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Multinational Corporations Use of Operational and Financial Hedging for Foreign Exchange Risk – Walmart Global Treasury

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An Honors Thesis in partial fulfillment of the requirements for the degree Bachelor of Science in Business Administration in Finance

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Introduction:

During the summer of 2022, I had the opportunity to work in the Walmart Global Treasury in Bentonville, Arkansas, through their Accounting Finance Development Program internship. Walmart's Accounting Finance Development Program (AFDP) was created to launch the careers of young professionals at the Fortune One company. The summer internship serves as an introduction and interview period for students who may be selected to continue into the AFD program upon graduation. The two-year AFD program is exclusively for top university graduates seeking knowledge in finance, accounting, and corporate strategy working on projects and teams that leave a lasting impact on Walmart. The program aims to allow recent graduates to see multiple functions throughout the Walmart Finance organization and harbor young talent who will make purposeful impacts. During the two-year program analysts rotate through four six-month rotations on teams in Walmart U.S., International, Sam's Club, and corporate segments.

Walmart is the Fortune One company pulling in a revenue of $567 billion in the fiscal year of 2022 (Sec Edgar, 2022). With Walmart's vast size and financial capacities, the organization's Finance department faces some of the most complex challenges in corporate finance. Walmart's global sprawl to 24 different countries makes compliance with international rules and efficiency in tasks a daily focus. This international perspective is what I focused on in my assignment with the Global Treasury department. The Global Treasury team oversees the countries of South Africa, China, India, Canada, and all of Latin America. Each of these international areas has its own respective treasury team but much of the coordination goes on at the Bentonville home office. These teams provide services for global cash management, tax purposes, debt issuance, foreign exchange, and other financial needs.

During my summer at Walmart, I experienced the inner workings of the Treasury at the Fortune One company. I had hands-on exposure to the multiple processes of the Treasury functions and, more significantly, how they interact with their international teams. I was assigned to kickstart the Centers of Excellence project in the Global Treasury. The Center of Excellence is a dedicated time where the global teams meet to share ideas, news, opportunities, and failures and create a more streamlined and holistic understanding of what the Treasury should be doing and improving on. Through this project, the international teams can aid other markets that may be experiencing similar problems and projects that they have or will encounter. My task was to launch this new initiative, acting as a project manager and learning about all the distinct functions of the Walmart Treasury.

The Centers of Excellence I was tasked with developing were for the divisions of Supply Chain Finance, Risk Management, Treasury Operations, and Capital Markets. During the summer I set up agendas and schedules for these segments and learned the in-depth function of each of these segments of the Treasury. I had the opportunity to have one-on-one time with the leaders of the treasury teams in Central America, Mexico, China, Chile, South Africa, and others, making for an invaluable experience working with international markets. Finally, I then led the inaugural Capital Markets Center of Excellence with attendees from the Walmart Finance organization from multiple countries.

Throughout the summer, the leaders of the AFDP coordinated multiple learning sessions and exclusive lectures from Walmart executives. I learned the uniqueness of Walmart's world and how meaningful connections and networking are in any corporate environment. Ultimately, I left the summer internship experience with a better understanding of the people and company culture I want to work for. I also learned the function of a corporate treasury and where my skills and weaknesses were in finance.
Learning Objectives:

Entering the internship, I had multiple learning objectives that I wanted to take away from my time at Walmart. First, I tried to understand what the actual function of a corporate treasury is and, more specifically, what a Global Treasury does to bring value to an enterprise. With a bit of background on the inner workings of the corporate treasury system, I was purposeful with my attention to details and asking questions during my first few weeks. Next, I wanted to learn how a multinational corporation effectively operates internal communications. Taking in how communication, policies, and other aspects of work are interpreted is important to me, especially as I seek to work internationally in the future. I also wanted to see what kind of hands-on experience I would get in the Accounting and Finance Development Program. The program is noted for allowing access to resources, situations, and exposure that would take normal employees years to get. The AFD program is supposed to be a launch pad program that sets your career in the right direction, so I wanted to ensure that this program was a good fit for my growth. Finally, I tried to understand Walmart's corporate structure and environment to give me an idea of this corporation and what other large companies are like. The value of understanding a corporation's environment must be noticed. It is essential to understand the business size you want to work for, the business climate, and how that business operates.

Week 1 Journal Entry:

Through the first week of my internship with Global Treasury, I had the opportunity to listen to many influential people in the Walmart organization speak about their goals for the company and the responsibilities they hold. Most of this week has been comprised of networking sessions, onboarding, and information seminars about Walmart and what to experience this summer. At the end of the week, I met my two managers, Gibran Velasquez, and Alejandro Saenger. My managers spent time working in international Walmart offices, and I can tell they will be great leaders and resources this summer. Gibran explained the premise of the project I would work on this summer. I am still trying to understand what the Center of Excellence is supposed to be and how it is structured. Still, I look forward to meeting many people from different international markets.

Week 1:

The first week of the internship consisted of formal onboarding meetings and sessions that gave interns a better understanding of Walmart as a corporation and what the summer internship would entail. During this week, we learned that after working ten weeks with our assigned team, we would have a presentation to our senior managers and other finance team leaders about what we did during our internship. After a week full of networking sessions and seminars, I was finally introduced to my team and assigned the task of creating the Centers of Excellence.

Week 2 Journal Entry:

This week, my main tasks included reviewing the rough draft slides that Risk Management put together for a preliminary Center of Excellence. These Risk management slides are incomplete and leave much room for interpretation, but they are a good piece of guidance. I have been asking Gibran numerous questions and had a two-hour session on Wednesday with Alejandro where he discussed his vision of the Centers of Excellence. Speaking with Gibran and Alejandro, we decided to first engage the local teams about their ideas and thoughts on the Centers of Excellence before going to the markets. Ending this week, I have reached out to the Risk management and the Treasury operations teams and will meet with Operations next week.
Week 2:

During the first few weeks of my internship, my main task was figuring out what a Center of Excellence looked like and how it would be valuable for the Global Treasury team. Since the Centers of Excellence had never been completed, I must envision the format and create a methodology for attacking the project's more intuitive aspects. During week two, the risk management team gave me a rough draft of some slides put together a few months prior. These slides gave me a broad vision of what to expect moving forward. At this point, I was feeling overwhelmed and still trying to figure out what was expected from me for this project.

Week 3 Journal Entry:

During week 3, I got the opportunity to meet with the senior director of Treasury Operations and a senior manager on the team. Before meeting with this team, I had a few sessions with my manager Gibran to understand what the treasury operations team does. Their primary function is the storing and management of money, whether it is physical cash, checks, etc. As Fortune One company, extensive strategies and logistics must be put toward cash management and optimization. Before our meeting, I tried to gain a high-level understanding of the team because it takes more than ten weeks to get deep into its functions. For the meeting I set up a rough agenda and outline of what a Center of Excellence could look like. I planned to structure sessions monthly and focus on a few complicated topics specific to each team making up the Treasury. I got the okay from Gibran and Alejandro and took the plan to the Treasury operations team. The leaders seemed interested in the idea and excited by the value it could provide to both them and the markets.

Week 3:

Week 3 allowed me to understand better what the Centers of Excellence will look like. The added input from the Treasury Operations team allowed me not only to begin outlining an agenda and generating questions for international Treasury Operations teams but also to understand the capacity the team must have to take on this workload immediately.

Week 4 Journal Entry:

This week we will see one of the cash centers that the Treasury Operations team manages. These in-store cash banks allow certain people to put in and take out cash at given times for store necessities. I will meet with the Risk management and Capital Markets teams this week to discuss the Centers of Excellence. Gibran and Alejandro have told me that they see it best fit to have a Capital Markets Center of Excellence fully executed before the end of the summer due to rising inflation, changing foreign exchange, and the monetary policy being implemented by the U.S. Federal Reserve. On Wednesday, I met with the Risk Management team. They gave me some insight into the current insurance environment of Walmart and some forward-looking information for the international teams. On Thursday, I got the opportunity to meet the Senior director of capital markets and two senior managers to discuss the centers of excellence. The capital markets team pointed out that it would be helpful to have markets discuss how their business is being impacted as interest rates and foreign exchange have quickly evolved in the past few weeks.

Week 4:

The local capital markets team and international teams deal daily with foreign exchange and the processes of moving money efficiently from domain to domain; therefore, the team saw that it would be best for the markets to come together and talk about what is going on economically in each of their respective markets. The Walmart home office Capital Markets team participates in trading commercial paper and debt issuance, but the markets do not.
However, these teams still issue dividends, share buybacks, and deal with foreign exchange, which creates vast areas of knowledge to be shared. To end the week a member of the Treasury Operations team showed us a functional cash machine that is used in most Walmart U.S. stores. These machines store physical cash and coins, acting as a temporary bank and great internal control in stores.

**Week 5 Journal Entry:**

This week I met with staff from Walmart Mexico to discuss the Centers of Excellence and the possible importance and value it could bring to their Treasury operations and Capital Markets teams. During this discussion, I got to talk to the head of the Treasury for Mexico and the leaders of the treasury operation and capital market functions. They shared individual problems that their market faced, such as a coin shortage and macroeconomic factors creating various problems. I also met with Walmart Central America and discussed some relevant topics in their market. After these meetings, I spent the rest of the week drafting possible meeting topics, agendas, and ideas and talking with Gibran and Alejandro about the direction of these programs.

**Week 5:**

During week 5, I made significant progress mapping out what the markets want as a structure of the Centers of Excellence and what topics are most relevant for their teams. The vision for the Centers of Excellence began to solidify during this time. After touching base with these teams, I was ready to speak with India, China, and South Africa to get their opinions and input.

**Week 6 Journal Entry:**

This week I met with South Africa and China. I had to schedule the call with China at 9 pm because of the time zone differences. Meeting with both of these teams gave an exciting insight into what was going on in their markets. It truly showed me how international Walmart is and how different these markets they operate in can be. For example, South Africa's team explained how the nation had been experiencing nationwide blackouts, and they had to build new infrastructure to combat this. Unlike the United States and many other countries' central banks, China's national bank is lowering its interest rates because the zero covid policy is constricting any inflationary concerns.

**Week 6:**

In week 6, I finished meetings with all the international treasury markets in Walmart. I was left with valuable information on each of the market's operations, troubles, and new tasks they were facing. At the first meeting, South Africa and China again confirmed the necessity for a Capital Markets Center of Excellence. The validation for a Capital Markets Center of Excellence from all the markets made it clear for me to focus most of my time and energy on this moving forward.

**Week 7 Journal Entry:**

Week 7, I began to set an agenda for discussion topics during the Capital Markets Center of Excellence. I met with the home office Capital Markets team members multiple times this week to help structure the presentation format. We decided that every market will have an allotted time to discuss its macroeconomic environment and its consequences on its Capital Markets teams. At the end of this week, I put together some example slides and a rough draft of the market agenda and gave a meeting time for week 9 of my internship.
Week 7:

Finishing the meetings in week six allowed me to make considerable progress in week 7. I got agendas and slides on paper so the markets would understand what they needed to hand in. In addition, I will be leading this presentation, giving introductions, and helping with the entire flow of the online Zoom presentation.

Week 8 Journal Entry:

While waiting to hear back from the markets this week, I have been creating agendas for the other Centers of Excellence I was tasked with setting up. Between Treasury Operations, Risk Management, and Supply Chain financing, I have over 20+ topics that would have a value-add purpose right now through a Center of Excellence meeting. I have also been meeting with Gibran and Alejandro to discuss how I should structure the meeting and do brief walkthroughs of my talking points. Alejandro has stressed the importance of this first Center of Excellence meeting and how it will set precedence for the International Treasury members as a waste of time or valuable use of time.

Week 8:

In Week 8, I had time to take attention off the Capital Markets Center of Excellence and to look at the other Centers of Excellence. Week 10 was my deadline for turning in all the parts of my project, including the different agendas and ideas for multiple Centers of Excellence, so this was a task that I had to focus my efforts toward. The forward-looking part of my project was interesting because I could set up meetings and derive topics that would proceed past my Walmart internship.

Week 9 Journal Entry:

On Tuesday of this week, we had the inaugural Capital Markets Center of Excellence meeting. During this time, the markets came together and explained what they were facing in their respective macroeconomic environments. The meeting started with me giving an introduction as to what the vision of Centers of Excellence is and then introducing members and leaders of each respective market. The home office started the presentations with a macroeconomic overview of the United States and the effects the economy is having on functions such as dividends, share repurchases, commercial paper, and foreign exchange. The presenters of the various international markets also explained what they had been experiencing, and there seemed to be an overarching theme to all the market presentations. Interest rate shifts were causing troubles globally, except in China. The markets saw this trouble trickle down to foreign exchange and other money management functions.

Week 9:

Ultimately the Center of Excellence meeting left the Treasury leaders with a good understanding of the problems that everyone was facing and created conversation topics for resolutions in the future. Most other countries followed suit as the federal reserve has aggressively enacted a monetary policy that raises rates. Interestingly, China explained how their central bank was not raising rates but lowering them. As China continues its zero COVID policy, keeping its rates low to spur economic growth makes sense. Overall, the meeting seemed like a great starting place for the project that can be built on in the future.

Week 10 Journal Entry:

For the final week of my internship, I was tasked with presenting an overall review of my projects and experiences at Walmart this summer. I have been piecing together this presentation periodically for the last few weeks to express the story of the Centers of Excellence. Luckily telling the story of the Centers of Excellence is something that I have had to do all summer. I
presented to about 150 people, including executives and vice presidents throughout Walmart finance, including their newly appointed Chief Financial Officer, John David Rainey. My message was well received, and I was offered a full-time position in the program.

**Week 10:**

As the internship came to an end, the interns were allowed to share the experiences they had working with Walmart on a big stage. I gave a good presentation and thanked my team and everyone who helped me with my project. I outlined the main learning points of this summer for me as the ability to manage multiple people from different countries, a thorough understanding of a corporate treasury function and, more specifically, the functions of a capital markets team and the tools they use to shield their company from shifting interest rates, inflation, and foreign exchange.

**Preface:**

During my time at Walmart working with the Global Treasury and Capital Markets teams, I had the opportunity to experience the importance of foreign exchange for a multinational company. In the summer of 2022, the federal reserve began a series of rate hikes to combat inflation experienced from COVID-related circumstances such as quantitative easing. For this paper, it was advantageous for me to go over the factors which affect foreign exchange rates, followed by the effective hedging strategies that multinational corporations employ.

**Literature Review:**

During my time at Walmart, I saw how large corporations manage currency shifts and exposure internally. Walmart and many other multinational corporations have different types of currencies flowing through their balance sheet, creating variability of exchange rates and exposure to significant gains and losses. It is challenging to pinpoint the sole factor or indicator that affects the exchange rate of a currency. Much research has been conducted, and different methodologies have been used to examine the moving parts that make up exchange rates. Foreign exchange matters because it has an actual monetary impact on corporations' performance. Research by Frazer and Pantzalis (2004) used a firm-specific proxy to show that foreign exchange rates can impact firms' stock performance. Frazer and Pantzalis (2004) findings using their indexed dataset methodology showed that multinational corporations' stock returns are correlated with foreign exchange rates. Two highly correlated factors to currency exchange rates are interest rates and inflation. (Twin, 2023)

Changing the federal borrowing rate or interest rates dramatically impacts an economy as a whole. **Interest rates** are a monetary policy tool that can affect multiple economic factors. A study by Raju (2014) explains the Mundell-Fleming model and how the effects of increased interest rates help curb inflation and stop the depreciation of a currency's exchange rate. The theory behind this is that capital inflows will increase, restraining exchange rate depreciation, and it reduces demand which in turn lowers imports (Raju, 2014). Interest rate shifts are an essential monetary policy tool for the Treasury of the United States and other countries' central banks, creating a multifaceted impact on multinational corporations.

Inflation is interrelated as central banks use interest rates to control economic inflation. Mirchandani (2013) researched the impact of multiple macroeconomic factors on India's exchange rate, including inflation. Using a data set of economic indicators from 1991 to 2010, Mirchandani (2013) found an inverse correlation between inflation and exchange rate. Countries with higher inflation will face more currency depreciation compared to those they are trading
with who have stable levels of inflation (Mirchandani, 2013). Subsequently, when inflation is high, interest rates will be raised to combat rising prices.

Other resolutions point towards different macroeconomic indicators influencing exchange rates. Research conducted by Vidyavathi and Pooja (2016) found an inverse relationship between GDP and exchange rate, inflation and exchange rate, interest and exchange rate, and external debt and exchange rate. They also found a weak positive correlation between foreign direct investment and exchange rates. These factors outline the premise that exchange rates are volatile, and controlling their risk is fundamental for international corporations like Walmart. With many unpredictable factors, corporations must be prepared to combat the exposure of shifting exchange rates.

Studies show the ambiguity of even the highly correlated variables being often tested. Raju (2014) researched the correlation between exchange rates, inflation, and interest rates. They found that inflation and interest rates only have a short-term relationship to exchange rates and not a long run relationship. Ponnamma (2017) performed similar tests on an Indian data set where they found that in the short term, exchange rates are variable, depending on the specific characteristics of an economy now. Ponnamma (2017) also states that long-term exchange rates are more estimable in near to future terms. The different views on and conclusions on exchange rates solidify the need for corporations to be shielded from risk.

Implications and Actions:

The implications of fluctuating foreign exchange rates can impact corporations' income from foreign operations and the value of their foreign assets (Crabb, 2002). Crabb (2002) used sample data from the Standard & Poor's 500 index from 1991 to 1996, looking at the widespread reporting of foreign currency derivatives. Using this they obtained the net impact of movements in exchange rates and their impact on returns for multinational companies. They found that multinational firms are exposed to exchange rate risk, and foreign currency derivatives successfully mitigate the risk of loss (Crabb, 2002). Walmart and other firms can use hedging tools to combat the risks of currency exchange rates. In the absence of hedging tools, corporations like Walmart are exposed to foreign exchange risk (Crabb, 2002).

Diminishing exposure risk is possible with hedging and corporations' active cash management. Multinational firms' actions and methods to hedge their currency positions are essential for protecting their profits and assets, and the two methods of financial and operational hedging are widely employed. Sometimes operational hedging is more attractive because of the illiquidity of financial hedges (Hoberg & Moon, 2017). Operational hedges are used to manage the impact of volatility in exchange rates on a firm position across markets and include a variety of firm decisions. Some of these operational decisions include purchasing inputs in the same countries. For example, a U.S. firm selling products in India while simultaneously buying inputs in India creates positive exposure of the USD-Rupee as one is an output, and the other is an input hedging the sale of output (Hoberg & Moon, 2017). Hoberg and Moon (2017) ran a regression on a sample from 1997 to 2011 to measure 293,000 observations of 10k material involving offshore account activity. The study found that international firms will switch between operational and financial hedging depending on a currency's liquidity and demand uncertainty (Hoberg & Moon, 2017). Operational hedging is efficient and optimal under certain defined circumstances. Functionally firms sourcing raw materials locally both minimize the need for foreign exchange transactions and minimize exposure to exchange rate fluctuations. When a
currency is more liquid, demand is high, and operational hedging is expensive, corporations often switch to financial hedging.

Financial hedging uses financial instruments like forwards, options, futures, and swaps to protect against adverse currency prices and rate movements (BDC, 2023). According to studies, certain circumstances make financial hedging more beneficial. Geczy et al. (1997), for instance, contend that financial hedging may be advantageous when a firm's activities are highly connected with the market, which renders operational hedging ineffective. Similarly, Allayannis et al. (2001) found that financial hedging is advantageous when a company is heavily leveraged or has a limited cash flow, making it challenging to make expensive operational improvements.

As previously noted by Hoberg and Moon (2017), foreign exchange derivative liquidity pushes corporations away from operational hedging. The array of costs and benefits all play into corporations’ decisions of hedging tactics. Hoberg, Moon, and other pieces of literature agree that in reality corporations balance operational and financial hedging to achieve maximum efficiency (2017). Multinational companies tend to not strictly hedge their foreign exchange risk on simply one of these methods but blend them to reach optimal efficiency.

**Conclusion:**

Reflecting on my time at Walmart, I am incredibly grateful for the opportunity my managers gave me to start the Centers of Excellence. Although this was not a technical project, it gave me a holistic understanding of how the corporate Treasury of the Fortune One company functions. In addition, the project forced me to get out of my comfort zone and develop project management, leadership, and collaborative skills. Working with the Capital Markets team, I got great insight into the world of currency hedging and how they create value for the company through hedging. Seeing the actual use of financial and operational hedging during the summer as interest rates shifted gave me the clear idea of going over these powerful tools for my research. Overall, these ten weeks have given me more clarity about what I want to pursue as a future career and have allowed me opportunities and exposure to a new world of finance.
Works Cited


