MGT 404 – ASSIGNMENT #2
ALLGOMOTIVE INC (AGM)

AllGoMotive Inc (AGM) was founded by Leslie Smith in 2012. A chemical engineer by training, Leslie started the company after developing aluminum-air technology that could extend the life of lithium-ion batteries. This technology (which she named, "the battery extension system") was used in "mission-critical" batteries and had recently been applied for use in electric cars. In practical terms, the technology could extend a typical car battery's life. On average, this extension allowed it to operate for up to 1,000 miles between charges. Initial capital for the company was provided by Leslie and three family friends, with Leslie being the majority shareholder. Additional debt financing was provided by a regional bank.

AGM had just finished a great fiscal 2014, and things continued to look bright for its projected fiscal 2015 (which began on November 1st, 2014). First, just before its 2014 year-end, AGM signed 5-year agreements with two of the largest electric car manufacturers in the country. Importantly, both manufacturers were quite profitable despite the fact that electric cars had yet to gain a real foothold in the marketplace. While some of the pricing terms had yet to be ironed out for the last two years of each contract, Leslie was optimistic about the contracts' potential to drive future growth in the company.

Second, Leslie had spent time over the last year improving on AGM's existing product. In particular, she had developed a battery extension system that would now allow car batteries to last up to *2,000* miles between charges. She had already branded the new product as, the "Battery Extender 2000" (code named BX2000). The patents for the new product were likely to be completed somewhere near the end of fiscal 2015. Leslie was optimistic that the new technology would not only open up more growth opportunities for AGM, but also make it more difficult for new entrants to compete with her company.

Finally, Leslie had approached her bank about obtaining additional debt financing at the beginning of fiscal 2015. The additional financing (which would be added to AGM's existing loan from the same bank) would help fund the company's new growth initiatives and give the company sufficient operating flexibility. To date, AGM's bank loan had been structured so that AGM would not have to pay down any of the loan until fiscal 2020 (although AGM would have to pay applicable interest on the loan in every year). As part of the negotiations for the additional financing, the bank wanted to restructure the terms of AGM's loan. Specifically, on top of providing additional debt financing, the bank agreed to charge AGM a <u>lower</u> interest rate in fiscal 2015 than it had been charged in fiscal 2014. However, the bank also insisted that AGM would now have to start re-paying back substantial portions of its debt by the end of fiscal <u>2016</u> instead of fiscal 2020. Moreover, AGM would be charged a higher interest rate on its loan (i.e., 20%) starting at the <u>beginning</u> of fiscal 2016. Leslie thought she needed the extra financing to help her firm grow, but wasn't entirely sure about how the additional financing would affect other elements of her business. In particular, while the new loan terms seemed to yield some benefits for fiscal 2015, they also appeared to generate some drawbacks for fiscal periods beyond 2015.

You have been friends with Leslie for years. It is now November 2nd, 2014 and you just found the following email in your inbox:

I need your MBA talents! My accountant just quit!! I'm having discussions with the bankers next week to negotiate a new loan, but I'm not even sure that I need one. Just before quitting, I asked the accountant to prepare pro-forma financial statements for fiscal 2015. I have the pro-forma balance sheet for 2015, but I cannot seem to find the pro-forma income statement or the pro-forma statement of cash flows. The bank will want to see these! Can you please help me? I've attached the financials that I have, as well as a list of underlying assumptions of our expectations for fiscal 2015. Thanks so much! Leslie.

Exhibit 1: Assumptions and expectations for fiscal 2015[1]

Fiscal year end for AGM is October 31st. Additional assumptions and expectations are listed below.

1) According to the new terms negotiated with the bank, the bank will provide AGM with an additional $3,680,000 of debt financing at the beginning of fiscal 2015. Interest payments totaled $115,000 in fiscal 2014, and interest payments are expected to increase to $460,000 in fiscal 2015.
2) During fiscal 2014, AGM paid out a total of $3,450,000 in cash relating to wages. In addition, wage <u>expenses</u> were allocated as follows. 80% of wage expenses were allocated to the manufacturing of the battery systems and the remaining amount was allocated to executive salaries. The expectation is that AGM will end up paying $4,855,000 in cash relating to wages during fiscal 2015 (and once again, in 2015 80% of the total wage expenses will be allocated to manufacturing the units, and 20% will relate to executive salaries).
3) AGM ended up making $1,725,000 in cash payments for inventory materials in fiscal 2014. In fiscal 2015, cash payments for inventory materials are expected to be 225% of what they were in fiscal 2014.[2] This increase is not related to an increase in input costs, as AGM is expecting to get a unit *discount* on some of its inputs next year. This increase arose because AGM felt it needed to stock up on product to keep up with expected demand.
4) Cash collected from customers in fiscal 2015 is expected to increase by 20% from the $6,612,500 collected in fiscal 2014.
5) AGM's lawyer (Mark Eagleton) has been particularly impressed by AGM's future growth prospects. As a result, Leslie expects Mark to do all of AGM's patent filing for the BX2000 in 2015 in exchange for shares in the company. The value of the legal work to file the patents in multiple countries was expected to reach $250,000, and the patents were expected to be filed at the end of fiscal 2015. In addition, AGM is expecting to issue $230,000 of additional shares in fiscal 2015 (for cash). No shares were issued in fiscal 2014.
6) On November 1st, 2014, AGM got rid of one of its original pieces of equipment: the AlO2 Purifier Max. Leslie commented that, "We realized on November 1st that the machinery was completely useless. The net carrying value on the balance sheet was $200,000 and I ended up immediately selling it for scrap for $10,000."

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[1] The impact of all assumptions has been incorporated in to the pro-forma financial statements for fiscal 2015.
[2] By "cash payments for inventory materials are expected to be 225% of what they were in fiscal 2014", we mean that if cash payments for inventory materials were $1 in 2014, they are expected to be $2.25 in 2015.

7) Cash purchases of equipment were $230,000 in fiscal 2014 and are expected to be $705,000 in fiscal 2015. All of the firm's property, plant, and equipment is deemed to be general purpose (i.e., none of the equipment is explicitly used for manufacturing).
8) Rent payments for office space are expected to increase to $450,000 in fiscal 2015. AGM paid out $300,000 in rent payments during fiscal 2014.
9) During fiscal 2014, AGM paid out $160,000 in insurance premiums. After switching insurance companies and negotiating higher deductibles, insurance premiums paid in fiscal 2015 are expected to be $150,000.
10) Dividends declared and paid were $287,500 in fiscal 2014 and are expected to be $345,000 in fiscal 2015.
11) Taxes are always paid in full during the following fiscal year. AGM's effective tax rate is 24%.
12) The firm uses the periodic inventory method to account for COGS.
13) Assume that all sales are initially made on account.

REQUIRED:

1.) Create the income statements for the fiscal 2015 pro-forma [NOTE: please use the same format for the income statement as in Exhibit 2]. (13 points)
2.) Create the statement of cash flows for the fiscal 2015 pro-forma using the indirect method. (22 points)
3.) Are the types of cash flows observed in your answer to question 2 consistent with the current stage in the company business cycle? Explain. (2 marks)
4.) Leslie is concerned about the bank loan restructuring in 2015. Citing your analysis above, do you think it's necessary for AGM to incur additional debt in 2015? Explain. (2 marks)
5.) Calculate the inventory turnover ratio, accounts receivable turnover ratio, fixed asset turnover ratio, total asset turnover ratio, debt-to-equity ratio, interest coverage ratio, return on equity, and return on assets for both 2014 and 2015 (pro-forma). Additionally, provide a formula to illustrate how you calculated each ratio. (8 marks)
6.) Following your discussion of financial statements with Leslie, she comments, "That's funny. Even though we were expecting higher profits in 2015, return on assets is *lower* in 2015 than in 2014. What's even stranger is that return on equity is *higher* in 2015 than in 2014. I have no idea what's going on!!" <u>Using tools you've learned in class</u>, explain these results. (6 marks)
7.) Discuss how the inventory turnover ratio, accounts receivable turnover ratio, interest coverage, current ratio and quick ratio have changed between 2014 and 2015 (pro-forma). In each case, please indicate whether AGM should be concerned about the trend they observe. Use case points to back up your answers. (5 marks)
8.) "Hmmm… looking at my statement of cash flows it looks like my cash flow from operations might have been higher if I sold the machinery for… less? Is that correct? Cash flow is important to me, maybe I should have sold the equipment for one dollar. Does that make sense?" All else equal, if Leslie had sold the machinery for $1, what would her cash flow from operations have been? Illustrate how you got to your answer. All else equal, if Leslie had sold the machinery for $1, what would her total change in cash flow have been? Illustrate how you got to your answer. (4 marks)
9.) "Before my accountant quit, she mentioned that I could have actually had a projected increase in my ROA from fiscal 2014 to fiscal 2015, had I (1) <u>not</u> sold my equipment <u>and</u>

(2) chosen to account for the equipment on my balance sheet in a very <u>aggressive</u> manner. I'm not sure how that's possible, given that not selling my equipment would have just added more assets to my balance sheet." Explain the accountant's reasoning <u>using tools learned in this class</u>. (4 marks)

Other notes:

- Please submit your assignment in PDF form. Please ensure that you put your name on the assignment.
- This assignment is to be completed individually and with no discussion with your classmates
- There are 66 total marks available for this assignment.
- This assignment is worth 15% of your final mark.
- When calculating ratios use the ratio definitions discussed in class. However, I appreciate that there may be different ways to define ratios based on information presented in the case. Thus, remember to provide a formula to illustrate how you calculated your ratios.
- When discussing or explaining your reasoning for any of your responses, a good rule of thumb is to use *no more* than 2 sentences per mark available (i.e., please *do not* be overly verbose when discussing your answers).
- There are often different ways to interpret the information presented in any case. If there are any concerns on how to answer a given question due to a perceived ambiguity in *this* case, please make a note of the assumptions you used to generate your answer. If your reasoning is sound, you will receive full credit.

Exhibit 1: AGM Balance Sheet for 2013, 2014, and pro-forma 2015

For fiscal year ending October 31st	2015 pro-forma	2014	2013
Assets			
Current Assets			
Cash	1,449,890	540,500	230,000
Accounts receivable	1,200,000	920,000	1,035,000
Inventory	3,300,000	471,500	437,000
Prepaid rent	138,000	126,500	115,000
Prepaid insurance	92,000	115,000	138,000
Total Current Assets	6,179,890	2,173,500	1,955,000
Non-Current Assets			
Equipment (net)	1,335,875	977,500	805,000
Patent	250,000	-	-
Total Non-Current Assets	1,585,875	977,500	805,000
Total Assets	7,765,765	3,151,000	2,760,000
Liabilities and Shareholders' Equity			
Liabilities			
Current Liabilities			
Accounts payable (for inventory)	747,500	598,000	345,000
Interest payable	115,000	115,000	92,000
Salaries payable	287,500	195,500	172,500
Taxes payable	157,830	99,360	34,500
Short term portion of loan payable	1,340,000	-	-
Total Current Liabilities	2,647,830	1,007,860	644,000
Long-term Liabilities			
Loan payable	3,490,000	1,150,000	1,150,000
Total Liabilities	6,137,830	2,157,860	1,794,000
Shareholders' Equity			
Capital stock	1,055,000	575,000	575,000
Retained earnings	572,935	418,140	391,000
Total Shareholders' Equity	1,627,935	993,140	966,000
Total Liabilities and Shareholders' Equity	7,765,765	3,151,000	2,760,000

Exhibit 2: AGM Income Statement for 2014

AGM	
Income Statement	
For fiscal year ending October 31st	2014
Sales	6,497,500.00
COGS	4,721,900.00
Gross Profit	1,775,600.00
Operating Expenses:	
Rent	288,500.00
Insurance	183,000.00
Depreciation Expense	57,500.00
Interest Expense	138,000.00
Salaries Expense	694,600.00
Operating Expenses:	1,361,600.00
Gains or Losses	-
Income before taxes	414,000.00
Income taxes	99,360.00
Net Income	314,640.00