2021

Shareholder Letter

trupanion™

Medical insurance for the life of your pet.

To Our Shareholders

Based on our key financial metrics, 2021 was a particularly strong year.

Total revenue grew 39% over the prior year to $699.0 million. Adjusted operating income grew 37% year-over-year to $78.5 million. We deployed $69.0 million of these funds within our subscription business at an estimated internal rate of return of 36%.

Grounded on our internal assessment of actual results, and without speculating on the potential newer initiatives, the per share intrinsic value of our company grew 41.4%. After sharing 1.5% of this outsized growth with the team, our calculation (if correct), would have your intrinsic value per share growing 39.9% over the last 12 months.

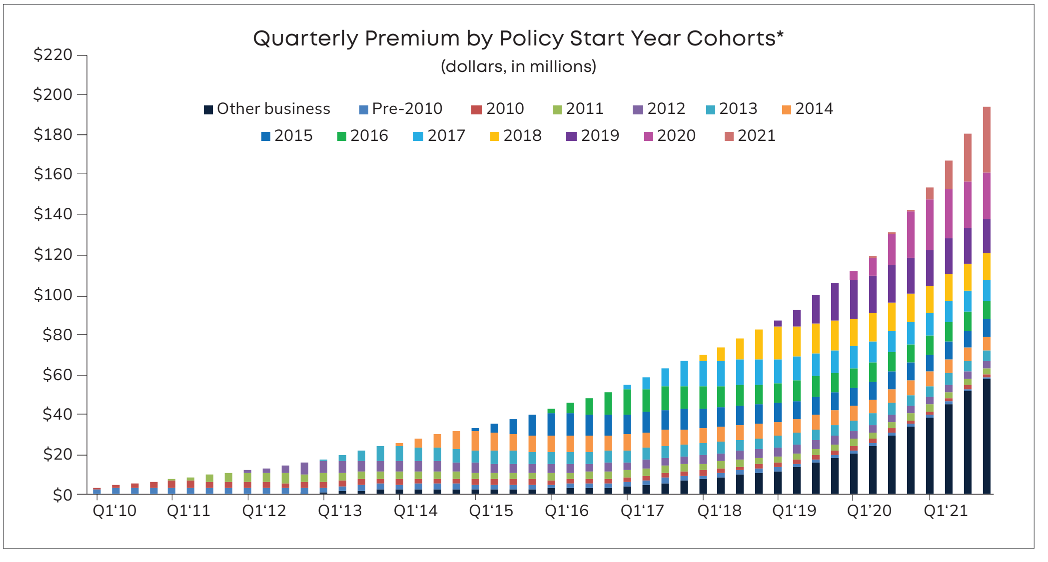
Table 1. Key Metrics

	2014	2015	2016	2017	2018	2019	2020	2021
Revenue	$115.9M	$147.0M	$188.2M	$242.7M	$304.0M	$383.9M	$502.0M	$699.0M
YoY change	38%	27%	28%	29%	25%	26%	31%	39%
Adjusted operating income	$900K	$3.6M	$14.8M	$23.4M	$31.9M	$44.2M	$57.1M	$78.5M
YoY change	N/A	300%	311%	58%	36%	39%	29%	37%
Pet acquisition spend	$11.1M	$14.8M	$14.7M	$18.4M	$23.7M	$33.3M	$45.1M	$69.5M
YoY change	N/A	33%	-1%	25%	29%	41%	35%	54%
Development costs	N/A	N/A	N/A	N/A	N/A	N/A	$0.3M	$3.7M
Subscription internal rate of return (IRR)	N/A	N/A	33%	43%	46%	40%	41%	36%
Free cash flow	($16.4M)	($15.3M)	$3.1M	$6.5M	$8.3M	$10.8M	$14.1M	($4.9M)

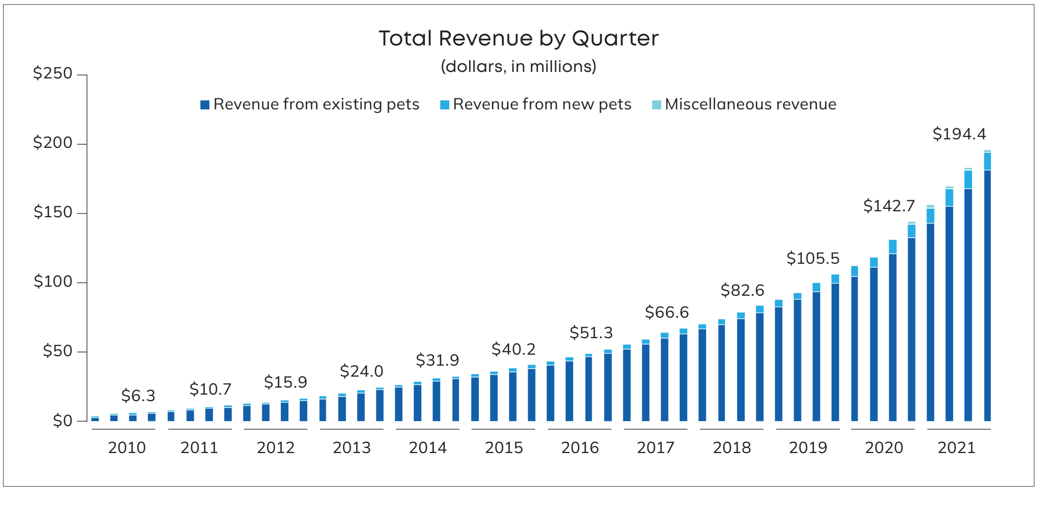
Of the $78.5 million in adjusted operating income generated in 2021, we spent approximately $69.5 million acquiring pets, $12.4 million funding capital expenditures and $3.7 million on strategic investments. Taking into account $2.5 million in other miscellaneous sources and uses of cash, we had a free cash flow deficit of $(4.9) million.

Table 2. Reconciliation of Adjusted Operating Income to Free Cash Flow

	2020	2021
Adjusted operating income	57.1M	78.5M
Pet acquisition spend	(45.0M)	(69.5M)
Changes in operating assets and liabilities	11.2M	4.7M
Purchases of property and equipment	(7.5M)	(12.4M)
Development expenses	(0.3M)	(3.7M)
Other, net	(1.4M)	(2.5M)
Free cash flow	14.1M	(4.9M)



*Excludes miscellaneous revenue.



Our 60-Month Plan.

Our goal in our 60-month plan (which we published in last year's letter and spans from January 2021 to December 2025), is to grow our intrinsic value per share by 25% per year. As a large shareholder of the company, I would expect at least a 20% year-over-year rate of return. Based on the size of our addressable market and our business model, I would be disappointed if we achieved anything less than 15% growth in a given year. Any year that we hit 25% or higher—like the one we just had—I am thrilled!

By the metrics, our 60-month plan is off to a very promising start. While our 2021 metrics highlight strong performance in areas that have a meaningful impact in both the short and longer term, they do not tell the whole story. Our 60-month plan has many new initiatives, moat building, and overall strategies that don't readily show up in our short-term financial metrics. In these areas, while we are making progress, our results were mixed, and I'll share this year's scorecard with you later in this letter.

Collectively, these efforts help lay the foundation for us to deliver against our goal of 25% growth in intrinsic value per share over the duration of the 60-month plan. At the time of writing this letter, we have 44 months to go, and Trupanion's President, Margi Tooth, is responsible for the execution of the plan, and the oversight of our team of over 1,400 mission-driven individuals now spanning multiple continents.

The Importance Of Adjusted Operating Income.

The single most important period-over-period financial metric that I look at is our Adjusted Operating Income. Adjusted Operating Income (AOI)—a non-GAAP measure—is a financial metric that we use to manage the business. It represents the funds generated from our existing pets before we spend money to acquire new pets or invest in new initiatives.

In our 2019 Shareholder Letter, you'll recall our discounted cash flow (DCF) analysis, which included a 15 year forecast of the total cash generated from our subscription pets. For your reference, I've included the original table on the next page. At the time, we forecasted total cash from our subscription pets of $61.7 million in 2021. As you'll see, compared to our actual result of $65.3 million, we are ahead of where we expected we would be.

Building out that same internal discounted cash flow model, by updating for our actual results, we believe the year-over-year increase in our intrinsic value per share was 41.4% in 2021. Note that the year-over-year increase in our AOI was 37.4%, a very similar growth rate to that which was calculated from our discounted cash flow model. This correlation is why I believe our AOI is the leading indicator of the value we create each year, assuming our internal rate of return (IRR) for new pet acquisition remains consistent.

At Trupanion, we want to maximize value creation, while at the same time making it easy for all of our constituents to track our progress in a very transparent way.

Table 3. Discounted Cash Flow Model Inputs 1.1 From 2019 Shareholder Letter

	Monthly cash generated from the average subscription pet	Total pet months	Total cash generated subscription pets
2018 Actual	$5.74	4.8M	$27.8M
2019 Actual	$6.85	5.5M	$38.2M
2020	$7.78	6.4M	~~$49.9M~~ $50.2M
2021	$8.47	7.2M	~~$61.7M~~ $65.3M
2022	$9.18	8.2M	$75.6M
2023	$9.81	9.3M	$91.3M
2024	$10.32	10.4M	$108.1M
2025	$10.86	11.7M	$127.9M
2026	$11.43	13.2M	$151.2M
2027	$12.04	14.8M	$178.8M
2028	$12.68	16.6M	$211.4M
2029	$13.37	18.7M	$250.1M
2030	$14.09	20.9M	$295.9M
2031	$14.86	23.5M	$350.1M
2032	$15.67	26.4M	$414.4M

For many companies that are constantly re-investing in growth, it is difficult for an existing or potential investor to determine what the cash flows would be if, instead, that company were being optimized to pay dividends.

Take Amazon for example...

In the early years, many investors overlooked Amazon; for the less informed that was understandable, but it was also a mistake. Amazon was building and growing very rapidly (still is), all the while being very mindful of their cash. Some critics said they "would never be profitable," or "Amazon.toast." To that, Jeff Bezos said during a 2012 interview, "Nobody has to fail for Amazon to do well."

In 2004, with nearly $7 billion in revenue, Amazon had 410M outstanding shares, equating to revenue per share of $16.83. Many companies that grow primarily through acquisitions, or that consume a great deal of cash to grow, may see revenue growth of 30%, 50% or even 100% over a period of time, but often do not see corresponding expansion in their per share metrics.

Amazon had discretionary profits for many years, but they clearly re-invested those discretionary profits very effectively. This is evident when you consider Amazon's revenue per share, which between 2004 and 2017, grew at a compounded annual growth rate of 25% to approximately $368.00 per share. Amazing...

Table 4. Amazon Financial Metrics*

	Outstanding shares	Annual revenue	Revenue per share
1997	287M	$148M	$0.52
2004	410M	$6.9B	$16.83
2017	484M	$178B	$367.77

* Note this chart was inserted by Darryl after a quick Internet search (i.e. don't get mad at me if these numbers are not perfectly accurate—it is illustrative at best).

We break out our adjusted operating income—and more importantly our adjusted operating income per share—to show the cash flow we could afford to pay out in dividends, if unlike today, we were to not re-invest our discretionary income to acquire new pets.

Table 5. Key Financial Metrics on a Per Share Basis

	Total share count plus options and warrants granted**	Revenue per share	YoY growth	Adjusted operating income per share	YoY growth	Cash, short-term investments, our building assets, minus debt per share	YoY growth	Earnings (loss) per share*
2012	22,467,205	$2.47	53%	$0.13	-7%	$0.23	-30%	($9.76)
2013	24,889,316	$3.37	36%	$0.17	31%	$0.32	39%	($6.23)
2014	33,813,736	$3.43	2%	$0.03	-82%	$1.79	459%	($1.64)
2015	34,138,237	$4.31	26%	$0.11	267%	$1.27	-29%	($0.62)
2016	34,879,610	$5.40	25%	$0.42	282%	$1.40	10%	($0.24)
2017	35,444,460	$6.85	27%	$0.66	57%	$1.53	9%	($0.05)
2018	37,862,667	$8.03	17%	$0.85	28%	$3.56	133%	($0.03)
2019	37,951,839	$10.12	26%	$1.16	37%	$3.67	3%	($0.05)
2020	42,358,814	$11.85	17%	$1.35	16%	$7.03	91%	($0.16)
2021	42,842,831	$16.32	38%	$1.83	36%	$6.72	-4%	($0.89)

* Earnings / loss per share is calculated using the GAAP basic weighted-average shares at year end.

** Share count includes outstanding shares plus unexercised options and unvested restricted stock, as well as shares granted in subsequent years pertaining to the year's performance. In addition, total outstanding shares increased by 3,636,364 shares in 2020 due to Aflac's common stock purchase.

Value creation through investment and moat building.

I recognize that it can be difficult to track value creation when a company is re-investing in growth. So let me walk you through a simplified modeling exercise that builds on the principle of value creation through investment and moat building.

SCENARIO #1:

Valuing the Return on a Loan

Valuing the return on a loan is simple. Since it's spring, let's assume your neighbor wants to buy a mobile hot dog stand. Your neighbor wants to build brand equity within her community and will set up shop near local workplaces, high school sporting events, music venues, farmers markets and more! You think this is an interesting idea and lend her the amount that it will cost to purchase—$10,000. She agrees to pay you 2.5%, or $250 per year in interest, for the next 10 years. In this scenario, you could easily calculate the rate of return.

Table 6. IRR Analysis: Valuing the Return on a Loan

Loan investment	($10K)										
Year	-	1	2	3	4	5	6	7	8	9	10
Annual payback	-	$250	$250	$250	$250	$250	$250	$250	$250	$250	$10.25K
										IRR	**3%**

SCENARIO #2:

Valuing a Business

Valuing a business becomes a little more complicated as you need to create a discounted cash flow model, but the principle is the same. As an owner you must determine how much cash you expect to get back each year for some period of time in the future (say 10, 15 or 20 years), what is the likelihood that your prediction will be correct (discount rate), and what if anything will the company be worth at the end of the period of time if you were to sell it at a fair price (terminal value).

Imagine if instead of loaning your neighbor the money, you decide to become an entrepreneur and purchase the stand yourself for $10,000. You figure that the stand nets $2,500 in profit. To determine if $10,000 is a worthwhile investment, you assume the hot dog stand would net $2,500 (pre-tax) in profit, every year for the next 10 years. After 10 years you intend to sell the business to your manager for $10,000, the original cost of the business. Therefore, the discounted cash flow shows that you pay $10,000 for a hot dog stand that is worth approximately $19,000 based on its cash flows. You calculate that it is an attractive internal rate of return of 25%.

Table 7. IRR Analysis: Valuing a Business Using a Discounted Cash Flow Model

Purchase price	($10K)										
Year	-	1	2	3	4	5	6	7	8	9	10
Net profit, pre-tax	-	$2.5K	$2.5K	$2.5K	$2.5K	$2.5K	$2.5K	$2.5K	$2.5K	$2.5K	$12.5K
Discount rate	10%										
										Present value of cash flows	$19.2K
										Terminal year value	-
										Enterprise value	$19.2K
										IRR	25%

SCENARIO #3:
Valuing a Company that is Re-investing its Profits

In contrast to scenario #2, where you simply purchased an ongoing business with a finite life, you decide to be more ambitious. To create more value you might choose to build a hot dog stand empire rather than operate just a single hot dog stand. With the business and brand equity of the first stand established, you're able to open additional mobile hot dog stands in neighboring communities at the marginal cost of the equipment at ~$2,500. Each stand delivers $2,500 in pre-tax profits.

Every year, you take the pre-tax profits, and invest in expanding the number of locations using the same micro-community strategy for 10 years. At the end of 10 years, you are no longer investing in growth, and instead, you receive a stream of cash flow from your hot dog stand empire. Once again, you can calculate the internal rate of return on your future stream of cash flows.

Table 8. IRR analysis: Valuing a Company that is Re-Investing its Profits

Purchase price	($10K)										
Year	-	1	2	3	4	5	6	7	8	9	10
Number of stands (beg)		1	2	4	8	16	32	64	128	256	512
Net profit, pre-investment	-	$2.5K	$5K	$10K	$20K	$40K	$80K	$160K	$320K	$640K	$1.28M
Net profit, re-invested	-	($2.5K)	($5K)	($10K)	($20K)	($40K)	($80K)	($160K)	($320K)	($640K)	-
Annual profit (net)	-	-	-	-	-	-	-	-	-	-	$1.28M
Discount rate	10%										

Present value of cash flows	$0.5M
Terminal year value	$4.9M
Enterprise value	$5.4M
IRR	**88%**

SCENARIO #4:

Valuing a Company that is Re-Investing its Profits and Building Moats

Next, you will create some moats. You want to become the low cost operator (does this sound familiar?) You'll do so by reducing one of your biggest expenses, the hot dog buns! But you also know the bun is the secret sauce, the way to truly differentiate your hot dogs from the competition. So, you make your own buns, and in doing so, drive your costs down from $0.50 per bun to $0.25 per bun and pass on the savings to your customers by way of lower prices.

Next, you move to the hot dog. You strike a partnership with Sabrett Natural Casing Beef Frankfurters—the best hot dog manufacturer around—and become their regional distributor. As part of the deal, you will heavily brand the frankfurter on your mobile stands, increasing their retail demand. More importantly, you can now buy their hot dogs at a fraction of the prior cost and once again, return these savings back to the customer. With the best buns and best hot dogs at the best value, your business is considerably more compelling.

You hire good people, and treat them well. As a result, they treat your customers well and lines at your hot dog stands are long. You now sell the best hot dog around, for considerably less than anyone, all while making a reasonable margin. You have built a business that is durable, scalable, and therefore valuable. As a result, you increase the likelihood of your success (lowering your discount rate) and increase the value of your company (your terminal value).

Table 9. IRR analysis: Valuing a Company With Moats

Purchase price	($10K)										
Year	-	1	2	3	4	5	6	7	8	9	10
Number of stands (beg)	-	1	2	4	8	16	32	64	128	256	512
Net profit, pre-investment	-	$2.5K	$5K	$10K	$20K	$40K	$80K	$160K	$320K	$640K	$1.28M
Net profit, re-invested	-	($2.5K)	($5K)	($10K)	($20K)	($40K)	($80K)	($160K)	($320K)	($640K)	-
Annual profit (net)	-	-	-	-	-	-	-	-	-	-	$1.28M
Discount rate	8%										

Present value of cash flows	$0.6M
Terminal year value	$7.4M
Enterprise value	$8.0M
IRR	**95%**

Cash is cash.

Some people think that a company that operates in one industry should have a different valuation than a company that operates in a different industry (say, hot dog vs. software vs. pharmaceutical). I say if they produce the same amount of cash, with the same amount of risk and with the same enterprise value, the hot dog, software, or pharmaceutical company's value should be the same.

Ok, let's apply this to Trupanion.

What is intuitive to some is not intuitive to all, particularly when it comes to math.

In 2021, Trupanion had approximately $700 million in revenue and approximately $78 million in adjusted operating income. We'll look at 3 scenarios, each of which will assume adjusted operating income grows 25% year-over-year, but with varying levels of revenue growth. In scenario 1, let's assume that revenue grows approximately 20%. In scenario 2, we'll assume revenue grows in-line with AOI at 25%. In scenario 3, we'll assume revenue growth outpaces AOI growth at 30%. In each of these scenarios, AOI is $98 million (up 25% year-over-year). See table below:

Table 10. Revenue and AOI Comparison

	2021	Scenario 1	Scenario 2	Scenario 3
Revenue	$700M	$840M	$875M	$910M
Adjusted Operating Income	$78M	$98M	$98M	$98M

Q: Using a discounted cash flow model, which scenario will drive the highest year-over-year increase in the value of Trupanion?

a. Scenario 1
b. Scenario 2
c. Scenario 3
d. They are equal

A: The answer is d, they are equal. Revenue is not a factor in a discounted cash flow model. Revenue is not cash flow. Our adjusted operating income are the funds that we generate from our existing pets. In each scenario, the funds generated grew 25%, so the value of the company would also grow 25%.

Now let's add in the deployment of capital at varying rates of return. We'll assume AOI is the same at $98 million, as is the amount of capital deployed at $80 million.

Table 11. Revenue, AOI + Deployed Capital at Varying IRR's

	2021	Scenario 1	Scenario 2	Scenario 3
Revenue	$700M	$840M	$875M	$910M
Adjusted Operating Income	$78M	$98M	$98M	$98M
Capital deployed for growth	$69M	$80M	$80M	$80M
IRR on capital deployed	35%	30%	35%	40%

Q: Which IRR would drive the highest year-over-year increase in the value of Trupanion?

a. Scenario 1
b. Scenario 2
c. Scenario 3
d. They are equal

A: The answer is c, scenario 3, as it provides the highest internal rate of return on the $80 million invested. Note that it does not matter if there was 100K pets enrolled, 200K pets enrolled or 300K pets enrolled for the $80 million—what matters is the IRR. If the IRR remained constant year-over-year, intrinsic value would increase by 25%, or at the same rate of growth as AOI. If, like in the scenario above, the IRR were to increase from 35% to 40% year-over-year, intrinsic value would increase in excess of 25%.

My last example adds the value proposition to the pet owner.

Let's assume that AOI and IRR are constant across the 3 scenarios and, instead, evaluate the impact of different loss ratios (the % of revenue that is spent paying veterinary invoices).

Table 12. Revenue, AOI, IRR + Loss ratios

	2021	Scenario 1	Scenario 2	Scenario 3
Revenue	$700M	$875M	$875M	$875M
Adjusted Operating Income	$78M	$94M	$94M	$94M
Capital deployed for growth	$69M	$80M	$80M	$80M
IRR on capital deployed	35%	35%	35%	35%
Loss ratio	70%	70%	71%	72%

Q: In this last example, which scenario would provide the highest year-over-year increase in the value of Trupanion?

a. Scenario 1
b. Scenario 2
c. Scenario 3
d. They are equal

A: The higher the value proposition is for the pet owner, the more difficult it is for others to compete. The answer is c, scenario 3, but as the loss ratio increased in both scenario 2 and 3, they would both have a positive impact on the intrinsic value of the company. If a company is vertically integrated and a low cost operator, the likelihood of future success or durability of the company increases. In a DCF model that would mean the lowering of a discount rate and, therefore, a corresponding increase in value.

Using a discounted cash flow model for valuation is, in my opinion, the gold standard.

Our Subscription Business.

You've heard me say this before, but it is worth repeating: the vast majority of Trupanion's intrinsic value is derived from our core subscription business.

Of our $78.5 million of adjusted operating income in 2021, 90% or $71.0 million, was generated from our subscription business. We ended the year with over 704,000 total enrolled subscription pets. During the year, we earned subscription revenue of approximately $494.9 million. Of this, we spent approximately $351.9 million paying veterinary invoices on behalf of our members, $48.6 million providing 24/7 support, and $23.4 million on fixed expenses.

Table 13. 2021 Business Segment Performance

	Sub	Other	Total	Sub	Other	Total
Revenue	100%	100%	100%	$494.9M	$204.1M	$699.0M
Less: paying veterinary invoices (COGS)	71%	63%	69%	$351.9M	$129.6M	$481.5M
Less: variable expenses (fast 24/7 service)	10%	28%	15%	$48.6M	$57.4M	$106.0M
Less: fixed expenses (G&A + IT)	5%	5%	5%	$23.4M	$9.7M	$33.0M
= Adjusted operating margin / income	14%	4%	11%	$71.0M	$7.5M	$78.5M

Below is our monthly per-pet economics, or cash flow prior to new pet acquisition, for our average subscription pet in 2021.

Table 14. Per Pet Monthly Economics

	2020		2021	
Average monthly cost (ARPU)	$60.37	100.0%	$63.56	100.0%
Less: paying veterinary invoices	($43.26)	71.7%	($45.27)	71.2%
Less: variable expenses	($5.51)	9.1%	($6.25)	9.8%
= contribution profit	$11.60	19.2%	$12.04	18.9%
Less: fixed expenses	($3.17)	5.3%	($3.01)	4.7%
= profit per pet per month	$8.43	13.9%	$9.03	14.2%
Less: capital charge requirement	($0.60)	1.0%	($0.64)	1.0%
= cash generated per month for the average pet	$7.83	13.0%	$8.39	13.2%

In total, we added approximately 223,000 new subscription pets in 2021, or year-over-year growth of 35%. Net pets, accounting for churn, increased 51% in the year.

Table 15. Pet Growth 2018-2021

	Gross New Pets	YoY Growth	Churn	Net New Pets	YoY Growth
2018	126,182	20%	(67,095)	59,087	22%
2019	141,283	12%	(78,027)	63,256	7%
2020	165,738	17%	(81,807)	83,931	33%
2021	223,080	35%	(96,705)	126,375	51%

In 2021, we extended the average pet's life within our subscription business to 79 months, up from 78 months in 2020. Retention, as broken down by our three buckets was as follows:

Table 16. 2021 Churn By Rate Change*

	Active pets at year end	Number of cancelled pets	Distribution	Monthly churn	Monthly retention rate	YoY change in monthly retention rate
No rate change	174,868	38.3K	24.83%	2.21%	97.79%	0.08%
Rate Change < 20%	480,123	46.7K	68.17%	0.92%	99.08%	0.05%
Rate Change >= 20%	49,342	11.7K	7.01%	1.43%	98.57%	-0.03%
Total	704,333	96.7K	100%	1.26%	98.74%	0.03%

*Monthly retention is calculated on a trailing twelve month basis for the period ended December 31, 2021.

Expansion in subscription adjusted operating income, coupled with improved retention, drove a 10% year-over-year increase in lifetime value of a pet. In 2021, lifetime value of a pet was $717—a new all-time high.

Table 17. 2021 IRR Calculation

TTM Retention	98.74%	**Year**	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	
Months	79.4	**Months**	6	12	12	12	12	12	12	1.4	79.4
FY PAC	$287	**Profit per pet per month**	$9	$9	$9	$9	$9	$9	$9	$9	
Profit per pet	$9.03	**Profit per pet**	$54	$108	$108	$108	$108	$108	$108	$12	**$717**
Capital charge	1%	**Capital charge**	-$4	-$8	-$8	-$8	-$8	-$8	-$8	-$1	($50)
FY ARPU	$63.56	**PAC**	-$287								
			-$237	$101	$101	$101	$101	$101	$101	$11	
									IRR	**36%**	

Within our targeted internal rates of return, growth in lifetime value of a pet increases our allowable pet acquisition cost (PAC), improving our ability to successfully execute our growth plans. Consider the following:

Table 18. Discretionary Funds Available for Acquisition Spend Per Pet

					PAC allocation			
	Contribution profit*	**Fixed expenses***	**Total profit***	**PAC**	**Lead****	**Convert****	**Retention****	**Retention rate**
2016	$631	$341	$290	$123	85%	15%	0%	98.60%
2017	$727	$318	$409	$152	75%	25%	0%	98.63%
2018	$710	$261	$449	$164	60%	40%	0%	98.60%
2019	$753	$230	$523	$212	50%	50%	0%	98.58%
2020	$899	$246	$653	$247	50%	46%	4%	98.71%
2021	$956	$239	$717	$287	55%	41%	4%	98.74%

* Over the life of the average pet.
** Based on internal management estimates.

Pet acquisition remains the primary use of our adjusted operating income. In the last year, we added "development expense", another use of our AOI, which is spent on longer-term initiatives. These pre-revenue initiatives are aimed at expanding our addressable market, increasing the odds of us growing at higher rates over longer periods of time.

As compared to prior shareholder letters, you'll see we are now breaking out our addressable market, including the number of countries we are in, and the number of veterinary hospitals that we are calling on in those markets.

Table 19. Veterinary Hospital Metrics

	Number of countries we are in	Number of hospitals in those countries	Number of territory partners and associates	Estimated number of hospitals we are visiting every 60-90 days*	Estimated aggregate number of face-to-face visits	Actual average number of active hospitals	Actual average number of new pets per active hospital per month	Number of hospitals with software**
2012	2	25K	34	15K	262K	5,034	0.918	n/a
2013	2	25K	40	16K	324K	5,531	1.008	n/a
2014	2	25K	58	15K	404K	6,098	1.053	n/a
2015	2	25K	84	19K	490K	7,359	1.093	n/a
2016	2	25K	105	21K	577K	7,875	1.066	n/a
2017	2	25K	107	20K	662K	8,242	1.063	n/a
2018	2	25K	123	20K	751K	9,279	1.133	3,184
2019	3	28K	130	22K	852K	10,315	1.141	4,534
2020	3	28K	152	17K	909K	11,517	1.199	5,442
2021	3	28K	161	17K	971K	14,736	1.260	6,430

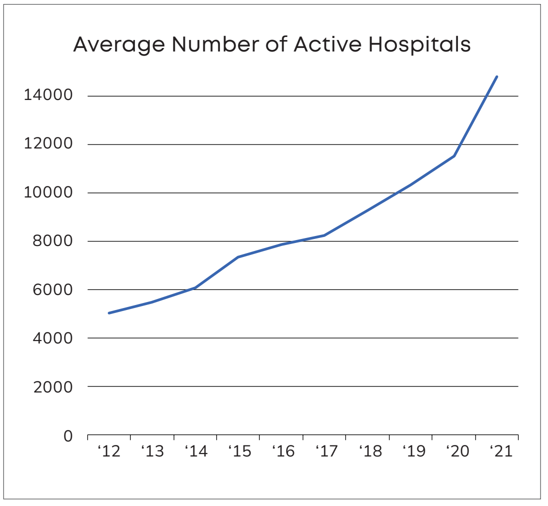
* Per the data available, this represents hospitals that have been visited at least once during the year. Given we don't have perfect tracking of visits, this is the definition used to approximate visits every 60-90 days.

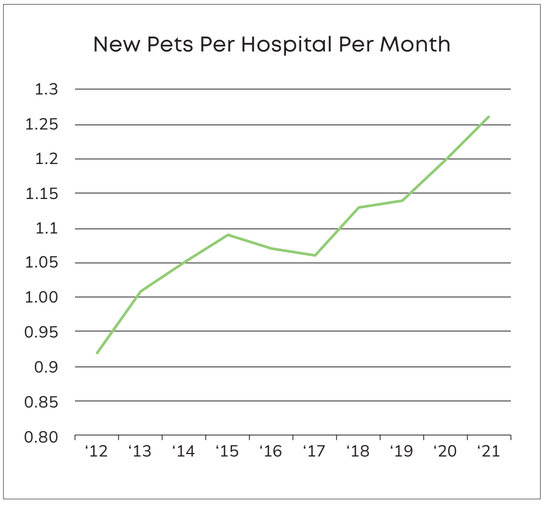
** Prior shareholder letters' software hospital count were limited to hospitals with account manager coverage.

In 2021, we had 161 territory partners and their associates in the field visiting approximately 17,000 veterinary hospitals out of an estimated 28,000 veterinary hospitals in three countries. Since expanding into Australia in 2019, we've been focused on growing same store sales within just a dozen or so of its 3,000 veterinary hospitals.

In 2021, the veterinary community continued to feel the impacts of COVID. COVID disruptions, which forced veterinarians to periodically shut their doors and shift back and forth between traditional and curbside service, combined with persistent labor shortages, challenged face-to-face visits and the deployment of our software. In 2021, face-to-face visits were flat with 2020 and we ended the year with our software in approximately 6,400 veterinary hospitals.

With veterinary doors closed, we engaged with veterinarians through thousands of alternative touch-points, each building on the partnerships and moats developed over decades of visits. Webinars held by Trupanion in 2021 received nearly 4 million impressions, which helped to reinforce our understanding of the veterinary community and the growing presence of our brand within animal health.





In 2021, active hospitals averaged approximately 14,700. As a reminder, we define active hospitals as those that have had at least one pet enroll with Trupanion in the prior three month period. Our same store sales metric increased to 1.26 pets per hospital, per month, from 1.20 pets per hospital, per month, in 2020.

Building our footprint, growing our active hospital base, increasing same store sales, retaining pets and expanding our per pet profit margin are all inputs to our discounted cash flow model. Expansion in these metrics drives more adjusted operating income that we can then deploy at our high internal rates of return, creating intrinsic value.

Capital allocation at different growth rates.

If executed extremely well, Trupanion's 60-month plan has the potential to drive growth above 25%, and possibly above 30%.

Below is a table that illustrates our funding requirements for new pet acquisition and required regulatory reserves at various growth rates. Using rounded numbers, the table below is a simple summary of our capital requirements.

Table 20. Capital Allocation at Different Growth Rates

YoY revenue growth rate	New pet acquisition	Regulatory capital requirement
20% or less	Self fund if IRR's = 35%	Self fund
21% to 30%	Self fund if IRR's = 35%	1. Debt financing or 2. Use of re-insurance or 3. Equity financing
30% or more	Equity financing required for growth above 30% assuming a 35% IRR on new pet acquisitions	1. Debt financing or 2. Use of re-insurance or 3. Equity financing

Living within our target margin profile for our subscription business (15% Adjusted Operating Margin and 35% Internal Rate of Return (IRR), when deploying capital to acquire new pets), we can self-fund our business at 20% year-over-year growth.

If growth is between 21% and 30%, we should be able to afford the incremental pet acquisition spend, but we would need a way of funding our capital reserves. To do so, we would prefer to continue to allocate our adjusted operating income to areas where we can earn the highest returns and use a lower cost form of financing like debt to meet our required surplus. In our minds, servicing debt for our required surplus is simply a variable expense needed to offer our product to pet owners.

If we are able to achieve the levels of success in our 60-month plan and grow in excess of 30%, while remaining disciplined in capital allocation (IRR guardrails), the company will need additional capital for new pet acquisition as well as the required insurance capital. Continuing to acquire new pets at these high rates of return is how we create value for our shareholders. Therefore, we are happy to self-fund this growth as well as sell equity from time to time for these pet acquisitions.

Options to fund capital reserves include:

- Raise equity (dilution)
- Use re-insurance to fund capital needs (adds frictional cost)
- Use debt financing (adds frictional cost to service debt)

At the time of writing this letter, we have secured a $150 million debt facility, which we expect will provide us the necessary capital to fund our expected capital reserve requirements for the next several years. Consistent with prior shareholder letters, we approximate the cost to service this debt at <1% of revenue. As noted, this variable expense adds frictional costs by way of servicing the debt, but importantly, allows our discretionary income for uses where we can earn an estimated 30-40% internal rate of return—thus maximizing shareholder value creation!

A quick side-bar on the history of our regulatory capital requirements, and our expectations for how these requirements will evolve in the future.

Pets are legally considered “property” in most countries, which is why pet health insurance is supervised by Property and Casualty (P&C) insurance regulators, not health insurance regulators. In the United States, the penetration of medical insurance for cats and dogs is low, and to-date the P&C regulators have inserted our product category into “inland marine,” which includes various types of P&C risk. The current capital requirements are approximately 5:1, based on this classification.

We believe the National Association of Insurance Commissioners (NAIC) is aligned in giving pet medical insurance its own category in the future. We estimate this will occur in ~5-10 years. While we don’t want to overly speculate, we believe it will result in better leverage than we see today.

If and when this occurs, we would expect to be able to self-fund higher growth rates than we can today.

In 2021.

At year-end, Trupanion held no debt and our adjusted operating income of $78.5 million funded the majority of our growth and strategic investments, leaving a cash flow deficit of $4.9 million for the year. This deficit, along with our capital reserve requirements of approximately $38.7 million and other uses of cash of approximately $2.9 million, were funded from the $200 million in capital we raised from Aflac in 2020. On a consolidated basis, total cash consumption was approximately $46.4 million in 2021.

Our subscription revenue grew 28% and we operated at a 14% AOI margin (not 15%) with an estimated IRR of 36%. This means that our subscription business consumed capital. In total, it consumed approximately $36.7 million.[1]

[1] Capital consumption for our subscription and other business assumes adjusted operating income and acquisition spend by segment. Capital consumption for our subscription business also includes purchases of property and equipment and development expenses. Regulatory capital requirements as well as other uses of cash are allocated by segment based on revenue.

Our other revenue grew even faster, and with only a 4% AOI margin, consumed approximately $9.7 million dollars[1]. At an earlier stage in our development, participating in other revenue streams added strategic value, as it helped us gain scale on our expenses and generated cash flow to re-invest in our subscription business.

We share this with you to reinforce the importance of cash flow in value creation. We also want to clearly layout the roadmap for value creation over the next several years and paint a transparent picture of how we intend to fund our growth.

It also ties to our compensation practices, including how we compensate our team members. This is important, because dilution comes at a cost.

Going back to 2021, building out our internal discounted cash flow model that we have shared with you in prior shareholder letters, we believe our year-over-year increase in our intrinsic value per share was 41.4%.

We provided the details of our Intrinsic Value Incentive Plan, which outlines the portion of our annual growth in intrinsic value per share that is shared with the team, in our 2016 Shareholder Letter. You'll notice we didn't initially plan for growth in intrinsic value per share to exceed 30%, but our performance in the past two years, along with an increase in opportunities available to us, has (happily) necessitated an update. The details of our updated approach are highlighted in the table to the right.

41.4% year-over-year growth in intrinsic value per share would equate to 3.8% of value creation to be shared with the team, or approximately 1,143,000 shares; however, with the company's accelerated growth and because the company consumed more capital than it earned in adjusted operating income, the difference was subtracted from the pool size.

Table 21. Performance Grant Program

YoY increase to intrinsic value at the enterprise level	Overall company performance pool %	Net increase in intrinsic value per share
1 - 10%	0.0%	1 - 10%
11%	0.3%	10.7%
12%	0.3%	11.7%
13%	0.4%	12.6%
14%	0.4%	13.6%
15%	0.5%	14.5%
16%	0.6%	15.4%
17%	0.7%	16.3%
18%	0.8%	17.2%
19%	0.9%	18.1%
20%	1.0%	19.0%
21%	1.1%	19.9%
22%	1.3%	20.7%
23%	1.4%	21.6%
24%	1.6%	22.4%
25%	1.7%	23.3%
26%	1.9%	24.1%
27%	2.0%	25.0%
28%	2.2%	25.8%
29%	2.3%	26.7%
30%	2.5%	27.5%
31%	2.6%	28.4%
32%	2.7%	29.3%
33%	2.8%	30.2%
34%	2.9%	31.1%
35%	3.0%	32.0%
36%	3.1%	33.0%
37%	3.2%	34.0%
38%	3.3%	35.0%
39%	3.4%	36.0%
40%	3.5%	36.5%
45%	4.0%	41.0%
50%	4.5%	45.5%
60%	5.5%	54.5%
70%	6.5%	63.5%

Added to account for outsized company performance

After deducting the excess cash consumption of $46.4 million, the available share pool was reduced to approximately 631,000 shares. This equates to approximately 1.5% of the year-over-year value creation being shared with the team, with the remaining 39.9% benefiting shareholders.

Of the pool of 631,000 shares, approximately 158,000 shares were allocated during the year for new hire grants, individual performance awards and board compensation, leaving approximately 473,000 shares that were issued in 2022 for our performance grant program related to the 2021 year. We believe this is appropriate given the value that the team created in 2021.

Our pay philosophy is simple.

We want to pay team members the maximum we can afford to pay, living within our guardrails, based on the value that they create. When the aggregate value exceeds 10% year-over-year, and in particular when the value created exceeds 20% year-over-year, more is shared back with the team that drove that outsized performance.

I believe there should be no cap on how much any one team member, or team, can receive, with one exception: the CEO. As the CEO of the company, I believe it is important that my compensation does not exceed an internally defined multiple to the median pay of all employees.

Table 22. 2021 Performance Based Grant Pool

Total share pool, pre-cash adjustment	1,142,782
Less: cash burn	511,830
Total share pool, post-cash adjustment	630,952
Less: new-hire and promotion grants	114,206
Less: individuals performance grants	32,829
Less: board compensation grants	11,103
Total performance-based share pool	472,814

I want to highlight that our stock compensation is an output of over-performance. If the company slowed its year-over-year growth to 10% or below, to become a dividend paying company, there would be no performance stock pool and no material stock-based compensation.

I often get asked about our IRR calculation, and why stock compensation expense is not included. To me, this is mixing the return on our pet acquisition spend with the returns we generate as a company. I agree that any company that pays "regular compensation" with stock should deduct the cost of the stock the same way that they would deduct if they paid it 100% in cash. This is not our compensation model! We pay regular cash compensation for doing an average job, which we define as a year-over-year increase in intrinsic value per share of 10% or less. At times, employees may elect to take monthly bonus in stock, and when they do so, we account for that expense in our per pet IRR calculation for the given period.[2]

Adding share based compensation, which is granted for prior period performance and vests over four years, to our per period PAC would mask the underlying returns we generated on that spend and make period to period comparables irrelevant. Swings in our stock price

[2] Beginning in 2022, we began incorporating monthly bonus elections, and the expense associated with those elections, in our IRR calculation. Previously, the magnitude of expense associated with this election was insignificant.

would be a bigger driver of our IRR than changes in retention, lifetime value, lead volume and conversion—this is wrong! We want to present a clean picture of the efficiency of our deployed PAC spend.

When we compare our year-over-year change in our intrinsic value per share—or the value we create on behalf of our shareholders—it captures 100% of our stock compensation.

Our Culture.

This brings me to another point I want to reinforce, and that is that I do not expect, nor do I think it would be fair to the team to expect the level of value creation we saw in 2021.

To me, growing intrinsic value per share at 41%, as we did in 2021, is the equivalent of me running on a treadmill at a speed that only a young track star could sustain. As a Peloton fan, I support interval training where we have sprints and inclines for short bursts of times but the instructor always says after a period of great effort, ok turn the red knob to the left, and get some water, because we're just beginning this ride.

My expected speed (progress) for our company is 20% year-over-year growth in our intrinsic value per share. Through 2025, our aspirational goal is to grow our intrinsic value per share by 25%. If we hit this level of progress we should be thrilled, ecstatic, doing back flips! In 2021, we accomplished this level of progress—cue the back flip!

My sense though, as I write this letter, is that the team is not ecstatic. Rather, they feel that 40%+ is the new goal. It is not!

With our business model and large underpenetrated market, I've historically felt that our execution was average. In 2021, as I took a back seat to our execution, it was apparent to me that our execution has moved beyond average. Under the direction of Margi and Tricia, our results were humbling to say the least.

If in March of 2020 a bet was placed on our team's ability to make such monumental progress towards Trutopia and our net pet growth; to align with not one, but two industry leading partners in Aflac and Chewy; and finally, to assimilate our first acquisition with a technology team across the pond, all while doing so without being able to jump on an airplane, many would have lost the bet, including me.

Indeed, since March of 2020 and the beginning of COVID, the company stepped up into a new gear and the team has delivered in heroic ways.

I both love and hate how the team digests our wins and losses. I love the fact that we know we have so much to prove if we are going to win the trust of veterinarians and pet owners around the world. I love the fact that when we wake up in morning we don't celebrate a bump in our stock price when we know that we want to pay more hospitals directly. I love the fact that when we are at our best, we recognize when team members are no longer able to keep up, deliver the growth that we need, or align with our values, and we make the hard decision to move them on. We do this because in our large underpenetrated market, we need to have an evolving team that is capable of making the biggest possible impact on pets, pet owners and veterinarians.

On the flip side, I hate that in a remote work environment, we have not been able to have more group hugs, or bell ringings to celebrate paying over $1.7 billion in veterinary invoices. I hate that we have a hard time acknowledging that, if we did everything in our 60-month plan perfectly, our intrinsic value would grow by 100% per year, but realize that any year that we achieve above 20%, we should be happy and above 25% we should be ecstatic. I hate that when we try something really hard and fail in the early attempts that some people take it personally.

Should we not just be encouraged that we have so many opportunities in a large under-penetrated market that with time, effort and focus, we will get to most of them? It is like our WD-40 mindset is waning in a remote environment.

Team (because I know you all read this!), let's instead take a moment to appreciate our 2021 results. Let's carry on with our plan, and drive towards our 25% year-over-year aspirational growth goal for 2022. And, if after our best effort, we don't hit it, let's try harder in 2023.

With this context, let me provide you with the Company's scorecard for 2021, which Margi and Tricia helped me grade:

Table 23. 2021 Annual Score Card

Intrinsic Value	A+
Revenue	A+
AOM	B+
IRR	A
Retention	A
Member Experience	B
Leads	A
Phone Conversion	A
Web Conversion	C-
Additional Insurance Products	B-
International Expansion	C+
New Products	C
Culture	B

Time Intervals.

Measurement of time is an interesting topic for me. Many companies spend a lot of energy coming up with annual plans or focusing on quarterly results. In my opinion, quarterly and annual results are the two worst measurements of time and performance when it comes to building a company.

For Trupanion, we are focused on daily metrics, monthly metrics, and our 60-month plan. Our daily metrics drive us towards our goals for the 60th month. We don't change our strategy or plan every year, we simply measure our progress against it and adjust our tactics in order to make sure progress is achieved.

In our case, as a direct-to-consumer, monthly subscription business, it is our monthly metrics and corresponding results which we compete against. That is right, we compete against ourselves. If asked, most team members would admit we often come up short of our aspired plans and goals, but as our history has shown, in aggregate we typically make good progress.

I would characterize our 60-month plan as a medium measurement of time. For me, long-term planning is for 2025 and beyond. For example, we don't need international expansion to be successful during the next few years to achieve our goal of 25% year-over-year growth in intrinsic value per share from 2021 to 2025. Instead, our international growth plans will certainly become more important to us in the next 10 to 15 years. With Margi leading the execution of our 60-month plan, I am spending my efforts and energy on the long-term (10 to 20 years), as well as keeping my pulse on our culture, and monitoring our daily and monthly progress.

Maximizing value creation for our shareholders is not our motivation; helping pet owners' budget and care for their pets is what gets us out of bed. Living up to our mission in a way that is aligned with veterinarians and their staff, our Territory Partners, Trupanion team members, industry partners and shareholders, is how we assess our character. Value creation for our shareholders is what gives us permission to continue to drive towards our destination.

Kuyashii,

Darryl Rawlings
Founder & Chief Executive Officer

END NOTES

This letter and other publicly available reports include certain non-GAAP financial measures. These non-GAAP financial measures may not provide information that is directly comparable to that provided by other companies in its industry as other companies in its industry may calculate or use non-GAAP financial measures differently. In addition, there are limitations in using non-GAAP financial measures because the non-GAAP financial measures are not prepared in accordance with GAAP, may be different from non-GAAP financial measures used by other companies and exclude expenses that may have a material impact on Trupanion's reported financial results. The presentation and utilization of non-GAAP financial measures is not meant to be considered in isolation or as a substitute for the directly comparable financial measures prepared in accordance with GAAP. Trupanion urges its investors to review the reconciliation of its non-GAAP financial measures to the most directly comparable GAAP financial measures in its consolidated financial statements, and not to rely on any single financial or operating measure to evaluate its business. These reconciliations are included within our Supplemental Financial Information provided on Trupanion's Investor Relations website.

Our internal rate of return is calculated assuming the new subscription pets we enroll during the period will behave like an average subscription pet. Cash outflows from an average pet include average pet acquisition cost for the applicable period. Cash outflows also include a monthly capital charge, which we estimate as 1% of the monthly average revenue per pet for the four quarters preceding the period end date. Cash inflows from an average pet are calculated based on subscription revenue less cost of revenue from our subscription business segment for the 12 months prior to the period end date excluding stock-based compensation expense related to cost of revenue from our subscription business segment, sign-up fee revenue and the change in deferred revenue, minus fixed expenses related to our subscription business, which are the prorata portion of general and administrative and technology and development expenses, less stock-based compensation, based on revenues. Further details on the calculation for 2021 are included within our Supplemental Financial Information provided on Trupanion's Investor Relations website.

Because of varying available valuation methodologies, subjective assumptions and the variety of equity instruments that can impact a company's non-cash expenses, Trupanion believes that providing various non-GAAP financial measures that exclude stock-based compensation expense and depreciation and amortization expense allows for more meaningful comparisons between its operating results from period to period. Trupanion offsets new pet acquisition expense with sign-up fee revenue in the calculation of net acquisition cost because it collects sign-up fee revenue from new members at the time of enrollment and considers it to be an offset to a portion of Trupanion's new pet acquistion expenses. Trupanion believes this allows it to calculate and present financial measures in a consistent manner across periods. Trupanion's management believes that the non-GAAP financial measures and the related financial measures derived from them are important tools for financial and operational decision-making and for evaluating operating results over different periods of time.

DISCLAIMER

This letter contains forward-looking statements within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended, and section 27A of the Securities Act of 1933, as amended (Securities Act). All statements contained in this letter other than statements of historical fact, including statements regarding lifetime values of a pet, discounted cash flows and our intrinsic value model, our 60-month plan, our capital allocation strategies, future results of operations and financial position (including ARPU, AOM, AOI, IRR, PAC, new pets enrolled, retention and churn, active hospitals, international expansion, veterinary invoices, and variable and fixed expenses) our business strategy and plans and our objectives for future operations. In particular, this letter extensively discusses our internal discounted cash flow model, and you should regard substantially all parts of this discussion as forward-looking statements. In addition, the are forward-looking statements. The words "anticipate," "believe," "continue," "could," "estimate," "expect," "intend," "may," "model," "plan," "potentially," "predict," "project," "target," "will," "would," and similar expressions that convey uncertainty of future events or outcomes, are intended to identify forward-looking statements.

These forward-looking statements are subject to a number of risks, uncertainties and assumptions, including risks relating to:

- our net losses since inception, our ability to maintain revenue growth, maintain profitability, obtain returns on our investments in pet acquisition, and other financial risks;
- our ability to attract online visitors, grow or member base, and maintain retention rates;
- our ability to maintain relationships with Territory Partners, veterinarians and strategic partners;
- our ability to remain competitive and maintain brand recognition;
- our ability to scale our infrastructure, manage our growth, budget for veterinary invoice expenses, and other business risks;
- our other business;
- security breaches, payment processing, and related technology and intellectual property matters;
- compliance with risk-based capital and other regulations;
- litigation or regulatory proceedings;
- dependence on key personnel;
- compliance with covenants in our credit agreement;
- international operations, including exchange rates;
- investments or acquisitions, owning an office building, and other strategic matters;
- tax, accounting and general economic matters;
- being a public company; and
- ownership of our common stock; and
- those described under the heading "Risk Factors" in our Annual Report on Form 10-K and other filings we make from time to time with the Securities and Exchange Commission.

Moreover, we operate in a very competitive and rapidly changing environment, and new risks emerge from time to time. It is not possible for our management to predict all risks, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements we make. In light of these risks, uncertainties and assumptions, the forward-looking events and circumstances discussed in this letter may not occur and actual results could differ materially and adversely from those anticipated or implied in the forward-looking statements.

You should not rely on forward-looking statements as predictions or guarantees of future events. Although we believe that the assumptions and expectations reflected in the forward-looking statements are reasonable based on our historical experience, these assumptions and expectations involve significant judgment and uncertainty, and in some cases these assumptions and expectations (and therefore the judgment and uncertainty) have been projected over an extended period of time. Future results, levels of activity, performance or events and circumstances reflected in the forward-looking statements may not be achieved or occur. We undertake no obligation to update publicly any forward-looking statements for any reason, except as required by law.

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