

FINANCE 460: CASE STUDY ONE

DUE OCTOBER 15TH, 2021

Susan and Dave, two recent VIU graduates are interested in buying their first property in Nanaimo. They have saved up \$30,000 and are looking at buying a property in the \$800,000 range and they have been pre-approved for a \$750,000 mortgage. They each also plan on using the maximum withdrawal from the RRSP homebuyers plan where Susan has \$200,000 in her RRSP and Dave has \$70,000. Susan works as a realtor and has a gross income of \$150,000 per year and Dave works in construction earning \$85,000 gross per year. The property they are buying needs to have rental suite as they want to make sure they can generate some additional rental income to help fund their expenses and retirement goals. They expect to generate \$1,500 per month in rental income. They will own the property at joint tenants with rights of survivorship.

Dave also needs a new truck for work and he needs help deciding if he should lease or finance the truck to maximize tax savings. He plans on using the truck 100% for work as he has another car for personal use.

Please assume a mortgage amortized over 25 years at a variable interest rate of 1.5% compounded semi-annually. For the truck financing rates the bank will offer a seven year loan at 6% annual compounded rate.

1. What is the maximum down payment they can make towards a house? (1 mark)
If this down payment represents the minimum they can put down, what is the maximum house purchase price based on only meeting this requirement? (1 mark)
2. Based on a gross debt to service ratio of 32%, what is the maximum mortgage they can qualify for assuming annual property taxes of \$3,600 and heating costs of \$2,800 for the year? (4 marks)
3. What are some other expenses they will have in purchasing this house? (4 marks)
4. If they generate \$1,500 per month in rental income from a suite that represents 25% of the total house area, what is the net amount subject to taxes assuming the

property taxes and heating costs from above plus maintenance costs of \$12,000 and a new roof that cost \$30,000 (this was funded with a line of credit)? (4 marks)

5. If Susan has a marginal tax rate of 40% and Dave has a marginal tax rate of 30% what are the additional taxes they need to pay as a result of the rental income? (2 marks)

6. If Dave is looking at buying a truck that costs \$75,000 out the door, and he considers financing the entire amount at a rate of 6% over 72 months, what is his expected monthly payment? (2 marks).

If he leases the truck the payment will be \$800 per month with a buyout option of \$40,000 after three years. What will his after tax cost of the lease payment be versus the loan payment assuming a 40% marginal tax rate? (2 marks)

What is his effective loan rate after tax? (1 mark)

7. If Dave and Susan decide to rent their entire house and go travelling for three years, will there be any capital gains taxes, if not, why not? What will happen if they come back in three years and they decide to live in the property again as a principal residence but the property has increased in market value by \$400,000, will there be any capital gains taxes then?(4 marks)

8. If they both decide to sell the property when it is worth \$1.4 million and continue to travel using the proceeds to fund their adventures, how can they maximize their yield in “fixed income” investments? What types of fixed income instruments should they invest in and what is the expected yield? (4 marks)

9. What investment risks is he exposed to with his fixed income portfolio above in question (4 marks)

10. What if they decide to continue to own the house but use a home equity line of credit to fund their adventures? What is the maximum they could borrow if the house is valued at \$1.4 million but with a \$600,000 mortgage remaining? (2 marks)

Total 35 marks