University of Pittsburgh

Personal Financial Plan

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Introduction and Background

Financial literacy is a subject that is seldom taught in life, but something that is vital to being financially independent throughout one's lifetime. The class for which this financial plan was developed has opened my eyes to the basics and necessary concepts of personal finance. Even being a business major in college, more specifically a finance major, I wasn't aware of some of the information presented, but the things I did know were built upon and led to the creation of a sound budget that will carry me into the beginning of my professional career.

My financial plan (referred to as budget from here on) was based off of my accepted job, salary, and benefits that I will begin the summer after graduation. I will begin working at The Vanguard Group, Inc. at their headquarters in Malvern, PA as a Fund Financial Associate and the salary numbers presented in my budget for Year 1 are based off of the salary I will earn in my first year. From there I made educated assumptions of my salary for Year 3 and Year 5 off of company averages and expected future roles within the firm. Not included in my budget are potential bonuses earned in addition to salary. I will have potentially two bonuses per year, one at year-end and one at mid-year. Due to the variability in these bonuses each year, I decided it would be best to exclude them from my calculations. Should I receive them, I plan to contribute a significant portion of them (~50%) to my 401k and keep the rest in personal savings or spending, depending on what is appropriate at the time.

Taxes

The taxes that were calculated on my gross pay are accurate to what I can expect to pay once I start working. The tax data rates were taken from Putnam Investments and was applied based on my salary.[1] I included the "Standard Deduction" line in my taxes taking out $6,300 immediately before taxes, along with my 4% 401k match (which will be discussed later) because these items are able to be taken out from gross income without tax consequences.[2] I chose to take the standard deduction on my taxes because I do not plan to itemize my deductions in the anticipation that the standard deduction amount will provide a greater tax benefit, according to my filing status and other variables.[3] After federal taxes were deducted, state taxes, and then local taxes were also accounted for. The Local EIT refers to the local earned income tax payable based on the address I will be living at and the LST is the local services tax based on my work address.[4] I was able to calculate my effective tax rate by dividing my total taxes paid by my income less the 401k deduction. From there, my net annual take home pay was calculated and was used as the basis for the budgets from years one through three. A view of the tax deductions can be seen in Appendix 1.

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[1] https://www.putnam.com/literature/pdf/II939.pdf
[2] See Appendix 1
[3] https://www.irs.gov/publications/p17/ch20.html#en_US_2015_publink1000283781
[4] http://munstats.pa.gov/Public/FindLocalTax.aspx

Investing Outflows

This section describes my investment and savings accounts that I will be using, including my Emergency Fund, Roth IRA, and 401k plan. This is a very important aspect of my budget because I want to be sure that I have adequate savings, something that a majority of Americans do not prioritize. It was recently noted that almost one third of Americans have zero dollars saved for retirement.[5] I want to ensure that I am not in this unfortunate predicament so I plan on focusing largely on maintaining this section of my budget strictly.

First, I will focus on the 401k portion of this section. My company's 401k match plan is a generous one that I plan on taking advantage of. There is a 4% match plus an additional 10% annually (that is applied quarterly), which provides a potential for 18% of my salary being contributed to my 401k without me having to even think about it or even see it (automatic deduction from my paychecks). This matching program leads to a $7,920 contribution in my first year, which increases yearly as my salary increases.[6] The match is fully vested after six years, but since I plan on working at the firm for that amount of time I have included the full amount into my budget. I assumed a 6% return on my 401k investments in order to be relatively conservative and not overly optimistic. This way if I end up saving more I'll be in a better place than I expected to be in. I chose this average annual return because the average annual return of the S&P 500 index since its inception is roughly 10%, and 7% when adjusting for inflation.[7] Since I have a long time horizon for my 401k investment, I will be allocated strongly towards equities so this benchmark rate of return is appropriate. After the effects of compounding, after 5 years assuming a 6% annual return, I should have approximately $60,000 in my 401k account.

In addition to my 401k account, I will be opening a Roth IRA to assist in my retirement savings. Since the maximum annual contribution is $5,500, I will be contributing that amount per year. This equates to $458.33 per month and a total of $27,500 over the five year period. For this investment I also assumed a 6% annual return for reasons similar to those stated for my 401k. In doing so, the compounded returns should yield roughly $33,000 at the end of five years.[8] Combining this with my 401k savings, I should be in a good spot with regards to retirement savings after five years of working.

The next important investing outflow piece is the emergency fund. This is essential for anyone to have in the case of well, an emergency. In order to get the amount for this fund, I used my monthly living expenses that are necessary (not including credit cards, etc.) and then multiplied this number by six to come to a number for six months of living expenses which should be an adequate number in my emergency fund. In order to find my monthly payment into this fund, I divided the six-month total by 24, in order to have this fund fully funded within two years. I chose the two years because I will be living at home for likely the first one and a half to two years of working so the chances of a drastic emergency happening in this time period are

[5] http://www.usatoday.com/story/money/2015/04/21/no-retirement-savings/26070017/
[6] See Appendix 2
[7] http://www.investopedia.com/ask/answers/042415/what-average-annual-return-sp-500.asp
[8] See Appendix 3

lesser than probably would be otherwise. So, my monthly investment into my emergency fund is $392.50[9]

The final aspect of my investing outflows is my "Additional Savings" section. This section is just to have as excess cash and short term savings to be used or saved, depending on what opportunities present itself. For example, if I decided to go to a sporting event or visit a friend for a weekend, I could tap into this and use funds as necessary. My short term goal is to save five percent of my monthly take home pay for this fund because I find it's an achievable goal and in conjunction with the other savings outlined above is a good supplement. At the end of five years, by calculating the monthly savings, I should have roughly $10,000 in this account (assuming that I don't tap into it at all, which is unlikely). These funds will simply be in a checking or savings account.

Budget for Year 1, 3, and 5

By using the sections described previously along with additional information and estimates, I was able to create a budget for Year 1, Year 3, and Year 5 post-graduation. Each year was broken down into three categories separated by importance: Obligations, Investing Outflows, and Discretionary Spending. The Obligations section includes student loans, car payments, rent and utilities, and other monthly obligations that are necessary to meet. Investing outflows are the investments and savings described above (excluding the 401k savings because that is realized before net take home pay). Discretionary spending is what is left over after meeting the previous section's requirements and includes items like entertainment, clothing, gasoline, etc.

Beginning with my monthly obligations, the figures in this section were derived in a few ways. Student loans are a major portion of this section and personally, I will have $27,000 par value of loans to pay back with a weighted average interest rate of 4.90%. I was able to find my monthly payments (on a ten year term) come out to $309.00 per month.[10] Next, the car loan line is an estimate of what I will have to pay when I purchase a car after graduation. I am still unsure whether I will buy a used vehicle, or lease a new one, but I determined that a monthly payment of $500 is approximately average after accounting for trade-in value for my current car, my likely APR rate, and the types of cars I will be looking for (mid-size SUVs). If I am unable to find a vehicle in this price range I will hold off buying a new car until I need to or am able to find one in my price range. Car insurance payments are of a similar estimation based on what I currently pay and my clean driving record. As mentioned earlier, I plan on living in my parent's home for the first 1-2 years of working so this explains why I have zero values listed for my rent, utilities, and groceries lines in Year 1, and estimates of these values for Years 3 and 5. These estimates are based on what average rent prices are in Philadelphia areas where I will be looking and what colleagues of mine currently pay in those areas. My phone bill is also an obligation in each year.

[9] See Appendix 4

[10] According to studentloans.gov based on my loan balance and interest rate (for 10 year payment schedule)

The investing outflows section is the next one in my monthly budget, and these values were explained in the previous section.

Lastly, discretionary spending is the section of my monthly budget that has the most "wiggle room" because these values can be changed according to how I feel like allocating my extra money during these months. For example, I can buy $150 of clothing in one month and $0 in the next instead of $75 each month, unlike my phone bill where it isn't appropriate to do so. "Gas and Maintenance" is the largest portion in this part of the budget because of where I am living in regards to my work. I will be living roughly 40 miles from my work office so a lot of driving during the week will inevitably drive up my spending on gas and most likely maintenance as well (less-so if I decide to get a new car). This number decreases slightly in Years 3 and 5 because I plan on moving closer to my work so I will likely cut down on my work commute, but with likely increased trips to my parent's house I expect the number to not be drastically lower. "Clothing" is an item that I have increased spending throughout the years. As I make more money I will have more discretionary spending and because I have an interest in clothing and will likely be buying professional clothing for work as well, I expect to increase this spending over the years. "Dining out" and "Entertainment" are similar line items and likely could be combined if I wanted, but a difference that separates them is that dining out more specifically includes eating out for lunch during the week while at work. In all likelihood, I would be preparing lunches and bringing them to work, but instead will be going out or eating at the cafeteria on my work campus. Either way, I will be spending about $10 a day on lunch and this is accounted for in the "Dining out" line item. "Personal Care" includes haircuts and other care products that I will be spending on.

The last line on the budget is called "Margin for Error" and is the difference between my available monthly income and my total monthly spending. As one can see, I have a negative value for this in Year 3. However, I am not concerned about this fact because I did not account for my two potential bonuses, I have additional savings that can help cover this, and I can adjust my discretionary spending how I please and when combined all of these factors should offset that negative value. The positive values in Years 1 and 5 show that I have extra money that was not allocated, and this is essentially extra savings that I earn each month because I didn't spend it. The entire budget for all years mentioned above can be found in Appendix 5.

I took my monthly budgets that I created and converted the dollar values into percentages of my total monthly income. From this, I created pie charts for each year to visually depict where my monthly spending is allocated. These figures can be found in Appendix 6. It is easy to see that in Year 1 my investing outflow is the largest portion, but once I move out of my house I will incur additional obligation expenses and in the later years this section becomes the most dominant compared to the others. I expected this would be the case so I am confident I will be able to maintain this spending allocation.

This budget is a great starting point for me as I enter the "real world" after graduating from the University of Pittsburgh. As I advance through my career and encounter new opportunities and obstacles, I can adjust my budget accordingly to account for these new occurrences. I plan on using a financial plan to guide me throughout my life and help keep me on track toward my goals and month-to-month expenses. I am happy that I took a class that focused on these facts and I recommend that every higher education institution makes a class like this necessary for students to graduate.

Appendix

1.

		Year 1	Year 3	Year 5
Salary		**$ 44,000.00**	**$ 60,000.00**	**$ 75,000.00**
Less: 401(k)	4%	$ 42,240.00	$ 57,600.00	$ 72,000.00
Standard Deduction		$ 6,300.00	$ 6,300.00	$ 6,300.00
Taxable Income (Federal)		***$ 35,940.00***	***$ 51,300.00***	***$ 65,700.00***
Federal EIT (Marginal Brackets)	10%	$ 922.50	$ 922.50	$ 922.50
	15%	$ 4,007.25	$ 4,233.75	$ 4,233.75
	25%	-	$ 3,462.50	$ 7,062.50
FICA- Social Security	6.20%	$ 2,228.28	$ 3,180.60	$ 4,073.40
FICA- Medicare	1.45%	$ 521.13	$ 743.85	$ 952.65
PA State Income Tax	3.07%	$ 1,103.36	$ 1,574.91	$ 2,016.99
PA State Unemployment Ins.	0.07%	$ 25.16	$ 35.91	$ 45.99
Local EIT	1.6%	$ 575.04	$ 820.80	$ 1,051.20
LST		$ 52.00	$ 52.00	$ 52.00
Total Taxes		*$ 9,434.72*	*$ 15,026.82*	*$ 20,410.98*
Effective Tax Rate		22.336%	26.088%	28.349%
Net Annual Take Home Pay		**$ 34,565.28**	**$ 44,973.18**	**$ 54,589.02**

Note: Both performance-based bonus (year end) and Partnership Day bonus (mid-year) are TBD on a year-by-year basis.

2.

	401(k)			
	4% Match	+	10%	Total/Year
Year 1	**$ 1,760.00**	$ 1,760.00	$ 4,400.00	$ 7,920.00
Year 3	**$ 2,400.00**	$ 2,400.00	$ 6,000.00	$ 10,800.00
Year 5	**$ 3,000.00**	$ 3,000.00	$ 7,500.00	$ 13,500.00
		Assuming 6% Return	Compounding	Total
1	$ 7,920.00	$ 8,395.20		
2	$ 7,920.00	$ 8,395.20	$ 8,898.91	$ 17,294.11
3	$ 10,800.00	$ 11,448.00	$ 18,331.76	$ 29,779.76
4	$ 10,800.00	$ 11,448.00	$ 31,566.54	$ 43,014.54
5	$ 13,500.00	$ 14,310.00	$ 45,595.42	$ 59,905.42
	$ 50,940.00			
	Total (Adjusted for Rtn)		**$ 59,905.42**	

3.

	Roth IRA			
Max Yearly Contributior	$ 5,500.00	**5 Year**		
Monthly	$ 458.33	**$ 27,500.00**		
Year				
		Assuming 6% Return	Compounding	Total
1	$ 5,500.00	$ 5,830.00		
2	$ 5,500.00	$ 5,830.00	$ 6,179.80	$ 12,009.80
3	$ 5,500.00	$ 5,830.00	$ 12,730.39	$ 18,560.39
4	$ 5,500.00	$ 5,830.00	$ 19,674.01	$ 25,504.01
5	$ 5,500.00	$ 5,830.00	$ 27,034.25	$ 32,864.25
Roth IRA (adjusted for rtn)		**$ 32,864.25**		

4.

Emergency Fund		
Rent	$	700.00
Utilities	$	150.00
Cable/Internet	$	120.00
Cell Phone	$	100.00
Car Payment	$	500.00
Total Monthly	**$**	**1,570.00**
6-Month Total	$	9,420.00
Monthly Pay-In	**$**	**392.50**
After 5 Years	*$*	*23,550.00*

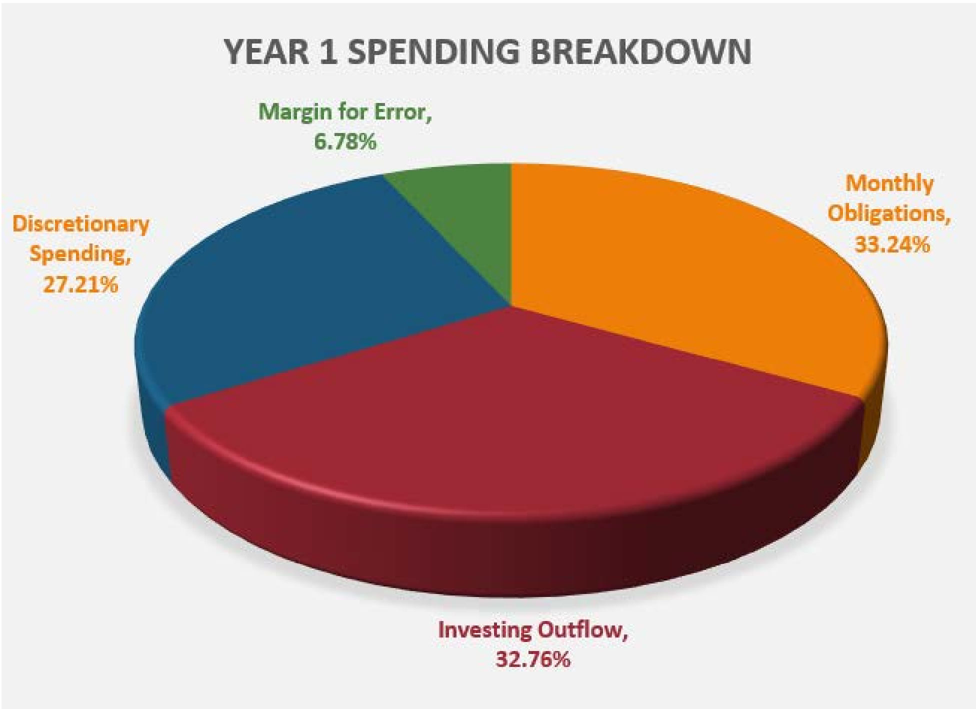
5.

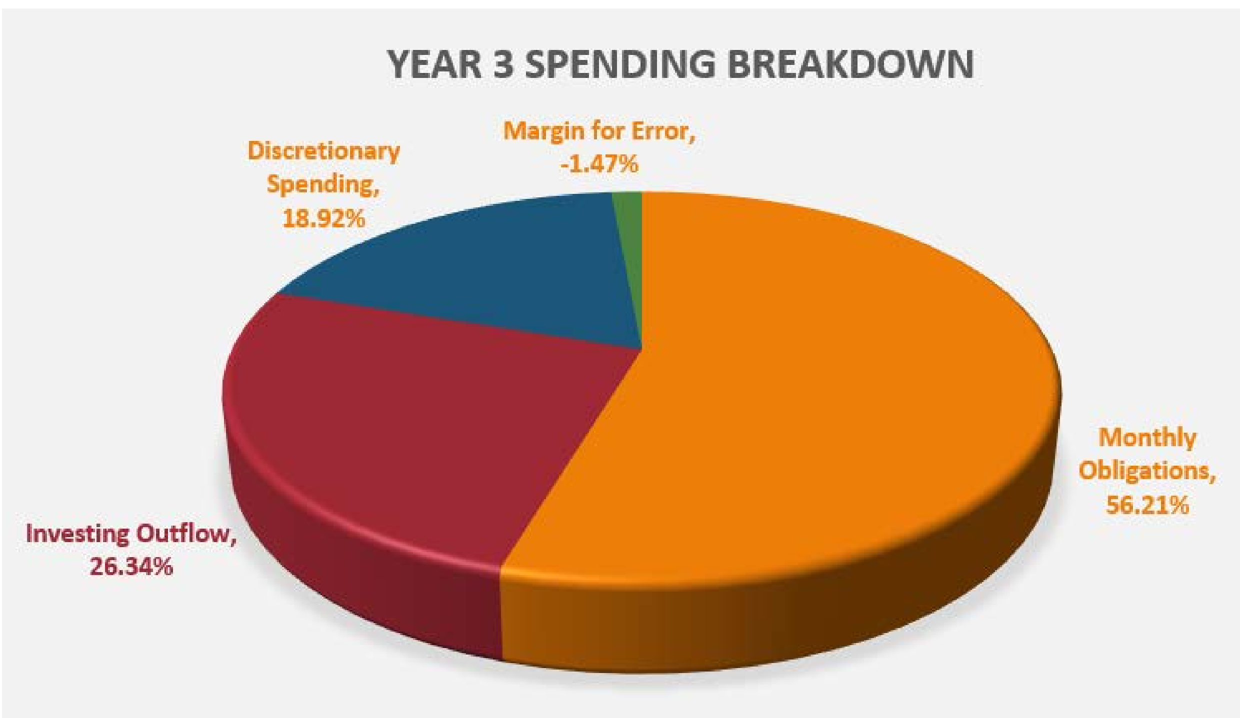
	Year 1	*Year 3*	*Year 5*
Monthly Income	***$ 2,880.44***	***$ 3,747.77***	***$ 4,549.09***

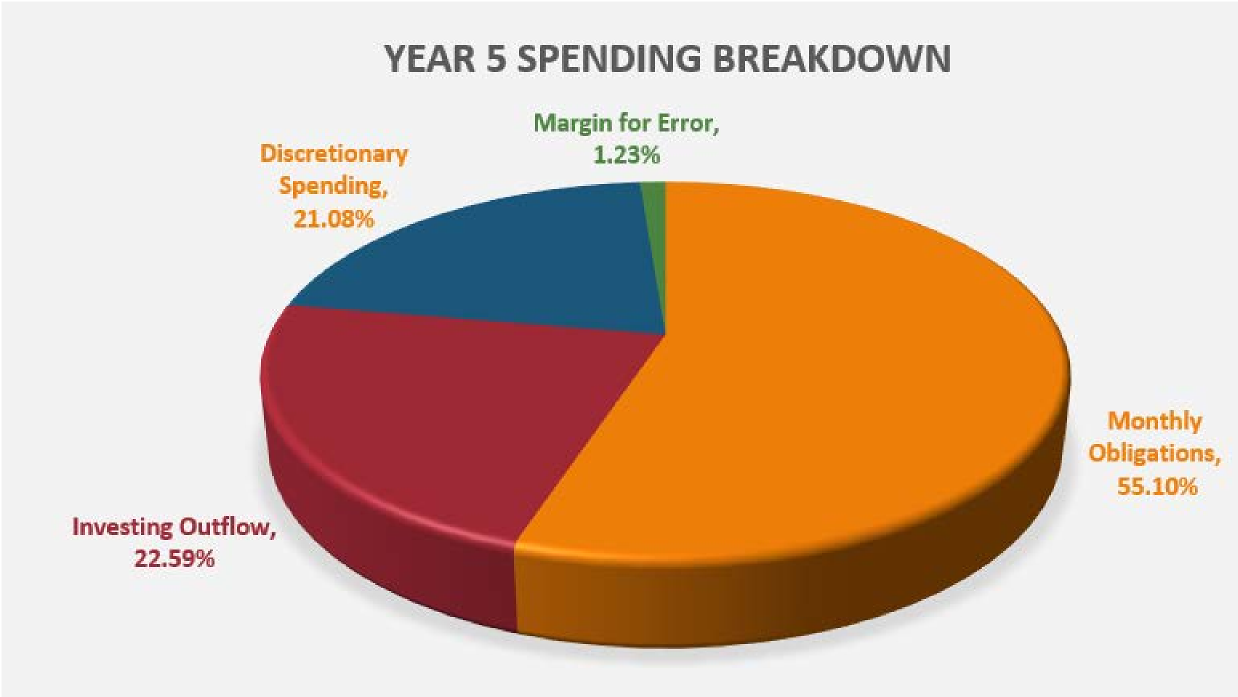
Obligations	*Year 1*	*Year 3*	*Year 5*
Student Loan*	$ 309.00	$ 309.00	$ 309.00
Car Loan	$ 500.00	$ 500.00	$ 500.00
Car Insurance	$ 100.00	$ 100.00	$ 100.00
Phone Bill	$ 50.00	$ 50.00	$ 50.00
Rent	$ -	$ 750.00	$ 850.00
Utilities	$ -	$ 100.00	$ 200.00
Groceries	$ -	$ 300.00	$ 450.00
Total Monthly Obligations	***$ 959.00***	***$ 2,109.00***	***$ 2,459.00***
Investing Outflows	*Year 1*	*Year 3*	*Year 5*
Emergeny Funds	$ 392.50	$ 392.50	$ 392.50
Roth IRA	$ 458.33	$ 458.33	$ 458.33
Additional Savings	$ 144.02	$ 187.39	$ 227.45
Total Investing Outflow	***$ 994.86***	***$ 1,038.22***	***$ 1,078.29***
Total Expenses	**$ 1,953.86**	**$ 3,147.22**	**$ 3,537.29**

Discrentionary Spending	*Year 1*	*Year 3*	*Year 5*
Amount Available	*$ 926.58*	*$ 600.54*	*$ 1,011.80*
Gas and Maintainence	$ 400.00	$ 350.00	$ 350.00
Clothing	$ 75.00	$ 100.00	$ 150.00
Dining out	$ 200.00	$ 150.00	$ 300.00
Entertainment	$ 75.00	$ 75.00	$ 125.00
Personal Care	$ 35.00	$ 35.00	$ 35.00
Total Discrentionary Spending	**$ 785.00**	**$ 710.00**	**$ 960.00**
Margin for Error	*$ 141.58*	*$ (109.46)*	*$ 51.80*

6.


YEAR 1 SPENDING BREAKDOWN
Margin for Error, 6.78%
Monthly Obligations, 33.24%
Discretionary Spending, 27.21%
Investing Outflow, 32.76%


YEAR 3 SPENDING BREAKDOWN
Discretionary Spending, 18.92%
Margin for Error, -1.47%
Monthly Obligations, 56.21%
Investing Outflow, 26.34%


YEAR 5 SPENDING BREAKDOWN
Margin for Error, 1.23%
Discretionary Spending, 21.08%
Monthly Obligations, 55.10%
Investing Outflow, 22.59%

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