

## **Tucows Inc. (TCX)**

### ***Three Terrible Businesses In One***

Tucows (TCX) operates two declining tech/telecom businesses and a fledgling low-return fiber division, yet is being valued by the market at 60x trailing normalized earnings. Its two profitable segments barely deserve double-digit earnings multiples given their bleak growth profiles, and the company's cash flow is being plowed back into a third segment that will prove to be a massive destroyer of capital. TCX's valuation is wildly overstretched and the stock is worth 50%+ less.

Ting Mobile, the company's mobile virtual network operator (MVNO) division, saw subscribers peak in 2017, and has witnessed declines ever since. Historical examples of MVNO failures are abundant – like Disney/ESPN, Virgin and Amp'd Mobile – while MVNO successes are rare, and the trajectory of Ting Mobile is proving to be no different. Brutal competition, particularly from Comcast's Xfinity Mobile as well as Charter, has reversed Ting's organic growth from several years ago into declines today, and the bleeding shows no sign of abating. Making matters worse, if the T-Mobile/Sprint merger goes through, we believe Ting Mobile will have to shift its customer base to another wireless provider such as Verizon or AT&T, which will likely lead to substantial churn and lower margins.

Tucows' Domains business is suffering similar stagnation. Industry-wide, growth is abysmal. GoDaddy and Verisign have been suffering low single-digit growth while TCX's own revenue CAGR has been 1% over the last 3 years as it's been losing market share. The business is highly commoditized, with little to differentiate any individual firm other than price. TCX has been boosting prices to inflate growth metrics but this will simply accelerate churn and share loss.

Recognizing the dreary prospects of its legacy businesses, TCX management has been spinning a story about its nascent fiber operations, Ting Internet, into which it's redeploying the cash flow from the Domains and MVNO segments. Investors are being led to believe that this fiber business will deliver \$1,000 in gross profit on \$2,500 to \$3,000 in capital invested. Our research indicates the unit economics will be far worse, with at least \$4,000-\$5,000 in capital invested per sub and \$500-\$650 in EBITDA per sub, which barely justifies Tucows' cost of capital. Ting Internet will ultimately prove to be negative NPV, suffering from many of the issues that have beset prior fiber builders. No public company has generated a high return fiber network successfully. After 13 years investing in fiber, Verizon cut back investment because its ROIC was in the single digits. Since launching Google Fiber in 2010, Google has fired several CEOs, cut headcount dramatically and de-emphasized the division. If Google and Verizon cannot build an attractive fiber network, how can a small Canadian company with no ISP expertise? The fiber business is a fraction of TCX's total business from a revenue perspective, but we believe the market values this segment at over half of Tucows' value.

Tucows will likely report a large miss versus consensus 2019 EBITDA, forcing investors to face reality and value TCX closer to a more reasonable range of \$25-\$30 per share. Like all bad telecom businesses, Tucows' share price should soon suffer the same fate as its subscribers: churn and attrition.

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## I. Background and Business Overview

Tucows is a technology focused company comprised of three primary businesses: Domain Name Services (72% of revenue & 51% of gross profit), Ting Mobile (26% of revenue & 45% of gross profit), and Ting Internet (2% of revenues & 4% of gross profit). Below is a description of the three business lines:

### **Domains:**

The core Domains segment sells various domain products on a wholesale basis. Globally, they are the number 2 player in this space, yet the business is barely growing, reflecting stagnant growth across the entire industry. In the last 3 years (ending in FY18), the company's revenue CAGR was 1% for the Domains business. Recently, the company acquired one of its largest competitors at 7x EBITDA, which enhanced reported growth, but management openly admits that Domains is a low growth business.

### **Ting Mobile:**

Ting Mobile is a mobile virtual network operator (MVNO) that leases the network infrastructure of other carriers (Sprint and T-Mobile), and resells wireless services to its own customer base on a pay-per-use pricing model. The customers Tucows services are its main asset. Ting Mobile's large concentration with Sprint and T-Mobile, as well as the business model's general lack of a moat, present large risks. There are many instances of MVNO failures and few examples of MVNO successes. Ting historically gained customers from the failure of Platinum Tel Wireless (PTel) in January 2016 and RingPlus in February 2017; both formerly MVNO competitors, but in the face of brutal competition, customer growth has reversed into a decline.

### **Ting Internet:**

Tucows' Ting Internet business is an ISP that offers gigabit internet speeds at \$89/month in select municipalities. The segment represents a large capex bet the company is making in hopes of future growth. Ting Internet is currently building out a fiber network in seven towns, and has spent aggressively on capital investments to grow this business. Management projects 20% penetration rates in the first year and 50% within 5 years in the towns it currently operates in, but we believe these goals are highly unrealistic given other companies' track records for penetration rates. And even if one accepts management's aggressive assumptions, we expect Tucows will have roughly 35,000 subscribers in 5 years and those subscribers would be worth approximately \$150m. Discounted to the present at 10%, that equates to \$93m or \$8.57/share. In reality, the business will likely fall far short of management forecasts, and like many fiber builders before it, shareholders will ultimately wish the company never embarked on its ill-conceived internet adventure.

Combined together, these businesses are worth nowhere close to the \$730m they're being valued at by the market. The Domains and Ting Mobile segments operate mature, highly competitive, commodity businesses that command meager valuation multiples, while the fiber network is a tiny speculative experiment trying to succeed where much larger and better-capitalized peers have failed.

Insider transactions seem to agree with this sentiment. Management team members were selling stock in the \$20 range in 2015 and 2016, compared to the \$60 range that TCX currently trades at. There has not been a single open market purchase of stock in years. In fact, CEO Elliot Noss bought back significant amounts of stock every year after 2012 – until the stock surpassed \$25.00. Noss has not purchased any meaningful amount of stock above \$25. He mentions regularly that he would purchase stock when it's undervalued. Following that logic, Noss has not thought Tucows has been undervalued since trading above \$25. The following is a comment from Noss concerning his thoughts on share repurchases from the company's Q1 FY16 conference call:

*"We've always said that repurchases would vary from quarter to quarter. The more the stock falls in a given quarter, the more we are likely to buy. And the more the stock rises in a given quarter, the less we are likely to buy. [...] The stock right now is up over 25% from the time of the last earnings call. And all things being equal, that is likely to be a quarter in which we buy less than in others."*

Despite having a \$40m authorization in FY17-FY19, the company has not repurchased any meaningful stock since Q2 FY16.

## **II. Domains**

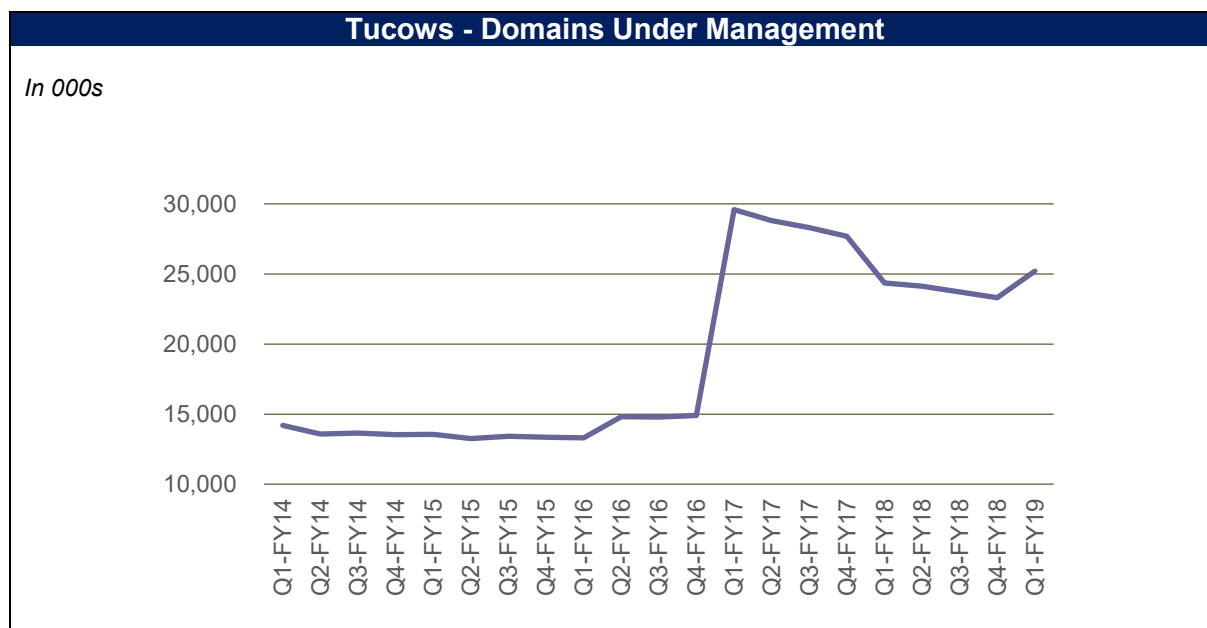
The Domains segment is TCX's legacy business. This division provides domain name registration services via the OpenSRS, eNom and Hover brands, selling various domain products on a wholesale basis primarily to web hosting companies. Globally, TCX is the second largest player in the industry, with a market share estimated at 7%, trailing industry leader GoDaddy, which holds a 22% share.

The domains market is growing very slowly as a whole. In a February 2019 presentation, GoDaddy stated: "in the U.S., our customer base grows low single digits over time". Verisign stated on its February 2019 conference call: "we expect the domain name base growth rate to be between 2.25% and 4.25% for full year 2019". In the last 3 years (ending in FY18), TCX's revenue CAGR in its Domains business was only 1% and the segment has been losing market share. TCX recently acquired one of its largest competitors to boost overall segment growth, but organic growth remains atrocious.

The domains business is highly commoditized, with little to differentiate any individual provider other than price. Following a number of price increases in 2017 and 2018, TCX has become the premium priced vendor in the industry. While these price increases temporarily aided revenue growth, they have also had a detrimental impact on churn and will continue to trigger declines in the company's market share.

The following table and chart illustrates the declining trend in the number of domains under TCX's purview over the last few years. Note that the only real increases have been tied to acquisitions, while organic growth has been on a consistent downtrend, which we believe will continue.

Tucows - Domains Under Management			
<i>In 000s</i>			
<u>Date</u>	<u>Domains Under Mgt.</u>	<u>Organic Domains Added/Lost<sup>(1)</sup></u>	<u>Notes</u>
Q1-FY14	14,182	-12	
Q2-FY14	13,569	-613	
Q3-FY14	13,651	82	
Q4-FY14	13,529	-122	
Q1-FY15	13,548	19	
Q2-FY15	13,251	-297	
Q3-FY15	13,415	164	
Q4-FY15	13,336	-79	
Q1-FY16	13,310	-26	
Q2-FY16	14,804	-106	Melbourne IT acq. added 1.6m domains
Q3-FY16	14,782	-22	
Q4-FY16	14,892	110	
Q1-FY17	29,589	197	eNom acq. added 14.5m domains
Q2-FY17	28,811	-778	
Q3-FY17	28,305	-506	
Q4-FY17	27,700	-605	
Q1-FY18	24,350	-650	Bulk transfer to Namecheap reduced domains by 2.7m
Q2-FY18	24,120	-230	
Q3-FY18	23,708	-412	
Q4-FY18	23,309	-399	
Q1-FY19	25,207	-2	Ascio Tech acq. added 1.9m domains
(1) Organic Domains Added/Lost excludes acquisition & transfers			
Source: Company filings and Kerrisdale Analysis			



The company has tried to offset the declining trend in the number of domains under management by acquiring other domain registration companies, including Melbourne IT and eNom in FY16 and Ascio Technologies earlier in FY19. Going forward, there is a lack of sizable domain registration companies available to acquire and we believe the Domains business will decline going forward without new acquisitions to offset negative organic growth.

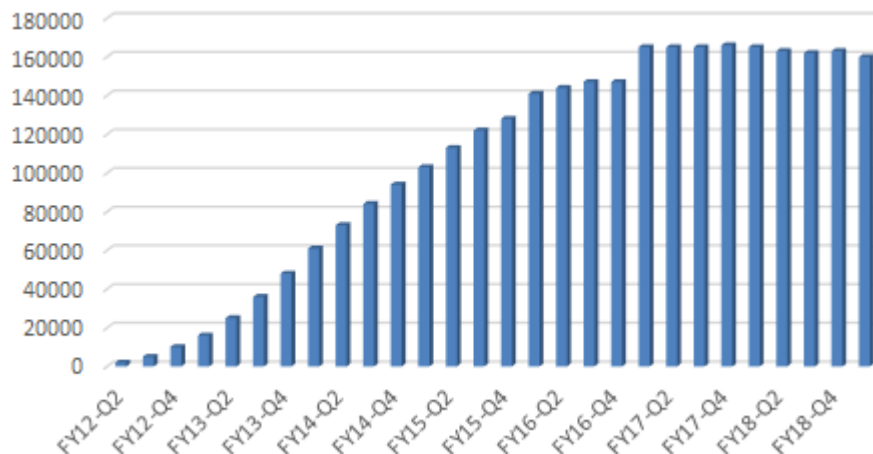
Another challenge, this time on the margin side, that TCX faces will be likely price increases from its vendor Verisign to register domain names. Registration fees paid to Verisign represent the company's major fixed cost in its Domains business. Recently it was announced that the US government extended the Cooperative Agreement it has with Verisign to manage the .com domain with amendments that provide Verisign flexibility to raise prices (which have been frozen under Obama era restrictions since 2012). These price increases could be as much as 7% in each of the final four years of its new six-year agreement, and thus would begin in 2020. Given TCX's already premium price positioning in the industry, if the company tries to pass along the price increases to its customers, that should accelerate market share losses. If it doesn't pass along price increases to customers, its profit margin will suffer.

### III. Ting Mobile

Launched in early FY12, the Ting Mobile business initially got off to a rapid start. But subscribers peaked in 2017 and there haven't been net new subscriber adds since FY17 on a year-over-year basis, as the charts below show. This slowing of growth to zero coincides with the entrance of Charter and Comcast into the market.

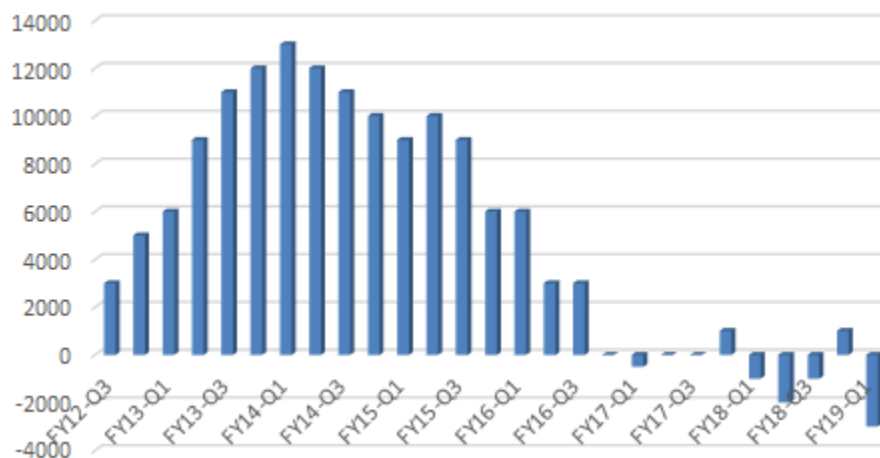
### Ting Mobile – Total Subscribers

In 000s



### Ting Mobile – Net New Organic Subscribers (Q/Q)

In 000s



Even as Noss has guided investors to expect growth from Ting Mobile over the past few years, Ting's subscriber count has remained stubbornly flat since 2017, with the business recently inflecting to negative growth. Ting Mobile is now a declining business with large supplier concentration at T-Mobile and Sprint. Several strong competitors have entered the market offering lower prices than Ting, as well as aggressive promotions. Growth has suffered as a result.

In the most recent quarter, Ting Mobile's subscriber base declined by 3,000 on a total base of 160,000. That's a 2% subscriber decline that annualizes to a staggering 8%. Ting's growth

deceleration is partly the result of Comcast and Charter ramping up their MVNO businesses. Comcast's Xfinity Mobile needed only 5 months after its launch to reach Ting's subscriber count, which Ting had accumulated painstakingly over a 5-year period. Fast forward to today, Comcast has now signed up 1.4 million mobile subscribers as of the end of March, compared with 577,000 a year earlier, making it nearly 10x larger than Ting. Charter, in turn, reported 310,000 mobile customers as of late March. Altice, another cable company, has also recently [entered](#) the MVNO business, introducing yet another player to an already crowded landscape.

Ting Mobile's gross profit declined -5% y/y and -9% sequentially in its most recent quarter. Given the brutal competitive environment, we do not see significant growth going forward for this division, and Ting's multiple deep-pocketed rivals will likely drive continued subscriber attrition for Tucows' MVNO operations.

Per the Q3 FY17 conference call, here are a few remarks from CEO Noss on competitors entering the MVNO space:

Analyst Question: *"And just a couple of questions on competition, if I might. Wonder what you're seeing or think about some of the potential changes in pricing around mobile data that have been out there. And then secondly, I think there's some new potential MVNO competition coming in, perhaps next year, with some of the large players on the cable side. Can you talk to each of those?"*

Elliot Noss, CEO: *"Yes. So, we didn't really see a lot of what I would call aggressive competition with more recent moves. We think it's more what, sort of moving piles around than anything else. And when I'm talking about now, kind of incumbent moves. They tend to be focused at each other and they don't really tend to materially affect people's cell phone bills. With respect to the sort of the entrance of the MSOs, the cable companies into the mobile space, I flagged, I want to say a quarter or 2 ago that, that will be the next big competitive change in this industry. And I would -- it would be my conjecture, just like anybody else's.... I think if you want to understand what we're looking for, we think the more that what they offer is like the existing experience and the lower the price, the more concerned we are."*

Noss's commentary turned out to be prescient, as Ting Mobile has not grown since the entrance of the cable companies. The cable operators have offered very similar products, which was a key concern of his when cable initially launched their products. Both Comcast and Charter charge \$45 a month per line for unlimited monthly data. The two also allow their customers to pay for only the data they use, between \$12 and \$14 per gigabyte.

The T-Mobile/Sprint merger also creates more risk for Ting Mobile, and we think Ting's contract gets re-negotiated or cancelled by the new combined entity. If this occurs, Ting Mobile will have to shift its customer base to Verizon or AT&T, suffering worse pricing terms as well as subscriber attrition. This could ultimately be a disaster for the Ting Mobile business, which comprises one-third of Tucows' value.



Given the low growth and large supplier concentration, further combined with aggressive, diversified competition in the space, a 10x earnings multiple is generous for this business.

## IV. Ting Internet

*We buy fiber from others. We don't build it. [...] we have chosen not to participate in that market because we don't believe there's an adequate return on capital. I would say that if you look at over the past 5 to 10 years, the capital that's been deployed at those builders, while it may have appreciated, there has been no actual returns on capital demonstrated.*

David Schaeffer, CEO of Cogent Communications (CCOI), Cogent Communications presentation at JP Morgan Conference, 5/15/19

Ting Internet operates a difficult, capital intensive and currently unprofitable business. Management originally expected the segment to become cash flow breakeven in late 2018, but has fallen well short of its original guidance. In describing the Ting Internet business, management focuses on gross profit per sub and capex per sub. We believe the high gross profit per sub projections mask much lower profitability per sub when measured in a more relevant EBITDA per sub metric, and the company's capex per sub forecasts will prove materially too low. Management regularly ignores maintenance capex, SG&A, and the time it will take the Ting Internet business to reach maturity.

Building a fiber network is a business so challenging that even Google hasn't succeeded, and today the tech behemoth remains unsure of its own path in the sector. We believe that management's Ting Internet assumptions are unachievable, and expect Tucows will have higher capex requirements, lower penetration rates at maturity, and lower profit expectations at maturity.

Below are a few quotes from a former employee in the Ting Internet division on Ting's rollout:

"There was I think, there was some sticker shock involved with the cost."

"Some of the interaction I think from certain people at Ting didn't go over well with the city."

"It was not as easy or as cost-effective as I thought they expected it to be."

Ting Internet is operational in 5 markets with 7,700 customers. In a previous acquisition bid for a Burlington, Vermont network, Ting was initially willing to pay ~\$4,300 per customer. Applying

that metric to today's 7,700 customers, the Ting Internet business would be worth \$33.1 million or \$3.04/share.

In our sum of the parts valuation, using management's wholly unrealistic assumptions, our DCF arrives at \$8.57/share. That DCF assumes the Ting Internet business reaches 35,000 subscribers in 5 years, which would imply a future valuation of \$150 million (assuming \$4,300 in value per sub). Discounted back to the present using a 10% discount rate gets us to \$93 million in present value, or \$8.57 a share. This analysis implies success in the Ting Internet segment, but we discuss below that we believe Ting internet will likely actually destroy capital.

To begin with, no other deep-pocketed public company or private equity firm is entering the fiber market in small municipalities. If the returns were as lucrative as Tucows claims, we believe numerous companies would be investing in the sector.

Laying fiber is a difficult business with uncertain economics, and it takes 5 to 10 years to find out if the returns justify the massive capital and expense outlay. Permitting efforts, municipality negotiations, local government lobbying, and cumbersome town hall meetings translate into a laborious, unpredictable and costly workflow. Setbacks are frequent, and are part of why Tucows has missed its original financial targets for the division.

Based on conversations we've had with industry experts and from looking at other industry penetration rates, we think the probability of 50% penetration rates for Ting Internet is very low. It took Verizon's fiber business 13 years and a tremendous amount of investment to reach a 40% penetration rate. Capex per customer metrics end up much higher with lower penetration rates, because the fixed amount of spend only becomes reasonable if leveraged across a large customer base. This makes the Ting Internet experiment very risky, because Ting Internet could actually end up destroying large sums of capital if the business doesn't meet management's targeted penetration rates, resulting in the IRR of fiber investments coming in well below the company's cost of capital. Ting Internet has not proven profitable in any markets yet. Even if some markets do become profitable, that doesn't mean that on a consolidated basis the entirety of the division would be profitable. And we already give them credit for profitability in valuing Ting Internet at a mere \$8.57/share today, even though we think that the assumptions behind that value are wholly unrealistic. Should Ting Internet destroy capital (which we think is quite likely given this is what occurred with Google and other players), the internet business isn't simply worthless; it would actually have a material negative value. We think management has taken a very optimistic view on the Ting Internet segment which is not backed up by industry data and historical experience.

Three public companies that have tried to be profitable in fiber are Verizon, Nelnet (through its subsidiary Allo Communications), and Google. All three have decided to slow down the rollout of their fiber networks as they have experienced meagre returns on capital amidst missed expectations.

We take a look at each of these three operators.

## Verizon

Verizon spent 13 years in the fiber space through its Fios segment and ultimately got to 40% penetration rates on average across its markets. However, even with this success, Verizon's returns have been low. Management describes the segment's ROIC in Fios as "positive, but in the single digits." Tucows' cost of capital is 8%, so it is quite possible that after 13 years building out Fios, Verizon did not earn Tucows' cost of capital. Additionally, Verizon has entirely shifted away from the Fios business, and was recently actually selling assets in that space. Verizon says it doesn't believe that the ROIC's of further building out point-to-point fiber are attractive, and this is even after it already has a sizeable fiber network with 40% penetration rates. Verizon didn't buy Charter or Zayo because it was worried about sinking even more capital into the fiber business.

## Allo Communications, a Nelnet subsidiary

Below are the operating results and key performance indicators of Allo Communications, the fiber subsidiary of Nelnet Inc.

Allo Communications – Operating Results and KPIs						
<i>In 000s</i>						
	<u>FY13</u>	<u>FY14</u>	<u>FY15</u>	<u>FY16</u>	<u>FY17</u>	<u>FY18</u>
Residential Revenue	\$3,988	\$6,155	\$8,665	\$11,088	\$17,696	\$33,434
Business Revenue	5,541	6,163	6,940	6,235	7,744	10,976
Other				336	260	243
<b>Total Revenue</b>	<b>9,529</b>	<b>12,318</b>	<b>15,605</b>	<b>17,659</b>	<b>25,700</b>	<b>44,653</b>
EBITDA	1,715	3,000	4,274	(2,184)	(9,372)	(4,455)
%	18.0%	24.4%	27.4%	-12.4%	-36.5%	-10.0%
Net Income	(1,034)	(499)	600	(5,899)	(16,511)	(28,740)
Cap-ex	6,775	4,522	6,678	38,817	115,102	87,466
Cap-ex Cumulative (from FY13)	6,775	11,297	17,975	56,792	171,894	259,360
<b><u>Residential KPI's:</u></b>						
Households Served	3,905	5,794	7,600	9,814	20,428	37,351
Households Passed	16,054	16,433	21,274	30,962	71,426	122,396
Households In Market	19,592	23,389	137,500	137,500	137,500	152,840
EBITDA/Household Served	\$439	\$518	\$562	(\$223)	(\$459)	(\$119)
EBITDA/Household Passed	\$107	\$183	\$201	(\$71)	(\$131)	(\$36)
Households Penetrated	19.9%	24.8%	5.5%	7.1%	14.9%	24.4%
Cap-ex/Household Passed	\$422	\$687	\$845	\$1,834	\$2,407	\$2,119

Allo Communications is hoping to get to 40-50% penetration rates within 5-7 years, and also offers triple play services. Nelnet IR admitted that the business would likely get much lower penetration rates if it were not offering TV and phone services (which Ting Internet currently does not offer). Nelnet also feels that a mature customer generates about \$500-\$600 in EBITDA per sub. Tucows boasts \$1,000 in gross profit per sub, but once one factors in expenses below the gross profit line, the likely EBITDA per sub would be more in line with Nelnet's, or lower. Thus far, it looks like Nelnet is nowhere near hitting its numbers. Additionally, Nelnet's current capex per home is between \$2,100 to \$2,400. At a 40% penetration rate and \$2,250 average capex per home, this equates to \$5,625 capex per home passed. At this rate, Ting Internet would not earn its cost of capital. The other interesting comment we found from Nelnet is that Nelnet is slowing down its capex spending, because management wants to ensure that the capital they have already invested will actually generate a good return. Nelnet has spent roughly \$300m in capex over the course of multiple years, and yet management is still unsure if the project will generate an appropriate return on capital. Clearly, Nelnet is lukewarm on its investment in the fiber business, even years into the project and despite having a very strong relationship with the city of Lincoln, Nebraska where the company operates. There is nothing from neither Nelnet's numbers nor management's commentary that inspires us to be bullish on Ting Internet's business.

## **Google**

Google Fiber has also failed to meet expectations. Since first embarking on its fiber buildout in 2010, Google Fiber is now on its 4th CEO. In 2016, Google pulled back from its original plan, curtailing its expansion and cutting 1,500 employees. Today, the company is thoroughly re-assessing the health of its fiber business.

Numerous news stories highlight Google Fiber's struggles:

<https://www.usatoday.com/story/tech/news/2016/10/25/google-fiber-halts-rollout-ceo-leaves/92746288/>

<https://qz.com/820472/dismissing-google-fiber-goog-as-a-failure-is-the-same-mistake-we-made-bringing-electricity-to-rural-america/>

<https://gizmodo.com/when-google-fiber-abandons-your-city-as-a-failed-experi-1833244198>

<https://www.techrepublic.com/article/why-google-fiber-failed-5-reasons/>

As the 2016 USA Today article notes: ***“[Google] has been rethinking how it delivers speedy broadband access, shifting to wireless, a less expensive alternative to digging up streets and laying down fiber cables. Fiber is striving to bring Internet speeds of one gigabit per second to cities around the country, but progress has been slow.”***

Tucows' Ting Internet division operates the same business as Verizon Fios, Allo Communications, and Google Fiber, three far better capitalized companies that have had disappointing results in this business. Tucows' CEO Elliot Noss himself has admitted on conference calls that execution for this business is a major risk, and thus far the business is unprofitable.

If Google and Verizon cannot operate a fiber network with returns on capital they feel are adequate, it is hard to believe that Ting Internet will. Yet today, given the clear declines of the domains and mobile segments, it appears that investors are attributing Tucows' lofty valuation primarily to the promise of Ting Internet. Naturally, we see meaningful downside to price targets as the fiber rollout at Tucows proves much more difficult than modeled.

From a 2017 Tucows Conference call:

Question: *"And then Google's sort of pulling back on the fiber business. Does that -- I would think that puts Ting in a stronger position when they're talking to new potential markets. Have you seen that or do you expect that?"*

Elliot Noss, CEO: *"We haven't seen it yet but we've been kind of working the things that are in the pipeline. So what we haven't seen yet is one of the cities that Google explicitly pulled back from, reaching out to us. But I would note, Pat, that I'm really -- when people talk about them pulling away or pulling back, I really think it's more accurate to describe them as taking stock and recognizing that they're in I want to say -- and it's their business, not mine, so don't quote me. I want to say they're in 11 markets that they're staying in and that's -- we're looking at 5 markets and saying, wow, this is plenty for us to really sort of refine our game here. And I think they're looking at the markets they are in and saying the same thing. It's an operationally complex business. I looked at their announcement as in some ways, sort of a positive reinforcement of our view that this was complicated operationally and that the right thing to do was to kind of get okay and then good and then great."*

Noss says he wants to "get okay and then good and then great." We are not convinced he is close yet to being ok in this business, yet Ting Internet is being valued as a "great" and exciting open-ended growth story by the stock market.

In summary, all of the major public peers who have entered the fiber business have regretted it, and several other public peers who know the fiber business very well have avoided it entirely. There is a consensus in the industry that the returns on capital in fiber are very low, contradictory to what Tucows claims.

## V. Projections and Valuation

Sum of the Parts Analysis

In 000s, except valuation multiples, per share values, subs, and value per sub

Division	FY18 Gross Profit \$'s	FY18 Gross Profit %	FY19 Net Income	P/E Multiple	Value	Value/Share
Domain Services	\$49,501	51.2%	\$10,795	10.0	\$107,955	\$9.96
Ting Mobile	\$43,279	44.7%	\$9,439	10.0	\$94,385	\$8.71
Ting Internet	\$3,990	4.1%				\$8.57
Total	\$96,770					\$27.24

Adjusted Net Income:	FY18	FY19 (5% growth)
Adj. EBITDA	50,057	
Depreciation	(5,722)	
Amortization	(9,243)	
Interest	(3,687)	
EBT	31,405	
Taxes @ 36% Rate	(11,306)	
Adj. Net Income	20,099	21,104

Ting Internet Valuation:	
Subs in 5 years	35,000
Value Per Sub	\$4,300
Total Sub Value	\$150,500
Discounted Value	\$93,140
Current Sub/Share	\$8.57

Notes:

Assume gross profit percentage is a good proxy for net income contribution of each division.

Assume FY18 tax rate of 36%.

Assume 5% growth in FY19 for conservative reasons

Current fully diluted shares are 10,836,897.

### Share Mispricing Due To Unrealistic “Consensus” Forecasts, Which Will Have To Be Cut Dramatically

A major reason for the mispricing of the shares is the unrealistic future “consensus” expectations, which make the shares screen more attractive than they should. One of the factors behind this is that a number of US and Canadian sell-side brokers who had covered the company in the past have dropped coverage for one reason or another. Our understanding is that as a result of this, “consensus” expectations are now accounted for by one small sell-side broker, and it’s unclear how current the analyst’s estimates are, especially considering the significant shortfall in revenues and profitability in the recently reported Q1 results.

Nonetheless, the important point is that the “consensus” expectations are unrealistic and will have to be significantly reduced. In the table below, we have modeled historic results with CapIQ consensus estimates. We modeled the “consensus” estimates for revenue, adjusted

EBITDA and EPS and made assumptions for the other line items based on historical trends. The table illustrates how unrealistic current estimates are, especially for the Ting Internet business. Even if we assume a reversal of recent declines at both TCX's Domains & Ting Mobile businesses to show a modest 2% revenue CAGR (which we believe is highly unlikely), the consensus expectations are predicated on a spectacular acceleration in the company's Ting Internet growth beginning in the current quarter. Notably, our model shows that consensus expectations suggest that the Q4 Ting Internet revenue is projected to be almost 6x the Q1 figure and nearly as much as the cumulative revenues recorded by the division since it was established in FY15.

Consensus Estimates for Tucows Appear to Be Unrealistic															
	Quarterly Results								Yearly Results						
	Reported Results					Using Cap-Iq Estimates			Reported Results				Using Cap-Iq Estimates		
	Q1-FY18	Q2- FY18	Q3-FY18	Q4-FY18	Q1-FY19	Q2- FY19	Q3-FY19	Q4-FY19	2015	2016	2017	2018	2019E	2020E	2021E
<b>Revenues:</b>															
Domain Name Services	72.2	56.8	58.5	60.8	55.7	57.9	59.7	62.0	110.8	116.0	240.7	248.7	235.3	240.0	244.8
growth y/y %	43.0%	-9.5%	-5.7%	-6.8%	-22.8%	2.0%	2.0%	2.0%	-99.9%	4.8%	107.4%	3.3%	-5.4%	2.0%	2.0%
Ting Mobile	21.9	22.4	22.5	22.5	20.8	22.9	23.0	23.0	58.9	70.1	83.9	89.3	89.6	91.4	93.2
growth y/y %	21.8%	10.0%	3.7%	-5.4%	-4.9%	2.0%	2.0%	2.0%	-99.8%	19.1%	19.6%	6.5%	0.3%	2.0%	2.0%
Ting Internet	1.7	1.9	2.0	2.3	2.4	9.2	13.3	14.0	3.3	3.7	4.8	8.0	39.1	65.6	82.0
growth y/y %	52.5%	74.3%	63.4%	45.9%	40.7%	386.8%	556.3%	505.3%	11.0%	32.2%	65.4%	389.1%	68.0%	25.0%	
Total Revenue	95.8	81.1	83.1	85.6	79.0	90.0	96.0	99.0	172.9	189.8	329.4	346.0	364.0	397.0	420.0
growth y/y %	37.7%	-3.7%	-2.3%	-5.5%	-17.6%	11.0%	15.6%	15.6%	-99.9%	9.8%	73.5%	5.0%	5.2%	9.1%	5.8%
<b>Gross Profit:</b>															
Domain Name Services	11.2	11.1	12.0	15.2	11.2	12.3	12.7	13.2	31.9	33.8	44.5	49.5	49.4	50.4	51.4
growth y/y %	-3.0%	-25.8%	-16.2%	8.7%	-0.1%	10.9%	6.3%	-13.2%	-99.9%	6.0%	31.7%	11.2%	-0.1%	2.0%	2.0%
% Margin	15.5%	19.6%	20.4%	25.0%	20.1%	21.3%	21.3%	21.3%	28.8%	29.1%	18.5%	19.9%	21.0%	21.0%	21.0%
Ting Mobile	10.6	10.4	11.1	11.1	10.1	11.1	11.1	11.1	25.7	34.2	38.6	43.3	43.4	44.2	45.1
growth y/y %	26.3%	7.8%	18.8%	0.0%	-5.1%	6.1%	-0.1%	0.2%	-99.8%	33.1%	12.7%	12.3%	0.2%	2.0%	2.0%
% Margin	48.5%	46.6%	49.4%	49.3%	48.4%	48.4%	48.4%	48.4%	43.7%	48.8%	46.0%	48.4%	48.4%	48.4%	48.4%
Ting Internet	0.8	0.6	1.2	1.4	1.4	1.5	3.1	3.6	1.7	1.6	1.5	4.0	9.6	28.8	42.4
growth y/y %	169.5%	400.0%	288.3%	119.5%	72.8%	152.0%	165.9%	152.4%	-6.7%	-10.7%	174.2%	140.4%	199.8%	47.6%	
% Margin	45.8%	31.9%	57.1%	61.6%	56.2%	16.5%	23.1%	25.7%	53.1%	44.6%	30.1%	50.0%	24.6%	43.8%	51.8%
Total Gross Profit	22.6	22.2	24.3	27.7	22.7	24.9	26.9	27.9	53.2	64.4	84.5	96.8	102.4	123.4	139.0
growth y/y %	11.7%	-10.6%	1.3%	7.8%	0.1%	12.5%	11.0%	0.7%	-99.9%	21.0%	31.2%	14.5%	5.8%	20.5%	12.6%
% Margin	23.6%	27.3%	29.2%	32.4%	28.7%	27.7%	28.0%	28.2%	30.8%	33.9%	25.7%	28.0%	28.1%	31.1%	33.1%
<b>Operating Expenses</b>															
	12.2	11.0	12.4	11.1	13.2	11.9	11.9	11.9	34.4	34.3	53.5	46.7	49.0	51.4	54.0
%	12.8%	13.5%	14.9%	13.0%	16.7%	13.2%	12.4%	12.0%	19.9%	18.1%	16.3%	13.5%	13.5%	13.0%	12.9%
growth y/y %	-12.9%	-24.0%	-14.9%	6.1%	8.0%	8.7%	-3.9%	7.4%	-99.9%	-0.4%	56.1%	-12.7%	4.9%	5.0%	5.0%
<b>Adjusted EBITDA</b>															
	10.4	11.2	11.9	16.6	9.4	13.0	15.0	16.0	18.8	30.1	41.2	50.1	53.0	72.0	85.0
% Margin	10.8%	13.8%	14.3%	19.4%	11.9%	14.4%	15.6%	16.2%	10.9%	15.9%	12.5%	14.5%	14.6%	18.1%	20.2%
growth y/y %	67.5%	8.2%	26.6%	8.9%	-9.1%	16.2%	26.5%	-3.8%	-99.9%	60.1%	36.7%	21.6%	5.9%	35.8%	18.1%
<b>EPS (GAAP, fully diluted)</b>															
	\$0.35	\$0.33	\$0.50	\$0.41	\$0.26	\$0.46	\$0.58	\$0.64	\$1.00	\$1.50	\$1.52	\$1.59	\$1.94	\$2.95	\$3.68
growth y/y %	52.2%	-32.7%	56.3%	-16.3%	-25.7%	39.4%	16.0%	56.1%	85.2%	50.0%	1.3%	4.6%	22.0%	52.1%	24.7%
Note:															
Cap-Iq estimates used for FY19 quarters and FY20 & FY21 for total revenues and adj. EBITDA															
Q4-FY17 EPS excludes \$0.55/share gain from tax cuts.															
Assumptions:															
Cap-Iq estimates for total revenues, adj. EBITDA and EPS.															
Future growth from Domains & Ting mobile of 2%.															
Gross margins for Domains & Ting Mobile and operating expenses at ttm average.															

Additionally, our model shows that the acceleration in Ting Internet is expected to continue into both FY20 and FY21, with revenues and profitability for both in FY21 expected to jump about 10x from the FY18 results. Not only is this growth unrealistic on the surface, it is not consistent with the capital requirements and potential revenue contribution of the business. Specifically, even considering a 40% penetration rate (which we think is completely unrealistic as it is currently running under 25%) on its 102,800 potential serviceable addresses (which will not be completed by FY21), and using the current monthly revenue per sub of \$110, we get annual



revenue of about \$55 million. This number needs to be further adjusted for average subscribers in a year, which reduces the above unrealistic FY21 revenue potential to only about \$45 million. As our model shows, assuming a 2% revenue CAGR in the FY19-FY21 period for the Domains and Ting Mobile businesses (whose revenues have been actually declining, not growing), the revenue contribution from the Ting Internet business (given the “consensus” FY21 revenue forecast of \$442 million) would need to be \$82 million. This is well above the unrealistic-scenario revenue contribution from full deployment of the network.

### **Our Base Case Model Shows EBITDA & EPS Stalling Out At Roughly Current Levels and Significantly Below “Consensus” Forecasts**

We believe the significant shortfall in recently reported Q1 revenue and profitability represent a significant turning point in the company’s financials. Reported revenue was 5% below CapIQ consensus forecasts, while EPS was 17% below expectations. Moreover, both of TCX’s legacy businesses, Domains and Ting Mobile, reported disappointing results, including significant revenue and profit declines. Revenue in the Domains business declined 23% y/y and 8% q/q. This is the most significant revenue decline we have seen in this segment. Additionally, Ting Mobile has also now recorded two consecutive 5% q/q declines in the most recent two quarters. In the Ting Internet business, while revenues grew q/q, the y/y growth rate moderated and, more importantly, a decline in margins resulted in a q/q drop in profitability. These factors resulted in a 9% y/y decline in adjusted EBITDA and lower EPS on a y/y basis.

Our base case model assumes that both the Domains and Ting Mobile businesses will show about flat growth from current levels in the FY19-FY21 period while Ting Internet will show revenue growth of roughly 40% in FY19, which moderates to ~25% in FY21. Our model assumes penetration levels will remain at ~25% with cash flows from the mature Domains and Ting Mobile divisions providing the capital to support this growth. Should these two segments enter a negative growth phase, TCX may have to slow the expansion of Ting Internet. On balance we see the growth from Ting Internet offsetting the flat growth from the two older legacy operations, resulting in adjusted EBITDA remaining close to the roughly \$50 million annual run rate and adjusted EPS in the \$1.60-\$1.75 annual range. The company’s revenue and EBITDA shortfalls relative to consensus estimates will become even more pronounced in 2020 and 2021, given that we have Tucows’ revenue and EBITDA flat in those years.

Tucows would have to resort to a large acquisition to avoid these looming misses, but this is increasingly unlikely as the company’s debt levels rise and its fiber business soaks up all of the free cash flow.



## Our Base Case FY19-FY21 Adjusted EBITDA and EPS Model

Our Base Case FY19-FY21 Adj. EBITDA & EPS Model															
	Quarterly Results								Yearly Results						
	Reported Results				Using Cap-Iq Estimates				Reported Results				Using Cap-Iq Estimates		
	Q1-FY18	Q2-FY18	Q3-FY18	Q4-FY18	Q1-FY19	Q2-FY19	Q3-FY19	Q4-FY19	2015	2016	2017	2018	2019E	2020E	2021E
<b>Revenues:</b>															
Domain Name Services	72.2	56.8	58.5	60.8	55.7	55.9	56.2	58.3	110.8	116.0	240.7	248.7	226.1	226.1	226.1
growth y/y %	43.0%	-9.5%	-5.7%	-6.8%	-22.8%	-1.5%	-4.0%	-4.0%	-99.9%	4.8%	107.4%	3.3%	-9.1%	0.0%	0.0%
Ting Mobile	21.9	22.4	22.5	22.5	20.8	21.3	21.4	21.4	58.9	70.1	83.9	89.3	84.9	84.9	84.9
growth y/y %	21.8%	10.0%	3.7%	-5.4%	-4.9%	-5.0%	-5.0%	-5.0%	-99.8%	19.1%	19.6%	6.5%	-5.0%	0.0%	0.0%
Ting Internet	1.7	1.9	2.0	2.3	2.4	2.6	2.9	3.3	3.3	3.7	4.8	8.0	11.2	15.0	18.5
growth y/y %	52.5%	74.3%	63.4%	45.9%	40.7%	37.2%	42.6%	42.2%		11.0%	32.2%	65.4%	40.8%	33.4%	23.3%
Total Revenue	95.8	81.1	83.1	85.6	79.0	90.0	96.0	99.0	172.9	189.8	329.4	346.0	322.3	326.0	329.5
growth y/y %	37.7%	-3.7%	-2.3%	-5.5%	-17.6%	11.0%	15.6%	15.6%	-99.9%	9.8%	73.5%	5.0%	-6.9%	1.2%	1.1%
<b>Gross Profit:</b>															
Domain Name Services	11.2	11.1	12.0	15.2	11.2	11.9	12.0	12.4	31.9	33.8	44.5	49.5	47.5	47.5	47.5
growth y/y %	-3.0%	-25.8%	-16.2%	8.7%	-0.1%	7.1%	0.0%	-18.3%	-99.9%	6.0%	31.7%	11.2%	-4.0%	0.0%	0.0%
% Margin	15.5%	19.6%	20.4%	25.0%	20.1%	21.3%	21.3%	21.3%	28.8%	29.1%	18.5%	19.9%	21.0%	21.0%	21.0%
Ting Mobile	10.6	10.4	11.1	11.1	10.1	10.3	10.4	10.4	25.7	34.2	38.6	43.3	41.1	41.1	41.1
growth y/y %	26.3%	7.8%	18.8%	0.0%	-5.1%	-1.2%	-7.0%	-6.7%	-99.8%	33.1%	12.7%	12.3%	-5.0%	0.0%	0.0%
% Margin	48.5%	46.6%	49.4%	49.3%	48.4%	48.4%	48.4%	48.4%	43.7%	48.8%	46.0%	48.4%	48.4%	48.4%	48.4%
Ting Internet	0.8	0.6	1.2	1.4	1.4	1.5	1.6	1.7	1.7	1.6	1.5	4.0	6.2	8.6	10.9
growth y/y %	169.5%	400.0%	288.3%	119.5%	72.8%	147.9%	37.8%	19.0%		-6.7%	-10.7%	174.2%	54.7%	38.5%	27.0%
% Margin	45.8%	31.9%	57.1%	61.6%	56.2%	57.7%	55.2%	51.5%	53.1%	44.6%	30.1%	50.0%	54.9%	57.0%	59.0%
Total Gross Profit	22.6	22.2	24.3	27.7	22.7	23.7	23.9	24.5	53.2	64.4	84.5	96.8	94.8	97.1	99.5
growth y/y %	11.7%	-10.6%	1.3%	7.8%	0.1%	7.0%	-1.4%	-11.7%	-99.9%	21.0%	31.2%	14.5%	-2.1%	2.5%	2.4%
% Margin	23.6%	27.3%	29.2%	32.4%	28.7%	26.4%	24.9%	24.7%	30.8%	33.9%	25.7%	28.0%	29.4%	29.8%	30.2%
<b>Operating Expenses</b>	12.2	11.0	12.4	11.1	13.2	11.9	11.9	11.9	32.3	34.3	53.5	46.7	49.0	49.5	49.5
%	12.8%	13.5%	14.9%	13.0%	16.7%	13.2%	12.4%	12.0%	18.7%	18.1%	16.3%	13.5%	15.2%	15.2%	15.0%
growth y/y %	-12.9%	-24.0%	-14.9%	6.1%	8.0%	8.7%	-3.9%	7.4%	-99.9%	6.2%	56.1%	-12.7%	4.9%	5.0%	5.0%
<b>Adjusted EBITDA</b>	10.4	11.2	11.9	16.6	9.4	11.8	12.0	12.6	20.9	30.1	41.2	50.1	45.8	47.6	50.0
% Margin	10.8%	13.8%	14.3%	19.4%	11.9%	13.1%	12.5%	12.7%	12.1%	15.9%	12.5%	14.5%	14.2%	14.6%	15.2%
growth y/y %	67.5%	8.2%	26.6%	8.9%	-9.1%	5.4%	1.2%	-24.5%	-99.9%	43.8%	36.7%	21.6%	-8.5%	4.1%	5.0%
<b>EPS (GAAP, fully diluted)</b>	\$0.35	\$0.33	\$0.50	\$0.41	\$0.26	\$0.46	\$0.58	\$0.64	\$1.00	\$1.50	\$1.52	\$1.59	\$1.94	\$2.95	\$3.68
growth y/y %	52.2%	-32.7%	56.3%	-16.3%	-25.7%	39.4%	16.0%	56.1%	85.2%	50.0%	1.3%	4.6%	22.0%	52.1%	24.7%
D&A	(3.6)	(4.9)	(3.7)	(2.7)	(4.7)	(4.0)	(4.0)	(4.0)	(1.7)	(2.8)	(12.1)	(15.0)	(16.7)	(17.5)	(18.5)
Net Interest	(0.9)	(1.0)	(0.9)	(0.9)	(1.0)	(1.0)	(1.0)	(1.0)	(0.2)	(0.5)	(3.6)	(3.7)	(4.0)	(4.0)	(4.0)
EBT	5.9	5.3	7.2	13.0	3.7	6.8	7.0	7.6	19.1	26.9	25.5	31.4	25.1	26.1	27.5
Taxes @ 31%	1.2	1.2	1.4	5.2	1.1	2.1	2.2	2.3	6.6	9.0	1.7	9.0	7.7	8.1	8.5
Net Income	4.7	4.1	5.8	7.7	2.6	4.7	4.8	5.2	12.6	17.9	23.7	22.4	17.3	18.0	19.0
Shares Out. (fd)	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.7	10.8	10.8	10.8	10.8	10.8
<b>EPS</b>	\$0.44	\$0.38	\$0.54	\$0.72	\$0.24	\$0.43	\$0.45	\$0.48	\$1.16	\$1.67	\$2.20	\$2.07	\$1.60	\$1.66	\$1.75
growth y/y %						14.8%	-17.5%	-33.0%	115.4%	43.3%	31.9%	-5.7%	-22.8%	4.0%	5.2%
Cap-Iq Consensus EPS						\$0.46	\$0.58	\$0.64					\$1.94	\$2.95	\$3.68

## Our Price Target Is \$25-\$30/Share, Or Less Than Half the Current Share Price

Whether we look at Tucows on a sum-of-the-parts basis or using a P/E multiple, we come to a much lower valuation than current trading levels.

### P/E Basis

As the company's new profitability/EPS growth dynamics become understood in the market, we believe the valuation multiple of TCX shares will significantly contract. Giving credit to the optimism regarding Ting Internet, a reasonable P/E for the combined businesses would be slightly below a market multiple, or roughly 15x-18x EPS. On that basis, given the roughly \$1.75/share in EPS power of the combined company over the next few years, shares should trade at approximately \$25-\$30/share, or less than half of the current share price.

### Sum-of-the-Parts Analysis

Our sum of the parts analysis, which we show at the top of this section, yields a similar result. If we assume Domains and Ting Mobile combined generate \$42m of EBITDA (assuming Ting Internet generates \$2 million), at a generous 7x EBITDA that would result in \$294m in value. Our 7x EBITDA multiple can be substantiated using the comp from Tucows' acquisition of eNom at 6x, and other comparable companies' valuations of 6-7x EBITDA. Giving the Fiber business a value of \$93 million, and subtracting the net debt of \$93 million, we arrive at a valuation of \$27/share. On a P/E basis for valuing the Domains and Ting Mobile businesses, we use a 10x earnings valuation multiple. That yields a valuation of \$27, in line with other methods.

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