

**Arcimoto, Inc. (FUV - \$2.24 - Buy)**

**COMPANY NOTE**

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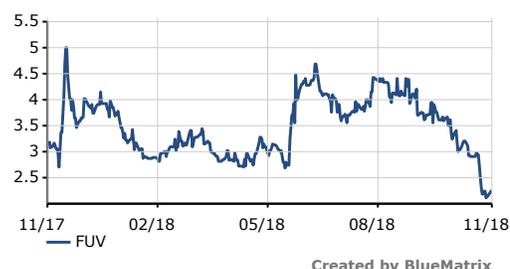
**Sales and trading** 7 a.m. to 7 p.m. ET, (646) 465-9090  
**Sales and trading** 7 p.m. to 7 a.m. ET, (646) 465-9063

Stock Data	11/27/18
Price	\$2.24
52 Week Range	(\$2.09 - \$5.48)
Price Target	\$10.00
Market Cap (mil)	\$35.90
Shares out (mil)	16.03
3-Mo Avg Vol	36,322
Cash (mil)	\$4.6
Total Debt (mil)	\$1.9

Revenues (\$ millions)			
Yr Dec	2017A	2018E	2019E
	Actual	Curr	Curr
Mar	0.0	0.0A	0.2
Jun	0.0	0.1A	0.3
Sep	0.0	0.0A	1.1
Dec	0.1	0.1	3.0
YEAR	0.1	0.2	4.7

EPS (\$)			
Yr Dec	2017A	2018E	2019E
	Actual	Curr	Curr
Mar	(0.04)	(0.13)A	(0.24)
Jun	(0.05)	(0.14)A	(0.21)
Sep	(0.05)	(0.20)A	(0.18)
Dec	(0.10)	(0.19)	(0.16)
YEAR	(0.24)	(0.66)	(0.78)

**One year price history FUV**



**FUV: Baby You Can Drive My FUV**

We are initiating coverage of Arcimoto with a Buy recommendation and a \$10 price target. We expect the company to deliver initial units of its Retail series, Fun Utility Vehicle by year-end and have production capacity of 200/week, or 10,000 per year, by the end of 2019. The company has pre-orders for over 3,100 units providing reasonable visibility into demand over the next twelve months. We estimate the company's pre-orders by the middle of next year will have a retail value exceeding \$60 million and our price target capitalizes that pre-order value at 2.5x, equivalent to \$10 per share. This does not give any value to the indications of interest from potential vacation rentals/franchises that could be as large as retail reservations.

The company has been preparing for full production of its Retail series vehicles to begin later this year and ramp to a capacity of 200 week by year end 2019. Lessons learned from low-rate production of the Signature series in the first half of this year, Beta series in Q2 and Q3 and Pilot series in the second half will guide production of the Retail series beginning in Q4. We believe production volume will be small through the first half of next year and ramp as production issues are addressed and customer demand builds.

To date there has been limited marketing of the product and interest has been primarily word of mouth and trade press publicity. Yet, as of Q3 quarter-end the company had accepted pre-orders, with a \$100 deposit, for over 3100 units and a retail sales value exceeding \$45 million. Pre-orders have been growing about 300 units per quarter and while the deposits are refundable the reservations indicate a keen interest for the product.

Arcimoto has opened a rental location in its home city of Eugene Oregon that it will manage and use as a test bed for vehicle acceptance, use and viability of a rental business. Another rental location in Southern California opened in October. Rental locations are targeted for destination vacation spots and will be a source of demand as well as low-cost customer acquisition for renters seeking to purchase a vehicle for at-home use. Success in this space could result in low customer acquisition costs, increased consumer awareness and robust retail demand.

The company's target market of recreational users, commuters, ride-sharing and environmentally conscience consumers is large and growing. The company sits at the intersection of three forces that are transforming the transportation industry: EV's, ride-sharing, and autonomy. The company's offering is unique and competes favorably against other EV's like Solo and also against gas powered vehicles like the SMART Car, the Polaris Slingshot and the yet to be delivered Elio.

**Valuation:**

Our price target is based on capitalizing the mid-year 2019 estimated retail value of the reservations at 2.5x, or \$150 million.

**Risks to achievement of target price:**

Risks to achieving our price target include rising interest rates leading lower economic growth, greater competition, manufacturing issues, parts and labor shortages, and building distribution outlets.

Arcimoto sits at the intersection of the major factors that are transforming the transportation industry. Over the coming decades the transportation fleet will be altered by 1) consumer demand, and government mandates and incentives to move to EV and hybrid-powered autos, 2) ride-sharing, which will change how consumers and businesses utilize transportation options and invest in transportation assets, and 3) autonomous vehicles which will likely dramatically alter driving behavior.

Arcimoto has developed a three-wheeled electric Fun Utility Vehicle (FUV), classified as a motorcycle, targeting the large number of consumers who use their current, mostly gas-powered vehicles, for short duration trips, typically with the driver as the sole passenger. The auto market globally is very large and competitive and Arcimoto's value proposition rests on a design that results in an enjoyable driving experience, in a vehicle that is a quarter of the weight, ten times the efficiency and one-third of the price of the average passenger car in the US. The company's vehicle is battery powered, with a dual-motor front wheel drive gearbox, and is likely to appeal to consumers looking to have a more cost-effective vehicle, not powered by gasoline. Tesla has shown there is a substantial market at the high-end for EVs and the waiting list for the Model 3 indicates there is a substantial market for a mid-range EV as well. Arcimoto is addressing the low-priced segment of the market with a unique solution and is on the cusp of vehicle deliveries that is expected to drive substantial revenue growth over the next 12 to 36 months. Arcimoto is focused solely on the low-end of the market and importantly will have a low-capital intensity model, that is in stark contrast to other EV makers like Tesla.



Growth in ride sharing and electric vehicles has resulted in a number of new transportation categories and as autonomous capabilities advance, even more choices will become available. Because of these new technologies, government policies that are favoring electric vehicles, and increased consumer demand for EV options, there is significant disruption in the traditional automobile market.

In the small one and two-seater vehicle market Arcimoto's FUV crosses a number of categories. It competes directly against other EV offerings like Electrameccanica's SOLO, the Smart Car from Mercedes Benz, Renault's Twizy and the Toyota iRoad. There are gas powered offerings including Slingshot from Polaris and in the future, the Elio. The FUV, has some motorcycle features, like handlebars, is classified as a motorcycle, and as such also competes against traditional motorcycle offerings.

The FUV's use cases and initial target markets include EV enthusiasts, resort rentals, commuters, an alternative vehicle for short routes such as groceries trips and other errands. From this perspective, the FUV is an alternative to a wide variety of vehicles including traditional gas-powered cars, EVs, motorcycles, motorized scooters, kick scooters, electric bikes and pedal bikes.

Multiple polices, at multiple levels of Government, are subsidizing and encouraging adoption of EVs. There are direct subsidies to consumers purchasing EVs as well as other implicit subsidies and mandates like the Federal

government's CAFE (corporate average fuel economy) standards that are driving demand for EVs. Also, there is a cohort of consumers who prefer to own EVs instead of internal combustion engines. All of these factors are driving demand for EVs as a class of vehicles.

The advent of ride-sharing is introducing significant changes in the transportation market. The average automobile is under-utilized to a remarkable degree. The 220+ million drivers in the US drive less than one hour per day, for about 50 miles per day. There are more than 250 million vehicles in the US, most of them passenger vehicles, or about 1 vehicle per driver over 16. This suggests the average car in the US is laying idle about 95% of the day. In addition to underutilizing cars based on time of use, it is likely cars are significantly underutilized based on passenger and luggage loads. The commuter driving to a train or bus station may mostly need a commuter vehicle but may end up buying a larger vehicle in order to accommodate those less frequent times when an additional passenger, longer trip and greater cargo needs are required.

As ride sharing services expand, they can provide consumers with near omnipresent ride availability, and increase the utilization of the US auto fleet. The number of cars in the fleet, all else being equal would decline, but miles driven per year would increase resulting in a decline in the number of years before a vehicle is retired and increased turnover. Segmentation of the type of ride will increase as ride-share service seek to efficiently allocation assets to the type of ride requested. We already see this with Uber and Lyft, as both offer consumers a choice in vehicles, varying in passenger capacity. We believe as ride sharing grows, the types of vehicles offered will multiply based on the need of the consumer on any particular trip.

The transformation of the transportation market extends well beyond powered vehicles and established industry players are making investments in other vehicle asset classes in order to offer a full array of ride service vehicles to the market. For instance, Uber invested in Jump Bikes, a dockless bike share service for \$200 million and Lyft purchased Motivate, one of the largest bike-sharing services, for a reported \$250 million. The National Association of City Transportation Officials estimates there were 35 million bike share trips in the US in 2017 an increase of 25% over the prior year. The number of bike share bikes increased from 42,500 at the end of 2016 to about 100,000 bikes at the end of 2017, mostly because of the advent of dockless bike share services.

Scooters could also become a viable transportation option. Ford recently purchased Spin. Lime has reportedly raised \$382 million, the latest round at a \$1 billion valuation, and Bird has raised over \$400 million for its electric scooter service.

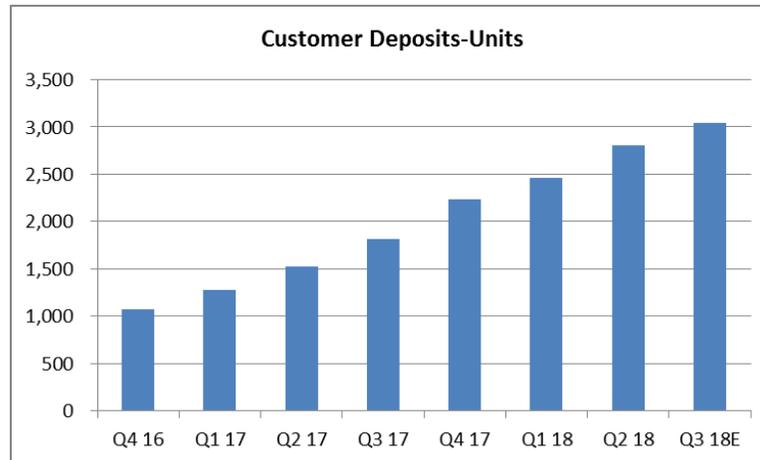
We believe one and two-passenger vehicles, like the FUV, will over time become part of a heterogeneous fleet of vehicles providing long and short haul trips, inter and intra city, for commuters, shoppers, social visits, transportation to entertainment venues and all of the hundreds of other reasons people want to get from one location to another. Vehicles like the FUV can also be used for package and food deliveries. For instance, Arcimoto and Uber are engaged in a test program in Oregon, exploring the potential of the FUV to participate in Uber Eats.

Autonomy will also have a major impact on ride-sharing, the heterogeneity of the fleet, and fleet turnover as unlinking a driver from the vehicle will potentially result in greater asset utilization and the need for even more specialized vehicles to meet the specific trip requirement of users. Autonomy and ride sharing will drive greater segmentation and the utilization of alternative vehicles like the FUV which will be suitable for a significant number of rides.

We believe this backdrop offers a major opportunity for Arcimoto as its FUV appeals initially to EV enthusiasts, consumers desiring a more cost effective vehicle that satisfies the short-trip needs that characterizes most of the trips taken by vehicle owners, but importantly can serve the market as it transitions to more ride-sharing and autonomous operations.

**The FUV**

Arcimoto unveiled its 8th generation alpha prototype electric vehicle in November 2015, followed by showings at venues like the Consumer Electronics Show, the NY Auto Show, and test-drive events in Oregon, Washington, California, DC, Maryland, New York, Michigan, and Nevada. On this modest awareness campaign and word of mouth, orders have built steadily and now stand at over 3,100 units, or a retail sales value of over \$46 million.



Source: Arcimoto public filings

The FUV is a two-seat, three-wheeled electric vehicle, and is classified as a motorcycle. It is built on five core technologies: 1) battery system, 2) FutureDrive, an electric drive train technology that combines two electric motors, a custom dual motor direct drive gearbox and vehicle power electronics. 3) Gen 8 platform development, which is covered by three patents covering the unique aspects of the vehicle architecture, 4) switchboard for power system control, performance data and foundation for integration of autonomous driving capabilities and 5) a vehicle control unit (VCU) for electronic components and upgrades to build on. The company has been issued patents on the vehicle architecture as well as the battery system, assembly and pack design, as well as on a vehicle powertrain with dual-independent transmissions.

We believe the company's patents provide some, but not insurmountable, protection against imitators. The vehicle market is intensely competitive and borrowing ideas is endemic.

**Arcimoto Patents**

Grant Date	Patent no.	Name
16-Feb-12	US 2012/0037441 A1	Narrow Body Ultra Efficient Three Wheeled Vehicle with Automotive Class Feel
06-Nov-14	US 2014/0329124 A1	Battery Pack Design for Integrating and Monitoring Multiple Single Battery Cells
02-Jun-16	US 2016/0156011 A1	Battery Assembly Including Multi-row Battery Interconnection Member
30-Jun-16	US 2016/0190664 A1	Battery System
21-Jul-16	US 2016/0211559 A1	Battery System
11-Aug-16	US 2016/0229289 A1	Vehicle Powertrain with Dual-Independent Transmissions
26-Jan-17	US 2017/0021889 A1	Narrow Ultra Efficient Three Wheeled Vehicle with Automotive Class Feel and Handlebar Steering
12-Jun-18	US 9,994,276 B2	Narrow Ultra Efficient Three Wheeled Vehicle with Automotive Class Feel

The current FUV is the culmination of a ten-year development process and is the company's eighth generation vehicle. Low volume, hand assembly of vehicle began with the Signature series of vehicles this year. The units were targeted for key early customers and test facilities. The 15 units of the Beta series of vehicles were completed in Q3 and production of 25 units of the Pilot series began earlier this quarter. The Retail series is planned for production and volume sales later this year and into next.

Series:	Signature	Beta	Pilot	Retail
Time Frame	Q1 -> Q2 completed	Q2 -> Q3 completed	Q3 ->Q4 Began	Q4+ on schedule
Unit Count	8 + 5 test chassis	15	25	volume
Drivers	Key early customers and test facilities	Test facilities and experience centers	Experience centers, early fleets, customers	General public

The company plans to invest \$5 million manufacturing capacity at its facility in Eugene, Oregon. With one shift, the company estimates it will have capacity to produce 10,000 units annually and can double that with a second shift. Doubling capacity again, to 40,000 units per year would require an additional \$5 million and an expansion of the existing facility. If demand requires, Arcimoto would evaluate construction of a second manufacturing facility on the East Coast to serve the markets in the Eastern half of the US.

Arcimoto has taken a disciplined approach to manufacturing using the lessons learned from the Signature and Beta series of vehicles to influence design and manufacturing of the Pilot and then Retail series of vehicles. Delay in delivery of some components has been encountered and could be encountered again as Arcimoto enters volume production in the second half of next year. Also, while the design of the vehicle is mostly set, there are still some issues to overcome, including the final design of doors. For this reason we expect a fairly measured pace of production in the first half of 2019 accelerating in Q3 and Q4 as possible additional manufacturing and supply issues are identified and mitigated in the first half of the year.

At volume, the company targets a base price of \$11,900, however initial prices, when manufacturing volumes are lower, are expected to be higher in order to keep direct manufacturing margins near break-even. The current order book of 3,100 units is priced at \$15,000 per vehicle and we expect as volume manufacturing begins in the second half of next year, prices will drop towards the \$11,900 target ASP. The company also expects a gross margin of 27% at volume.

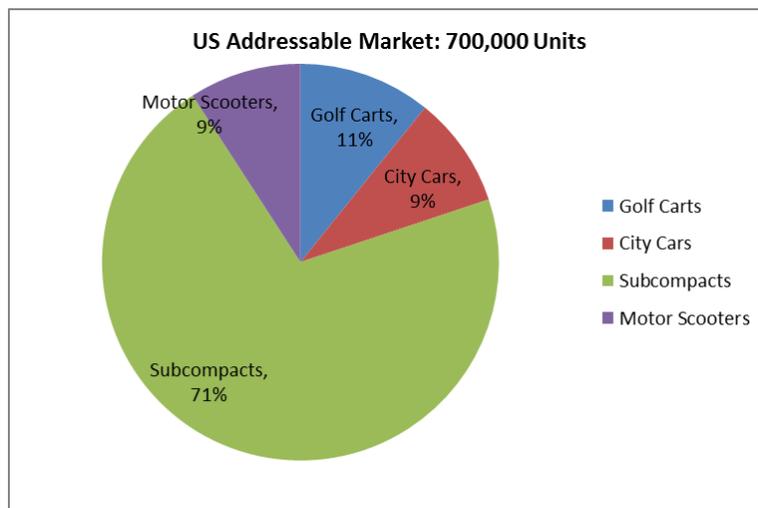
The company's pre-order book has grown steadily since introduction of the FUV, and is now at over 3,100 vehicles. At an ASP of \$15,000 this equates to potential revenue exceeding \$46 million. Customers have placed a \$100 refundable deposit with the company, and there is risk on how many of these deposits will be cancelled once the FUV hits volume production. Marketing to date has been minimal, mostly word of mouth and press coverage so the \$46 million in pre-orders is impressive and could be indicative of a robust market.

Arcimoto is exploring sales of FUV's to resorts as well as franchising rental operations to vacation destinations. This is expected to help keep customer acquisition costs low. In 2019 sales to rental operations could be the largest contributor to sales as marketing to individual consumers will remain muted. However, as awareness builds, partly through the exposure consumers will have to the product at resorts and vacation destinations, sales to individuals should overtake sales to rental locations. The company has opened a rental center in Eugene Oregon that will mostly serve as a test-bed for the rental market and recently announced a second facility will open in San Diego in the coming months that it will operate jointly with HULA Holdings. In February of this year HULA placed a deposit for 100 FUV's.

The company is aggressively pursuing the resort/vacation destination/rental market and hopes to sign up to a score of franchisees this year and 3 or 4 times that number next year and beyond. With minimum commitments of 20 units per location, that can equate to upwards of 2,000 units annually from this segment and provide effective marketing for customers who experience the FUV and decide to purchase for personal use.

#### Addressable Market/Competition

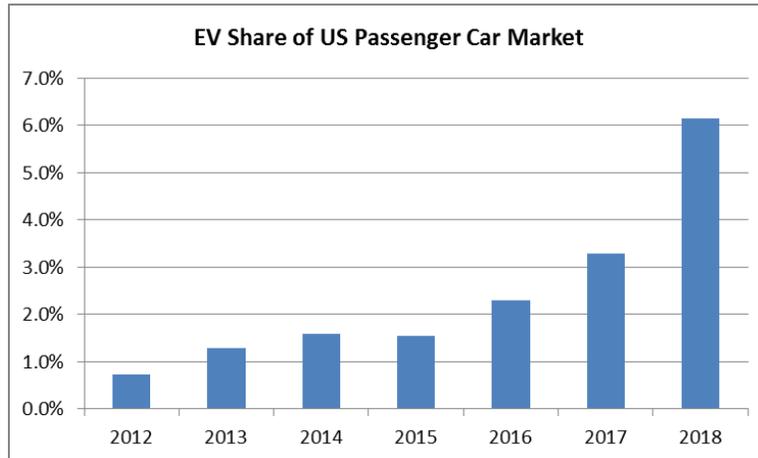
The FUV is a unique product and will be a viable product for multiple market segments. We expect the FUV to attract consumers interested in EV options. Since the vehicle can function as a commuter vehicle, and in many cases can supplant sub-compacts, it is also an alternative for city cars and motor scooters and can replace golf carts used for campus, resort and neighborhood transportation.



Source: Motorcycle Industry Council, [goocarbadcar.net](http://goocarbadcar.net), Chardan Capital Markets estimates

We estimate annual domestic sales of the subcompact, city car, motor scooters and golf cart markets exceed 700,000 units per year. At an ASP of \$12,000, the FUV is more expensive than the motor scooter and golf cart market and far below the city car and sub compact prices.

One of the fastest-growing segments of the transportation market is electric vehicles. EVs are a small, but growing portion of the passenger car market and we believe the FUV will also appeal to EV enthusiasts and with its price point appeal to consumers who are indifferent to internal combustion or EV powered vehicles. In 2017 there were 17 million passenger car and light truck sales in the US, equal to the peak level of sales last achieved in 2005. About 6 million of the 17 million sold were passenger cars, and sales peaked in 2014 at 7.7 million, about equal to the prior peak in 2005. US EV sales through September were up, in units, 65% over the comparable 2017 period. At that rate EV sales will exceed 330,000 units this year, over 6% of the US passenger car market. Tesla dominates the US EV market.



Source: [insideevs.com](http://insideevs.com), Chardan Capital Markets estimates.

The battery pack is a meaningful part of the cost of any electric vehicle and battery prices have declined significantly over the past decade from over \$1200/KwH for a lithium-ion battery pack to around \$235 per KwH. According to the DoE to “provide the full driving performance, convenience, and price of an internal combustion engine,” the cost of EV batteries needs to decline, “by more than half to less than \$100/kWh and increase the range to 300 miles while decreasing the charge time to less than 15 minutes by 2028.” (“Batteries, 2017 Annual Progress Report,” US Department of Energy, Office of Energy Efficiency and Renewable Energy, Vehicle Technologies Office).

Battery costs can up 40% or more of the total cost of an EV, but costs are declining and as volumes for the industry increase Arcimoto will benefit from the greater scale and lower costs of batteries.

The most direct competitor to the FUV is Electrameccanica's Solo, which lists for \$15,000. The SOLO was introduced in October this year and is being manufactured in China by Chongqing Zongshen Automobile Co. Electrameccanica has agreed to minimum purchase commitments for the Solo of 5,000 units in calendar 2018, 20,000 in 2019, and 50,000 in 2020. Currently the Solo has one retail location in Los Angeles.

	FUV	Solo	SmartCar	Twizy
Fuel	Electric	Electric	Electric	Electric
Battery	12-20 kWh	17.3 kWh	17.6 kWh	6.1 kWh
Range	70-130 miles	100 miles	58 miles	62 miles
Curb Weight	1100 pounds	1488 pounds	2171 pounds	992 pounds
Wheelbase	77.5 inches	80.5 inches	73.7 inches	66 inches
Length	109 inches	122 inches	106.1 inches	91 inches
Track Width	61 inches	52 inches	65.5 inches	47 inches
Height	61 inches	53 inches	61.2 inches	57 inches
Passengers	2	1	2	2
ASP (retail)	\$12K at volume	\$15500	\$25,390	~\$8,500 plus battery ~\$860/yr

The SmartCar, like the FUV, is a two-seater, but almost double the price of the FUV and has lower range. Renault's Twizy is not widely available in the US and, in the US, restricted to a top speed of 25 MPH. Toyota's concept car, the iRoad, is not in production.

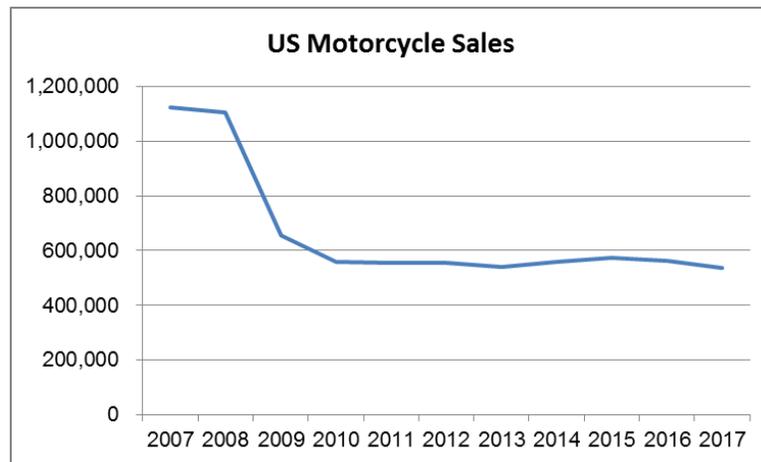
Two-seater gasoline powered options, include the Slingshot from Polaris and the Elio, which is not yet in production.

	FUV	Slingshot	Elio
Fuel	Electric	Gasoline	Gasoline
Range	70-130 miles	250 miles	672 miles
Curb Weight	1100 pounds	1743 pounds	1350 pounds
Wheelbase	77.5 inches	105 inches	110 inches
Length	109 inches	149.6 inches	160.5 inches
Track Width	61 inches	77.6 inches	66.8 inches
Height	61 inches	51.9 inches	54.2 inches
Passengers	2	2	2
ASP (retail)	\$12K at volume	\$20,000-\$30,000	\$7600

The FUV is a realistic alternative to other types of vehicles such as golf carts and motorcycles. Golf carts and motorcycles can satisfy some, but not all, of the uses of the FUV. For instance, golf carts cannot be driven on streets, have limited range and power, but are useful as transportation vehicles at resorts, and of course, golf courses. Motorcycles have excellent range and can be street legal, but have limited cargo capabilities and are inappropriate in inclement weather. We believe the FUV can serve many of the uses currently being satisfied by a meaningful number of golf carts and motorcycles. These are large potential markets.

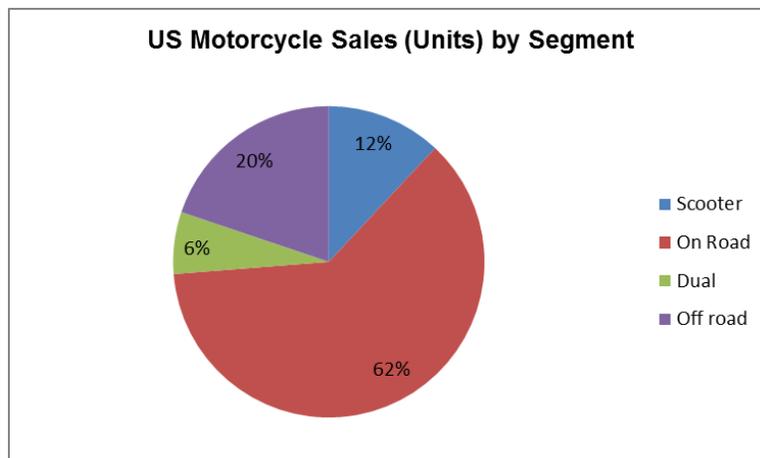
Global golf cart sales are about 190,000 annually, or over \$1 billion, and the North American market is about 40% of the total. New golf carts range in price from \$6,000 to as much as \$15,000. Golf carts serve multiple purposes, including, of course, transportation on a golf course, but can also be used as on-premise transportation at private communities, campus transportation, in-building, and in large buildings like factories or warehouses. We believe the FUV is a reasonable alternative for many of these use cases.

Motorcycles come in a variety of sizes, shapes and prices from motor scooters, like a Vespa, standard motorcycles, Cruisers and Touring bikes. Prices range from \$4,000, for a Vespa, to as much as \$41,000 for a Harley Davidson Road Glide. Over a million on and off road bikes were sold in the year's prior to the most recent recession and have not recovered to pre-recession levels in the current upturn.



Source: Motorcycle Industry Council

We see the FUV as a direct replacement for the 60,000 scooters sold annually, or over 10% of the motorcycle market and able to compete effectively against a meaningful portion of the on-road segment as well.



The FUV, under the National Highway Traffic Safety Administration (NHTSA) classification, is a motorcycle and must comply with all relevant federal, state and local regulatory requirements including helmet laws. Helmet laws vary greatly from state-to-state and can have an impact on market acceptance of the FUV. In California and Oregon fully enclosed or enclosed cab vehicles are exempt from helmet requirements as well as motorcycle endorsement requirements. In states where laws are stricter, like Washington, the company's strategy is to engage in advocacy programs to change laws to reflect the unique aspects of the FUV compared to traditional motorcycles.

**Distribution**

Arcimoto will employ a direct to consumer distribution model. Customers will place orders on the Arcimoto website and the vehicle will be delivered directly to the end user. There will be small retail outlets in certain markets that supplements the direct-to-consumer strategy in order to allow customers a direct experience with the product before purchase. The company is initially focusing on the US, but Europe and other markets are likely over time. The initial markets for Arcimoto are Oregon, California and Washington.

Rental facilities will play a dual role for the company. First, rental facilities can be a significant source of demand for the FUV. Second, users at rental facilities can become direct owners of the vehicles based on their rental experience. Arcimoto has a company-owned rental facility in Eugene that will operate somewhat as a test bed for the rental market. Another facility is opening in San Diego, a 4,500 square foot facility equipped with 40 Level 2 chargers. The facility will be operated jointly with HULA Holdings.

**Outlook**

The company initially contemplated producing about 2,000 vehicles in the 18 months post the closing of its Reg A offering in Q4 2017. However, post the offering the company had the resources to accelerate the build-out of its manufacturing capabilities, relying less on outsourced components, and increasing capacity. Building out capacity delayed its ability to make that initial production estimate. In addition there were delays in parts from suppliers and production of the Signature series took longer than expected.

The company will spend about \$5 million this year in order to build out its manufacturing capacity and expects to be able to produce 200 vehicles per week by the end of 2019. We expect first half 2019 production will be modest, ramping in Q3 and capacity increasing to the company's goal by year-end.

At the end of Q3 Arcimoto had reservations for 3,100 vehicles and this has been increasing by about 300 vehicles per quarter, with very limited marketing. At this rate by the end of next year the company could have a reservation backlog of 4,500 vehicles. We believe the rental market in vacation destinations could demand a similar number of vehicles. Beginning in 2019, mostly in Q4, through the first half of 2021, we have estimated sales of about 8,400 vehicles. This is based on the upwards of 9000 vehicles we estimate will be reserved by retail customers and demanded from vacation destinations, discounting by upwards of 20% for cancellations, offset by additional orders during this time period.

We have assumed an ASP of \$15,000, however, as volume ramps the intent is to pass on cost savings to the customers, marching to the ASP goal of about \$12,000. Some of the cost reductions will be a result of volume and amortizing fixed costs over a larger base, some from component cost reductions, particularly batteries, and some from greater efficiency as manufacturing experience is gained.

Cash at the end of Q3 was \$2.4 million and the average quarterly operating cash flow loss year-to-date is over \$3 million. The company recently announced completion of a small offering raising about \$1.5 million and we expect it will need to raise additional capital in 2019 and based on our estimates in 2020 as well.

**Valuation**

We believe Arcimoto is at a similar stage to Tesla in the quarters before the introduction of the Model 3 in mid 2012. We have looked at the valuation of Tesla, when reservations for the Model 3 were initially accepted, but prior to the vehicle's production. From the end of 2010 to the beginning of 2012, when production commenced, the retail value of the Model 3 reservations ranged from \$900 million to \$1.2 billion, the market cap of Tesla ranged from \$1.9 billion to \$3.9 billion and enterprise value from \$2.2 billion to \$3.9 billion. Market cap/retail reservation value ranged from 2.0x to 3.2x and enterprise value/retail reservation value also ranged from 2.0x to 3.2x. Estimates for fiscal 2012 revenue during this time period rose from about \$515 million to over \$615 million before falling to \$400. Actual revenue for 2012 was \$413 million. This resulted in a market cap/estimated sales ratio of 3.7x to 5.7x and an enterprise value/estimated sales of 4.2x to 5.6x.

Applying these multiples to Arcimoto and its current retail reservation value of \$46.5 million results in an Enterprise value and market cap range from \$93 million to \$150 million, or \$5.80 to \$9.38 per share. The company has not aggressively marketed the FUV, and units reserved have been increasing about 300 per quarter. At this pace the number of units reserved by the middle of next year would be almost 4,000 at a retail value of \$60 million. Applying the same multiples of market cap/reservation value would suggest an equity value between \$7.50 and \$12 per share. Using the EV/Sales on our 2020 sales estimate of \$60 million results in an enterprise value and market cap range from \$222 million to \$342 million. On a per share basis this equates to a range of \$14 to \$22.

Relative to comparable stocks, Arcimoto is attractively priced. Adomani and UQM are both suppliers to the EV market and expectations are for a significant sales ramp in 2020. EV/Sales for Adomani and UQM range from 0.7x to 1.8x. Tesla currently trades at 2.1x 2020 estimated sales, while Workhorse Group trades at 0.14x estimated 2020 sales reflecting skepticism the company will be able to ramp sales to over \$300 million in sales from very modest levels currently. Polaris, the maker of snowmobiles, motorcycles and the three-wheeled Slingshot trades at 1.0x. By comparison, Arcimoto trades at 0.8x our 2020 estimated revenue of \$60 million.

	FY2020 Est. Sales	EV/Sales
Adomani (ADOM)	\$ 40.2M	0.72x
UQM Technologies (UQM)	\$ 35.2M	1.85x
Tesla (TSLA)	\$ 34,149M	2.13x
Elio Motors (ELIO)	na	na
Green Power Motors (TSXV: GPV)	na	na
Electrameccanica Vehicles (SOLO)	na	na
Workhorse Group (WKHS)	\$ 316.9M	0.14x
Polaris Industries (PII)	\$ 6,918M	1.10x
Arcimoto (FUV)	\$ 60.0M	0.77x

Source: S&P Capital IQ, Chardan Capital Markets estimates.

At the Polaris multiple of 1.1x Arcimoto would be valued at \$4.22 per share and at Tesla's 2.1x multiple would be valued at \$8.08 per share.

The table below summarizes our valuation discussion. Based on reservation value, we derive a per share target from about \$6 to \$12 per share. Based on estimated 2020 sales the range is much wider, from \$4 to \$22 per share depending on whether one uses valuation multiples of Tesla prior to the introduction of the Model 3 or current sales multiples of Tesla and Polaris. Given the stage of its life cycle, we believe it is more appropriate to use the Tesla pre-Model 3 multiples.

	Value	Multiple	Per share Target
Current RSVP Value	\$46.5M	2.0x - 3.2x	\$5.80 - \$9.38
Mid 2019 RSVP Value	\$60.0M	2.0x - 3.2x	\$7.50 - \$12.00
2020 Est. Sales	\$60.0M	3.7x - 5.7x (Tesla pre Model 3)	\$14 - \$22
2020 Est. Sales	\$60.0M	1.1x - 2.1x (PII & TSLA)	\$4.22 - \$8.08

Our \$10 price target is about in the middle of the mid 2019 RSVP value as well as the average of the low-end of the current RSVP value and the low end of the Tesla EV/Sales valuation prior to the introduction of the Model 3.

## Arcimoto Income Statement

	31-Dec-17 FY2017	31-Mar-18 FQ12018	30-Jun-18 FQ22018	30-Sep-18 FQ32018	31-Dec-18 FQ42018E	31-Dec-18 FY2018E	31-Mar-19 FQ12019E	30-Jun-19 FQ22019E	30-Sep-19 FQ32019E	31-Dec-19 FQ42019E	31-Dec-19 FY2019E	31-Dec-20 FY2020E
Revenue	127	1	85	6	90	182	225	300	1,125	3,000	4,650	60,000
COGS	78	1,048	96	32	100	1,275	140	280	1,013	2,700	4,133	47,850
Gross Profit	49	(1,047)	(10)	(26)	(10)	(1,093)	85	20	113	300	518	12,150
R&D	1,451	1,048	364	779	800	2,991	1,000	1,000	1,000	1,000	4,000	6,000
Sales & Marketing	828	356	418	386	800	1,959	1,000	1,000	1,000	1,000	4,000	6,000
G&A	1,064	642	1,400	2,054	1,500	5,596	2,000	2,000	2,000	2,000	8,000	9,000
Opex	3,343	2,045	2,182	3,219	3,100	10,546	4,000	4,000	4,000	4,000	16,000	21,000
Operating Income	(3,294)	(2,045)	(2,192)	(3,245)	(3,110)	(11,640)	(3,915)	(3,980)	(3,888)	(3,700)	(15,483)	(8,850)
Interest Income	0	0	0	0	0	0	0	0	0	0	0	0
Interest Expense	(34)	(4)	(17)	(37)	(37)	(94)	(37)	(37)	(37)	(37)	(148)	(148)
Other		0	40	36	36	112	36	36	36	36	143	143
Pretax Income	(3,315)	(2,048)	(2,169)	(3,246)	(3,111)	(10,574)	(3,916)	(3,981)	(3,889)	(3,701)	(15,487)	(8,855)
Taxes	0	0	0	0	0	0	0	0	0	0	0	0
Net Income	(3,315)	(2,048)	(2,169)	(3,246)	(3,111)	(10,574)	(3,916)	(3,981)	(3,889)	(3,701)	(15,487)	(8,855)
Basic Shares	13,554	15,897	15,919	15,974	16,275	16,016	18,673	20,885	23,096	25,308	21,990	32,621
Diluted Shares	13,554	15,897	15,919	15,974	16,275	16,016	18,673	20,885	23,096	25,308	21,990	32,621
Basic EPS	\$ (0.24)	\$ (0.13)	\$ (0.14)	\$ (0.20)	\$ (0.19)	\$ (0.66)	\$ (0.21)	\$ (0.19)	\$ (0.17)	\$ (0.15)	\$ (0.70)	\$ (0.27)
Diluted EPS	\$ (0.24)	\$ (0.13)	\$ (0.14)	\$ (0.20)	\$ (0.19)	\$ (0.66)	\$ (0.21)	\$ (0.19)	\$ (0.17)	\$ (0.15)	\$ (0.70)	\$ (0.27)
Operating Income	(3,294)	(2,045)	(2,192)	(3,245)	(3,110)	(10,592)	(3,915)	(3,980)	(3,888)	(3,700)	(15,483)	(8,850)
Depreciation	20	74	87	121	150	432	150	150	150	150	600	600
Stock Comp	204	114	52	216	250	631	250	250	250	250	1,000	1,000
EBITDA	(3,071)	(1,858)	(2,054)	(2,908)	(2,710)	(9,529)	(3,515)	(3,580)	(3,488)	(3,300)	(13,883)	(7,250)

## Arcimoto Balance Sheet &amp; Cash Flow Statement

	31-Dec-17 FY2017	31-Mar-18 FQ12018	30-Jun-18 FQ22018	30-Sep-18 FQ32018	31-Dec-18 FQ42018E	31-Dec-18 FY2018E	31-Dec-19 FY2019E	31-Dec-20 FY2020E
Cash	7,824	1,425	2,137	2,372	707	707	738	3,843
Certificates of Deposit	6,247	9,746	5,248	750	750	750	750	750
A/R	1	1	0	1	10	10	1,200	9,600
Inventory	195	617	1,291	1,908	2,500	2,500	3,000	13,000
Other	401	666	1,035	1,618	1,618	1,618	2,500	
<b>Current Assets</b>	<b>14,667</b>	<b>12,455</b>	<b>9,710</b>	<b>6,648</b>	<b>5,585</b>	<b>5,585</b>	<b>8,188</b>	<b>27,193</b>
PP&E	2,434	3,407	4,556	5,128	5,128	5,128	5,128	5,128
Other	0	0	39	39	39	39	39	39
<b>Total Assets</b>	<b>17,101</b>	<b>15,863</b>	<b>14,304</b>	<b>11,815</b>	<b>10,752</b>	<b>10,752</b>	<b>13,355</b>	<b>32,360</b>
A/P	664	375	30	98	150	150	180	780
Accrued Liabilities	256	255	471	627	750	750	900	3,900
Customer Deposits	400	432	371	395	425	425	545	545
STD	0	0	0	0	0	0	0	0
Capital Lease	0	150	297	368	368	368	368	368
Warranty Accrual				8	10	10	240	960
<b>Current Liabilities</b>	<b>1,320</b>	<b>1,212</b>	<b>1,169</b>	<b>1,497</b>	<b>1,703</b>	<b>1,703</b>	<b>2,233</b>	<b>6,553</b>
Capital Lease	0	774	1,376	1,573	1,723	1,723	2,323	2,923
Warranty Accrual				17	20	20	480	1,920
LTD	0	0	0	0	0	0	0	0
Equity	15,782	13,876	11,759	8,729	7,306	7,306	8,319	20,965
<b>Total Liabilities &amp; Equity</b>	<b>17,101</b>	<b>15,863</b>	<b>14,304</b>	<b>11,815</b>	<b>10,753</b>	<b>10,753</b>	<b>13,356</b>	<b>32,361</b>

	31-Dec-17 FY2017	31-Mar-18 FQ12018	30-Jun-18 FQ22018	30-Sep-18 FQ32018	31-Dec-18 FQ42018E	31-Dec-18 FY2018E	31-Dec-19 FY2019E	31-Dec-20 FY2020E
Net Income	(3,315)	(2,048)	(2,169)	(3,246)	(3,111)	(10,574)	(15,487)	(8,855)
Depreciation	20	74	87	121	150	432	600	600
Stock Comp	204	114	52	216	250	631	1,000	1,000
Working Capital	(253)	(946)	(1,078)	(1,108)	(392)	(3,523)	(1,582)	(10,140)
<b>Operating CF</b>	<b>(3,344)</b>	<b>(2,788)</b>	<b>(3,103)</b>	<b>(4,017)</b>	<b>(3,103)</b>	<b>(13,035)</b>	<b>(15,469)</b>	<b>(17,395)</b>
Certificates of Deposit	(6,247)	(3,500)	4,500	4,500	0	5,500	0	0
Capx	(1,960)	(65)	(644)	(169)	(150)	(1,028)	(600)	(600)
Other	0	0	(39)	0	0	(39)	0	0
<b>Investing Activities</b>	<b>(8,207)</b>	<b>(3,565)</b>	<b>3,817</b>	<b>4,331</b>	<b>(150)</b>	<b>4,433</b>	<b>(600)</b>	<b>(600)</b>
Equity	19,147	29	0	(0)	1,438	1,468	15,500	20,500
Debt	(125)	(75)	(3)	(80)	150	(8)	600	600
<b>Financing</b>	<b>18,961</b>	<b>(46)</b>	<b>(3)</b>	<b>(80)</b>	<b>1,588</b>	<b>1,460</b>	<b>16,100</b>	<b>21,100</b>
FX	0	0	0	0	0	0	0	0
<b>Change in Cash</b>	<b>7,410</b>	<b>(6,399)</b>	<b>712</b>	<b>235</b>	<b>(1,665)</b>	<b>(7,117)</b>	<b>31</b>	<b>3,105</b>

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**Neutral:** Returns expected to be in line with sector average over 12 months and indicates total return between negative 10% and 10% over the next 12 months.

**Sell:** Returns expected to be materially below sector average over 12 months and indicates total price decline of at least 10% over the next 12 months.

#### Arcimoto, Inc. (FUV - \$2.24 - Buy)

Price Target                \$10.00

#### VALUATION:

Our price target is based on capitalizing the mid- year 2019 estimated retail value of the reservations at 2.5x, or \$150 million.

#### RISKS TO ACHIEVEMENT OF TARGET PRICE:

Risks to achieving our price target include rising interest rates leading lower economic growth, greater competition, manufacturing issues, parts and labor shortages, and building distribution outlets.

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