

Ardnt Industries-Sample Solution for CFE Day 1- linked case

Report to: Board of Directors

From: CPA (Karam- outside consultant)

This report addresses the issues that Ardnt Industries (AI) is currently facing. The company has two weeks to prepare and present a business plan to the bank that ensures the current ratio and the return on assets ratios are met by December 31, 2016 [minimum current ratio of 1.5:1 and return on assets of 10% (calculated using after-tax income and total assets)] The bank is evaluating the return on assets by doubling our mid-year return. The decisions on various issues will be evaluated with this requirement as a constraint. Given that it is mid-September there is not a lot of time to make changes that will impact the financial results for December 31. It is not clear to me why AI did not address the covenant breach sooner. Once it was apparent that the financial statements would show that the covenants were not met, starting a discussion with the bank immediately, rather than waiting for the bank to react to the statements, would have provided more time to deal with the issue. The goal of reaching \$500 million in revenue by 2019 is still considered important to AI and will be considered as well. However, it would be a good idea to discuss this goal further and determine why the focus on top line growth is seen to be so important.

In addressing a plan to meet the bank's covenants there have been transactions identified by several of the divisional CEOs that they believe could result in AI meeting the covenant requirements without having to either sell the JV or obtain additional financing (through either an IPO or private equity offer). The first step will be to evaluate the impact of these items on the ratios.

CPA Map- 5.6.2 Advises a financially troubled entity (Level B at Core)

A decision is required on the JV within a short time as the owner of EL has an offer and needs to make a decision quickly to enable its obligations to its staff to be met. This is addressed as well and the impact of the decision on the covenants is considered.

Analysis and discussion of other items as requested in the meeting are also addressed.

Appendices

1. Financial statements analysis
 - financial position and results - overview
 - adjusted for transactions identified by CEOs to determine the impact on the covenants
 - adjusted to determine the impact of decisions on the JV
2. Evaluation of alternatives with respect to the JV (re EL financial difficulty)
3. Evaluation of financing options – IPO, Private equity and other
4. Evaluation of the in-house powder coating proposal
5. Discussion of intercompany transfer pricing
6. Forecasted revenue and \$500 million goal

Schedule A Financial analysis

Schedule B Powder Coating detailed analysis

APPENDIX I
FINANCIAL STATEMENT ANALYSIS

CPA Mapping-

- 1.2.2 Evaluates treatment for routine transactions Level A at Core
- 1.2.3 Evaluates treatment for non-routine transactions Level B at Core
- 1.4.4 Interprets financial reporting results for stakeholders (external or internal) Level A at Core
- 1.4.5 Analyzes and predicts the impact of strategic and operational decisions on financial results Level B at Core

Financial position and results – overview – based on June financials as stated

- No cash – and the line of credit is approaching its limit – up to almost \$5 from \$2.7 million in 2015 and only \$100,000 in 2014
- Accounts Receivables are up 6%; 8% over 2014
- Inventory is up 9%, 8% over 2014
- Accounts Payables are up 15%, 7% over 2014
- Investment in JV increased 1.25 million in 2015 and an additional \$1 million in the first 6 months of 2016
- Property, building and equipment is up 3% over 2015; 8% over 2014 and over \$5 million – for the same time period long term debt is down \$7 million
- There may be potential for long term debt financing PP&E \$73 million at cost versus long term debt only \$28 million (40%) overall debt to equity 1.2 but if replaced some current debt with long term could help
- Dividend payout – see calculations is schedule A – approximately 50% of net income being paid out in dividends – reducing the payout could help in long term – would not help with the return on assets but would help with the current ratio
- Sales in EP down approximately 7% but gross profit % up 25% from 23%
- Gross Profit % in RR down from 25% to 21%

[It is possible that some of changes in balance sheet could be seasonal – related to production and sales patterns- this will have to be discussed and considered further]

The targets for individual divisions (as provided in 7 of the case) with respect to the current ratio are below that required by the bank covenant. This needs to be addressed as the bank requires each division and the consolidated total to meet the 1.5:1 minimum.

Review of financial statements for mid-year adjusted for transactions subsequent to the mid-year statements to check the covenants

Adjustments have been made for the transactions identified by the CEOs of the various divisions

- Shipment to Peru \$1.5 million in transit at financial statement date subsequently sold
- Engineered products division \$750,000 shipped around that time and should have been recorded as revenue
- Delivery of 3 genset locomotives in October – cash and revenue 80% of production costs have been completed – production costs in operating costs of AI – when transferred out expect revenue and cash to increase \$1 million
- Receivable of \$4.25 million collected – reflected in mid-year financial statements
- Breach of contract case – if settle versus not – now versus Jan 2017
- Excess warranty – this is not included in the revised ratios as there is only a 50/50 chance it will succeed.

Based on the analysis in schedule A it appears that the current ratio will still be under the bank's requirement; the return on assets will be just over the minimum required. Given the serious implications of not meeting the covenants by December 31 and the other potential changes to working capital before that date (some changes may be out of our control) the adjustments proposed will not likely suffice and AI will need to either sell its share of the JV or obtain financing through either the IPO or the private equity offer.

Impact of potential sale of interest in JV on ratios

If AI decides to sell all or a portion of the joint venture, its current assets will increase by the amount of proceeds, total assets will increase by the proceeds less the cost of the JV, and there will be a gain reflected in the statement of earnings.

If the entire interest in the JV is sold the covenants will be met and AI will be able to avoid financing through an IPO or a private equity. However, this will come at a cost. -There will be an increase in cost of frames to \$950,000 from 800,000 (18.75%), there is a risk of difficulty in sourcing the frames, and future income from the JV will be foregone. It appears that additional investments have been required in the JV in 2015 and 2016. If all or a portion of the JV is sold the requirement for additional investment will be reduced.

If a portion of the interest is sold to RR resulting in a 50/50 ownership the covenants will be met. However, there will not be much margin of safety. In this scenario, the costs of the frames will not increase and AI will still participate in the future JV earnings.

The next section considers in more detail the decision to sell the interest in the JV.

APPENDIX II
EVALUATION OF ALTERNATIVES WITH RESPECT TO THE JOINT VENTURE

CPA Mapping- 2.3.3 Evaluates strategic alternatives Level B at Core
3.2.2 Prepares, analyzes, or evaluates operational plans, budgets, and forecasts Level A at Core
5.4.2 Applies appropriate methods to estimate the value of a business Level B at Core
5.6.1 Evaluates the purchase, expansion, or sale of a business Level B at Core

Alternatives

1. Sell interest to RR – \$12 million - increase in price paid for frames from \$800,000 to \$950,000 sourcing may be an issue as well.
2. Sell 30% to RR and have 50/50 ownership with terms of JV intact
3. “Counter RR’s proposal”- Purchase EL cost of \$10 million - move all of production there – require investment \$2 to \$3 million over the next 1 to 3 years

Option 3 – to counter RR’s offer and purchase EL does not appear to be realistic. The purchase of his company will be finalized three weeks from now, with 50% of the purchase price paid then and the remaining 50% one month later - AI does not have cash to make this purchase and cannot expect to arrange financing in this time period! Purchasing EL would also appear risky given its history of financial difficulty. AI also does not have the time or resources to value EL or do the necessary due diligence. It does not appear to be a good idea to request that this period be extended given the need for EL for cash to pay its employees. Having a new partner in the JV may actually reduce our risk and the need for us to invest more cash in the JV.

In terms of making decisions, AI will have to decide which is more important to them – avoiding either the IPO or private equity offer or keeping all or a portion of the joint venture. The desire to maintain control of the AI and to keep its financial and other affairs confidential appear to be very important to family members. Accepting either the IPO or proceeding with the PE offer will be a huge change. It may be that the younger generations of the family may be more open to these changes. If AI completely divests of its interest in the JV it will not need additional financing. If it sells only a portion of the JV, AI may be able to do without financing – the ratios will be close to the limits – if AI also reduces the dividends paid out and also investigates obtaining additional long-term debt this may work.

There appear to be many valid reasons for keeping an interest in the JV: it differentiates AI from the competition. As well, the trend of environmentally friendly is not going to end anytime soon, and if RR purchases EL and AI does not pursue a joint venture with them, the input components for locomotive frames will be sold to us at market again – roughly \$950,000 per frame versus the \$800,000 per frame that AI was receiving under the current joint venture. Production capacity may also become an issue if AI does not have an interest in the JV. As Barry stated “I’m not sure if Road & Rail can fulfill the demands of the environmentally locomotive project and the external demands from Peru and potentially other countries.” – This statement would indicate that the joint venture or the capacity of the JV may be needed – especially are relates to the \$500 million revenue goal.

The financial difficulty and potential bankruptcy of EL should not have been a complete surprise – the reason they were interested in the JV in the first place was they were experiencing cash flow issues and bankruptcy was a possibility at that time. AI should have dealt with this possibility in the JV agreement. AI should learn from the experience going forward.

Before AI enters a JV with RR if that is the preferred course, a due diligence should be performed on them, and a clause should be included in JV agreement stating what happens if RR goes bankrupt or one of the venturers wants out.

Quantitative

A quick calculation based on projected net income for the JB shows the total net income for the period 2017 to 2020 to be approximately \$21 million. If AI keeps a 50% ownership interest it could expect approximately \$10.5 million before discounting. This far exceeds the offer from RR of \$4 million for its share.

The information presented is a forecast and it is necessary to consider and evaluate risk of the forecast not being meet. As per information provided, “R&D have taken longer than anticipated and sales forecast has been revised”.

AI will also need to consider and obtain additional information on potential supply issues if AI sells the entire interest in the JV and also calculate the total impact of the increase in the frames.

APPENDIX III
EVALUATION OF FINANCING OPTIONS – IPO, PRIVATE EQUITY, OTHER

CPA Mapping-

- 1.1.2 Evaluates the appropriateness of the basis of financial reporting Level A at Core
(e) evaluates the impact of the basis of financial reporting on stakeholders in a decision-making context
- 1.1.3 Evaluates reporting processes to support reliable financial reporting Level A Core
- 5.2.3 Evaluates sources of financing Level B at Core
- 5.2.4 Evaluates decisions affecting capital structure Level B Core
- 5.2.6 Evaluates decisions related to distribution of profits Level C at Entry
- 6.1.5 Analyzes the tax consequences or planning opportunities for complex corporate transactions Level C at Core

The CEO's opinions on the options vary:

- Clare is open to the IPO but concerned about 'aggressive' private equity.
- David does not like the private equity option – one of his concerns is related to the potential reduction in dividend payments to existing shareholders. He is also "very much against IPO".
- Dominique is undecided between IPO and private equity and has raised the question of finding another way.

Control and governance

The IPO will allow for maintaining control of AI in the family. Consideration needs to be given and legal advice obtained on how the IPO would impact the Unanimous Shareholder Agreement (USA). If the agreement is still in effect, it will make it even more difficult to amend the USA in the future which may have implications for family members wishing to sell their share externally if there are not family members interested or able to purchase them. It may be advisable to try to amend the agreement before the IPO proceeds. Depending on the amendments this may open the possibility of losing control at some point in the future.

If AI proceeds with the Private Equity (PE) offer it will give up control for a minimum of five years. AI will have the option of buying control back at the end of the five years. It is very difficult to determine at this point if this will be possible. Given that the PE will have control for five years they may make decisions (intentionally or otherwise) that will limit the AI's ability to repurchase the shares to regain control.

Company mission and values

One of the concerns raised with respect to the PE deal is that PE investors are aggressive and focused on the bottom line and the ROI in the short term. This is not in keeping with AI's mission and vision, which have always focused on the manufacturing of high quality products. Quality is important in our existing markets and is proving to be so in our expanding internationally. AI has built a very good reputation for quality in Peru and there appears to be lots of potential for growth in South America. If the PE option is taken there is legitimate concern that AI's reputation may be at risk. AI should perform due diligence on the PE firm and try to determine if this firm has values that are in line with AI's.

Accounting implications and Assurance requirements (and cost and benefits)

The IPO will require AI to transition to IFRS (as all public companies in Canada are required to report under IFRS), and will require audited financial statements. Using IFRS as a reporting standard will mean additional costs to AI and the need to ensure on an ongoing basis that controls are in place and properly documented. The PE will not require IFRS but may require audited statements. In either case, and even without the requirement for financing, it is important for the company to ensure that proper controls are in place. It is my opinion that the only additional cost for the IPO in terms of "regulatory creep" will likely be the transition to IFRS. Although it is possible that the controls required for a public company could be more than AI currently has in place. AI will also have to make sure that all control issues/problems have been addressed and will not create a problem with the process that would delay or prohibit our IPO. One issue that occurred in the past with bribing a government official may have to be disclosed including how it was dealt with and the procedures put in place to make sure it does not happen again. Another item that appeared to be a problem in the past was inventory slippage – this should be reviewed to ensure the cause of the problem was dealt with and proper controls put in place. It is essential that AI receive the proceeds by the end of December to meet the bank's deadline.

A conversion to IFRS may will have an impact on the ratios going forward — for example on conversions have the option to go to fair value for some assets – AI will have to review the impact when making decisions – in this case, it would be long-term assets that would likely increase and this would mean the income required to maintain return on assets would be higher.

Taxation considerations

Without knowing the specifics of AI's tax situation, below is a description of the typical consequences of moving from being a private to a public company.

Acquisition of Control

If AI proceeds with the Private Equity offer the transaction as proposed will result in PE acquiring 55% of AI and the acquisition of control rules will apply.

Deemed Year End

One of the consequences of an acquisition of control is that AI will have a deemed year end, for tax purposes, on the day preceding the date of the acquisition of control. This will cause a short year for income tax purposes, requiring a pro-ration of certain amounts based on the number of days in the year. One impact will be on the small business deduction (SBD) limit. AI gets a reduction in its tax rate from 16.5% to 11.0% on earnings under the business limit. The business limit is pro-rated for short tax years, so, for example, if the transaction closes on November 30, the business limit will be about \$4580,000 (11/12^{ths} of the usual \$500,000 allowed). Capital cost allowance (CCA) claims are also pro-rated for the short taxation year.

Capital Losses

If AI has any carried-forward capital losses they would be lost on PE's acquisition of control. The company can make an election on capital property to trigger capital gains that may have accrued in order to use the capital losses before they are lost. Because the company owns its own facilities, it is possible that the value of the land has increased over its original purchase price and unrealized capital gains exist.

Other Matters

Immediately before an acquisition of control, capital property, depreciable property, and eligible capital property with inherent losses must be written down to their fair market value. Realizing losses on the depreciable property and eligible capital property will create non-capital losses to the extent that there isn't sufficient income to offset the losses. Losses on the capital property will increase the capital loss carry forward, which will be added to the any existing balance and will be lost on the acquisition of control.

Non-capital losses (if they arise under the above revaluation) can be carried forward, provided AI is carrying on the same or similar business, which it will be. The losses would be affected by the deemed year end. One year would be lost on the carry-forward period for the non-capital losses.

AI should review its other assets (including assessing the fair market value of accounts receivable) to see whether there are losses that will be triggered as part of the transaction and to consider if there are any capital gains that it could trigger in order to use up the losses before they are lost.

Change in Status

CCPC versus Public Corporation

If AI proceeds with the IPO it will no longer qualify as a Canadian-controlled private corporation (CCPC) for tax purposes after the shares are issued. Depending on the status of the PE this may also apply here – AI will have to find out the status of the PE firm – is it a CCPC? Being a non-CCPC will mean that AI will not be allowed to claim a small business deduction after the date of the transaction and its tax payable will increase. If PE is a CCPC AI will still be eligible for the small business but the limit will be shared with PE and any associated and related companies.

AI claims investment tax credits for scientific research and experimental development (SR&ED). If it is no longer be a CCPC, it will have a different rate (20% versus 35%) applied to its qualifying spending for SR&ED purposes, and the credit will no longer be refundable to the extent that it eliminates the federal income tax payable. In addition, the company will now have to pay its outstanding corporation income tax balance one month earlier (in other words, two months after year end rather than the three-month period that is available to CCPCs).

Prior to a change in status, and to the extent that it may be applicable, AI should clear its capital dividend account and its refundable dividend tax on hand, because only private corporations can pay capital dividends or receive dividend refunds. These accounts will be affected by any capital gains that may be triggered as part of the plan to use capital losses that will otherwise expire (see the previous discussion on losses).

Dividends

AI pays substantial dividends on a regular basis. You should be aware of the fact that the nature of the dividends may change if you go from being a CCPC to a non-CCPC (the reference is Section 89(1) of *ITA*). There are separate sets of rules to follow for dividends, depending on whether the payer is a CCPC or not. The rules for CCPCs involve an annual calculation of the general rate income pool (GRIP). The GRIP is determined by a formula, but essentially consists of the company's after-tax active business income that did not benefit from the small business deduction. A CCPC that pays any dividend can designate it as an eligible dividend, and that dividend would reduce the GRIP balance. Eligible dividends are subject to a lower personal effective tax rate than those not paid out of the GRIP.

When the corporation is no longer a CCPC, it will be required to compute a low-rate income pool account (LRIP). Future dividends are considered to be paid out of the LRIP account until the account is fully depleted. Then, dividends can be paid as eligible dividends with the same tax effect as noted under GRIP.

Capital Gains Exemption

Another important matter of concern to existing shareholders is that shares will no longer qualify for the capital gains exemption (CGE) if AI loses its CCPC status. The current value of based on the price of \$40 per share, less what the shareholder paid, would usually qualify for an exemption from tax. However, the rules for the exemption require that the corporation be a CCPC at the time of the disposition. For shares sold after AI is no longer a CCPC, the shares would no longer meet the requirements for a qualifying small business corporation, so you would be able to claim the CGE. Prior to an IPO or PE deal, AI's shareholders should take steps to crystallize their CGE to retain the tax-free status on the first \$1.5 million of the gain on those shares prior to losing eligibility. For example, the shareholders can file an election as described under Section 48.1 of the *Income Tax Act* or undertake a corporate restructuring (such as a Section 85(1) rollover) in order to crystallize the gain.

Financial analysis – quantitative

IPO

- *Proceeds \$35 to \$40 per share – dividend rate of 5% = \$1.75 million to \$6 million*
- *Maintain control if sell 3 million or less shares*
- *Actually appears could issues up to 4 million and maintain control – 4 million outstanding now*
- *Cost of IPO \$2 million for 1 to 1.5 million shares \$3 million for 1.5 to 3 million shares*
- *Consider ongoing cost and cash flow of dividends required and impact on dividends to family shareholders*
- *Based on \$40 per share this is \$120 million or \$35 it is 105 million for 43% of the company*

Private equity offer

Terms

- *Hold 55% of company and required 50% ROI over 5 years*
- *Upfront payment \$95 million*
- *Sell back to Ardnt in 5 years at \$142.5 million – payable over 5 years*
- *If debt cannot be repaid in 5 years private equity firm can take company public*
- *Quarterly payment required \$1.9 million dividend \$1.9 credit towards final payout*

	IPO	PE
Proceeds	Range Minimum 1,000,000 shares x \$35 less \$2,000,000 issue costs = \$33,000,000 Maximum 3,000,000 x \$40 - \$3,000,000 issue costs = \$117,000,000	\$95,000,000
% of company	Minimum 1,000 / 5,000 = 20% Maximum 3,000/7,000 = 43%	55%
Ratio – proceeds to share of company sold	$\$117,000 \div 43\% = 2.72$	$\$95 \div 55\% = 1.72$
Annual cash flow	5% = 1,750,000 to 6,000,000 on new shares	3,800,000

The proceeds from the Private equity offer, \$95 million, is more than AI needs to get its ratios back on side and it appears that AI either accepts the offer for the full amount or turns the offer down whereas under the IPO they can decide how many shares to issue. Issuing fewer shares would result in less impact on the ability to pay dividends to existing shareholders.

Other options

It may be possible to issue additional long-term debt instead of an equity issue – our debt to tangible net worth ratio is below the bank's maximum. This would result in an increase in the interest expense and therefore increase the income required to meet the return ratio and the current portion of the debt would impact the current ratio.

APPENDIX IV
EVALUATION OF THE IN-HOUSE POWDER COATING PROPOSAL (AGRICULTURAL PRODUCTS DIVISION)

CPA Map- 5.3.1 Develops or evaluates capital budgeting processes and decisions Level B at Core

Qualitative

This project is self-contained and appears to provide many benefits to the AP division and other divisions. There are quality issues as well as issue with lead times from existing suppliers. AI's mission is based on manufacturing quality products. It is also important to the CEO that the divisions work together to maintain or increase margins wherever practical and this would appear to support that goal. The capital cost is in the range of \$1.0 to \$2.4 million and the payback period is less than two years. There does not seem to be any reason not to delay this proposal – other than it is outside the normal capital approval process and it might be 'jumping ahead' of other projects that AI wants to undertake. However, given concerns with quality which is important to AI and the seeming willingness of other divisions to proceed, and that there appears to be overwhelming positive results, AI should likely proceed as long as necessary cash flow can be provided – Since will have to sell JV or arrange financing anyway, likely doable.

Quantitative – rough calculation

\$1 million savings per year

Capital cost \$1.9 to \$2.4 million – issues cash flow/financing

Payback 1.9 years estimated based on Ag only – reduce to 1.23 with EP and even less if add RR (can't estimate?)

Based on this should proceed in next calendar year if not before.

For a more detailed calculation see Schedule B

APPENDIX V
REVIEW OF AND RECOMMENDATION ON INTERDIVISION TRANSFERS

CPA Map- 3.4.1 Evaluates sources and drivers of revenue growth Level B at Core (d) assesses division and national multi-location transfer pricing options

Concern has been expressed on the overall decline in gross margins and the decrease in intercompany transfers. The reason for purchasing externally is limited to pricing (quality and time not an issue). If the current policy is in fact causing a decline in the overall profit of AI it should be reviewed. The importance of all three divisions working together has been reiterated by Barry. In order to maximize the consolidated net income and meet the bank's required return on assets it may be necessary to change the way transfer prices are set. This would require changes to the method of evaluation performance and calculating bonuses.

Divisional autonomy is an important consideration in AI. Bonuses are based on each division's performance so they need to have the autonomy to make decisions impacting their operations – the purchasing division will not pay more for the product that they can obtain it for outside (assuming quality and delivery times from outside is acceptable). If the purchasing division is paying less than the transfer price their margins as a percentage should increase. If the selling division is operating at capacity overall gross margin should not decline.

Dominique has expressed concerns that EP is facing capacity issues and may have to start 3rd shift two days a week which has been reflected in the price. She also explained that capital of \$3 million is expected to be needed next year which should enable the division to provide a more comparable price.

The powder coating operation that may be established will also require transfer prices to be established.

Transfer pricing to international divisions such as Peru will have tax concerns/consequences that will have to be considered and expert advice obtained. In addition the exchange rate and risk will have to be considered.

APPENDIX VI
FORECASTED REVENUE AND \$500 MILLION GOAL

CPA Mapping:

3.4.1 evaluates sources and drivers of revenue growth

5.1.2 Develops or evaluates financial proposals and financing plans- Level B at Core

Quantitative analysis - 2019

2016 sales plus assume 2% growth per year \$223,878 x 2 plus 25 compound growth 3 years	\$ 475,162
Increase in south America sales	17,500
subtotal	492,662
Joint venture sales – \$47,500 @ 50%	23,750
	\$ 516,412

Based on the estimates, AI will only meet the goal if it maintains 50% of the JV.

Qualitative

- Are the estimates reasonable?
- Why is this an important goal? Why the focus on top line rather than net income?
- This will be impacted by decision on JV
- Also impacted by Peru and other international sales

Schedule A Financial Analysis
Operating Results

	projected dec 12 months 2016	% of sales	June 6 months 2016	% of sales	2015	% of sales	2014
Sales	447,756		223,878		427,218		407,045
Cost of Goods Sold							
Direct materials	225,878	50%	112,939	49%	208,531	48%	194,810
Salaries and benefits	91,552	20%	45,776	20%	84,759	19%	78,767
Utilities	5,750	1%	2,875	1%	5,750	1%	5,358
Engineering	6,584	1%	3,292	1%	5,985	1%	5,475
Travel	3,050	1%	1,525	1%	3,812	1%	3,564
Loss (gain) on foreign currency exchange	10	0%	5	0%	16	0%	21
Depreciation and amortization	5,224	1%	2,612	2%	6,530	2%	6,456
Total Cost of Goods Sold	338,048	75%	169,024	74%	315,383	72%	294,451
Gross margin	109,708	25%	54,854	26%	111,835	28%	112,594
Selling, General and Administration							
Wages and benefits	35,450	8%	17,725	8%	34,471	8%	31,250
Office and miscellaneous	5,850	1%	2,925	1%	6,254	2%	6,785
Marketing	9,454	2%	4,727	2%	9,253	2%	8,356
Professional fees	4,610	1%	2,305	1%	4,995	1%	3,145
Interest and bank charges	3,114	1%	1,557	1%	2,252	1%	2,542
Research and development	6,346	1%	3,173	1%	5,945	2%	6,425
Depreciation and amortization	970	0%	485	0%	875	0%	802
Bad debts	4,764	1%	2,382	1%	6,009	1%	5,785
Warranty and after-sales service	6,312	1%	3,156	2%	7,312	2%	7,024
Total Selling, General and Administration	76,870	17%	38,435	18%	77,366	18%	72,114

CPA Mock Evaluation CFE, Day 1-individual certification related to Capstone 1 Case Page 17

SG&A as % of sales	17.2%	0%	17.2%	0%	18.1%	0%	17.7%
Corporate Charges	8,956	2%	4,478	2%	8,350	2%	8,245
Corporate charges as % of sales	2.0%	0%	2.0%	0%	2.0%	0%	2.0%
Profit Sharing	1,070	0%	535	0%	1,071	0%	1,845
Income Taxes	<u>9,250</u>	2%	<u>4,625</u>	2%	<u>8,266</u>	2%	<u>9,725</u>
Net Income	<u><u>13,562</u></u>	4%	<u><u>6,781</u></u>	4%	<u><u>\$ 16,782</u></u>	5%	<u><u>\$ 20,665</u></u>

Return on assets	8.33%	8.33%	10.72%
------------------	-------	-------	--------

Adjustments

increase in assets and net income

transactions A to D	1600
---------------------	------

settlement of law suit	1050
------------------------	------

net income	16,212
------------	--------

average assets	164,127
----------------	---------

Return on assets	9.9%
------------------	------

sale of JV

100%

net income	20,962
------------	--------

average assets	166501.5
----------------	----------

return on assets	12.6%
------------------	-------

to 50% ownership

net income	17,993
------------	--------

average assets	165017.125
----------------	------------

return on assets	10.9%
------------------	-------

Schedule A (continued)
Financial Position

	anticipated adjustments	June 2016	December 2015	December 2014
Assets				
Cash		\$ -	\$ 858	\$ 1,889
Receivables		38,707	36,639	35,876
Inventory		39,512	36,399	36,852
Other current assets		7,405	6,950	5,852
Total current asset		<u>85,624</u>	<u>80,846</u>	<u>78,580</u>
Investment in Joint Venture		7,250	6,250	5,000
Intangible assets		711	759	808
Property, building and equipment (net)		<u>73,099</u>	<u>71,064</u>	<u>67,772</u>
Total Assets		<u>166,684</u>	<u>158,919</u>	<u>154,049</u>
Liabilities				
Line of credit		4,856	2,690	105
Accounts payable and accrued liabilities		52,449	45,699	49,264
Current portion of long-term debt		<u>2,532</u>	<u>2,532</u>	<u>2,532</u>
Total current liabilities		59,837	50,921	51,901
Long-term debt		<u>28,478</u>	<u>33,010</u>	<u>35,542</u>
Total Liabilities		<u>88,315</u>	<u>83,931</u>	<u>87,443</u>
Equity				
Common shares		100	100	100
Retained earnings		<u>78,269</u>	<u>74,888</u>	<u>66,506</u>
Total Liabilities and Equity		<u>166,684</u>	<u>158,919</u>	<u>154,049</u>

calculation of dividends

opening	74,888	66,506	
net income	6,781	16,782	
dividends	3,400	8,400	
closing	78,269	74,888	
dividend payout %	50%	50%	
Current ratio	1.43	1.59	1.51

Adjusted current ratio assuming increase in current assets for items below A to D 1.46

Adjusted current ratio if assume pay down line of credit items A to D 1.47

Shipment to Peru \$1.5 million in transit at f/s date subsequently sold (page 2 case) - Ag division - only the final external sale will impact consolidated results - ignoring exchange - estimate 25% increase in current assets = sales value over cogs 375

Engineered products division \$750,000 shipped around that time and should have been recorded as revenue (page 3 case) estimating gross profit 21% 225

Delivery of 3 genset locomotives in October – cash and revenue 80% of production costs have been completed – production costs in operating costs of AI – when transferred out expect revenue and cash to increase \$1 million (may not happen in terms of cash as JV file for bankruptcy? identify this as a risk) (page 3 case) 1,000

Receivable of \$4.25 million collected – reflected in mid year financial statements no impact

1,600

Breach of contract case – if settle versus not

settle out of court (\$1,200 - 150)	1.48	1,050		
don't take out of court settlement expected value (80% of \$2,000) less \$350 legal costs = 1,350				
succeed	1.48	1,250		
don't succeed		- 350		
Excess warranty - expected value 1.5 @ 50% - 500 legal = 250; range - 500 to + \$1,000				
succeed	1.47	<u>1,000</u>		
Potential sale of interest in JV – all or part				
100%	1.68	12,000	4,750	gain
37.5%	1.54	4,000	1,781	gain

Schedule B

Powder Coating Proposal detailed analysis

Agricultural Division:

Direct material	\$80,218
Direct labour	\$27,226

Conventional Costs:

2.8% of direct material	\$ 2,246
9.7% of labour	<u>2,641</u>
Total Costs	<u>\$ 4,887</u>

In-house:

2.1% of direct material	\$ 1,685
9.1% of labour	<u>2,478</u>
Total Costs	<u>\$ 4,163</u>

Cost savings	<u>\$ 724</u>
Cost savings after tax at 33%	<u>\$ 485</u>

Initial Investment:

Investment	\$(1,750)
Tax shield on investment (Note 1)	342
Reorganization after tax (50 x (1-.33))	(33)
Training after tax (15 (1-.33))	<u>(10)</u>
Total Investment	<u>\$(1,451)</u>

At an annual cost saving of \$485, the project pays back in 3 years.

Outsource

5.25% of direct material	<u>\$ 4,211</u>
--------------------------	-----------------

Cost savings in comparison to conventional 676

The cost savings for Agriculture are highest with the in-house coating alternative.

	Road Rail	Engineer. Prod.
Direct materials	\$50,599	\$63,038
Direct labour	18,264	28,770
Conventional Costs:		
2.8% of direct material	1,417	
9.7% of labour	<u>1,772</u>	
Total Costs	<u>\$ 3,189</u>	

In-house:		
2.1% of direct material	\$ 1,063	\$ 1,324
9.1% of labour	<u>1,662</u>	<u>2,618</u>
Total Costs	<u>\$ 2,725</u>	<u>\$ 3,942</u>
Conventional vs in-house	\$464	
Outsource:		
5.25% of direct material	<u>2,656</u>	<u>3,309</u>
Conventional vs outsource	533	
In-house vs outsource	<u>\$ 69</u>	<u>\$ 633</u>
Outsourcing saves money for both divisions		

However, the most inexpensive method for the Road Rail Division is the outsource method. Therefore, in order to have the division use the Agriculture's in-house services, the transfer price may have to be reduced to the outsource price. For engineering products, the outsource method is by far the most inexpensive, and in-house would cost \$633 more.

Note 1

$$(1,750 \times 0.33 \times 0.20) / (0.20 + 0.12) \times (1.06/1.12) = 342$$