

2019 Personal Finance Case Study

January 14, 2019

*Your team focuses on providing clients with comprehensive financial planning and acts as a fiduciary. Mr. and Ms. Putnam heard about your services from a neighbor, who stated that you are great at helping families evaluate various options so they can develop a plan that will help them reach their goals and make intelligent financial choices along the way.*

*When you first met with the Putnams, you learned the facts described below and were provided with both the attached balance sheet and budget. Use this information to help the Putnam family improve their financial condition and reach their financial goals.*

**PERSONAL INFORMATION**

Chandler and Monica Putnam currently reside in Lynchburg, VA where they have been happily married for 12 years. The Putnams have three children. Sierra, 17, is from Chandler’s former marriage. She will graduate from high school this spring. Their other two children are Julius (10 years old and in 6th grade) and Jayden (eight years old and in 3st grade). The family also has a 10-year-old arthritic Labradoodle named Winston. Both Julius and Jayden are very into little league baseball and are on several travel teams.

Monica, 38, has practiced as a dental hygienist since graduating from the dental hygiene program at VCU School of Dentistry in 2002. She is employed by a very well-regarded practice and makes $73,000 per year. She really enjoys her work and flexible schedule that it affords. Chandler, 44, has been a co-pilot for a regional airline for the last 15 years and makes $66,000 a year. Because of his job, Chandler is seldom home, travels frequently, and spends about $400 a month eating at the airport. In 2014, the family moved to Lynchburg, VA to be closer to Monica’s sister, Sarah, so she could help Monica take care of the children two days a week. They didn’t know then if they would be able to stay in Lynchburg so they decided to rent a townhome.

Chandler is passionate about motorcycles and often likes to tinker with them in his garage in his limited spare time. He currently owns a 2011 Triumph Thunderbird valued at $5,430 and would prefer to keep it. He tries to minimize maintenance costs for it by repairing it himself whenever possible. His mechanic tools are currently valued at $3,675. With such busy lives, the family has not had time to reflect on their financial situation, and is hoping for some guidance. In addition to a current budget and balance sheet, they have provided you with the following information:

**HOME**

Chandler really wants to buy a single family home for the two boys to run, play, and practice baseball. Additionally, Chandler likes having his own space to store his motorcycle and tools, and with Sierra seriously considering a career as an automotive technician or motorcycle technician he would enjoy having space to share time with her working on motorcycles. Monica has never owned a home before, so is unsure about all of the other considerations but she is open to the idea. They have found several properties that suit their needs for around $300,000. They want to put down 20% (they are saving $300 per month for this goal) and fund the remainder with a mortgage at a 4.5% annual interest rate.

**CAR**

The family also is in the market for a new vehicle. Since Sierra has started driving her parents have let her drive the 2009 Chevrolet Malibu. Chandler has been riding his motorcycle to work, but will need a new car this summer as they have decided to give Sierra the car. The family is looking into purchasing a new Honda Accord, valued at $28,000 and keeping the payment at $450 per month; they are also considering paying cash up front for the vehicle since they have enough in their savings account. However, they are not sure if they are comfortable significantly depleting their savings, especially with a home purchase in the near future. They have heard you should have a certain amount saved up in liquid assets in case of emergencies, but have no idea how much.

**EDUCATION**

After spending many nights watching her father fiddle with his motorcycle, Sierra has taken an interest in pursuing a professional career as an automotive technician. Sierra has already enrolled in a technical institute, and will start immediately after she graduates high school in June. While her parents are proud of her decision, they had originally thought Sierra would attend a four-year public university. Thus, the family funded a 529 education savings account for Sierra. Now the account is overfunded, totaling $38,163, as the automotive technician program will only cost a total of $15,000. Furthermore, they are uncertain if the program can be covered by Sierra’s 529 plan, but they continue to save $225 per month.

In addition to being a good baseball player, Julius is already a talented musician and has talked about attending college for music. The family has not opened a 529 account for Julius, but certainly wants to fund his (and Jayden’s) education. The family is now worried that they have too much saved for Sierra’s education and are wondering if there is a way to transfer the funds from Sierra’s 529 to 529 plans for the other children. Recently, a friend told them to check out <http://www.virginia529.com> to learn more about Virginia529 education savings plans, but they have not done so.

**RETIREMENT**

Both Chandler and Monica are starting to think about their life after work. They both hope to retire when Chandler turns 67, but are not sure if they will be able to do so. Chandler has two plans through work (1) a 401(k) plan that matches his contributions dollar for dollar up to 3% of his salary and (2) a defined benefit pension. He is currently contributing 4% to his 401(k), but is open to contributing more if he has the disposable income to do so. Chandler’s 401(k) has a current balance of about $87,000. He also has a rollover IRA from his former employer. Chandler’s pension provides the following benefit as of age 65.

Pension Formula:

* Annual benefit amount = Average final 3yr compensation × 1.7% × total years of service credit

Monica’s employer provides a SIMPLE IRA plan and makes a 2% annual contribution. She puts in 5% of her pay, but she has fully funded her Roth IRA for the last 4 years and intends to do so again.

The couple also has a joint non-qualified brokerage account earmarked to fund their retirement that has a current balance of $57,915. They believe they could receive an 8% annual rate of return from both Chandler’s 401(k) and the brokerage account. They also believe they would need about 75% of their current monthly budget in their retired years. Since the amount that will be available from Social Security payments at retirement is difficult to predict, they have decided to consider only retirement benefits that will come from Monica’s pension and the investment accounts that they hold. They also believe it is prudent to plan for living until they are 90 or 100 years old.

**INSURANCE**

Chandler thinks that it is a good time to review the family’s insurance options. His airline is known for their employee benefits and thus Chandler is already enrolled in the company’s group medical, dental, and vision policies. The policies provide significant coverage for the family of five and cost a total of $200/month. The airline also provides Chandler with a life insurance policy that covers 3x salary. Monica does not have life insurance, so she is considering purchasing either a whole life policy or a 20-year term life policy.

For automotive insurance, the couple currently pays $150/month for split limit coverage of $100k/$300k/$100k on each of their motor vehicles, including Chandler’s motorcycle. They expect their monthly auto insurance premiums to increase by $100 a month when they purchase the Honda Accord and give Sierra the old car. These policies all have collision and comprehensive deductibles of $1,000.

Since they do not currently own a home and are renting a townhome, the Putnams are paying $400 every six months for an HO-4 Renter’s coverage policy in addition to $1,250 a month rent.

Their biggest concern is over the coverage Chandler receives for disability insurance. He is currently enrolled in his employers’ “any occupation” long-term disability insurance. This policy has a short, 90-day elimination period, and provides a generous 75% salary replacement. Chandler does not know the circumstances that would trigger a claim, and is wondering if he should enroll in the more expensive “own occupation” option.

**CREDIT CARDS**

The family is currently carrying a credit card balance of $19,500. They are making the minimum monthly payment of $390, but recognize that the 16.9% annual interest rate is adversely affecting them. They are considering accelerating paying off their debt over the next four years.

**Economic Assumptions**

The economy has been steadily recovering ever so slowly since the financial crisis in 2008. While the economy is back to “full” employment with an unemployment rate of about 4%, studies continue to show that wages for most Americans are just barely keeping pace with the inflation rate that has averaged less than 2% since the crisis.

**Retirement Investments**

Chandler’s Investments:

* Airline Pre-tax “Traditional” 401(k): $86,935
* “Traditional” IRA: $101,100

Monica’s Investments:

* Roth IRA: $62,560 Contribution Basis = $48,500
* SIMPLE IRA: $95,900

**Financial/Investable Assets (All accounts are owned jointly)**

* Checking account: $9,020
* Savings account: $14,550
* Brokerage account: $41,250 Contribution Basis = $29,000

**Use/Personal Assets**

* 2014 Jeep Grand Cherokee Limited 4wd: $18,000
* 2009 Chevrolet Malibu LT V-6 4dr: $5,700
* 2011 Triumph Motorcycle: $5,430

**Liabilities**

* 2014 Jeep Grand Cherokee (Joint):
  + They borrowed $44,505 for six years at 2.99%. The first payment was made Nov 1st 2013.
* Visa (Joint):
  + $19,500 balance (16.9% APR). They try to pay at least $750 per month.

**Additional expenses can be found in the balance sheet.**

**Financial Goals**

Monica and Chandler Putnam have four primary goals for which they would like your assistance researching, analyzing, and building some strategies to achieve. Ordered from most timely to least:

1. Manage their cash flow and debt level
2. Buy a single family home
3. Buy a new car
4. Optimize the education funding for their three children
5. Fund their retirement goals

**Cash Flow and Debt Planning**

Once a planner gets to know their client and has agreed to work together, the next step in the planning process is to analyze the clients’ current situation. To that end, fill-in the missing information in their income statement and balance sheet to determine the Putnams’ available discretionary cash flow (unallocated income) and their net worth (how much their assets are worth after deducting any liabilities).

* Step one: Transfer all given asset and liability information from the case to the balance sheet.
* Step two: Transfer all given income and expense information to the income statement. Take care to notice that much of the data they provided was monthly, but your statement records annual amounts.
* Step three: Calculate the missing payments and/or remaining balances using a financial calculator or on-line calculators available at [www.dinkytown.net](http://www.dinkytown.net) (your computer will need Java to use this site).

**Overall Response To The Putnams**

Since the Putnams have so much going on in their lives, they have decided to reach out to you to help them make some order of it all. They came to you with a set of questions, and hope your professional opinion will help them make the right choices.

At minimum your written plan should address the following:

* The main strengths and weaknesses of Putnam family’s current financial situation.
* Your recommendations for improving their current financial situation and reaching their financial goals.
* Discuss the resolution of any conflicts between the clients’ goals and the ability to satisfy them due to financial or other constraints.
* Identify the extent to which you would advise them to use other professionals to implement any recommendations.

In addition, your recommendations should answer the following questions posed by the Putnams:

1. How should we at least partially fund the education expenses of all three of our children?
2. What is the maximum mortgage that we could qualify for given our projected gross income and other debt payments?
3. How much more do we need to save annually to retire in 20 years if we want to replace 75% of our salary in retirement?
4. Are we better off purchasing our new car in full with cash from our savings account, or financing at 5.0% APR? Why? What other purchases might it affect?

**Debt and Savings focused questions:**

1. What minimum payment would you recommend to the Putnams, if they are charging an additional $400 per month and they want to meet their goal of paying off the credit card in four years? Use the calculator found at <https://www.dinkytown.net/java/PayoffCC.html>.

ANSWER:

1. Since both Monica and Chandler are covered by retirement plans at work, are they eligible to contribute to a Roth IRA? If so, what is the maximum amount for each of them? At what level of adjusted gross income (AGI) would they no longer be eligible to contribute to a Roth?

ANSWER:

1. Would the Putmans be better off contributing to Traditional IRAs? Why or why not? What are the pros and cons? Would the contribution be tax deductible?

ANSWER:

**Home purchase focused questions:**

1. How much is their monthly payment if the Putnams purchase a $300,000 home, put 20% down, and finance the balance for 30 years at 4.25%? How much interest would they pay over the life of the loan? Use the calculator found at <https://www.dinkytown.net/java/mortgage-calculator.html>.

ANSWER:

1. What additional expense would the Putnams’ incur on their mortgage if they do not make at least a 20% down payment on their home?

ANSWER:

1. In ten years, once Jayden has graduated high school, they believe they can pay an additional $250 per month on the mortgage. How much interest would they save if they did this? How much faster would they payoff the home? Use the calculator found at <https://www.dinkytown.net/java/mortgage-payoff-calculator.html>.

ANSWER:

1. Monica and Chandler really want a permanent home for their sons, but have been super diligent about saving for their retirement so much of their money is saved in tax-advantaged retirement accounts. Is there a way that they could access their Traditional IRA for part of the down payment? If so, how much could they access without paying a penalty on the distribution? How would this have been different if they had used Roth IRA instead?

ANSWER:

**Car purchase focused questions:**

1. The Putnams’ want to purchase a new car. They would like to keep the car payment to $450 per month, about $225 less than they have on the Jeep. What is the maximum purchase price for the car if they finance the purchase for 4 years? Visit <https://www.dinkytown.net/java/car-loan-calculator.html> and use a 5.0% interest rate. How much can they borrow if they extend the loan to 5 years, or even six?

ANSWER:

1. Assuming they can qualify for the 5.0% interest rate, how much would they pay in total interest for the $28,000 car financing over 4, 5 or 6 years? Assume that they put a down payment in cash of the difference in the loan amount from above and the purchase price. Hint: Use the “View Report” feature to see the total interest paid.

ANSWER:

**Insurance focused questions:**

1. What is the difference in an “own occupation” and an “any occupation” disability insurance policy? What is a “split definition” policy? What are the pros and cons of each? Which is more expensive?

ANSWER:

1. Are there other policy options that could reduce the cost of the “own occupation” coverage?

ANSWER:

1. Monica recently spoke to a friend who was in the hospital after a car accident and is now wondering if they have enough coverage in case they hurt another person or property. What is the minimum auto coverage required by the State of Virginia? What seems to be the general recommended coverage to provide adequate liability protection?

ANSWER:

1. Monica currently has no life insurance coverage. Based on the information from <https://www.nerdwallet.com/blog/insurance/how-much-life-insurance-do-i-need/#1> how much should she have? Assume that: continuing expenses would be 80% of current expenses, she wants to cover working years to age 67, she wants to cover $120k for college, burial expenses would be about $10,000.

ANSWER:

**College focused questions:**

1. The Putnams would like to know what, if any, limitations exist for Sierra using her 529 Plan money to attend a technical institute or trade school.

ANSWER:

1. The Putnams want to know how much it currently costs to attend a 4-yr college in Virginia. Assuming they do not receive any grants or scholarships, complete the following summary table for them based on the 2018-19 school year.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| School | Tuition and Fees | Room and Board | Total per year | Total for all four years |
| James Madison |  |  |  |  |
| William and Mary |  |  |  |  |
| Radford University |  |  |  |  |
| University of Virginia |  |  |  |  |
| Virginia Commonwealth |  |  |  |  |
| Virginia State |  |  |  |  |
| Virginia Tech |  |  |  |  |
|  | | | | |

1. How much less could college cost if the Putnams’ children attended a Virginia Community College for 2 years and lived at home? Assume that they will still have to attend the 4yr school for 2.5 years to complete the degree. Complete the following table to answer their question.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| School | Community College per year (same for all) | Total for two years (same for all) | University per year | Total for two and a half years | Grand Total |
| James Madison |  |  |  |  |  |
| William and Mary |  |  |  |  |  |
| Radford University |  |  |  |  |  |
| University of Virginia |  |  |  |  |  |
| Virginia Commonwealth |  |  |  |  |  |
| Virginia State |  |  |  |  |  |
| Virginia Tech |  |  |  |  |  |
| **Community college average used. Information from: http://www.vccs.edu/students/tuition-and-fees/** | | | | | |

1. Can the Putnams transfer any of the money saved in Seirra’s 529 Plan into 529 Plan accounts for either or both of the two boys? If so, is there a limit on the amount? Assume that Chandler is the owner of Seirra’s account and she is the beneficiary.

ANSWER: