget and financial forecasting. Statements like this illustrate the unintended outcome of a wrong or uninformed prediction.

Another example of a prediction that impacts a firm's bottom line is given in an article by Travis Johnson and Eric So (2017). Their study mentions the relationship between earnings and stock price: ". . . demonstrates that earnings calendars have strong predictive power for firm earnings news and future returns." The article asks: "How do investors respond to signals conveyed through the timing of earnings announcements? Is there a correlation between the schedule of earnings announcements and reported performance?" According to the authors: "While surprising, the results show that firms that advance their earnings announcement dates outperform firms that delay by an average of 260 bps in the month after the revision. Positive value is realized from the advancers and negative value from the delayers. This means investors can gain equally from both types of revisions." In summary, companies that have accurate prediction will announce their earnings per share early since there is no surprise. Therefore, overly optimistic predictions are looked at critically by the market, and in general companies should follow the rule to be "better safe than sorry." Improving the firm's forecasting competency is crucial for most companies.

Politics and Budgeting

According to Kenneth Merchant (2013), writing in the *Wall Street Journal*, "most companies prepare a budget or annual operating plan and almost all companies do it wrong." According to Merchant, the annual budget process is about endless meetings where managers discuss and crunch numbers that have long since gone out of date. Merchant points out that the budget processes too often serve as opportunities for "self-aggrandizement" by undeserving and/or unscrupulous managers. He also suggests that many managers manipulate numbers in their budget reports to inflate results and artificially achieve short-term targets. Others spend money wastefully so as not to see a reduction in next year's budget allocation.

Cultural fit, chemistry among leaders, and synergies actually play a large role in how a sound budget process is developed. Unfortunately, most predictions made in companies, especially the annual budget, reflects the some else's thinking and concerns. However, a strong FP&A team should look for information that confirms results with all externalities. Management must trust each other and, most important, managers must trust that leadership will defend their work and protect their jobs and reputation.

Managers should be accurate and precise, and should not look at the budgeting and financial forecast process as a threat to their jobs.

Wishful Thinking

Daniel Kahneman, Dan Lovallo, and Olivier Sibony (2011, p. 25) write about the tendency of humans to reflect wishful thinking into their forecasting. Perhaps failure is obvious, but wishful thinking may still play a hopeful role. In other words, humans have a natural tendency to expect growth. For example, market saturation or environmental limitations may put a cap on growth. Therefore, the context and position of the firm in the market needs to be assessed carefully and realistically.

Best Practices

There are best practices that leaders can apply to improve their firms' judgment. These best practices will improve the prediction capability of companies. The general approaches describe below should, of course, be tailored to each organization.

- **Dynamic Planning**: Every firm should have an ongoing dynamic plan that looks 12 month ahead and is updated monthly. Otherwise the one static annual budgeting plan becomes obsolete very quickly. According to Stephen Hunt and Paula Klein (2003, p. 85), the budget process can take longer than six months. They also point out that for a typical company with revenues over one billion dollars, a budget may take "on average 25,000 worker-days to complete." Budget time entails time and productivity. Most companies fail to update their system and instead rely on basic Excel. Dynamic planning would end put a halt to the long and exhausting budget process. It will also put a stop to the large political and ego issues with management.

- **Capital budget allocation** should reflect a large strategic plan and should be independent of internal politics of a company and driven by the market. Most companies have a mission statement with values and objectives. Dynamic planning should follow along with these objectives.
- **System Dynamics checkup:** Undertake a system dynamics check-up with all of the firm's numbers. For example, if overtime is unusually high, a department will likely predict a decrease in overtime because they will cut hours. When such a situation happens, run a mental checkup using basic system dynamics concepts. Overtime was generated because there is a constraint in the budget to perform higher, therefore people are working more overtime. To decrease overtime, hire more people, who will need to be trained. The people who initially only worked will now need to train. Overtime will not decrease right way and some lead time will play into this loop. This basic concept of stock and flow from Sterman (2000) can be applied in many parts of the budget exercise.
- **Politics**: Budgets and forecasts should not be used as a tool for evaluating departments. Such a practice induces managers to inflate their numbers in order to protect their bonuses. Performance evaluation should remain separate from the planning process. In most of the interviews, the political part of the budget and forecasts played a large role, and most interviewees mentioned this issue. One way to avoid this problem is to be prepared with a previous prediction before talking to a problematic department. Also have strict rates of increase, for example in an economy

growing at 1% and with no large growth expected in the industry, how can a large increase be justified? Economic indicators and accurate data are the best responses for politics.

- **Performance metrics**: An accurate set of KPIs (key performance indicators) that reflect operations should be used concurrently with financial metrics. Companies should review KPIs monthly, with all management participating in this meeting. FP&A should not be the responsible for implementing operational KPI. Instead, this should come from Operations. FP&A will provide financial indicators as to how much the cost increased, but the reasons why the cost went up is the responsibility of Operations and should be reviewed every month.
- **Identify scenarios**: Undertake scenario planning to know what actions the firm could/should take if significant events occur outside of its control, such as downside risk or upside opportunities. Examples of downside could be as drastic as an earthquake if the firm has factories or equipment located in a high-risk natural disaster area. A scenario should be in place to account for a natural disaster outcome.
- **Estimate the likely impact**: There are many issues that can be estimated correctly, according to Peter Johnson, et al., (2011) According to Johnson, when there is one write-off, the likelihood is high that another write-off will happen. For example, if there is a large layoff in Brazil (a country where the justice system heavily favors the employee not the employer), the probability of a labor lawsuit is high. These factors should be checked and brought to management attention.

- **Training in finance data science:** CFOs should have analysts trained in finance data science. Finance date science must be a priority for most CFOs to secure good and consistent analysis.
- **Develop playbooks for company responses:** One of the main challenges confronting CFOs—and pointed out during my interviews—is the monthly close end process. CFOs focus on how to speed up this process, and it should not be a huge and cumbersome process for managers to close their books. Ideally, CFOs would like to have all relevant information come from one system, and it should all be automated. Less time would be needed for dealing with system issues, and more time could be devoted to insightful research that produces an accurate forecast.
- **Double Z Prime Score:** This was originally created as a way to measure the likelihood that a company might go bankrupt. The Z-prime score is a forecast as to whether the numbers make sense and if the score is in line with past numbers.

Section 5

Conclusion

The traditional process of creating an annual budget remains an arduous task facing every firm, and many are unable to meet the demands of a changing and competitive environment. Dynamic forecasts covering quarterly, monthly, or even weekly updates will reflect the events and disruptions of an ever-changing market and give better results for the company and its stakeholders.

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