WHITE FALCON

CAPITAL MANAGEMENT LTD.

July 14, 2022

RE: Q2 2022 Partners update letter

Dear Partners,

While individual client returns may differ based on their inception dates, consolidated performance of all accounts for the period ending June 30, 2022 is as follows:

	QTD	YTD	ITD*
White Falcon (net of fees)	**-22.25%**	**-20.86%**	**-22.05%**
S&P 500 (CAD)	-13.61%	-18.55%	-15.89%
MSCI All Country (CAD)	-12.46%	-18.28%	-17.06%
S&P TSX	-13.19%	-9.85%	-10.36%

*Inception date is Nov 8, 2021

No fees were due this quarter as all accounts are below their respective high water marks. Negative contributions were the result of our holdings in small cap technology companies such as Converge Technology Solutions, Digital Turbine, and Copperleaf Technologies.

The biggest change for the White Falcon portfolio is its increasing exposure to the technology sector. The weighing of technology companies in the portfolio increased from 19% at the beginning of the year to 50% at the end of the quarter. A large part of this increase has been in the small and mid-cap stocks which has increased the volatility of the portfolio.

We managed to preserve capital in Q1 with a positive return but gave that and more away in Q2. In hindsight, we started buying high growth stocks a little too soon. Moreover, we did not carry a meaningful cash balance throughout the quarter. Given our overall bearish stance, we should have been more patient in buying these positions and carried healthy cash balances and/or deployed hedges. While one could argue that a quarter is too short a time frame or that one cannot time the market; we believe preserving capital is paramount even at the risk of giving up some upside.

With this handicap, we have been focusing on optimizing the portfolio and concentrating into our best ideas - highest conviction ideas with favorable risk/reward - during the quarter. Times like this provide a bottom up investor with a rare exception when we get to own high quality *and* high growth companies at very reasonable prices.

An investor should have two major goals in a big market correction: (1) preserve capital; and (2) accumulate more shares of good quality businesses with strong balance sheets. We encourage partners to contribute capital at these levels so that we can average down and buy more shares in portfolio companies at cheaper valuations. I am 'putting my money where my mouth is' and adding capital to my accounts.

Why the increased exposure to technology?

At White Falcon, we describe ourselves as opportunistic investors. What does this mean? To us, this means, (a) being contrarian, (b) looking at areas of the market where valuations are good compared to the quality and growth characteristics of the business, and (c) there is forced selling by investors. At present, we believe high growth technology stocks fit this description.

While the S&P index is only down about 20%, ARKK ETF, a broad measure of high growth technology stocks, was down more than 77% from its highs and reached the same levels as it reached during the Covid drawdown. This bubble seems to have burst! Our lesson from the bursting of the Nasdaq bubble in 2001 has been that one should have bought high quality growth stocks at the lows. High quality companies such as Amazon, Microsoft, Booking Holdings, among others, were available for a song and compounded at high rates over the next two decades. If we apply that lesson to the situation today then, we reckon, the real opportunity is in the rubble of the growth stock collapse.

"This matter of training oneself not to go with the crowd but to be able to zig when the crowd zags, in my opinion, is one of the most important fundamentals of investment success."

-Phil Fisher

Indeed when we triangulate this with valuations, we find that many high growth companies are now trading at reasonable valuations. Importantly, we would argue that they are better businesses today than they have ever been. Enterprises, both big and small, comprehended the inadequacies of their existing technological infrastructure during Covid and embraced new technologies such as digitisation, cloud computing, and automation, among others. Technology companies in our portfolio are secular growers as they are typically replacing an existing process or system and are not overly dependent on economic growth. Moreover, we are in an environment where capital is becoming more expensive due to which businesses will focus on profits and not just growth. Also, there is likely to be less competition for good engineers and compensation growth is also expected to moderate. We believe that businesses with good balance sheets and good management teams that survive this bust will likely come out stronger.

Technology has been a deflationary and disruptive force throughout history and there is no reason to believe this will not be the case going forward. The biggest risk to this thesis is rising interest rates as these influence equity multiples. We present a few thoughts on this topic in the general markets section.

As an example of a high growth software company, we highlight a software company, CopperLeaf Technologies, in the appendix of this letter. CopperLeaf sells decision analytics software solutions to companies managing infrastructure assets. It IPO'd in November 2021 at $15 per share and its stock price subsequently reached a high of $26 per share. Since then, with weakness in high growth and unprofitable companies, CopperLeaf's share price declined and closed at $6.08 per share at the end of the quarter. Our work suggests that its stock should be worth between $13-18 per share in a few years. Compared to our average price of $8.46 per share this is an upside of 54-100% and compared to the current price of $6.5 per share an upside of 100-200%.

<u>Portfolio</u>

Top 5 positions:

- Precious Metal royalty companies
    - Precious metals royalties companies are businesses that lend capital to a mine in return for a royalty or stream on the precious metals produced from that mine. A royalty is usually structured as a percentage of annual production where the royalty company has no other obligation but to deposit the cheque every year.
    - We own a basket of royalty companies which include larger and established businesses such as Wheaton and Franco Nevada but also smaller but growthier businesses such as Triple Flag and Nomad.
- EPAM Systems
    - EPAM is a high end IT services business that provides highly engineered solutions to its clients. Its processes, culture, delivery, attrition and other metrics are at the top quartile compared to its peers.
    - Many enterprises are paying down their 'tech debt' and EPAM is a competent and trusted partner. We believe it has a long runway of growth ahead of it.
    - EPAM has a net cash balance sheet and is trading for 17x EV/EBIT and 25x earnings on FY2023 estimates which is lower than peers such as Globant or Endava.
- Nu Holdings
    - Nu is a neo-bank which makes unsecured loans in Brazil, Mexico and Columbia. It has a lower cost to serve and better credit processes compared to its traditional peers.

  - Nu has a third of Brazil's population as clients but its revenue per client is much lower than its traditional peers. With increasing revenue per client and the resulting operating leverage, Nu will compound earnings at a rapid pace.
  - Nu is currently unprofitable (by choice) and is trading for 16x our estimate of FY2024 earnings.
- Amazon.com, Inc
  - Amazon has leading market share in cloud computing with Amazon Web Services (AWS) and retail with Amazon e-commerce along with Prime services.
  - The AWS business should grow at a rapid pace for a long time due to increasing penetration of cloud services. The retail business is a strong business but is facing temporary headwinds due to overcapacity and high fuel prices.
  - We value Amazon on a Sum of Parts (SOTP) basis and believe that we are currently paying 22x EBIT for AWS and 12x EBIT for everything else on FY2023 estimates. While Amazon is still considered a retail company we figure that 80% of Amazon's value comes from its software business.
- Converge Technology Solutions
  - Converge is an IT reseller for mid-market companies in North America and Europe. Similar to EPAM, it is helping companies pay down some of the 'tech debt' they have accumulated over the years.
  - Led by Shain Maine, the company is a serial acquirer and has been growing rapidly with its methodical roll-up strategy.
  - Converge is currently trading for 8.5x EBIT and 12x earnings per share on FY2022 estimates.

The top 5 (including the basket of PM royalty stocks) account for 44% of the portfolio which is the most concentrated we have ever been.

There have been very few changes to the portfolio and we still hold value stocks such as Maxar, Fairfax, Greenfirst, Teck Resources and others but just at lower weights.

<u>General Markets</u>

As we send out this letter, the US reported CPI increase of 9.1% and the Bank of Canada just raised rates 100 bps. These are unprecedented times! In times like these, a big allocation to technology stocks is a highly contrarian stance.

The following give us some comfort:

1. The bond market has done a lot of tightening ahead of the FED. As an example, US 2 year bond yield is currently at 3.05% which is much closer to the target fed funds rate;
2. The current US 10 year bond yield is lower than the US 2 year yield leading to an inverted yield curve. In fact, given the unprecedented tightening of financial conditions and economic slowdown, markets are already expecting rate cuts in 2023;
3. Commodity prices have rolled over leading to declining inflation expectations (as seen by breakevens) which is a key FED metric; and
4. Importantly, technology stocks, from these levels, given high non-correlated growth, should do well even if we see further contraction in multiples.
5. Importantly, we believe interest rates of 3-4% do not spell the death of the technology sector. More likely, it means that good companies with strong balance sheets will be able

to strengthen their businesses and grow as they face less competition from ‘free money’ funded competition.

Recently, inflation worries are giving way to economic slowdown concerns. We are watching the strength in the US dollar which is a cause for concern. Fundamentally, markets are forward looking. While many investors are focused on today’s events, markets are focused on the rate of change in different forward looking indicators.

"The time of maximum pessimism is the best time to buy and the time of maximum optimism is the best time to sell."

-John Templeton

As mentioned earlier, given portfolio quality and valuations, I have and will be adding to my accounts at White Falcon and will encourage partners to do the same. While it is difficult to predict short term stock movements (especially by someone who started an investment firm in November 2021!), the long term prospects of the portfolio look good. If not now, then when?

We are happy to announce that a respected family office joined White Falcon as a limited partner this quarter. One of the few competitive advantages in the investment management business is thoughtful and supportive partners and we are delighted to have attracted such a partner.

We thank them and all our partners for their trust and confidence in White Falcon.

Please feel free to get in touch with me for any questions or feedback that you may have.

With gratitude,

Balkar Sivia, CFA
White Falcon Capital Management Ltd.

Appendix: CopperLeaf Technologies (CPLF CN)

Copperleaf is a provider of AI-powered enterprise decision analytics software to help companies manage their critical infrastructure, including PP&E, digital assets and natural assets. Copperleaf's platform helps streamline the investment management process for critical infrastructure projects like electric, water, and natural gas utilities by helping standardize complex metrics for comparative analysis.

The Company's product suite consists of three offerings, namely,

- Copperleaf Asset,
- Copperleaf Portfolio and,
- Copperleaf Value (which could be sold separately or in a bundle)

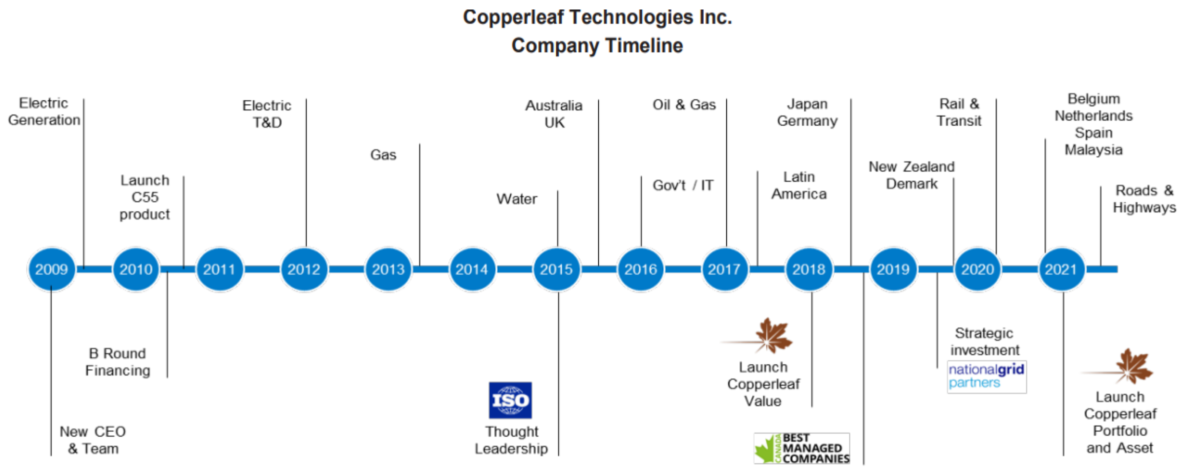
CopperLeaf has been mostly profitable throughout its history. However, starting from 2022, management has ramped up investments in Sales and Marketing (S&M) and the business will report EBITDA losses. Management believes there is a substantial market opportunity and has hired a lot of sales people over the past six months. As these people come onboard and mature, we should see sales inflect and grow at a faster pace. Given good paybacks, zero churn, and Net Revenue Retention (NRR) of > 110-120%, we believe these investments will yield good returns over time.

The problem is that investors have soured on companies that make a loss and want to see profitability. Not the best timing by CopperLeaf to accelerate growth but we believe a long term view will be rewarded as profitably is not in question when CopperLeaf does decide to slow down growth investments. We like CopperLeaf due to the vastly underpenetrated market opportunity, favorable competitive positioning, and broader tailwinds driving accelerated market adoption. This investment is not very economy sensitive as CopperLeaf sells to the utility sector. To top it all, the investment plays to the growing ESG trends.

We believe the stock can double or triple in the next three years providing an attractive IRR to long term investors.

CopperLeaf History

Copperleaf was founded in 2000 as a consulting company to help electricity generators develop and defend their plans to invest in infrastructure. Its first product was the C55 and launched in 2010. This was a decision analytics software that leveraged operational and financial data to make decisions. With this product, CL entered other verticals. In 2010, CL raised $7.34 mn from EDC, EVCC and other angel investors. In 2019, CL raised $10 mn from National Grid. In 2021, Copperleaf held an IPO and raised $161 mn at a $15 per share stock price. SInce then, management embarked on a strategy of investing in the business to grow even faster. It is important to note that Copperleaf has an accumulated deficit of $31.1 mn at Dec 2021 and Rev of $70 mn - meaning this Company knows the value of money.



Business

Successful ingredients for a software company:

- A good product
- R&D capabilities to re-invest in the product and introduce new products
- S&M prowess to push its products including SI relationships
- A good record of implementation

Each of the above is very important and a successful company needs to have all four. Ideally, it needs to be first to the market. The bottom line is that the solution has to become the 'least risky' option so that it can be recommended and approved by the relevant stakeholders. All this is extremely difficult due to which one sees a few software companies' dominate most horizontal or vertical segments. Once software is installed, the associated revenues become extremely sticky as the cost of change is very high – from a cost, systems change, data integrity, and employee training perspective – it is just not feasible for many companies to change software providers. Due to this software companies enjoy good economics over the life of the relationship.

Software, especially enterprise software, requires an extensive selling and marketing effort. Enterprises are risk averse. The better selling software on which system integrators have had some experience usually ends up winning deals due to which market shares consolidate (SAP in ERP, Salesforce.com in CRM, and Workday in HCM are all examples). Consultants such as Gartner and system integrators such as Accenture also lend to this behavior as it is in their interest to play the safe option and keep the customer pleased. If we look at the tech stack of a typical utility, we find two core products:

- An ERP system such as SAP or Oracle. This ERP system powers most back end systems for a utility. Typically, the ERP system also has an Enterprise Asset Management (EAM) module which keeps a book of record for the utility's assets.

- A ERP/CRM system that interfaces with the utility's customers and is used for customer management.

"So enterprise asset management is significantly different from fixed asset management. If I'm a maintenance technician, or a maintenance supervisor, or a VP for a maintenance department, all I care about is my downtime of my assets need to be limited and my uptime should be increased. But from the perspective of a finance team, our fixed asset accounting capital team, I want to make sure that every single penny that we put in, whether towards O&M, new installation, or removal, or replacement, retire, I want those pennies to be appropriately accounted for in their right account. That's where fixed asset accounting comes into picture. Unfortunately, the current ERP applications have, I would say, a seasoned fixed asset accounting application. They are pretty very well positioned in terms of enterprise asset management, EAM. But in terms of fixed asset accounting, there it's still a long way. And a couple of applications like the PowerPlan, Copperleaf, are definitely playing a key role and they're filling up the gap"

-Accenture Consultant

A utility has large capex and opex requirements every year. The FP&A team typically downloads data from the EAM system into excel where it builds models in order to keep track of these expenses. They also use this for budgeting and forecasting. The output from this system is required for the following:

- Executives to make decisions on spending
- Regulator to approve capex spend and/or for compliance reasons
- ESG tracking for investors as well as regulators

CopperLeaf provides modules that help both the operational and accounting teams. To elaborate further, its three modules are used as follows:

Copperleaf Asset - The utility enters asset information into the module which in turn generates risk, cost, and value over time for each asset and calculates optimal intervention dates. E.g. A utility may have 10 poles and each pole is 6 years old and has a total useful life of 7 years. The asset module helps them stay abreast of all their assets to make sure they are take care of from a risk as well as optimisation perspective.

Copperleaf Portfolio - CL Portfolio equips the utility with investment, optimisation and costing tools. The module also provides a value-based decision-making framework. This tool is critical for the accounting team in budgeting and decision making. The 'standardizes' requirements and helps the team make decisions on important and urgent matters. E.g. For a limited budget, do we want to do project A or B and the trade-offs, including non-financial trade-offs, of each decision.

CopperLeaf Value - This module brings the above two together and provides a reporting and communication tool so that everyone in the organization can be on the same level. Copperleaf has spent some R&D dollars here optimizing and building a no-code/low-code product that can be customized by the client.

Copperleaf Technologies Inc.
Decision Analytics Example

Details	**Replace existing electrical asset**	**Install new IT system**
Cost	$2M	$4.5
Time	1 year	2.5 years
Project Execution Risk	+/- 10%	+/- 30%
Outcome		
O&M Savings	$2.5M	$6M
Improved Reliability	Decreased CMI by 2 minutes	Reduce network outages by 15%
Improved Safety / Cybersecurity	Lower chance of fatalities by 10%	Improve Mean Time to Detection by 10%
Improve Employee Engagement	--	Increase highly engaged employees by 25%

In all these products, CopperLeaf tries to embody AI and ML tools which can further automate this process for a utility. In a product company, scale is very important. Scale enables a company not only to enjoy the operating leverage inherent in a software business but also lets them invest in new technologies.

Typically, this work was done on excel or the ERP system with DIY tools. Given the convoluted nature of today's utilities this is increasingly not possible.

"So the part that Copperleaf really took off in my opinion was that it scaled considerably better than what we were seeing from others in the industry. They were coming from a technology perspective, I could see what they were doing, and I felt that the approach was more effective. When Copperleaf talks about the value framework, we're talking about how you establish your strategy and then articulate that strategy so that when investments are added to the system, so pre-project, when the investments are added into the system, you can actually score them against where the executive bought the organization to go".........."But now because of the push on ESG and environmental issues, a lot of the questions were, well, could we do energy efficiency instead of pipes? And how would you compare energy efficiency and the risks of implementation on that in comparison that's implementing the same pipe, for example."

-Enbridge Executive

The biggest competitor of CopperLeaf in North America is PowerPlan. PowerPlan was founded more than 25 years ago. Focusing on fixed asset accounting solutions for North American energy companies.The Company was acquired by Thoma Bravo in 2015 and then sold to Roper

Technologies in a $1.1 billion deal in 2018. At the time of the deal, it made $150 mn in revenue and had a 40% after-tax FCF margin meaning Roper bought it for 7x Rev and 18.3x FCF. The M&A call clarifies that PowerPlan was in the midst of a transition to the cloud.

Features	Excel	ERP Modules	PowerPlan	Assetic	Direxyon	Cosmo Tech	Arcadis	Copperleaf
Asset Management	Limited	✓	✓	✓	✓	Some	✓	✓
Portfolio Management	X	X	✓	X	✓	Some	n/a	✓
Best-Practice Models	X	X	Some	Some	Some	X	n/a	✓
Decision-Making Tool	X	X	Yes	No	Yes	Yes	✓	✓
Risk & Benefit Analysis	X	X	X	X	✓	✓	✓	✓
Mutiple Objectives	X	X	X	X	Limited	Limited	n/a	✓
Artificial Intelligence	X	X	X	X	✓	X	n/a	✓
Scenario Planning	X	X	X	X	✓	✓	n/a	✓
ISO55000	X	X	X	✓	✓	X	n/a	✓
Cloud-Based	X	X	Unknown	Unknown	Unknown	Unknown	n/a	✓
Customization	X	X	Some	Some	Some	Unknown	✓	✓
Integration	X	X	✓	✓	✓	Unknown	✓	✓

Source: NBF Technology Research; Company and Industry Websites

"This business, PowerPlan, takes financial data and operational data about the assets, combining it for this holistic, curated view of the asset base of a company. From that sort of dataset that's unique to PowerPlan, doesn't exist anywhere in the IT systems of their clients, they then can do many, many things: income tax accounting for those assets, property tax, lease management, budgeting for capital, retirement of capital, planning for future capital addition because they have a perfect view of the asset base. Shockingly, the displacement of this is Excel generally, right. So obviously all of PowerPlan's customers have 2 systems existing, one is an ERP and one is what they call an enterprise asset management system. So the ERP assumes all assets are simple assets, meaning, what's on the invoice is the totality of information available to put into the fixed asset register of -- in the ERP. The enterprise asset management systems are the ones that are the operational data about how you know what you need to provide maintenance on, how you do ticketing and dispatch orders to the field to fix a pole or upgrade a pole or change a pole or change a transistor, whatever it may be. And so it's the combination of the rich data and the operational system. When you're making modifications to the asset, it's not reflected back in the ERP. It's just a very simple telephone pole, and you don't even know the location of it. So PowerPlan combines those 2 and that's what happens in Excel principally or scattered in Excel in different departments in the organization."

-Roper M&A Call

A long runway of growth

Perhaps due to PowerPlan's lead in North America, Copperleaf is finding traction outside North America. For a small company with $70 mn in revenues, the company derives about 60% of its revenues from North America and the balance is split equally between Europe and APAC.

The interesting aspect of this investment is that Copperleaf has been expanding its addressable market over the years. While it started with utilities, it added water, then other infrastructure companies as well as oil and gas. In fact, any company with a large fixed asset footprint is a potential Copperleaf customer. The company typically co-develops a product with an anchor client and then builds a marketable product that can be deployed more widely.

Within each client, Copperleaf has shown a history of increasing ARR. It has cross sold more modules to each client leading to high NRR.

Furthermore, Copperleaf is getting to a size where it is forming partnerships with the likes of Accenture and Capgemini and these IT services companies are helping to sell and implement Copperleaf solutions.

All of this, coupled with tailwinds from ESG and regulatory scrutiny means that Copperleaf has a long runway of growth.

Good metrics

Growth is only good if it's profitable. Overall, Copperleaf has 75% gross margins, zero churn, and Net Revenue Retention of 110-120%. Copperleaf was started by and is run by traditional technology executives who know the importance of cash flow. In fact, the Company was run at an EBITDA positive level before its IPO. As at Dec 2021, the company had built a $70 mn revenue business for a net cumulative deficit of $31 mn.

Currently, S&M and R&D expenses as a % of Revenue are increasing from historical norms due to which the company will experience losses at the EBITDA level. For perspective, in 2018 the company featured roughly 20 full-time sales employees, with that number having grown to more than 58 as of September 30, 2021. These sales investments are expected to ramp up throughout 2022 and contribute more to the company's growth initiatives in fiscal 2023 and 2024. These investments should put the company on a different trajectory in terms of its revenue growth and NRR levels. It is important to remember that software companies have very little capex and their 'growth investments' are their investments in S&M which help land them a customer. Once landed, this customer becomes a perpetual source of revenue.

William Blair estimates CAC payback period to be approximately 18 months in 2021, compared with the peer group of about 21 months. The company's sales efficiency will decline Q1-Q3 2022 as it ramps up its newly hired salesforce but over time things should normalize back as operating leverage kicks in. We know that CopperLeaf's biggest competitor, PowerPlan, had a FCF margin of 40% when it was sold to Roper. In our modeling, we will assume a normalized EBITDA margin of 30% for Copperleaf.

There are a few things to keep in mind:

- Sales cycles are long: Copperleaf's customers are utilities. They can be slow and bureaucratic to make decisions. Sales cycles are 9-18 months due to which quarterly performance can be lumpy.

- Clients want on-prem: Utility companies are conservative and do not want their software on the cloud. Many others also do not want to pay for opex in the form of SaaS payments. Due to this, Copperleaf has a decent percentage of revenues in perpetual licenses which is one time revenue but is accompanied by recurring revenue which equals 20-25% of the license revenue every year.
- Professional Rev: Copperleaf has a large percentage of revenues coming from professional revenues. These are revenues earned from implementation and maintenance. The interesting thing about this line-item is that it is not affecting gross margins. IT services companies typically operate at 30-35% GPM levels while Copperleaf has a consolidated GPM of 75% plus. Management has stated that they price these services at a very high rate.

The important thing here is that Copperleaf is growing and growing its SaaS business even faster. We have to be mindful of the above constraints as we go through earnings for the company.

Model

CopperLeaf ($CAD)								Normalized
	2018	2019	2020	2021	**2022**	**2023**	**2024**	**2025**
Subscription Rev	9,150	12,994	19,826	31,399	44,000	63,500	90,000	120,000
Growth %		*42.01%*	*52.58%*	*58.37%*	*40.13%*	*44.32%*	*41.73%*	*33.33%*
Licence Rev	10,346	6,304	7,801	12,714	13,000	13,500	14,000	14,500
Growth %		*-39.07%*	*23.75%*	*62.98%*	*2.25%*	*3.85%*	*3.70%*	*3.57%*
Professional Rev	14,138	17,636	16,893	25,171	29,861	35,000	40,000	45,000
Growth %		*24.74%*	*-4.21%*	*49.00%*	*18.63%*	*17.21%*	*14.29%*	*12.50%*
Subscription as % of Total	*27.20%*	*35.18%*	*44.53%*	*45.32%*	*50.66%*	*56.70%*	*62.50%*	*66.85%*
Total Revenue	33,634	36,934	44,520	69,284	86,861	112,000	144,000	179,500
Growth %		*9.81%*	*20.54%*	*55.62%*	*25.37%*	*28.94%*	*28.57%*	*24.65%*
Total COGS	7,827	10,286	12,107	14,370	21,000			
Gross Profit	25,807	26,648	32,413	54,914	65,861	85,120	110,880	140,010
Gross Profit Margin %	*76.73%*	*72.15%*	*72.81%*	*79.26%*	*75.82%*	*76.00%*	*77.00%*	*78.00%*
R&D	7,544	12,204	15,080	18,957	30,844	35,794	36,816	32,310
Margin %	*22.43%*	*33.04%*	*33.87%*	*27.36%*	*35.51%*	*31.96%*	*25.57%*	*18.00%*
S&M	8,364	14,202	15,461	22,806	41,000	50,223	61,344	26,925
Margin %	*24.87%*	*38.45%*	*34.73%*	*32.92%*	*47.20%*	*44.84%*	*42.60%*	*15.00%*
G&A	5,177	9,178	10,372	18,257	28,000	32,493	37,599	26,925
Margin %	*15.39%*	*24.85%*	*23.30%*	*26.35%*	*32.24%*	*29.01%*	*26.11%*	*15.00%*
Total Opex	21,085	35,584	40,913	60,020	99,844	118,510	135,759	86,160
EBITDA	**4,722**	**(8,936)**	**(8,500)**	**(5,106)**	**(33,983)**	**(33,390)**	**(24,879)**	**53,850**
EBITDA Margin	*14.04%*	*-24.19%*	*-19.09%*	*-7.37%*	*-39.12%*	*-29.81%*	*-17.28%*	*30.00%*

Generally speaking, SaaS only companies have gross margins of 75-85% followed by R&D expenses (depending on scale) of 15-30% and S&M expenses of ~40-45% with EBIT margins following from that. Many of these companies are loss making as their investments in S&M are very high. Investors are comfortable giving these companies EV/Revenue multiples of 10x as they believe that these S&M investments will ease at a certain point due to which EBIT margins can be in the 30-40% range – depending on scale. Companies that also implement their software have gross margins of 45-60% due to lower margin services revenues.

Copperleaf has $161 mn in cash on the balance sheet on a market cap of $500 mn for an EV of $400 mn. It has a very light balance sheet and current assets and current liabilities are the big balances.

Until 2022, EBITDA losses were low but they will cuminatively be around ~$90 mn over the next three years. This cash balance will significantly dwindle in the next three years. The investments are going into both R&D and S&M as shown above and these expenses will increase significantly. We also show in 2025, that IF, Copperleaf were to turn profitable to its full margin potential how the I/S would look.

With the above financials, valuation looks as follows:

	2021	**2022**	**2023**	**2024**	**2025**
Normalized EBITDA	20,785	26,058	33,600	43,200	53,850
Normalized EBITDA Margin		*30.00%*	*30.00%*	*30.00%*	*30.00%*
($CAD Millions)					
Stock Price	6.5	6.5	6.5	6.5	6.5
Diluted Shares Outstanding	79.8	81.8	85.0	88.0	90.0
Mcap	518.7	531.7	552.5	572.0	585.0
Net Cash	161.1	127.1	93.7	68.8	68.8
EV	357.6	404.6	458.8	503.2	516.2
EV/S (LTM)	5.16	4.66	4.10	3.49	2.88
EV/Norm EBITDA	17.20	15.53	13.65	11.65	9.59
Base Case					
EV/S (7x)	485	608	784	1,008	1,257
EV/EBITDA (18x)	374	469	605	778	969
Avg	430	539	694	893	1,113
Plus Cash	161	127	94	69	69
Target Mcap	591	666	788	962	1,182
Target Stock Price	7.4	8.1	9.3	10.9	13.1
IRR					**26.41%**
Bull Case					
EV/S (10x)	693	869	1,120	1,440	1,795
EV/EBITDA (25x)	520	651	840	1,080	1,346
Avg	606	760	980	1,260	1,571
Plus Cash	161	127	94	69	69
Target Mcap	767	887	1,074	1,329	1,639
Target Stock Price	9.6	10.8	12.6	15.1	18.2
IRR					**40.99%**

Conclusion

Copperleaf is trading at a reasonable multiple. It is out of favor right now as all technology stocks, especially stocks that are making losses, have been indiscriminately sold by investors. Copperleaf also just went through lock-up expiry from IPO due to which there is some selling pressure on a very illiquid stock with a very illiquid market backdrop. The company was only reasonably valued but it seems like it is now being priced for a high future IRR.

It is important to reiterate that Copperleaf's growth is not economy dependent. It sells to the utility and infrastructure sector that will need to invest in efficiencies especially in a weak market environment. The company is on the right side of trends when it comes to ESG which is becoming important for investors as well as regulators. Copperleaf is also a good M&A target.

Disclosure: *White Falcon and its clients have a position in CopperLeaf. We may be wrong in our analysis and encourage everyone to come to their own conclusions.*