SOULOR

ADT: Leading Market Share, Balance Sheet Flexibility, High Float With Powerful Structural Dynamics To Drive Growth

- ADT is the market leader with best in class footprint in a large, fragmented, potentially underpenetrated and growing industry. North American Security Alarm Industry has grown at a 6% CAGR (1996 – 2009) and the North American Monitoring & Service market has grown at an 8% CAGR (2000 – 2013). The top 5 North American Security Alarm Companies have a 40% market share and the other 60% is serviced by over 9,000 providers.

- Strong trends driven by Insurance and Regulatory bodies should continue to support the use of alarms. In addition, current North American Alarm penetration is below 20% and is expected to grow.

- ADT Corporation is the 141 year old market leader in electronic security, interactive home and business automation and related monitoring services for residential and small business customers in the US and Canada. TYCO acquired ADT in 1997, acquired Broadview (the 2nd largest player in the North American Security sector) in 2010 and subsequently spun-out the North American residential and small business operations in 2012. Nearly 90% of ADT revenues are recurring and total revenue CAGR for the last 7 years is 7%. ADT 7 year EBIT CAGR is 8%. ADT has maintained an approximate 25% market share of the North American residential security sector for the last 8 years while the second and third leading players have each held between 3% and 4% market shares respectively. In addition, ADT is also the market leader in the small business security market with a 13% market share of the 50% penetrated market.

- ADT trading at a 7.5% cash EPS yield with between 6% and 12% EPS growth per year over the next 3 years. ADT generates consistent, stable and growing operating profit. In May 2015, ADT announced it expects to generate nearly $2bn in free cash flow (37% of the current market cap) between 2016 and 2018 (3 years) from a combination of (1) Free Cash Flow of $800mm to $900mm; (2) Incremental debt capacity (Gross Debt / EBITDA) from increase in EBITDA of $800mm to $1bn, and incremental debt capacity from increasing the Gross Debt / EBITDA from 2.9x to 3.0x. At the current Cash PE of 13.3x or a 7.5% yield the 37% free cash flow yield over the next 3 years should provide a significant margin of safety.

July 23, 2015

ADT (ADT:NYSE)
PRICE TARGET: $40
CONSIDERATION: BUY BELOW $33

Market Information

Share Price $	$32.62
52 Week High	$42.61
52 Week Low	$30.51
3M Avg Vol. $mm	$36.25
Mkt Cap $bn	$5.3
Firm Value $bn	$10.5

Financials ($mm)	2012	2013	2014
Revenue	3,228	3,309	3,408
EBIT	722	735	659
% Margin	22.4%	22.2%	19.3%
% Growth	4.2%	1.8%	(10.3%)
Net Income	394	421	304
% Margin	12.2%	12.7%	8.9%
% Growth	4.8%	6.9%	(27.8%)
EPS	1.67	1.88	1.66
% Growth	4.8%	12.6%	(11.6%)
Div. Per Share	0.00	0.50	0.73
Net Debt / (Cash)	2,293	3,238	5,034
Net Debt / EBITDA	1.4x	1.9x	2.8x
ROE	7.6%	8.9%	8.2%
ROIC	5.5%	5.5%	3.8%
5 Yr Avg ROIC			4.9%

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ADT Corporation Overview

ADT Corporation ("ADT" / NYSE:ADT), is the 141 year old market leader in electronic security, interactive home and business automation and related monitoring services for residential and small business customers in the US and Canada. TYCO acquired ADT in 1997, acquired Broadview (the 2nd largest player in the North American Security sector) in 2010 and subsequently spun-out the North American residential and small business operations in 2012. TYCO sold its flow control business and currently continues as a global commercial fire and security business. Nearly 90% of ADT revenues are recurring and total revenue CAGR for the last 7 years is 7%. ADT 7 year EBIT CAGR is 8%. The North American Security Alarm and the North American Monitoring and Service industry as measured by industry experts Frost & Sullivan and Barnes Associates have grown by approximately 6% and 8% respectively over the last 20 years while market penetration has held between 15% and 20%. ADT has maintained an approximate 25% market share of the North American residential security sector for the last 8 years while the second and third leading players have each held between 3% and 4% market shares respectively. In addition, ADT is also the market leader in the small business security market with a 13% market share of the 50% penetrated market.

Investment Case: Buy Below $33 per share

ADT is the market leader with best in class footprint in a large, fragmented, potentially underpenetrated and growing industry trading at a 7.5% cash EPS yield with between 6% and 12% EPS growth per year over the next 3 years. ADT generates consistent, stable and growing operating profit. In May 2015, ADT announced it expects to generate nearly $2bn in free cash flow (37% of the current market cap) between 2016 and 2018 (3 years) from a combination of (1) Free Cash Flow of $800mm to $900mm; (2) Incremental debt capacity (Gross Debt / EBITDA) from increase in EBITDA of $800mm to $1bn, and incremental debt capacity from increasing the Gross Debt / EBITDA from 2.9x to 3.0x. At the current Cash PE of 13.3x or a 7.5% yield the 37% free cash flow yield over the next 3 years should provide a significant margin of safety.

The following key performance indicators ultimately drive the business:

1) Recurring Monthly Revenue (RMR) Creation Multiple: The cost to acquire recurring monthly revenue (i.e. the cost to acquire customers) where the numerator is the total spend by the company to acquire RMR and the denominator is the RMR acquired. The Company can decide how much to pay for new revenue and the RMR is driven by increasing or decreasing the monthly cost of the contract to the customer (Revenue per User). The lower the creation multiple, the better the returns on customer acquisitions. Industry research highlights that between 2000 and 2011, internally generated (i.e. organic non M&A or non-dealer) RMR multiples stayed within a tight range of 27x to 30x, while the multiples increase to 35x to 40x for acquiring between 50k and 100k customers and 36x to 45x for anything over 100k customers (M&A).

   Since 2010, M&A RMR Creation multiples have averaged 49x (i.e. the cost for an investor to acquire a pool of recurring monthly revenue or customers). ADT has noted a minimum M&A IRR hurdle of 12%. Trading at 37.9x RMR Creation multiple, ADT share buybacks are a better use of capital then customer acquisitions. ADT has spent over $2.8bn on share repurchases in the last 3 years at a blended average share repurchase price of $40.69 and recently authorized a new $1bn of share buybacks. In addition, share buybacks at $40.69 would imply that ADT management and Board believe the ADT share price should generate a greater than 12% IRR per year. In FY 2013 (Sept Year End) ADT spent $1.3bn on share repurchases at an average buyback price of $45.78. As of July 2015, based on a 12% IRR, the ADT share price should be $57.43.

   One of the key differences between ADT and its competitor Ascent Capital (NYSE: ASCMA – owner of Monitronics) is that ADT maintains its own internal salesforce while ASCMA only uses externally contracted

dealers. Customer acquisitions from an internal salesforce are cheaper, but part of the expense is expenses through the income statement whereas in the dealer network 100% of the expense is capitalized, and thus creates a significant difference in the Income Statement margin measurements as well as Income Statement based returns calculations. In addition, ASCMA has focused investors' attention on "Pre-SAC EBITDA" and its multiple as a valuation tool, which fundamentally ignores the costs associated with ASCMA maintaining its customer base (yearly attrition replacement) and growth investment. The security industry needs to replace approximately 12% to 13% of its customer base every year as a result of attrition.

2) Average Revenue per User (ARPU): Total Revenue for the year divided by the average customers. ADT defines the Revenue as the monthly recurring fees generated by contractually monthly recurring fees and other services to customers. ADT has grown ARPU by 3% per year for the last 5 years.

3) Attrition Rate: 12 month trailing customer cancellations divided by the average customer base. In other words, the rate at which customers cancel their service annually. The North American Security and Monitoring industry highlights there is significant customer attrition in years 4, 5 and 6 after the initial 3 year contract term expires. Industry research highlights that between 2000 and 2011, the average industry attrition rate was 12.1% with a peak of 12.6% and a trough of 11.8%. A majority of attrition results from customers moving homes, with financial circumstances the next biggest driver, and service issues being the least important factor. Customers are happy with their security systems and monitoring services once they acquire the services. The industry primarily amortizes the subscriber acquisition costs. There is some difference in amortization of expenses between operators who use external dealers to generate new customers (ASCMA – i.e. no fixed cost base for dealers) and those who have a direct salesforce (fixed costs and partly expensed through the income statement) to acquire customers. ADT has its own salesforce but also uses dealers. Vivint primarily uses its own salesforce and ASCMA only uses external dealers.

Since 2007, ADT's subscriber base has increased by approximately 6.8% per year while the ARPU has increased by 1.4% per year driving total revenue increase of approximately 7.1% per year during that span. The EBIT margin during that timeframe ranged from 18.9% in 2007 increasingly almost yearly to 22.4% in 2012 and falling to 19.3% in 2014 as separation expenses and 2g to 3g radio conversions increased operating expenses. The EBIT CAGR during the timeframe was 7.5%.

In 2010 / 2011, ADT launched "Pulse" interactive home and business solution which is an integrated security, smoke, heat, carbon monoxide and flood monitoring system which can be monitored and activated remotely. There is also an option to include Thermostats, locks, lights, garage doors, and video. Pulse is currently used by 19% (1.2mm customers) of the ADT subscriber base and generates ARPU (reported $56 per month) that is nearly 20% higher than non-pulse ARPU customers (note that ASCMA had 1.05mm customers in total at the end of 2014). Pulse also reduces attrition rates significantly in the first 3 years (ADT reports Pulse attrition in the first 3 years is 40% lower than non-Pulse customers) and thereafter. ADT estimates the NPV of a Pulse customer is 15% to 20% greater than a non-Pulse customer.

The increase in the Pulse penetration is a key driver of value for ADT. In Q1 2011, only 3% of new customers installed Pulse. In Q1 2012, 7% of new customers, installed pulse. In Q1 2013, 19% of new customers installed Pulse. In Q1 2014, 37% of new customers installed pulse and ADT disclosed that 10% of total customers were on Pulse. In Q1 2015 53% of new customers installed Pulse and ADT disclosed that 19% of total customers were on Pulse. During that time frame, the consolidated ADT ARPU increased by an annual CAGR of 3.6% while the "New Customer" ARPU increased by an annual CAGR of 5.1%. Historically, the longer term ADT ARPU CAGR is closer to

3%. Simultaneously, while Pulse has a higher cost to serve, the post-SAC EBITDA margin has stayed constant between 54% and 58% other than the last two quarters (where it fell to 52% for other reasons).

The increasing penetration of Pulse should continue to drive a faster growth in ARPU with a potentially slightly lower margin. When considering the penetration of Pulse in the future, one could look at mobile phones. How many mobile subscribers use a mobile phone which does not have email or internet capability? Very few. In addition, the evolution from non-internet phones to full internet plus phones was very rapid. In addition, given the high FICO scores of more than the average ADT customer base (over 715) and given the customers are households which have assets to protect for which they need security, it's very likely the Pulse pick-up rate will occur at least as rapidly as the internet mobile phone evolution.

Assumptions:

1) Only 50% of ADT customer have Pulse within 4 years;

2) Pulse and Non-Pulse ARPU each only grow at 2.4% per year (below the historical average); and

3) Near historical average churn rates for both Pulse and non-Pulse subscribers (despite what ADT says about reduced Pulse attrition over first 3 years)

The above assumptions would lead to 4 year revenue and pre-SAC EBITDA CAGRs of 7.1% and 5.7% respectively. Under this scenario, only 66% of the ADT customer base would have Pulse at the end of 7 years. The increasing SAC expense will lead to EBIT growth which is slightly lower than the EBITDA growth while investing capital to reduce share count would in turn increase the EPS growth rate. Based on the conservative Pulse penetration assumption, an investment in ADT today would yield 7.5% (entry) and 6% growth (based on Pre-SAC EBITDA whereas EPS should grow faster as shares are repurchased and leverage stays constant at 3x despite increasing EBITDA).

In October 2014, several of the non-compete contracts with Tyco in the Small business security (>7,500 sq feet), fire monitoring and Mid-Size commercial business expired adding a new + $14bn market (Mid-Market Security and Fire expected to earn 20% to 25% IRRs) which ADT can begin to tap into. In addition, the expiration of the non-compete opens the Small Business Light Fire and Security sector > 7,500 sq feet which represents an additional $8bn market. ADT provides market research that notes the Small business sector is only 50% penetrated and that ADT is the number one operator in the section with nearly 12.5% market share. There are no estimates for the mid-market sector penetration. The ADT team, formerly of Tyco has experience in these sectors. These sectors generate significant returns (between 12% and 25% returns according to ADT). The locations are closer together in more populated areas. The customers are more likely to be stores of larger corporate entities who manage their payments better. The customers are more likely to take the best in class most automated security option. ADT provided market research and its own estimates that the new markets should grow at a 5% to 8% annual growth rate with IRRs between 12% and 25%. ADT currently has approximately 442,619 business customers with the latest RMR growth reported of 9% and Pulse take-up rate of 49.4%.

ADT (and several others industry players) is also entering the personal health sector by providing security / monitoring services which can monitor if someone is ok. ADT highlights several trends that should drive the market: (1) Aging population; (2) Affordable care act; (3) rising cost of care; (4) insurance reimbursements; and (5) shortage of healthcare professionals. ADT highlights several advantages to PERS: (1) enable users to be in a safe and secure environment (in turn reduce the need for a caregiver or a retirement home); (2) connect individuals to their families and healthcare providers; (3) monitoring; and, (4) extension of the healthcare ecosystem. Frost and

Sullivan estimate the current PERS market at $1.3bn growing at a 10% CAGR through 2017. The segment is nascent for ADT and with limited barriers to entry there may be significant competition.

In May 2015, ADT held an Investor day and provided a lengthy +100 page investor presentation. During the presentation, ADT announced 2 new partnerships: (1) LG Electronics – "Smart Security" (Do It Yourself home security); and, (2) Google Nest – smart thermostat and smoke detector business.

The DIY security sector received some publicity recently when Ascent (Monitronics) announced the acquisition of LiveWatch in March 2015. The transaction is interesting given Ascent paid a 73.8x Recurring Monthly Revenue multiple, the highest such multiple in the sector in the last 5 years, for only 32,000 subscribers and $908,000 of recurring monthly revenue. According to industry experts Barnes, 1995 to 2010 RMR multiples for over $500,000 of RMR ranged from 28.9x to 67.5x with an average of 44x. The 67.5x multiple was in 1997 and the next highest multiple was 50.8x in 2007. Ascent paid nearly double the historical average for the specific comparison range. It's likely Ascent paid such a high multiple with the assumption that the DIY market is potentially growing significantly faster than the rest of the market with attractive margins and IRRs. On the other hand, the sector is likely the least valuable sector of the security market given the DIY nature, so it's interesting to such a high multiple. The ADT / LG partnership highlights the value of ADT's direct salesforce. ADT has over 4,000 salespeople in addition to outside dealers which sell ADT products whereas Ascent only uses outside dealers. It would likely have been significantly more difficult for LG to partner with Ascent given Ascent has no internal dealers. In addition, ADT has full North American scale with several monitoring centers, giving it an advantage to the smaller regional operators.

In January 2014, Google acquired "Nest" for $3.2bn at a reported 10x revenue multiple. After what appears to have been an unsuccessful 18 months, Google Nest entered into a partnership with ADT whereby Nest's wifi-connected thermostats and smoke alarms will connect with ADT's Pulse platform, its mobile security and management system. It will also connect with ADT's massive call center infrastructure. ADT provides Nest with complete North American footprint, 4,000 salespeople, relationships with fire departments and other emergency systems. In addition, ADT provides Nest with a significant number of customers who do not have wi-fi thermostats or smoke detectors. Ultimately, ADT did not have to acquire Nest to reap the advantages as a result of its customer base, scale and salesforce.

In regards to the Nest partnership, ADT noted the partnership is an "example of ADTs continued desire to open its ecosystem, paving the way for future opportunities" and that its Pulse platform is now on a new "open-standards-based framework for the secure connected world". With over 6.6mm customers, ADT is at the forefront of the security and monitoring sector with significant opportunities to attract new services from various providers. ADT has valuable direct access to customers and their home and as such can play a role in the evolution of home technology.

What is the street saying and why is it wrong

After attracting a significant amount of attention from Corvex (which took a significant stake in ADT in 2012 and very shortly thereafter sold its stake to ADT directly, and ahead of negative results), ADT has not received much attention from the press or Wall Street. It is the only publicly traded pure-play with scale in the industry. Ascent is the only other publicly traded peer, but with only $3mm of volume traded per day receives no coverage. The two other large providers Protection One and Vivint are both Private and were both recently acquired by new Private Equity owners.

Pulse is not as good as it seems: Pulse attrition rate could be higher than current consolidated ADT attrition rates (i.e. upwards of 15%). A Wall Street Survey shows that interactive customers are more likely to switch providers or churn. The attrition combined with the significant costs to acquire Pulse customers, could yield Pulse returns that are substantially below current returns and market expectations.

It's possible that there are limited barriers to entry in security, thermostat and monitoring industry sector as demonstrated by the rapid evolution of Nest and Vivint. Pulse represents technological evolution and as such ADT could be subject to technological obsolesce risk and intense competition. Difficult to measure the returns on Pulse at this stage, however, Pulse is driving a clear increase in ARPU and attracting potential competitors into partnership with ADT thereby further driving ADT's leadership role in the sector.

Competition of Telecoms / Cable Companies: The Telecom / Cable threat has long been touted and at this stage several of the operators have been operating a service for more than 2 years. ADT has not seen significant reduction in its KPIs as a result of the potential new entrants.

ADT has a long track record of success and is recognized as a brand leader in the space highlighted by the fact it's held its significant market share advantage over a decade. As a result of its best in class services and large subscriber base, ADT recently **attracted** partnerships with LG and Nest (Google). A large customer base and significant know how should continue to help ADT attract potential competitors and further enhance the ADT product. There's also comfort in watching Apollo and Blackstone pay 50x and 58x to acquire the #3 and #4 operators who have significantly less scale and history than ADT.

ADT is expensive at $35 per share due to weak Free Cash Flow generation: Despite the uptick in Pulse customers, free cash flow continues to flounder. During the 2015 Investor day, ADT predicted an 11% FCF CAGR with total FCF generated over 3 years of $800mm to $900mm. Assuming nearly $350mm of FCF in 2018 implies 15x FCF multiple or 6.6% yield (more than 3 years away). In addition, neither LG nor Nest partnerships will provide meaningful free cash flow in the next 3 years.

The free cash flow generation presented at the 2015 Investor day potentially highlights the high cost of growth which ADT faces today without the certainty of high rate of return on the investment. However, valuing the current ADT subscriber base and assuming no investment in new customers would yield over $40 per share ($42.45 to $44.84). Any growth or margin stabilization at ADT should drive significant value creation.

The partnerships with LG and Nest are more important in that each chose ADT as a partner rather than going it alone. Google spent over $3bn less than 18 months ago to acquire Nest. ADT could have acquired Nest but chose not to. By not acquiring Nest, ADT saved $3bn of cash and today gets a good portion of the benefits of running the product. Ascent recently acquired LiveWatch, a DIY alarm company, similar to the LG product, for over 70x RMR. ADT could have purchased LiveWatch and would have had to spend over 70x RMR. However, as a result of its large internal salesforce (something Ascent does not have), ADT attracted LG as a partner and today will share in the benefits of the DIY market without having had to make significant investments. ADT's scale is turning it into the home ecosystem of choice attracting other potential competitors into partnerships.

ADT expensive relative to Telecoms / Cable Companies: ADT trades at a premium to the Telecoms and Cable Companies given: (1) under-penetration of market creating substantial opportunities for growth; (2) growth of underlying market; (3) market dominance (25% of market); and (4) strong historical operational track record. In addition, ADT has approximately $4bn of NOLs which are also oftentimes ignored.

Estimate of Intrinsic Value: $30.13 to $41.09 which implies a (8%) downside and 26% upside

ADT generates over 90% of revenues and EBITDA on a recurring basis with initial customer contracts of 3 years and total amortization of the customer over 15 years although approximately 50% amortized by year 6. As a result, the business could be thought about in terms of bond math with a yield (entry price) plus annual growth. At the current price, the cash earnings yield is 7.5% and the long term historical EBIT CAGR of ADT has been 8% (on the low end relative to peers) implying a 15.5% return. ADT guides to 11% FCF growth per year over the next 3 years which should be achievable purely as a result of Pulse take up rates from the existing customer base (i.e. excluding new customers). **Current yield plus growth over the next 3 years should imply an ADT share price $44.61 to $49.61.**

Assuming ADT were to use $1bn from generated FCF to repurchase shares (On July 17, 2015 ADT announced a new $1bn share repurchase program) instead of repaying debt between 2016 and 2018 EPS would increase by $0.09 / $0.19 / $0.33 / $0.32 in 2016 / 2017 / 2018 / 2019 respectively. At the current 13.3x cash earnings multiple, that would imply **$4.25 of share price value creation** (we assume ADT repurchases shares at a 17x PE multiple or very conservative relative to the 13x multiple we use for value creation).

Simultaneously, growth in EBITDA would reduce the Debt / EBITDA to below the ADT targeted 3x ratio. Increasing the Debt / EBITDA ratio back to 3.0x in 2018 would provide an additional $1bn for share repurchases at a 17x multiple would generate **incremental value of $2.95 per share in 2018 or $3.97 per share in 2019**.

In addition, ADT has a 2.5% dividend yield. The share repurchase and dividend alone at constant multiples would imply an 8.5% to 10.5% return per year on ADT's current share price.

There have been a significant amount of M&A transactions in the security sector in the last 5 years providing numerous transaction multiple examples. The last 5 years transactions occurred at an average RMR multiple of 48.6x with a minimum / maximum range of 29.8x to 73.8x. Recent key transactions include:

1) In May 2015, Apollo (Private Equity) acquired Protection one for $1.5bn and ASG Security for $475mm at an estimated 50x RMR multiples (the multiples were not reported);

2) In 2010, Protection one was acquired by GTCR (Private Equity) for $828mm at a reported 33x RMR and 9.2x EBITDA. At the time, the fairness opinion noted an RMR multiple range of 28x to 42x;

3) In February 2015, Ascent acquired a small do it yourself security company for $67mm at 73.8x RMR;

4) In July 2013, ADT acquired Devcon residential security for $146m at 41x RMR;

5) In November 2012, Blackstone acquired Vivint (from another sponsor) for $2bn at 58.3x RMR and 12.9x EBITDA;

6) In 2010, ASCMA acquired Monitronics for $1.3bn at 51.2x and 8.2x EBITDA; and,

7) In 2010, ADT acquired Brinks home security for $2bn at 44.6x RMR multiple and 10.4x EBITDA.

Assuming a minimum transaction RMR multiple for ADT equivalent to that paid for Brinks in 2010 (despite the increase in recent years) of 44.6x would yield a **value of $44.07 per share**. Assuming the last 5 year average RMR multiple of 48.6x yields **$50.85 per share**. Assuming an RMR multiple of 51.2x equivalent to what Ascent paid for Monitronics yields **$55.32 per share**.

Assuming the 8.2x Pre-SAC EBITDA multiple Ascent paid for Monitronics and using the Post-SAC ADT EBITDA would yield **$51 per share** (excluding the SAC would drive the value per share up). Assuming the 10.4x Post-SAC EBITDA multiple ADT paid for Brinks would yield **$73.34 per share**. Assuming the average 10 year EBITDA transaction multiple in the sector of 11.7x yields **$86.48 per share**. Given it is highly unlikely ADT will be acquired (very likely too big for Private Equity and unlikely for a Telecom or Cable business to acquire a pure play security business) we attribute less than 10% weight to the transaction multiple methodology.

We run three different DCF Cases: (1) Bear; (2) Low; and (3) Base.

1) Bear Case (20% weighting): **Value range $14.02 to $23.41**
    a. 4.2% Revenue CAGR between 2014 and 2022 (below long term ADT historical CAGR of over 7%);
    b. Terminal growth rate of 3.5% to 4.5% (below historical long term ADT and industry averages);
    c. EBIT margin continues to fall in 2015 to 16%, reaches 17% in 2021 and 18% thereafter (Long term historical ADT EBIT margin of 20.6%);
    d. Capex as a % of sales from 37.5% falling to 36%. D&A consistently below Capex until terminal year where Capex and D&A are equal;
    e. GAAP tax rate of 35%
    f. WACC (hurdle rate) of 8.5%;

2) Low Case (40% weighting): **Value range $21.53 to $32.21**
    a. 4.6% Revenue CAGR between 2014 and 2022 (below long term historical CAGR);
    b. Terminal growth rate of 4.5% to 5.5% (below historical long term ADT and industry averages);
    c. EBIT margin continues to fall in 2015 to 17% and thereafter slowly rises eventually reaching 20.5% in 2019 and held constant thereafter (Long term historical ADT EBIT margin of 20.6%);
    d. Capex as a % of sales from 37% falling to 35%. D&A consistently below Capex until terminal year where Capex and D&A are equal;
    e. GAAP tax rate of 35%
    f. WACC (hurdle rate) of 9.0%;

3) Base Case (20% weighting): **Value range $24.76 to $36.27**
    a. 5.2% Revenue CAGR between 2014 and 2022 (below long term historical CAGR);
    b. Terminal growth rate of 4.5% to 5.5% (below historical long term ADT and industry averages);
    c. EBIT margin continues to fall in 2015 to 17% and thereafter slowly rises eventually reaching 20.5% in 2019 and up to 22.5% in 2022 (above Long term historical ADT EBIT margin of 20.6%);
    d. Capex as a % of sales from 36.5% falling to 34.5%. D&A consistently below Capex until terminal year where Capex and D&A are equal;
    e. GAAP tax rate of 35%
    f. WACC (hurdle rate) of 9.5%;

In addition, we value the nearly **$4bn of tax loss carry forwards between $6.19 and $6.40 per share**. We assume that only 75% of the value is recovered for a total value of $4.65 to $4.80 which is added back to all DCF valuations. None of our DCF cases have the top line CAGR which ADT has historically achieved. Our Base case top line CAGR of 5.2% is significantly below the long term CAGR of over 7%. In addition, none of our DCF cases assume the ADT EBIT margin to go above the historical average until 2022 (near the terminal year). All of our cases assume a fall in 2015 and a slow stabilization thereafter with only our Base Case assuming a return to higher level margins over 7 years down the line.

Finally, we look at a basic security company customer attrition analysis (5% weighting to each terminal value and terminal RMR multiple methodologies which assumes:

1) 32.6x RMR Creation multiple;
2) Avg RMR growth of 5% per year;
3) Pre-SAC EBITDA margin of 65%;
4) Aggressive amortization of entry cost over 8 years with 75% expensed in first 3 years;
5) GAAP tax rate of 35%;
6) WACC of 9.5%; and,
7) Terminal growth of 4.5% to 5.5%

The terminal growth methodology yields a valuation of **$42.45 to $42.85 (excluding value of NOLs)**.

With the same operating assumptions but a terminal RMR multiple range of 36x to 37.9.x yields a value of approximately **$44.60 per share to $44.84 (excluding value of NOLs)**.

Sensitivity analysis around the initial investor RMR entry multiple, ADT RMR creation multiple, ADT attrition, and ADT RMR growth highlight that the investor RMR entry multiple is the biggest driver of value creation or destruction for an investor. At the current price, the investor purchase multiple is 37.9x which is significantly below the reported historical average, the peer comparable (ASCMA) and the recent peer transaction multiples. ADT has more Pulse customers (1.2mm) then ASCMA has total customers. Standard security company returns calculations highlight that the current entry multiple should yield at least long term yearly returns of 12.7%.

The blended weight valuation of the above mentioned methodologies yields a fair value range of $30.13 to $41.09 which implies a (8%) downside and 26% upside.

What could go wrong at ADT

Increasing competition: In the last 5 years, the three major competitors in the sector who each have approximately 3% to 4% market share were all acquired by Private Equity investors (Ascent is run very similarly to a PE with 4.5x net debt to Pre-SAC EBITDA). In addition, AT&T, Verizon, Charter and other telecom / cable companies started offering a security offering in the last 4 years highlighting potential additional competition. The increasing competition could drive increasing subscriber acquisition costs and higher attrition rates which would negatively impact margins and returns. Subscriber acquisition costs are the most important aspect of the security industry and ADT.

Pulse IRRs below expectations: Increasing competition and customer acquisition costs could significantly reduce the Pulse IRRs.

Lack of Returns clarity: A significant number of the security companies (including Vivint) published several presentations highlighting customer IRRs between 15% and 29%; however, long term corporate historical Returns on Assets, Equity and Invested Capital are all significantly below 15% and have declined significantly in recent years as SAC / creation multiples have increased. When ADT was a part of Tyco, Tyco published historical ROIC for the ADT business at approximately 8%. In May 2015, ADT presented a slide on customer returns highlighting it expects 28% returns on customers. The ADT historical cash ROIC has fluctuated between 8% and 11% a long way from a 28% return. The Ascent / Monitronics historical cash ROIC declined from 12.5% to 4.9% and the cash ROA declined from 7% to 4.6%.

Mis-representation of Customer Acquisition RMR Multiple: ADT, Ascent, and Vivint all report customer acquisition RMR multiples. ADT publishes a dealer RMR multiple of 30.6x compared to a direct salesperson RMR multiple of 31.9x. However, we calculated the RMR multiples for ADT and Ascent and obtained results that are at least 10% higher in ADT's reported numbers and 20% higher than ACMA's reported numbers.

Accounting gimmicks: Ascent / Monitronics operates a dealer model whereby it does not employ any dealers or salespeople but rather purchases accounts from external independent dealers who are exclusive. As a result, Ascent capitalizes a great majority of subscriber acquisition costs and significantly more of the customer acquisition costs than ADT. Ascent reports Pre-SAC EBITDA and attempts to focus investor attention on Pre-SAC EBITDA and RMR. In doing so, EPS / Free Cash Flow / Returns metrics (ROA, ROE, ROIC) are oftentimes ignored by the investor community. Moreover, the margins and returns metrics based on EBIT or Net Income are also inflated given the significant amount of capitalized expenses. The difference in capitalization policy can negatively impact the ADT perception and share price.

Accounting gimmicks - Steady State Free Cash Flow: ADT and Ascent provide a hypothetical "Steady State Free Cash Flow" metric based on a Pre-SAC EBITDA, "assumed required SAC to maintain recurring revenue" and maintenance capex. The SSFCF is nearly triple the real FCF in ADT's case. ASCMA reports a SSFC of approximately $180mm per year, however, Cash from operations less cash from investing has been negative for the last 3 years and over the last 4 years the cumulative number is ($700m). Moreover, the Ascent assumptions for the SSFCF calculations are not only aggressive but significantly different to the long term historical averages.

Balance sheet considerations: Nearly 75% of ADT assets relate to customer acquisition Goodwill and Intangibles (nearly 95% of ASCMA assets relate to customer acquisition Goodwill and Intangibles). Any deterioration in the attrition rates could lead to an impairment of the assets on the balance sheet.

Tax Considerations: ADT has $2.6bn and $1.4bn respectively of federal and state tax loss carryforwards which expire between 2022 and 2026 and which should imply a very low (i.e. 5%) tax rate for the next decade. The exact usage of the NOLs, however, is difficult to calculate.

Tax Considerations: ADT notes that the IRS has raised certain issues and proposed tax adjustments in regards to TYCO's separation of Covidien or TE Connectivity in 2007. The notices assert that $883m plus penalties of $154m are owed based on audits of 1997 through 2007 tax years. Tyco strongly disagrees with the IRS position and has filed petitions with the US tax courts. The amount ultimately assessed under the Tyco IRS notices and the partnership notices would have to be in excess of $1.85bn before ADT would be required to pay any of the amounts assessed.

Balance sheet considerations: ADT was spun-out of Tyco with approximately 2.0x Net Debt to EBITDA, significantly below Ascent / Monitronics which was levered at 4.5 Net Debt to Pre-Sac EBITDA. In addition, ADT was significantly under-levered relative to the Private Equity owned operators Protection One and Vivint. Shortly after the spin-off, activist shareholder Corvex took a significant stake in ADT pushing for significantly more leverage given the recurring nature of the operations to drive IRRs (increase debt to equity ratio and operate more like Private Equity). ADT now targets 3.0x Net Debt to EBITDA (Post-SAC) and has a blended total interest expense of only 4%. ADT's first debt repayment is in 2017 and represents $750mm. The second repayment is in 2019 at $500mm, followed by $300mm in 2020 and $1bn in each of 2021 and 2022. A significant increase in the cost of borrowing would negatively impact ADT.

Conversion from 2G to 3G: In 2012/2013, landline telecom providers announced that they would discontinue their 2G services in the future. Some of the older installed security systems use 2G technology which is not compatible with 3G or 4G technology. In 2013, ADT implemented a 3 year conversion program to replace 2G cellular technology at no additional cost to customers and began incurring costs in 2014. ADT reported an expense of $44mm in 2014 relating to the 2G conversion. In the first 6 months of 2015, ADT incurred $27mm related to the 2G conversion on the P&L (part of the expense was capitalized and ADT incurred nearly $41mm on the cash flow statement). As of March 2015, only approximately 800,000 customers had 2G accounts and ADT was exploring solutions to manage the conversion over a longer period of time for less capital.

Deteriorating operational metrics: Since the spin-off, several profitability ratios such as EBIT margin and cash ROIC have consistently deteriorated. The EBIT margin stayed in a tight range between 19.6% and 23.7% between Q4 2012 and Q4 2014, however subsequently in Q1 and Q2 2015 declined to 17.8% and 16.6%.

In Q2 2015 ADT highlighted the following incremental expenses driving the deterioration in the margin:

1) Incremental costs associated with acquisition of Protectron of $15mm
2) Increase in radio conversion costs of $13mm
3) Increase in Costs to serve (approximately $13mm) as a result of larger customer services expansion primarily related to a higher mix of ADT Pulse customers.
4) Incremental D&A related to Pulse of $13mm
5) Incremental D&A associated with acquisition of Protectron of $8mm
6) Incremental gross SAC of $13mm related to increased advertising costs

In Q1 2015 ADT highlighted

1) Increase in radio conversion costs of $20mm
2) Incremental costs associated with acquisition of Protectron of $15mm
3) Incremental D&A related to Pulse of $15mm
4) Incremental D&A associated with acquisition of Protectron of $10mm.

The Pulse incremental expenses of nearly $26mm in Q2 and $15mm in Q1 will likely be ongoing (the expense to drive the increasing ARPU). The costs related to the conversion of 2G should be shorter term (through 2016) and very likely lower going forward (ADT plans to make an announcement in Q4 regarding potential solutions to reduce the expense). Adding back the conversion costs would drive EBIT margin to 19%. The $30mm costs related to the Protectron acquisition (excluding the D&A associated with the acquisition) should be very near term in nature. Adding back the Protectron expenses would yield a 19% EBIT margin for H1 2015. Adding back both the Protectron and Radio conversion costs would imply an EBIT margin of nearly 21%.

Mis-alignment of Management Incentives and Performance: ADT management is not properly incentivized to create shareholder value. 81% of the CEO's exercisable stock options have an exercise price of less than $31.50 per share. Stock Option awards are awarded at the current share price and not a future share price (i.e. a share price which generates a minimum return over 3 years). In September 2013 (FY 2014), the CEO received nearly 76,000 options with an exercise price of $44.01 equivalent to the current price at the time. An additional 150,000 options at exercise price of $44.01 were awarded to management at the same time. In May 2014, one manager received 70,000 options at an exercise price of $31.33. Given ADT spent nearly $2.8bn on share repurchases in the last 3 years at an average blended buyback price of $40.09 and that ADT stated a M&A hurdle rate of 12% IRR, the minimum strike price for new options should be over $56 per share (i.e. a 12% return per year on the $40 blended buyback price over 3 years – the options vesting).

The 2014 proxy highlights that the Long Term Incentive Plan (LTIP) is designed to reward management for performance directly related to increasing stockholder value. The ADT CEO and other executive officers received 50% of their LITP value in the form of Performance shares whose vesting depends on total shareholder returns ("TSR") and Steady State Free Cash Flow (the illusion of free cash flow), 25% in the form of stock options and 25% in the form of RSUs. During FY 2014, ADT TSR was approximately (11%) compared to a 15% gain by the S&P 500 (the index used by ADT as a basis for comparison) and a 15% gain by the S&P 500 Industrials. In the proxy, there is a stock price chart comparing ADT, S&P 500, and S&P 500 Industrials total returns since the ADT spin highlighting ADT underperformed the S&P indices by 40% and 45%. Despite the significant underperformance, the Board of ADT states "The Compensation Committee believes that the annual incentives earned by the NEOs, in comparison to the performance of the Company's stock relative to the S&P 500 Industrial Index, reflect a proper alignment of pay and performance."

The annual incentive plan and the long term incentive plans are not based on fundamental shareholder returns criterial such as a Return on Invested Capital, Return on Equity, EBIT margin, Net Income margin, real cash flow (from the free cash flow statement and not a make believe completely alterable / manageable fictional steady state free cash flow). ADT operational incentives are based on:

1) EBITDA: No definition of Pre or Post (P&L) SAC EBITDA is given which is already one concern. However, EBITDA is clearly the wrong metric for a business which capitalizes a very large portion of its total expenses (SACs). The Post-SAC EBITDA margin is in the mid 50% while the EBIT margin is approximately 19% highlighting the enormous amount of D&A (which is significantly lower than Capex). As a result, the measure fails to capture the cost of growth.

2) Recurring Revenue: As with the EBITDA metric, Revenue takes no account of the cost to obtain growth. Very clearly, the cost of obtaining growth (RMR multiples) in the North American security sector is increasing. The current incentive could lead management to chase growth at value destructive returns.

3) Customer retention: As noted above, customer retention is not as important as profitable customer retention. Give all your customers free service and retention will decline while the business will ultimately go bankrupt.

Finally, the compensation committee's public company peer group does not include Ascent Capital (Monitronics) which is the only publicly traded North American Residential security company. Based on the above listed operational incentives, ADT would score significantly worst than Ascent, although ADT returns are significantly higher.

The ADT management incentives are all based on growth without any concept of the cost to achieve the growth. The options pricing are uncorrelated to the stated business IRR criteria. As a result, the management is not properly incentivized. In addition, the awarding of awards based on total shareholder returns when the business underperforms the peer group by over 25% is also a negative signal for investors. ADT management are in a comfortable position of "heads we win, tails you lose".

Competition: Ascent Capital (Monitronics)

Ascent Capital is a former Liberty Global Management team spun out of Liberty with Discovery and spun out of Discovery with media post production assets which were sold in 2010 / 2011. Ascent used the proceeds to acquire Monitronics. Ascent has a market cap of $537mm (share price of $40.37) and net debt of $1.5bn with Net Debt / Pre SAC EBITDA of 4.5x. Ascent has a dual class share structure whereby B shares have 10 votes while A shares have 1 vote. 3 month average trading volume is less than $3mm per day. Mr. Malone controls 17% of the vote while management controls another 12%. In October 2013, Ascent acquired 351,734 shares from Mr Malone at a price of $95 per share. Ascent has a 3% to 4% market share. The company's strategy is threefold:

1) Capitalization: Use lower cost of debt to minimize cost of capital;

2) Growth – Acquisitions: Leverage Monitronics platform with high quality bulk account purchases and strategic acquisitions;

3) Operations: Successful integration of acquisitions

Monitronics does not have its own direct salesforce. The entire salesforce is made up of external dealers and as a result Monitronics capitalizes all of the customer acquisition expenses inflating its EBITDA. The company focuses investor attention on 3 main metrics: (1) Recurring Monthly Revenue; (2) EBITDA (pre all customer acquisition expenses); and (3) Steady State Free Cash flow (fictional free cash flow measure).

The company has grown at nearly 21% Revenue CAGR and 20% EBIT CAGR for the last 16 years. However, during that time frame the margins and returns of the business have declined dramatically. During the last 12 years the EBIT margin fell from 25% to 17%. Since 2011, the Ascent EBIT has not covered the Net Interest expense in any single year. Since 2011, cumulative EBIT was $223mm and Net Interest expense was ($334mm) for a sum of ($111mm). Ascent's ROE and ROA (based on the Net Income) have been negative in every year for the simple fact that the Net Income has been negative in every single year.

A measurement of EBIT based ROIC shows a decline from 12.5% in 2004 to 4.9% in 2014. In addition, the cash from operations has been below the cash spent on investing for every year since 2008 (as far back as we could get information for and adjusted for changes in reporting year). The cumulative sum of the difference since 2008 between cash from operations and cash spent on investing is ($937mm).

In May 2015, Ascent held an investor day with a presentation that included several slides which could be compared to slides from the May 2012 Investor day. In the 2015 presentation, Ascent reports a Steady State Free Cash Flow (SSFCF) of $186mm per year which would imply a 37% yield today.

In the May 2015 Investor Presentation, Ascent reported a SSFCF based on

1) Total Last quarter RMR of $44.6mm;

2) Attrition rate of 11.75% compared to a 10 year average of 12.2% and the fact that reported attrition reached 12.9% and a calculated attrition implied 13.6%.

3) RMR Creation multiple of 35x. On the next page of the presentation which shows illustrative customer economics and IRRs the RMR multiple Ascent provides for a steady state is 36.5x – what is the correct multiple?

   In addition, Monitronics spent $67mm 73.8x to acquire $1mm of RMR in its last acquisition in 2014 (nearly 30% of its new RMR) and we estimate the real RMR multiple for Ascent between 2010 and 2014 was 45.6x. Finally, Ascent spent nearly $82mm on share repurchases in the last 3 years ($33mm for Mr Malone's shares) at an estimated RMR multiple of 54.6x. If it only costs 35x or 36.5x to acquire customers with a greater than 20% IRR then Ascent should not have repurchased shares at 54.6x.

4) Maintenance Capex of $1.5mm compared to the last 4 years annual maintenance capex average of $7mm.

Assuming the reported RMR of $44.6mm, increasing the ARPU to 12.2%, increasing the RMR Creation multiple to 45.6x, and increasing maintenance capex to $7mm yields a SSFCF of $116. Increasing the RMR multiple to 54x would imply a SSFCF of $70mm.

In the May 2012 Investor Presentation, Ascent used an attrition rate of 11.5%, an RMR multiple of 34x, an annual maintenance capex of $1mm. In the last 3 years, the attrition rate, the RMR multiples and the maintenance capex have all been significantly higher. While the 2015 presentation highlights some of the increases in the expenses, it clearly fails to account for a large degree of the change.

In both the May 2012 and May 2015 presentations, Ascent also provided Illustrative Customer Economics yielding a calculation for the IRR per customer with assumed customer ARPU, RMR multiples, EBITDA margins, and exit multiples. Below we compare the key numbers:

	May 2012	May 2015	Reality (March 15)
RMR	$40.00	$46.00	$47.58
Subs. fall thru EBITDA Margin	77.5%	73.0%	67.1%
Purchase Multiple	34.0x	36.5x	45.6x
Exit Multiple	34.0x	36.5x	45.6x
Illustrative IRR	18.0%	14.8%	
Illustrative IRR 70% Debt	25.0%	NA	(0.6%)
Illustrative IRR 90% Debt	35.0%	NA	

In the May 2015 presentation, the purchase multiple for the Steady State Free Cash Flow and the Illustrative Customer economics / IRRs were different (although one page followed the next and both are based on a "steady state assumption") while in the May 2012 presentation the RMR multiples for both calculations were the same.

Running the current Ascent operational numbers with the current Ascent Debt / Equity Ratio through a security IRR model yields a (0.6%) IRR. Investors have to remember that their "Purchase multiple" for Ascent will impact their Ascent customer IRRs.

The IRR pages from the May 2012 and 2015 presentations also highlight the deteriorating nature of Ascent operations. In the span of 3 years, Ascent made significant changes to the illustrative IRR calculations. There is a significant decline in the Subscriber EBITDA fall through margin from 77.5% to 73% and which we estimate is really closer to 67.1%. The assumed purchase multiple (based on long term averages) increased from 34.0x to 36.5x but in Ascent's case we estimate the real RMR multiple is 45.6x. Assuming Ascent would be able to sell itself or its customers for 45.6x (above the exit multiple Ascent notes) would yield a negative IRR of (0.6%). Assuming that over the longer term, the real RMR multiple is closer to 36x would imply a negative IRR of (41.7%).

Ascent currently trades (in the public markets) at a 45.2x RMR multiple (compared to ADT at 37.9x). Assuming RMR multiples are an accurate valuation tool, public market investors are paying 45.2x Ascent RMR when Ascent highlights that the exit multiple should be 36.5x. By Ascent's calculations, investors who purchase Ascent today are set to lose nearly 42% of their value.

Monitronics reports great looking RMR, EBITDA, SSFCF, and even RMR creation multiple numbers but digging below the surface highlights significant potential hurdles.

Monitronics trades at nearly 45.2x RMR, 24x 2015 EBIT, a negative (not meaningful) regular PE and Cash PE (i.e. before taxes although the business as a result of generating negative Net Income for a decade has built up Tax Net Operating Loss Carryforwards).

While we believe there is significant downside in Ascent's current share price, we don't see a catalyst which will draw public market equity investors' attention to the significant negative performance and in turn lead us to Short Ascent. Moreover, there's limited float in Ascent.

The difference between the SSFCF and the EBIT after interest expense is not new and has been consistent quarter over quarter. Increasing Ascent RMR creation multiples were very apparent when Ascent paid 73.8x for the Do It Yourself security business LiveWatch which has lower margin customers.

In addition, Ascent continues to be able to raise credit funding from banks which could give some equity investors confidence in the equity earnings power. In April 2015, Ascent raised an incremental $550mm of 7 year Snr Secured Term Loan B at Libor plus 3.5% with the full proceeds used to repay the entire $492mm of Term Loans due March 2018 and $50mm of the outstanding Revolver. We have not explored the new credit transaction in detail, however at first glance the original Term Loans were at Libor plus 3.25% so issuing new loans at a slightly higher interest expense (and also paying transaction fees which appear to be $8mm based on $550 - $492 - $50 = $8mm) appears to be value destructive. However, the original Term Loans matured in March 2018 and the new Term Loans mature in April 2022. The Term Loan transaction therefore highlights that Ascent was willing to pay a slightly higher rate in order to extend its maturity profile by 4 years.

Competition: Protection One and Vivint

Both Protection One (3% to 4% of market) and Vivint (3% to 4% of market) are currently and have been in the past owned by Private Equity shops. Apollo recently acquired Protection One for $1.5bn at an estimated RMR multiple of 50.8x and Blackstone acquired Vivint in 2012 for $2bn at a 58.3x RMR multiple. Both Proteection One and Vivint have filed SEC debt filings which contain significant information regarding their operations including their attrition rates, RMR creation multiples amongst other standard financials.

Vivint has reported a 4 year top line and pre SAC EBITDA CAGRs of 20% while EBIT was negative ($71mm), ($55mm) and ($94mm) in 2012, 2013 and 2014 respectively. Vivint customer RMR is reported at $54.50 (equal to ADT Pulse levels and significantly above Monitronics) and attrition over the last 5 quarters ranged between 13.7% and 12.6%. Vivint also provides an illustrative IRR diagram (as per Ascent and ADT) which predicts an unlevered customer IRR of 24%. Vivint operates via its own internal salesforce without an external dealer force (ASCMA style).

Protection One has not released financials since it was acquired in 2009 / 2010. Between 2005 and 2009, the Protection One Revenue and EBIT CAGRs were 9% and 29% respectively. The EBIT margin increased from 5% to 10% during the timeframe. The average '05-'09 attrition rate was 13.1% with a peak of 13.7% and a trough of 12.2%. The average attrition rate '02-'09 was 13.7%.

Source Documentation: All Publicly Available Online

1) ADT SEC filings including annual reports, quarterly reports, definitive proxies
2) ADT quarterly earnings presenations
3) ADT May 2015 Investor Presentation
4) ADT December 2013 Investor Presentation
5) ADT Schedule 13D October 2012 (Corvex Activist ADT Value Presentation)
6) TYCO SEC filings and investor presentations
7) Vivint February 2015 J.P. Morgan Global High Yield Conference Presentation
8) Vivint February 2014 J.P. Morgan Global High Yield Conference Presentation
9) Vivint: APX Group Holdings Form 424B3 9/24/13
10) Vivint: APX Group Holdings Form S-4 9/12/13
11) Vivint: APX Form 10K 2014
12) Ascent Capital Group SEC filings including annual reports, quarterly reports, definitive proxies
13) Ascent Capital Group May 2012 Investor Presentation
14) Ascent Capital Group May 2015 Investor Presentation
15) Ascent Capital Group Livewatch Acquisition Investor Presentation March 2015
16) Ascent Capital Group Imperial Capital Global Opportunities Conference September 2014
17) Ascent Capital Group Imperial Capital Security Investor Conference December 2014
18) Ascent Capital Group Security Networks Acquisition Overview July 2013
19) Monitronics Management Presentation December 2012
20) USBX 2005 security presentation found online (no title)
21) ESX Nashville Tune Into The Future – Digging Deep in the RMR Valuation Landscape - June 25-29 2012 Presentation
22) Protection One SEC filings including the fairness opinion materials provided by Lazard filed in SEC documents when Protection One was acquired by GTCR
23) ADT, ASCMA, Vivint, Protection One all include numerous market estimates from various sources in their Investor Presentations some of which were used to estimate the market size, growth and attributes

Disclosures and Notices

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