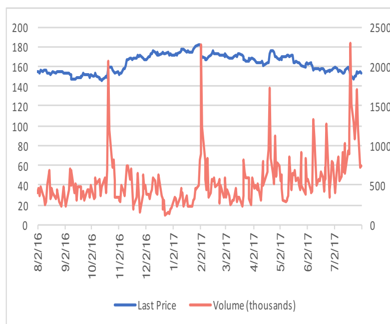
August 2, 2017
Coverage Initiation

Snap-on Inc. (SNA US)

Price	USD 152.43
Rating	**SELL**
Price Target	**USD 116.20**
Difference	24%
Avg. Volume	900,000
Short Interest	10.1%
Market Cap	USD 8.7 bln
P/E	15.75x

Snap-on Incorporated (SNA US) last share price in USD (blue) and volume (pink, in ,000 shares)



Source: Bloomberg August 2, 2017

Snap-on Incorporated (SNA US)

Naked Swimmers Rising

Default Rates to Double to 6%

Snap-on's next report will show increased rates of default as a consequence of tightened credit terms and weak franchisees.

Snap-on Tools Division Sales to Decline

Just as credit growth drove sales up, the decline in new loan originations will cause sales to decline.

Post 2011 Credit Policy Undermined Franchise Network

Old timers know that, to survive, sales on extended credit must stay below 20% of total sales. But Snap-on induced new franchisees to rely on rates of at least 35%. These weaker franchisees have a much higher failure rate and will be the majority by 2020.

Pile Up

In May 2017, Snap-on tightened the criteria for franchisees to access risky credit. This ironically has tanked sales and led to higher default rates.

Sell: PT USD 116.20

Our earnings multiple model indicates a price target of USD 116.20 assuming a PE of 13.5 on the 2018 earnings. This is up from our May price target of USD 103.47.

Responsible for this report:
Tim Murray tim@jcapitalresearch.com

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Table of Contents

End of the Credit Line 3
Projecting into the Future 3
Franchisee Composition and Rising Defaults 3
Snap-on's Credit Addiction 5
How High Credit Growth is Killing Franchisees 6
How You Get Hooked 8
BAD: The "Bare Ass Minimum" 8
Steps to Debt Perdition 9
High Churn Rates 10
Toxic Routes: Stuffed With Debt 11
What a Good, Bad and Ugly Franchise P&L Looks Like 12

Valuation & Risks 14
Disclaimer 15

Tim Murray tim@jcapitalresearch.com
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Tim Murray
Tim@jcapitalresearch.com

+852 5223 8703

Franchisees have to absorb losses to remain eligible for best credit terms.

End of the Credit Line

Snap-on has reached the limits of its credit-fueled growth. As Snap-on Credit (SOC) tightened lending rules late in Q2, new loan originations declined by 5%, Snap-on Tools sales growth stalled, and SOC defaults rose 50 basis points YoY. The company is saying this is a temporary downturn, but we believe it will accelerate in Q3.

We expect the SOC default rate to double, from 3% to 6%, by 2018. The increased write-downs will reduce EBIT by about 10%. Franchisees already face higher default rates than Snap-on reports. Franchisees are forced to absorb defaults to remain eligible for the best financing terms for their sales, and that causes them to help extend lengthier credit terms and stump up cash to cover defaults. Snap-on's tightening of credit restrictions is now having a domino effect on credit defaults at the franchise level, which will continue to drive up Snap-on's own reported default rates.

The Commercial and Industrial Division was growing at 8.5% in Q2 and Repair Systems at 14.5%. However, more than half of the growth in both divisions comes from acquisitions, for which Snap-on overpaid. The significant acquisitions were made at the beginning of Q4 2016, and so we expect this expensive growth to end in Q4 this year.

Projecting into the Future

Starting in 2011, Snap-on shifted its business model to use credit to drive growth. Franchisees that joined post 2011 have twice the levels of credit sales as well as default rates three times higher than those joining pre-2011. Older franchisees were 65% of the network last year, but that will fall to 58% this year and 52% in 2018, and new franchisees will be the majority in 2019. Snap-on has reached a tipping point and can no longer hide the negative impact of excessive reliance on credit.

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Franchisee Composition and Rising Defaults

	2016	2017	2018
No of Franchises			
Total	3,340	3,448	3,498
Before 2011	2,171	2,000	1,835
After 2011	1,198	1,414	1,629
Before 2011	65%	58%	52%
After 2011	36%	41%	47%
Extended Credt % of Sales			
Before 2011	21%	21%	21%
After 2011	45%	47%	48%
Average Estimate	30%	31%	33%
Extended Credit % of Receivable			
Before 2011	46%	39%	33%
After 2011	54%	61%	67%
Default Rate - Franchisee			
Before 2011	2.0%	2.5%	3.0%
After 2011	6.0%	7.0%	8.0%
Average Default Rate	4.2%	5.3%	6.3%
SNA Default Rate - Finance Receivables	3.1%	4.5%	6.0%
Default Losses Finance Receivables $ mln	44	66	88
SNA reported Default Rate - Contract Receivables	2.0%	3.5%	5.0%
Default Losses Finance Receivables $ mln	8	13	19
Total Default Losses	52	79	107

Source: Company Reports, Franchise Disclosure Document (FDD) and J Capital

Snap-on's Credit Addiction

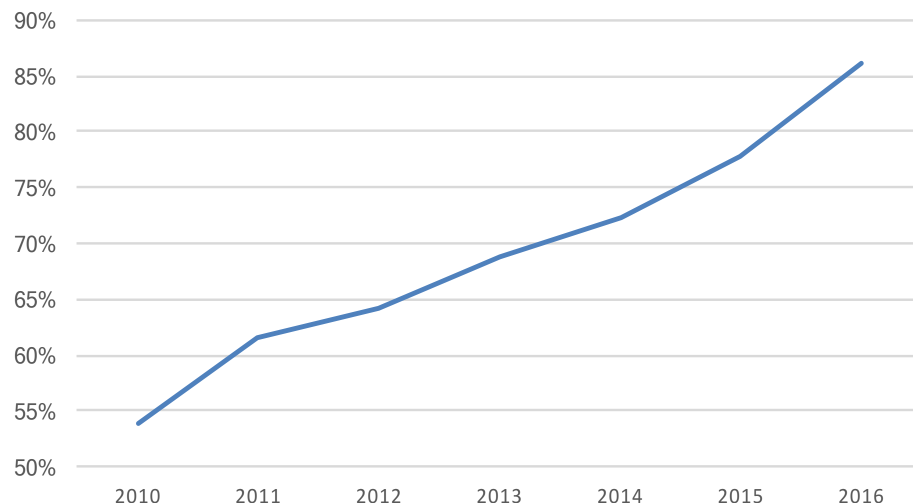
Snap-on fundamentally changed its business practice at the end of 2010 when it focused on aggressive lending to its franchise network and end customers to grow sales and margin. Aggressive subprime lending has achieved sales and margin growth but at a cost of poisoning the well. Franchisees that joined after 2011, indoctrinated to use credit to operate their business and sell to customers, are far more likely to fail than those that joined before 2011. They are hooked on using extended credit (EC) to achieve sales and lend to people they shouldn't, resulting in high levels of default that collapses their business.

A failed franchisee leaves a route with customers stuffed to their eyeballs with credit making it harder for the person that takes it over to be successful. Snap-on is reaching a tipping point where the new breed of franchisees, hooked on credit, will become the majority in the next year or so. Snap-on has managed to keep reported default rates at 3% by forcing the franchisees to eat the losses. Ostensibly, Snap-on will bear 75% of the loss resulting from a customer default and a franchise 25%. In reality, the franchise often takes all of the loss. For a franchise to stay in the credit program they must keep defaults below certain rates. Without access to the credit program, to sell using EC, highly levered franchisees will go bust. So the franchisee will service the debt of a defaulting customer and take the loss to keep default rates low enough to continue to have access to the credit program.

In May 2017 Snap-on Credit (SOC) changed lending rules to reduce risk, acknowledging that past lending practices have been too lax. These tightened credit rules are choking the franchisees that rely on loose credit rules to keep their businesses operating. New franchisees are taking over debt laden customer routes from the “terminated” franchisees. Sensible old timers, that control EC credit at around 20% of sales, will be in the minority in the next few years.

A franchisor, with a strong brand, typically does not provide finance to franchisees and customers, and if they do, it is limited. McDonald’s Corporation does not provide financing to franchisees. Instead, like many franchisors, it authorizes suitable financial institutions to lend to them.

Finance Receivables as a % of Snap-on Tools Sales

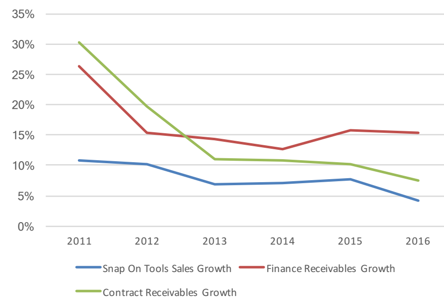


Source: Company Reports

Snap-on accidentally became the key financier of its franchisees and customers. CIT, Snap-on's finance partner from 1999 - 2009, had a liquidity crisis in 2009, and Snap-on took over the business to keep it alive. Since that time, total lending to customers increased from 54% of Snap-on Tool annual sales to 84%. Snap-on Credit (SOC), the finance division, operating margins went from 24% to 71% and the division's operating income went from 3.5% to 21% of the operating income of Snap-on. The growth of finance receivables (consumer credit) was twice the rate of growth of sales in 2015, by 2016 it was three times.

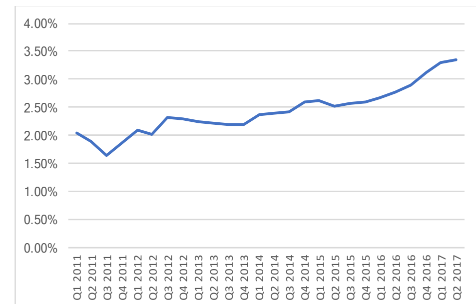
In 2016, finance receivables grew three times as fast as sales.

Snap-on Tools Sales and Credit Growth



Source: Company Reports

Financial Receivables Default



Source: Company Reports

Snap-on lends at very high interest rates of between 9-27%, and averaging 17%. The customers and many franchisees who use the SOC credit have low incomes, around USD 45,000/year, and can ill afford the high interest expenses. Default rates are high but masked by the fact that the debt collecting is pushed onto the franchisee. They must repossess and resell the tools. Reliant on credit, the franchisees cannot afford to have their credit rating impacted by a default. They face default rates as high as 15% but Snap-on only ever records around 2%, as franchisees bear the costs of collection.

How High Credit Growth is Killing Franchisees

Our most recent checks of franchisees show a stark contrast between the pre and post 2011 franchisees. Franchisees that joined Snap-on as a dealer from 2011 use Extended Credit (EC) for 45% of their sales, on average, and had a default rate of 6%. For those that joined before 2011 the average was 21% and the default rate 2%. We can also see a clear pattern of how franchise decline into termination. When EC sales go above 40% of a franchisees total sales then credit sales are being made to people who should not be approved and the default rates start to rise towards the crushing 15% mark. Defaults add cost to the business and high sales on EC impacts

future sales. When a large number of the franchise client base has reached its limit to purchase, which effectively what an EC sales does, then the franchisees sales will go into decline and they will quickly run into cash flow problems. When we spoke with the old timers in the network, with 20 plus years of experience, they are clear on how to use credit. They gave us a consistent message - don't let EC sales go over 20% of your sales. The old timers say you need the regular cash flow of sales made on the revolving account (franchisees with no interest payments structured over 10 weeks) to operate your business. The old timers all recounted stories of how frequently they had seen new dealers use too much credit to buy up inventory and force too much EC onto clients. These new dealers would enjoy rapid sales growth before they collapsed.

The Platinum Program allows franchisees to override SOC's denial of credit and lend to low-rated customers.

Franchise Extended Credit Sales, Default and Time as Franchise

Franchise	Extended Credit (EC) as a share of sales	Default Rate	Weekly Sales	Became Franchise
1	70%	3%	NA	After 2011
2	50%	1%	4,808	After 2011
3	47%	15%	3,846	After 2011
4	40%	10%	16,346	After 2011
5	35%	3%	15,000	After 2011
6	30%	1%	NA	After 2011
7	45%	8%	6,731	Before 2011
8	40%	3%	9,615	Before 2011
9	25%	1%	NA	Before 2011
10	20%	1%	7,692	Before 2011
11	20%	1%	NA	Before 2011
12	18%	4%	14,115	Before 2011
13	10%	1%	5,769	Before 2011
14	10%	1%	19,231	Before 2011
15	0%	1%	9,615	Before 2011
Average after 2011	45%	6%		
Average before 2011	21%	2%		

Source: J Capital Telephone Survey July 2017

How You Get Hooked

Since 2010, Snap-on has been loading new franchises with debt and aggressively indoctrinating them to sell on EC. SOC has a set of lending rules called the "Platinum program" that give the franchisee progressively greater ability to write risky loans provided delinquency rates stay low.

Platinum Program Key Terms and Criteria

	Plus	Premier	Elite
Overturns/month	2	4	Unlimited
Overturn Amount Limit	USD 3,500	USD 6,000	USD 8,500
Add-ons to Overturns	Certification	Unlimited	Unlimited
Credit Start (Instant approval at 27% for new clients)	Unlimited	Unlimited	Unlimited
Credit Start Limit	USD 3,500	USD 6,000	USD 8,500
	Plus	Premier	Elite
Qualification Criteria			
Required Deliquency Rate	8%<	5%<	3% <
New Required Deliquency Rate May 2017			1%<
Volume of EC/Month			USD 18,000

Source: J Capital interviews

Fundamentally, the franchise areas are saturated. To find growth in this crowded market, Snap-on has trained new franchisees to use as many EC loans as possible out of the gate. Training materials we have seen from 2011 have encouraged franchisees to make EC loans for at least 35% of their sales. New franchisees are given the equivalent of Elite status for the first four months of operation, and customers of new franchisees get special deals like a free roll cart if they take out a loan with a new franchisee. As new franchisees become reliant on credit sales, old timers call them "indoctrinated" and say that Snap-on is more a finance business than a tool company now.

BAD: The "Bare Ass Minimum"

New franchisees tend to have a poor understanding of their customers' creditworthiness. As the franchisee becomes more reliant on credit, he or she assumes greater risk. Since the franchisee cannot afford to lose Elite status, there is a tendency to manufacture delinquency rates that maintain their status.

A credit customer is considered delinquent when payments are 30 days outstanding. SOC will accept 51% of a payment to bring a client "current." This is referred to as BAM, or the Bare-Ass Minimum. When customers start to fall behind, franchisees pay the BAM on their behalf and then try to move the customer onto a new credit program to recoup the money. Our research indicates that almost every franchisee does this.

When a customer defaults, the franchise will reclaim and resell the tools. If the resale price is below the outstanding loan balance, referred to as "deficient," then SOC is meant to take 75% of the loss and the franchisee 25%. Our research is showing that around 50% of franchisees are paying 100% of the loss. This may be to keep delinquency rates low to maintain Elite status, or it may be that Snap-on finds other strategies to confine losses to the franchisee. A long-time franchisee told us that he was forced to accept 100% of the loss for a customer that defaulted on a USD 10,000 loan, as SOC found the franchisee had technically breached the credit contract. We heard similar stories from many franchisees we spoke with.

Sales momentum is maintained by rolling debt forward.

Franchisees can quickly start to rack up significant costs from absorbing the losses of defaulting EC clients. In addition, franchisees face defaults on their revolving account. We believe these default rates may be as high or higher than EC credit rates. We estimate the typical default rate on revolving accounts is 5-8%.

Steps to debt perdition

Under the recent tightening of credit terms, a franchisee must keep default rates below 1%, down from the previous level of 3%, to be eligible for the Elite category in the Platinum program. Franchisees that were struggling to keep defaults at 3%, by absorbing losses have found it impossible to achieve the 1% target.

This has a compounding impact on the business in the following way:

- A customer may have purchased a tool on the revolving account (RA) then defaulted on payments.
- An Elite program franchisee then makes a new sale to that client, overriding SOC's credit decline. The franchisee rolls the unpaid RA payments into the new EC loan.
- That same customer may become delinquent on the new purchase, and so the franchisee services the debt.
- The franchisee makes a new EC sale and rolls the unpaid earlier loan into that new EC loan.

If that franchisee does not have access to the Elite program under the new rules, then this cover-up and roll forward method no longer works. Not only can the franchisee not make new sales, but old customers will start to default at higher rates. This could tip weak franchisees into bankruptcy.

High churn rates

Snap-on targets the termination of 300 franchisees each year, which is around 9% of all franchisees. Reported gross revenues of franchisees consistently increase, with two thirds having revenue above the median. Clearly, Snap-on is terminating the underperformers to manufacture that outcome.

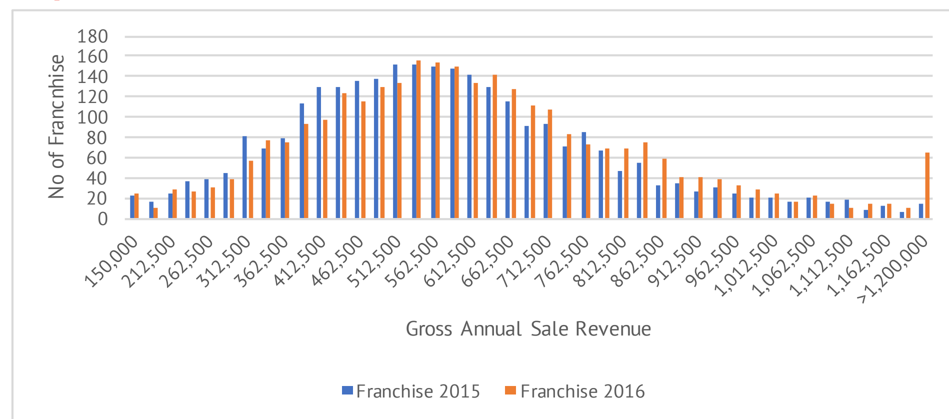
Franchise Termination Rates

	Terminated Franchise	New Franchise	Total	Termination Rate
2011	301	301	3,210	9.4%
2012	265	294	3,239	8.3%
2013	271	298	3,266	8.4%
2014	301	302	3,267	9.2%
2015	301	329	3295	9.2%
2016	300	345	3340	9.1%

Source: Company FDD Reports

Snap-On's annual Franchise Disclosure Document reports the gross revenue of franchises. Miraculously each year two-thirds of the franchisees have gross revenue above the median, which rises each year. Clearly the bottom 300 are failing in order to achieve this result.

Reported Franchise Gross Revenue



Source: FDD

We reviewed franchise terminations from 2011 to 2016 to understand the rate at which new franchises fail. From this analysis, we can see that 46% of the franchises started in 2011 had failed by 2016. In 2016, 43% of all failed franchisees had started after 2011.

Termination Rates for Franchises from 2011

		Year Franchise Commenced						
Year Of Termination	Number of Terminated Franchise	2011	2012	2013	2014	2015	2016	Total Started after 2011
2011	301	7.0%						
2012	265	11%	5%					
2013	271	13%	7%	6%				
2014	301	7%	8%	11%	5%			
2015	301	5%	8%	9%	7%	4%		33%
2016	300	6%	7%	8%	9%	8%	5%	43%
Total Terminated Since 2011		138	103	98	62	37	15	453
% of started in that year		46%	39%	36%	21%	12%	5%	

Source: Company FDD Reports

Toxic Routes: Stuffed with Debt

The assigned region and client list of a franchise is referred to as a route. When a franchise is terminated or otherwise leaves the network, a new franchisee takes over that route and collects the debts on behalf of SOC credit, receiving no compensation for that service. The old franchise's revolving account sales may be taken over at a discounted rate.

The new franchise has the right to refuse to purchase all or some of the revolving account (RA) sales from the previous franchise. The new franchise must take over the collection of the SOC credit loan payments for Snap-on.

Snap-on provides a minimum of 200 clients to a new franchise on a route, but many of those clients will not be automobile technicians or core clients. They could be a concrete company or a landscaping business that will occasionally purchase tools but never purchase lifts or wheel alignment or diagnostic equipment and will not make repeat purchases. Sometimes core clients may only be about 60% of the assigned clients on the route.

We have also heard that, after a franchisee is terminated, its route may be turned into a company route and used either to dump excess inventory at discounted prices or to pad gross sales with excess credit to make the numbers look more attractive for the next franchisee.

From our interviews we know that new franchisees are likely to inherit routes that have low-quality and non-core clients or who already have high levels of debt to Snap-on. It is not surprising that new franchises are failing at higher rates. Snap-on's credit policies are effectively scorching earth for future growth.

What a Good, Bad, and Ugly Franchise P&L Looks Like

Some of the routes assigned to new franchisees are toxic, with many indebted clients.

From our interviews and the disclosures made by Snap-on in the FDD, we have been able to draw a picture of the income statement for typical franchises. We estimate that a pre-2011 average franchisee would have net profit before tax of over USD 100,000. That is before paying personal compensation. A typical franchisee post 2011 would have around half that at USD 50,000. A terminal franchise, about to go bust, would have half that again with about USD 25,000 in annual profits. That means that, prior to 2011, a franchise that typically employed an operator and one assistant would yield annual net income to the owner-operator of about USD 70,000. Now that has declined to about USD 35,000, with the least successful franchisees earning less than USD 30,000. This dramatic drop in compensation will certainly drive people out of the network and cause new franchisees to avoid it. That means SNA will have to push out more credit to prove that growth is high.

The key drivers of this estimated performance in the table below are the following:

- 1. Sales: Established businesses that know their customers have higher sales. Newer businesses, still in the building stage, have lower revenues. When EC sales go over 40%, we believe that sales conversion rates decline as the number of customers able to make purchases is diminished.
- 2. Credit Sales: We know that older franchisees on average make around 21% of sales on EC and newer franchisees 40%. Failing franchisees credit rates have higher than 40%.
- 3. From our research it is clear that default rates, and therefore recovered-goods sales, rise with the percentage of total sales made with EC.
- 4. From interviews and the FDD, we know that older franchisees have low levels of debt and many have none. New franchisees typically have

around USD 100,000 in debt. Failing franchisees take on more debt as the business fails.

- 5. Franchisees are servicing the debt of customers to meet the BAM and to hide defaults.
- 6. Revolving account sales also result in defaults. Rates are lower for the older franchisees and higher for the newer franchisees.

Estimated P&L and Debt for Old, New and Terminal Franchise

Franchise P&L	Avg Franchise Pre 2011		Avg Franchise Post 2011		Terminal Franchise	
Gross Revenue		650,000		500,000		390,000
Cash sales	5%	32,500	5%	25,000	5%	19,500
Revolving Account	74%	481,000	55%	275,000	30%	117,000
EC Sales	21%	136,500	40%	200,000	65%	253,500
Recovered Goods Sales	0.4%	2,730	2.4%	12,000	9.8%	38,025
Average Gross Margin 30%		30%		30%		30%
Gross Profit		194,181		146,400		105,593
Total Costs		82,828		91,500		81,866
Truck Lease		16,200		16,200		16,200
Franchise, software, marketing fees (inc start up and renewal fees amort.)		18,000		18,000		18,000
Fuel		4,800		4,800		4,800
Maintenance		1,800		1,800		1,800
Insurance		3,000		3,000		3,000
Mobile and telecoms		1,500		1,500		1,500
Other		4,200		4,200		4,200
Finance Cost @ 9%		4,500		9,000		13,500
Debt Default - RA	5%	24,050	8%	22,000	8%	9,360
Debt Default - EC (25%)	2%	683	6%	3,000	15%	9,506
Cutomer debt serviciing and hidden default	3%	4,095	4%	8,000		
Profit Before Tax		111,354		54,900		23,726
Outstanding SOC loans		50,000		100,000		150,000

Source: FDD, J Capital

The fundamental problem is that underlying industrial growth slowed in 2011 --permanently

The backbone of Snap-on tools is the core of older franchisees, who control credit, know their customers well, and make good profits to sustain their business. New franchisees have high levels of debt and excessive reliance on credit. New franchisees can easily tip into the terminal category as EC sales exceed 40% and they make increasingly risky sales that default at higher rates.

The problem for Snap-on is that there are fewer old timers, and the new franchisees are now very weak. High default levels that were once hidden at the franchise level will now start to impact Snap-on's performance.

Valuation

We recommend that clients sell the stock, and we have a price target of USD 116.20, a 24% discount to the current price. Our price target is based on the following assumptions:

Revenue	2017	2018
Commercial and Industrial	7%	2%
Snap-On Tools	-1%	-3%
Repair Systems	12%	5%
Finance	9%	3%
Finance Originations	-8%	-5%
Default		
Finance Receivables	4.5%	6.0%
Contract Receivables	3.50%	5.0%

Source: J Capital

Risks

- Snap-on may create yet more lenient credit terms, allowing the credit problem to be hidden for another year.
- Our research may have favored particularly weak regions, and Snap-on defaults may be more manageable than we believe.
- Declining auto sales and lower prices for second-hand cars would mean that U.S. buyers will hold onto their cars longer and thus need more repair services.

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Tim Murray tim@jcapitalresearch.com