

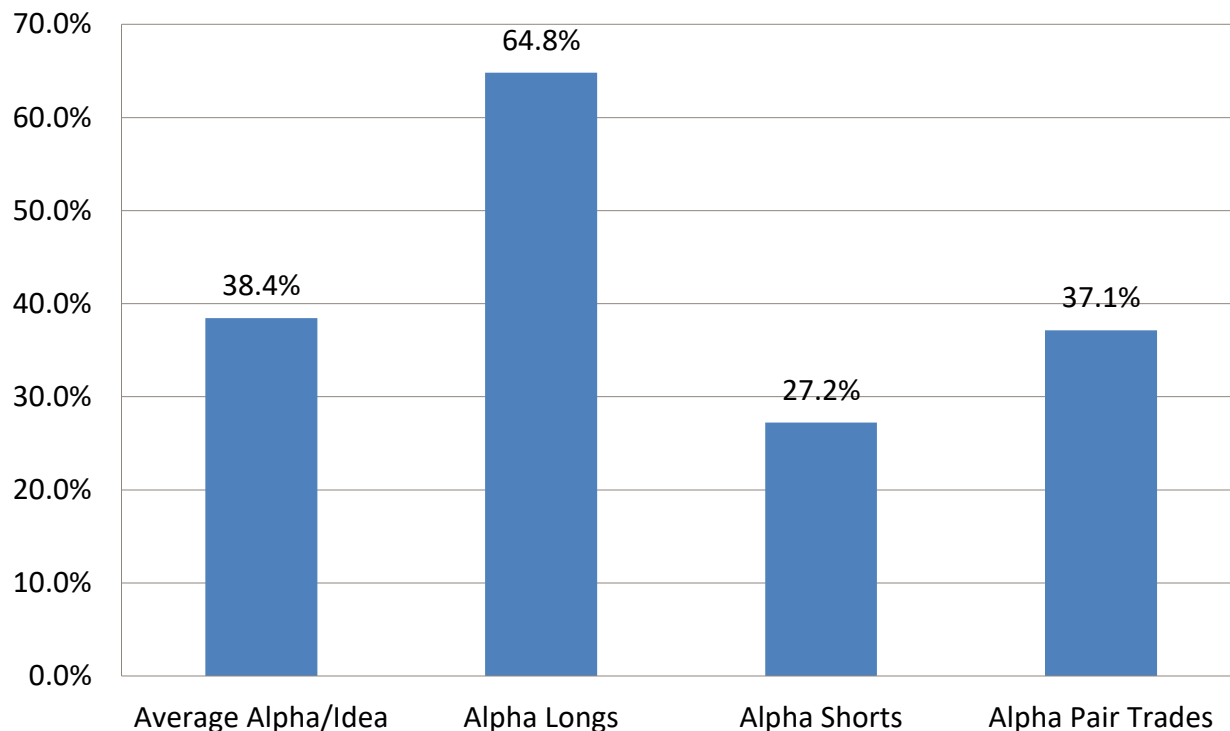
Trupanion Inc. - Short

11 FACTS AND ONE OPINION – WHY TRUP COULD TRADE BELOW
\$10

Disclaimer: The author of this report has a short position in TRUP. Positions can change at any time without notice.

A Brief Description of PAA Research

PAA Research: Investment Idea Alpha Generation (as of 8/7/20)



PAA Research is an independent research firm that provides investment ideas backed by extensive fundamental and primary research to professional money managers and high net worth individuals. The company strives to generate action-oriented investment ideas with high absolute return potential.

Guiding principles:

- Accountability and transparency
- Conflict free research
- Confidence through work
- Exclusivity delivers better client outcomes
- Absolute return focus

11 Facts About Trupanion

TRUPANION - A STRUCTURALLY FLAWED, UNPROFITABLE PET
INSURANCE COMPANY POSITIONED TO GROWTH INVESTORS AS A
TECH/SAAS STORY

TRUP – Quick Background on Trupanion

Company Description:

Trupanion, Inc. provides pet insurance for dogs and cats in the United States and Canada. The company is the second largest provider of pet insurance in the United States with more than 500,000 policy holders. The company's insurance subsidiary, American Pet Insurance Company also provides underwriting services to Pets Best.

Key Differentiators:

- 90% reimbursement rate on claims
- Faster reimbursement through the company's Trupanion Express platform
- Trupanion relies on "Territory Partners" who are independent sales professionals to target 20,000+ animal hospitals annually
- Most of the company's clients are acquired through the veterinarian channel

TRUP – Some Context, What the Hell Just Happened?

saf_nyc published on TradingView.com, August 10, 2020 14:06:22 EDT
BATS:TRUP, 1W 69.27 ▼ -0.96 (-1.37%) O:66.50 H:70.45 L:65.56 C:69.27



TradingView

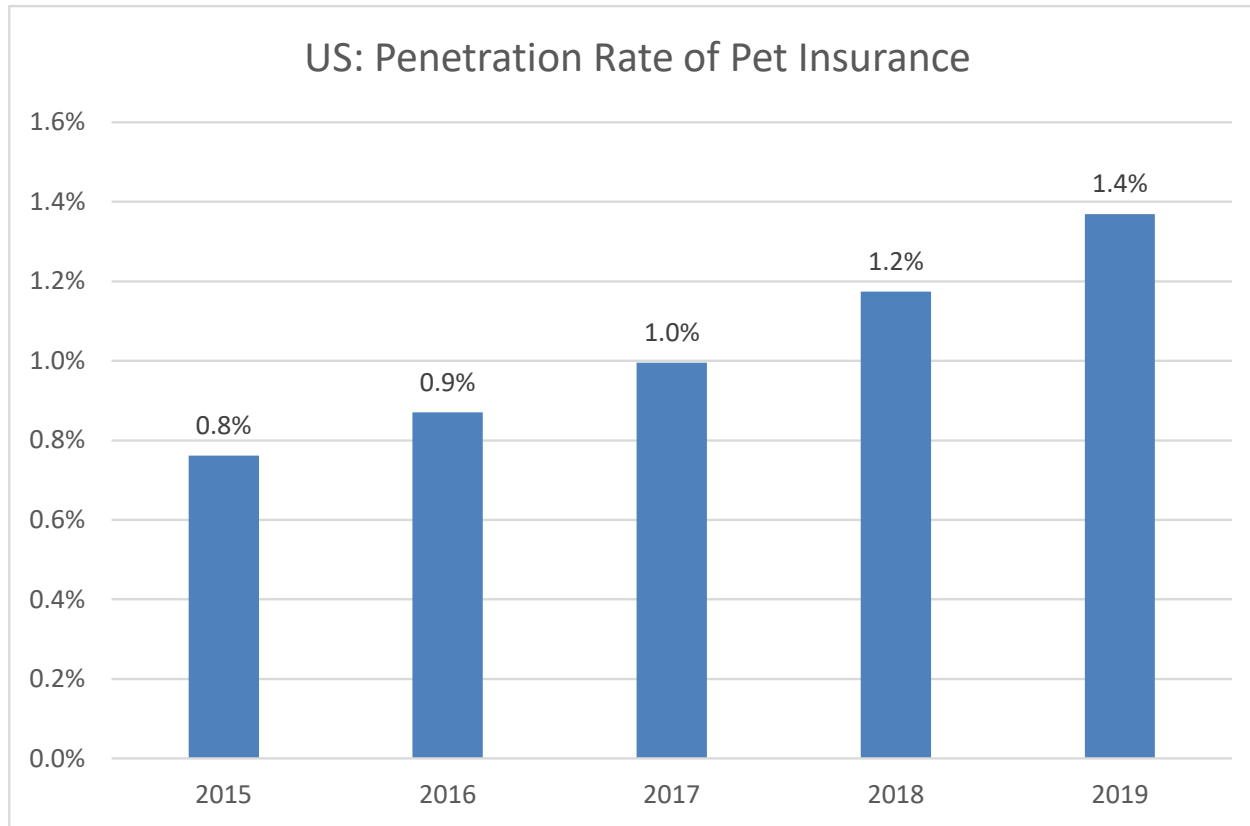
TRUP shares have gained 37%+ in the past 5 trading days following the company's 2Q20 earnings results

Conspicuously, consensus EPS estimates for TRUP for 2020, 2021, and 2022 DECLINED over the past 18-months

The stock price action has all of the traditional signs of a classic short squeeze

Short interest has DECLINED over the past 6-9 months

Fact #1: The Penetration Rate of Pet Insurance Is Still Only 1-2% in the United States, But....



The long thesis appears to be entirely predicated on the low penetration rate of the total addressable market (TAM).

There are approximately 184MM dogs and cats in the United States

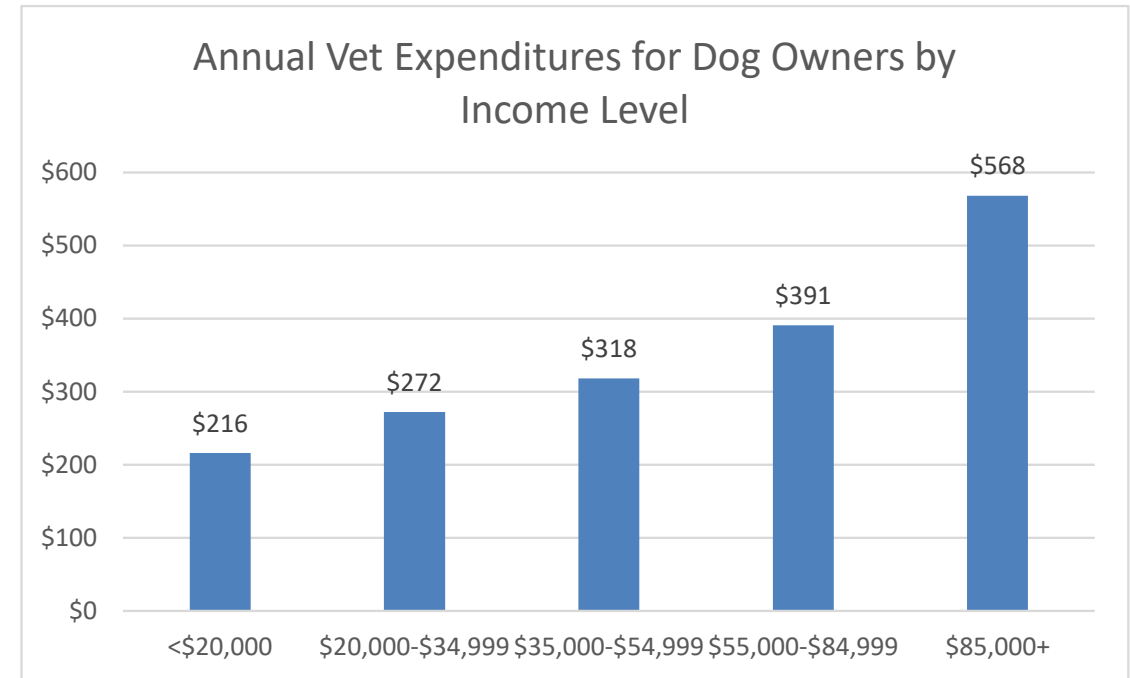
According to NAPHIA through 2019, only 2.5MM pet owners had pet insurance

Bulls are quick to point out that 25% of pet owners in the UK have insurance, while 40% in Sweden pay for some form of medical coverage

Fact #1: Pet Insurance in the United States Is Expensive Relative to the Cost of Care

Distribution of Dog Owning Households by Annual Vet Expenditures

	1987	1991	1996	2001	2006	2011
No expenditures			17.4%	18.9%	20.9%	20.1%
<\$50			11.4%	6.8%	4.5%	4.0%
\$50-\$99			17.9%	13.1%	8.9%	9.2%
\$100-\$199			21.5%	19.4%	15.8%	17.9%
\$200-\$499			23.4%	27.3%	29.4%	26.9%
\$500-\$999			6.1%	9.6%	12.1%	12.7%
\$1000+			2.2%	4.9%	8.4%	9.2%
Mean	\$83	\$132	\$187	\$261	\$356	\$378
Mean/Visit	\$35	\$50	\$74	\$99	\$135	\$146
Mean/Dog			\$129	\$179	\$200	\$227



Pet insurance is a premium product. A real assessment of the TAM has to take into account the cost of insurance relative to the cost of veterinary care. There's a reason why pet insurance has a bad reputation as a potential rip-off over the years

Fact #1: The REAL Market Penetration Rate in the United States is Much Higher than Anyone Wants to Admit

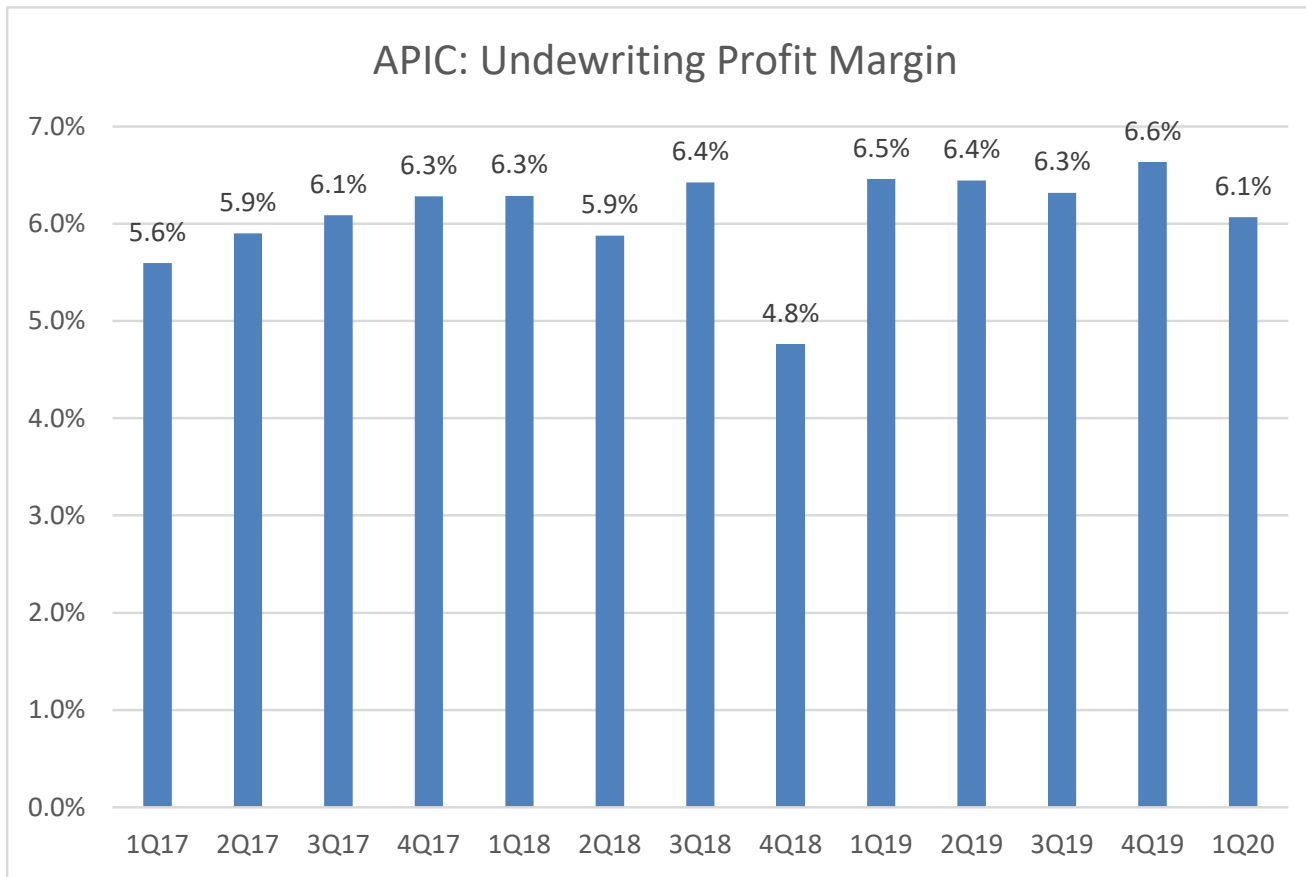
Realistic TAM and Penetration Rate for Pet Insurance

	Dogs	Cats	Total
Owners Making More than \$85,000	25.0	22.9	47.9
Insured Pets	2.215	0.378	2.593
Penetration Rate	8.9%	1.6%	5.4%
Remaining TAM (MMs)	22.8	22.5	45.3
Average Premium	\$48.78	\$29.16	\$39.04
Remaining Dollar TAM	\$13,354	\$7,878	\$21,231
Current Annual Premiums	\$1,131.00	\$169.00	\$1,300.00
Dollar Penetration Rate	8.5%	2.1%	6.1%

We think a more realistic estimate for the TAM for pet insurance for dogs is about 25MM (cats are non-factor)

Considering that TRUP's policies cost almost 50-100% more than the average for the industry, we would argue that the company's TAM could be considerably smaller

Fact #2: Trupanion Has Demonstrated ZERO Scalability in Its Business Model



Trupanion management has tried to get investors to focus on something called “adjusted operating margin” which is a measure of profitability before marketing spending (known as profit before expenses)

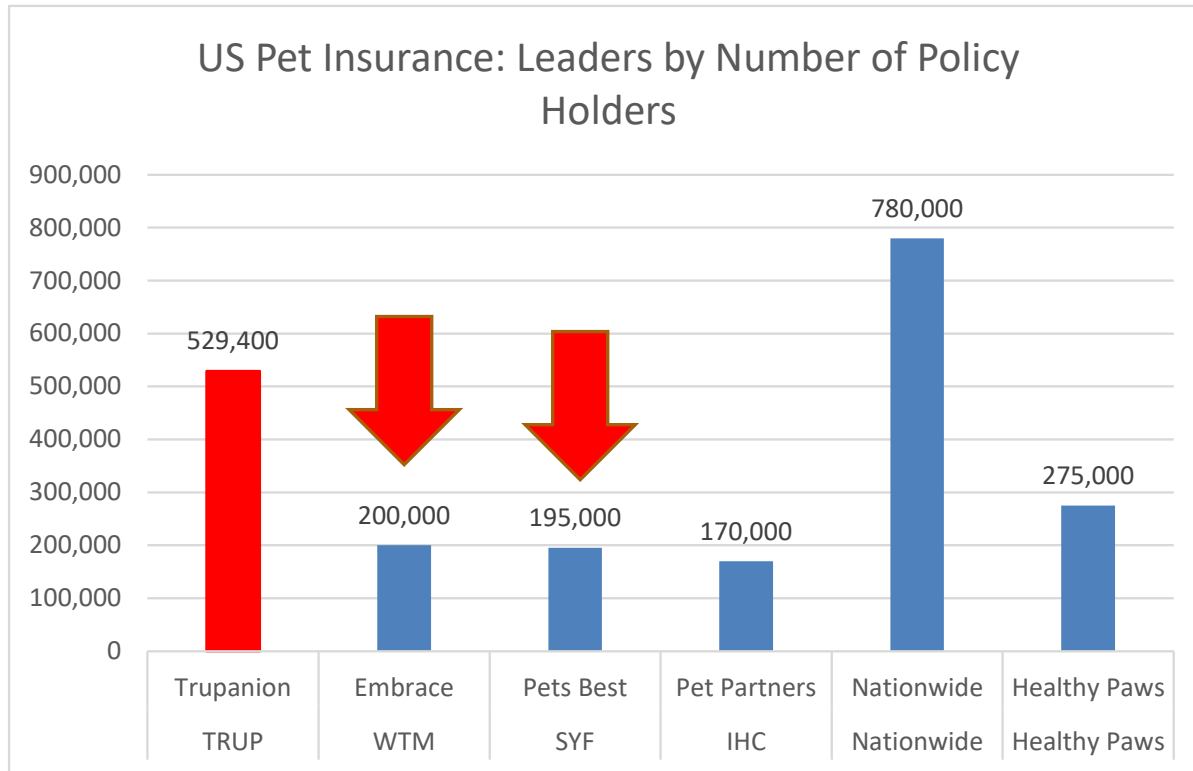
The company wants to create the aura of scalability in their business, which based on the statutory statements of their underwriting subsidiary simply does not exist

American Pet Insurance Company has the same underwriting margins as it did two years ago and 7-8 years ago

TRUP WILL NOT MAKE IT UP WITH VOLUME

Fact #3: Trupanion Faces a Tidal Wave of New Competition

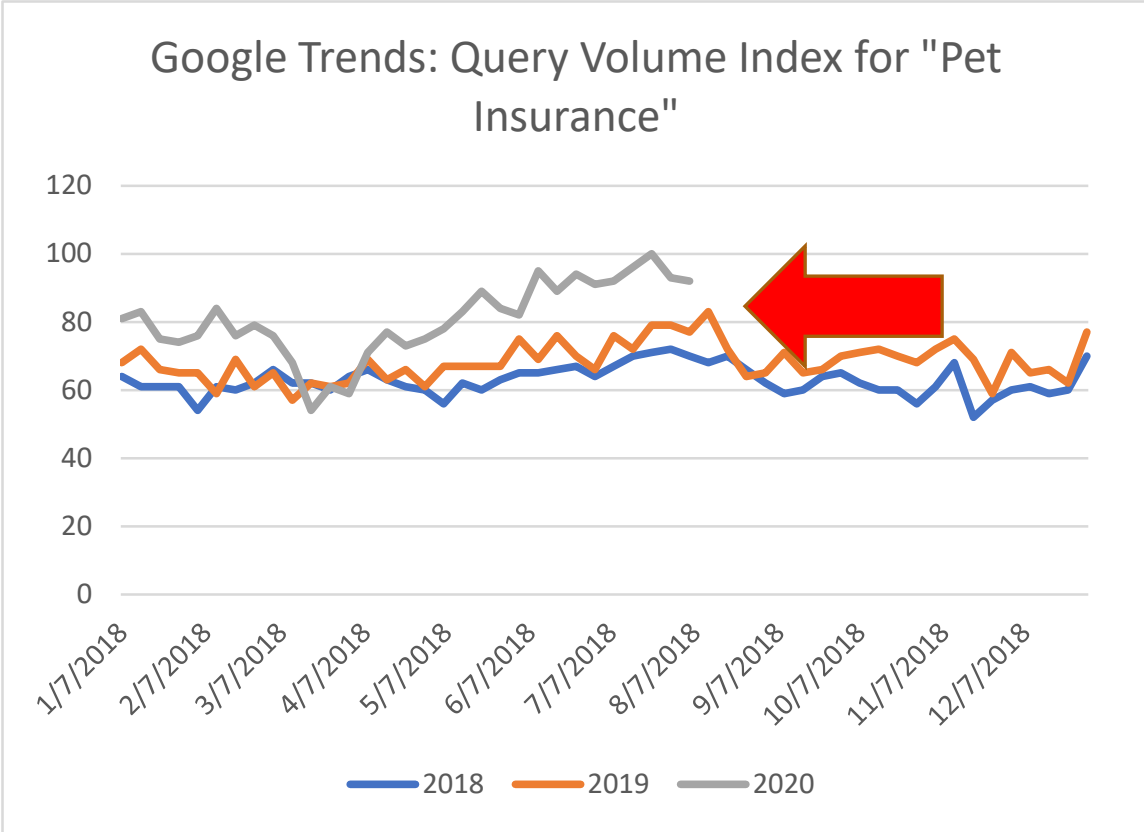
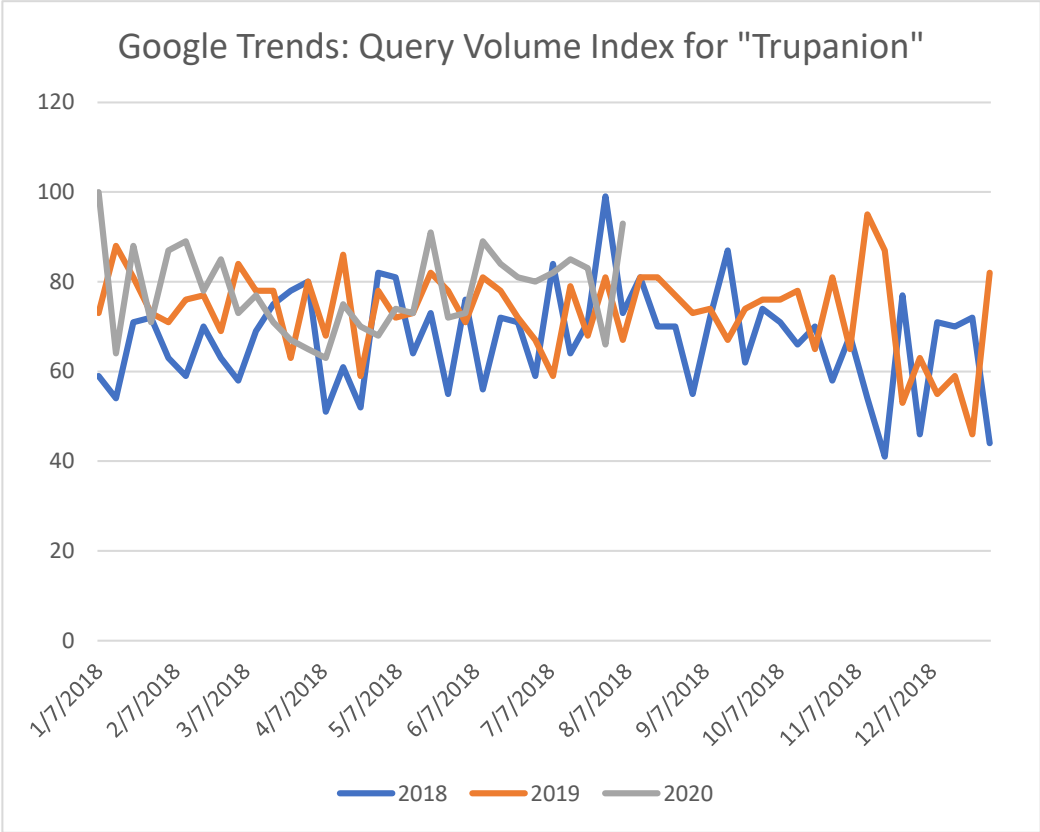
WTM and SYF entered the pet insurance market in the past 24-months, among a host of other new market entrants



New competition Has Entered the Market in Drove:

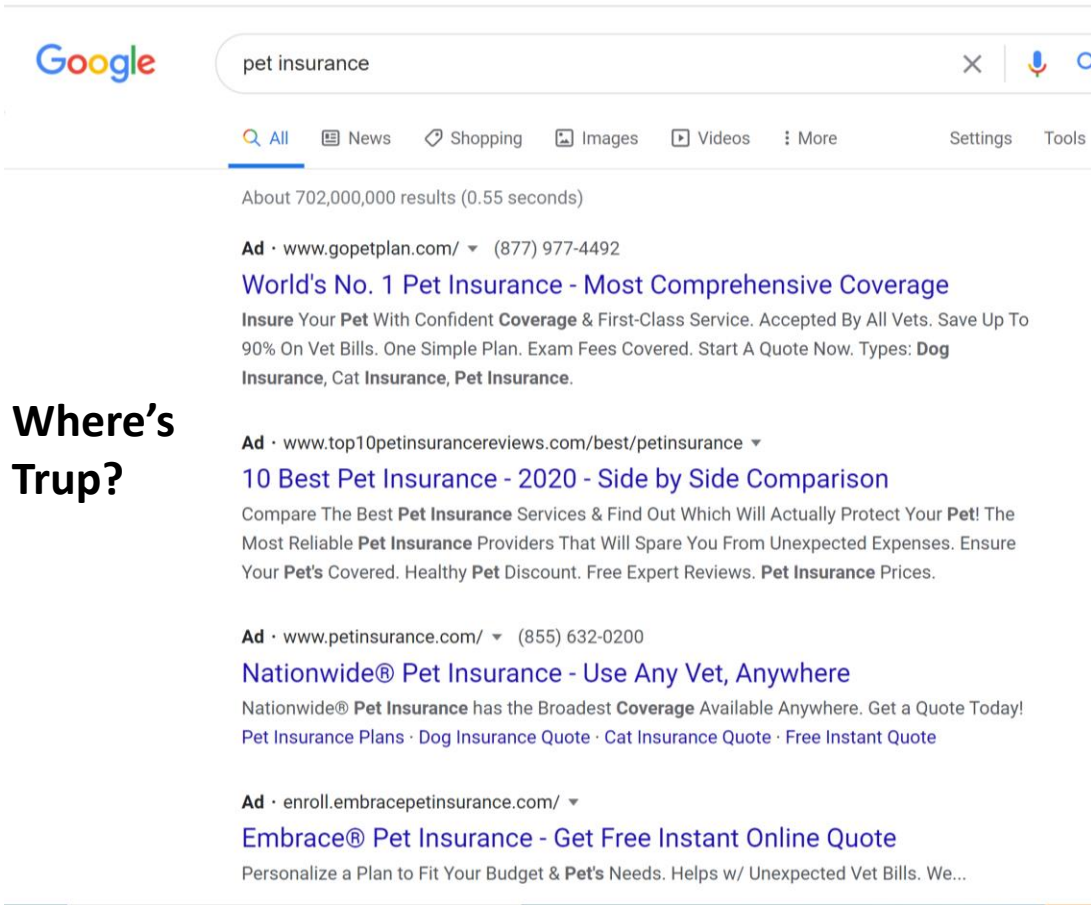
- **Zoetis (ZTS) and their comprehensive Pumpkin offering** which includes insurance and preventive care. Zoetis is working with Crumm and Foster as an underwriter
- **TrustedPals** backed by Marsh & McLennan (launched Oct. 2019)
- **Petplan**, which was sold to Warburg Pincus in October 2019
- **Figo Pet Insurance**, which received an investment from Independence Holding Company (IHC) in 4Q19
- **PetFirst**, which was acquired by Metlife in December 2019
- **Spot Pet Insurance**, a new startup in the space
- **Lemonade (LMND)**, a publicly traded “disruptor” in the insurance space recently launched their pet insurance offering at an initial price of \$12/month
- **ODIE**, a startup offering insurance plans for as little as \$9/month, which has its plans underwritten by PrimeOne and ClearBlue

Fact #4: Trupanion Has No Consumer Brand



For the past two years, query volume for “Trupanion” has been growing at a mid-single digit rate, while that for the category has increased 20%+ YOY thus far in 2020

Fact #4: TRUP Has No Brand; The Cost to Acquire Customers in the Digital Channel Would Cripple the Co.



Where's Trup?

Query volume for “pet insurance” and keywords related to the product have been growing at 20%+ this year. **Contrary to popular belief a shift towards consumer interest in the category would be a disaster for TRUP**

Currently TRUP acquires the overwhelming majority of its pets through the “vet” channel where it pays a territory partner \$10 for a new enrollment

TRUP does not participate meaningfully in SEM where CPC's are in the \$8-\$10 range. This implies that PAC in the consumer channel would be multiples of what TRUP currently pays

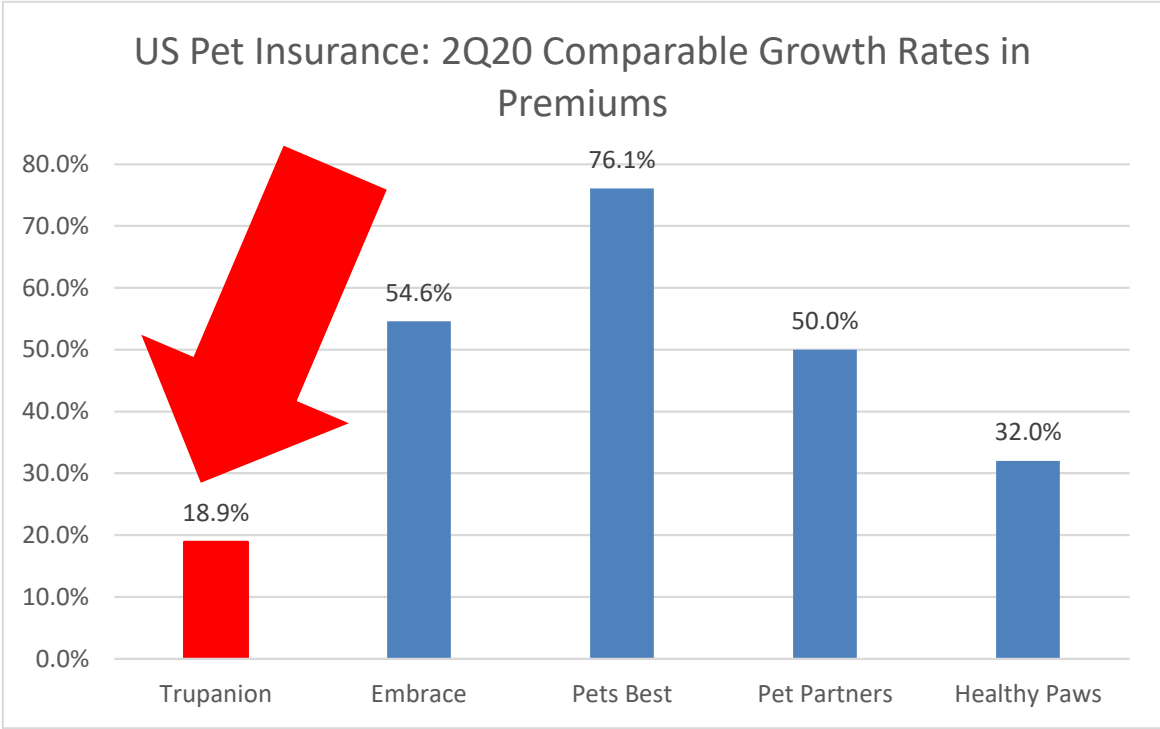
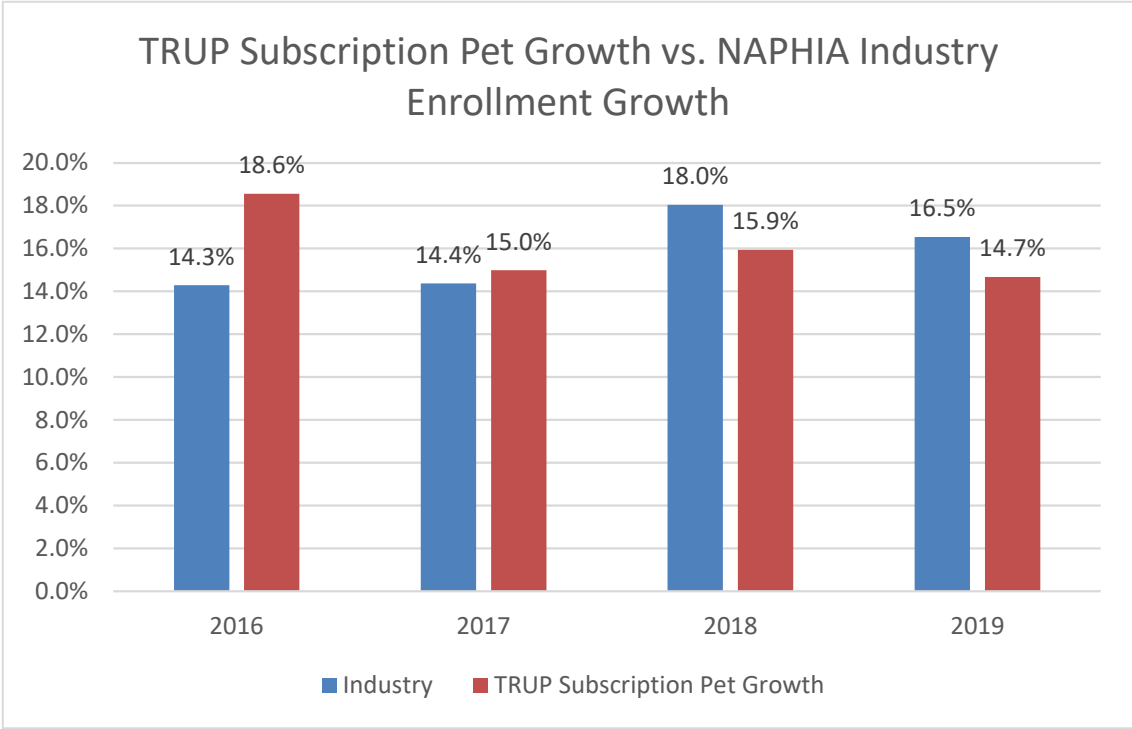
TRUP has no presence in SEM or SEO, which leaves the company HUGELY disadvantaged to fend off competition

Fact #5: TRUP's Market Share LOSSES Are Accelerating

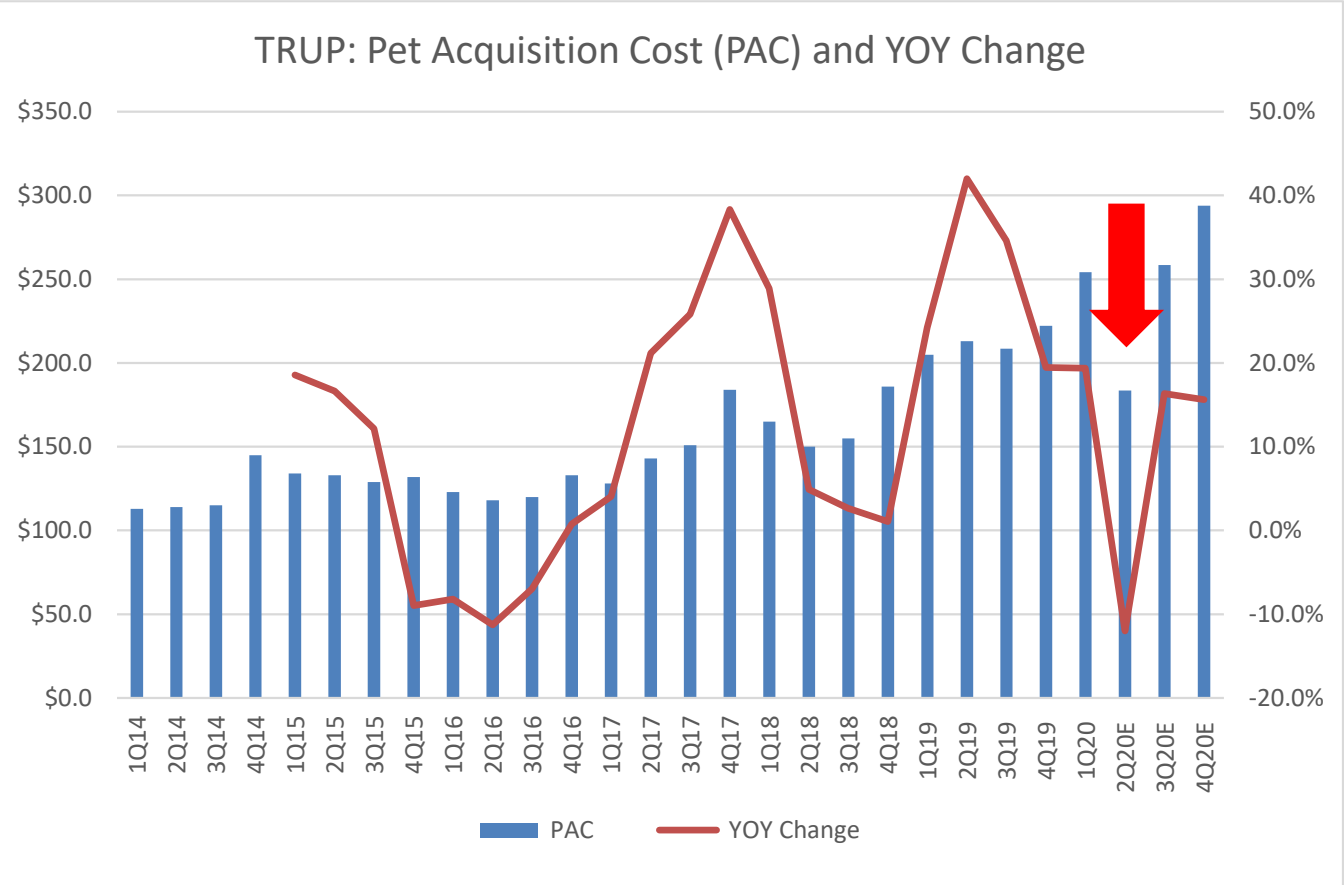
WHAT?

"Well, with the best information that we have, if you look at 2018 and '19, even going back to 2017, we've been leading the category's revenue growth year-over-year based on the information that we have."

- Darryl Rawlings, Founder, President, and CEO. Trupanion Inc. 8/4/20. 2Q20 Earnings Conf. Call



Fact #6: TRUP's Pet Acquisition Cost (PAC) Has Exploded Higher



Pet acquisition cost in on pace to increase 50%+ from 2018 to 2020

There are signs that the company has exhausted the efficacy of its Territory Partner base

More and more consumers are beginning their search for pet insurance online, which is a disaster for TRUP given the company's weak SEO rankings and lack of digital marketing

Management wants to spin marketing spend as a discretionary choice, without younger healthier pets TRUP's business blows up

Fact #7: TRUP Has a Major Pricing Problem; The Most Important Chart to Understand for This Industry/Company

APIC: California Claims Experience for Dogs 7/1/14-6/30/19

	Pet Months	Claim Count	Claim Frequency	Claims PPM
< 1 yr	1,529,395	207,931	13.6%	\$48.67
1 yr	301,715	33,989	11.3%	\$43.14
2 yr	226,953	27,434	12.1%	\$47.91
3 yr	163,335	22,009	13.5%	\$55.08
4 yr	129,776	20,613	15.9%	\$67.28
5 yr	115,443	20,169	17.5%	\$72.70
6 yr	97,922	20,082	20.5%	\$81.75
7 yr	87,538	19,624	22.4%	\$89.52
8 yr	71,237	18,290	25.7%	\$105.05
9 yr	49,712	13,409	27.0%	\$105.74
10 yr	34,861	9,942	28.5%	\$116.51
11 yr	18,347	5,672	30.9%	\$121.20
12 yr	9,910	2,805	28.3%	\$122.40
13 yr	5,946	1,786	30.0%	\$109.50

As pets get older, claims experience increases meaningfully

As a result, all pet insurers need to keep new enrollment growth at a high level or loss rates will start to pile up

In the case of TRUP, it appears the company starts to lose money on a pet after year 5-6, unless the company significantly increases pricing

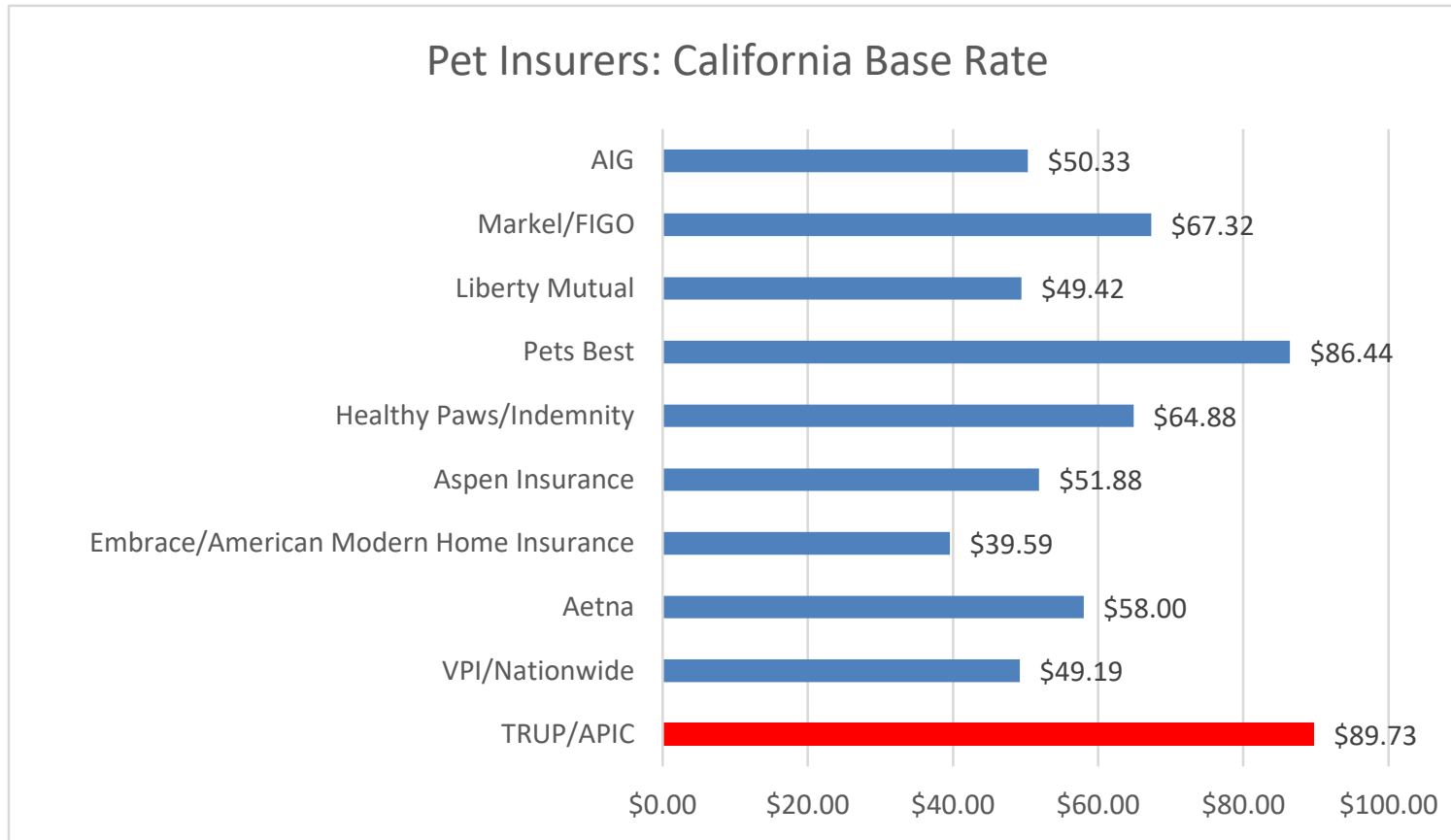
Fact #7: TRUP Has a Major Pricing Problem

TRUP/APIC: 2019/2020 Rate Increase Requests

Top 10 States	2018 Premiums	% of total	2019 Rate Increase	Requested Date	Effective Date
California	\$60.26	19.8%	20.0%	8/13/2019	12/1/2019
New York	\$28.63	9.4%	23.1%	6/7/2019	10/1/2019
Florida	\$21.08	6.9%	N/A	N/A	N/A
Massachusetts	\$17.27	5.7%	N/A	N/A	N/A
Washington	\$15.90	5.2%	Applied For	6/3/2019	12/1/2019
New Jersey	\$14.58	4.8%	19.9%	9/4/2019	1/1/2020
Texas	\$10.05	3.3%	13.6%	10/22/2019	3/1/2020
Colorado	\$8.05	2.6%	N/A	N/A	N/A
Illinois	\$6.28	2.1%	N/A	N/A	N/A
Pennsylvania	\$6.31	2.1%	14.5%	2/1/2019	5/1/2019
\$303.96		62.0%	AVG = 18.2%		

Over the past 3-5 years, TRUP has been forced to increase its “base rate” in its top 10 states well beyond the rate of inflation for veterinarian services. In many states, TRUP has increased pricing in excess of 20%. TRUP is starting to price itself out of the market

Fact #7: TRUP Has a Major Pricing Problem – Are the Company’s Policies Price Competitive?



The “base rate” is the starting point for policy pricing. The actual premium is then adjusted for the age, breed, sex, location and other factors for the pet

TRUP has been forced to raise prices to offset rising loss rates

Now the company’s policies are incredibly expensive compared to its competitors

Fact #7: TRUP Has a Major Pricing Problem – The Florida Situation Should Scare Investors

*‘From a Florida perspective last year, same time, Florida, across all of our states and provinces, was #3 as far as quote-driving, lead-driving areas. But it was bottom of the list **when it came to conversion. I mean it was 26% lower than our top lead-driving states and provinces as far as conversion rate.**’*

- MJ Manwell, VP Marketing Operations. Trupanion, Inc. 2020 Shareholder Meeting. 6/11/20

Florida Base Rate Increase History

Date	Rate Increase	Cumulative
5/1/2012	22.0%	22.0%
3/1/2013	12.8%	37.6%
8/1/2014	15.6%	59.1%
8/1/2015	17.0%	86.1%
8/1/2016	13.0%	110.3%
8/1/2017	22.4%	157.4%
8/1/2018	20.0%	188.9%
4/1/2020	9.9%	207.6%

Price still matters given the number of competing offers in the marketplace

After a 200% increase in the base rate over the past 7-8 years, it appears that TRUP’s pricing finally became a major impediment to sales

As a result, the company was forced to completely reconstruct its policy structure and no longer offer the 90% reimbursement rate as standard

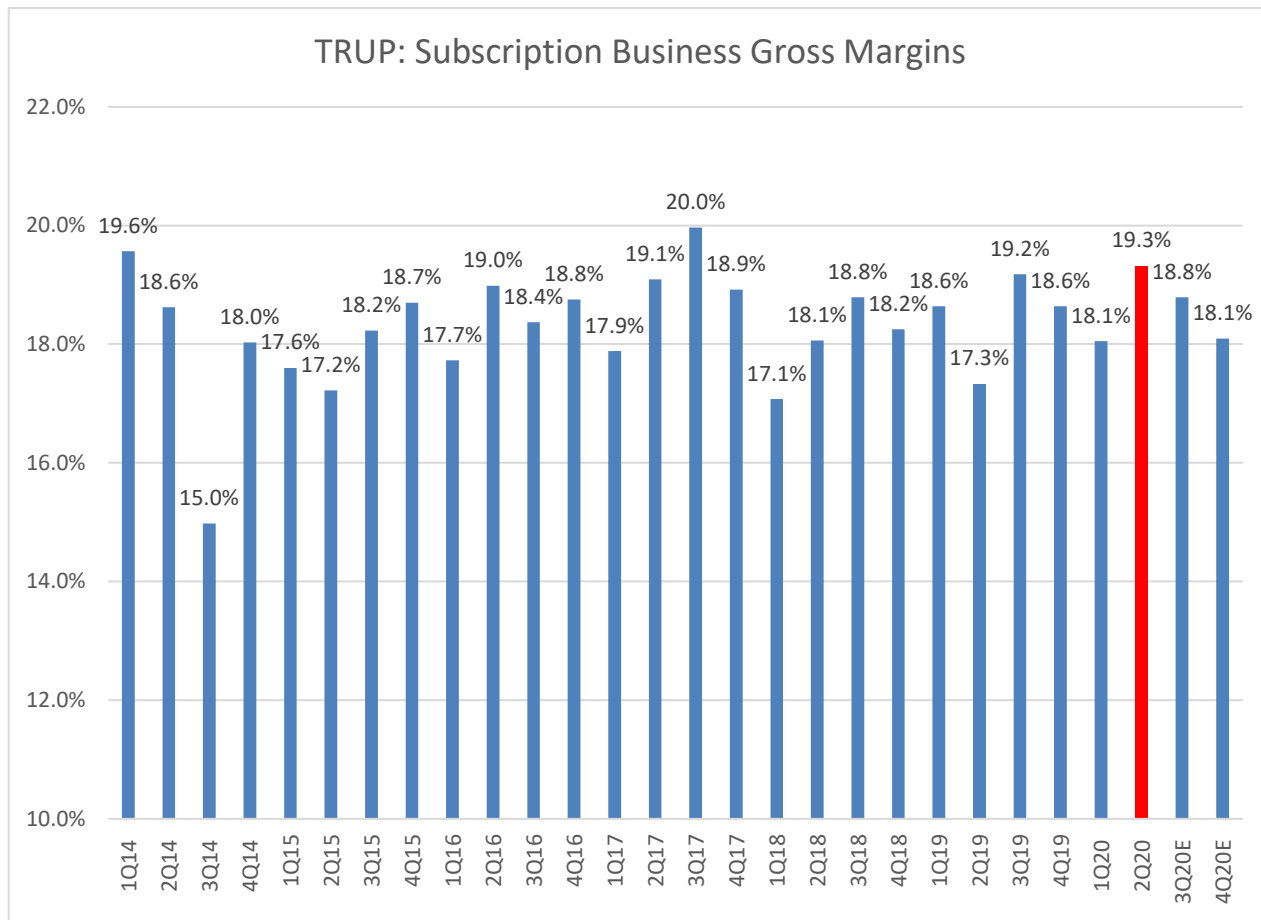
Fact #8: TRUP Has Significant Regulatory Risk Stemming from the Pet Insurance Working Group

“(1) A limited lines pet insurance agent may authorize a veterinarian or pet retailer to transact pet insurance on behalf of and under its authority under the following conditions:..... (2) **A veterinarian or pet retailer that meets the requirements set forth in this section and whose activities are limited to offering and selling pet insurance on behalf of a licensed limited lines pet insurance agent is authorized to receive compensation.**”

- Pet Insurance Model Act. 12/19/19

To summarize: The National Association of Insurance Commissioners Pet Insurance Working Group wants to allow insurance brokers and agents to compensate vets for enrolling a new pet. This would completely eliminate any moat there is around TRUP’s current pet acquisition model. We anticipate a final rule could be instituted by the end of this calendar year.

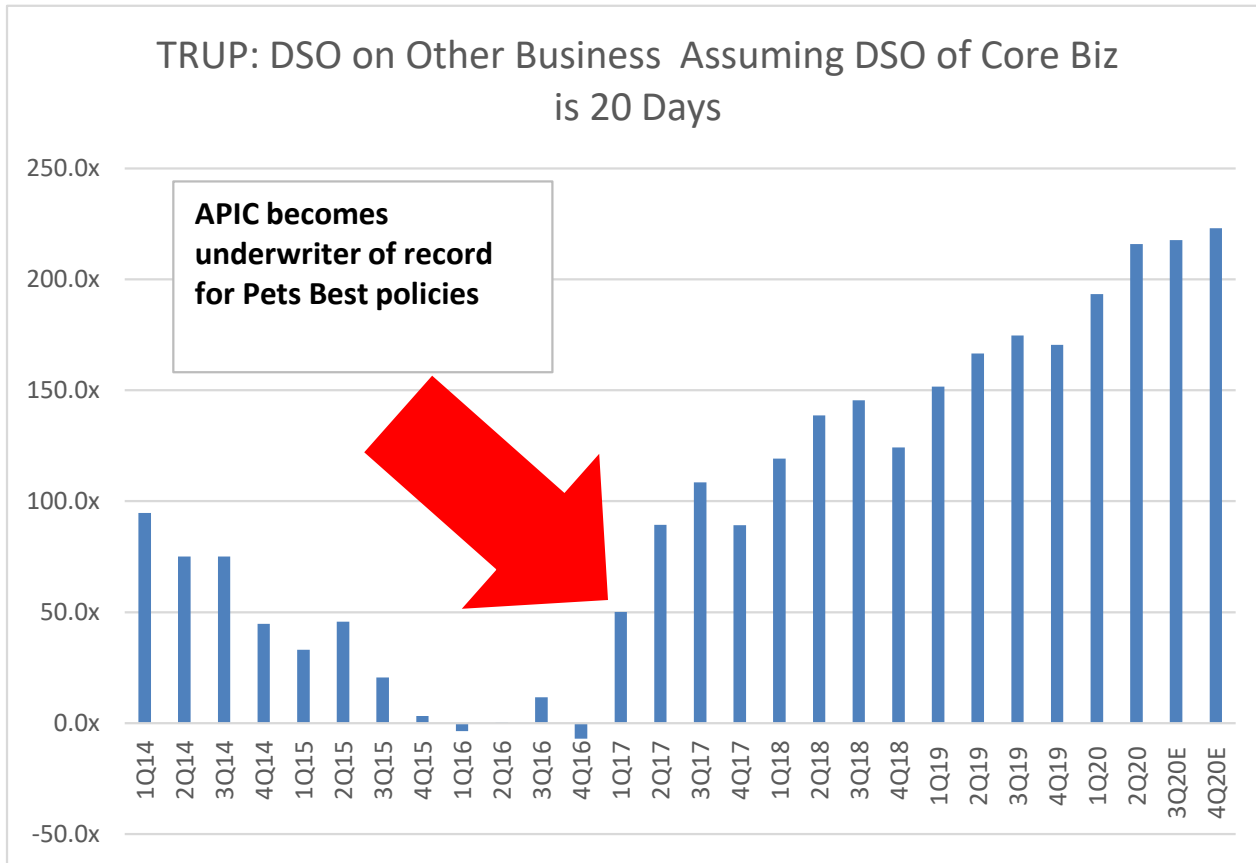
Fact #9: TRUP Was a Big COVID-19 Winner in 2Q20, None of It Is Sustainable



TRUP's 2Q20 results, which apparently served as the spark for the latest short squeeze benefitted from three elements that we view as not sustainable:

- 1. Lower claims experience.** Many consumers avoided taking their pets to the vet during the quarter
- 2. Increased new pets.** Adopting a pet has been the COVID19 shelter in place entertainment option of choice for many consumers
- 3. Reduced marketing spend.** TRUP spent almost zero on marketing in April. PAC could return to \$250+ in 2H20
- 4. Higher reported retention** due to "grace period" offers on payments

Fact #10: DSO's Have Exploded Higher As the Company Recognizes "Cashless" Revenues from Its Other Business



So it's effectively kind of a balance sheet gross up that occurs related to accounting for an annual product with quarterly payments -- or sorry, monthly payments because you're recording the revenue and then deferring nearly all of it until it's recognized over the course of the year, and then recording a receivable, and then that receivable comes down as the payments are made monthly by the customers."

- Tricia Plouf, CFO. Trupanion Inc. 8/4/20. 2Q20 Earnings Conf. Call

- TRUP provides underwriting services to Pets Best (SYF), one of its largest competitors
- The company books the revenue even though there is ZERO evidence that TRUP has any direction interaction with processing premiums and/or claims
- Other Revenues have been growing at 3x the rate of the company's average and have resulted in an inflated multiple for TRUP
- Should they be recognized?

Fact #11: Valuation Is Absurd

TRUP: Comparable Valuation Analysis

	Embrace	TRUP
Total Enrolled Pets	125,000	744,727
2020 Annual Premiums Written (MMs)	\$60.5	\$493.2
Purchase Price/Market Cap (MMs)	\$73.0	\$2,507.3
Price/Enrolled Pets	\$584.0	\$3,366.7
Price/Revenues	1.2x	5.1x

Comparable companies in the space have sold at 1.0-1.5x on price to revenue basis or \$500-\$600 per pet – TRUP trades at roughly 5x revenue and 3,400/pet

It is difficult to justify an 18x price/tangible book value multiple for a profitless insurance company

Valuation Multiples based on Current Capitalization

	12 months Dec-31-2019A	LTM 12 months Jun-30-2020A	12 months Dec-31-2020E	12 months Dec-31-2021E	12 months Dec-31-2022E
For the Fiscal Period Ending					
TEV/Total Revenue	↓ 6.4x	5.7x	4.92x	4.00x	3.34x
TEV/EBITDA	↓ NM	NM	189.30x	129.97x	95.23x
TEV/EBIT	↓ NM	NM	-	-	-
P/Diluted EPS Before Extra	↓ NM	NM	-	-	-
P/BV	↓ 17.9x	17.4x	-	-	-
Price/Tang BV	↓ 19.0x	18.4x	-	-	-

One Opinion on TRUP

THE STOCK COULD HEAD BELOW \$10 SHARE

One Opinion: TRUP Could Trade Below \$10/Share

TRUP appears to be in the early stages of a classic insurance rate spiral whereby the company is forced to increase pricing to offset rising losses, which leads to higher churn from policy holders and adverse selection among consumers (only those policyholders with the highest loss rates maintain their coverage)

TRUP will never make meaningful money given the low structural underwriting profits the company generates and rapidly rising PAC

TRUP should raise capital IMMEDIATELY to bolster the surplus at its US operations and in Canada

TRUP's accounting practices could be called into question

Catalysts:

- Slowing new pet enrollment which would create higher loss ratios
- Backing away from the 90% reimbursement model in additional states
- Continued market share losses
- Higher pet acquisition costs
- Rule book from the Pet Insurance Working Group
- SYF/Pets Best electing to choose another underwriter for the company's policies
- Further insider selling
- An equity offering

Our Estimates

	TRUP: PAA Research Estimates vs. Consensus								2019	2020E	2021E
	1Q19A	2Q19A	3Q19A	4Q19A	1Q20A	2Q20E	2Q20A	3Q20E			
Subscription Enrollment	445.188	461.314	479.427	494.026	508.480	526.005	529.400	546.996	494.156	559.736	583.808
YOY	15.4%	15.0%	15.1%	14.7%	14.2%	14.0%	14.8%	14.1%	14.7%	13.3%	4.3%
Retention Rate	98.58%	98.57%	98.59%	98.58%	98.59%	98.72%	98.66%	98.65%	98.50%	98.55%	98.50%
ARPU	\$56.13	\$57.11	\$58.12	\$58.58	\$58.96	\$59.97	\$59.19	\$61.03	\$57.92	\$60.39	\$62.20
YOY	4.7%	5.8%	6.5%	6.2%	5.0%	3.6%	3.6%	5.0%	5.7%	4.3%	3.0%
Other Business Enrollment	102.814	116.372	134.267	152.702	178.955	188.955	215.327	245.327	152.702	275.327	290.327
Total Enrollment	548.002	577.686	613.694	646.728	687.435	714.909	744.727	792.286	646.553	834.679	873.927
YOY	22.7%	22.3%	23.2%	24.1%	25.4%	28.9%	28.9%	29.1%	24.0%	29.1%	4.7%
LTV	\$471.00	\$482.00	\$511.00	\$523.00	\$535.00	\$597.00					
YOY Change											
PAC	\$205.00	\$213.00	\$209.00	\$222.00	\$247.00	\$255.88	\$199.00	\$258.53	\$213.68	\$245.53	\$357.68
YOY Change	24.2%	42.0%	28.9%	19.9%	19.0%	20.1%	-12.8%	23.9%	28.3%	14.9%	45.7%
Subscription Revenues	\$74.22	\$77.74	\$82.61	\$86.59	\$89.48	\$93.05	\$92.45	\$98.53	\$321.16	\$382.58	\$426.76
YOY Change	20.6%	21.7%	22.5%	22.1%	20.6%	19.7%	18.9%	19.3%	21.8%	19.1%	11.5%
Subscription Gross Profit	\$13.83	\$13.47	\$15.84	\$16.14	\$16.06	\$15.51	\$17.86	\$18.51	\$59.29	\$71.00	\$73.83
Margin	18.6%	17.3%	19.2%	18.6%	17.9%	16.7%	19.3%	18.8%	18.5%	18.6%	17.3%
Other Revenues	\$12.76	\$14.46	\$16.66	\$18.89	\$21.82	\$24.83	\$25.47	\$29.71	\$62.77	\$110.58	\$152.73
Total Revenues	\$86.98	\$92.20	\$99.28	\$105.48	\$111.30	\$117.88	\$117.92	\$128.24	\$383.93	\$493.16	\$579.49
YOY Change	24.7%	25.6%	27.0%	27.6%	28.0%	27.9%	27.9%	29.2%	26.3%	28.4%	17.5%
Consensus	85.9	91.17	97.24	104.89	110.1	114.54	114.54	121.05	383.35	475.01	573.49
Operating Income	-\$1.29	-\$1.84	\$0.90	\$0.65	-\$0.95	-\$2.01	\$1.54	-\$0.07	-\$1.57	-\$0.18	-\$5.80
Margin	-1.5%	-2.0%	0.9%	0.6%	-0.9%	-1.7%	1.3%	-0.1%	-0.4%	0.0%	-1.0%
Adjusted Operating Margin											
Adjusted EBITDA	\$1.77	\$1.60	\$3.93	\$3.70	\$2.08	\$1.19	\$5.49	\$3.33	\$10.99	\$13.60	\$7.20
EPS	-\$0.04	-\$0.06	\$0.02	\$0.02	-\$0.03	-\$0.05	\$0.04	\$0.00	-\$0.05	-\$0.01	-\$0.17
Adjusted EPS	-\$0.04	-\$0.06	\$0.02	\$0.02	-\$0.03	-\$0.05	\$0.04	\$0.00	-\$0.05	-\$0.01	-\$0.17
Consensus	\$0.01	\$0.01	-\$0.02	\$0.03	\$0.02	\$0.02	\$0.02	\$0.03	-\$0.13	\$0.12	\$0.23

Disclaimer: The author of this report has a short position in TRUP. Positions can change at any time without notice.

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