Executive Summary

**Significant potential with little downside risk**

Snap-on tools is a hundred-year-old, market leading company in a slow growing, mature industry. While that may not sound exciting, it’s shown its ability to generate sustained mid to high single digit earnings growth for over two decades and is well positioned to continue its advantage for decades more through expanding its expertise and tools into other markets. Few stocks have this deep a moat in terms of consumer behavior yet trade at such a steep discount to their inferior competition.

**Dominance with the most demanding customers**

Snap-on’s high margins are from its uniquely strong brand developed through superior customer engagement and marketing. Technicians buy Snap-on because they want the best and to show off to colleagues and customers that they too are high quality, and worth the investment. The relationships they form with the franchisees can span generations and are a source of support and consulting/training in a competitive job market. This relationship pays back in customer insights and new product ideas, allowing Snap-on to maintain its position as leader and innovator in the customer segments its engaged in. Competitors selling in retail lack the customer feedback from expert consumers: professional technicians.

**Market is not going anywhere**

New auto sales may go up or down, but repairs correlate more strongly to the average age of cars. Newer models with more tech are even more susceptible to needing complex repair and require more sophisticated (high priced) tools. In Asia, cars are mostly still young (< yrs.) and do not need repair. This will soon change and will be a major market shift in demand. Military and industrial sales are another area of low penetration where growth is likely to continue. With their culture of Rapid Continuous Improvement (RCI), they have high customer responsiveness and adapt to new opportunities.

**Buffet and Graham would approve**

The company represents all the tenants of value investing. A company with a strong sustainable moat, modest but steady growth, a fair to low valuation, frugal and competent management, strong financials, and a track record of returning value to shareholders. While the retail tool market is highly competitive and unattractive, the business tool segment is still very fragmented leaving potential for Snap-on to continue its rise.

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**Recommendation:** Buy  
**Price Target:** $196
Company Profile

Snap-on is well known as the most trust brand for automotive technicians, and historically for being the preferred tool brand for WWII factories, and NASA to this day. Originally, they sold their tools by presenting them on green felt – the same used for surgeons’ tools to draw on technicians’ pride in their craftsmanship. They currently rely on a model of franchisees selling to the technicians in person, driving there in a large van to deliver and show the technicians how to best use the tools. They also provide support to the technicians using their experience and knowledge learned from visiting other technicians to help disseminate knowledge, like how some consultants work. This support combined with quality products, customer responsiveness, and weekly visits create their main value proposition. It has been so successful that it has created a large national following of fans of the brand. These people identify as Snap-on technicians, possibly even more so than the company they work for. To grow significantly in the future, they will need to leverage this domestically strong brand to increase stagnant sales overseas, as well as expand domestically into other critical industry customers such as military.

Business Segments

1. **Snap-on Tools**: Original hand tools company that distributes mostly through franchise trucks.
2. **Commercial and Industrial Group (C&I)**: OEM, dealerships, and chain auto repair shop sales are done mostly through national sales forces rather than franchisees. Growing subsegments include military and critical/remote industries such as rail and mining.
3. **Repair Systems and Information (R&I)**: Software and hardware for vehicle diagnostics, inventory management, business analytics, and productivity enhancement features to improve customer productivity and earnings. Mostly sold through franchisees.
4. **Financial**: Makes customer loans to increase sales to mostly smaller repair shops as well as help franchisees

Brands and Products

With over 20 different brands Snap-on supplies a wide range of products to help its customers fix cars and manage their business. The range of brands continues to grow through acquisitions, with both national sales teams, and franchisees

*Figure 1: Major Snap-On Brands. Source: Snap-on website*
## Product Categories and Brands

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
<th>Brands</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hand Tools</strong></td>
<td>This is where the company gets its name: with interchangeable sockets for wrenches that allow a single handle to do the work of many.</td>
<td>Snap-on, Norbar, Bluepoint, Irimo (Europe only), Lindström, Sturtevant,</td>
</tr>
<tr>
<td><strong>Power tools</strong></td>
<td>Pneumatic (pressurized air) and electrical wired and wireless tools and cutters</td>
<td>Snap-on, BluePoint, Norbar, Power Hawk, Irimo</td>
</tr>
<tr>
<td><strong>Diagnostics and software</strong></td>
<td>Handheld or standalone devises to connect to car computers and online databases, test parts, and other inspection/productivity assistance.</td>
<td>Snap-on, autoHC, Cartec, Bluepoint, Michell1, NexIQ Technologies, Sun, Truckcam, Car-O-liner</td>
</tr>
<tr>
<td><strong>Storage solutions</strong></td>
<td>Basic tool chests and inventory management systems for commercial users that track tool usage and technician productivity. Often customized.</td>
<td>Snap-on, Bluepoint, Irimo</td>
</tr>
<tr>
<td><strong>Shop and Tech:</strong></td>
<td>Wheel and tire alignment, car lifts and other shop accessories.</td>
<td>Snap-on, Challenger Lifts, Bluepoint, Hoffman, John Bean, Kansas Jack, Josam</td>
</tr>
<tr>
<td><strong>Industrial</strong></td>
<td>Brands and products for industrial customers in critical industries.</td>
<td>Williams, Sioux, Bahco, CDI Torque products,</td>
</tr>
<tr>
<td><strong>Aerospace</strong></td>
<td></td>
<td>ATI Airframe tools</td>
</tr>
<tr>
<td><strong>Brakes</strong></td>
<td>Full line of equipment for brake work including a range of products.</td>
<td>Pro-cut</td>
</tr>
<tr>
<td><strong>A/C</strong></td>
<td>Refrigerant recovery</td>
<td>Ecotechnics</td>
</tr>
<tr>
<td><strong>Financial Services:</strong></td>
<td>Offers financing options for both customers and franchisees to fund investments.</td>
<td></td>
</tr>
</tbody>
</table>

*Table 2: Brand & Segment Summary from Snap-on website*
Distribution Channels

The franchise van model is the main distribution channel for snap on tools and repair diagnostics divisions. “Snap-on has replicated its U.S. franchise distribution model in certain other countries, including Canada, the United Kingdom, Japan, Australia, Germany, Netherlands, South Africa, New Zealand, Belgium and Ireland. In many of these markets, as in the United States, purchase decisions are generally made or influenced by professional vehicle service technicians as well as repair shop owners and managers. As of 2019 year-end, Snap-on’s worldwide route count was approximately 4,800, including approximately 3,450 routes in the United States.” (SNA SEC filing January 2019) National customers and chains are serviced through direct national sales teams to coordinate regional needs and responsiveness. There is an E-commerce channel, but this is not popular as many customers prefer the consultation and advice of the franchisees. Snap-on does not compete in the more price competitive online or retail tools market, which should be expected as many high-end, luxury, or heavy-duty products in other industries see the same trend. Feeling the product and learning how the details make it better is important before making an investment. Distributors sell some components under different brands, but this is not broken out in the financials.

Supply Chain

Snap-on manufactures most of its own products and does so usually in the markets they sell. Most of their factories are therefore in the US, with Sweden being second largest from the Bahco industrial brand.

Growth Strategy

Inorganic Growth

Management has been actively purchasing existing companies in the OEM software services and critical and rescue industry tool segments, which is where their strongest organic growth is seen suggesting they are good corporate managers. These are well within the strategic heartland for Snap-on and their size will be invaluable in combining their sales force with these new products to add value to the business. Norbar & Fastorq also make a series of specialized torque hand tools that fit nicely into their van distribution as well as commercial. Over the three years, this represents a large portion of their growth investment.

<table>
<thead>
<tr>
<th>Company</th>
<th>Price</th>
<th>Market Segment</th>
<th>Year Acquired</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cognitran</td>
<td>$30.4</td>
<td>OEM Software</td>
<td>2019</td>
</tr>
<tr>
<td>Power Hawk</td>
<td>8.0</td>
<td>Rescue Tools</td>
<td>2019</td>
</tr>
<tr>
<td>Geomarketing</td>
<td>1.3</td>
<td>OEM Software</td>
<td>2019</td>
</tr>
<tr>
<td>Fastorq</td>
<td>3.0</td>
<td>Critical Industry Tools</td>
<td>2018</td>
</tr>
<tr>
<td>Torque Control Specialists</td>
<td>3.6</td>
<td>Critical Industry Tools</td>
<td>2017</td>
</tr>
<tr>
<td>Norbar</td>
<td>71.6</td>
<td>Critical Industry Tools</td>
<td>2017</td>
</tr>
<tr>
<td>BTC Global LMT</td>
<td>9.2</td>
<td>OEM Software</td>
<td>2017</td>
</tr>
</tbody>
</table>

Table 3: M&A Activity. Source: SNA 2019 10K
Organic Growth

Snap-on is also building new internal capabilities through training of its sales staff and franchisees and developing new products. It also has invested in building infrastructure in China in anticipation for the expected rise in demand for auto repair soon.

The new software and electronic products are new and often too difficult and complex to learn for experienced franchises. They need more thorough training to adapt to these new systems and tools, and feel comfortable enough to market and support them. The training investment will drive R&I sales.

They introduced over 5,700 new products last year and will continue this trend of rapid custom new products coming from customer feedback. Using feedback for users results in much lower uncertainty with new product launches, reducing risks and the cost of innovation. Co-creation results in very devoted and engaged customers as well. Expansion and cross brand development led to improvements in the industrial power tool segment, especially the strong sales of their new Torque bolt.

Snap-on has seen above average 16.4% ROI for the sector and industry which is often in single digits. This strongly suggests that management has strong capital controls and has been successful in its investment choices making it a safe investment and a good parent for future brand/product acquisitions.

Competitive Advantage

Snap-on’s moat is strong and reinforced in both cold economics and consumer behavior/psychology. Snap-on has become the go-to brand for top quality tools and service in the automotive technician world and in synonymous with the van distribution model. There are economies of scale, scope, as well as first mover advantages and network externalities that lock them in the leadership role.

Economies of scope to reduce transaction costs. To simplify the technician’s life, they would prefer to have all their tools from one vender as it limits the time and effort spent shopping. It also allows them to use their relationship with the franchisee to learn about trends in the industry, other garages, issues others are having, job opportunities, etc… This consultant role is much valued as seen by the missing expected transfer of sales to online – customers value the human interactions of the franchisees. They visit weekly to each garage ensuring a reliable “office hours” routine they count on.

Economies of scale for franchise talent retention. It is difficult to make a living if there is too much competition and customers buy only a 1/3 of their tools from you. That means you must drive to 3 x as many garages, and that limits selling potential, time to provide support and demonstrate products, and costs a lot of gas (those vans a big). The best franchisees will want to sell to the best garages and make the most money for the least amount of time, making it difficult to compete on service for anyone trying to capture market share. R&D in custom tool development involving 3D printing, and other rapid prototyping expertise can also be better leveraged at scale, reducing overhead and improving net margins. Snap on continues to make more specialty tools at a fast pace with user feedback.

Consumer behavior plays a big role too. Technicians compete for work within their own garage so being faster with fewer mistakes will give you a competitive advantage and higher salary. This leads to
especially less experienced or skilled technicians to jump for quick solutions such as tools. It is also a social signal to others including the manager that they are serious about their work and being the best. Branded accessories such as shirts, jackets, etc. sell well as they like to remind others of their commitment to the craft, and further reinforce brand loyalty.

The use of offering debt further insulates Snap-on users from other brands as sunk-cost bias would increase their brand loyalty, lest they experience cognitive dissonance between past action and current opinion. “I’ve spent so much on Snap-on because they are the best” To change your opinion of their tools while you continue to pay it off every month would be far more difficult to digest and even harder to admit to others.

Market Profile and Trends

Snap-on competes in several markets, but auto repair tools and diagnostics are the majority, or roughly 2/3 of the business. Other segments include commercial, industrial, and military tools for repairing heavy equipment. The hand tools market is considered mature with stable competition, but there are pockets of opportunity for high-tech, accelerated growth.

**Auto Repair Hand Tools (Tools: 38% of sales)**

*Mechanics compete and Snap-on is THE trusted source for solutions.*

Snap-on Tools segment sells tools to auto repair shops directly to technicians through franchisees distributed throughout the globe. They provide weekly visits in their large vans to sell, demonstrate, train, and offer support and face-to-face consultation and support to the customers. In several English-speaking countries, such as US, UK, and Australia, it is tradition for technicians own their own tools even if they work at someone else’s garage. Whatever the reasons are for this custom, and there are many theories, it is a negligible risk of changing in the foreseeable future as it is well liked by both technicians who appreciate the control and potential for competitive edge, as well as the garage as a cost cutting measure. The industry is still highly fragmented, and most garages are independently owned however this is expected to continue the slow consolidation trend. Based on the Federal department of labor, there are 760,000 repair technicians in the US, with that number expected to stay flat for the next ten years (-1%).

Average income for this group has been rising with or just above inflation, increasing their purchasing power as cars become more complicated and require more training. This trend of specialization has led to the repair industry to spend more on wages as a percent of income over the past few years. Self-driving cars may not be here yet, but many of the sensors are already on cars performing less advanced work, but they still require mechanical, electrical, and computational repairs for even a slight bumper dent to function properly. Electrical and hybrid cars also add complexity to both mechanical repairs by added shock/electrocution hazards to mechanical work on top of electrical repairs which require more
knowledge. Insulated tool demand may increase as more automakers fulfill their promise of electrifying their offerings.

Use of repair tools correlates with usage (repairs), as even the strongest tools will wear out eventually and many tools are designed for precision to apply to correct amount of force, and not too much. Vehicles also change over time where model specific tools can make repetitive jobs faster and safer when internal part layouts are inconvenient. COVID-19 will decrease the demand for routine maintenance tools for passenger vehicles but may be partially countered by heavy truck and van repairs. Snap-on franchisees spend a lot of time in garages and their computer systems tell them (as reported in the last quarterly investor meeting) that people are putting off their routine maintenance for things like oil changes, but not for broken and defective issues. This trend should reverse as people prefer to stay in their cars over being in public and we see increased demand for private car use over public transport.

Snap-On tools does not compete in the retail tools space which is much more competitive with the average hand tools industry profit margins at 4.5% (IBIS). Snap-on’s EBITDA margin is in the 25-30% range which suggests they are not exactly comparable markets with Snap-on’s market as defined being much more favorable.

While Snap-on tools last a long time, they continuously make new specialty tools to make the job easier and faster. There is also turnover in the industry as technicians retire and new ones enter and demand, or want, their own tools. Soft ergonomic handles wear out and become slippery. The high desirability of the tools means they often go missing through theft or not being returned after borrowing. This means there is a steady, but flat, demand for standard high-quality hand tools.

**Commercial and Industrial (C&I: 31% of sales)**

*Critical Industries where tool costs come second to reducing downtime, productivity, and error reduction.*

Critical and remote industries are the best match for Snap-on’s brand of high quality, trusted tools, but other manufacturing opportunities also fit. Here the organization will purchase tools for the technicians to share. Wholistic productivity, organization, error reduction, safety, and consistency are where customers see value more than name brand and technical support, leading to slightly lower margins than the image conscious technician market. Kitting and storage systems are big areas of importance. Tool costs are a small fraction of operational opportunity costs due to downtime, so price sensitivity is relatively low. Kitting or custom organization and storage of all the tools and parts needed for a job is useful for reducing downtime, and smart storage solutions that automatically apply accountability to technicians and help them find the tools they need can drastically cut down on wasted time in an industrial setting, as well as reducing the risk of leaving a tool inside equipment. This happens more often than one might think, referred to FOD (foreign object debris) in aviation. My personal experience in manufacturing I learned from a doctor of reliability engineering how routine kitting can reduce maintenance downtime and costs by over 10%. This can add up to millions in savings for companies that have yet to implement these complex organizations.

Snap-On industrial customers are themselves in Oil and Gas, Aerospace, Military, Heavy Duty and Fleet Maintenance, Power generation, Railroads, and general manufacturing.
Repair and Information Systems (R&I: 31% of sales)
As cars become more sophisticated, so do the tools mechanics need to get the job done.

This department is sold by franchisees to garages and managers for the use of the technicians, or by national sales teams depending on the customer and product. This market is becoming more important as cars become increasingly complex and diagnosing issues becomes more difficult – allowing less experienced technicians to be more productive to save garages time and money while improving driver satisfaction to compete against dealerships that have far fewer models they need to learn. While it is less than the tools segment in revenue, it is the largest profit center due to the SaaS and is a high fixed cost product that will become more profitable as it grows its installed base. A Zeus diagnostic system, for example, can cost $11K on top of a monthly subscription. Snap-on has one of the largest databases of repairs to help technicians diagnose the most likely issue with a specific make, model, mileage, time of year, and symptoms. They also offer alignment tools for frames, wheels, tire balancing, and brakes. They also have calibration tools for self-driving sensors.

Geographic Outlook
Snap-on is sold in over 130 countries worldwide, but sales are reported in three main segments North America, Europe, and Other. Snap-On produces products close to the markets they are sold with facilities in 12 countries spread over North America, South America, Asia, and Europe.

North America (68% of sales)
The north America market includes Canada and Mexico. The US tools market has been stagnant with small to little growth for the past 3 years but represents just over 2/3 (68%) of total revenues. However, margins and profitability have been increasing due to the growth in the financial services department, as well as other improvements in profitability through new products and cost reduction. Growth in the area will likely rely on the R&I and C&I segments.

The aging American workforce has also not eluded the auto mechanic sector. The average age is estimated to be around 40 as of a few years ago and may continue to climb before baby boomers retire at a faster pace as they have only started. Issues such as poor eyesight, arthritis and other physical weakening and ailments associated with age are both a benefit and hinderance to the company. Better ergonomics and easier to use specialty tools that reduce effort may help drive sales of older workers. However, tool warranties do not pass to the second owner, and therefore delaying the entry of younger workers who may buy all new tool sets. Younger mechanics who trained in a Snap-On supported technical school will likely enter the industry with the expectation of buying Snap-on tools.
when they can afford it, however Snap-On durability may create slower resale of certain parts. They are also more likely to be already trained on repair and diagnostic tools, naturally more receptive and adaptable to software/computerized solutions and will therefore drive easier uptake and less training requirements.

**Europe (18% of sales)**

**UK:** Brexit has greatly reduced demand in the short term as economic uncertainty creates hesitation. Sales are likely to rebound with uncertainty lifting with the close last quarter. UK shares the US model of technicians owning their own tools, and many other cultural/market similarities which is why Snap-o has been successful there outside this “period of turbulence” as the CEO Nickolas Pinchuk refers to it.

**Germany:** Tougher market for Snap-on. There are many quality domestic competitors with commercial contracts that make it difficult to penetrate. For instance, Bosch also owns a certification program for garages, sells parts, and is majority owned by a non-profit institute which give it ESG preference for socially conscience consumers. It is less common for technicians here to own their own tools.

**All Other (13% of sales)**

While Snap-on has sales and franchises in over 130 countries, China is by far the largest and most impactful. Demand for auto repairs is poised to increase significantly in the next 3-5 years creating significant demand for their products. The current average age of cars on the road is 5 years old, compared to 11+ in the US. Car components do not begin to reach their expected end of life until about 5-10 years out (50-100 thousand miles). Further increases in car sales expected over the next decade will combine with the aging average car to result in increased demand for repair services and indirectly for Snap-on tools. Marketability is somewhat limited here by the low wages which make the invest-in-yourself argument difficult to sell, as well as a lack of technician-supplied tool culture. As wages increase and demand increases faster than supply of skilled technicians, the market will likely converge around the industry leader as value becomes less important than quality and productivity. Recruiting franchisees in greater numbers will be a challenge, due to the cultural/social risks of failure in Chinese culture. The Storage solutions that prevent theft and mismanagement in commercial sales are successful for now. In fact, here facial recognition verification for the level 5 automated storage solutions was demanded over ID cards or codes suggesting they demand an even higher level of security.

Snap on has distribution, production, and a design center in China built for the local market in anticipation of the rise in car repair demand.

**Porters Five Forces Analysis**

Let us take a look at why this is an attractive market.

**Power of suppliers:** Steel and plastic are commodities and unable to negotiate prices. Snap-on is mostly vertically integrated, and therefore has limited suppliers. Labor for manufacturing is more than abundant as demand for good paying jobs that other companies have offshored to other countries have not and will likely never fully return.
**Power of Customers:** Customers demand the best tools and can require Snap-on to spend more money to develop more and better tools, increasing costs. However, they have few other options as we will discuss in the *Industry and Competition* section. Sales or discounts are determined by the franchise, but wholesale prices to the franchisee are not negotiable reducing any competition based on pricing. Franchisees are also not allowed to sell competitor’s products. Customers, except for the military, are highly fragmented.

**Power of close substitutes:** Going to a big box store to buy a tool would reduce earning potential (time) as well as risk of it breaking, causing fatigue/strain, or damaging the part they are attempting to fix. However, there is a right tool for the job and professional technicians are usually unwilling to forego use of the correct tool whenever possible as it will slow down their work and cause delays with customers.

**Threat of New Entrants:** The industry is in fact consolidating. Brand names with longevity are valued by customers and play a major role in purchasing decisions, increasing the barriers to entry.

**Internal Competition:** Below is a separate section looking at the competition in the different business segments.

**Industry and Competition**

No one company competes against Snap-on in every industry, but we can break it out by sales segment to see how Snap-on can defend its position and weaknesses where it can make inroads. Snap-on’s core tools business is dominant, but still has some way to go in the Commercial and Industrial, and Repair and Information Systems segments.

**Van Franchise: Hand Tools**

The van franchise model competes nearly directly with MAC tools, Matco, and Cornwall Quality Tools.

**MAC tools** is owned by the Stanley Black and Decker (SWK) parent organization which is mostly focused on retail distribution. They are relatively new to this model having acquired MAC tools in the late 80’s.

**Matco** represents 8.4% of parent Fortive Corporation (FTV) revenue, and is not growing as of 2019. Their latest 10K guidance focuses on price increases as well as cost reduction measures for the segment, and no note of market share capture. $637.9 Million in sales in 2019, down slightly from $640.0 in 2018. They appear to be the largest competitor in this segment, but still only a fraction of the size of Snap-on.

**Cornwall** is privately owned and very small. It targets a lower price point than the other companies according to its digital marketing and diagnostics product manager Don Russell in 2017, “… and of the big four tool makers, we’re probably the most aggressive on pricing.” Their president, Studenic, also claimed to have sales at $138 Million in the same article.
Supporting a full-time franchisee with only $200-300K in sales is a difficult sell for competitors. There’s significant overhead and personal financial risk and investment involved. These economies of scope (selling more/different to the same people) is critical to attracting and retaining franchisees by increasing their earning potential and limiting wasted time on the road. Snap-On is by far the best option for the best franchisees as the average sales average is multiples higher than the other competitors based on Entrepreneur magazine’s franchise rankings when combined with company earnings reports. Snap-on is consistently ranked above the other tool-van brands for franchisees as well, even when in years when they have shown high % growth in franchise numbers due to their small size. It is currently ranked #31 overall in the Top 500 global ranking, with Matco the closest at #32. Cornwell and MAC tools are ranked in the 81 and 75, respectively. Snap-on faces little pressure from the bargaining power of franchisee owners therefore, who are inherently a fragmented supply of labor.

### Repair and Information Systems

Here technology and software dominate the industry forces, so economies of scale and network effects are strong leading to at most a few winners. There has also been a good number of M&A deals done in this space recently, as smaller companies get acquired and their software features integrated into existing networks.

**Bosch:** With reported strong US sales of $500 million in 2012, SPX sold their diagnostics division sold under the SPX, OTC, and Robinair, and Actron brands to Bosch in 2012 for $1.1 billion USD. They make repair diagnostics and garage management information systems/tools to improve efficiency for technicians and garage owners. They also make shop equipment and specialty tools. Bosch is privately owned conglomerate with $78 Billion Euro in sales and does not report segment figures at this level of detail.

**Infomedia:** Based in Australia, this firm offers a range of information management systems for garages and auto dealers globally but has revenues of under $100 M in 2019 ($20 US), so it is quite small and only grew 3% last year. Due to the switching cost of these systems, it is difficult to capture market share.
Dover: The VSG (vehicle service group) group of Dover Corporation’s engineered systems segment competes with SNA in garage equipment and diagnostic systems using their Rotary Lift®, Chief®, Forward®, Direct-Lift®, Ravaglioli, Warn Automotive®, Hanmecson®, Revolution®, Elektron, Blitz, Nogra, Butler, Space, and Sirio brands.

Retail Diagnostics: Customers can take their cars to AutoZone or another parts retailer and bypass the garage altogether. AutoZone for instance has their own proprietary diagnostics tool.

Commercial and Industrial
Most tool companies have industrial or commercial sales for small tools, including retail stores and mail order/online companies such as Grainger. Competition in this segment is far more fragmented, and more price competitive than the professional auto technician market. A recent contract to supply tools and repair kits for the F-35 fighter program for the US military is a good example. While competition does not need to steal market share, it did drive down the bidding prices on the contract which is why margins for this work are lower than average causing a one-time drop in gross margins.

Financial Services
Local and national banks, credit cards, and credit unions are the competition for small business loans, which is where customers would have to go for financing Snap-on products. By offering good credit terms through understanding of their customers business and the local market, and having a very convenient and automated approval process that takes seconds/minutes, they are able to offer better rates by managing default risk and keep customers from looking elsewhere.

Financial Statement and Performance Analysis
Sales
Market size long term can be estimated by demand for used cars or as a composite of installed car base and average car age. Older cars require more maintenance per mile driven and can vary significantly between brands and car models. Growth has exceeded market size growth over past decade at 5.6% CAGR which suggests they have an attractive value proposition. Sales growth has dropped over the past 3-4 years, suggesting either market saturation or other issues. Low growth in accounts days outstanding is good as it indicates strong top-line quality.
Margin Analysis

**Gross**: 51% - Much higher than any publicly traded company in the hand tools segment, with SWK achieving only 33%, suggesting SNA provides a higher value product, and possibly not even in direct competition; an 1800 basis point difference! Competition is also high which causes a more average net income margin as sales, and more recently franchisee training costs, eat into profits. Steel prices have increased significantly recently due to the tariffs despite supplying domestic steel for US operations, and that accounts for a bog part of the decline in gross margins.

**EBITDA**: EBITDA margin is 28.3% which is 1660 basis points higher than SWK’s 11.7% margin. Clearly the van distribution model is less competitive than the retail market and allows for higher shareholder returns in the long run. SG&A costs as % sales have been on a downward trend since 2012. The recent uptick is due to one-time franchisee training to help sell-through for advanced R&I products.

Balance Sheet Analysis

**Asset Growth**

**Acquisitions**: Expand product line to increase scope and grow. Tools have limited economies of scale, but high economies of scope within a customer segment. If these acquisitions are within their strategic heartland, they will add value to the firm as bolt-on product line extensions.

**New Products**: Inventory levels have increased recently from new product development and integration/redistribution of purchased brands inventory to franchisees. This allows for future sales increases as sophisticated (and expensive) products need to be demonstrated for customers to appreciate the value of the product and make a purchase. Franchisees also need to become familiar with the products, especially the diagnostic tools, before they can effectively sell and support them.

**New factories**: Snap-on has factories all over the world, but most assets are in the US and Sweden under the Bahco industrial brand. Snap-On has also recently invested in production, design, and training facilities in Kunshan (R&I, power tools, design), and Xiaoshan (hand tools) for the domestic Chinese market.
Asset Productivity

Asset turnover has been dropping since 2014 due to increased accounts receivables for the financing arm, as well as increased inventory.

**Inventory turnover** is going down which is due to lower tools sales growth as well as management’s claim that increased inventory is for increased new product rollouts with 5,700 new tools developed in 2018 which are needed to drive sales. As mentioned earlier, franchisees need to demonstrate specialty tools in person to make sales. However, needing so many extra tools to maintain or grow sales is suspect and potentially unsustainable at this rate if it continues. Tool development costs and supply chain complexity will inevitably lead to high costs, inventory obsolescence write-downs, and other issues that could eat into gross margins down the line.

**Accounts receivable turnover** is down to 2.9 of gross sales for the last quarter which is in line with recent numbers. The long-term trend is slowly downward from roughly 3.5 in 2013. This reflects Snap-on’s increased access and extended terms of credit to its franchisees and customers through its financial arm, as well as taking on more corporate accounts that tend to pay on a delayed basis. However, the increase in financial performance is not covering lower quality sales. Bad debt expense has stayed low and even during the 2008 crisis, there was little impact as renegotiated terms were provided as the economy recovered. We may see a longer recovery with COVID-19 but similar impact on receivables should be expected.

**ROI & ROA:** 16.4% ROI is much higher than industry average of low-mid single digits and suggests that management has effective capital controls to ensure profitably reinvested earnings. It also suggests strong potential for capitalizing on future growth without diluting value or taking on financial risk. ROA is also on the high end for the industry at 11.7%.

Liability & Financial Leverage Analysis

**Creditworthiness & Debt** Snap-On is less levered than most in the industrial sector with a quick ratio of 1.7 x and current of 2.5 x. They have sufficient cash on hand to whether the COVID-19 pandemic/recession and support their franchisees. There is little risk of liquidity issues or inability to raise debt thanks to stabilized credit markets. They were in fact recently given A2 credit rating.

**Accounts payable turnover:** Has been stable hovering around 2.5 x for the past 4 years but was as high as 3.0 x further back. This is an indicator of how well Snap-on treats is suppliers which appears to be OK.
Valuation Metrics

Price to Earnings: Compared to SWK, the purest competitor to, SNA is a huge bargain at 9.5 x while SWK has been trading at 17.7 x despite having a weaker brand, lower ROI & ROA, and lower margins. It is also lower than small tools sector at 22.5 x.

Price to Book: The price to book for Snap-on (1.9) is high compared to competition, and by Grahams rule of thumb, but much of its true assets are imbedded in the brand value whose true value doesn’t show up on the balance sheet. Also, some of the physical asset value is in the tools and trucks of the franchisees which is only an issue in case of liquidation where creditors would not be able to recoup them. The value generated from these assets is mostly captured by Snap-on through its near monopoly in the market, giving franchisees no legitimate options to switch companies. Other companies that sell direct to customers will tend to have larger balance sheets for these reasons and is not a fair comparison for evaluating the companies earning potential.

Enterprise Value to EBIT: Again, metrics concerning earning history or potential seem to favor Snap-on as a value pick. The magic of how they can sustainably command such a price premium in an otherwise highly competitive market until now seems to be eluding investors. AN EV/EBIT

ROA/ROE adjustments: Companies that have shown higher return on investments are likely to be valued higher as their intangible management systems and culture have proven effective. SNA has some of the highest productivity metrics in the industry, yet current stock prices reflect a price discount instead of a premium.

<table>
<thead>
<tr>
<th>Company</th>
<th>Market Cap (in millions USD)</th>
<th>EV/EBITDA</th>
<th>PE</th>
<th>P/S</th>
<th>P/BB</th>
<th>EV/Rev</th>
<th>ROA</th>
<th>ROI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average (ex SNA, MK cap &gt; $1B)</td>
<td>6,023</td>
<td>12.9</td>
<td>21.5</td>
<td>2.5</td>
<td>2.9</td>
<td>2.6</td>
<td>7.5%</td>
<td>13.7%</td>
</tr>
<tr>
<td>SNA</td>
<td>6,471</td>
<td>7</td>
<td>9.5</td>
<td>1.6</td>
<td>1.9</td>
<td>1.8</td>
<td>11.7%</td>
<td>16.4%</td>
</tr>
<tr>
<td>SWK - Stanly B&amp;D</td>
<td>17,334</td>
<td>11.2</td>
<td>17.7</td>
<td>1.2</td>
<td>1.2</td>
<td>1.5</td>
<td>3.1%</td>
<td>11.1%</td>
</tr>
<tr>
<td>KMT - Cutting tools</td>
<td>2,552</td>
<td>8.9</td>
<td>14.2</td>
<td>0.8</td>
<td>1.4</td>
<td>1.1</td>
<td>5.0%</td>
<td>13.3%</td>
</tr>
<tr>
<td>PRLB - 3D printing</td>
<td>2,191</td>
<td>18.4</td>
<td>35</td>
<td>4.8</td>
<td>3.7</td>
<td>4.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ROLL - Bearings</td>
<td>3,034</td>
<td>15</td>
<td>24.3</td>
<td>4.2</td>
<td>2.8</td>
<td>4.2</td>
<td>10.2%</td>
<td>11.0%</td>
</tr>
<tr>
<td>LECO - Welders</td>
<td>4,556</td>
<td>10.9</td>
<td>16.2</td>
<td>1.6</td>
<td>5.6</td>
<td>1.7</td>
<td>11.8%</td>
<td>19.4%</td>
</tr>
<tr>
<td>EML - Machined parts</td>
<td>113</td>
<td>8.4</td>
<td>8.6</td>
<td>0.5</td>
<td>1.1</td>
<td>0.8</td>
<td>5.7%</td>
<td>7.1%</td>
</tr>
<tr>
<td>CVR - Rivets</td>
<td>19</td>
<td>5.7</td>
<td>34.7</td>
<td>0.6</td>
<td>0.6</td>
<td>0.3</td>
<td>1.7%</td>
<td>1.2%</td>
</tr>
<tr>
<td>TBLT - Belts Bags, Stands</td>
<td>18</td>
<td>0.2</td>
<td>93.9</td>
<td>1.4</td>
<td>NA</td>
<td>NA</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Valuation Over Time
Snap-on has been valued higher in the past as well. As shown in the chart, SNA past valuations were much higher for extended periods of time. The business model has not changed in this time and they continue to show similar earnings growth in the near term, and long-term as they expand the brand into new geographical markets, and similar consumer groups.

DCF
The DCF model suggests the current value of the firm is far under-valued based on only a few assumptions. Low earnings volatility reflects the firm’s low risk and uncertainty, and therefore should be valued with a lower equity cost of capital. Under a range of potential growth, discounting rates, and reasonable changes in cost structures based on technology adoption and steel prices, the stock is consistently undervalued by a more than safe margin of error especially now during the COVID market drop. We should expect a drop of 20-30% in earnings in the current year, followed by a strong return to a normalized market size at around 10% yoy growth, and continued 3-5% earnings growth into the future. These assumptions are analogous to the 2008 crash and recovery and will most likely be repeated as customers begin driving again. Considering auto repair is an essential service and there is little required customer direct contact, the sales reduction is likely to be short lived and bounce back as areas reach stage 2-3 economic re-opening in the coming months.

I came to the valuation target of $196 by using both a scenario DCF analysis, utilizing both a bear bull and base case weighted for their likelihood. I also checked these results against analyst forecasts in the
near term where these numbers appear to be well within industry expectations. A comparable analysis was also used to check the results, considering company size and productivity advantages of Snap-On compared to other small tool producers in other industrial segments. See the attached financial model for more details.

Other Indicators of Value

**Low Volatility Earnings & Consistent Dividend:** The earnings and free cash flow volatility of SNA is much lower than the market average, and often moves in the opposite direction. By my calculation, there is a negative earnings correlation with the SPY S&P index ETF (yearly). However, the SNA stock price shows volatility greater than the market (S&P beta roughly 1.3), which suggests the market is not trading on earnings and therefore is more speculative than rational. The market is unable to accurately value the company therefore, leaving room for mispricing and an advantage for value investors who research company fundamentals and ignore “Mr. Market’s” wild mood swings.

The company is also one of the most consistent with their dividends in the market, having held or increased their dividends continuously since 1936. In November 2019, management raised the quarterly dividend to $1.08 per share ($4.32/year). Management has given no indication of any intent to reduce or suspend their dividend during the COVID-19 recession in their most recent guidance, even when asked directly by analysts.

**Sustainability:**

Snap-On as a manufacturing and industrial company has a higher carbon footprint than the average listed company, however, this is not materially different from other similar companies in the space. In distributing manufacturing to local markets, they can provide sustainable labor practices than potentially exploited labor used in imported products.

**Ownership & Technical Indicators**

The stock is owned nearly entirely by institutional investors, mainly broad market ETF’s and value/income mutual funds. Vanguard and Blackrock alone own 20%. There is also a significant amount of short interest at 14.1% of float as of April 15th, suggesting the stock is oversold having already reached its bottom and will soon recover.

**Risks and Responses**

- **China trade war** could escalate and result in slower growth or even decline in Chinese sales. Tariffs on imports to china would be limited, but tariffs on US steel could raise costs and impact margins. While Snap-on sources its steel domestically for the US, domestic prices increased in the past with steel tariffs as well.

- **China knock-offs:** As with any firm entering China, the risk of someone copying your product well and creating domestic competition or counterfeit products are always a risk. Counterfeits are a good problem to have in a new market because it helps to gauge brand perception in that counterfeiter can only make money if there is a general high perception of the brand quality. A firm making genuinely good, but different tools that compete directly with Snap-on in china is possible, however the impression of American made good is generally favorable even
domestically in China. Longevity in the market is often needed to support claims of long-living durable goods like hand tools. Guarantees only work if the company is still around.

- **A larger conglomerate** could try to enter the market with a focused and poor resources to gain market share. This is a low probability as the customers are well entrenched, and franchisees are unlikely to leave.
- **COVID** drives down automotive and aerospace miles driven for longer than expected, reducing the global market for repair tools as part of a global recession/depression.
- **Increased credit** to shops and franchises could lead to bad credit write downs. As seen in the 2008 crisis, this was not a huge issue, as lines can easily be extended with Snap-on taking on more leverage in the recovery. The end market of repairs is relatively resilient in recessions. Snap-On has kept its accounts receivable turnover stable over the past few years and this risk should have limited impact.
- **Self-driving & electric cars** could become so safe that automotive repair rates drop significantly. This is unlikely to happen soon as the technology is not ready and is likely to be too expensive for most car owners. Collision repair technician job market is also only about 10% of the total auto repair market according the US department of labor. Maintenance for tires, brakes, and batteries are some of the most common repair jobs according to Popular mechanics and will be just as important with self-driving or electric cars.
- **Urbanization:** The trend to urbanization in many countries, including the US, may lead to fewer drivers as younger workers looking for work move to downtown areas where there is more opportunities for well paying jobs in growth industries such as technology. This trend is very slow moving with generational implications, and therefore not a major risk to the current valuation. The recent COVID pandemic has increased demand for country and second homes which can only be reached by personal automobile. People may also prefer road trips over airline travel long term as some residual anxiety from COVID lingers among the current generation for decades.
- **Rising Accounts Receivable and Inventory:** Over the past 8 years accounts receivable and inventory have increased slowly, pulling down asset turnover to new lows. The change has been steady and flattened only in the past few quarters. There is a risk that this is not due to expanding product lines and new territories as management suggests but is in fact a sign of weakening or slowing growth in demand. This should be taken seriously as it has the largest implications for long term growth and sales.

**Graham & Buffett View**

How would Graham and Buffett think about this company?

**Its like the Apple of Tools:** Buffet was sometimes reluctant to see the value in marketing and consumer behavior at first as it was hard to measure as a competitive and sustainable advantage (moat), but when he understood the market and saw firsthand the brand, he would be all onboard. See’s Candies, Coca-Cola, Apple, and Snap-On have similar consumer behaviors and often market dominance in winner-take-all type dynamics within their customer groups. The consumers are more than willing to stay loyal and pay a significant price premium in an otherwise competitive market and stand well above the rest. This
is a good market to be in, due to the depth of the moat described in the competitive advantage section, and the lack of significant competition in their core business. As Buffett famously said, “When a management with a good reputation for brilliance tackles a business with a reputation for bad economics, it is the reputation of the business that remains intact.” That is the same with Snap-On where other tool companies have tried and failed to capture market for decades despite relatively “low” obvious barriers to entry. When you realize tools represent a sizable investment, but small relative to total income for the professional technician, but can have a major impact on your comfort, earning potential, and respect of coworkers, its easy to see why being cheap leaves you open to regret. I could see why Buffet may not have bought into Snap-on, because it is a relatively small market and BH is too large for investments of this size. The entire company would be about 2% of his holdings, and Buffet is vocal about disliking diversification.

Graham would likely not approve of the price to book ratio over 1.5 (1.9), but this is often the hardest metric to find nowadays as brand value and franchises fail to appear as assets. Otherwise he would appreciate the low price to earnings ratio below 15 (9.5), earnings stability, dividend record (one of the longest), earnings growth > 33% over the past decade (closer to 50%), size ($6B) and current ratio >2 (2.5). The blended multiplier of PE * PB = 18 in mid-April was also well within his 22.5 recommendation. This stock is a nearly perfect example of a stock for the defensive investor by Graham’s calculation.

Overall Buffett and Graham would approve of this company as it has both the tenants of value valuations and the potential for large expansion in the future. Even in the very unlikely scenario that growth stopped, it would still offer sound returns above that of most bonds through its dividend yield.

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