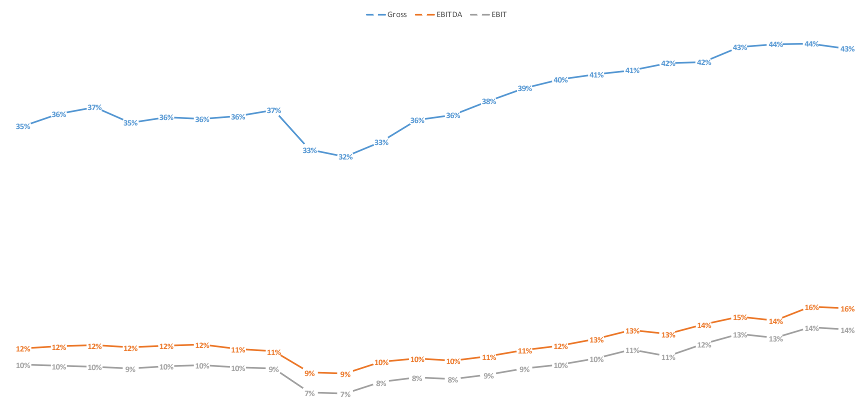
SINGULAR DILIGENCE

W. W. Grainger

NYSE: GWW

W. W. Grainger (NYSE: GWW)

Stock Price: $229.13



	EV/Sales	EV/Gross Profit	EV/EBITDA	EV/EBIT	EV/Owner Earnings
Lawson Products	0.61	1.00	23.68	NMF	9.57
Applied Industrial Technology	0.68	2.43	8.25	10.14	10.14
MSC Industrial Direct	1.50	3.32	9.74	11.53	8.60
Fastenal	3.20	6.35	13.55	14.96	14.96
MonotaRO	4.62	15.34	34.94	37.50	37.50
Minimum	0.61	1.00	8.25	NMF	8.60
Maximum	4.62	15.34	34.94	37.50	37.50
Median	1.50	3.32	13.55	11.53	10.14
Mean	2.12	5.69	18.03	NMF	16.15
Standard Deviation	1.74	5.74	11.21	63.25	12.18
Variation	82%	101%	62%	NMF	75%
Grainger	1.60	3.68	10.07	11.22	10.60

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	Minimum	Maximum	Median	Mean	Standard Deviation	Variation
Sales	2,077	2,364	2,628	3,023	3,277	3,537	4,137	4,341	4,636	4,977	4,754	4,644	4,667	5,050	5,527	5,884	6,418	6,850	6,222	7,182	8,078	8,950	9,438	9,965	2,077	9,965	4,866	5,359	2,195	41%
Gross Profit	729	860	975	1,072	1,181	1,267	1,494	1,598	1,511	1,585	1,589	1,659	1,692	1,907	2,162	2,354	2,604	2,808	2,599	3,006	3,511	3,916	4,136	4,314	729	4,314	1,675	2,105	1,051	50%
EBITDA	240	278	311	351	387	422	474	487	415	442	481	485	477	539	628	697	803	922	813	1,010	1,202	1,295	1,504	1,572	240	1,572	486	676	386	57%
EBIT	204	228	252	285	316	346	393	408	317	335	378	391	387	441	519	578	671	783	665	860	1,052	1,131	1,297	1,347	204	1,347	401	566	341	60%
Receivables		246	283	323	358	402	445	459	513	585	531	439	428	456	500	543	585	596	607	694	826	914	1,021	1,137	246	1,137	513	560	227	41%
Inventories		438	449	493	561	645	650	619	695	733	669	678	691	681	746	809	887	978	950	941	1,130	1,285	1,304	1,331	438	1,331	695	798	263	33%
PP&E		332	381	439	494	535	572	627	679	687	683	713	734	747	766	782	836	904	942	958	1,012	1,102	1,177	1,266	332	1,266	734	755	246	33%
Working Liabilities		232	252	305	335	346	391	428	462	473	435	406	386	386	416	432	421	405	417	450	566	645	682	764	232	764	417	436	126	29%
Net Tangible Assets		784	861	950	1,078	1,235	1,275	1,278	1,424	1,532	1,449	1,424	1,468	1,498	1,595	1,701	1,886	2,074	2,082	2,143	2,402	2,657	2,820	2,970	784	2,970	1,498	1,678	610	36%
MARGINS																														
Gross	35%	36%	37%	35%	36%	36%	36%	37%	33%	32%	33%	36%	36%	38%	39%	40%	41%	41%	42%	42%	43%	44%	44%	43%	32%	44%	37%	38%	4%	0.10
EBITDA	12%	12%	12%	12%	12%	12%	11%	11%	9%	9%	10%	10%	10%	11%	11%	12%	13%	13%	13%	14%	15%	14%	16%	16%	9%	16%	12%	12%	2%	0.16
EBIT	10%	10%	10%	9%	10%	10%	10%	9%	7%	7%	8%	8%	8%	9%	9%	10%	10%	11%	11%	12%	13%	13%	14%	14%	7%	14%	10%	10%	2%	0.19
TURNS																														
Sales/Receivables		9.60	9.30	9.36	9.16	8.81	9.31	9.45	9.04	8.51	8.95	10.59	10.92	11.06	11.06	10.84	10.98	11.49	10.25	10.35	9.78	9.79	9.25	8.76	8.51	11.49	9.60	9.85	0.89	9%
Sales/Inventories		5.40	5.85	6.13	5.84	5.49	6.37	7.01	6.67	6.79	7.10	6.85	6.75	7.42	7.41	7.27	7.24	7.00	6.55	7.64	7.15	6.96	7.24	7.49	5.40	7.64	6.96	6.77	0.64	9%
Sales/PPE		7.12	6.90	6.88	6.64	6.62	7.23	6.93	6.83	7.24	6.96	6.51	6.35	6.76	7.21	7.53	7.68	7.57	6.61	7.49	7.98	8.12	8.02	7.87	6.35	8.12	7.12	7.18	0.52	7%
Sales/NTA		3.02	3.05	3.18	3.04	2.86	3.24	3.40	3.26	3.25	3.28	3.26	3.18	3.37	3.46	3.46	3.40	3.30	2.99	3.35	3.36	3.37	3.35	3.35	2.86	3.46	3.28	3.25	0.16	5%
RETURNS																														
Gross Profit/NTA		110%	113%	113%	110%	103%	117%	125%	106%	103%	110%	117%	115%	127%	135%	138%	138%	135%	125%	140%	146%	147%	147%	145%	103%	147%	125%	125%	15%	0.12
EBITDA/NTA		35%	36%	37%	36%	34%	37%	38%	29%	29%	33%	34%	32%	36%	39%	41%	43%	44%	39%	47%	50%	49%	53%	53%	29%	53%	37%	39%	7%	0.18
EBIT/NTA		29%	29%	30%	29%	28%	31%	32%	22%	22%	26%	27%	26%	29%	33%	34%	36%	38%	32%	40%	44%	43%	46%	45%	22%	46%	31%	33%	7%	0.21
GROWTH																														
Sales		14%	11%	15%	8%	8%	17%	5%	7%	7%	-4%	-2%	0%	8%	9%	6%	9%	7%	-9%	15%	12%	11%	5%	6%	-9%	17%	8%	7%	6%	0.88
Gross Profit		18%	13%	10%	10%	7%	18%	7%	-5%	5%	0%	4%	2%	13%	13%	9%	11%	8%	-7%	16%	17%	12%	6%	4%	-7%	18%	9%	8%	7%	0.82
EBITDA		16%	12%	13%	10%	9%	12%	3%	-15%	6%	9%	1%	-2%	13%	16%	11%	15%	15%	-12%	24%	19%	8%	16%	5%	-15%	24%	11%	9%	9%	1.03
EBIT		12%	10%	13%	11%	9%	14%	4%	-22%	6%	13%	4%	-1%	14%	18%	11%	16%	17%	-15%	29%	22%	7%	15%	4%	-22%	29%	11%	9%	11%	1.20
Receivables		17%	13%	15%	7%	17%	5%	2%	21%	8%	-25%	-7%	2%	11%	8%	9%	6%	-2%	6%	22%	16%	6%	17%	6%	-25%	22%	8%	8%	10%	1.30
Inventories		-3%	8%	12%	16%	14%	-11%	2%	22%	-8%	-10%	14%	-8%	6%	13%	5%	14%	7%	-12%	11%	28%	3%	0%	4%	-12%	28%	6%	6%	11%	1.94
PP&E		13%	16%	15%	10%	6%	8%	11%	6%	-3%	2%	7%	-1%	4%	1%	3%	11%	6%	2%	1%	10%	8%	6%	10%	-3%	16%	6%	7%	5%	0.75
Working Liabilities		8%	9%	33%	-8%	16%	10%	9%	8%	-3%	-14%	1%	-11%	13%	3%	4%	-9%	2%	4%	12%	38%	-3%	15%	10%	-14%	38%	8%	6%	12%	1.96
Net Tangible Assets		7%	13%	8%	19%	11%	-4%	4%	18%	-1%	-10%	7%	-1%	5%	8%	5%	16%	5%	-4%	10%	14%	7%	5%	6%	-10%	19%	7%	6%	7%	1.10

SINGULAR DILIGENCE

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Grainger (NYSE: GWW) is a One Stop Shop for All of a Large Facility's Unplanned Maintenance and Repair Purchases

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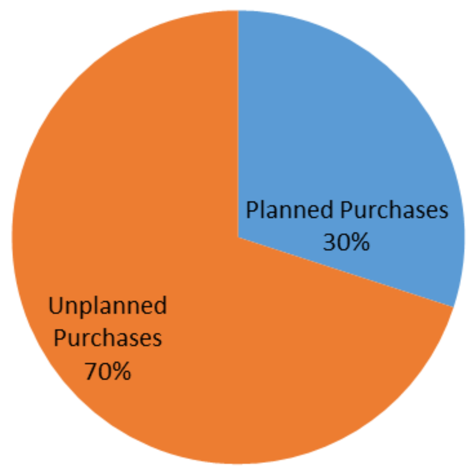
OVERVIEW

Grainger distributes the products needed to keep a large business running smoothly. It sells light bulbs, motors, gloves, screwdrivers, mops, buckets, brooms, and literally thousands of other products. About 70% of the orders customers place with Grainger are unplanned purchases. By unplanned we mean things like the filter in an air condition system, the up / down button on an elevator's control panel, the motor for a restaurant kitchen's exhaust fan. The customer knows these things break eventually. But, they don't know when they will break. These aren't cap-ex purchases made when the place first opens. And they aren't frequent, predictable purchases. Things like light bulbs, safety gloves, and fasteners – a key part of Fastenal's business – are bought more frequently in greater quantities as part of planned orders. Grainger sells to both large customers and small customers. And customer orders are sometimes planned and more frequent, sometimes unplanned and less frequent. But, the biggest part of Grainger's business is unplanned purchases made by large business customers who have a contract with the company. Almost all of the company's profit comes from the U.S. So, when you think about what Grainger does – think unplanned purchases by big U.S. businesses.



Grainger gets 70% of its orders from meeting unplanned and often infrequent customer needs.

Grainger was founded by William W. Grainger (hence the W.W. in the company's name) in 1927 in Chicago. The company is still headquartered in Illinois. It started as a wholesale electric motor distributor. At the time, manufacturers were switching their assembly lines from a central DC driven line to separate work stations each with their own AC motor. Grainger focused its business on customers with high volume electric motor needs. It was a catalog retailer. The original "Motorbook" catalog was just 8 pages. Today, Grainger's "Red Book" catalog is over 4,000 pages. It features more than 1.4 million stock keeping units. Grainger started opening branches in the 1930s. From Chicago, it expanded into Philadelphia, Atlanta, Dallas, and San Francisco. By 1937, it had 16 branches. In 1953, Grainger started a regional warehousing system. The company added distribution centers to both replenish stock at the branch level and to fill very large customer orders. The company eventually added distribution centers in Atlanta, Oakland, Fort Worth, Memphis, and New Jersey. As alternating current became standard throughout the U.S., Grainger focused on doing more than just selling motors to American manufacturers. It sought out smaller scale manufacturing customers, service businesses, and other parts of the economy. Today, Grainger's customer list is very diversified. It is much less dependent on the manufacturing sector than publicly traded peers like MSC Industrial and Fastenal. Grainger basically sells to any U.S. business customer who makes a lot of small orders. So, high frequency combined with low volume per order. Grainger is best at dealing with big customers. The company's competitive position is strongest where the customer has a contract with Grainger and is served by a specific account representative. These customers make purchases at their different sites across the country under the same overarching agreement that provides steep discounts to the list price shown in Grainger's catalog.

Grainger went public in 1967. At the time, sales were $80 million. Those sales have since compounded at 10% a year over the last 39 years. Grainger has changed its logistical footprint several different times. It eliminated its regional distribution centers by the mid -1970s. But, it brought them back in a different – heavily automated form – starting with a distribution center in Kansas City in 1983. Grainger rapidly increased its branch system during the late 1980s. It was opening about one branch a week by the end of that decade. In 1995, the last Grainger family CEO – David Grainger – retired. In that same year, the company launched its first website. Online became a huge part of Grainger's business. Today, Grainger is the 13th biggest online retailer in the U.S. It is one of UPS's top 10 customers. And it gets 40% of all U.S. revenue through the internet.

Over time, Grainger also expanded a little internationally. It acquired a Canadian company in 1996. And it entered a few different countries – like Mexico, Japan, Brazil, and China – in recent years. Some of these attempts succeeded. Others failed. The U.S. business provides most of the company's profits. The Canadian business is big and successful. The Mexican business is small but profitable. Brazil and China were failures. However, Grainger is still in China. But, we don't expect them to invest any further there. Japan was a huge, huge, huge success. We'll talk more about Grainger's model in Japan and how it brought that over to the U.S. later. For now, we'll just let you know that Grainger is the majority (53%) owner of a publicly traded Japanese company called MonotaRO. The stock – which is a wildly expensive, Japanese growth stock – has a market cap of $2.4 billion (that's U.S. dollars). That gives Grainger's stake a $1.3 billion value at market. I'm not sure that's the correct value. The P/E on the stock is astronomical. But, so is the growth rate.

The reason for Grainger's success in the U.S. is supplier consolidation. Big customers want to consolidate purchases across their various sites. In high GDP per capita countries – places where labor cost per hour worked is expensive – there is a lot of interest in reducing complexity. For example, Grainger's business in China was unsuccessful in part because in China employers will just send an employee out to a big open market to browse through various parts for the one replacement part the company needs. This kind of set up is not reasonable in countries where an employee's time is more valuable. Customers in the U.S. like using one supplier for more and more of their maintenance supply needs. They like that Grainger can install vending machines, provide inventory management by re-stocking inventory, and give a discount below the list price on a wide variety of the products the company might need to buy however infrequently.

The most important thing to understand about Grainger is the nature of the orders customers are placing with the company. The orders can be fairly random looking – almost every business needs a mop, a screwdriver, a small motor, a light bulb, etc. sometime even if it's far from the core of what they do. The average order size is small. However, it needs to be filled fairly rapidly. Customers are often satisfied with next day shipping on most items. They're unlikely to be satisfied with next week shipping. This means Grainger has to keep a lot of inventory on hand. They also have to offer credit terms to customers. Business customers are used to buying on credit. They don't want to have to pay their bills any faster than 30 days. So, Grainger has a lot of inventory and a lot of receivables. It has low turns. But, it has high margins. This surprises some people. Investors and analysts see 40% gross margins and wonder how that can be. Can a middleman really mark-up basic, boring products like we've talked about here – mops, buttons, motors, light bulbs, etc. – by 50% to 70% over the price they paid for that product? The answer is yes. But, it's yes because of issues of quantity and timing. Grainger is willing to go to a maker of let's say mops and order a thousand of them. It's willing to hold those mops. And it's willing to pay the mop maker before it collects payment from the eventual mop user. Grainger's customer can buy one mop – just one mop – as part of an order with completely unrelated products. And that customer can buy on credit. They don't need to buy more mops than they need. They don't need to keep spares around. And they can get better credit terms – a longer time to pay – and a lower price than you could get from sending an employee to Wal-Mart looking for just one mop. This is why the gross margin is so high. The end user of the mop has no interest in dealing with the maker of the mop on terms the two would find acceptable. In some cases, a customer is buying a product they've never bought before. Using the example of a motor in an HVAC system. The plant manager or store manager or branch manager of some customer of Grainger's may never have bought an HVAC motor before in his life nor may he ever have to again. He knows he needs a motor. But, he doesn't know much about pricing, availability, etc. Having a main supplier of most replacement needs gives him a place to turn to for a consistently decent price, delivery time, and credit terms – even for products he knows little about. This is Grainger's strength. It's facility maintenance. Grainger isn't as strong as MSC Industrial and Fastenal when it comes to the manufacturing floor. Those companies are better at selling cutting tools and fasteners and lots of related products to customers who have consistently high needs for some specialty products.

Like I said, Grainger is the most diversified company in its industry. The client list is extremely diversified. Manufacturing (18% heavy, 11% light) is just 30% of revenue. Commercial customers are 14%. Government is 13%. Contractors are 11%. Sellers – wholesale, retail, and resellers combined – are 10%. Transportation is 6%. And natural resources is 5%. It's not quite as diversified as U.S. GDP. For example, manufacturing at nearly 30% of Grainger's sales is clearly over-represented relative to the U.S. economy. But, it's pretty close.

The products Grainger sells are so extraordinarily varied that I've had trouble talking to you about them so far. I'm sure that will continue to be the case. Grainger sells everything a business facility needs to keep running smoothly. Product categories include: Safety and security (18%), material handling (12%), metalworking (12%), cleaning and maintenance (9%), plumbing and test equipment (8%), hand tools (7%), electrical (6%), HVAC (6%), lighting (5%), fluid power (3%), power tools (3%), motors (2%), and power transmission (2%). So, concentrations in any one area are very low. For example, metalworking is a big, specialty category – but it's still only 9% of the company's total sales. A 10% drop in metal working sales would be less than a 1% hit to overall revenue.

Grainger has 1.4 million stock keeping units. About 500,000 SKUs are kept in inventory. Most orders ship same-day or next day. Grainger keeps products in inventory at 19 distribution centers and 350 branches across the country. Branches average 22,000 square feet.

Grainger divides customers into large customers, medium customers, and small customers. Quan and I think the real distinction is between customers covered by a specific Grainger sales representative (and attached to a corporate contract) and customers covered by a territory sales representative. Our best guess is that Grainger gets 85% or more of all revenue from customers covered by a specific sales rep under an attached account. Grainger says it has 14% market share in large customers. Large customers are customers with over 100 employees per location that buy over $100,000 worth of facility maintenance supplies each year. Grainger is very weak in small customers. These customers have fewer than 20 employees per site and buy facility maintenance supplies just once or twice a month. Almost all of Grainger's growth has come from increasing sales to its biggest customers. Since 2009, sales to large customers have grown 8.6% a year. This is much, much faster than nominal GDP growth. Grainger has been increasing its share of wallet among these customers.

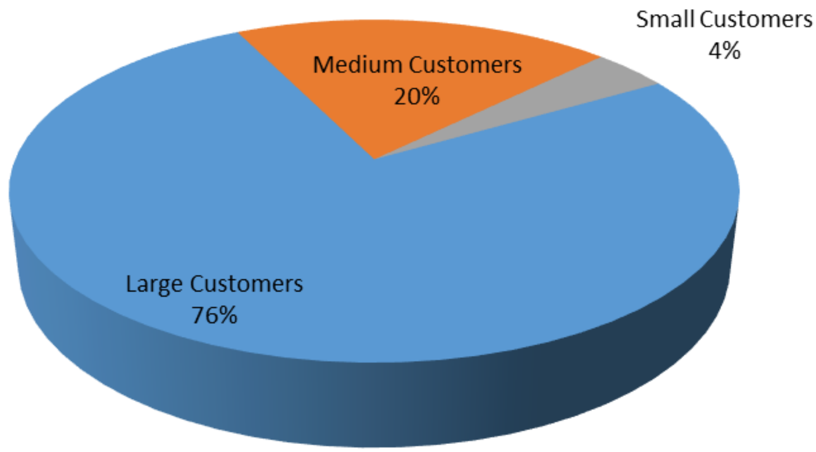
The company now has something called Zoro in the U.S. This company is modeled after Grainger's joint venture in Japan. The Japanese joint venture – MonotaRO – was wildly successful in terms of revenue growth. So far, Zoro has been a fast grower too. The online only distributor had sales of $80 million in 2013, $180 million in 2014, and $300 million in 2015. Grainger hopes to copy Zoro's success in both the U.K. and Germany. So, Grainger has several business units following this model. There is MonotaRO in Japan – which now has over $500 million in sales. There is Zoro in the U.S. – which now has $300 million in sales. And then Grainger hopes to use its U.K. acquisition to build a U.K. online only business. There is also Zoro Germany. So, one day, Grainger could have a meaningful online business in the U.S., Japan, the U.K., and Germany. These businesses compete directly with Amazon Supply. The rest of Grainger really doesn't. Grainger sales reps always say that their largest competitors are other local or regional MRO companies. They say they rarely find themselves competing directly with Fastenal, MSC Industrial, or Amazon Supply – despite those being the competitors investors and analysts ask most about. Quan and I found in talking to people at the publicly traded MROs, that they are quite knowledgeable about each other's business models, but actually don't believe they compete very directly with each other or even do business in the same way. They all have different theories on which model is best. Part of the explanation for this can be that they each have different customer populations. Grainger's success has really been on the least frequently purchased items by the biggest American companies. When it comes to frequently purchased items, smaller customers, or foreign countries – they've had a very mixed record. But, when it comes to large businesses, they are actually even more successful than the past record makes them seem. Sales growth looks mild in recent years due to the huge decline in sales to Grainger's smallest customers. As we said, Grainger actually grew 10% a year since going public 40 years ago. And, it has grown sales to large businesses by more than 8% a year since the financial crisis. Earnings grow even faster than sales. So, Grainger is definitely a growth stock. In fact, it's a growth at a reasonable price stock. As I write this, Grainger stock sells for about 10 times EBIT. That's a great price for a growth stock.

DURABILITY

Grainger's Sales to Large U.S. Customers are Perfectly Durable

Grainger's durability is greater now than it was in the past. In the past, Grainger got a good amount of its sales and profits from small customers. Today, it doesn't. Grainger gets 76% of sales from large customers, 20% of sales from medium customers, and 4% of sales from small customers. However, less than half of the customers Grainger calls "medium" are unattached to a national contract. The big difference in Grainger's business is between those customer sites attached to a national contract – which is probably 85% or more of total sales – and those customers that aren't. Large customers are sites that may or may not buy much from Grainger (at each company, some sites buy a lot and some buy little or nothing from Grainger) but when they do buy from Grainger it is under a contract the company has signed with the corporate owner of the site. In other words, Grainger sales reps are trying to increase penetration at certain sites of the company – at the plant, branch, etc. location – but they are working under an existing agreement between Grainger as a corporation and the owner of the site as a corporation. This is very different from trying to increase sales to the smaller "medium" and small customers who don't have a national supply contract with Grainger. Customers without a national sales contract aren't covered by a specific Grainger sales rep. Instead, a sales rep from Grainger covers a specific geographic territory and tries to sell to locations in that territory that aren't covered by an existing national supply contract with Grainger. This is much harder to do. And these are the customers who may buy from someplace like Amazon Supply. Grainger's market share is 14% with large customers, 3% with medium customers, and even less with small customers. Over time, Grainger has rapidly increased its sales among large customers – for example, this category has grown more than 8% a year since the financial crisis – while losing sales among small customers. Grainger's small customer business is not durable. Its medium customer business may not be durable. But, its large customer business is completely durable. To Grainger, a "large customer" is one with 100 or more employees at a single location where the location is part of a national contract.

Grainger's big advantage with these national sales contracts has to do with the actual cost to large customers of buying supplies. The largest component of this kind of company's supply costs is actually not the cost of the product itself. It's the time and effort put into procuring items. The company needs a department to handle procurement, it needs to find a list of suppliers, then solicit bids from those suppliers, then pick a supplier, then send and receive invoices, and then manage the inventory levels of a huge array of infrequently purchased products. It might seem that if Amazon can sell a product for less than Grainger, everyone would buy from Amazon. However, this isn't likely to be the case. Because it is relatively unimportant what the list price of a single item is. For one, large customers aren't interested in buying one product – they want a thousand different stock keeping units. Two, large customers don't pay the list price – they get a



Grainger gets 76% of its sales from customers that employ an average of more than 100 people per site.

discount versus other customers. Three, large customers don't pay in cash the way consumers do at a store – instead, they buy on credit. And then the fourth and biggest issue is the organizational requirements of making these purchases. For a big corporation, there need to be employees being paid full salaries just to handle all of the selecting of suppliers, purchasing, receiving orders, managing inventories, etc. This is often their biggest cost.

Grainger focuses on reducing the total cost of supplies for a company. This is different from offering individual products at the lowest list price. It is hard to know whether Amazon has much lower prices than Grainger or not. The number of items the two companies sell is just too great. It's like trying to compare two different supermarkets. The truth is that depending on the exact basket of goods you buy, one seller can be lower than another. Grainger claims it compared the net price – this is the price after discount – of its top 10,000 bestselling items versus the price of those same products at Amazon. It said the difference in price was no more than 1% between the two sellers. If that's true, Grainger is the much better choice for big customers, because Grainger provides sales support for big customers that Amazon doesn't and probably never will. Grainger has a large sales force dedicated to serving specific national accounts. Amazon isn't run that way. And very few companies are interested in organizing themselves that way. Over time, Grainger has added a lot of private label products. This allows Grainger to use its buying power to pass on big cost savings to customers willing to take no-name branded supplies. For a lot of supplies, customers don't care about the brand name. Grainger's private label sales are now 25% of the company's total revenue.

Perhaps the least durable part of Grainger's business is Zoro. Zoro is the U.S. copycat version of Grainger's Japanese joint venture. Zoro is a low cost online only seller of supplies to small customers. It has a 30% gross margin and 7% EBIT margin. It competes directly with AmazonSupply and McMaster-Carr. Grainger has been competing with McMaster-Carr for decades. McMaster-Carr is the long established – the company's even older than Grainger – leader in selling to small customers. What Grainger is to big national accounts, McMaster-Carr is to small customers. McMaster-Carr has no branches, no sales people, and no on-site service people. This is very different from Grainger which offers all sorts of inventory management from vending machines to on-site service. Basically, McMaster-Carr and AmazonSupply are running the same sort of business model. And now Grainger is too with Zoro. Zoro has $300 million in sales and $22 million in EBIT. We don't know how big AmazonSupply is. Amazon has been competing directly with Grainger and McMaster-Carr for over 10 years now. AmazonSupply was launched in 2012. It was folded into Amazon Business in 2015. There aren't a lot of signs that Amazon has been especially successful in this area. The best we can tell is that McMaster-Carr is successful in this area, Amazon is active in this area, and now Zoro is successful enough to turn a profit and to grow quickly year after year in this area. So, Zoro can be a good source of growth for Grainger. But, Zoro is an entirely different business model. About 85% of Grainger's sales don't compete with Amazon. Zorro competes head-to-head with Amazon and with McMaster-Carr. Its durability is uncertain. It's basically just an online retailer with $300 million in sales, a 30% gross profit margin, and a 7% EBIT margin. It is, however, growing very fast. The main part of Grainger's business are the national accounts for large customers. This is durable. Grainger prices – after discounts – within a few percentage points of Amazon. And then you have to remember that in MRO, inventory costs are far more than the actual purchase price of the item. Certainly, less than 50% of a company's total cost of supplies is the actual price paid for the item. So, if you aren't providing additional services in terms of managing inventory, and consolidating a lot of supply needs on to one bill, and that sort of thing – you'd need to be offering a much larger discount on the actual purchase price than a few percent. It wouldn't make sense for a customer to buy from Amazon or someplace else with no sales support if they were offering a 5% discount on the purchase price, because the total cost wouldn't be less than buying everything from Grainger. I think this is the most misunderstood aspect of Grainger's business. Sometimes it seems from the questions analysts and investors ask about Grainger and its competitors, that they believe the purchase price of an item is more important than it really is. In maintenance, repair, and overhaul (MRO) distribution, the purchase price is definitely less than half of the whole equation. Most of what a customer needs from an MRO supplier is actually not a low purchase price. It's everything else they can do in terms of eliminating the need for the company to employ people inside their own organization to keep supplies in stock.

MOAT

Grainger is the Biggest Fish in a Giant Pond Full of Mostly Very, Very Small Fish

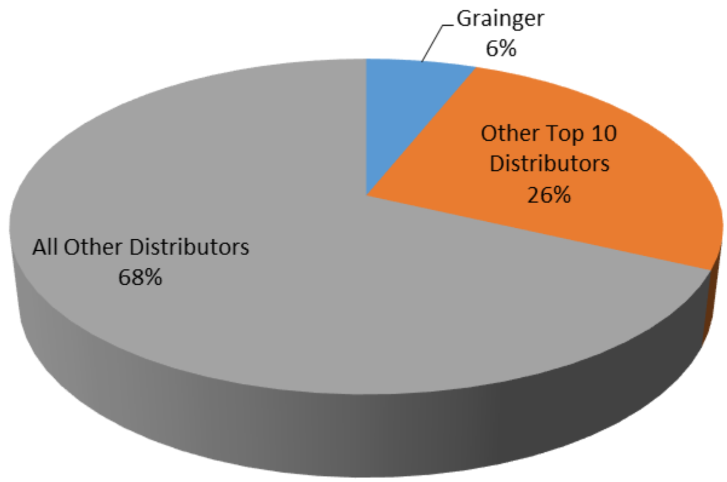
The maintenance, repair, and overhaul (MRO) distribution industry is very fragmented. Grainger has a 6% share of the industry. The next 10 largest MRO distributors combined have 26% market share. That leaves about 68% for all MRO distributors smaller than the top 11. It's an incredibly fragmented industry. So, although we will frequently talk about publicly traded peers of Grainger – like Fastenal and MSC Industrial Direct – these companies are not the most important competitors for specific accounts. Whenever a sales rep at Grainger – or another MRO distributor – is asked who their biggest competitor is, they usually mention a local name.

Grainger's market share is very different depending on what customer type we're talking about. In the U.S., small customers – those with fewer than 20 employees at a location – are a $40 billion market for MRO distributors. Grainger has 1% of this market. Medium customers – those with between 20 and 100 employees at a location – are a $50 billion market. Grainger has 3% of that market. And then large customers – those with over 100 employees at a location – are another $40 billion market. This is Grainger's focus. It has 14% of the large customer market.

Retention of large customers seems to be good both at Grainger and elsewhere. These customers are the most likely to have high switching costs. Their systems become integrated with their MRO distributor's systems. They often purchase supplies across many channels. So, they might buy some supplies by phone, some online, some through on-site sales (like vending machines), and so on. Price transparency is very poor for these customers. To get quotes on all the different products they buy from their MRO distributor, they'd need to shop around at several different websites. It is easy to find list prices for all the products these customers buy. But, the customers don't pay list prices. So, the actual comparison would be based on the net realized price for the distributor. For example, Grainger's list prices for products would normally be quite a bit higher than Amazon's price. But, the actual price paid by large customers would be fairly similar whether they bought from Amazon or Grainger, because after factoring in the discount a big customer at Grainger gets the price they pay is at about Amazon's level. So, price is not very transparent. Cost – which is what really matters to the customer – is totally opaque. By cost we mean total cost. As we said in the "durability" section, the product cost is maybe one-third of the total cost of MRO supplies for these companies. Most of the actual cost would be sourcing the product, receiving orders, paying invoices, tracking inventory, and then various mistakes like misplacing inventory so someone orders something you already own. It's hard to measure these things. Maybe they are 70% of the cost. Maybe they are 50% of the cost. They're not 10%. They're probably most of the cost for a lot of customers.

Large customers are more likely to pay attention to potential expense reductions. It may be difficult to establish a new MRO distribution relationship with these customers. But, the trend has been that the largest supplier gets a bigger and bigger share of total purchases over time. This is because large customers are interested in increasing their buying power, cutting the number of purchase orders, cutting the number of invoices, reducing shipments received, and carrying less inventory. Shifting business away from smaller MRO distributors to the biggest supplier for the location can achieve all these things. It is similar to the trend that has long been happening with big clients of ad agencies. Over time, clients of big ad agencies tend to move all of their communication needs – direct marketing, event marketing, public relations, etc. – to the same group that handles their creative work for national TV advertising, etc. The same pattern happens with MRO distribution for the biggest accounts. These customers may spend $1,000 or $2,000 a week on MRO supplies. They aren't small companies. They are profit driven and regularly look for ways to improve profitability within departments. There are often employees in the company who have some sort of budget pressure that can be alleviated by consolidating MRO purchases with a smaller number of suppliers. So, these accounts can be better targets for growth than small customers who purchase MRO supplies less frequently and probably track costs and expenses much less clearly. That is another potential reason why there's a difference between small and large customers. A product's price is easy to track. The product cost shown on an invoice is easy to track for customers big and small. But, small customers may be less sophisticated when it comes to tracking the expenses within the organization – like the salaries of the people whose time is spent in work related to MRO – that indirectly contribute to the total cost of MRO for the company. Bigger companies may be better at this.

Local MRO distributors are less profitable than companies like Grainger. Companies like Grainger, MSC Industrial Direct, and Fastenal have large amounts of retained earnings that they re-invest in the business. Grainger offers more ways to buy and more products to buy than smaller competitors. For example, Grainger keeps about 500,000 products in inventory. DXP Enterprises keeps 60,000. Lawson Products keeps 50,000. And Applied Industrial Technologies keeps 30,000. Companies in certain regions of the country and certain industries can buy a lot from these companies. But, if they do consolidate purchases over time, it's easiest to consolidate those purchases with the MRO distributor that has the broadest selection. Grainger offers the widest selection in the industry. Grainger



The 11 largest players in the MRO industry combined control less than one-third of the U.S. market.

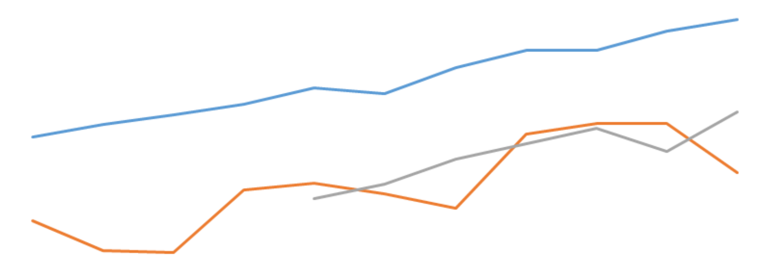
management estimates that for uncovered customers – these are customers served by territory sales reps without a national contract – the company gets far less than 10% of all MRO purchases at the site. For large customers – these are customers of Grainger who have a corporate contract with Grainger and are served by an account manager assigned to that company – Grainger gets between 20% and 30% of every dollar spent on MRO supplies at that location.

Grainger, Fastenal, McMaster-Carr, and MSC Industrial can all grow without taking share from each other. All of those companies have taken share from local competitors in the past. The biggest companies in this industry don't compete especially directly with one another. For example, MSC has said it faces Grainger and Fastenal much less frequently in the marketplace than it does at investor conferences. Fastenal focuses on recurring purchases. Grainger focuses on non-recurring. MSC Industrial's customer base is 70% manufacturing. Fastenal's is 50% manufacturing. Grainger's is just 30% manufacturing. And then within manufacturing, MSC is particularly strong in products used on the plant floor. Fastenal is especially strong in fasteners. Grainger is especially strong in products used in facility maintenance at those plants – not products consumed on the plant floor. Fasteners still make up 40% of Fastenal's revenue. And metalworking represents 50% of MSC's sales. Grainger does sell some fasteners and some metalworking products. But, the combined number for both of these would be closer to 20% of sales. So, direct competition is low. Grainger, Fastenal, and MSC often aren't competing for the same clients in the same industry. And even when they do – Grainger, Fastenal, and MSC aren't focused on selling the same products to these customers. These companies compete primarily with local distributors who already have longstanding relationships with these customers. A lot of the competition is made up of "mom and pop" distributors. Rivalry among existing firms is very low in this industry. The leaders compete head-to-head much less than you'd expect. Mostly, they take share from smaller, private companies.

QUALITY

Large MRO Distributors Like Grainger Have Widening Operating Margins Due to Economies of Scale

The most important part of a business's profitability is its gross profitability. I'm talking here about the measure gross profit divided by total assets. It gives us some



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
U.S.	11%	11%	12%	13%	14%	14%	15%	17%	17%	18%	19%
Canada	5%	3%	3%	7%	7%	7%	6%	11%	12%	12%	8%
MonotaRO					6%	7%	9%	10%	11%	10%	12%

Over the last 10 years, the EBIT margin at Grainger's U.S. business widened from 11% of sales to 19%.

idea of the ceiling on the company's profitability. In some industries, you may be able to merge two underachieving firms together and raise their operating profitability (operating profit divided by total assets), but it is hard to do any deals that will get you meaningful improvement in gross profitability. This makes gross profitability an especially good measure of an industry's inherent product economics. Gross profitability tells us less about how a specific firm is organized and more about how much customers are willing to pay.

Broad-line MRO distributors tend to have a gross margin near 40% while other types of distributors tend to have a gross margin closer to 20%. This does not necessarily mean that MRO distributors are twice as profitable. What matters is the return on assets not the return on sales. To illustrate this point, consider the relationship between gross profit and inventory turns (cost of goods sold divided by average inventories) at Grainger and its peers. The peer with the highest gross margin is Lawson. It has a gross margin of 57% to 60%. But, it has one of the lowest inventory turns at just 2.5 times. The second highest gross margin peer is Fastenal with 50% to 55% gross margins. But, Fastenal has the very lowest inventory turns – it has to carry the most inventory relative to its sales – at just 2.3 times. MSC Industrial is in the middle of the pack with 44% to 46% gross margins and 3.5 times inventory turns. So is Grainger with a 43% to 44% gross margin (now – it was just 35% ten years ago) and inventory turns of 4.2 times. The very lowest gross margin peer is DXP Enterprises with a 25% to 28% gross margin but 6 times inventory turns. This makes DXP the lowest margin and highest turn member of the group. It's a very clear relationship here. Gross margin tends to be lower as asset turns tend to be higher and vice versa. Frequently purchased products are cheap and fast moving. Infrequently purchased products are slow moving but more profitable for the seller each time they do sell. This means the return on investment may equal out between a lot of companies with very different margins.

Grainger's relative size is its biggest advantage in terms of market power. Grainger has 2,500 suppliers. No supplier accounts for more than 5% of its sales. Grainger sells a lot of private label goods now. And it sells in some categories where customers don't care about the brand at all (often because the customer doesn't recognize the brands). So, no suppliers have much power over Grainger. Likewise, individual customers don't have much power over Grainger. No customer accounts for more than 3% of sales. So, no supplier accounts for more than 5% of Grainger's business but Grainger can account for more than 5% of that supplier's business. And no customer accounts for more than 3% of Grainger's business. But, Grainger can supply much more than 3% of a customer's MRO needs.

Grainger has had a lot of success with keeping prices down since 2008. The company has had lower inflation than the producer price index did over the last 7 years. And yet Grainger had expanding margins. Private label products can contribute to this cost reduction. Grainger now gets 25% of its sales from private label products. Private label products generally have a 55% gross margin. Grainger says that directly sourced private label products – which are a minority of the private label products Grainger sells – actually have a 70% gross margin. It's possible there can be some deflation in the MRO business and yet Grainger can increase profitability. There is evidence of that from 2008 through today. However, this isn't unique to Grainger. The same situation should apply to McMaster-Carr, Fastenal, and MSC Industrial provided they make sufficient investments in distribution centers, increase private label products in each order, and do more business with each location they ship to. The internet also is deflationary for this industry. E-commerce sales have 2% to 4% higher margins than other ways of taking an order. This is because the average order size is bigger, it ships from a distribution center, and – of course – the customer does more of the order entry work on their side. It may be hard – and unnecessary – to predict Grainger's gross margin instead of its EBIT margin. Large customers have lower gross margin and e-commerce has lower gross margin. However, both large customers and e-commerce are good from an operating profit perspective. Grainger's U.S. business has the most scale. And it has more large customers relative to small customers than it did in the past. In 2004, Grainger's U.S. business had an 11% EBIT margin. In 2014, the EBIT margin was 19%.

Grainger's average order size is $250. About 85% of outbound shipments are made via small parcel delivery handled by companies like UPS, FedEx, or DHL. So, the company is mostly an online and on-site business now. It has only 350 branches. And large customers can use vending machines and other on-site inventory management services. In the future, the combination of on-site and online should be big. The contribution from stores should be smaller over time. Fastenal's model is completely different. It has 2,700 stores. The Fastenal model is very successful. But, Grainger's returns on capital are high. And they could potentially get higher over time as Grainger can expand EBIT margin with scale. Right now, the business has 13% EBIT margins, 3.3 times asset turns (sales divided by net tangible assets) which gives a greater than 40% return on capital.

Grainger is a big player in the industry. Over the last 10 years, Grainger has spent more on cap-ex ($2.5 billion) than Fastenal ($1.4 billion), MSC Industrial ($463 million), and Allied Industrial ($139 million) combined. Investments in cap-ex and technology are an important part of driving cost savings and product deflation. It's a little difficult to separate economic trends that are cyclical in nature from industrywide trends in MRO and company specific trends at Grainger when it comes to prices. There's been some unusual deflationary pressure since the financial crisis. But, it seems that Grainger has been successful reducing costs beyond that. For example, in 2014, Grainger's Chief Operating Officer said: "…we still managed to decrease our cost per line…some of the automation we've made…have helped. …we have for about eight years or nine years, been very serious in our distribution centers about continuous improvement, about finding ways, everything from the way we receive product, the way we pick it, the way we pack it…the effectiveness is 4%, kind of physical productivity every year. And the good news, as we look forward, we expect similar results." Right now, it looks like Grainger can keep its product costs down without having to pass all of the savings on to customers. The company's EBIT margin in the U.S. expanded consistently from 2006 through 2015. Grainger had used a totally different way of distributing product in Canada. The results in Canada are completely unlike the results in the U.S. So, the expanding margin over the last 10 years seems to be due to productivity gains within Grainger's U.S. business.

CAPITAL ALLOCATION

Grainger Devotes 65% of its Earnings to Buying Back Stock and 30% of its Earnings to Paying Dividends

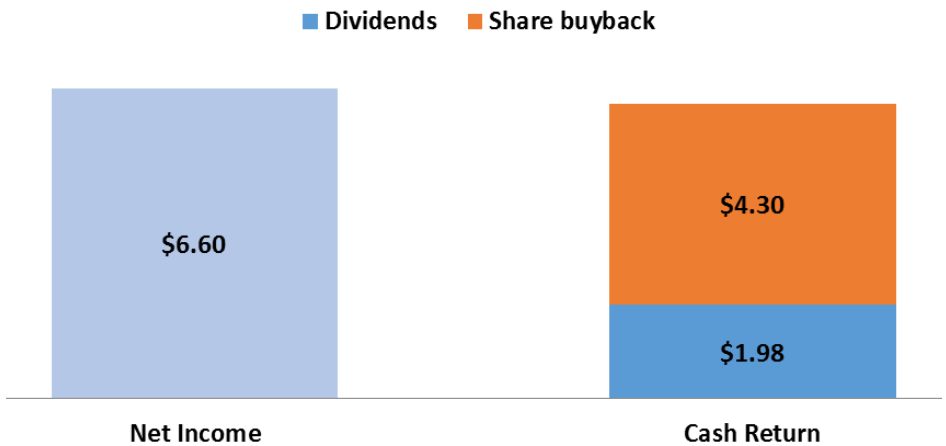
Grainger constantly lowers its share count. The company dilutes shares – by about 1.5% a year – by issuing stock options to employees. But then the company buys back even more of the shares than it issued. Over the last 15 years, annual share dilution from stock options – net of shares repurchased using proceeds from the exercise of stock options – was 0.7% a year. So, this is the annual drag on the stock's performance due to incentive compensation paid to employees in stock options. Performance based compensation at Grainger is based on two measures: 1) Sales growth and 2) Return on capital. For 2014, there was no incentive payment planned for sales growth of less than 4%, a 100% payment at 9.6% growth, and various amounts paid above and below those levels. From this, you could say that Grainger considered sales growth below 4% unacceptable and sales growth of 10% or better a very good performance. For return on invested capital, there was no payout planned below an 18% return on invested capital. So, again, it's possible to guess from these bonus plans that Grainger would consider anything below a 4% sales growth rate and anything below an 18% return on invested capital unacceptable. Grainger uses little if any leverage. It's using some now. But, factoring in taxes on the return on capital figure you can see that Grainger doesn't really pay bonuses below about a nominal GDP type growth rate (say 4% to 6% a year) and a low double-digit (say 12%) return on equity. Most incentive compensation is paid in stock options rather than performance shares. It's worth noting the performance shares vest depending on a 3-year average return on capital hurdle of 18%. Again, without any leverage, this would be about a 12% return on equity. It's important to note on the sales targets that Grainger doesn't acquire much at all. It invests a lot more in cap-ex than it does in acquisitions. Since 1991, Grainger has spent $3.32 billion in cap-ex versus just $1.28 billion in acquisitions. So, sales growth is mostly organic. And the return on capital target can be a good way to avoid driving sales growth purely through overinvestment in cap-ex.

Grainger's investment in cap-ex includes things like distribution centers (often large and highly automated), information technology, and branches (Grainger has about 350 stores averaging 22,000 square feet each). Grainger also invests in joint ventures in other countries. However, the joint ventures are mostly insignificant. We won't discuss them. An exception is Japan. Grainger owns 53% of the publicly traded Japanese company MonotaRO. Grainger invested $12 million in MonotaRO to start, another $4 million in 2006, and another $4 million in 2009. Grainger's stake in MonotaRO is now valued – in the stock market – at over $1 billion. So, it was obviously a great investment. Grainger's entry into China was not a great investment. Grainger opened two sites in Shanghai. It had a show room and a 120,000 square foot distribution center. The company has been in China for nearly 10 years, but hasn't expanded because its model was unsuccessful. Quan and I don't think Grainger has a future in China. GDP per worker is low in China. The way companies buy their MRO supplies is different than in the U.S., Japan, etc. China isn't a good fit for Grainger. Countries like the U.K. and Germany are better choices for the future.

Grainger's acquisition activity has been very low over the last 10 years. Most acquisitions were small. We have details on only a few. Grainger sometimes buys companies to enter a market segment where its weak. It bought a metalworking specialist, a high-tech manufacturing specialist, and a safety footwear specialist. The last company was purchased in part to help Grainger provide help in OSHA (a U.S. safety regulation) compliance. These are probably the safest acquisitions for Grainger to make. They can also have good synergies. And the prices paid for these purchases – usually a pretty low fraction of sales – suggest competition for these kinds of deals is not intense enough to entice Grainger to overpay. The deals are also small. Even if Grainger does overpay a little, the impact on return on capital long-term is not big.

The risky type of acquisition Grainger makes is entering a new geographic market. Grainger has been aggressive in trying to enter other countries. It hasn't had a lot of success. But, its one big success – MonotaRO in Japan – could be a template that can be repeatedly used in entering other countries.

MonotaRO is Grainger's big success. Grainger invested about $20 million in the company. It now owns 53% of MonotaRO. At the most recent quote on the stock in Japan, that 53% stake would theoretically put a $1.3 billion value on Grainger's investment. Obviously, Grainger can't sell 53% of a company in the market. So, that's not necessarily a meaningful way to think of the investment. But, MonotaRO did have $500 million in sales and $60 million in EBIT last year. If you look at Grainger's share of that it is equivalent to a 100% owned subsidiary with $265 million in sales and $32 million in EBIT. The company has grown sales faster than 25% a year since 2009. It grew sales 28% last year. So, it shows no signs of slowing down despite the big increase in size. Certainly, a profitable Japanese company growing at 25% a year or more is worth at least 10 times EBIT and probably a lot more than that. So, at a minimum, Grainger's $20 million investment is now delivering over $30 million a year in EBIT and



From 2000 through 2014, Grainger returned $6.28 billion (95%) of the $6.60 billion it reported in earnings during those 15 years.

could easily have an intrinsic value of $300 million to $600 million. As we mentioned, the actual market value put on the company by traders in Japan is much higher. Grainger's stake has a market value of $1.3 billion.

Grainger's investment in MonotaRO is actually paying off in more ways than the $32 million in annual EBIT. Grainger started taking MonotaRO as a model it can export to other countries. So, Grainger launched a copy of MonotaRO – called "Zoro" – in the U.S. market in 2011. Zoro reached $80 million in sales in 2013, $180 million in 2014, and Grainger expected it to have $300 million at the end of 2015. Expected EBIT was $22 million. This is a fast growing company. It's profitable. On its own, it would have a high market value. And Grainger owns all of Zoro. Zoro never would have happened without the Japanese joint venture.

So, MonotaRO was a huge success. China and Brazil were failures. Grainger has lost money in China. It entered the country in 2006. It never turned a profit. And it had a 120,000 square foot distribution center. Last year, Grainger said the business was breakeven. A breakeven result on an investment made almost 10 years ago has an unacceptable return when discounted for time. In addition, Grainger never turned a profit over the intervening years. Grainger says it is staying in China and sees it as a long-term play. We're not convinced. And we're not sure it would make any difference if Grainger just exited China completely right now instead of operating a business without scale at a breakeven level. Grainger did choose to exit Brazil last year. That was also a failure. The acquisition of Fabory – a Netherlands headquartered industrial distributor focused on Belgium, the Netherlands, and Luxembourg – was one of Grainger's few big investments. Grainger paid $358 million for a company with $350 million in sales. In other words, it paid one times sales. Fabory is a fastener specialist. Its product mix is completely unlike Grainger's. In fact, when Grainger acquired Fabory, the target's sales were 63% fasteners, 25% tools, and 12% industrial supplies. It was even more of a fastener specialist than Fastenal is today. Grainger got cost synergies out of the deal. It was better able to buy fasteners after the deal than before it. Fasteners are a commodity product. Europe has not done so well coming out of the financial crisis. And Fabory has done really badly. Foot traffic to branches decreased. Sales fell from $350 million when Grainger bought to just $280 million. The company is now just breakeven. So, the only thing Grainger got from a $350 million investment was the cost synergies it hoped for. As an independent unit, Fabory was clearly a big failure.

Grainger recently made an even bigger investment along these lines in the U.K. It bought a company called Cromwell. Cromwell is the largest MRO supplier in the U.K. It looks a lot like Grainger. Cromwell is multi-channel. It has a tiny e-commerce business, it has a good vending machine (on-site) business, and it runs branches. Private label is 20% of sales (versus 25% at Grainger). Gross margin is 36%. EBITDA margin is 10%. There aren't a lot of big broad line distributors – like what Grainger is in the U.S. – outside of the United States. Cromwell's financials don't look bad at all. For example, Grainger's own business in Canada isn't that different from the figures we've seen for Cromwell. Grainger paid 11 times EBITDA for Cromwell. It hopes to increase the online business. There are two possible reasons why this investment might work out well for Grainger despite being a new geographic expansion and that 11 times EBITDA price tag (which is very high). One, Grainger made this purchase using all debt. The company didn't issue stock or use cash on hand for the deal. Grainger can borrow cheaply. Interest rates are low. It can be a good deal for that reason. Two, Grainger can invest very little in new cap-ex at Cromwell and yet increase online sales a lot because Grainger is big in online in the U.S., MonotaRO is big in Japan, etc. Grainger knows what it's doing. And Cromwell had very little online business. For example, Grainger says it took 6 to 7 years for MonotaRO to become profitable in Japan. And then it took just 6-7 months for Zoro to become profitable in the U.S. Grainger now knows how to repeat that model. Exporting the low cost (low gross margin) online only model of Zoro to other high GDP per capita countries around the world is the best long-term way for Grainger to allocate its capital.

Grainger has low leverage. And the leverage it does have is from very, very cheap debt. The company says it wants to stay at 1 to 1.5 times net debt to EBITDA so it can access the tier 1 commercial paper market. Grainger has very low cost long-term financing in the form of a $1 billion unsecured note due in 2045. The bonds pay 4.5% interest. All of the principal is repaid in 2045. Grainger makes no payments towards the principal before then. So, for a very long time, this is a 4.5% a year way of replacing equity with debt.

The most important thing to know about Grainger's capital allocation is that it has reduced share count from 105 million in 1991 to just 63 million today. The company doesn't time repurchases based on price. It buys back stock based on cash flow. Over the last 15 years, Grainger has used basically all of net income to buy back stock or pay dividends. The best measure to use is the true cash returned which adjusts share buybacks by deducting the amount Grainger has to buy back just to offset annual dilution. By this measure, Grainger returns two-thirds of reported income in dividends and share buybacks. This is the best way to think about Grainger stock. Take the reported EPS. Then multiply by two-thirds. That's your cash payout (the buybacks are worth at least as much as the dividends – so, don't worry how the cash is paid back to you). Divide the resulting number into the stock price. That's your yield. Yield growth will probably be somewhere between two numbers – 5% and 10% a year. From 1999 through 2014 – hardly great years for the U.S. economy – Grainger grew sales by 5.2% a year. EBIT grew by 10.2% a year. In the future, expect EPS growth – and thus cash payout growth – to be higher than sales growth. I don't think you can count on the incredible EBIT margin expansion Grainger had over the last 15 years though. But, that's the way to think of capital allocation. Grainger will consistently take two-thirds of reported EPS and pay it out to you in some combination of buybacks and dividends. The company can do this while growing the payout at least 5% a year. So, you're getting two-thirds of reported EPS as your coupon now and then that coupon grows at 5% a year or better.

VALUE

Grainger is Priced Between MSC Industrial Direct and Fastenal

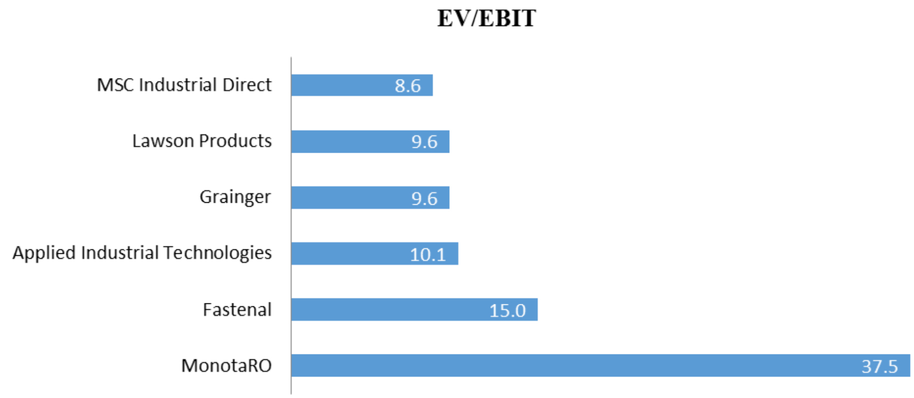
Grainger is rarely a cheap stock. It sometimes trades much cheaper than Fastenal. But it rarely trades at a low price relative to the average large, U.S. stock. This makes sense because Grainger has both a good return on capital and a good growth rate while being highly predictable.

Grainger is priced at about 10 times EBIT right now. The business can make about $1.5 billion in EBIT each year. The U.S. business – before corporate expenses – made $1.44 billion in EBIT back in 2014.

Grainger's Canadian unit made $129 million in EBIT back in 2013. Oil prices were higher then. And Grainger's Canadian business is about one-third natural resource related. Natural resources are a small part of Grainger's U.S. business. The year 2013 was a peak EBIT margin year for Grainger's Canadian business. So, you might think we should use a lower figure than $129 million in EBIT. Quan and I don't agree. We think the peak EBIT figure for the Canadian business is reasonable as a long-term future "normal" figure. This is because Grainger's Canadian business is less efficient than its U.S. business. It is smaller. It normally has an EBIT margin that can be as low as half the U.S. business's margin in that same year. If the Canadian business is run more like the U.S. business and it grows, it can expand margin over time. Grainger was able to increase its U.S. EBIT margin from about 11% to 19% over a period of 10 years with great consistency through continuous improvements in distribution centers, a growing online business, etc. If Grainger repeats some of those things in Canada, it will expand the EBIT margin there over time. However, Canada is inherently not as good a place for an MRO supplier as the U.S. because customers are in more remote locations and population density across much of the country (really everything that isn't very close to the U.S. border) is extraordinarily low. The amount of infrastructure and operating expenses relative to gross profit potential is not as good in Canada as the U.S. However, Grainger's best EBIT margin in Canada was just 12% of sales. This is really only two-thirds of the best margin in the U.S. It's achievable. Canadian taxes are no higher than taxes in a U.S. state. So, a business with $130 million in earning power can be worth $1.3 billion to Grainger.

Profit contribution from everything outside of the U.S. and Canada is minimal. Cromwell has a 10% EBITDA margin on $440 million in sales. Grainger expects the EBITDA margin to grow to 15% eventually. Quan and I just apply an 8% EBIT (not EBITDA) margin to the $440 million in sales to get a $35 million normal EBIT figure. That seems like a good guess. MonotaRO – the Japanese joint venture – made $63 million in EBIT last year. Grainger owns 53% of that company. So, Grainger's share of MonotaRO's pre-tax earnings is now $33 million. It's worth mentioning that MonotaRO is growing extremely fast and is valued in the Japanese stock market at over 30 times its pre-tax profits. It has an astronomical P/E ratio. So, the figure showing that MonotaRO only generates about as much in earnings for Grainger as Cromwell – the recent U.K. acquisition – does is somewhat misleading. The future for MonotaRO is a lot brighter than it is for Cromwell. And an acquirer might pay several times more for MonotaRO than it would for Cromwell. Certainly, the Japanese stock market values MonotaRO at many multiples of the price Grainger paid to buy all of Cromwell.

Grainger then has $147 million in corporate expenses that aren't allocated to a specific geographic area. So, we add the EBIT figures we discussed: $1.44 billion from the U.S., $129 million from Canada, $35 million from the U.K., and $33 million from Japan and then we subtract the unallocated expenses of $147 million to get a net number of $1.49 billion before taxes. Grainger pays both federal and state taxes. It has a fairly high tax rate. But, it shouldn't exceed 38% of total pre-tax profits. So, without the use of any leverage, Grainger would have about $1.5 billion in pre-tax profits less 38% in taxes leaves $930



Grainger is 12% more expensive than one of its two closest peers (MSC) and 36% cheaper than the other (Fastenal).

million in net income. The company has 63 million shares outstanding. So, that puts "normal" earnings per share – without any leverage – at $14.76. Essentially, Grainger is trading at a little under 10 times EBIT and a little under a P/E of 15. I say it's around a 15 P/E because Grainger has net debt. It has $258 million in cash – which is about the same as its pension liability. So, the $2 billion in debt is what matters. About $1 billion of this debt is a 30-year fixed bond at just 4.5% interest rate. So, that's very good for shareholders. Still, Grainger has something like $33 a share in debt. So, when you look at the stock price, you have to remember there is some net debt there adding to the enterprise value.

Grainger has several publicly traded peers. They are usually not directly competitive. But, the economics of some of them are similar. Lawson Products is a small company focused on vending services. The company is marginally profitable. The efficiency of its sales reps as a group is very poor. But, the company has hired a lot of new reps. And reps with 10 plus years of tenure average $400,000 of sales while reps with 2 years or less with the company average $150,000 in sales. So, it's possible earnings are unfairly impacted by a lot of new salesmen who don't sell much yet. The company has the highest gross margin of the peers we will be discussing. It trades at low prices versus sales (0.6 times) and gross profit (1 times) but actually seems to be priced at about 10 times our estimate of normal EBIT. It's very hard to guess Lawson's normal EBIT. The company might be more valuable if acquired by someone else. Operating expenses are really high versus gross profit – so, I'm not sure the low price to gross profit is necessarily that enticing unless another MRO buys the entire company and makes changes to the sales force. Lawson is a much lower quality company than Grainger. As an example, a Lawson sales rep averages less than $400,00 in annual sales. Grainger's sales reps who cover territories average $1.1 million a year in sales. An account manager – who focuses on company sites attached to a contract, not specific geographic territories – average $1.7 million in sales. Lawson's selling expenses are just too high relative to sales for it to be a high quality company.

Applied Industrial Technologies is on the opposite side of the MRO spectrum from Lawson. It has a low gross margin (about 26%) but manages a good return on capital (about a 30% pre-tax return on net tangible assets; so an ROE of 15% to 20% is easily possible without leverage). AIT has fast inventory turns. The business is different from Grainger. It hasn't been able to grow. Growth was just 4% a year over the last 15 years while spending a lot more on acquisitions relative to its own size than Grainger. In fact, AIT spent a lot on acquisitions and didn't really grow. So, this is essentially a no-growth business. It trades at 0.7 times sales and 10 times EBIT.

MSC Industrial is a good company and an excellent peer for Grainger in terms of quality. MSC gets 50% of sales from the metalworking industry. The company is more than double the size of its nearest metalworking supply competitor. MSC's current earnings are depressed by heavy recent investments that add to operating expenses immediately but only add to sales later down the road. This is common for MROs who invest in their distribution centers and sales forces. Until 2010, MSC Industrial regularly grew sales by 10% to 15% a year at a minimum. Sales growth since 2010 hasn't been that much different from Grainger. But, it's possible MSC could have more growth potential than investors assume. EV/EBIT is 11.5 on current earnings. It's 8.6 times our best guess of normal future earnings. This simply assumes the EBIT margin at MSC will return to its prior peak. That's not an aggressive assumption when you consider MSC's current infrastructure can accommodate about 35% more volume than it is doing right now. Doing more sales with the same amount of infrastructure is the easiest way to expand margin. So, MSC Industrial is really trading at less than 9 times EBIT.

Fastenal is usually the industry darling as far as investors are concerned. It has a totally different model from Grainger. Fastenal has 2,737 stores. The stores are small. They average just 4 employees per store. The company also has 54,000 vending machines. Fastenal focuses on repeat purchases. Grainger actually makes a lot of money off things shipped to a site this year that wasn't ordered last year and won't be ordered next year. That's not a big part of Fastenal's business. The biggest part of Fastenal's business – 40% of total sales – is fasteners. Manufacturing is about 50% of Fastenal's business versus 30% of Grainger's. Fastenal's sales growth has been slowing. It's entirely possible that Fastenal continues to grow much faster than Grainger in terms of sales. It's less clear that Fastenal will grow earnings – and earnings per share – faster than Grainger will in the future. Grainger is less cyclical. It has less to do with manufacturing. And Fastenal's sales growth and returns on capital have been falling for many, many years. This isn't a problem. ROC is still incredibly high. And sales growth was 10% a year over both the last 5 years and the last 10 years. So, it's a high quality growth stock. Fastenal trades at about 15 times EBIT versus 10 times EBIT at Grainger. Quan and I think this 50% higher price at Fastenal isn't justified. Over the last 5 years or so, Fastenal grew sales by about 11% a year while having more exposure to manufacturing than Grainger. Meanwhile, Grainger grew sales to large customers by 8% to 9% a year. A lot of the slow growth in Grainger's past was due to the simultaneously high growth of big accounts with the total loss of small customers. Grainger's new online only small customer units – Zoro in the U.S. and MonotaRO in Japan – have been growing by 25% a year or more. They're a tiny business. But, if big accounts can grow in the high single digits and there are very few small customers to lose in the traditional business now and the online business grows rapidly – Grainger isn't that different from Fastenal in terms of future growth potential. This is especially true when you are talking about earnings per share growth – the growth that matters to shareholders – rather than total sales growth. Grainger has grown earnings much faster than sales for a long time now (earnings grew about 10% a year on just 6% or less sales growth in some periods). On top of this, if Grainger and Fastenal both buy back stock and Fastenal pays 50% more for its shares than Grainger does – well, you can see the problem that creates for Fastenal beating Grainger in terms of earnings growth per share. Honestly, I think that Fastenal's growth rate in earnings per share over the next 10 years and Grainger's growth rate in earnings per share over the next 10 years will be much closer than investors expect. And that's what should matter for today's valuation. Fastenal might be a better business than Grainger. However, its future is not different enough from Grainger's to justify a 50% higher price on the stock.

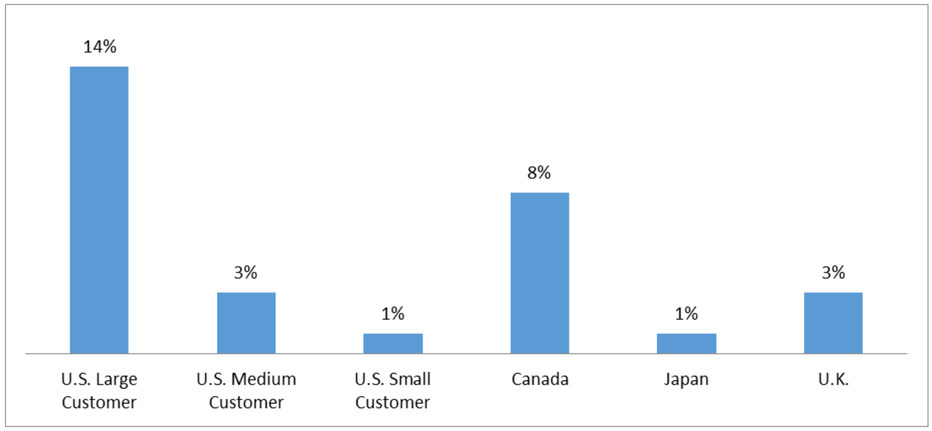
Grainger should be valued somewhat above MSC Industrial and somewhat below Fastenal. This implies a multiple higher than 11 times EBIT and lower than 15 times EBIT. Historically, Grainger traded at between 10 times EBIT and 14 times EBIT. A price of 12.5 times EBIT would be equivalent to a P/E of 20. That's a fair price for Grainger. Grainger returns two-thirds of earnings while growing earnings by 5% to 8% a year. At a P/E of 20, Grainger would be returning more than 3% a year in dividends and buybacks while growing intrinsic value by something like 5% to 8% a year. Add the two figures together and investors could expect an 8% to 11% annual return in Grainger – even if they bought the stock at 20 times earnings. Grainger can match the S&P 500 even if you buy it at a P/E of 20. If you buy it at a P/E of 15, it'll beat the market.

GROWTH

Grainger Still Has Plenty of Room to Grow its Market Share for Decades to Come

Grainger's growth potential is very different depending on which customer group we are talking about. Grainger can grow faster than the market with big customers. It can grow slower than the market with medium customers. And its small customer business will shrink. However, small customers who buy online with Grainger's Zoro business will grow.

The large customer business is 76% of Grainger's U.S. sales. Most of Grainger's total profit as a company comes from large American customers. In 2011, this market segment grew 5.4% while Grainger grew 13.2% with these customers. In 2012, the market grew 4.3% while Grainger grew 13.4%. In 2013, the market grew 2.3% while Grainger grew 9.3%. In 2014, the market grew 3.5% while Grainger grew 7.5%. And in 2015, the market grew 1.4% while Grainger grew 3.3%. Grainger has been rapidly gaining share of wallet with large customers in the U.S. This is due to supplier consolidation and sales coverage. Supplier consolidation means the same site buys more and more of its MRO supply needs from its one biggest supplier – Grainger –



Grainger has less than 10% market share in all market segments except American big businesses.

rather than spreading purchases over a dozen different, smaller suppliers. Share of wallet is higher where a site is covered by a contract. Grainger's share of wallet among its customer sites without contracts is usually low single digits as a percent of that site's overall MRO purchases. Share of wallet with large, covered customers is between 20% and 30%. This varies greatly by site. For example, in a 2015 presentation, Grainger used the example of a corporate customer it has a contract with that runs 1,200 sites in the U.S. Grainger's share of that customer's MRO supply purchases is between 75% and 100% at about 400 of those sites. Grainger accounts for little or no MRO supply sales at the other 800 sites. So, Grainger's efforts are focused on getting the other 800 sites to consolidate with Grainger as their MRO supplier the way those 400 sites now do. This is the sort of thing Grainger's sales efforts are focused on. And it is why the company has been able to grow faster with large customers than that market segment has grown. Grainger gains more and more share of wallet with this group – not because it sells for the first time to many new customers, and not even because it signs many more contracts. Rather, it grows faster than the market among this group, because Grainger is able to increase its penetration among existing contracts. It gets each site to consolidate more MRO purchases with Grainger. And it gets more sites run by the same corporate customer to work with Grainger as their preferred MRO supplier. Right now, Grainger has 14% market share with large customers. This number has increased over time. Grainger tends to gain market share faster during bad times, because customers are interested in reducing costs and consolidating their suppliers at the worst points of the economic cycle. And because Grainger has been willing to invest more in expansion when local competitors haven't done so. For example, in 2008 and 2009, when some local competitors would have reduced their sales force – Grainger continued to hire salespeople and even added 50,000 additional stock keeping units instead of reducing inventory as many companies do during a crisis. From 2008 through 2015, Grainger grew its large customer business sales by 9.7% a year. That is a faster pace than can be maintained in the future. That was an economic recovery. And Grainger's market share was smaller then. But, Grainger can grow at higher single digits among this customer group even when the group as a whole tends to grow by fairly low single digits.

Grainger's growth with medium sized customers has been bad. In 2011, MRO supply purchases by medium sized customers grew 5.4% market-wide and just 3% at Grainger. In 2012, the market grew 4.3% while Grainger grew just 4.1%. In 2013, the market grew 2.3% and Grainger grew just 0.4%. In 2014, the market grew 3.5% while Grainger actually shrank 0.5%. And Grainger shrank again in 2015, when the market grew 1.4% and Grainger got 0.6% smaller. So, Grainger has lost market share among medium sized customers every single year for the last 5 years. If Zoro grows quickly, it might help Grainger with this customer segment. Zoro can be competitive in the uncovered medium sized customer segment. These are customers who don't have contracts with Grainger. It is the group Grainger has done worst with in the past. And it's the group that may be attracted to Zoro's low price, no services online only approach.

Small customers are a tiny part of Grainger's business. Right now they only account for 4% of Grainger's sales. Grainger's position with this group collapsed. In 2011, the market grew 5.4% while Grainger shrank 11.5%. In 2012, the market grew 4.3% while Grainger shrank 19.6%. In 2013, the market grew 2.3% while Grainger shrank 13.6%. In 2014, the market grew 3.5% while Grainger shrank 1%. And last year, the market grew 1.4% while Grainger finally grew its sales too - but by just 0.4% that year. The growth was due to Zoro. Zoro launched in 2011. It had $80 million of sales in 2013, $180 million in 2014, and $300 million in sales in 2015. Grainger's goal for Zoro in 2020 is EBIT of $100 million on sales of $1 billion. This goal may or may not be realistic. But, Zoro can turn around Grainger's abysmal record with this customer group. Grainger's market share is now tiny with small customers (about 1% of the small customer market segment) so Zoro's growth can – relative to this small share – actually drive positive growth for Grainger among small customers. This was impossible in the early years of Zoro when Grainger's traditional small customer business losses were so large each year. Now, there just isn't a big enough business left to drag down Zoro. Each year, the traditional small customer business gets smaller and Zoro gets bigger. So, Grainger's competitive position with small customers gets better. And our expectations for Grainger's future growth among small customers gets better. Eventually, this business will mostly be Zoro. MonotaRO is the Zoro of Japan. It has similar growth prospects as Zoro does in the U.S. Right now, MonotaRO has $500 million in sales and $60 million in EBIT.

For the last 10 years, Grainger has been able to grow earnings faster than sales. This is Grainger's hope for the future as well. Grainger targets a 0.3% to 0.6% expansion in the EBIT margin each year. At a 2014 analyst meeting the company said: "We think we still have a good shot at 30 to 60 basis point (operating) margin expansion each year. And that's what's predicated on our long-term guidance. It's really driven by the assumptions we each make around price. So if price is going to zero to one, that's really difficult. If price is kind of in the 1% range or better, one to two, much easier because then (gross profit) can be a contributor…if there's not (gross profit) expansion it gets to be very difficult. Because there are still a fair amount of investments we want to make longer term." So, Grainger's management seems to believe the company can increase operating profit faster than it increases sales as long as inflation – something like the producer price index is a good measure here – runs at 2% or higher instead of 0% to 1% a year. Lately, inflation, putting aside energy has been running very much at the top end of the range Grainger talked about at that meeting. Inflation inside the U.S. is a lot closer to 2% a year than 0% a year. Grainger's business is mostly U.S. It's not very commodity driven at all. The next couple years may be weak ones for businesses in the U.S. relative to U.S. households. But, this is a short-term issue. There's no signs of deflation in the U.S. And deflation is the one macroeconomic risk for Grainger. Grainger's own business lowers costs in real terms. It is easier for Grainger to increase margin over time if there is some inflation in the economy to help Grainger price in a gap between the very low growth it can get in costs from suppliers and the slightly higher growth in prices it can charge customers. Since 2008, our best guess is that Grainger's customers have seen very little price increases in the sense that their average order costs more at all. The average customer really isn't spending much more at all per MRO supply in 2016 than they did in 2007. Grainger's margin expansion is due to productivity growth at Grainger being a lot higher than productivity growth in the U.S. economy overall during this period. Customers don't feel they are getting price increases, but Grainger isn't actually passing along the full cost savings from its own internal productivity gains.

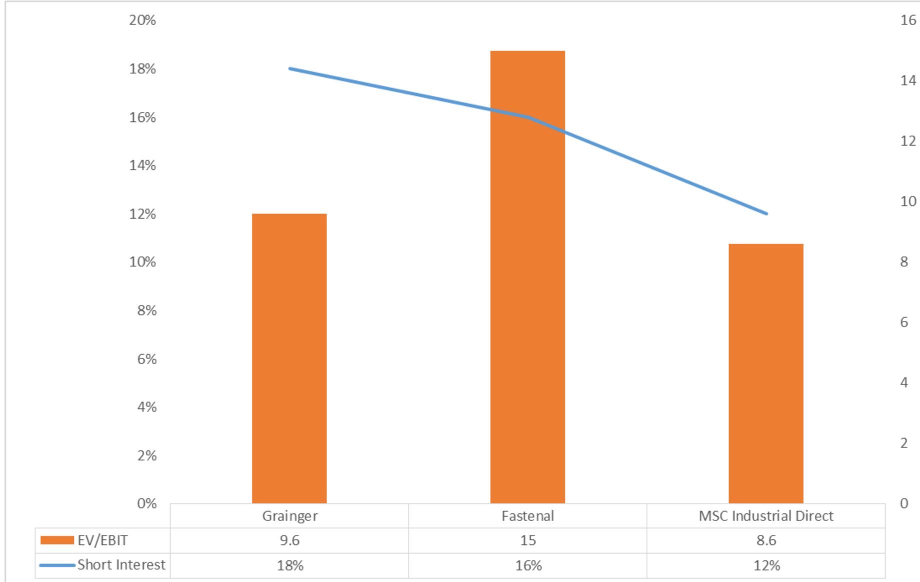
Quan and I are confident Grainger can grow sales by at least 5% a year. Profit growth should be more than 5% and less than 8% a year. At that pace of growth in sales, Grainger would return two-thirds of its earnings each year. So, if you bought Grainger at around a P/E of 16 or 17, the company would pay out 4% of your purchase price each year in buybacks and dividends while companywide profit would grow 5% to 8% a year. Your return in the stock would be in the 9% to 12% a year range. This is far better than you'll get long-term in the S&P 500. So, Grainger is a "growth at a reasonable price" stock even when priced as high as 17 times earnings and when growing sales as slowly as 5% a year. The combination of margin expansion and share buybacks mean the company could grow sales as slow as 5% a year and yet grow earnings per share at close to 10% a year. The "growth" in "growth at a reasonable price" that an investor should care about is only earnings growth and only in per share terms. It doesn't matter whether companywide sales grow 10% a year or 5% a year if EPS growth is 10% a year in both scenarios, the stock is no more or less valuable due to the difference in sales growth. Companywide sales growth doesn't benefit shareholders. Only growth in earnings per share makes any difference to an investor. So, by that measure, a stock with a P/E of 15 or 20 and a growth rate of 8% or 10% a year is actually a reasonably priced growth stock. Grainger fits that description.

MISJUDGMENT

When Choosing Among MRO Stocks, Many Investors Prefer Fastenal and MSC Over Grainger

The biggest risk of misjudgment at Grainger is that Quan and I may assume Grainger can widen its operating margins over time – that is, it can grow earnings faster than it can grow sales – when really this is some sort of one-time event that happened over these last 10 years. Grainger's management seems to believe that a little inflation makes it easier – not harder – for the company to have an improvement in its margins. So, this can be evidence that the trend was not due to the macroeconomic conditions over the last 10 years that had low inflation. Companies may have wanted to cut costs more than usual since 2008. That could have helped increase Grainger's share of wallet with large customers. So, there could have been factors over the last 10 years that helped Grainger more than would normally be the case. I don't think this is true. Grainger's customers – big U.S. companies – may have done better than other (smaller) businesses during this time period. But, that is more an issue of sales growth than anything else. Grainger was able to grow faster than the market in MRO supplies sold to big companies. It gained market share. Share of wallet gains among existing large customers helps Grainger's profitability more than anything else. As the company explained, it has had productivity gains per line at its distribution centers and this is what drives margin improvement over time. Grainger hasn't increased the relative amount of private label products – 25% of total sales – in its lineup in recent years. It's possible Grainger did have some gross margin improvement from selling more private label products relative to brand name products. This is a trend that would be hard for Grainger to continue. Grainger has continually increased the number of stock keeping units it sells. So, it has to increase the number of private label products each year just to stay at 25% of total sales. Increasing use of private label may help explain some of the improvement in Grainger's margin years ago. But, like I said, it couldn't explain the recent performance in Grainger's margin, because Grainger simply hasn't been increasing private label faster than brand name sales. It is true, though, that private label definitely carries a higher gross margin than brand name products. So, the first time Grainger made this shift into selling more private label products – the company's gross margin definitely did expand. This won't happen again unless Grainger increases private label sales beyond 25% of total sales. And Grainger's management hasn't really said they expect that. So, it's possible that this shift to private label was a tailwind for Grainger 10 years ago, and is no longer a tailwind today. That is one possible reason why Grainger's margin expansion in the future may not be as good as it was in the past.

Quan and I can be wrong about whether Grainger can grow earnings faster than sales. I don't see why earnings would grow slower than sales though. In other words, I don't see why Grainger's margin would narrow from where it is today. Some investors and analysts and possible short-sellers (18% of Grainger's shares outstanding are sold short) may be concerned about Grainger's very wide operating margin. Grainger is a distributor of boring products and has a 15% EBIT margin. A lot of people focus on the margin a company has rather than the return on capital. This can be very misleading. Distributors actually have completely different margins depending on how asset turns work in their business model. A great example of the kind of distributor many investors imagine when I say a distributor of boring products is Tech Data. Tech Data has a gross margin of 5% and an EBIT margin of 1.25%. It works completely on huge scale. The asset turnover is incredibly high. This is because inventory turns are high (about 11 times at Tech Data versus just 4 times at Grainger and just 2 times at Fastenal). The other issue is that MRO supply distributors all pay their suppliers before collecting payments from their own customers. This is a huge difference between what an MRO supplier does and what a company like Tech Data does. When Tech Data was – during the boom years for technology products being sold to business customers – growing at a rapid rate, it benefited from being funded in part by clients who paid their



Grainger has the highest short interest (18% of shares outstanding) among the 3 big MRO stocks.

bills before suppliers collected payment from Tech Data. This is a huge and important concept to keep in mind. What matters to these businesses is return on capital. Tech Data has a 5% gross margin. Fastenal has a 50% gross margin. This isn't new. It's not a temporary thing at either company. Fastenal has always had a much, much higher gross margin than Tech Data ever did. These companies were "born this way". No company develops over time from having Fastenal like economics that slowly get worse and worse until it ends up looking like Tech Data. The products Tech Data was distributing were always low margin. The products Fastenal was distributing were always high margin. There is a difference between sales to different types of customers. National accounts are a better business than sales to small customers. Grainger's Zoro business is profitable in the U.S. It has a 30% gross margin. Grainger's companywide margin is closer to 43%. Amazon's companywide margin – before it became big in virtual goods and services – was often in the 23% to 24% gross margin range. Let's say Amazon Supply has a 20% to 25% gross margin. Is this possible? Is it sustainable?

It wouldn't be a very good business at a 20% gross margin. That's true no matter how big Amazon Supply got. This is because competing with Grainger's Zoro business has different economics when it comes to assets than Amazon's other businesses. Amazon can have very, very low margins in businesses where it uses little or no assets. Amazon often retails products in a way that provides the company with negative working capital – like how an ad agency operates – where customers pay their bills before suppliers. This isn't how the MRO supply business works. For instance, Amazon now offers 30-day credit to MRO supply buyers the way others in Grainger's industry do. Amazon can't be a bigger buyer of many of the supplies it and Grainger both purchase – so it's not going to get different terms. Nor is it going to offer different terms to customers – apparently. Amazon's consumer retail business often gets to pay suppliers after getting paid by customers. Amazon can be slow to pay suppliers and can demand to be paid right away – as soon as the product ships – by households. It doesn't seem to be able to do this with business customers. So, Amazon would need a much higher margin in its MRO supply business than it would in its consumer business. Competition between Zoro and Amazon and other big MRO suppliers focused on little customers can bring down prices for the little guy. But, that isn't necessarily bad for those companies – because their market share with this group is so small. Amazon is not a big player in MRO. Grainger has 1% of the small customer market in the U.S. The small customer market can shrink a lot in dollar terms and still have a lot of room for companies like Grainger and Amazon to grow in that space. The profitability for the companies can also be higher as they gain scale with each customer. I'm not sure if this business will ever be as good as the big customer segment for Grainger. Right now, small customers – which is where Amazon competes – is a small part of Grainger's business. Zoro is growing fast. So, there should be less concern about competition today for Grainger than there was 5 years ago. The time to worry about competition over small customers was in 2005 and 2010 not in 2016. Grainger already lost a lot of its legacy small business customers. And then it started Zoro. It's very possible we can misjudge Grainger's growth potential with small customers. But, it's just not meaningful to our valuation if we do. We didn't really give Grainger any credit for the potential for long-term growth in small customers using Zoro. We just said Grainger can grow sales by at least 5% a year and it can grow earnings by more like 5% a year to 8% a year. Those assumptions only really take big customer growth into account. They don't assume any sort of growth in the areas where Zoro and Amazon compete. So, Zoro's future may be uncertain. But, the risk that we'll misjudge Grainger because of Zoro is no risk at all. Grainger would be worth more than it trades for now even if Zoro didn't exist. Misjudging margin expansion potential is more of a risk than misjudging sales growth potential. We said Grainger might be able to grow EPS much faster than sales. If margin doesn't expand, EPS growth will be a lot closer to sales growth. In that case, Grainger would not be a growth stock. And it would be fairly priced instead of being cheap. So, the one big risk of misjudgment here is that Grainger's current EBIT margin is the highest EBIT margin it'll ever see. There will be no margin expansion in the future. I think that's unlikely simply because if Grainger does more and more business with the same customers each year – it gets a bigger share of wallet – the company's margin is bound to expand. That's true for most businesses. Grainger's growth rate in dollar sales is not high at all. Its growth rate in physical units is good but not really a growth company type level. But, Grainger's growth in physical units shipped per customer is actually really, really good. And that's the easiest way to have productivity gains. You ship a little more product to the same customer each year. Grainger's done that for the last 10 years or so. And as long as Grainger can continue to ship a little more product to the exact same customer each year – it'll have productivity gains, and it'll have an expanding operating margin. This is very different from adding new accounts. Adding new accounts is good for sales growth. But, it's not such a great way to expand margin. Margin expands best when you sell more to the same customer.

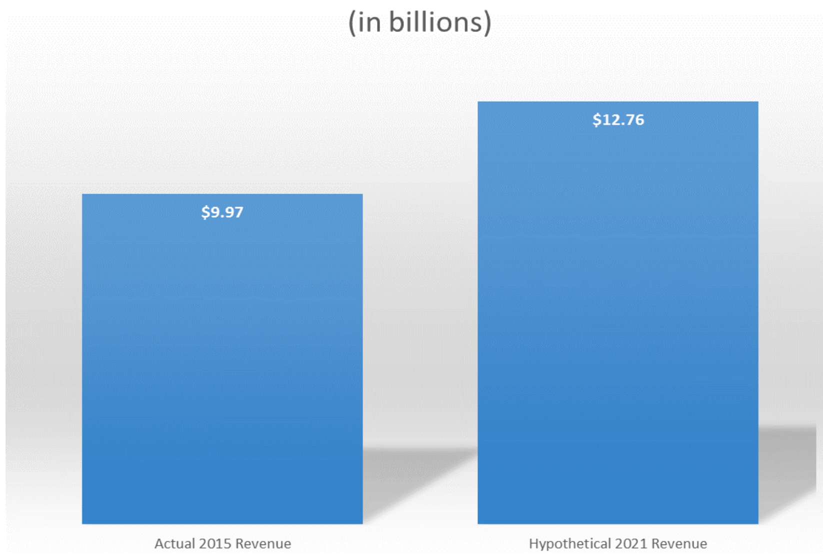
FUTURE

Grainger Can Be a High Total Return Stock Without Being a High Sales Growth Company

What will Grainger look like in 2021? Over the next 5 years, Quan and I think Grainger can grow at least 5% a year. That means Grainger should be about 28% bigger in 2021 than it is today. We've picked this rather low growth estimate of 5% a year, because Grainger's performance from 2009-2015 measures 6 years of economic expansion coming out of a deep recession. That will not be the case over the next 5 years. The next 5 years could include a recession. They won't necessarily be all years of economic expansion. And even if they are years of expansion, they won't be starting from such a cyclically low point. So, while it's true that Grainger grew sales by almost 10% a year among big customers over the last 5 to 6 years – we aren't expecting anything like that over the next 5 years. Grainger's dividend yield is about 2% right now. Dividends should grow each year at about the same pace as earnings. Buybacks will drive some growth in both earnings per share and dividends per share. However, the amount of growth from buybacks will depend on the P/E ratio of Grainger stock at the time the buybacks are made. The lower Grainger's P/E is over the next 5 years, the faster its dividends per share and earnings per share will grow.

Grainger's U.S. segment made $1.44 billion in EBIT. For our estimate of the overall company's value, we are simply assigning all corporate expenses – $147 million – to Grainger's U.S. business. So, that brings EBIT down to $1.3 billion. EBIT of $1.3 billion growing at a rate of 5% a year will reach $1.66 billion in 2021. We've said that 12.5 times EBIT (about a 20 times P/E) is a fair price for Grainger. That would put a valuation on the U.S. business of $20.75 billion. Grainger's management thinks Zoro – the online only business in the U.S. – can have $1 billion of sales and $100 million of EBIT in 2020. Let's instead say that figure will be reached in 2021. That business would then – if valued at the same 12.5 times EBIT we value the rest of Granger at – have a valuation of $1.25 billion in 2021. Is this realistic? If revenue doubled in 5 years to just $600 million and the margin expanded to the 10% level Grainger expects it can eventually reach, the business would still make about $60 million in 2021. It's also possible that both these projections are too aggressive because they assume margin expansion. Maybe Zoro will not succeed in expanding its EBIT margin over time. Zoro is a growth business. It's speculative. But, based on what management thinks is possible – yes, Zoro could be worth $1 billion within 5 years. I have no idea what Zoro's future will be. But, I know that if Zoro's future is what management expects, it will be worth $1 billion or more in 2021.

MonotaRO should decline in value. To illustrate, let's assume MonotaRO – this is Grainger's Japanese joint venture that is the model for Zoro in the U.S. – doubles its revenue in 5 years. That means a 15% compound annual growth rate for the next 5 years. Over the last 6 years, the compound annual growth rate was 27%. So, we are assuming a slowing down of growth. Also, it's possible margin could expand with growth. Let's use a 15% a year growth rate for 5 years and no margin expansion. In that scenario, MonotaRO would make $120 million in 2021. If that was valued at 15 times EBIT – which is a very, very high valuation for a Japanese company because Japan (like the U.S.) has high corporate taxes – it would give the entire company a market cap of $1.8 billion. That is 25% less than the company's market cap in Japan as of right now. I think MonotaRO could do better than what we've set out. It could grow 20% a year. It could have margin expansion. But, it's pretty aggressive simply to assume 15% growth for a full five years and no margin expansion. Expectations for MonotaRO are very high. Grainger owns 53% of MonotaRO. It thinks it's unreasonable to assume Grainger's stake in MonotaRO will be worth more than $1 billion in 2021. In fact, I think Zoro in 2021 could be worth more than Grainger's half of MonotaRO in 2021. Let's say – very, very roughly – that all of Zoro and Grainger's half of MonotaRO are each worth about $1 billion a piece in 2021. Grainger Canada is harder to value than Grainger U.S. Grainger's Canadian business is about 30% oil and gas related. It can decline and stay down for the full 5 year projection period. An oil slump can definitely last a full five years. Oil has a really, really long cycle. Grainger's Canadian business made $129 million in 2013. Let's assume that – a full eight years later – it can return to this peak in 2021. Canada has a lower tax rate than the U.S. So, the same 20 times P/E ratio translates into a 14.5 times EBIT here. The business would be worth $1.87 billion. To give you a rough idea of the running sum of the parts here – let's say Grainger Canada is worth something less than $2 billion, Zoro could be $1 billion, Grainger's share of MonotaRO could be $1 billion, and Grainger U.S. could be over $20 billion in 2021. Cromwell is hard to value. Quan has some information on the notes you can read in pages 3 and 4 of the "Future" section of the notes. I'm just going to say it's probably not likely to be worth much more than $500 million in 2021. It might be worth a few hundred million more than that. I think it'll be worth less than any of the other parts we've discussed though. So, I'd say – in very round numbers – let's call that $20 billion for Grainger U.S., $2 billion for Grainger Canada, $1 billion for Zoro, $1 billion for Grainger's share of MonotaRO, and $500 million for Cromwell. All of this is what the businesses could be worth in 2021. That adds up to $24.5 billion. Roughly speaking, as of 2021, we think all of Grainger might be worth as much as $25 billion and just the U.S. Grainger (excluding Zoro) could be worth $20 billion. This implies compound growth of about 10% a year in enterprise value to get from today's EV to the EV we expect in 2021 if we're right about all of Grainger's businesses. If we ignore everything but Grainger U.S., the EV would still need to increase about 6% a year to reach our estimate of fair value. Grainger is also paying out about 4% of its current price in a combination of stock buybacks and dividend. This suggests that Grainger stock should return about 15% a year from 2016 through 2021, if we are right about all of Grainger's various businesses. If we are more conservative and basically throw out all of the value in Zoro (the U.S. online business), Canada, Japan, and the U.K. leaving just the traditional Grainger business in the U.S. – Quan and I still think that the U.S. business alone is enough to drive 10% a year returns in Grainger stock for the next 5 years. This can come from a combination of about 5% a year growth in the company's earnings, about 2% a year in stock buybacks, about 2% a year in dividend payments, and about 1% a year in multiple expansion (since the stock should get more expensive over the next 5 years if it is priced in the future like it had historically been in the past). The upside in Grainger may not be as high as in some stocks – especially the banks – we've picked recently for Singular Diligence. However, the likelihood of acceptable returns (somewhere between beating the S&P 500 and reaching 10% a year) over a 5-year holding period is very good at Grainger. Buying Grainger and holding it for 5 years should give you positive returns that are better than you can get buying bonds and that don't involve a lot more risk. Whether you will get the upside of more like the 10% to 15% a year returns we think are possible if everything goes the way we expect – is harder to say. At Grainger, the odds of adequate returns over 5 years are excellent. There is also the possibility of better than 10% a year returns. Grainger can be a solid investment and a good enough speculation. The company is not heavily leveraged. It's extraordinarily diversified by product and client. The stock's safety is very high. It deserves a place in any portfolio.



Grainger only needs to grow 28% bigger by 2021 to deliver 10% annual returns for shareholders over the next 5 years.

W. W. Grainger (NYSE: GWW)
Appraisal Price: $268.94

Price/Appraisal Value: 85%

Grainger Owner Earnings	(in millions)
U.S. Business EBIT	$1,444
Canadian Business Peak EBIT	$129
Cromwell EBIT	$35
53% of MonotaRO's EBIT	$33
- Corporate Expenses	$147
= Pre-tax Owner Earnings	$1,494

Business Value

Grainger's business value is $18,675 million.

- Pre-tax owner earnings are $1,494 million
- Fair multiple = 12.5x pre-tax owner earnings
- $1,494 million * 12.5 = $18,675 million

Fair Multiple

Grainger's business is worth 12.5x pre-tax owner earnings

- Grainger is worth 20x after-tax owner earnings
    - Grainger can grow earnings by 5-8%
    - Grainger needs to retain only one third of earnings
- 12.5x pre-tax owner earnings is equivalent to 15x after-tax owner earnings
    - Effective tax rate is 37-38%

Share Value

Grainger's stock is worth $268.94 a share

- Business value is $18,675 million
- Cash: $258 million
- Debt: $2,046 million
- Equity value is $16,887 million
- $18,675 million + $258 million - $2,046 million = $16,887 million
- Equity Value = $268.94/share
    - 62.79 million outstanding shares
    - $16,887 million / 62.79 million = $268.94

Price/Appraisal

Grainger is trading at 85% of its value.

- Business Value = $18,675 million
- Enterprise Value = $15,838 million
- $15,838 million / $18,675 million = 85%

	EV/Sales	EV/Gross Profit	EV/EBITDA	EV/EBIT	EV/Owner Earnings
Lawson Products	0.61	1.00	23.68	NMF	9.57
Applied Industrial Technology	0.68	2.43	8.25	10.14	10.14
MSC Industrial Direct	1.50	3.32	9.74	11.53	8.60
Fastenal	3.20	6.35	13.55	14.96	14.96
MonotaRO	4.62	15.34	34.94	37.50	37.50
Minimum	0.61	1.00	8.25	NMF	8.60
Maximum	4.62	15.34	34.94	37.50	37.50
Median	1.50	3.32	13.55	11.53	10.14
Mean	2.12	5.69	18.03	NMF	16.15
Standard Deviation	1.74	5.74	11.21	63.25	12.18
Variation	82%	101%	62%	NMF	75%
Grainger (Market Price)	1.60	3.68	10.07	11.22	10.60
Grainger (Appraisal Value)	1.89	4.34	11.88	13.24	12.50

ABOUT THE TEAM

Geoff Gannon, Writer

Geoff is a writer, blogger, podcaster, and interviewer. He has written hundreds of articles for Seeking Alpha and GuruFocus. He hosted the Gannon On Investing Podcast, The Investor Questions Podcast, and The Investor Questions Podcast Interview Series. He wrote the Gannon On Investing newsletter in 2006 and two GuruFocus newsletters from 2010-2012. In 2013, he co-founded The Avid Hog (the predecessor to Singular Diligence) with Quan Hoang. Geoff has been blogging at Gannon On Investing since 2005.

Quan Hoang, Analyst

Quan is a stock analyst. Quan won first prize in Vietnam's National Olympiad in Informatics in 2006. He graduated from Manhattanville College in 2012 with a B.A. in finance and a minor in math. In 2013, Quan co-founded The Avid Hog (the predecessor to Singular Diligence) with Geoff Gannon.

Tobias Carlisle, Publisher

Tobias Carlisle is the founder and managing director of Eyquem Investment Management LLC, and serves as portfolio manager of the Eyquem Fund LP and the separately managed accounts.

He is best known as the author of the well regarded website Greenbackd, the book Deep Value: Why Activists Investors and Other Contrarians Battle for Control of Losing Corporations (2014, Wiley Finance), and Quantitative Value: a Practitioner's Guide to Automating Intelligent Investment and Eliminating Behavioral Errors (2012, Wiley Finance). He has extensive experience in investment management, business valuation, public company corporate governance, and corporate law.

Prior to founding Eyquem in 2010, Tobias was an analyst at an activist hedge fund, general counsel of a company listed on the Australian Stock Exchange, and a corporate advisory lawyer. As a lawyer specializing in mergers and acquisitions he has advised on transactions across a variety of industries in the United States, the United Kingdom, China, Australia, Singapore, Bermuda, Papua New Guinea, New Zealand, and Guam. He is a graduate of the University of Queensland in Australia with degrees in Law (2001) and Business Management (1999).

SINGULAR DILIGENCE

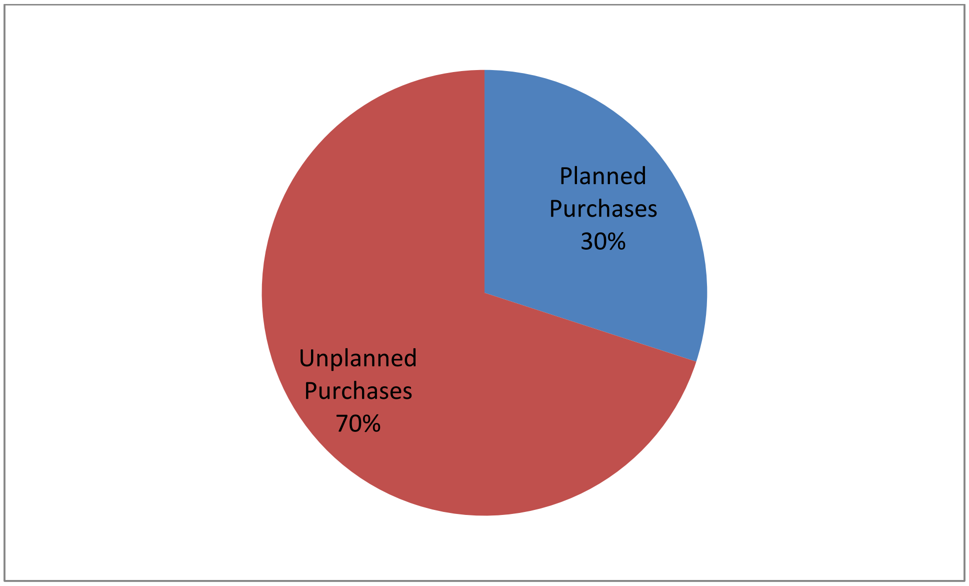
NOTES

W. W. Grainger

NYSE: GWW

Overview

Grainger: the One-stop Shop for Facility Maintenance



About 70% of Grainger's customer purchases are unplanned

- Grainger's history
  - Grainger was founded by William W. (Bill) Grainger
    - In 1927
    - In Chicago
    - A wholesale electric motor sales and distribution business
      - Manufacturers moved away from uniform, DC-driven assembly lines
        - Toward separate work stations
          - Each with individually driven AC motors
      - => Grainger initially sold to volume-minded manufacturers
    - Sales were generated primarily through mail order via
      - Post cards, and
      - An 8-page catalog
        - The Motorbook
        - Grainger has expanded product lines over the year
          - Its Red book catalog today has
            - Over 4,000 pages
            - 1.4 million SKUs
  - Grainger established its first branches

        - In 1933
            - In Philadelphia
        - In 1934
            - In Atlanta
            - In Dallas, and
            - In Francisco
    - In 1937, Grainger had 16 branches
        - over $1 million sales
    - In 1953, Grainger began to create a regional warehousing system
        - To replenish branch stock, and
            - Fill larger orders
        - Regional distribution centers (DCs) were eventually located in
            - Chicago
            - Atlanta
            - Oakland, California
            - Ft. Worth, Texas
            - Memphis, Tennessee, and
            - Cranford, New Jersey
    - Grainger evolved as alternating current became standard in the U.S.
        - Grainger focused on the secondary market
            - Sell to customers such as
                - Small manufacturers
                - Servicers
                - Dealers
            - These customers buy with
                - High frequency
                - Low volume
        - Grainger could anticipate the needs of the market[1]
            - And purchase from its suppliers in high volume
    - Grainger went public
        - In 1967
        - Operated 92 branches
        - Revenue was about $80 million
            - Revenue has compounded by about 10% from 1967 to 2016
    - Grainger eliminated the regional DCs by the mid-1970s
        - Its branches became large
        - The need for a decentralized stock diminished

- But Grainger resurrect its regional DC system[2]
  - Opened a heavily automated DC in Kansas City, Missouri
    - In 1983
- A study showed that
  - Most Grainger customers had fewer than 100 employees
  - Customers valued immediacy over
    - Breadth of product line, or
    - Price
  - => Grainger accelerated its expansion of branches[3]
    - Opened more than 100 new branches between 1987 and 1989
      - Historically, it opened about 6 branches a year
    - Tried to bring a branch within 20 minutes of every customer
- During 1980s, Grainger returned to its origins[4]
  - Trying to reach larger customers
  - Strategic pricing help Grainger get national accounts and larger industrial customers
- Grainger expanded its product line
  - Through acquisitions and internal expansion, it added
    - Replacement parts
    - General industrial products
    - Safety products
    - Sanitary supplies
    - Etc.
- David Grainger retired as CEO in 1995
  - David Grainger is the son of the founder
  - Richard Keyser became the first non-family CEO
- Grainger launched the corporate Website
  - In 1995
  - Began taking orders online in 1996
    - E-commerce today accounts for **40%** of revenue in the U.S.
- Grainger acquired a division of Acklands, Ltd.
  - (A Canadian manufacturer of Industrial safety and automotive aftermarket products)
  - In 1996
  - This business became Grainger Acklands
    - The Canadian business
- Since 2000

            - Grainger entered many international markets
                - Through joint ventures or acquisitions
                    - Small investments
                - Most attempts failed
                - The one in Japan succeeded
                    - The business now has $2.4 billion market cap
                        - Grainger owns 53%
            - Grainger continued expanding its product lines
                - Become a one-stop shop
            - Grainger benefited from the trend toward supplier consolidation
                - Big customers consolidate MRO purchases across multiple sites
                - Integration into customer's purchasing system
                    - Helps automate purchase processes
                - Grainger offers inventory management services
                    - Go to customer's storerooms and refill inventories
                    - Install vending machines
            - Grainger resizes its branch network
                - As the e-commerce business grows
- To understand Grainger, investors must remember some points
    - Grainger sells facility maintenance products[5]
        - Grainger sells products that keep business running
                - Light bulbs
                - Motors
                - Safety gloves
                - Screwdrivers
                - Mops
                - Buckets
                - Brooms
                - Etc.
        - These products are bought after a building is built
            - Not when the building is built
        - Some distributors sell everything when a building is built
            - High-turn, low-margin
        - Grainger has low turns, high margin
    - MRO purchases can be
        - Recurring, predictable and planned
            - Examples:

            - Fasteners
            - Safety gloves
            - Lighting
        - Customers know pretty well how much they need each month
    - Random, unpredictable and unplanned
        - The filter in the heating and air-condition system
        - A elevator's up and down button
        - An exhaust fan motor in a restaurant's kitchen
- Grainger focuses on random, unplanned purchases
    - 70% of customer purchases are unplanned[6]
        - They haven't purchased before
            - Replacement motor for HVAC system
        - Unlikely to purchase again
    - 70% of products are bought 1 or 2 times a year[7]
        - For half of those products: customers didn't purchase previously
            - Motor in the HVAC system
                - In the elevators
                - In other things
                - Etc.
            - Those motors go out every 10, 15, 20 years
- With manufacturing customers, Grainger's strength is in facility maintenance[8]
    - Some competitors are stronger on the manufacturing floor
        - Cutting tools
        - Abrasives
        - Fasteners
        - Etc.

- U.S. and Canada account for most of Grainger profits
    - Revenue
        - U.S: **78%** of revenue
            - $7.8 billion
        - Canada: **11%** of revenue
            - $1.1 billion
        - Others: 11% of revenue
            - $1.1 billion
    - Segment income
        - U.S.: **92.6%** of segment income
            - $1,444 million

        - Canada: **5.7%** of segment income
            - $88 million
        - Others: **1.7%** of segment income
            - $27 million
- Revenue mix by product category
    - Safety and Security: 18%
    - Material Handling: 12%
    - Metalworking: 12%
    - Cleaning and Maintenance: 9%
    - Pumps, Pluming and Test Equipment: 8%
    - Hand Tools: 7%
    - Electrical: 6%
    - HVAC: 6%
    - Other: 6%
    - Lighting: 5%
    - Fluid Power: 3%
    - Power Tools: 3%
    - Motors: 2%
    - Power Transmission: 2%
    - Specialty Brands: 1%
- Revenue mix by customer category
    - Heavy manufacturing: 18%
    - Commercial: 14%
    - Government: 13%
    - Other: 12%
    - Contractors: 11%
    - Light Manufacturing: 11%
    - Retail/Wholesale: 6%
    - Transportation: 6%
    - Natural Resources: 5%
    - Reseller: 4%
- In the U.S., Grainger serves customers from
    - 19 distribution centers
        - Grainger keeps over 500,000 products in inventories
            - And sell about 1.4 million products
        - It can ships to most customers same-day or next day
    - About 350 branches

        - Average 22,000 square feet in size
        - keep high-volume items near to customers
    - Inventory management services
        - (KeepStock)[9]
            - A wide array of services
            - Customer Managed Inventory (CMI)
                - Customers can scan bar codes
                    - To refill any item in their bins
            - Vendor Managed Inventory (VMI)
                - Grainger visits customer's site regularly
                    - Manage the storeroom for customer
            - Vending machine
    - E-commerce is 40% of Grainger's business
        - Over $3 billion sales
        - The 13th largest online retailer
- Medium and large customers account for most of Grainger U.S. revenue
    - The large-customer: **76%** of U.S. revenue
        - Large customers have over 100 employees per location
        - Each location buy **$100,000** MRO supplies or more annually
        - Grainger has **14%** market share of this segment
            - Size of this market: $40 billion
    - Medium customers: **20%** of U.S. revenue
        - Medium customers have 20-100 employees at a site
        - Each site buy $20,000-$100,000 MRO supplies annually
        - Medium customers can be attached to a contract
            - And are covered by a sales representative
            - These customers are **2/3** of the medium-customer business
        - Unattached medium customers are ½ of the medium-customer business
        - Grainger has **3%** market share of this segment
            - Size of this market: $50 billion
    - Small customers: **4%** of U.S. revenue
        - These customers have fewer than 20 employees at a site
        - Buy once or twice a month
        - Grainger has only **1%** of this market
            - Size of this market: $40 billion
- Most of Grainger's growth came from gaining market share with large customers

        - (and to a lesser extent with medium customers)
        - Since 2009, large-business revenue grew **8.6%** annually
        - Grainger can continue gaining share in this segment for many years
            - Currently has only 14% market share
- Zoro gives Grainger an opportunity to gain market share with small customers
    - Zoro is an online-only distributor
        - Offers low prices to small customers
    - Zoro was launched in 2011
        - Grainger tried to replicate its success with MonotaRO in the U.S.
        - Zoro enjoyed great revenue growth
            - 2013: $80 million
            - 2014: $180 million
            - 2015: $300 million
- Grainger also have growth opportunities in
    - Japan
        - Market size: $54 billion
        - MonotaRO is doing $500 million revenue
        - 6-year sales CAGR: 27%
    - The U.K.
        - Market size: $24 billion
        - Grainger acquired Cromwell
            - In 2015
        - Cromwell is the largest independent MRO distributor in the U.K.
            - $440 million revenue
        - Grainger plans to use Cromwell's supply chain to build an online business
            - Just like Zoro U.S.
    - Germany
        - Zoro Germany
- Grainger can have higher than average growth for many years
    - Making it a great stock at an average price
        - 9.6x EV/normal EBIT

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[1] "As alternating current became standard in the United States, Grainger's market changed. **No longer processing large orders, the company intensified its focus on the secondary market that existed throughout the country--small manufacturers, servicers, and dealers who purchased with high frequency but low volume.**

Grainger could anticipate the needs of this market and purchase from manufacturers in high volume. Grainger's distribution system, warehousing, and accounting allowed manufacturers to produce at low cost for Grainger's customers. These customers were otherwise difficult for manufacturers to reach." – W.W. Grainger History, Funding Universe, http://www.fundinguniverse.com/company-histories/w-w-grainger-inc-history/

[2] "**Investment in computer automation allowed Grainger to resurrect its centrally managed regional distribution centers**. In 1983 the company opened a heavily automated distribution center in Kansas City, Missouri, and in 1989 opened a third such operation in Greenville County, South Carolina." – W.W. Grainger History, Funding Universe, http://www.fundinguniverse.com/company-histories/w-w-grainger-inc-history/

[3] "A study showed that while Grainger sold products in every county in the United States, it held less than a 2 percent share of a $70 billion to $90 billion industry. **The study also indicated that most Grainger customers had fewer than 100 employees and valued immediacy over breadth of product line or price. In response**, Grainger accelerated its decades-old expansion rate of six branches a year. It **opened more than 100 new branches between 1987 and 1989, trying to bring a branch to within 20 minutes of every customer**." – W.W. Grainger History, Funding Universe, http://www.fundinguniverse.com/company-histories/w-w-grainger-inc-history/

[4] "**During the 1980s Grainger returned to its origins, trying to reach larger institutional customers**. Although essentially the same business since its inception, Grainger expanded the scope of its services**. Starting in 1986, through acquisition and internal development, the company began building specialty distribution businesses that were intended to complement the market position held by Grainger. These businesses included replacement parts, general industrial products, safety products, and sanitary supplies**. Parts distribution continued to expand under the Parts Company of America (PCA) name. PCA provided parts service for more than 550 equipment manufacturers and offered 80,000 parts." – W.W. Grainger History, Funding Universe, http://www.fundinguniverse.com/company-histories/w-w-grainger-inc-history/

[5] "Ron Jadin, Grainger's CFO: **So we're in facilities maintenance and we may sell electrical components for the repair of broken electrical components in a facility like this. And some competitors we have would be the ones who would have sold everything when this building was built**, and they are selling truckload quantity of the same types of fixtures that we sell one at a time in the repair space.

Scott Davis, Analyst – Barclays Capital: But at a much higher margin, right?

Ron Jadin, Grainger's CFO: **At a much higher margin, but slower turns**. Right?

So their model is a high-turn model. They are selling truckload quantities. We are more of a slow-turn model." – Barclays Capital Industrial Select Conference, 20 February 2014

[6] "Now what is interesting about that type of business is that the demand patterns from our customers tend to be highly unplanned. **About 70% of what our customers purchase, they have not purchased before and are unlikely to purchase again**.

Some of the things that we sell like light bulbs tend to be planned, tend to be bought in higher volumes. **But if the HVAC system in this building goes down and you need a replacement motor for that, that tends to be very unplanned**. So what is important in that type of business, service is incredibly important because when the customer needs it, they need it right now." – Court Carruthers, Grainger's Group President Americas, Morgan Stanley Conference, 16 September 2014

[7] "**About 70% of the products that we would sell in any given year are only purchased by those customers one or two times in that year, and half of those products that customer has not purchased previously**. So if you think about staying with this hotel example, **there are a bunch of motors in the HVAC system in the elevators and other things in this building. When one of those motors goes out, which might happen every 10, 15, 20 years, in that situation that is very unplanned**, and what's really important is that there is an incredibly high service level so that that motor can be replaced and the heating ventilation and the air conditioning system can be back up and running again. So that's a critical element of what we do.

What that means is that we have to have a very broad product offer. We sell more than a million items that are available on Grainger.com at an incredibly high service level -- very service sensitive business." – Court Carruthers, Grainger's Group President Americas, Robert W. Baird Growth Stock Conference, 06 May 2015

[8] "**So we talk about manufacturing being about a third of our business, between heavy and light. But it is really the facilities maintenance piece of it where we have been strongest.**

Some of our competitors have been stronger on the manufacturing floor, and cutting tools and abrasives or fasteners or different areas. And we cross over, certainly; we compete with each other.

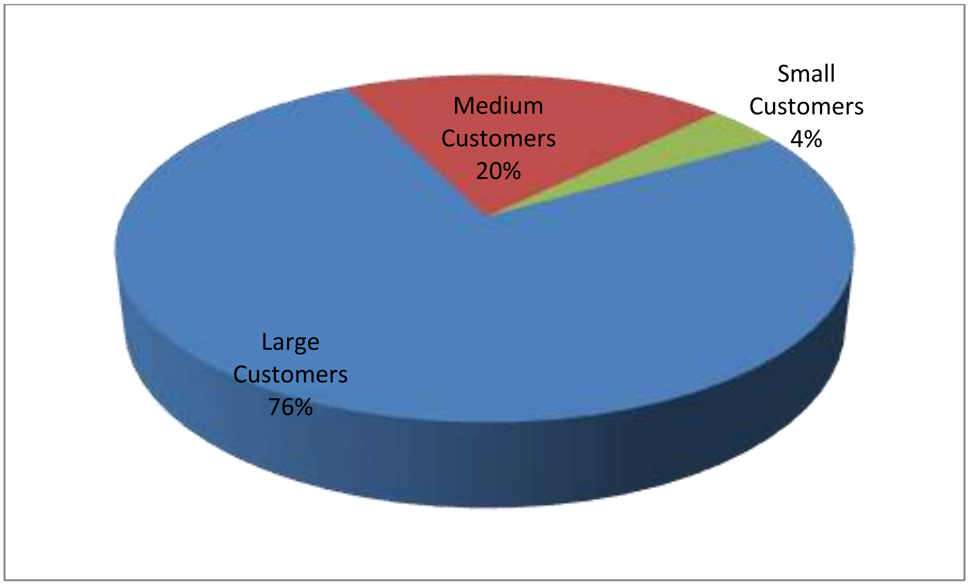
But we are investing to become more significant in some of those places as well. So we have segmented part of our salesforce to call on manufacturing only, whereas they used to call on multiple different segments, to help them sharpen their skills and train up on being really good in that space.

The E&R acquisition we made in August really helped us acquire a lot of talented salespeople with many years of experience selling on the manufacturing floor. So oftentimes it is different products but at the same customer, or different levels of expertise. Or it could be the same product but in a different instance." – Ron Jadin, Grainger's CFO, Barclays Capital Industrial Select Conference, 20 February 2014

[9] "KeepStock is an inventory services offering that we have that covers a wide array of our services from **customer managed inventory, CMI, where the customer, we provide them with a scanning device and bar codes and they can put the product away themselves to VMI, where the vendor, Grainger in this case, does that same service for them**, maybe going to the location once a week, once a day, once every two weeks, whatever **the demand requires to vending machines, where we'll put product into a vending machine for the customer, to even a -- in more extreme cases an onsite branch**, where the customer wants Grainger onsite with a dedicated inventory, terminals we can order from for them, that sort of thing, if it's not in stock." – Ron Jadin, Grainger's CFO, Robert W. Baird 2012 Growth Stock Conference, 08 May 2012

Durability

Grainger's Multi-Channel Offering Allows Large Customers to Consolidate MRO Suppliers



96% of Grainger's U.S. revenue comes from medium and large customers

- **Biggest Negative**:
    - Amazon may attract small customers
- Online competition is the biggest threat to Grainger's durability
    - Amazon
- Online competition has little impact on the business with large customers
    - Large customers are locations with over **100** employees
        - Buy **$100,000** MRO supplies or more annually
        - **76%** of Grainger's business in the U.S.
        - Grainger has **14%** market share of this segment
    - Notice: large medium customers behave like large customers
        - Medium customers have 20-100 employees at a site
        - Each site buy $20,000-$100,000 MRO supplies annually
        - But these sites are attached to national contract
            - Are covered by a Grainger's sales representative
        - Small medium customers are unattached to a national contract
            - (aren't covered by a sales rep)
            - Small medium customers behave like small customers
            - Grainger is trying to have sales reps to recruit them

            - Give them discount like large medium customers
        - Medium customers account for **20%** of Grainger's U.S. business
            - 2/3 is with large medium customers
            - ½ is with small medium customers
        - Grainger has only **3%** market share with medium customers
    - According to Scott Farmer, to win large customers suppliers must[1]
        - (Executive Vice President – Global Purchasing of Berry Plastic)
        - Understand the customer's business
            - Not just who customers are
            - But also what their business plan is
        - Gain trust and reliability by deliver
            - Right things
            - Right place
            - Right time
            - Right price
        - Has representation
            - Sales reps that understand customers
                - Save time for customers
        - Customers care about
            - Breadth of product
            - Ecommerce
                - Do more with less resources
            - Sales people knows what they're selling
- For large customers, purchasing MRO supplies is a nightmare
    - MRO purchases are unplanned
        - 70% of customer purchase are unplanned[2]
            - They haven't purchased before
                - Replacement motor for HVAC system
            - Unlikely to purchase again
        - 70% of products are bought 1 or 2 times a year[3]
            - For half of those products: customers didn't purchase previously
                - Motor in the HVAC system
                    - In the elevators
                    - In other things
                    - Etc.
                - Those motors go out every 10, 15, 20 years

            - The way companies buy and manage MRO is an ugly process[4]
                - Unproductive
                - Not using good inventory management systems
                - Often buy products out of petty cash
                    - from thousands of suppliers
            - The typical way to purchase MROs is time-consuming[5]
                - Get requisitions for different types of MRO
                    - Send them to multiple suppliers
                - Get multiple bids back
                    - Pick the suppliers with the lowest price
                - => long process for low-dollar items
                    - Very little purchase history to go on
                    - Spend time and energy trying to figure out
                        - What they want to buy
                            - There's no part numbers
                        - Who to buy it from
                - Customers tend to more than one items
                    - Not just for now
                    - But just in case
                        - => lead to waste
        - It's expensive to buy from many suppliers[6]
            - Cut more purchase orders
            - Pay more invoices
            - Receive more shipments
            - See more sales reps
            - Carry more inventory
        - 70% of cost of buying an item is in the procurement of the item[7]
            - Not the item itself
            - It costs customers to
                - Set up POs
                - Have procurement people
                - Receive different orders
                - Able to handle the invoicing
    - Grainger helps customer reduce total cost
        - Reduce product cost
            - Customers can consolidate buying power of many sites
            - Customers get discount through contract

        - Large and medium-sized customers don't pay the list price[8]
            - They pay a discounted price
        - Compared net price of top 10,000 selling products with Amazon[9]
            - The median is within **1%**
            - The bulk of products are at around the same price
        - Net price is within **a few %** of Amazon price[10]
            - Many products were actually lower price at Grainger
    - Private label products are a value option
        - 25% of Grainger sales
- Reduce inventory- and process-related cost
    - One-stop shop
        - Grainger stocks over 500,000 products
            - And sells more than 1.4 million SKUs
        - Allow customers to shift from the just-in-case to just-in-time approach
    - Item cost is just 1/3 of total cost[11]
        - It costs to manage inventory and transactions
            - Across facilities
        - Grainger's dialog with customer is all about cost savings
            - Few players can provide something like that
                - Across hundreds of sites
    - On-site inventory management (KeepStock)[12]
        - A wide array of services
        - Customer Managed Inventory (CMI)
            - Customers can scan bar codes
                - To refill any item in their bins
        - Vendor Managed Inventory (VMI)
            - Grainger visits customer's site regularly
                - Manage the storeroom for customer
        - Vending machine
    - Grainger is integrated into customers' ERP system
        - A lot of GWW's online business is linked to customers[13]
            - Buying processes
            - Purchasing systems
            - Customers go to Grainger have
                - Their own product list

                - Special services
            - Very few % of business was random search
        - Link to customer's purchasing systems[14]
            - Help get rid of overhead costs
            - Customer use their own front-end purchasing system
                - But they may be buying from Grainger
- Grainger's differentiators
    - Multi-channel model
        - E-commerce
        - About 350 branches
            - Fulfill emergency demands from customers[15]
                - Highly customized local pool of inventory
                - Products can earn their way into a branch based on local market demand
                - Customers can visit branches for technical support
                    - Bring in a broken piece of equipment
                    - Don't know how to replace it
                    - => give them support
        - On-site inventory management (KeepStock)
            - About 70,000 installations
        - Sales assistance
            - MRO purchase is unplanned
            - Customers may not know what to buy
                - Amazon is just an order-taker
    - Multichannel model allows customer to consolidate all of their spend[16]
        - They have many purchasing occasions
        - They use many channels
            - Only 1% of sales are through customers who use Grainger.com as the only channel
        - Example:
            - One customer spent $28 million with Grainger in 2014
                - Mix of order origination channel
                    - KeepStock: 31%
                    - EDI/ePro: 33%
                    - eCommerce: 13%
                    - Phone: 22%
    - Grainger also provides a lot of free services

        - Inventory management services
        - Safety training
        - OSHA-compliant services
        - Energy audit
    - Grainger offers useful e-commerce features
        - Live chat facility on mobile device[17]
            - Real-time interaction with customers
                - They can submit a photo of the roof
                    - Show a blower motor they want to replace
                    - (Grainger receives over 1,000 photos a week)
                - => can get feedback from the technical products support people
                    - Get the right answer
        - Private website
            - Customized, location-based product lists
                - With discounted price by contract
        - Grainger's mobile apps connect to customers' ERP system[18]
            - A lot of customers have workflow system[19]
                - You might be the one placing the order
                    - But still have to approve it
                        - Have to log on to your computer
                        - Go on to an SAP system
                        - Approve it
                - GWW has built that into the mobile device
        - Continues to invest in its ecommerce platform[20]
            - Help customers navigate to the right solution
                - Tiered search
                - Type-ahead functionality
            - Customers can get all of their Grainger-related information
                - Online invoicing for all transaction
                    - Including offline transaction
            - Live Chat with photo
            - Location-based lists
                - Contractors can record the types of products they use at each location
            - Barcode scanning
                - Enable one-click ordering

- Large customers have few reason to switch
  - (Even if Amazon is able to match Grainger's service offerings)
  - Grainger has already offered great services
    - Grainger has invested in e-commerce since 1996
      - E-commerce is over **40%** of U.S. business
        - (doesn't include inventory solutions)
        - Over **$3 billion** e-commerce business
      - Can reach more than 95% of customers via next-day ground transportation
        - (in North America)
    - Competitive price
      - Within several % of Amazon's price
  - Anything Amazon does in this place won't be disruptive
    - It's a late player
  - One senior buyer at a specialty computer maker talked about Amazon[21]
    - (in an interview done by Blue Shift)
    - He might save a few dollars
    - But the carrying cost of adding another core MRP supply relationship outweighs the benefit
      - MRP = Material Requirements Planning

- Online competition may have negative impact on the small-customer business
  - Small customers only buy once or twice a month[22]
    - Supplier consolidation is less of an issue
    - They care about
      - Price
      - Availability
      - Easy transaction
  - Small customers pool MRO spend with their consumer spending[23]
    - A small drycleaner or single brand contractor may buy from Home Depot
      - or Costco
  - Small customers account for 4% of Grainger's US business
  - Zoro targets these customers
    - The genesis of Zoro is MonotaRO
      - Grainger invested in MonotaRO
        - In 2000
        - In Japan

            - MonotaRO has being growing over 25%
                - $500 million sales
                - $60 million EBIT
            - Over $2.5 billion market cap
            - Zoro is MonotaRO's version in the U.S.
                - Grainger launched in 2011
                - Zoro utilize Grainger's supply chain
        - Zoro is a low-cost MRO player
            - Has about 30% gross margin
            - 7% EBIT margin
    - Zoro competes directly with AmazonSupply
        - Its biggest competitor is McMaster-Carr
            - Has been competing with McMaster-Carr for decades
            - Amazon's pricing is much like McMaster-Carr[24]
            - McMaster-Carr[25]
                - Has been in the business for 100 years
                    - Predated Grainger
                - Appeal to a much smaller customer
            - McMaster-Carr is the second largest MRO player
                - Has been running the single channel model for decades[26]
                - No branches
                - No sales people
                - No on-site service people
    - Zoro has enjoyed great success
        - Launched in 2011
        - Expects to make $300 million revenue in 2015
            - $22 million EBIT
    - There's little information about AmazonSupply
        - Amazon had been selling MRO supplies for over a decade
        - Launched AmazonSupply in 2012
            - Has recently been folded into Amazon Business

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[1] "So my name is Scott Farmer, I'm the executive vice president of purchasing for Berry Plastics. I've been in the industry for 26 years. Today I manage about $2.5 billion on spend across 88 locations for roughly a $5 billion business that's both in United States and international.

Several things have changed over the past 10 years in the procurement function. I think three things that I can point to. Number one would be the level within the organization. **Purchasing is now viewed as much more strategic function typically forced directly into the CEO**.

In the past, it was more of an operation's view of it, more of manufacturing type position and that's drastically changed over the past 10 years. Probably the second thing would be the buyers. You know, **the buyers have become much more sophisticated than they were 10 years ago. They're much more analytical, much more financially astute, much more in tune with the overall business and the business practices**.

And then probably the third thing **has been the move from a decentralized to a centralized environment**. If you think back 10 years ago and even beyond that, you know, everything was decentralized which meant that a lot of the buying activities taking place at the plan but there is no visibility to it.

Biggest challenges are doing more with less resources and I think that's true in most organizations. As resources come down, you have to become very, very smart in your process as you have to use the e-commerce, use the systems. You have to have things to drive if process goes down and while you're dealing with less people within the organization I think it's the biggest challenge.

I think the main reason is the amount of pressures put on the corporations that they are to drive profit. So if you think about where profit comes from, it comes from three areas.

One would be selling your product. Number two would be how you manufacture it and then thirdly would be the cost of the raw materials and the bill material that goes into it.

So organizations spend a lot of time on selling practices, manufacturing practices and now they're looking at the cost to good and saying where I can get value out of it and **they're putting a lot of emphasis back on the procurement organization to drive those savings**.

So the biggest opportunities within procurement organization today is capturing what we call rogue spend and one of the areas is MRO. Most companies don't really try to track MRO because of its complexity. There's so many parts and there's so many different locations and so many pieces floating around that is very complex and very difficult to get your hands on so most people just try to avoid it.

I think that's one area that people going to go after because there's a lot of money to spend in the MRO field and for being able to put systems in place, to be able to identify parts, to be able to manage that inventory and the working capital, I think that's one area that people are going to concentrate a lot of time on.

…

I think there are several things. One is the **suppliers really need to understand the customer's business**. So they need to understand not just who they're selling to but what their business plan is, what their five-year objective is.

The second thing would be the trust and reliability. So knowing that they're **delivering the right things to the right place at the right time at the right price every time** so reliability would be the other big thing.

And the third thing is the representation, to **make sure that that sales rep understands the company is involved** and time has been an essence today with a procurement profession. So one thing **they don't have is time so when you can simplify that process for them**, make sure that it's reliable that they're going to get the answer that they want and get the product on time without having to follow up, you know, that's also very critical.

In the complexity of the organization, what's important to us from the supplier perspective would be several things. Number one is the **breadth of product**. You know, to be **able to go to one place and get everything we need is very, very important**.

The second piece that would be equally important is the **e-commerce**. You know, today, **buyer's life is very busy so how do you drive value through process, how do you save that buyer time, how do you do more with less resources**.

And then the third piece of the technical aspect of it that the **sales person who knows what they're selling, that they can meet the technical objectives and that that fits within our operation**." – Scott Farmer, Executive Vice President of Purchasing for Berry Plastic, Grainger Analyst Meeting, 12 November 2014

[2] "Now what is interesting about that type of business is that the demand patterns from our customers tend to be highly unplanned. **About 70% of what our customers purchase, they have not purchased before and are unlikely to purchase again**.

Some of the things that we sell like light bulbs tend to be planned, tend to be bought in higher volumes. **But if the HVAC system in this building goes down and**

you need a replacement motor for that, that tends to be very unplanned. So what is important in that type of business, service is incredibly important because when the customer needs it, they need it right now." – Court Carruthers, Grainger's Group President Americas, Morgan Stanley Conference, 16 September 2014

[3] "**About 70% of the products that we would sell in any given year are only purchased by those customers one or two times in that year, and half of those products that customer has not purchased previously**. So if you think about staying with this hotel example, **there are a bunch of motors in the HVAC system in the elevators and other things in this building. When one of those motors goes out, which might happen every 10, 15, 20 years, in that situation that is very unplanned**, and what's really important is that there is an incredibly high service level so that that motor can be replaced and the heating ventilation and the air conditioning system can be back up and running again. So that's a critical element of what we do.

What that means is that we have to have a very broad product offer. We sell more than a million items that are available on Grainger.com at an incredibly high service level -- very service sensitive business." – Court Carruthers, Grainger's Group President Americas, Robert W. Baird Growth Stock Conference, 06 May 2015

[4] "Well, finding, buying and managing MRO hasn't been at the top of the priority list for most companies. And the good news for us is the way they find and buy and manage **MRO, it's an ugly process, it's unproductive, they're not using good inventory management systems, oftentimes they're buying this product out of petty cash from thousands of suppliers**.

So they're starting to wake up that there's money on the table here to grab, and they're bringing a lot of the same tools and techniques that they use to reduce acquisitions costs, for raw materials and production consumables." – Jim Ryan, Grainger's CEO, Grainger's Analyst Meeting, 19 November 2008

[5] "**Let's talk about how MROs typically purchase**. I happen to call it three bids and a buy, and I know this process well because it is the way I started my career more than 20 years ago.

I was responsible to process purchase requisitions for the maintenance and operation department. **I would get requisitions for different types of MRO products. I'd send them out multiple suppliers. I'd get multiple bids back, a relatively long process for low-dollar items, and then I would select the lowest supplier that met the specs, the supplier that had the lowest price**.

There was very little purchase history for me to go on, so I spent time and energy trying to figure out exactly what are they trying to buy and who to buy it from. MRO products are very, very difficult to manage from an inventory perspective. **Usually there is not part numbers**, and the pictures you see up on the screen, these are very typical ways that MRO products are stored in supply cabinets or within toolkits.

The way that MRO products are purchased is from a just-in-case mindset. Let's order just not only what we need, but let's add -- order more, just in case, and then they end up sitting in supply cabinets like this, gathering dust, potentially getting lost." – Mike Pulick, President of Grainger U.S., Morgan Keegan Conference, 17 September 2009

[6] "It [Slow consolidation] has a lot to do with relationships. So, think about that example that I gave you earlier about that heavy equipment customer of ours. And they have suppliers that they've done business with for eight years. Now these are small independent distributors. They're not necessarily broad line distributors, their product offering will be more narrow than ours.

But, think about 80 year relationships. So odds are that, that company, that **smaller distributor has a branch right next to one of the large manufacturing facility. And in the inventory in that branch is tuned to that specific facility and relationships extend, not years, but extend generations**. It's really -- that's one of the biggest reasons that this industry hasn't consolidated quicker because those relationships are really tough to crack.

But what's happening now is that **companies are figuring out that the economics of having a lot of those kinds of relationships don't work**, because if you're having to manage -- we've been talking about this thing all day today. If you're heading to manage a lot of those relationships, **you have to cut more purchase orders, pay more invoices, receive more shipments, see more sales reps, carry more inventory. That's expensive.**" – Jim Ryan, Grainger's CEO, Grainger's Analyst Meeting, 13 November 2013

[7] "**70% of the cost of buying an item is in the procurement of the item, not the item itself**.

Customers are out there and **it cost them money to set up POs, it costs them money to have procurement people, to receive different orders, to be able to**

handle the invoicing. All these different things add cost." – Paul Miller, Grainger's VP E-Commerce, Deutsche Bank Conference, 13 June 2013

[8] "**So one of the things that I don't think is well understood about Grainger is the price point at which large- and medium-sized customers buy. They don't pay the price that is in the catalog; they pay a discounted price, which is very competitive**." – Jim Ryan, Grainger's CEO, William Blair 2012 Growth Stock Conference, 12 June 2012

[9] "So, Amazon -- one of the big things that people look at it is they look at Amazon's level of price transparency and discount in pricing that's out there.

We did a study and I think it was around the time I think I first met you that we talked about it. We took 10,000 products that we sell and it wasn't, let's take 10,000 where we can make it look good. **We took 10,000 products, of the top-selling products, took what's our average net realized price on these**, and again, not our lowest price, what's the net realized price against these products and **how do those product prices compare to AmazonSupply? And when we did that comparison, you saw at the median, where we're within 1%**. And there is -- when you look at a curve, **the bulk of our products are at -- around the same price and some are even cheaper than AmazonSupply**.

So that's when we kind of looked at it and we said, **for our customers that are working with us, getting discounts, these customers are not paying a materially different price and they are enjoying the benefits of having a multi-channel offering that we have at Grainger**." – Paul Miller, Grainger's VP E-Commerce, Deutsche Bank Conference, 13 June 2013

[10] "So when you think about it and you look at our price, **our net realized price compared to the Amazon list price, for our medium and large size customers we are within a few hundred basis points when you look at the median**. And in fact, a great number of products were actually lower price than Amazon at the net realized value for our customers." – Paul Miller, Grainger's VP E-Commerce, Credit Suisse Industrials Conference, 10 March 2014

[11] "I would say there is an immense focus on total cost of the category. So if you heard -- and I was involved with [Scott] in that agreement -- you know, really big focus on how do you take costs set across 88 plants in three different countries. And so, there's no questions on the most frequently consumed items. **The piece price** is not an important component. But if you looked at the total cost of their spend, that's probably **less than a**

third of the total cost, because they're also managing tool cribs and inventory and transactions across those 88 facilities and the labor cost of doing that.

The inventory carrying cost is far more than the actual cost of the product itself. So I don't want to say that it's not competitive. But **those dialogs, especially at those very senior levels, are really about total cost-savings. Oftentimes, we have committed or guaranteed cost-savings for those customers. And there's a very, very small number of players that can provide something like that on [circa] a hundred sites in multiple countries**. And so I would say there's focus on total cost." – Unidentified Grainger's Representative, Grainger's Analyst Meeting, 12 November 2014

[12] "KeepStock is an inventory services offering that we have that covers a wide array of our services from **customer managed inventory, CMI, where the customer, we provide them with a scanning device and bar codes and they can put the product away themselves to VMI, where the vendor, Grainger in this case, does that same service for them**, maybe going to the location once a week, once a day, once every two weeks, whatever **the demand requires to vending machines, where we'll put product into a vending machine for the customer, to even a -- in more extreme cases an onsite branch**, where the customer wants Grainger onsite with a dedicated inventory, terminals we can order from for them, that sort of thing, if it's not in stock." – Ron Jadin, Grainger's CFO, Robert W. Baird 2012 Growth Stock Conference, 08 May 2012

[13] "**Our online business is -- a lot of that business is very linked to our customers**. So, I mentioned buying, **purchasing processes, and purchasing systems to our system**. Our eCommerce business includes back. It includes customers who [directly go] into our site and who have their own product list, special services, all included. So, if you actually look **at the percentage of our business that was kind of random search, it would be very, very low** to that." – DG Macpherson, Grainger's COO, UBS Industrials Conference, 03 May 2012

[14] "Large businesses want to get as much efficiency in the process as they can. They don't want a lot of people running around if something breaks, solving that problem. They prefer to be able to transact very efficiently and, obviously, eCommerce has been a big part of that story. When we talk about eCommerce, we talk about making sure that it's very easy for those large customers to buy. **Oftentimes, that's by linking their purchasing systems directly to our eCommerce systems and that's been a big part of the story. And getting rid of overhead costs in those companies has become important**. That's where things like managing inventory on site becomes very, very important.

…

So **you may be actually buying from Grainger but you may actually be using your own front-end purchasing system**." – DG Macpherson, Grainger's COO, Credit Suisse Industrials Conference, 04 December 2014

[15] "And then finally the **branches remain a very important and very difficult to replicate part of the Multichannel model** and the branches really play three important functions. First and foremost, this is an opportunity to **fulfill immediate and emergency demands from our customers by leveraging a highly customized and highly relevant local pool of inventory**. The inventory in every branch is completely unique to the customer needs in that market and D.G. will talk about later.

We talked about products earning their way into a distribution center like the one that we're in today. Products equally earn their way into a branch based on the demand patterns in each individual local market and make sure that we have locally relevant and a right inventory to meet emergency need of our customers on a local basis.

The second function is making sure that **customers have a place to go for technical product support. It is not uncommon if you spend time on a branch to see a customer bring in a piece of equipment that is broken, they don't know how to fix it, they don't know what's broken with it, they don't know how to replace it, it may be 20 or 30 years old and give them a place to get that hands on, technical product support**.

And then the third, **this is a very important base of operation for both our KeepStock organization as well as our sales force** to make sure that we have that strong local presence and that local base of operation." – Court Carruthers, Grainger's Group President Americas, Grainger Analyst Meeting, 13 November 2013

[16] "The reason that this Multichannel model is so important for medium and large customers, **as customers grow in size, they grow in complexity, they tend to have a multitude of different purchasing occasions with which they buy MRO, they use a multitude of different channels, they need a higher degree of technical expertise** and so the opportunity that we have **with the Multichannel model is to really allow them to consolidate all of their spend with Grainger** to reduce down to one supplier and the Multichannel model is really the only way that can allow them to do that and what we've seen is that each of the elements in the channel plays a very important role in helping fulfill the needs of medium and large customers." – Court Carruthers, Grainger's Group President Americas, Grainger's Analyst Meeting, 13 November 2013

[17] "When you look at these folks they are frequently dealing with customers who want to send a photo of the product that they are trying to either repair or replace. **We get about 1,000 photos a week from customers that can be in different formats, different angles, different lightings.**

We built out a live chat facility on our mobile device and what it allows us to do in real time is interact with a customer and our technical products support people they can submit a photo and they might be on top of the roof, they might be looking at can I replace that blower motor, and the reality is that picture that they sent that didn't have the right angle, all of a sudden now it is in real time and they were able to get feedback from the technical products support person and get to that right answer. Now I highlight that because that is a place where us approaching this from a multichannel way for a historical way where we have built this expertise, where we've got this knowledge, this is a way for us to bring that to life in a way that signal channel players just don't have that level of expertise." – Paul Miller, Grainger's VP E-Commerce, Credit Suisse Industrials Conference, 10 March 2014

[18] "The other thing I'd say here is we recently launched a mobile application. **We were the first to do so that allows mobile technicians and service people to place an order and flow it into ePro** so that it gets the full benefit of having to right assortment, the right workflow and the right processes for the customer.

That was recently launched. We're implementing it at a number of customers and that's going very, very well." – DG Macpherson, Grainger's COO, Grainger's Analyst Meeting, 12 November 2015

[19] "We have **a lot of our customers that have workflow systems where you might be the one placing the order, but still have to approve it and so those types of workflow or order management systems that they typically would have to go, log on to their computer, go on to an SAP or other type of system and then approve it, we've built that into the mobile device.**" – Paul Miller, Grainger's VP E-Commerce, Deutsche Bank Conference, 13 June 2013

[20] "As we continue to expand the product line, really helping customers navigate to the right product solution is incredibly important. And so whether that's been things like **tiered search or parent-child or improving the way our type-ahead functionality works**, there's a lot of time invested in really trying to help customers navigate to the right solutions.

The second area, as I talked about the idea of e-commerce really being the one-Grainger concept of being a single source for where **customers can get all of their Grainger-related information. It's things like online invoicing, which we now provide through Grainger.com, not just for your e-commerce invoices, but for all of your Grainger transactions, really bringing that into one location**. That creates a great self-service opportunity for the customer. If they want to use it, still really happy to talk to them in person about these things. But if they want to use it, we want to have a fantastic self-service experience. That also frees up our team members to focus on higher value-added activities really providing the right solutions to customers.

…

And we continue to invest in significant **new feature enhancements, things like Live Chat with photo, so you can be talking to one of our technical experts, while you're sharing the technical problem that you're dealing with visually. Location-based lists that allow contractors to record the types of products they use at each individual customer location, really simplifying life for them**.

Our barcode scanning, using UPC codes and other technology to really provide one-click ordering opportunities for our customers. We continue to invest very heavily here. We feel that we're well ahead of the market, from a mobile technology standpoint. And we're seeing very rapid growth in terms of user adoption of these technologies. And we think that will be a very important part of the growth platform in the future." – Court Carruthers, Grainger's Group President Americas, Grainger's Analyst Meeting, 12 November 2014

[21] "**I might save a few dollars here and there, but the carrying cost of bringing on another core MRP [material requirements planning] supply relationship would easily chew that up within a year**. I don't expect the discounting to get any better either. Odds are good these are already the basement introductory prices. " - One senior buyer at a computer maker told Blue Shift Research, *AmazonSupply Does Not Fulfill MRO Needs*, Blue Shift Research, 24 May 2012

[22] "Now the same time you saw that **small customers is less than 5% of our business**. This has been a segment that has not been growing for us and it **has not been growing for more than a decade.**

This hasn't really been the focal point of the Grainger branded business in North America. And one of the reasons for that is what is important to a small customer is actually quite different than what is important to a medium or a large customer.

So as we talked about with a large customer, that's really about consolidating their spend, reducing the number of suppliers. **For small customers who might buy MRO once a month, two or three times a month, supplier consolidation is less of an issue**. This is really about having an easy transaction, a simple transaction, a high level of fill rate and high product availability." – Court Carruthers, Grainger's Group President Americas, Raymond James Conference, 04 March 2014

[23] "I think small customers have historically been served by a number of models. And what our behavioral research shows is the **smallest customers many of them pool that spend with their consumer spending.**

So if you own a small drycleaner, single band contractor, you may buy some of those supplies at Home Depot, Costco, or your local grocery store. There are a number of online models, many online models that serve those other catalogers and direct-mail companies that serve them." – Court Carruthers, Grainger's Group President Americas, Raymond James Conference, 04 March 2014

[24] "**When you think about our net pricing, certainly is very competitive within Amazon** so meaning the large customers should get a discount and so we don't see a big pricing threat there. **In fact, we see Amazon's pricing much like another of our competitor's, McMaster-Carr, a private company who we've competed with for many, many decades so we're used to some good competition and we welcome it**. We think it will be good for us to stay focused in our eCommerce improvements and we've been spending a lot on that in the last few years including **Zoro Tools, which I think is much like that model**." – Ron Jadin, Grainger's CFO, 04 March 2013

[25] "**And so McMaster-Carr is a great company that's played in that space for 100 years**. We have competed with them very successfully, have a huge amount of respect for them, but we have competed with them very successfully for our entire existence because **they predate us in the US market and a number of people on the internet that have that same type of model**.

And our experience has been that the medium and large customer that is the core of the Grainger brand is simply looking for a different value proposition, that it is not to say that something is wrong with that value proposition, **it just tends to appeal to a much smaller customer, and a different customer than we are targeting with the Grainger brand.**" – Court Carruthers, Grainger's Group President Americas, Robert W. Baird, 07 May 2013

[26] "Unidentified Participant: Yeah. On the online business model, it was interesting -- **two years ago, there was a lot of hype and hysteria about Amazon** and what it was going to mean in terms of a threat. And **I listened carefully and it didn't come up**

today. Where does that stand in terms of a competitive threat at the -- at the smaller customer level traction in terms of how you go to market against them? And, you know, will we -- this will be the last time you get a question about Amazon?

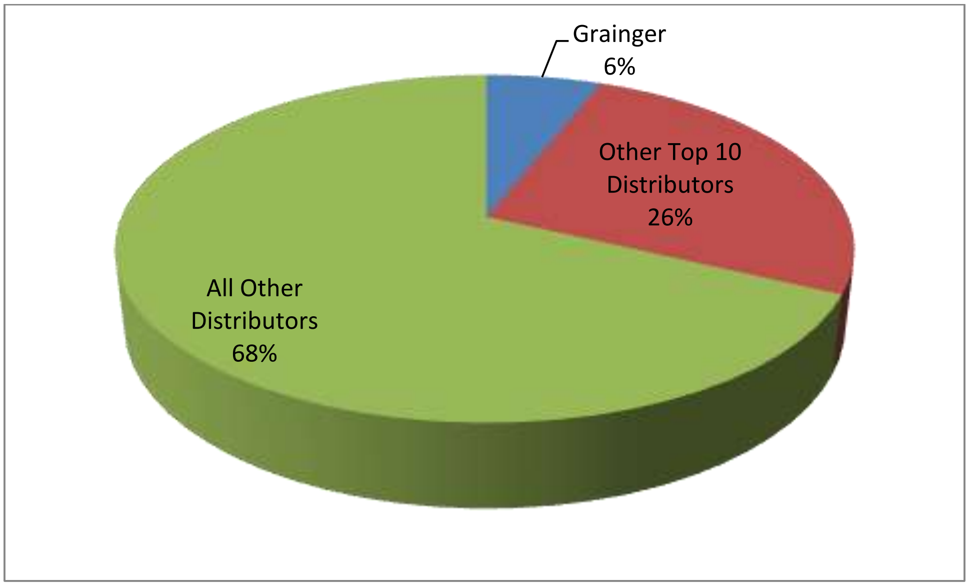
Jim Ryan, Grainger's CEO: I don't think it's going to be the last time we get a question from you about Amazon.

The -- so -- so, this -- this online business model -- it's effectively been around this industry for -- for a long time. **They're the second-largest MRO player in this industry is a privately held company by the name of McMaster-Carr. And they've -- they've effectively been running this single channel model for -- for decades. No branches, no sales people, no on-site service people**.

So, this model isn't -- isn't going to go away anytime soon. And I -- we expect it'll be a stronger -- the model will be a stronger and stronger presence in this industry. It's a stronger and stronger presence with us. It's a big driver -- big driver of growth." – Grainger Analyst Meeting, 12 November 2014

Moat

Grainger Competes Mainly with Small Local Competitors



Top 10 MRO distributors hold only 32% of the U.S. market

- **Biggest Negative**:
  - Grainger is weaker than some specialists in manufacturing floors
  - Small customers behave like consumers
- **Michael Porter Questions**
  - (-) means low
  - (=) means medium
  - (+) means high
  - **For the industry**
    - Is the threat of new entrants high or low?
      - **(=)** Amazon may disrupt the small-customer business
    - Is the bargaining power of buyers high or low?
      - **(-)** large customers are defined as those buy more than $100,000 annually
    - Is the threat of substitutes high or low?
      - **(-)** suppliers and buyers are fragmented
    - Is the bargaining power of suppliers high or low?
      - **(=)** it depends
        - Some products are commodity
        - Some products are branded

        - Is the rivalry within the industry high or low?
            - **(+)** Price competition is high
                - Distributors must price to the market
                    - Some enjoy price premium
                    - But still don't have pricing power
    - **For the company**
        - Is the threat of new entrant different for this company specifically?
            - **(-)** Amazon has little impact on the large-customer business
        - Is the bargaining power of buyers different for this company specifically?
            - **(-)** No customer account for more than 3% of revenue
        - Is the threat of substitutes different for this company specifically?
            - **(-)** similar to the industry
        - Is the bargaining power of suppliers different for this company specifically?
            - **(-)** Grainger has greater bargaining power than local competitors
        - Is the rivalry within the industry different for this company specifically?
            - **(-)** large customers are sticky to large distributors
                - Large distributors have different strengths
- Competitive landscape
    - $130 billion market in the U.S.
        - Grainger's market share: **6%**
        - Top 5 MRO players: 17%
        - Top 10 MRO players: less than 30%
        - Local mom & pop distributors hold about **70%** market share
    - Large customers: $40 billion
        - Grainger's market share: **14%**
    - Medium customers: $50 billion
        - Grainger's market share: **3%**
    - Small customers: $40 billion
        - Grainger's market share: **1%**
- Customer retention
    - For large customers: **excellent**
        - Multi-channel
        - Integrated into customer's purchasing system
        - Price transparency is low
            - Industrial distributors usually give discount to customers

            - => customers don't pay full price listed in catalogs
        - Customers care about total cost
            - Not just product cost
            - Product cost is less than 1/3 of total cost
        - (for more detail, read about large customers in the Durability section)
    - For small customers:
        - Grainger: **week retention**
            - The business has been declining
        - Zoro: **Good**
            - Has been growing
            - A lot of stickiness with both MonotaRO and Zoro[1]
                - Customers become regular buyers after buying 4-5 times
                    - They every couple of months
                - The key is to have
                    - Right assortments
                    - Right cost
                    - Great delivery service
            - **Risk**: small customers may switch to Amazon[2]
                - They tend to mix personal and business purchases
                    - Willing to spend more time shopping
- Customer acquisition
    - For large customers: **strong**
        - Grainger has been gaining share from local competitors
            - Local competitors hold 70% of the market
                - Local distributors have deep relationship with plants[3]
                - MRO doesn't get a lot of publicity or focus[4]
                    - Show up as $10,000-$50,000 line-item budget
                        - (In one department)
                    - But add up to be a significant amount
            - But the trend is customers consolidate MRO purchases
                - Reduce total cost
                    - Aggregate buying power
                    - Cut fewer purchase orders
                    - Pay fewer invoices
                    - Receive fewer shipments
                    - Carry inventories more efficiently
                - Example (from around 2009):[5]

      - A man purchased for a large manufacturing plant
      - His workload tripled
        - Picked up responsibility for 2 other plants
      - He had less than 1/3 of his original staff
      - => cut the number of suppliers in half
        - And continued to consolidate his supplier base
  - Local competitors can’t invest in
    - Multi-channel
    - E-commerce
    - Inventory management service
      - VMI
      - Vending machines
  - They can’t help customers consolidate across many branches
  - They can’t match Grainger’s breadth of products
    - Number of stocked products
      - Grainger: over 500,000
      - DXP Enterprise: 60,000
      - Lawson Products: 50,000
      - Applied Industrial Technologies: 30,000
- Sales force help gain share of wallet
  - Has about 3,800 account managers
    - Cover large customers
  - Has about 900 territory managers
    - Cover mid-sized customers
  - Share of wallet with large customers is about **20-30%**
    - (slide 23, Annual Analyst Meeting presentation)
    - Share of wallet is low single digit for uncovered customers
  - Grainger keeps invest in sales force
    - Especially in bad times
    - Example: plan to hire 400 account manager in 2015
      - Hired 300 account managers in the first 9 months
- Grainger gained the most share in bad times[6]
  - Local competitors tend to form relationship with local branches
  - This relationship is challenged the most in bad times
    - Customers want to reduce cost
      - => get into contract
    - Local competitors pull back on inventory

            - And services
        - Grainger aggressively expanded during bad times
            - Example:
            - In 2008-2009
                - Expanded sales force in 2009
                - Kept adding 50,000 SKUs a year
            - In 2015
                - Planned to hire 400 account manager
                - Hired 300 account managers in the first 9 months
    - Grainger rarely run against large competitors
        - Grainger, McMaster-Carr, MSC, Fastenal all gained market share
            - From local competitors[7] [8]
        - MSC faces Grainger or Fastenal much less frequently in the market than at conferences[9]
            - Top 3 competitors are often local competitors
    - Grainger, MSC and Fastenal have some differences
        - Grainger focuses more on unplanned purchases
            - Fastenal focuses on reoccurring purchases
        - Grainger has less exposure to manufacturing
            - % of revenue comes from manufacturing
                - Grainger: 29%
                    - Heavy manufacturing: 18%
                    - Light manufacturing: 11%
                - Fastenal: 50%
                - MSC: 70%
            - With manufacturing customers, Grainger's strength is in facility maintenance[10]
            - Some competitors are stronger on the manufacturing floor
                - Cutting tools
                - Abrasives
                - Fasteners
                - Etc.
            - People who buy for manufacturing floors seem to be different from those who buy for facility maintenance[11]
                - MSC's growth strategy: sell new products that are
                    - Bought by the same buyers
                    - Consumed on the plant floor in metalworking

            - Safety
            - Fasteners
            - Hand and power tools
            - Material handling
            - Etc.
        - Fasteners represents **40%** of Fastenal's revenue
        - Metalworking represents for **50%** of MSC's revenue
  - For small customers: Zoro's growth has been strong
    - Revenue:
      - 2013: $80 million
      - 2014: $180 million
      - 2015: $300 million (expected)
    - MonotaRO's revenue:
      - (Zoro's version in Japan)
      - 2009: 14.2 billion Yen ($123 million)
      - 2010: 17.7 billion Yen ($154 million)
      - 2011: 22.2 billion Yen ($193 million)
      - 2012: 28.7 billion Yen ($249 million)
      - 2013: 34.6 billion Yen ($300 million)
      - 2014: 44.9 billion Yen ($390 million)
      - 2015: 57.6 billion Yen ($500 million)
      - 6-year CAGR: 26%
    - It's unclear whether Amazon will hurt
    - Zoro established a low-cost position
    - Amazon may offer lower price
      - It can gain purchasing power
        - As it grows
      - It may content with low margin
        - It has 23-25% gross margin
    - The market is big
      - Both can grow
- Margin protection
  - Grainger has great cost advantage
    - Grainger has huge relative size compared to local competitors?
      - Local competitors have 23% gross margin[12]
      - Grainger has 45% gross margin

      - Grainger does enjoy a premium
      - But low product cost is a big reason for the margin gap[13]
  - Grainger has great power over suppliers
    - 2,500 suppliers
    - No supplier account for more than **5%** of sales
    - Grainger is the largest customers of 7 of its 10 largest suppliers[14]
      - One of UPS's top customers
    - Grainger price to the market[15]
      - Don't necessarily price to the supplier cost[16]
    - But it can increase prices ahead of product inflation[17]
    - Grainger tries to price 0.1-0.2% higher than product inflation[18]
      - Managed to have lower inflation than PPI since 2008[19]
        - (Producer Price Inflation)
      - Reasons
        - Gain volume rebate from suppliers
        - Negotiate hard with suppliers[20]
          - Look at the engineered cost of a product when negotiating with suppliers
        - Private label products: 25% of sales
          - Of this, 11% of sales is sourced directly
          - Private label products has 55% gross margin
          - 70% gross margin on directly sourced products
  - => gross margin expansion
    - Especially in an inflationary environment
- Large customers have high willingness to pay
  - Grainger helps them reduce total cost
    - Make their processes more simple
- Operating leverage
  - Ship more from DC
    - More efficient than fulfillments performed by branches
    - Cost per order decreased by more than 10% since 2008[21]
      - Despite wage inflation
      - Thanks to leveraging of DC investments
  - E-commerce sales has 2-4% higher margin than other transactions[22]
    - Customers does more order entry work
    - Order size is higher

            - Ship from DC
        - Large customers have higher EBIT margin
            - Lower gross margin
            - But lower operating expense
                - Larger orders
                - More automated transactions
                    - E-commerce
                    - EDI/ePro
                    - KeepStock
            - => higher EBIT margin
    - => Margin can expand
        - Expand gross margin
        - Gain operating leverage
    - One threat to margin is Amazon
        - Amazon may contend with low gross margin like local competitors
            - But may have greater buying power
            - => create deflation pressure
        - Two issues against this deflation hypothesis
            - Turnover is low
                - Amazon has negative NTA in its B2C business
                    - In the 2003-2010 period, it had
                        - 23-24% gross margin
                        - 4-5% EBIT margin
                - MRO supplies distributors have low asset turnover
                    - Must offer credit line to customers
                        - Amazon offers credit line
                    - Payables are low
                    - Inventory turn is low
                        - Has to keep large inventories
                        - COGS/Average Inventories:
                            - Grainger: 4.2x
                            - MSC: 3.5x
                            - Fastenal: 2.3x
                    - Sales/Average NTA
                        - Grainger: 3.3x
                        - MSC: 3.0x
                        - Fastenal: 2.4x

            - That's why broad-line MRO Industrial Distributors has high gross margin
                - About 40% gross margin
                - Total U.S. commercial/industrial distributors: 20%
                - (Slide 5, Grainger's 2015 analyst presentation)
            - Amazon may have to have 30% gross margin like Zoro
                - Amazon now doesn't have Grainger's buying power
        - Zoro hasn't impacted Grainger's business with large customers
            - Amazon hasn't created cost inflation in the industry
- Moat evaluation
    - Barrier to entry: high
        - Need millions of customers to have buying power for each item[23]
            - 70% of purchases are random and unplanned[24] [25]
                - Example: a large logistics company[26]
                    - 3,000 locations
                    - Bought 27,000 unique items every single years
                    - 82% of the items were bought < 5 times a year
                        - Not 5 times per year per location
                        - 5 times per year across 3,000 different locations
                    - One facility buys 3,000 items a year
                        - 30% of items are purchased the following year
                        - 70% of items are truly one-time purchase
        - Need a lot of products to get customers
            - Stocks over 500,000 products
        - Need a lot of sales to invest in supply chain
        - => very difficult to have all the 3 things at the same time
            - Amazon is the only threat
    - Impact of new competitor: only Amazon can have an impact
        - Insignificant so far
        - The impact is limited only to the business with small customers
    - Rivalry among existing firms:
        - Gain share from small customers
        - Rarely run against large competitors
- Conclusion:
    - Business with large customers: **wide moat**
    - Business with small customers: narrow moat

[1] “So **our US large customer business or our AGI large customer business is incredibly sticky at the customer level**. But of course when a customer spends $30 million with you they're very likely to repeat the next year. **And if you have 10,000 customers that are purchasing $1,000 with you some of them may not repeat the next year.**

But on an apples-to-apples basis when you look at similar size customers **we're actually seeing a lot of stickiness with both MonotaRO and Zoro where once we get customers to buy four, five times they become regular buyers. That regular buy may be every couple of months.**

So it's not as frequent as obviously a large customer buy. But we feel like **having the right assortment at the right cost with great delivery service with all of the online capabilities that we have is a very sticky model. And similar to consumer model if you get used to buying something through a supplier you are going to continue to buy it**.” – MG Macpherson, Grainger’s COO, Grainger’s Analyst Meeting, 12 November 2015

[2] “Now at the other end of the spectrum are **small businesses and they are served primarily by the online distributors and retailers. And their buying behaviors are a lot different. They tend to mix personal and business purchases and they tend to be more willing to spend more time shopping.**” – Jim Ryan, Grainger’s CEO, Electrical Products Group Conference, 21 May 2014

[3] “It [Slow consolidation] has a lot to do with relationships. So, think about that example that I gave you earlier about that heavy equipment customer of ours. And they have suppliers that they've done business with for eight years. Now these are small independent distributors. They're not necessarily broad line distributors, their product offering will be more narrow than ours.

But, think about 80 year relationships. So odds are that, that company, that **smaller distributor has a branch right next to one of the large manufacturing facility. And in the inventory in that branch is tuned to that specific facility and relationships extend, not years, but extend generations**. It's really -- that's one of the biggest reasons that this industry hasn't consolidated quicker because those relationships are really tough to crack.

But what's happening now is that **companies are figuring out that the economics of having a lot of those kinds of relationships don't work**, because if you're having to manage -- we've been talking about this thing all day today. If you're heading to manage a lot of those relationships, **you have to cut more purchase orders, pay more invoices, receive more shipments, see more sales reps, carry more**

inventory. That's expensive." – Jim Ryan, Grainger's CEO, Grainger's Analyst Meeting, 13 November 2013

[4] "It starts with the lack of an understanding of just what they spend on MRO. **Most businesses and institutions don't understand who they are buying from and where they're buying from.**

It is so fragmented that it may show up as a $10,000 or a $50,000 line-item budget in one department. It doesn't get a lot of publicity or focus, but yet when you add it up for a larger business, when you start looking at different departments, it adds up to be some pretty significant amount of money." – Mike Pulick, President of Grainger U.S., Morgan Keegan Conference, 17 September 2009

[5] "And a brief, short story I'll share with you that I think highlights how purchasing behavior is really changing in this industry -- I was talking to young guy, probably in his 30s, he's working for a large manufacturing company, working his way up the ladder in a purchasing position. **He has responsibility for all the purchases of a large manufacturing plant.**

He came in one day to find out that his workload had tripled. So he got -- picked up responsibility for two other plants. The bad news is that he had less than a third of his original staff. So three times the work, less than a third of the original staff.

When -- and **we have seen that scenario play out across all geographies, across all customer segments**.

So when that happens, when that kind of -- when businesses drive that kind of productivity improvement, you have to think really different about how you are managing your business. And in this case, **what he did was he immediately just cut the number of suppliers in half. That was a matter of survival.** He just didn't have the staff to manage that many suppliers. So he cut the number of suppliers in half. **And he continues to consolidate his supplier base, not only for products, but for services.**" – Jim Ryan, Grainger's CEO, Electrical Products Group Conference, 19 May 2010

[6] "**Over the last four years, three to four years, we have gained more market share than we have probably in any three- to four-year period in the last several decades**. And there are a couple of reasons for that.

We were very aggressive during the downturn. We saw that as an opportunity to take advantage of the foundation that we built.

So a couple of things that we did. We had to get cost out, like everybody else. We took about 2% out of the labor force, but anybody that was in front of a customer, we -- **if you were in front of a customer we not only maintained that part of our work force, but we expanded it. We have been very aggressive at hiring salespeople in a very soft economy** and we have gotten some great salespeople over the last several years.

We also used our balance sheet. So, **oftentimes what happens to distributors when we go through an economic downturn, great way to get cash back in your business is to pull back on inventory. We didn't do that**. We kept our order service level at what were and still are an all-time high.

So we got a lot of trial from customers that weren't doing business with us because their primary supplier didn't have what they needed when they needed it. And we have been much more aggressive with expanding our sales force. We have done some other -- number of other things as well, but those are two examples.

Now, coming out of this downturn, we are continuing to aggressively expand our salesforce. **We are aggressively expanding our product offering, we are adding 50 -- in the US alone, we are adding 50,000 items a year in stock to our product offering**. That rate of expansion is unprecedented for us, it's unprecedented in the industry, and we are able to do it and keep our service levels high because of the investments in the foundation that we made." – Jim Ryan, Grainger's CEO, Electrical Products Group Conference, 18 May 2011

[7] "Yes, **so our share gain is going to come from the small competitors for sure. They just don't have the capacity to invest in the scale that we have already built and the scale we continue to build**. In fact, I would argue many of our larger competitors have not yet built that kind of scale. So when we talk about building eCommerce platform on SAP -- and **we've been on SAP in the U.S. for over six years now, fully integrated**. The seamless nature of how we can do business through eCommerce, where **you can place an order on eCommerce channel, then call our customer service people and ask them about the orders, in the next minute they can see the same thing and everybody can see availability real-time with the new platform we're building**. That's something I don't think many people have to offer.

And when we think about eCommerce capability like that, we're thinking about the best in the industry around eCommerce, not our direct competitors. **So the challenge for the small competitors will be more and more significant with the investments we are making. So we don't see how they can continue to keep pace**. We don't have facts on who is closing and who is not, but we know that's who we come across the most who we seem to take share most from." – Ron Jadin, Grainger's CFO, Bank of America Merrill Lynch Conference, 06 December 2011

[8] "I know there's a desire to line up Grainger, MSC, and Fastenal, but as we look big picture, and you said it was a big-picture question, and look out over the number of years, we see just an amazing growth opportunity that we're marching right along towards our goals, and **most of the business that we take doesn't come from those two guys. It's really from the 70% of the market that's made up of local distributors. That's where our eyes are set, and that's where we see the biggest opportunity**." – Erik Gershwind, MSC Industrial Direct's CEO, MSC's 2012 Q4 Earnings Transcript

[9] "So the question was -- repeat the question, right, David? Given the fragmentation, how often does MSC run into Fastenal and Granger? When we win, why do we win relative to them, relative to locals in general? So the first thing I'd say is not nearly as often **-- when we come to conferences like this, because of the public nature of the companies, we get lined up next to each other all the time. I would tell you in the marketplace that's a lot less frequent than it is at a conference like this**. So just by virtue of the fact that 70% of the market is local. When I go out and ride with our sales people, and I do that religiously, **I always ask them, tell me who your top three competitors are. Maybe one of those names makes it into the top three. It's rarely one or two though. I mean it's typically local distributors**.

Where we do run into them -- I think one of the opportunities, and Jeff was talking about the large accounts programs. One of the things we find appealing about the large accounts is that the dynamic I described of more centralization in the purchasing decision over the last several years weeds out a lot of competition, a lot of the locals. So that would be the arena where we do more often." – Erik Gershwind, MSC Industrial Direct's CEO, Robert Baird Industrial Conference, 06 November 2013

[10] "**So we talk about manufacturing being about a third of our business, between heavy and light. But it is really the facilities maintenance piece of it where we have been strongest.**

Some of our competitors have been stronger on the manufacturing floor, and cutting tools and abrasives or fasteners or different areas. And we cross over, certainly; we compete with each other.

But we are investing to become more significant in some of those places as well. So we have segmented part of our salesforce to call on manufacturing only, whereas they used to call on multiple different segments, to help them sharpen their skills and train up on being really good in that space.

The E&R acquisition we made in August really helped us acquire a lot of talented salespeople with many years of experience selling on the manufacturing floor. So oftentimes it is different products but at the same customer, or different levels of expertise. Or it could be the same product but in a different instance." – Ron Jadin, Grainger's CFO, Barclays Capital Industrial Select Conference, 20 February 2014

[11] "The first step for the current team has been to move into deeper product line penetration. **This means selling not only the unplanned spot buys that have been the Company's bread and butter, but the broader set of needs that our customers have**. And we decided to start in the lowest risk place there was, metalworking. It was the easy choice to get started. **As the clear market leader, we have share approaching 10%, which is multiples bigger than the next biggest guys in our space. At the same time, it provides us with a large runway of profitable growth right in our sweet spot**.

With the experience in hand for metalworking on how to penetrate a product category, we've begun to move across other lines like safety, fasteners, hand and power tools, material handling and more. **You've heard us refer on recent calls to these product lines as closely related adjacencies. That's because they're consumed on the plant floor in metalworking environments and oftentimes they're purchased by the same buyers who are buying metalworking supplies**. In addition, we already have experience in these product lines. They were some of the early MRO editions back in the 1990s. We have brought product offerings in our book, long standing relationships with key suppliers, and years of experience in learning what products sell and what additional value added services will be required to become a leader. Executing upon our product penetration strategy, will give us experience in lines consumed outside of metalworking environments. Making it easier to now sell those products into new customers." – Erik Gershwind, MSC's COO, MSC Industrial Direct 2012 Q1 Earnings Transcript

[12] "We have a ton of respect for Amazon, as everybody does. So of course we take them -- take it very seriously. We pay attention.

That said, what I would tell you we feel very good about our positioning and the strategic direction that we are taking the Company and that you heard David described in his opening remarks.

Yes, a couple of points on Amazon in specific. One is, from what we see, **it's much more complicated to take what they do in a B2C environment and apply it to B2B**. In the second thing is, even if they're successful doing so, again, go back to the point that I just made with you about pricing, that **the price and transaction are really a relatively small percentage of the total equation with our key accounts and where we are bringing value, so supply chain savings, productivity on the plant floor, that's really where we believe the game is won and lost**.

And just as a proof point here, for years and years, we've been competing against local distributors in this business and, if you look at most published reports, **the average gross margin of a local distributor is around 22%, 23%. Clearly, for years and years, we've been competing against folks who were good competitors but price lower than we do**. So if price were the game, we wouldn't be able to continue taking share from the locals the way we have." – Erik Gershwind, MSC Industrial Direct's CEO, MSC's 2012 Q3 Earnings Transcript

[13] "On the right side, I included some of the reasons for our expansion and purchasing leverage is a big one. **We certainly have a lot of buying power. We price to the market. So we feel we're very competitively priced, but we oftentimes can buy a little bit better than our competitors**. Those of you who know our space understand this, but for those of you who don't, I mean our space is very fragmented. **60% to 70% of our competitors are very small local players, whose buying power isn't as significant as ours**, nor can they make the investments in eCommerce and mobility like we can. So, we think the investments we're making will further distance us from the vast majority of our competitors." – Ron Jadin, Grainger's CFO, Bank of America Merrill Lynch Conference, 06 December 2011

[14] "Now we plan to be the scale leader in all of the regions where we operate. For sure, we have scale in the United States and Canada. **We leverage our national purchasing power as we are often our suppliers' biggest industrial customer. In fact, last year, we were the number one industrial -- broad line industrial customer, broad line or specialist, for 7 of our 10 largest suppliers**.

We are also one of UPS' top customers. Our suppliers ship directly to our distribution centers. Our branches are then replenished by our DCs and we have developed economies of scale both in the deployment of inventory, as well as optimizing transportation expenses. We have intentionally located our distribution centers near major transportation hubs in order to save on transportation costs. Our nationwide IT and Internet-based phone system serve as the backbone for all of our locations." – Jim Ryan, Grainger's CEO, Electrical Products Group Conference, 20 May 2009

[15] "We are the largest player in the channel, and so we work very hard to ensure we have an aggressive price position and aggressive cost of goods position in the channel. A very critical element in terms of how we negotiate and leverage that scale.

At the same time, **from a price setting standpoint, that is really customer-facing and market-facing in terms of understanding what the market price is. We have a very good understanding of the elasticity of each SKU by customer size, by geography, by industry type, and so that really drives the pricing**.

What we have seen over the course of the last 12 to 18 months is that clearly this is a lower inflationary environment. **We have a great track record of getting price in advance of COGS; but the amount of that delta is going to be less in a lower inflationary environment**. Our approach is that as inflation continues to pick up or does pick up at some point in the future, we will make sure that we maintain that spread and continue to get price in advance of cost of goods.

At the same time, as I said, **we are also growing very aggressively with large customers. Those customers tend to carry a lower gross profit than a medium customer, but very, very profitable**.

This is 50% ROIC business. Very profitable business. We are able to offset a slightly lower gross profit with those customers through lower operating expenses.

That business tends to have higher average order sizes, more automated through e-commerce, so a number things that help us lower the operating expense. So that creates a bit of a GP headwind, but we can actually make those customers incredibly profitable and continue to expand operating margins." – Court Carruthers, Grainger's Group President Americas, Morgan Stanley Conference, 16 September 2014

[16] "**In general, we price to the market**. So, we look competitively**, we look at a lot of factors to understand what we think is a fair price in the marketplace**. And we -- that's the way we do it. So, **we're not looking at the supplier cost as an input necessarily, what we're looking at is a competitive market price**." – D.G. Macpherson, Grainger's COO, UBS Industrials Conference, 03 May 2012

[17] "In general, **our size and scale gives us a considerable advantage versus our competitors when it comes to effectively managing product cost inflation. We**

were largely able to increase prices with the market ahead of product cost inflation." – Laura Brown, Grainger's SVP of IR, Grainger 2011 Q1 Earnings Transcript

[18] "Unidentified Audience Member: And your expectation for cost inflation next year?

Ron Jadin, Grainger's CFO: Is in the range of our price inflation. It's in that 2% to 3% range. **We typically tried to price in the [tens of] basis points, a little bit above. So that's for every year, no matter what inflation is, we've had a couple years ago, where we actually had small cost deflation and our pricing was flat during the kind of the bottom of the downturn**. So even when our pricing was flat, we had a slight benefit to our favor and that's what we try to manage every year and typically [for our] buying power vis-a-vis our competitors." – Bank of America Merrill Lynch Conference, 06 December 2011

[19] "We have a strong team and a very, very disciplined process to manage cost inflation in our product cost and as a result, **we've been able to have a significant gap between our inflation and the producer price index over the last six years**. **That comes from that discipline process introducing competition line review that a number of activities to go into tha**t.

…

One thing we talked about through the years is global sourcing. We have done a very nice job of **shifting our private label products from a source from the third party to direct source and that's what we called GGS, the percentage of private label. You could see that's on from 44% close to 60%**.

The importance of that is that product, when we direct source it, is much more profitable than if we don't. **The gross profit of that product is something like 70%. So, obviously, that has a big impact on our gross profit and that now has become 11% of our total sales**.

You know, as many of you know, **our private label has been relatively flat at 25% or so for the last five years. There's a number of reasons for that. One of those is that we have dramatically expanded our product line as I suggested before. In doing that, when you're adding new products, you don't add private label products generally**. You add branded product because you want to take the lowest risk with new products and determine that you actually have demand for those products." – D.G. Macpherson, Grainger's COO, Grainger's 2014 Analyst Meeting, 12 November 2014

[20] "We're also focusing on cost reduction. Product procurement optimization is a phrase that we've used internally but it's really about **looking at the engineered cost of a product or the should cost of a product and starting there, adding profit, and**

using that as a starting point of negotiation with suppliers as opposed to what did we pay last year. So much more involved, much more analytical, something very common in the direct side. We're doing it more on the indirect side and we're seeing some great results." – Ron Jadin, Grainger's CFO, Credit Suisse Industrials Conference, 02 December 2015

[21] "So back to my earlier point about this business is normal, this chart shows an index of our cost per line. Cost per line is the way we think about productivity in our business. **And our cost per line, an absolute terms has gone down 10% over the last six years so that includes all the added appreciation from the new buildings. It includes all wage inflation and we still managed to decrease our cost per line by 10%.**

Two areas of focus there. One is building design. **So some of the automation we've made, some of the efforts we've made to fit out our buildings effectively have helped**.

The other is good old fashioned continuous improvement. So we have for about eight years or nine years, been very serious in our distribution centers about **continuous improvement, about finding ways, everything from the way we receive product, the way we pick it, the way we pack it**. We are constantly looking for ways to get better and the team has done a great job.

The effectiveness is 4%, kind of physical productivity every year. And the good news, as we look forward, we expect similar results. As we continue to make investments in the business in the supply chain, we expect to continue to get better from a cost position." – D.G. Macpherson, Grainger's COO, Grainger's Analyst Meeting, 12 November 2014

[22] "So we're pleased with the progress that we've made in e-commerce. **We're closing in on 40% e-share in the U.S. business. And I want to remind everyone we do not include inventory solutions in e-share**. This is pure e-commerce revenue. We're experiencing in the U.S. this year approximately 15% revenue growth through this channel. **And I want to remind everyone that an e-commerce transaction is 2 to 400 basis points, more profitable than a non e-commerce transaction. They tend to have higher average order size. The customer is doing the order entry work. And we're shipping these from distribution centers directly, bypassing in most cases, the branch network**. So it tends to be a more profitable transaction for us." – Court Carruthers, Grainger's Group President Americas, Grainger's Analyst Meeting, 12 November 2014

[23] "We know -- and anybody else that is going to be a market share leader in this space also knows -- that there are five things that you need to do well, five capabilities that you need to have in your business. The first is **you have got to have a lot of customers. If you look at companies' purchasing records, nobody buys much facilities maintenance products. They are spending most of their money on raw materials and production consumables. So if you're going to be a market share leader, you have to have a lot of customers. And it's not just hundreds, not thousands, not tens of thousands, but it's millions**. And one of the biggest challenges in this industry is finding, attracting, growing and retaining millions of customers." – Jim Ryan, Grainger's CEO, Electrical Products Group Conference, 24 May 2006

[24] "Now what is interesting about that type of business is that the demand patterns from our customers tend to be highly unplanned. **About 70% of what our customers purchase, they have not purchased before and are unlikely to purchase again**.

Some of the things that we sell like light bulbs tend to be planned, tend to be bought in higher volumes. **But if the HVAC system in this building goes down and you need a replacement motor for that, that tends to be very unplanned**. So what is important in that type of business, service is incredibly important because when the customer needs it, they need it right now." – Court Carruthers, Grainger's Group President Americas, Morgan Stanley Conference, 16 September 2014

[25] "**About 70% of the products that we would sell in any given year are only purchased by those customers one or two times in that year, and half of those products that customer has not purchased previously**. So if you think about staying with this hotel example, **there are a bunch of motors in the HVAC system in the elevators and other things in this building. When one of those motors goes out, which might happen every 10, 15, 20 years, in that situation that is very unplanned**, and what's really important is that there is an incredibly high service level so that that motor can be replaced and the heating ventilation and the air conditioning system can be back up and running again. So that's a critical element of what we do.

What that means is that we have to have a very broad product offer. We sell more than a million items that are available on Grainger.com at an incredibly high service level -- very service sensitive business." – Court Carruthers, Grainger's Group President Americas, Robert W. Baird Growth Stock Conference, 06 May 2015

[26] "Now this chart represents a purchase distribution profile for a large logistics company. Their challenge was that they needed to take down their MRO costs by 10%. And initially, their total focus was on piece price. We got involved in helping them to take a look at it. **They have about 3,000 locations across the United States. And those 3,000 locations range from very large distribution centers all the way down to small retail outlets**.

Now when we got in and began to help them understand what the true cost drivers of their business were, what we first identified was **they were buying about 27,000 unique items every single year in this area. 82% of the items that they were purchasing were being bought less than five times per year**. **Let me be clear, not less than five times per year per location, less than five times per year across 3,000 different locations.**

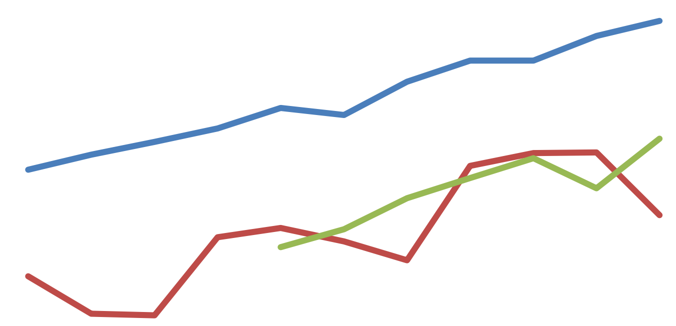
…

So let me take you down to a deeper dive to one of their 3,000 locations. So again, same customer, one of their large distribution facilities. **Our deep dive into this facility helped them identify that they had about 3,000 items that they were purchasing every single year. Of those 3,000, only about 30% of the items that they purchased in any given year were actually being repurchased the following year**.

The balance, or 70% of their items, were actually truly unique, one time purchases. Yet, when we got in a began to look in their facility, we found that they had well over $1 million of slow moving and obsolete inventory sitting around." – Deb Oler, Grainger's VP of Sales, Grainger's 2008 Analyst Meeting, 19 November 2008

Quality

Big MRO Distributors Takes More and More of the Profit Pools as They Grow



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
U.S.	11%	11%	12%	13%	14%	14%	15%	17%	17%	18%	19%
Canada	5%	3%	3%	7%	7%	7%	6%	11%	12%	12%	8%
MonotaRO					6%	7%	9%	10%	11%	10%	12%

Grainger enjoys profit margin expansion in each of its major business segments

- **Biggest Negative**:
  - Grainger doesn't have pricing power
- **Michael Porter Questions**
  - (-) means low
  - (=) means medium
  - (+) means high
  - **For the industry**
    - Can the industry charge a high price?
      - **(+)** Gross margin is higher than a typical distribution business
        - Because of low-volume purchases
    - Does the industry have low costs?
      - **(-)** doesn't have low costs
    - Does the industry have low need for assets?
      - **(+)** high need
  - **For the company**
    - Can the company charge a higher or lower price than the industry?
      - **(+)** large customers is willing to pay a premium
    - Does the company have higher or lower cost than the industry?
      - **(-)** Grainger has lower

            - Product costs
            - Operating costs/sales
    - Does the company have more or less need for NTA than the industry?
        - **(=)**
            - No way to compare
                - Turnovers depend on product categories
- MRO suppliers tend to have high gross margins
    - According to page 5 of Grainger's 2015 analyst presentation
        - Total U.S. Broad-line MRO Industrial Distributors gross margin: **40%**
        - Total U.S. commercial/industrial distributors: **20%**
    - MRO suppliers tend to collect from customers slower than paying suppliers
        - For some reason, accounts payable are small in this business
            - (meaning distributors pay suppliers quickly)
            - COGS/Average Accounts Payable:
                - Grainger: 11x
                - MSC: 13x
                - Fastenal: 19x
                - Applied Industrial Technologies: 11x
                - DXP Enterprises: 11x
                - Lawson Products: 10x
        - Customers tend to pay on credit
            - Grainger's customers payment terms are agnostic across channels
            - Zoro offer Net 30
            - Amazon also offer credit line
    - Gross margin has a reverse relationship with asset turns[1]
        - Cost of goods sold/Average inventories
            - DXP Enterprises: 6x
            - Allied Industrial Technologies: 5.7x
            - Grainger: 4.2x
            - MSC: 3.5x
            - Lawson Products: 2.5x
            - Fastenal: 2.3x
        - Historical gross margin
            - Lawson Products: 57-60%
            - Fastenal: 50-55%
            - MSC: 44-46%

        - Grainger: 35-36%
            - Expanded to 43%-44% over the past 10 years
                - Thanks to private label and directly sourced products
        - Allied Industrial Technologies: 27-28%
        - DXP Enterprises: 25-28%
- Big MRO distributors have great market power
    - Huge relative size compared to small competitors
        - Local competitors have 23% gross margin[2]
        - Grainger has 45% gross margin
            - Grainger does enjoy a premium
            - But low product cost is a big reason for the margin gap[3]
    - Grainger has great power over suppliers
        - Low supplier concentration
            - 2,500 suppliers
            - No supplier account for more than **5%** of sales
        - Grainger is the largest customers of 7 of its 10 largest suppliers[4]
            - One of UPS's top customers
        - Customers don't care about brand in many MRO products[5]
            - Plumbing fixtures
            - Certain fastener categories
    - Customer concentration is low
        - No customer account for more than 3% of sales
    - Large customers have high willingness to pay
        - Grainger helps them reduce total cost
            - Make their processes more simple
    - Grainger's market power doesn't come in the form of pricing power
        - Grainger price to the market[6]
            - Don't necessarily price to the supplier cost[7]
    - Its market power comes from its power over supplier
        - It can increase prices ahead of product inflation[8]
        - Grainger tries to price 0.1-0.2% higher than product inflation[9]
            - Managed to have lower inflation than PPI since 2008[10]
                - (Producer Price Inflation)
            - Reasons
                - Gain volume rebate from suppliers
                - Negotiate hard with suppliers[11]

                - Look at the engineered cost of a product when negotiating with suppliers
            - Private label products: 25% of sales
                - Of this, 11% of sales is sourced directly
                - Private label products has 55% gross margin
                - 70% gross margin on directly sourced products
    - Other big MRO distributors may have similar market power
        - McMaster-Carr
        - Fastenal
        - MSC Industrial
- => profit pool will shift to big distributors overtime
    - Price to market
    - And retains benefit from its power over suppliers
        - More private label
        - More direct sourcing
        - More bargaining power
    - Grainger performs better in inflationary environment
        - It's cost advantage is clearer when competitors face high cost inflation
        - Just like Frost performs better in higher-rate environment
- There's chance for operating leverage
    - Sell more to large customers
        - Lower operating expense to serve large customers
            - Larger orders
            - More automated transactions
                - E-commerce
                - EDI/ePro
                - KeepStock
    - Ship more from DCs
        - More efficient than fulfillments performed by branches
        - Cost per order decreased by more than 10% since 2008[12]
            - Despite wage inflation
            - Thanks to leveraging of DC investments
    - E-commerce sales has 2-4% higher margin than other transactions[13]
        - Customers does more order entry work
        - Order size is higher
        - Ship from DC
- EBIT margin will expand

- Hard to predict gross margin
  - Product mix
    - Private label sales have higher gross margin
    - Fasteners have higher gross margin
  - Customer mix
    - Large customers has lower gross margin
    - E-commerce sales have lower gross margin
- But EBIT in each segment will expand
  - Reasons
    - Sell more private label
      - And sell more directly sourced products
    - Operating leverage
  - The Canadian business can improve margin like the U.S. business
    - U.S. business EBIT margin:
      - 2004: 11%
      - 2007: 13%
      - 2010: 15%
      - 2013: 18%
      - 2014: 19%
    - Canadian business EBIT margin
      - 2004-2006: 3-%
      - 2007-2010: 6-7%
      - 2011-2013: 11-12%
      - 2014: 8%
    - The Canadian supply chain was very inefficient[14]
      - Everything went from
        - Suppliers to DC
        - DC to branches
        - Branches to customers
    - Grainger has made very big investments in Canada[15] [16] [17]
      - (Once-every-20-year type of investments)
      - Brought the business on to the U.S. SAP platform
      - Built a 500,000-square-foot DC in Toronto
      - Upgraded 2 largest DCs
    - These investments will allow it ship directly to customers
      - From its DCs
    - The Canadian business won't get U.S. EBIT margin level[18]

                - Vast geography
                - The resource component of Canadian GDP is 2x what it is in the U.S.
                - Much more rural customer base
                - => higher cost to serve
                - But **12%** wouldn't be a ceiling
                    - Growing mid-single to high-single outside of Alberta
        - Zoro can improve margin like MonotaRO
            - MonotaRO's EBIT margin
                - 2009: 6.4%
                - 2010: 7.4%
                - 2011: 9.1%
                - 2012: 10.2%
                - 2013: 11.2%
                - 2014: 9.6%
                - 2015: 12.3%
            - Zoro's current EBIT margin: 7%
- Grainger is less cyclical than Fastenal and MSC
    - Smaller exposure to manufacturing
        - Grainger's customer category
            - Heavy manufacturing: 18%
            - Commercial: 14%
            - Government: 13%
            - Other: 12%
            - Contractors: 11%
            - Light Manufacturing: 11%
            - Retail/Wholesale: 6%
            - Transportation: 6%
            - Natural Resources: 5%
            - Reseller: 4%
        - => manufacturing accounts for 29% of total revenue
            - Fastenal: 50%
            - MSC: 70%
    - With manufacturing customers, Grainger's strength is in facility maintenance[19]
        - Competitors are stronger on the manufacturing floor
            - Cutting tools

                - Abrasives
                - Fasteners
                - Etc.
            - => Grainger depends less on manufacturing activity
- Grainger has an online model
    - Supplemented by
        - About 350 branches provides
            - (Average about 22,000 square feet each)
            - Immediate product availability
                - Serve emergency need
            - Technical assistance
        - On-site inventory management services (KeepStock)
            - VMI
            - Vending machine
    - 85% of Grainger's outbound shipments are made via small parcel
        - Use companies like
            - UPS
            - FedEx
            - DHL
        - Grainger's average order is $250
    - Grainger focuses on unplanned purchases
        - 70% of customer purchases are unplanned
    - Grainger keeps most inventories at DCs
        - Branches carry only high volume SKUs
- Fastenal has a store-based model
    - 2,737 stores
        - Stores are small
        - Average less than 4 employees per store
    - 54,291 vending machines
    - Focuses on reoccurring purchases
    - Keeps a lot of inventories at branches[20]
        - Stock 160-165 days of inventories
        - Inventories sit in a DC for 60 days
            - Sit in a store 100-110 days
        - => DC restocks stores on a periodic basis
    - Fastenal ships from store to customers
        - Selling Transportation cost is about **10%** of sales

                - (consist primarily of Fastenal's store fleet cost)
- Grainger has great returns
    - EBIT margin: 13.5%
        - U.S segment: 18-19%
    - Sales/NTA: 3.35x
    - => 45% pre-tax ROIC
    - Grainger was able to return 2/3 of CFFO to shareholders
- 8 dimensions of quality
    - Relative size
        - Great
            - No suppliers account for more than 5% of purchases
            - No customers account for more than 3% of sales
    - Focus
        - Grainger is a generalists
            - Not a specialist like Fastenal or MSC
        - Grainger has more significant international business than Fastenal and MSC
    - Customer engagement
        - Very high with large customers
    - Cross-selling
        - High
    - Retention
        - High large customer retention
    - Words of mouth
        - No information;
        - Perhaps not important
    - Reinvestment rate
        - Grainger has the greatest reinvestment rate in the industry
            - Over the last 15 years, total CapEx was
                - Grainger: $2.5 billion
                - Fastenal: $1.4 billion
                - MSC: $463 million
                - AIT: $139 million
    - Stock's popularity
        - Short interest: 18%
        - Share turnover: 382%
        - Grainger is less popular than Fastenal

[1] "Ron Jadin, Grainger's CFO: **So we're in facilities maintenance and we may sell electrical components for the repair of broken electrical components in a facility like this. And some competitors we have would be the ones who would have sold everything when this building was built**, and they are selling truckload quantity of the same types of fixtures that we sell one at a time in the repair space.

Scott Davis, Analyst – Barclays Capital: But at a much higher margin, right?

Ron Jadin, Grainger's CFO: **At a much higher margin, but slower turns**. Right?

So their model is a high-turn model. They are selling truckload quantities. We are more of a slow-turn model." – Barclays Capital Industrial Select Conference, 20 February 2014

[2] "We have a ton of respect for Amazon, as everybody does. So of course we take them -- take it very seriously. We pay attention.

That said, what I would tell you we feel very good about our positioning and the strategic direction that we are taking the Company and that you heard David described in his opening remarks.

Yes, a couple of points on Amazon in specific. One is, from what we see, **it's much more complicated to take what they do in a B2C environment and apply it to B2B**. In the second thing is, even if they're successful doing so, again, go back to the point that I just made with you about pricing, that **the price and transaction are really a relatively small percentage of the total equation with our key accounts and where we are bringing value, so supply chain savings, productivity on the plant floor, that's really where we believe the game is won and lost**.

And just as a proof point here, for years and years, we've been competing against local distributors in this business and, if you look at most published reports, **the average gross margin of a local distributor is around 22%, 23%. Clearly, for years and years, we've been competing against folks who were good competitors but price lower than we do**. So if price were the game, we wouldn't be able to continue taking share from the locals the way we have." – Erik Gershwind, MSC Industrial Direct's CEO, MSC's 2012 Q3 Earnings Transcript

[3] "On the right side, I included some of the reasons for our expansion and purchasing leverage is a big one. **We certainly have a lot of buying power. We price to the market. So we feel we're very competitively priced, but we oftentimes can buy a little bit better than our competitors**. Those of you who know our space understand

this, but for those of you who don't, I mean our space is very fragmented. **60% to 70% of our competitors are very small local players, whose buying power isn't as significant as ours**, nor can they make the investments in eCommerce and mobility like we can. So, we think the investments we're making will further distance us from the vast majority of our competitors." – Ron Jadin, Grainger's CFO, Bank of America Merrill Lynch Conference, 06 December 2011

[4] "Now we plan to be the scale leader in all of the regions where we operate. For sure, we have scale in the United States and Canada. **We leverage our national purchasing power as we are often our suppliers' biggest industrial customer. In fact, last year, we were the number one industrial -- broad line industrial customer, broad line or specialist, for 7 of our 10 largest suppliers**.

We are also one of UPS' top customers. Our suppliers ship directly to our distribution centers. Our branches are then replenished by our DCs and we have developed economies of scale both in the deployment of inventory, as well as optimizing transportation expenses. We have intentionally located our distribution centers near major transportation hubs in order to save on transportation costs. Our nationwide IT and Internet-based phone system serve as the backbone for all of our locations." – Jim Ryan, Grainger's CEO, Electrical Products Group Conference, 20 May 2009

[5] "Unidentified Audience Member: Hi, what is the branded parts manufacturers' competitive response to your private label effort?

Ron Jadin, Grainger's CFO: I think it's a challenge. I mean we -- so we love branded products, our customers love branded products. **There are some products that we will always carry that are branded. And the majority of are -- I mean we say 30% in the future, that's still weighs out, that's still leaves 70% branded**. Some of our competitors don't carry branded products. We think that differentiates us from some of our competitors.

Customers like standardization and some of the branded products are exceptional in that area. So, we've got great relationships with those customers. It is a challenge and they create some friction for sure, but we have great partnerships with our suppliers. **There are also products that customers don't care about brand at all. Many products that might be behind the wall. So, certain plumbing fixtures, certain fastener categories, customers really don't care about brand**. And so, nobody really debates us on those sorts of things. **Those very naturally become no branded or private labeled**.

And so, so far, it really hasn't been an issue. I think that's what's going to cause us to get to some point where we say we're not really going to go much further as we've gotten all the easy stuff and there is too much value driven by our branded suppliers that we wouldn't go any further, but it helps us negotiate with them as well when we are negotiating on price. It's a threat of it even we don't switch. I think we are out of time. Okay, thank you." – Bank of America Merrill Lynch Conference, 06 December 2011

[6] "We are the largest player in the channel, and so we work very hard to ensure we have an aggressive price position and aggressive cost of goods position in the channel. A very critical element in terms of how we negotiate and leverage that scale.

At the same time, **from a price setting standpoint, that is really customer-facing and market-facing in terms of understanding what the market price is. We have a very good understanding of the elasticity of each SKU by customer size, by geography, by industry type, and so that really drives the pricing**.

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The importance of that is that product, when we direct source it, is much more profitable than if we don't. **The gross profit of that product is something like 70%. So, obviously, that has a big impact on our gross profit and that now has become 11% of our total sales**.

You know, as many of you know, **our private label has been relatively flat at 25% or so for the last five years. There's a number of reasons for that. One of those is that we have dramatically expanded our product line as I suggested before. In doing that, when you're adding new products, you don't add private label products generally**. You add branded product because you want to take the lowest risk with new products and determine that you actually have demand for those products." – D.G. Macpherson, Grainger's COO, Grainger's 2014 Analyst Meeting, 12 November 2014

[11] "We're also focusing on cost reduction. Product procurement optimization is a phrase that we've used internally but it's really about **looking at the engineered cost of a product or the should cost of a product and starting there, adding profit, and using that as a starting point of negotiation with suppliers as opposed to what did we pay last year**. So much more involved, much more analytical, something very common in the direct side. We're doing it more on the indirect side and we're seeing some great results." – Ron Jadin, Grainger's CFO, Credit Suisse Industrials Conference, 02 December 2015

[12] "So back to my earlier point about this business is normal, this chart shows an index of our cost per line. Cost per line is the way we think about productivity in our business. **And our cost per line, an absolute terms has gone down 10% over the last six years so that includes all the added appreciation from the new buildings. It includes all wage inflation and we still managed to decrease our cost per line by 10%.**

Two areas of focus there. One is building design. **So some of the automation we've made, some of the efforts we've made to fit out our buildings effectively have helped**.

The other is good old fashioned continuous improvement. So we have for about eight years or nine years, been very serious in our distribution centers about **continuous improvement, about finding ways, everything from the way we receive product, the way we pick it, the way we pack it**. We are constantly looking for ways to get better and the team has done a great job.

The effectiveness is 4%, kind of physical productivity every year. And the good news, as we look forward, we expect similar results. As we continue to make investments in the business in the supply chain, we expect to continue to get better from a cost position." – D.G. Macpherson, Grainger's COO, Grainger's Analyst Meeting, 12 November 2014

[13] "So we're pleased with the progress that we've made in e-commerce. **We're closing in on 40% e-share in the U.S. business. And I want to remind everyone we do not include inventory solutions in e-share**. This is pure e-commerce revenue. We're experiencing in the U.S. this year approximately 15% revenue growth through this channel. **And I want to remind everyone that an e-commerce transaction is 2 to 400 basis points, more profitable than a non e-commerce transaction. They tend to have higher average order size. The customer is doing the order entry work.**

And we're shipping these from distribution centers directly, bypassing in most cases, the branch network. So it tends to be a more profitable transaction for us." – Court Carruthers, Grainger's Group President Americas, Grainger's Analyst Meeting, 12 November 2014

[14] "Similarly in Canada, our location of our building is pretty strong. We're able to serve the market very well from the buildings we're in, in Canada. What we don't have in Canada today I'll talk about it now is the storage capacity. So Court talked about the need to improve the supply chain infrastructure in Canada. **We really need to go from a world where today everything goes from supplier to DC to branch to customer to one where we have the capacity and the process is to serve customers direct out of the distribution centers**. In order to do that, we're going to make two fairly large investments in Canada over the next three or four years.

One is going up now in Toronto. The Toronto building will be about half a million square feet. It will have the capacity to stock a couple of hundred thousand items and given where we're at in the eastern Canada market it's going to be a step function improvement in our ability to serve our customers. So this gives us a whole lot more capacity than we have today.

The other thing I'd point out with the Canadian supply chain today is it's very inefficient and getting this building again will help drive efficiency in the supply chain. We are a much higher cost in our distribution centers today in Canada than we are in the US.

The other place we have a gap to fill is in Edmonton. In the next three years we'll put in a building at Edmonton. It will be big. For those of you who have been around our company a lot you realized that most of our business in Canada are high share markets probably anywhere in the world or Saskatchewan and Alberta. And we have a lot of business up there and we operate today out of multiple off sites in a very efficient -- inefficient manner and we need to put a building up there to get efficient." – D.G. Macpherson, Grainger's COO, Grainger's Analyst Meeting, 13 November 2013

[15] "Unidentified Audience Member: Any view on how we should think about Canadian margins, both near term and long term, given the investment spend?

Court Carruthers, Grainger's Group President Americas: **So I think over the course from 2007 to today we've expanded that margin from roughly 2.5% to 3% to 11% to 11.5%**. So we've had fantastic operating margin expansion there and we've added $500 million plus in revenue during that time as well. **I think the issue over the next couple of years is a bit of a pause as it relates to operating margin and not in the**

core business, we still think there are great opportunities to improve op margin in the core business. **But really the investment in the Toronto DC, the investment in SAP, the investment in a new building in Edmonton; those are once every 20 year types of investments in the foundation. There are investments we made in the US in the late 1990s, we used them for 10 years or 15 years, through that entire period we got the benefit of them. We haven't made them since we owned that Canadian business in 1996**. And so there's a bit of lumpiness in some of those things. The underlying business is still incredibly strong." – Credit Suisse Industrials Conference, 05 December 2013

[16] "**We started bringing our Canadian business onto the US SAP platform and we are also expanding and upgrading our two largest DCs. We are building a new 500,000 square foot DC in Toronto as we speak and sometime over the next few years we will also build a new DC in Edmonton**. And ultimately these investments will do two things, they will help us further drive productivity improvement in the business and it will also give us more capacity for growth.

So here we are very excited about the long-term of this business, the long-term growth and market share gain potential and also continuing to expand operating margins." – Jim Ryan, Grainger's CEO, Electrical Products Group Conference, 21 May 2014

[17] "And so, as D.G. mentioned earlier, **we are making what I would describe as once-a-generation investments in Canada. Whether that's new warehouse managements systems, the SAP platform, new buildings in Toronto, Fort McMurray and Edmonton**. These are very large investments. They're not normal-coursed investments. They're the types of things that we did in the U.S. 15 or 20 years ago, that really allowed us to grow the business, to grow service to improve productivity.

So just to give you one quick example, in Canada, we still have two-stage distribution. The vast majority of our products go from a distribution center to a branch to a customer. **The new buildings and the new systems will allow us to take those products directly to the end user customer, big service enhancement**. Big productivity opportunity. These are things that we did in the U.S. 10 or 15 years ago. And that's really what these investments enable us to do." – Court Carruthers, Grainger's Group President Americas, Grainger's Analyst Meeting, 12 November 2014

[18] "Yes, and those are operating margins targets. And I think, you know, **we've hit the 11% to 12% once before, and then we sort of maxed out the infrastructure capability that we had**. I think there is upside, although the question we get frequently

is could you match the US margins? And I think just the vastness of the Canadian geography and the fact that the resource component of Canadian GDP is about 2x what it is in the US. **That makes for a much more rural customer base. The cost to serve will just be higher in Canada. So I don't think you get to US operating margin levels, but I also don't think 12% is the ceiling there, either**.

One other thing we didn't touch on -- Canadian performance, and I've had a number of questions in the one-on-ones that I think are really important. We're actually pleased about a couple of things in Canada, despite the earnings number that we saw in Q1.

What's really important to note is the oil and gas business in Canada is about a third of our business. It's down in the mid-teens, but in every market outside of Alberta, we're growing kind of mid singles to high single digits. And if you stripped out Alberta, we have really strong mid single-digit growth in Canada, which is far better than what we're seeing in the marketplace.

And we've also been able to absorb about a 20% FX impact, which hits about 40% of our cost of goods and keep gross profits flat while absorbing that on an organic basis. And so despite some of the earnings issues that come from these investments and the slowdown in oil and gas, on the controllable side up there is actually a lot of really good news that's coming from that market." – Court Carruthers, Grainger's Group President Americas, Robert W. Baird Growth Stock Conference, 06 May 2015

[19] "**So we talk about manufacturing being about a third of our business, between heavy and light. But it is really the facilities maintenance piece of it where we have been strongest.**

Some of our competitors have been stronger on the manufacturing floor, and cutting tools and abrasives or fasteners or different areas. And we cross over, certainly; we compete with each other.

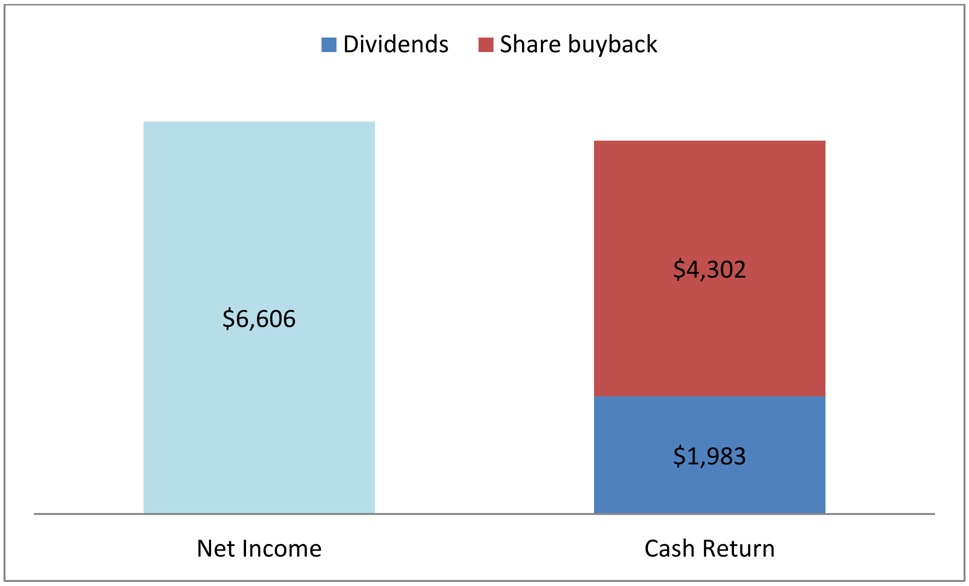
But we are investing to become more significant in some of those places as well. So we have segmented part of our salesforce to call on manufacturing only, whereas they used to call on multiple different segments, to help them sharpen their skills and train up on being really good in that space.

The E&R acquisition we made in August really helped us acquire a lot of talented salespeople with many years of experience selling on the manufacturing floor. So oftentimes it is different products but at the same customer, or different levels of expertise. Or it could be the same product but in a different instance." – Ron Jadin, Grainger's CFO, Barclays Capital Industrial Select Conference, 20 February 2014

[20] "Right behind you and you've heard us talk over the last few years about THUB, this new distribution center we were building to support our vending initiative. One thing to think about when you're touring THUB and then when you are touring IHUB, is they are fundamentally two different facilities. **If you think of our business for many years, so our public numbers, we stock about 160, 165 days worth of inventory. And if I think about our supply chain, about 60 days of that timeframe is inventory sitting in a distribution center and about 100 to 110 days of that supply chain is inventory physically sitting in a store. So our distribution centers are fundamentally about restocking on a periodic basis, inventory going to the store and the inventory is sold from there**. What fundamentally changed with vending is the breadth of SKUs that you're talking about isn't this wide anymore. It becomes this wide, but the frequency is off the chart. So requires a fundamentally different type of distribution center to handle that and that's what you will see when you're looking through a THUB facility versus what you're looking in an industrial -- **a typical industrial distribution facility of Fastenal that is more about replenishing a store versus replenishing a machine, because in the machine you're talking about days and weeks of inventory not weeks and months.**" – Dan Florness, Fastenal's CFO, Fastenal Investor Presentation, 05 November 2015

Capital Allocation

Grainger Consistently Returns about Two Thirds of Earnings to Shareholders



Since 2000, Grainger took 95% of total income to pay dividends and repurchase shares

- **Biggest Negative**:
  - No negative
- Annual share dilution was about **0.71%** over the past 15 years
  - Gross dilution was 1.50%
    - Grainger issued a lot of stock options
    - But Grainger repurchase shares every year
  - Net dilution was 0.71%
    - Net of shares repurchased using proceeds from exercises of stock options
- Incentive compensation
  - Performance-based compensation are based on
    - Sales growth
    - ROIC
  - Annual incentive = Sales Growth Performance + ROIC Performance
    - For 2014
      - Sales Growth Performance
        - < 4.0% => 0% payout
        - 5.9% => 25% payout
        - 7.7% => 50% payout

                - 9.6% => 100% payout
                - > 11.5% => 150% payout
            - ROIC performance
                - < 18.0% => 0% payout
                - 24% => 25% payout
                - 29.9% => 50% payout
                - > 32.3% => 60% payout
    - Long-term incentive consists of stock options and performance shares
        - For 2014
            - Stock options: 70% of long-term incentive compensation
                - 3-year cliff vesting
                - 10-year term
            - Performance shares: 30% of long-term incentive compensation
                - 3-year cliff vesting contingent on performance
                - Net sales over 3-years cycle determine the number of shares conditionally earned
                - Vesting depends on meeting a 3-year average ROIC hurdle of 18%
- Grainger focuses primarily on organic growth
    - Since 1991
        - Total CapEx: $3,318 million
        - Total acquisition: 1,278 million
- Organic investment is mainly on supply chain in North America
    - Invest in DCs
    - Invest in the information system
    - Invest in branches
    - Grainger entered joint ventures in various markets
        - India
        - Korea
        - Japan
        - China
        - Investments were insignificant
            - Japan - MonotaRO
                - 2000: $12 million
                - 2006: $4 million
                - September 2009: $4 million
                    - Increased ownership from 48% to 53%

            - China
                - Opened two facilities in Shanghai
                    - 2006
                    - A 120,000-square-foot DC
                    - A show room
                - Grainger took at cautious approach[1]
                    - Went in small
                        - Needed to learn about the market
                    - And didn't expand
                        - Because it didn't succeed
- Grainger's acquisitions were small
    - 2007
        - Acquired 1 company for $5 million
    - 2008
        - Acquired 2 companies for $34 million
    - 2009
        - Spent $123 million to
            - Acquire 3 companies
            - Obtain majority ownership in one joint venture
    - 2010
        - Spent $62 million to
            - Acquire 4 companies
            - Obtain majority ownership in one joint venture
    - 2011
        - Fabory
            - Grainger paid $358 million
    - 2012
        - AnFreixo
            - A MRO distributor in Brazil
            - Sales: $37 million
            - Grainger paid $25 million
        - Techni-Tool
            - A specialist distributor serving manufacturing customers
            - Sales: $88 million
            - Grainger paid $43 million
    - 2013
        - E&R Industrial Sales

      - A distributor of metalworking, production and MRO supplies
        - Sells to manufacturers and industrial customers across
          - Midwest, and
          - Eastern U.S.
      - Sales: $180 million
      - Grainger paid $116 million
    - Safety Solutions
      - A distributor of safety footwear, supplies and services
        - Strong focus on the manufacturing sector
      - Grainger paid $30 million
        - On 03 December, 2013
  - 2014
    - WFS Enterprises
      - A distributor of tools and supplies to industrial markets in Southern Ontario
      - Sales: $87 million
      - Grainger paid $33 million
- Grainger made 2 types of acquisitions[2]
  - To get into new market segment in which Grainger isn’t strong
    - Example
      - WFS
      - E&R[3] [4]
        - A metalworking specialist
      - Techni-Tool[5]
        - Has specific expertise in the high-tech manufacturing environment
      - Safety Solutions[6]
        - A safety footwear specialist
          - Has unique benefits management system
          - => help manage OSHA compliance
    - These acquisitions may work
      - Acquired business benefits from Grainger’s supply chain
      - Grainger can get new capabilities
        - Cross sell to a broader customer base
        - Penetrate the plant floor in the manufacturing sector
  - To get into new geographies
    - Grainger is aggressive about geographic expansion

        - It tends to get into a market via
            - Joint venture, or
            - Acquisitions
                - Tend to make acquisitions in more mature market
                    - It need to get scale quickly
                    - And grows from there
        - Grainger isn't interested roll-up acquisitions
            - Takes a lot of time
            - Very expensive
            - Very disruptive to service
            - The U.S. market is $150 billion[7]
                - Few acquisition targets make over $1.5 billion sales
                    - Yet add only 1% market share
                - There's little value in buying a many of small players
                    - And roll them together
- Grainger's geographic expansion got mixed result
    - MonotaRO is a great success
        - Invested $20 million through a joint venture
            - Got 53% ownership
        - MonotaRO's current market cap: $2.5 billion (288 billion Yen)
            - Grainger's stake is worth over $1.3 billion
        - MonotaRO has being growing very fast
            - MonotaRO's revenue grew 26% annually since 2009:
                - 2009: 14.2 billion Yen ($123 million)
                - 2010: 17.7 billion Yen ($154 million)
                - 2011: 22.2 billion Yen ($193 million)
                - 2012: 28.7 billion Yen ($249 million)
                - 2013: 34.6 billion Yen ($300 million)
                - 2014: 44.9 billion Yen ($390 million)
                - 2015: 57.6 billion Yen ($500 million)
            - Current EBIT: $60 million
        - Grainger has applied MonotaRO's playbook to the U.S. market
            - Launched Zoro in 2011
            - Zoro enjoyed huge growth
                - Revenue:
                    - 2013: $80 million
                    - 2014: $180 million

            - 2015: $300 million (expected)
        - Zoro is expected to make $22 million EBIT in 2015
- Others were failures
    - China
        - Has been in China for 9 years[8]
        - Haven't been profitable
        - No large distributors in China today
        - Fairly well-developed market economy for industrial products
            - Typically outdoor market
            - A mile by a mile in size
            - Thousands of suppliers
            - Millions of products
        - Customers would run to the market and get what they want
        - Grainger now focuses on inside sales for mid-sized customers
            - Fewer outside sellers focused on big multinational companies
            - Also launched an e-commerce capability
        - The business is now breakeven
            - Grainger views China as a long-term play
    - Brazil[9]
        - Exited Brazil in 2015
        - Profitable distributors are
            - Regional specialists
            - Specialists in a product category
                - Have scale in that category
    - Fabory
        - A fastener specialist in Benelux countries
            - Headquartered in the Netherlands
        - Product mix
            - Fastenal: 63%
            - Tools: 25%
            - Industrial supplies: 12%
        - Sales: $350 million[10]
        - Gross margin: 55%
        - EBIT margin: mid-single digit
            - Adjusted for amortization: high-single digit
        - Grainger paid EUR 242 million

            - Or $358 million
            - 1x 2011 sales
        - Grainger's thesis on the acquisition
            - Get cost synergy
            - Grow through branch expansion[11]
                - Not a roll-up strategy
        - Cost synergy was ahead of plan[12]
            - Buying every fastener through Fabory[13]
                - Buying fasteners better after the acquisition
                - Can extend that type of process to other categories
                    - Commodity-like products
                    - There's a standard for the globe
        - But sales were below expectation[14]
            - Branch footprint got much less traffic than expected
            - The business is now doing $280 million
                - Break-even
    - After all these experiment, Grainger has learnt to
        - Focus on markets with high GDP per capita[15]
            - Time is money in those markets
            - Grainger can help people save time
        - Focus on the online single-channel model[16]
- Grainger acquired Cromwell recently
    - Cromwell is the largest independent MRO supplier in the U.K.
    - Cromwell's revenue: $440 million[17]
        - Very few broadline scale advantaged distributors outside of North America
        - Cromwell is a multi-channel business
            - Has branches
            - Has sellers
            - Strong vending solution
            - Has a very small e-commerce business today
        - Its suppliers are very familiar
        - Gross margin: **36%**
        - EBITDA margin: **10%**
        - Private label: **20%** of revenue
    - Purchase price: $482 million[18]
        - **100%** debt financed

        - **10.8x** EBITDA
        - Expects
            - Double digit growth
                - Online revenue will become 20-25% of total revenue
            - **15%** EBITDA margin
    - Real thesis: grow the online model profitably off of that base[19]
        - Sell to smaller businesses and midsize manufacturers
        - Invest less than $10 million over the next couple years
            - In the main DC in Leicester
            - => Can increase the throughput and capacity for eCommerce
    - It took MonotaRO 7 years to get to profitability[20]
        - It took Zoro 6-7 months
            - Has supply chain
            - Know the demand patterns
            - Has the product cost position
        - => acquire Cromwell to build the online business in the U.K.
    - This can be a great deal
        - Based on Grainger's track record with MonotaRO and Zoro U.S.
        - Grainger used cheap debt to pay for the deal
    - This acquisition can also help Zoro Germany
        - Cromwell has a very strong product cost position[21]
            - => can sell some of that product through Zoro Germany
            - Won't ship directly from the U.K. to Germany
                - But allow GWW to know
                    - What to stock in Germany
                    - What to sell through Germany
                - The product cost position give GWW a head start
- Grainger doesn't plan to grow Zoro Germany through acquisitions[22]
    - No acquisition target with similar leverage in Germany
- Grainger wants to stay within 1-1.5x net Debt/EBITDA
    - Preserve Grainger's access to the Tier 1 commercial paper market
    - Grainger current has
        - $1 billion unsecured Senior Notes
            - Matures on 15 June 2045
            - 4.5% interest rate
            - Requires no principal payment until the maturity date
        - £160 million 5-year term loan

            - Interest rate: Libor + 0.75%
- Grainger return all excess cash to shareholders
    - Dividend payout rate is about 30%
    - Grainger repurchase shares almost every year
        - Repurchased 40% of outstanding shares since 1991
            - 1991: 105 million outstanding shares
            - Today: 63 million outstanding shares
        - Repurchased 33% of outstanding shares since 2000
            - 2000: 94 million outstanding shares
    - Grainger doesn't time repurchase[23]
        - Share buyback activity depends on cash flow
            - Not on stock price
    - Over the last 15 years
        - Total CFFO: $8,597 million
        - Total Income: $6,606 million
        - Total dividends and share repurchase: $6,285 million
            - **95%** of total income
            - **73%** of total CFFO
        - Total true cash returned: $4,377 million
            - (adjusted for part of share repurchase to offset impact of share-based compensation)
            - **66%** of total income
            - **51%** of total CFFO
    - => Grainger returned **2/3** of earnings to shareholders
        - Over this period
            - Sales grew 5.2% annually
                - 1999: $4,636 million
                - 2014: $9,965 million
            - EBIT grew 10.2% annually
                - 1999: $317 million
                - 2014: $1,364 million
    - Expect: Grainger will keep returning **2/3** of earnings to shareholders
        - (net of impact of share-based compensation)

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[1] "**Specific to China, you are right; we went in small. We need to figure out how to do business and how to grow there and we are still learning. So there are two**

assumptions that we made going into China that were wrong. The first is that customer purchase behavior would -- customers would recognize the one-stop shop and the reason that we believed that is because that buying behavior had ceded in the retail space and our belief, our assumption was that that would be an easier transition into the industrial space. Well, it hasn't happened. **The one-stop shop concept in China is still very unfamiliar**.

The other assumption that we made that is still playing out is that **all of the multinationals would buy -- would recognize the one-stop shop and recognized total cost as opposed to piece price and would be open to our value proposition**. In fact, when we talk with a lot of our suppliers who have manufacturing operations in China, that is what they tell us. **However, that understanding hasn't made it from the executive suite down to the people that are buying products because there is a lot of local people that are still buying maintenance supplies**.

So the good news is we didn't make huge investments based on those assumptions and also we are changing our model. So we are not starting to get traction because what we have done is we have narrowed our focus on a couple of key productlines. Safety is one.

One thing that the multinationals are doing is driving safety inside of their facilities and it is still really hard to get safety products, safety supplies and we are the largest safety distributor -- one of the largest safety distributors in North America. So that is a line that we know. Material handling is another one.

So what we have done is we have gone and now we are focusing on a couple of key productlines and we're getting traction. We hit our revenue plan last year. We expect that we will be to breakeven in the next four to five years. We have a -- and we are getting a whole lot smarter on how to do business there. So what we have built is ultimately not what we are going to end up with, but we are going to be there, we are going to figure it out because that is a very important market for this industry." – Jim Ryan Grainger's CEO, Electrical Products Group Conference, 20 May 2009

[2] "Acquisitions can be a good way of accelerating our organic growth strategy. **Growing this business organically is the number one priority. But supplementing that growth through select acquisitions to get us into market segments where we may not have a strong position today, that's something that we'd consider.**

Joint ventures or acquisitions to get us into geographies that we're not in today and you've seen a little bit of that from us internationally. Those are things that we would consider. But what we're not interested in doing -- what **we're not interested in is a roll-up. A roll-up strategy it takes a lot of time, it's very expensive, it's very disruptive to service**. We've got a great supply chain and IT infrastructure here in North America that we can build on and a roll-up strategy is just not something that's interesting to us.

We pay a lot of attention to what's going on in the marketplace, and I'll tell you the number of companies that are knocking on our door to try to sell us their business these days has gone up noticeably. So we listen, but when we make an acquisition it's going to be consistent with our strategy and it's going to be a good financial deal." – Jim Ryan, Grainger's CEO, Grainger's Analyst Meeting, 19 November 2008

[3] "We've had two acquisitions over the course of the last 12 months, E&R Industrial in August of this year. **E&R is a fantastic metal working specialist, they bring great technical expertise and a broader product assortment and offering. They've historically been focused in the Midwest, we'll be applying that skillset right across the entire Grainger footprint** which we think really adds to our metal working capability of absolutely critical importance for manufacturing customers.

And then Techni-tool which we acquired in Philadelphia at the end of last year. And **Techni-tool has very specific expertise in the high-tech manufacturing environment with products and services and technical expertise that are highly relevant on the test bench**. And this is an area that is present in many of our manufacturing customers but not a part of the plant floor that we have historically called on.

So both of these companies we're very pleased with their performance in a time that we've owned both of these organizations. **Our intent is overtime to fully integrate them into the Grainger US business and really the rationale for doing that is to take these unique skillsets in metal working on the test bench and a high-tech electronics manufacturing environment and apply those all the way across the Grainger network to further penetrate the plant floor in the manufacturing sector.**" – Court Carruthers, Grainger's Group President Americas, Grainger's Analyst Meeting, 13 November 2013

[4] "Ryan Merkel, Analyst – William Blair: And then the follow up question I had is when I think of the large equipment manufacturer, I'm also thinking about **production fasteners and production cutting tools**. Are you securing this business as well?

Jim Ryan, Grainger's CEO: Sometimes, but **that, today isn't our strength. Our strength in the fastener business is MRO fastener**s. And if you've been following us lately, you'd see that **we're building a much more legitimate cutting tools offering. And the acquisition that Court talked about of E&R industrial is one of the ways that we're building expertise**, specific technical expertise in key product categories like cutting tools and the braces.

So overtime, as we build out, not only build out the product category which we've been doing the last couple years, but as we start adding services and technical expertise around those product categories. We've become a much more attractive supplier." – Grainger's Analyst Meeting, 13 November 2013

[5] "Unidentified Audience Member: Yes, two questions for you. First, why buy a company like Techni-Tools? Couldn't you go get their catalog? See what they're selling? Replicate it yourself? I mean is there something that they have that you need to buy that you couldn't replicate yourself at a lower cost?

Jim Ryan, Grainger's CEO: I'll ask Court to jump in here as well. We could. We could start -- we could develop those capabilities on our own. We're large enough where we don't have much difficulty getting access to the product lines that we'd like. So we can do that. And we can develop the technical expertise ourselves, but partnering with somebody that's been in that business for a long time brings that expertise right now and puts us in a position where we think we can scale it faster. Would you add anything?

Court Carruthers, Grainger's Group President Americas: I think it's really like Techni-Tool, **the issue that you have is that the technical expertise on the tech bench, we're not -- we haven't been anywhere near that**. So for that pretty far afield from what we've been doing, **that one would be harder to build internally**, quite frankly it's a very different set of skills and products.

I think **the best examples on E&R**. So we've been doing well in manufacturing, adding metal working product line, adding metal working specialist, doing really well organically, but what this allowed us to do is just to leap frog that much farther ahead. And **the credibility that we have with the customer to say, not just that yes, we've gotten better with this, but here's the guy who's been doing it for 50 years and are experts**. That customer credibility takes a really long time to build up, and that allows us to leap frog that piece too." – Grainger's Analyst Meeting, 13 November 2013

[6] "As I said, we've had very focused organic investment on the manufacturing area, but at the same time we've also supplemented that with our M&A activity. We closed three mid-sized deals in the $100 million to $200 million range over the course of the last 12 months in the United States and all of those have been really focused on accelerating our core capabilities as it relates to manufacturing. **The first was a company called Techni-Tool that we acquired at the end of last year in Philadelphia. Great expertise in the high-tech end of manufacturing so really working with the engineers and working on the electronics portion of the manufacturing sector**, which is an area where historically we weren't as strong. **E&R Industrial, which we closed in August of this year; very strong metal working capability**, product line, and technical expertise, incredibly strong footprint in the manufacturing sector in the Midwest, a great opportunity to broaden that out right across the country and across North America.

And then earlier this week we announced the acquisition of **Safety Solutions**, which is a safety footwear specialist based in Dublin, Ohio, again **very strong in the Midwest manufacturing sector. They have a unique benefits management system, which allows companies and employees to manage OSHA compliance and manage their footwear benefit as part of their employment agreement on the manufacturing plant floor**, very strong in that environment and another great offering to further increase our relevance with our manufacturing customers. So great story from a share gain perspective, great return on the organic investments that we're making, and something that we continue to supplement from an M&A perspective." – Court Carruthers, Grainger's Group President Americas, Credit Suisse 2013 Industrials Conference, 05 December 2013

[7] "**A lot of the acquisitions so far have been focused on further broadening out our safety offer and our manufacturing offer on the plant floor**. So those are a couple of key areas.

I think though, just from a pure math standpoint, **the North American market is close to $150 billion, so 1 point of share is a $1.5 billion company. The number of acquisition candidates at $1.5 billion I could probably count on less than both hands**.

So a lot of this is it is highly fragmented by very, very small players. So our intent is not to go out and do a rollup of a bunch of really small companies.

The intent is we have got a lot of room left in our organic growth drivers. They are proven, they are profitable, they work well. If we can add to that through acquisitions, we will continue to do that.

But we don't really think there is a lot of value in trying to buy a huge number of fairly small players and roll them together." – Court Carruthers, Grainger's Group President Americas, Morgan Stanley Conference, 16 September 2014

[8] "We've been in China for seven or eight years now. It's been a difficult past. **We have not been profitable in China to date.**

I would just like to spend just a second describing the competitive environment.

So you don't see large distributors in China today, industrial distributors in China today. Part of the reason is that **they have a fairly well-developed market economy for industrial distribution products.**

What I mean by that is **they're typically outdoor markets. They may be a mile by a mile in size, and there'll be literally thousands of suppliers, millions of products**.

And so **if you're a customer, if you're a manufacturing customer, you'll send a runner down to that market, they'll find what they want, and then they'll go back to their place of business**, and that has been the competitive set.

So our challenge in China has been fighting against that customer behavior and getting that customer behavior to change. That has proven to be pretty difficult, as you might expect.

We have, over the last couple of years, made some pretty significant changes in the business model. **So we've gone from a business model that was very focused on outside sellers selling to customers to one that's more focused on inside sales for mid-sized customers and fewer outside sellers just focused on the big multinational companies**.

We've also launched an e-commerce capability for the first time in the business, and all three of those are actually showing promise. We've changed the cost structure, our margins have gone up, and our expectation now is we will break even in 2015.

Now, just to be clear, **we are not expecting this business to be a billion-dollar, high-profit business anytime in the next three to five years, but what we are expecting is we will break even and we will be able to have a business that has a**

profitable core that we can grow as that market matures." – D.G. Macpherson, Grainger's COO, Grainger's Analyst Meeting, 12 November 2014

[9] "Turning our attention to Brazil, **we entered Brazil two years ago**. We have learned a whole lot about the Brazilian market. **So Brazil, we thought would be a nice growth platform. Once we got down there and really -- we got under the covers of how the competition works**. We've learned a couple things. One thing we've learned is **that the profitable distributors in Brazil are almost always regional specialists. So they're regional players and they're specialists in a product category. They have scale in that category**. So that's an observation.

I would describe **our current business as a $30 million business, taking fairly heavy losses**. **I would also describe it as a subscale broadline player**, so in a market where the only players that make money are regional specialists, we're subscale, we're broadline. We thought we could take that, transition that to something very successful.

The reality is that we would need to take losses for a fairly long period of time before we had a chance of being profitable.

Like many others in Brazil, given the economic realities in Brazil and given our own starting position, **we've taken the decision to exit the market**." – D.G. Macpherson, Grainger's COO, Grainger's Analyst Meeting, 12 November 2014

[10] "Fabory is headquartered at Tilburg in the Netherlands, which is about one and a half hours south of Amsterdam. **The company was founded in 1947 and 2011 sales are estimated to be approximately $350 million**. Fabory is a fastener specialist that is known as the Masters in Fasteners. They carry more than 80,000 products including 50,000 fasteners, which are primarily metric, given the European footprint, as well as 20,000 tools and 10,000 related industrial products. They have more than 1600 team members at 120 locations in 14 countries." – Court Carruthers, Grainger's Group President Americas, Acquisition of Fabory Conference, 15 August 2011

[11] "So for Europe, there is not a bolt-on strategy with Fabory. This is a stand-alone business that we see expanding primarily organically. **We mentioned that they are on the front end of a branch expansion program in Central and Eastern Europe which we very much support. We think there's tremendous upside in those markets**. **So if your question is should you expect a series of bolt-on acquisitions to Fabory, that is not our intention**." – James Ryan, Grainger's CEO, Acquisition of Fabory Conference, 15 August 2011

[12] "Fabory was a great fastener specialist, is still today a great fastener specialist. And so **we have actually overachieved what we thought we would from a synergy perspective as it relates to the cost-of-goods opportunity on fastener purchases**." – Court Carruthers, Grainger's Group President Americas, Robert W. Baird Growth Stock Conference, 07 May 2013

[13] "For those of you who can't see clearly, the map is made up of nuts like nuts and bolts so this is -- these are fasteners. We're talking about fasteners and this year -- this past year since we've bought Fabory. We bought Fabory about two years ago. We're taking a hard look at how we buy fasteners.

Why did we do that? Well, we buy fasteners in every one of our businesses and we came in to an expert do an acquisition that actually knows how to buy fasteners and it's been a very interesting process. **And starting in January we're actually going to be buying every fastener through Fabory**.

So we're going to leverage Fabory's purchasing process, Fabory's design, Fabory's engineering to buy fasteners for the entire company. They are absolute experts at it. We're going to have a consistent pool of inventory in the Americas for fasteners. We're going to have one packaging. We're going to have one set of packaging, one set of SKUs and all that's going to get us substantial leverage across the fastener category.

At full scale we expect to get $5 million, $6 million worth of benefit each and every year. We expect that to even grow a little bit. But boy, **we're really excited about what that Fabory process and what our global scale brings to the fastener buy**.

Now I would say that was a -- it's been a fun project. We've learned a lot. It's also been a bit humbling. I think we thought we went into it that we probably were buying fasteners better than we were. So the exciting thing is we think there's opportunities to extend that type of process to other categories.

So we're actively looking now at what categories we can leverage our global buy in a much better way and buy differently in. The characteristics of those that our targets would typically be commodity like products, products were there's volume in every business that we have and products where there's a standard for the globe.

So in some categories obviously each individual market has their own very, very specific needs but if the needs are common across the globe, we're going to find opportunities. **So we're going to learn from what we're doing with fasteners and we're going to leverage what we learn into other categories to really become truly**

global in our purchasing process." – D.G. Macpherson, Grainger's COO, Grainger's Analyst Meeting, 13 November 2013

[14] "So Fabory, we bought Fabory about three years ago and it was an entry point into the European market. Just to be clear, Fabory is a fastener specialist. So it's a fastener specialist that's focused in the Benelux region. When we bought the business, we thought it would be a good platform to growth within Europe. **And we have struggled. We struggled for macroeconomic reasons. The growth in Europe obviously hasn't been what we've expected**. We've also struggle due to some actions that we've taken or haven't taken early in our ownership of the business.

So the current state is about a $280 million business today. It is, roughly, break-even. And we plan to take very aggressive action to get this business back on track. We plan to take out about 10% to 15% of the cost structure. We're going to that over the next six months. That really fits two areas.

But some of the shifts that Court talked about in North America are also happening in Europe. **And our branch footprint is getting much less traffic than we expected in Fabory, so we will take some efforts to scale back the branch footprint**. And there's also a number of areas where we have a lot of inefficiencies in our internal processes, particularly how our internal processes support the customer interface.

So we have plans to take out 10% to 15% of the cost structure over the next six months. And we're really asking the Fabory business to focus on what it does well. It's a fastener business that needs to win on fasteners. I would say **we were too aggressive to probably try to expand the product line**.

And this business is geared around fasteners, both in terms of the talent, what's been developed, and talked about the ability of this business to help North America fastener purchases. Great quality in engineering capability, also great distribution capability around fasteners. **Anything else has really been a struggle for this business**. So we're asking this business to focus there and to focus on sales force effectiveness.

We need to improve the sales force effectiveness and efficiency. We're levering some of the learnings that we've learned from North America in improving the sales force. And also, we're developing an e-commerce capability.

The reality today is we don't have any effective transactional e-commerce capability. An in fasteners, you're typically working with large customers. You're

doing a lot of work on site. You have to help them manage this category for things like workflow management. We don't have those capabilities today.

Early in 2015, we will have those capabilities. We've leveraged what Court was talking about, which is our hybris capability, our e-commerce capability here to build a very simple system for that business.

Now this business has been in decline and had been struggling for many years, for five to seven years. And when you're in that situation, you don't turn around overnight. **Our expectation is that these actions will lead to break-even performance again in 2015, but will start to get growth and profitability in 2016**. So we're taking the actions now over the next six months and we expect to be profitable again in 2016." – D.G. Macpherson, Grainger's COO, Grainger's Analyst Meeting, 12 November 2014

[15] "So as you have watched our international strategy evolve over the last six or seven years, **we had come to the point a couple of years ago of great clarity in knowing that the most attractive markets for us outside of North America are those markets that have high GDP per capita. Because in those markets time is money and the service that we provide helps people save time**." – Jim Ryan, Grainger's CEO, Acquisition of Cromwell Group Conference, 30 July 2015

[16] "So last night I got a number of questions about our international strategy where within the last few years **we have wanted a number of things and are much clearer about our strategy outside of North America**. And what we know is **for the multichannel model to work it has to be in a market with high GDP per capita** and we have to have scale, particularly purchasing scale but ideally IT and supply chain scale as well.

With our business in Japan and with our online business in the US, we now have learned that the best way for us to grow outside of North America is to focus on that single channel online model. So that has brought great clarity for us for our international strategy.

As it relates to Europe, yes, as that business scales up we are going to have to start holding, we hold a little inventory today, not much, but we will have to start holding more inventory. And we will have to have a supply chain that has shorter cycle delivery schedules -- delivery cycles.

So there is two ways to do that. We could build the supply chain organically or we could -- or we could do it through acquisitions. And we have the ability to do either." – Jim Ryan, Grainger's CEO, Electrical Products Group Conference, 20 May 2015

[17] "Let me spend a few minutes just talking about the Cromwell business. **It is about a $440 million broadline industrial distributor**. And just as a point of context, **there are very, very few broadline scale advantaged distributors outside of North America**. So this is a very rare opportunity.

It is a business that we really know and understand. **It is multi-channel, it has branches, it has sellers, it has a very small e-commerce business today**. It has got a diverse customer base and that customer base is very satisfied with the service that they are getting. **It has got strong solutions for large customers and medium customers and it also has a very strong vending solution that it utilizes very effectively**.

In terms of that supply chain it has -- **the business has a very strong product line, 88,000 SKUs in the catalog, 800,000 SKUs in the file. The thing that is important to note is it has a very strong private brand assortment across a number of categories that are very important**. And it has built that through many, many years of work in Asia and with its customers.

Its suppliers -- **its branded suppliers are very familiar; many of the same suppliers that we have in North America**. In terms of its financials, it has been a consistent share grower in the UK, 85% of its revenue is in the UK and it has been very steady at **roughly 35, 36 GP and 10% EBITDA.** So this is a business that has been a very consistent share gainer and very profitable." – D.G. Macpherson, Grainger's COO, Acquisition of Cromwell Group Conference, 30 July 2015

[18] "**As mentioned in the press release this morning, the purchase price for Cromwell is GBP310 million, approximately $482 million, a 10.8 times EBITDA multiple**. We expect the acquisition to be immediately accretive this year, probably $0.01 to $0.02, and next year $0.10 to $0.15 accretion.

As we look out five years **we believe the business can grow to double-digit sales growth from kind of low- to middle-single-digit sales growth today and that the EBITDA margin can improve from 10% today to 15%**. **Similarly the current 5% sales growth through the Internet we believe will grow to 20% to 25% online**. And we expect the closing to be in early September.

In terms of deal implications, **we believe we are paying an attractive valuation for a market-leading business that has a higher margin rate**. We've got significant cost and operational synergies that more than cover that modest premium, really leaving the online revenue as upside and additional value creation for our business.

We will not be changing our plan on share buybacks. **We will not be changing our long-term debt to EBITDA ratio of 1 to 1.5 times, which we announced when we announced our additional share repurchase. And we expect this acquisition to be 100% debt financed, roughly 50-50 between pounds and US dollars**." – Ron Jadin, Grainger's CFO, Acquisition of Cromwell Group Conference, 30 July 2015

[19] "In terms of why we would buy this Company, as we think about it, it is a market leader and it is in a mature market and a market that we find to be very attractive. Its breadth of product offering and its service with that offering and its cost position with that offering all are very attractive. And as Jim mentioned, **the real thesis here is that we can grow the online model profitably off of that base and we are very excited to do that.**

In terms of our implementation priorities, one thing I would note is we are not trying to fix the entire business, it doesn't need to be fixed, it is well-run today. But what we are going to do is focus on a few areas that add to its growth and its profitability.

The first one is building the e-commerce capability. **There is a great opportunity in the UK to sell and market through e-commerce to smaller businesses and midsize manufacturers**. We are going to take advantage of that with the team that we already have in the UK and we're going to get that up and running very quickly.

From a supply-chain perspective, the photograph you see on this slide is their main DC in Leicester; Leicester is right in the middle of the UK. I would describe it as having very good bones. **And for a modest investment, less than $10 million over the next couple years, we can really increase the throughput and capacity of this building to start serving that e-commerce business**.

And finally from a product side, we know -- **we have proven that we can achieve COG synergies and leverage the product cost of this business in our other business, Zoro Germany -- our other online business Zoro Germany.**" – D.G. Macpherson, Grainger's COO, Acquisition of Cromwell Group Conference, 30 July 2015

[20] "Unidentified Participant: Okay. You just closed a deal with Cromwell in the UK. Can you maybe just talk about the rationale for that deal?

D.G. Macpherson: So I would just make the observation that when **we started the business in Japan it took seven years -- six or seven years to get to profitability. When we started Zoro it took six or seven months. The difference was we actually had the supply chain, the demand patterns, the product cost position to be successful**.

So with Western Europe as a target for us, **Cromwell effectively gives us a great existing business but what they really give us is a supply chain. So they have a great product line. Their cost position on that product line is really good. They've got customer demand patterns so as we build the online model off of that it will really accelerate our path to profitability and it's just a nice fit**.

The business looks a lot like our US business did maybe a decade ago but it's a very strong business, great culture of customer service. Great leadership team. So it's a nice fit for where we want to go and it does give us that supply chain that we need to be profitable with the online model." – Morgan Stanley Conference, 17 September 2015

[21] "**The real value -- and Jim mentioned this too -- of Cromwell's supply chain in the UK is understanding demand patterns and having a very strong product cost position. And that allows us to sell some of that product ultimately through Zoro Germany**.

We will not be shipping directly from the UK initially to Germany, **it would just allow us to know what to stock in Germany or sell through Germany**. So it is not as if we would try to run Germany out of the UK, but the demand patterns and the product cost position give us a big head start in terms of knowing what to stock and what to offer in the market in Germany." – D.G. Macpherson, Grainger's COO, Acquisition of Cromwell Group Conference, 30 July 2015

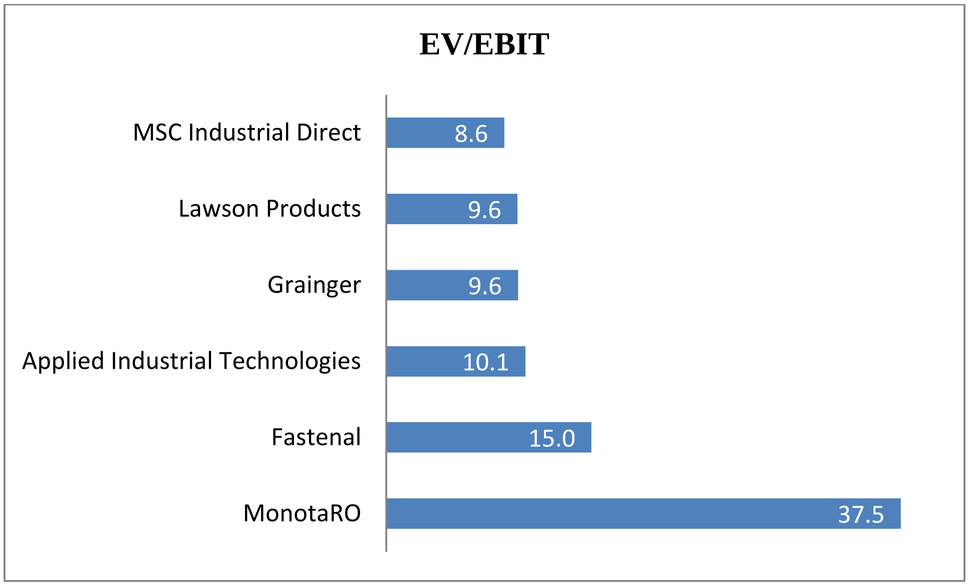
[22] "Ron Jadin, Grainger's CFO: From a financial perspective **we don't have a bias to build versus buy in Germany. We still have plenty of capacity to buy if we so choose, but I think -- I will turn it over to D.G. because I think he alluded to how scarce opportunities like this are**

D.G. Macpherson, Grainger's COO: Yes, I mean that's what I would say is **right now we want to leverage this [Cromwell] to help the business in Germany and our plan is really to build at this point**. There aren't targets that we see that provide this kind of leverage in Germany." – Acquisition of Cromwell Group Conference, 30 July 2015

[23] “**If you look back over the last five years, we have returned $2.1 billion to shareholders by buying back 22.7 million shares at an average price of $91 per share. And we will often buying at 52-week highs. Now it is important to note that we are not market timers. Our timing was more driven by cash flows and also potential acquisitions**. If you look back over the last five years, we have reduced our shares outstanding by 17%.” – Mike Pulick, President Grainger International, Raymond James Institutional Investors Conference, 05 March 2012

Value

Grainger Has Fastenal's Quality but is Trading at AIT's Valuation



Grainger is trading at a 36% discount to Fastenal

- **Biggest Negative**:
  - Grainger is rarely available at a cheap price
- Key inputs
  - Number of shares: 62.79 million
  - Share price: $200
  - Cash: $258 million
  - Debt: $2,046 million
    - Including $234 million pension liabilities
  - EV: $14,345 million
  - Normal EBIT: $1,494 million
  - EV/Normal EBIT: **9.60x**
  - Effective tax rate: 37-38%
- Grainger can make **$1,494 million** normal EBIT
  - The U.S. business made **$1,444 million** EBIT in 2014
  - The Canadian business made **$129 million** EBIT in 2013
    - Current margin is lower than 2013
    - But we expect the Canadian business to grow in the long run
      - And expand margin
    - => use peak EBIT

- Cromwell's EBIT is about **$35 million**
  - $440 million revenue
  - 10% EBITDA margin
  - Grainger expects EBITDA margin to expand to 15%
    - But this is speculative
  - Let's assume 8% EBIT margin
    - $440 * 8% = $35.2 million
- MonotaRO made $63 million last year
  - Grainger owns 53%
    - 53% * $63 million = **$33 million**
- Unallocated corporate expense: **$147 million**
- Normal EBIT is $1,494 million
  - 1,444 + 129 million + 35 + 33 - 147 = 1,494

- Peers include
  - Lawson Products
    - A small MRO competitors focus on VMI services
      - Sell mainly through its sales representative
    - After years of declining sales, Lawson started to grow in 2012
      - By starting growing its sales force
      - The number of sales representatives is
        - 2012: 757
        - 2013: 806
        - 2014: 916
    - It's hard to estimate Lawson's normal earnings
      - Lawson currently make marginal earnings
      - But it hired a lot of new sales representatives
        - Sales reps with tenure less than 2 years is less than $150,000
        - Sales reps with tenure over 10 years is more than $400,000
    - Speculative estimate
      - In 2012, Lawson's sales reps averaged
        - $361,000 revenue
        - $106,000 selling expenses
      - In 2014, Lawson's sales reps averaged
        - 312,000 revenue
        - $99,000 selling expenses

            - 2012 was the year Lawson saw its sales force stabilize
            - => let's use 2012's sales productivity to estimate earnings
                - In 2014, Lawson had 916 sales reps
                - => potential sales: $330 million
                    - = 916 * $361,000
                - Potential selling expense: $97 million
                    - = 916 * $106,000
                - Normal gross margin is about 60%
                - Lawson's G&A expense: $83 million
                - => Potential EBIT is **$18 million**
                    - = $330*0.6 - $97 - $83
        - Lawson Products' current valuation
            - Share price: $18.23
            - Market cap: $159 million
            - EV: $173 million
            - EV/S: 0.61
            - EV/Gross profit: 1.00x
            - EV/Speculative EBIT: **9.57**
        - Lawson is an inferior peer
            - A tiny competitor
                - $286 million sales
                - Can't match Grainger's purchasing power
            - Its sales force is much less productive
                - Averaged less than $400,000
                - Grainger's average:
                    - Account managers: $1.7 million
                    - Territory Sales Representatives: $1.1 million
                        - Covers medium customers
            - Lawson's G&A is 30% of total sales
                - Selling expenses is about 30% of total sales
            - Grainger's SG&A is only 30% of total sales
                - (including selling expenses)
    - Applied Industrial Technologies (AIT)
        - AIT focuses on categories such as
            - Bearings
            - Power transmission
            - Fluid power

        - AIT's catalog has about 30,000 products
        - AIT serves customers from 565 facilities
        - AIT's product categories seems to have
            - Low margin
            - High turnover
        - AIT has
            - Gross margin: 26-27%
            - EBIT margin: 7%
            - Cost of Goods Sold/Average Inventories: 6-7x
            - EBIT/NTA: 30%
        - AIT's growth record was mediocre
            - Grew only **3.7%** annually over the past 15 years
                - 2000: $1,601 million
                - 2015: $2,752 million
            - While spending $705 million in acquisitions
                - **52%** of total CFFO
                    - Total CFFO: 1,355 million
        - => AIT is an inferior peer
        - AIT's current valuation
            - Share price: $39.26
            - Market cap: $1,541 million
            - EV: $1,872 million
            - EV/S: 0.68
            - EV/EBIT: 10.14
    - MSC Industrial Direct
        - MSC is a similar peer with strong focus on metalworking
            - 50% of revenue
            - MSC is the leader in metalworking
                - Sales is 2x or 3x of the second player
        - MSC's earnings is currently lower than normal
            - It invested heavily infrastructure
                - New DCs
                - Sales force
            - MSC won't need a new DC until revenue passes $4 billion
        - MSC enjoyed great growth record
            - Revenue was

            - 1992: $125 million
            - 2000: $793 million
            - 2005: $1,100 million
            - 2010: $1,692 million
            - 2014: $2,910 million
        - Sales CAGR was
            - Since 1992: 15%
            - Since 2000: 9%
            - Since 2005: 10%
            - Since 2010: 5.6%
    - MSC grew by gaining share from smaller competitors
    - MSC has more exposure to manufacturing sector
        - % of revenue comes from manufacturing customers
            - MSC: 70%
            - Grainger: 29%
    - MSC's EBIT/NTA is about 40-60%
        - Sales/NTA: 3x
        - EBIT margin: 15-18%
    - MSC is as good as Grainger
    - MSC's current valuation
        - Share price: $65
        - Market cap: $3,999 million
        - EV: $4,377 million
        - EV/S: 1.50
        - EV/Current EBIT: 11.53
        - EV/Potential EBIT: 8.60
            - Potential EBIT = Sales * Peak EBIT Margin
        - Normal EBIT is somewhere between current EBIT and Potential EBIT
            - EV/Normal EBIT is between 8.6 and 11.53
- Fastenal
    - Fastenal has a store-based model
        - 2,737 stores
            - Stores are small
            - Average less than 4 employees per store
        - 54,291 vending machines
        - Focuses on reoccurring purchases

        - Keeps a lot of inventories at branches[1]
            - Stock 160-165 days of inventories
            - Inventories sit in a DC for 60 days
                - Sit in a store 100-110 days
            - => DC restocks stores on a periodic basis
        - Fastenal ships from store to customers
            - Selling Transportation cost is about **10%** of sales
                - (consist primarily of Fastenal's store fleet cost)
    - Fasteners represent 40% of Fastenal's sales
    - Manufacturing accounts for 50% of Fastenal's sales
    - Fastenal's EBIT/NTA is about 40-60%
        - Sales/NTA: 2-3x
        - EBIT margin: 20%
    - Fastenal had great growth record
        - Revenue was
            - 1990: $52 million
            - 1995: $223 million
            - 2000: $746 million
            - 2005: $1,523 million
            - 2010: $2,269 million
            - 2015: $3,869 million
        - Sales CAGR was
            - Since 1990: 19%
            - Since 1995: 15%
            - Since 2000: 12%
            - Since 2005: 10%
            - Since 2010: 11%
    - Fastenal's current valuation
        - Share price: $42.10
        - Market cap: $12,142 million
        - EV: $12,378 million
        - EV/S: 3.20
        - EV/EBIT: 14.96
- MonotaRO
    - MonotaRO is Grainger's single-model online business in Japan
        - Grainger owns 53%
    - MonotaRO's revenue grew 26% annually since 2009:

            - 2009: 14.2 billion Yen ($123 million)
            - 2010: 17.7 billion Yen ($154 million)
            - 2011: 22.2 billion Yen ($193 million)
            - 2012: 28.7 billion Yen ($249 million)
            - 2013: 34.6 billion Yen ($300 million)
            - 2014: 44.9 billion Yen ($390 million)
            - 2015: 57.6 billion Yen ($500 million)
        - Current EBIT: $60 million
        - MonotaRO's EBIT/NTA: 50-80%
        - MonotaRO's current valuation
            - Share price: ¥2,164 ($19.2)
            - Market cap: ¥269 billion ($2.4 billion)
            - EV: ¥266 billion ($2.4 billion)
            - EV/S: 4.62
            - EV/EBIT: 37.50
- We can divide peers into 3 group
    - Inferior peers: **Lawson** and **AIT**
        - These peers have
            - Weaker growth
            - Weaker margin
            - Weaker ROIC
        - These peers trade at around 10x normal EBIT
    - Comparable peers: **MSC** and **Fastenal**
        - These peers had better growth than Grainger because
            - They grew off a smaller base
            - Grainger's small business declined
                - Grainger's large business grew a lot
        - These peers may have similar growth as Grainger in the future
            - Small business now account for just **4%** of Grainger
            - Small + Small Medium business account for **11%** of Grainger
                - => won't be as big drag of growth as in the past
            - Grainger can have high growth in
                - Zoro U.S.
                - Zoro U.K. (Cromwell)
                - Zoro Japan (MonotaRO)

- Zoro Germany (unproven, speculative growth)
- MSC's EV/Normal EBIT is between 8.6 and 11.5x
  - MSC has been struggling in the last several years
  - => Investors aren't as excited about MSC as they were
- Fastenal is still the market's darling stock
  - Trading at 15x EV/EBIT
- Fastenal is trading at a huge premium over Grainger U.S.
  - Fastenal's EV/S: 4.62x
  - Grainger's EV/U.S. business sales: 1.9x
    - Gives no value to Grainger's non-U.S. sales
  - Fastenal's EBIT margin: 21%
  - Grainger U.S. EBIT margin: 17%
    - Excluding corporate expenses: 19%
- High-growth peer: **MonotaRO**
  - MonotaRO's valuation is off the roof

- Grainger is cheap based on sum-of-the-parts value
  - 53% of MonotaRO: $1,272 million
  - Zoro U.S.: $1,386 million
    - $300 million revenue
    - Apply MonotaRO's 4.62x EV/S
  - Grainger Canada: $880 million
    - 10x EV/2014 EBIT
    - This is a very low valuation
      - 2014 EBIT margin was just 8.1%
        - Lower than 2013's 11.6% EBIT margin
      - Grainger is making investments in the supply chains in Canada
      - This business will grow overtime
        - And experience margin expansion
  - Cromwell: $482 million
    - This is the price Grainger paid for Cromwell
    - 1.1x EV/S
    - 11x EV/EBITDA
  - Corporate expenses: **-$1,470 million**
    - Using 10x EV/EBIT
  - Current EV implies **11,795-million** value to Grainger U.S.
    - **1.57x** EV/S

            - (excluding Zoro's sales)
        - **8.2x** EV/2014 EBIT
- Grainger's fair multiple is somewhere between 11.5 and 15 EV/EBIT
    - Between MSC's 11.5 and Fastenal's 15 multiple
    - Grainger normally trades between 9.6x and 14.1x EV/EBIT
    - Buying Grainger at 12.5x EV/EBIT can give investors reasonable return
        - 12.5x EV/EBIT is equivalent to 20x EV/after-tax owner earnings
        - Grainger returns 2/3 of earnings
            - => investors get 3.33% yield
        - Grainger can grow 5-8% in the long run
        - => total return: 8.33% - 11.33%

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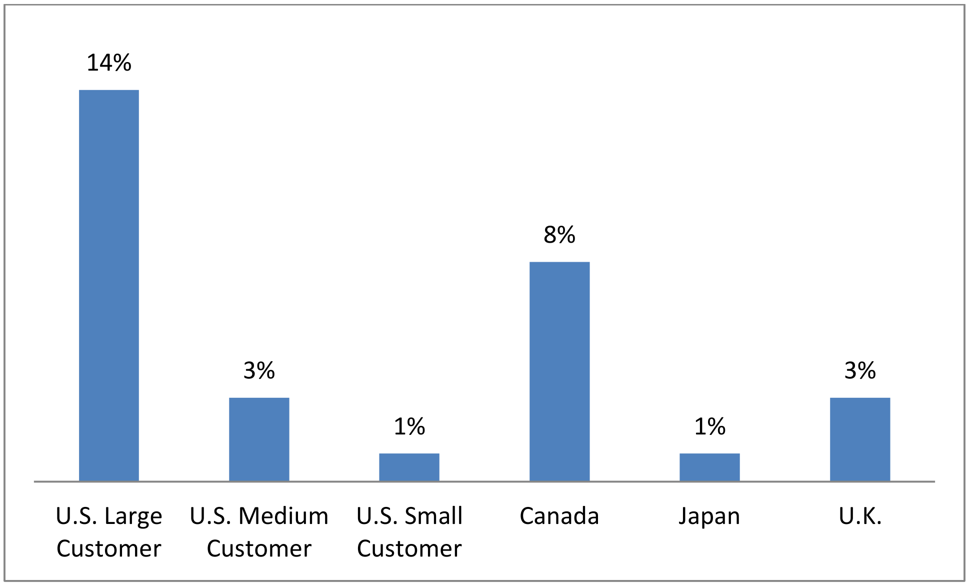
[1] "Right behind you and you've heard us talk over the last few years about THUB, this new distribution center we were building to support our vending initiative. One thing to think about when you're touring THUB and then when you are touring IHUB, is they are fundamentally two different facilities. **If you think of our business for many years, so our public numbers, we stock about 160, 165 days worth of inventory. And if I think about our supply chain, about 60 days of that timeframe is inventory sitting in a distribution center and about 100 to 110 days of that supply chain is inventory physically sitting in a store. So our distribution centers are fundamentally about restocking on a periodic basis, inventory going to the store and the inventory is sold from there**. What fundamentally changed with vending is the breadth of SKUs that you're talking about isn't this wide anymore. It becomes this wide, but the frequency is off the chart. So requires a fundamentally different type of distribution center to handle that and that's what you will see when you're looking through a THUB facility versus what you're looking in an industrial -- **a typical industrial distribution facility of Fastenal that is more about replenishing a store versus replenishing a machine, because in the machine you're talking about days and weeks of inventory not weeks and months.**" – Dan Florness, Fastenal's CFO, Fastenal Investor Presentation, 05 November 2015

Growth

Grainger Can Continue Gaining Market Share for Many Years



Grainger has less than 10% market share in most markets

- **Biggest Negative**:
  - The market condition is currently bad in the U.S. and Canada
- The market's normal growth is 2-3%[1]
  - 1-2% inflation
- Grainger can grow more than 5% in the U.S.
  - The large-customer business can grow 5% or more
    - This business makes up **76%** of U.S. sales
    - This business has been outgrowing the market
      - (Page 10 of Grainger's 2015 Analyst Meeting Presentation)
      - 2011:
        - Grainger: 13.2%
        - Market: 5.4%
      - 2012:
        - Grainger: 13.4%
        - Market: 4.3%
      - 2013:
        - Grainger: 9.3%
        - Market: 2.3%
      - 2014:

            - Grainger: 7.5%
            - Market: 3.5%
        - 2015:
            - Grainger: 3.3%
            - Market: 1.4%
    - This business grows by gaining share of wallet
        - Thanks to
            - Supplier consolidation
            - Sales coverage
        - Share of wallet with covered large customers is about **20-30%**
            - (slide 23, Annual Analyst Meeting presentation)
            - Share of wallet is low single digit for uncovered customers
        - There's still a lot of room to gain share
            - Sells more products to existing customers
            - Sells to more sites of existing customers
                - Example of one customer[2]
                - (Page 21, Grainger 2015 Analyst Presentation)
                    - Grainger gets 75-100% of share at 400 sites
                        - Little to no penetration at 800 sites
    - Grainger currently has 14% market share with large customers[3]
    - Grainger tends to gain the most market share during bad times[4]
        - Local competitors tend to form relationship with local branches
        - This relationship is challenged the most in bad times
            - Customers want to reduce cost
                - => get into contract
            - Local competitors pull back on inventory
                - And services
        - Grainger aggressively expanded during bad times
            - Example:
            - In 2008-2009
                - Expanded sales force in 2009
                - Kept adding 50,000 SKUs a year
            - In 2015
                - Planned to hire 400 account manager
                - Hired 300 account managers in the first 9 months
        - Growth will ramp up when the market get better
            - Large-customer business had 9.7% CAGR in 2008-2014

        - This may reoccur in the next 5 years
- The medium-customer business has been slightly weaker than the market
    - This business makes up 20% of U.S. sales
    - Revenue growth was
        - (Page 10 of Grainger's 2015 Analyst Meeting Presentation)
        - 2011:
            - Grainger: 3.0%
            - Market: 5.4%
        - 2012:
            - Grainger: 4.1%
            - Market: 4.3%
        - 2013:
            - Grainger: 0.4%
            - Market: 2.3%
        - 2014:
            - Grainger: -0.5%
            - Market: 3.5%
        - 2015:
            - Grainger: -0.6%
            - Market: 1.4%
    - Growth has been strong where there's sales coverage[5]
        - 2/3 of U.S. medium-business sales
        - These customers are attached to a contract
            - Behaves like large customers
    - Revenue decline in uncovered-medium-customer business
        - 1/3 of U.S. medium-business sales
        - There's increased competition in this segment
            - Local competitors lose business with large customers
            - => focus on this segment
        - Grainger is trying to have sales reps to recruit them
            - Give them discount like large medium customers
        - Zoro will also help retain some of the sales lost in this segment
- The small-customer business has stabilized
    - Small-customer business account for 4% of sales
    - This business has been declining for years
        - Revenue growth was
            - 2011:

            - Grainger: -11.5%
            - Market: 5.4%
        - 2012:
            - Grainger: -19.6%
            - Market: 4.3%
        - 2013:
            - Grainger: -13.6%
            - Market: 2.3%
        - 2014:
            - Grainger: -1.0%
            - Market: 3.5%
        - 2015:
            - Grainger: 0.4%
            - Market: 1.4%
    - But this business has grown in 2015
        - Thanks to Zoro US
            - Zoro has established a low cost position
                - About 30% gross margin
            - Zoro is growing very fast
                - Revenue was
                    - 2011: launched
                    - 2013: $80 million
                    - 2014: $180 million
                    - 2015: $300 million
    - Grainger's target for Zoro in 2020
        - Sales: $1 billion
        - EBIT: $100 million
    - This can be overoptimistic
        - But Zoro is likely to have double-digit growth
- Grainger has a lot of opportunities to grow in other market
    - Canada
        - 8% of total Grainger sales
            - $1.1 billion sales
        - $14 billion market
            - Grainger has 8% market share
        - 1/3 of the business is related to oil & gas sector[6]
        - The business declined by double digits in 2015

            - But grew mid to high single digit outside of Alberta
        - This business will be very bad in near term
            - But will do well in the long run
                - Will expand margin overtime
- Mexico
    - $11 billion market
    - Competes with mom & pop distributors
    - Sell similar items as the U.S. business
    - This business is integrated into the U.S. supply chains
    - This business is growing consistently at double digits
    - Doing $100-150 million
        - 4.5% EBIT margin
        - Can expand overtime
- Japan
    - $54 billion market
    - MonotaRO is growing very fast
        - MonotaRO's revenue grew 26% annually since 2009:
            - 2009: 14.2 billion Yen ($123 million)
            - 2010: 17.7 billion Yen ($154 million)
            - 2011: 22.2 billion Yen ($193 million)
            - 2012: 28.7 billion Yen ($249 million)
            - 2013: 34.6 billion Yen ($300 million)
            - 2014: 44.9 billion Yen ($390 million)
            - 2015: 57.6 billion Yen ($500 million)
        - Current EBIT: $60 million
    - The market has high expectation
        - $2.5 billion market cap
        - 64x P/E
- U.K.
    - $24 billion market
    - Cromwell has **3%** market share
        - Last 5-year sales CAGR was **8%**
    - Zoro U.K. can perform well like Zoro U.S.
        - Cromwell provides a strong platform
            - Cromwell's revenue: $440 million[7]
                - Very few broadline scale advantaged distributors outside of North America

            - Cromwell is a multi-channel business
                - Has branches
                - Has sellers
                - Strong vending solution
                - Has a very small e-commerce business today
            - Gross margin: **36%**
            - EBITDA margin: **10%**
            - Private label: **20%** of revenue
        - The MRO ecommerce market in the U.K. isn't well developed[8]
    - Germany is speculative
        - $40 billion market
        - Zoro Germany is built from scratch like Zoro Japan
            - But may benefit from Cromwell's strong product cost position
- Earnings can grow faster than sales
    - Grainger targets 0.3-0.6% EBIT margin each year[9]
        - Much easier to achieve if inflation is 1-2%
            - Gross margin can expand
- **Conclusion**
    - 5% sales growth is an easy target
    - 5-8% EBIT growth is highly achievable
        - And Grainger can return 2/3 of earnings
            - (net of impact of dilution)

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[1] "And as we look forward five years -- over the next five and say well, what should our growth be and **what do you have to believe to think that it can grow organically high single digits, so 6% to 10%?**

You need to believe that the share gains with our larger customers will ramp back up like we've been seeing the last five years -- that that will continue in the next five. **That the market will grow 2% to 3% as it's been growing for some time except this year**.

And that price -- well, we are kind of weighting it down probably heavily by our current experience, but -- because historically it has been 1% to 2%, we are saying zero to 1% growth each year over the next five years. And that is how we get to the 6% to 10%." – Ron Jadin, Grainger's CFO, Electrical Products Group Conference, 20 May 2015

[2] "So if you look at this chart, the x-axis actually has our share by site. **This is one customer, a very large customer that has a number of sites. 400 sites, roughly we are fully penetrated so we have 75% to 100% of the share at the site but if you look at the left side of the chart there are 800 sites where we really have little to no penetration**.

This is not unusual to see and this is really about making sure that we execute at the site level. We can also put up a chart that showed single site large customers and we'd really see basically the same thing where **we have a number of sites where we are strongly penetrated and a number where we aren't**.

So we're going to really focus on execution, execution at the site level. One of the changes we are making in our mindset is historically we've managed more to what we call V percent, so year-over-year growth rather than to the white space.

So we're really going to **focus each of our segment teams on where is the white space, where is the opportunity and how can we grow at each individual site**. So that's going to be a big focus as we move forward.

The good news is that we know the elements, the winning elements of serving these large customers and they are well known. And they are up here." – D.G. Macpherson, Grainger's COO, Grainger's Analyst Meeting, 12 November 2015

[3] "A basic trend here that we haven't touched on is **supplier consolidation**. And we're seeing that most extensively with **large customers where they can no longer afford to buy from a huge portfolio of suppliers**. So we're being asked to do more to offer more products so that they can reduce the number of suppliers they deal with to reduce their costs. I mean every customer we talk to, especially large ones, have some kind of a cost takeout target that they have to achieve, and there's only so much you can do on the product cost side, they have to look at process cost. **So if you've been looking for a catalyst for the consolidation in this industry, I think you're starting to see that amongst our large customers.** And we published some information about the amount of share that we've gained with large customers over the past five years. **For our largest customers, we've gone from kind of a 12% share six years ago to [about] 18% share**. So you're seeing that shift happen at the very highest levels" – Bill Chapman, Grainger's Senior Director of Investor Relations, Barclay Industrials Select Conference, 19 February 2015

[4] "**Over the last four years, three to four years, we have gained more market share than we have probably in any three- to four-year period in the last several decades**. And there are a couple of reasons for that.

We were very aggressive during the downturn. We saw that as an opportunity to take advantage of the foundation that we built.

So a couple of things that we did. We had to get cost out, like everybody else. We took about 2% out of the labor force, but anybody that was in front of a customer, we -- **if you were in front of a customer we not only maintained that part of our work force, but we expanded it. We have been very aggressive at hiring salespeople in a very soft economy** and we have gotten some great salespeople over the last several years.

We also used our balance sheet. So, **oftentimes what happens to distributors when we go through an economic downturn, great way to get cash back in your business is to pull back on inventory. We didn't do that**. We kept our order service level at what were and still are an all-time high.

So we got a lot of trial from customers that weren't doing business with us because their primary supplier didn't have what they needed when they needed it. And we have been much more aggressive with expanding our sales force. We have done some other -- number of other things as well, but those are two examples.

Now, coming out of this downturn, we are continuing to aggressively expand our salesforce. **We are aggressively expanding our product offering, we are adding 50 -- in the US alone, we are adding 50,000 items a year in stock to our product offering**. That rate of expansion is unprecedented for us, it's unprecedented in the industry, and we are able to do it and keep our service levels high because of the investments in the foundation that we made." – Jim Ryan, Grainger's CEO, Electrical Products Group Conference, 18 May 2011

[5] "**With medium sized customers, and that's that $50 billion market, we do about $1.5 billion of business with medium sized customers**. And we've kind of segmented this as well. The top section we talk about those customers, **this first $1 billion of the $1.5 billion. So two-thirds of the business really is attached to a contract where they can get more competitive pricing** than what they would normally get through the amount of business they buy from us. **They wouldn't typically earn it with the buying they do, but they're part of a parent company who signed a contract or they're part of a procurement organization who signed a contract**.

They may not even be aware that they have the benefit of that pricing with Grainger. So our challenge is to have the appropriate coverage and messaging to those customers to make sure they know that they can buy a lot from Grainger and get a better price. So that's one of the things we're working on and **we've added territory sales reps for TSRs and we've seen great success there with the largest of the medium**.

So you look at kind of the medium, that $1.5 billion. **The largest of them tend to behave like large customers and a sales rep who goes to their location**, they have some of the complexities of large. That has been valuable **but we haven't seen that benefit with the rest of the medium sized customers yet. And so we're exploring other areas.**

So there's other medium sized customers, **the other $500 million that are kind of single site, not attached to a contract. Our coverage is typically not as good. The territory sales reps don't see it as easy a place to go to cell because there's not a contract**, right. It's just, it's more difficult. And so our coverage isn't as good and our pricing isn't as relevant. **And that $500 million is a huge opportunity for us. It's where we have seen share loss** and we piloted some things in the last six months to a year that we've seen some great success around, and we're going to start to leverage those as we go forward now around things like inside sales.

So a person who is on the phone making the outbound call to the customer, also leveraging an outside seller who makes the initial contract and then transitions it to the inside seller. Those are different models that we're implementing, as well as trying different ways of attacking that opportunity with ecommerce. **So Grainger.com is valuable to large customers. Zoro is valuable to the small and within the medium** it's how do we leverage both of those as we work toward the middle, and is there a third option, some hybrid option of ecommerce that we might create that is even more valuable.

And then there's over a million customers that are not current customers that we think the things we're trying to do with the middle group will be really relevant to the unattached." – Ron Jadin, Grainger's CFO, Credit Suisse Industrials Conference, 02 December 2015

[6] "Yes, and those are operating margins targets. And I think, you know, **we've hit the 11% to 12% once before, and then we sort of maxed out the infrastructure capability that we had**. I think there is upside, although the question we get frequently is could you match the US margins? And I think just the vastness of the Canadian geography and the fact that the resource component of Canadian GDP is about 2x what it is in the US. **That makes for a much more rural customer base. The cost to**

serve will just be higher in Canada. So I don't think you get to US operating margin levels, but I also don't think 12% is the ceiling there, either.

One other thing we didn't touch on -- Canadian performance, and I've had a number of questions in the one-on-ones that I think are really important. We're actually pleased about a couple of things in Canada, despite the earnings number that we saw in Q1. **What's really important to note is the oil and gas business in Canada is about a third of our business. It's down in the mid-teens, but in every market outside of Alberta, we're growing kind of mid singles to high single digits**. And if you stripped out Alberta, we have really strong mid single-digit growth in Canada, which is far better than what we're seeing in the marketplace.

And we've also been able to absorb about a 20% FX impact, which hits about 40% of our cost of goods and keep gross profits flat while absorbing that on an organic basis. And so despite some of the earnings issues that come from these investments and the slowdown in oil and gas, on the controllable side up there is actually a lot of really good news that's coming from that market." – Court Carruthers, Grainger's Group President Americas, Robert W. Baird Growth Stock Conference, 06 May 2015

[7] "Let me spend a few minutes just talking about the Cromwell business. **It is about a $440 million broadline industrial distributor**. And just as a point of context, **there are very, very few broadline scale advantaged distributors outside of North America**. So this is a very rare opportunity.

It is a business that we really know and understand. **It is multi-channel, it has branches, it has sellers, it has a very small e-commerce business today**. It has got a diverse customer base and that customer base is very satisfied with the service that they are getting. **It has got strong solutions for large customers and medium customers and it also has a very strong vending solution that it utilizes very effectively**.

In terms of that supply chain it has -- **the business has a very strong product line, 88,000 SKUs in the catalog, 800,000 SKUs in the file. The thing that is important to note is it has a very strong private brand assortment across a number of categories that are very important**. And it has built that through many, many years of work in Asia and with its customers.

Its suppliers -- **its branded suppliers are very familiar; many of the same suppliers that we have in North America**. In terms of its financials, it has been a consistent share grower in the UK, 85% of its revenue is in the UK and it has been very steady at **roughly 35, 36 GP and 10% EBITDA.** So this is a business that has been a very consistent share gainer and very profitable." – D.G. Macpherson, Grainger's COO, Acquisition of Cromwell Group Conference, 30 July 2015

[8] "Chris Glynn, Analyst – Oppenheimer: Thanks, that is very clarifying. And then it was characterized as the largest independent MRO distributor. I am wondering what is the context here of independent. What is the makeup of the market there? And what are the e-commerce capabilities of the non-independents?

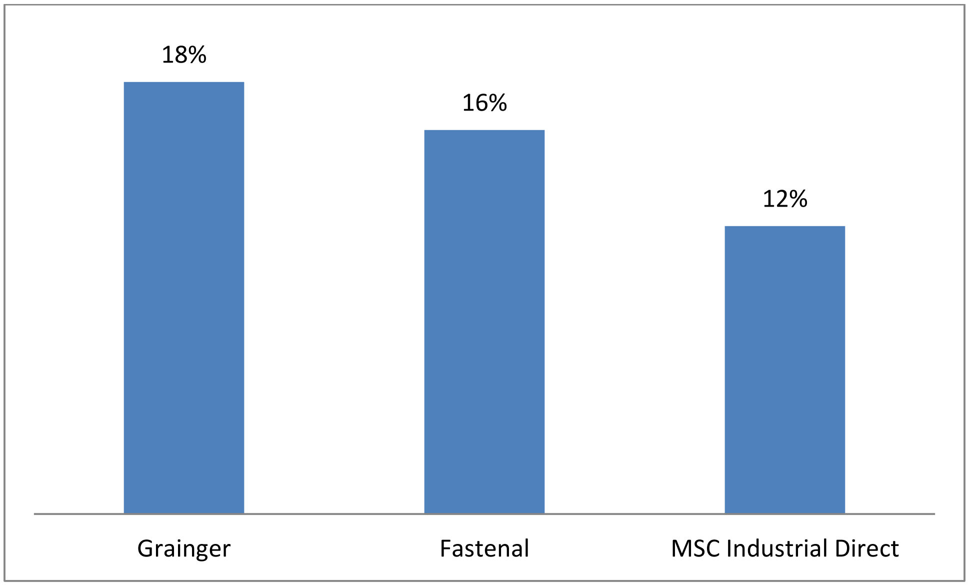
D.G. Macpherson, Grainger's COO: So, yes, that was a term we talked about actually last night. **So, it is the largest independent, meaning it is not part of a bigger organization**. **There are -- all the big contractor specialists are in the UK. So the ones you typically see, Rexel, Sonepar, Wolseley obviously are big and they serve a different market**.

There are other big specialists in the UK as well. **The e-commerce market here is not as well developed. There is one player in particular that -- as far as electrical (inaudible) components, that's pretty strong on the Internet. But there aren't many strong players on the Internet in the market today.**" – Acquisition of Cromwell Group Conference, 30 July 2015

[9] "**We think we still have a good shot at 30 to 60 basis point top margin expansion each year. And that's what's predicated on our long-term guidance. It's really driven by the assumptions we each make around price. So if price is going to zero to one, that's really difficult. If price is kind of in the 1% range or better, one to two, much easier, because then GP can be a contributor**. If GP expands -- if there's not GP expansion, it gets to be very difficult. Because there are still a fair amount of investments we want to make longer term. But certainly, this next year is a fairly big peek in growth and infrastructure spending." – Unidentified Company Representative, Grainger's Analyst Meeting, 12 November 2014

Misjudgment

Grainger is the Least Wanted Stock among the Top 3 MRO Distributors



Grainger has higher short interest than Fastenal and MSC

- **Biggest Negative**:
  - MRO suppliers have high short interest
    - Grainger: 18%
    - Fastenal: 16%
    - MSC: 12%
- Investors are pessimistic about Grainger mainly because of
  - Amazon
  - Weakness in manufacturing
- The Amazon concern is overblown
  - Some are concerned after comparing catalog price with Amazon price[1]
    - Investors don't think 15% is a sustainable EBIT margin for distributors
    - In this case, they neglect to look at asset turnover
      - MRO distributors have low asset turnover
        - Low inventories turnover
          - COGS/Average Inventories:
            - Grainger: 4.2x
            - MSC: 3.5x
            - Fastenal: 2.3x
        - Pay suppliers more quickly than collecting from customers

            - Sales/Average Receivables
                - Grainger: 9.6x
                - MSC: 8.5x
                - Fastenal: 85.x
            - COGS/Average Accounts Payable
                - Grainger: 11x
                - MSC: 13x
                - Fastenal: 19x
        - Low asset turnovers
            - Sales/Average NTA
                - Grainger: 3.3x
                - MSC: 3.0x
                - Fastenal: 2.4x
    - => MRO distributors have high gross margin
        - Grainger: 43%
        - MSC: 45-47%
        - Fastenal: 50-52%
    - The diametrical opposite is Tech Data
        - Tech Data has high inventories turnover:
            - COGS/Average Inventories: 10.9x
        - Collects from customers faster than paying suppliers
            - Sales/Average Receivables: 9.32x
            - COGS/Average Accounts Payable: 7.4x
        - High asset turnover
            - Sales/Average NTA: 20x
    - => Tech Data has low margin
        - Gross margin: 5.04%
        - EBIT margin: 1.26%
- If Amazon manages to grow and gain buying power
    - It may kill Zoro
- But its damage to the large-customer business will be limited
    - Zoro has 30% gross margin
    - Amazon has about 23-24% gross margin
    - Amazon must get a higher-than-average gross margin on MRO sales
        - Asset turnover is low in this category
        - Amazon won't enjoy negative working capital like it often does
    - If Amazon has Grainger's purchasing power and underprices Zoro

                - It may create deflationary pressure
                - Causes a 2-3% decline in large-business gross margin
                    - Leads to 10-15% decline in large-business EBIT
                - This is a one-time impact
                    - The large-business growth potential remains intact
- Weakness in manufacturing is just a cyclical issue
    - It doesn't explain why Grainger is cheap
    - It doesn't explain why Grainger is cheaper than MSC and Fastenal
    - Grainger smaller exposure to manufacturing
        - Grainger's customer category
            - Heavy manufacturing: 18%
            - Commercial: 14%
            - Government: 13%
            - Other: 12%
            - Contractors: 11%
            - Light Manufacturing: 11%
            - Retail/Wholesale: 6%
            - Transportation: 6%
            - Natural Resources: 5%
            - Reseller: 4%
        - => manufacturing accounts for 29% of total revenue
            - Fastenal: 50%
            - MSC: 70%
    - With manufacturing customers, Grainger's strength is in facility maintenance[2]
        - Competitors are stronger on the manufacturing floor
            - Cutting tools
            - Abrasives
            - Fasteners
            - Etc.
        - => Grainger depends less on manufacturing activity
    - Grainger tends to gain more market share during bad times
        - Small competitors pull back on
            - Service
            - Inventories
        - Grainger expands its sales force
    - => revenue ramp up when the macro environment gets better

                - Large-customer business's sales CAGR was 9.8% in the 2009-2014 period
- Fastenal trades at a big premium over Grainger
    - This might be justified by the past growth gap
        - 20-year sales CAGR
            - Grainger: 6.2%
            - Fastenal: 15.3%
        - 15-year sales CAGR
            - Grainger: 5.2%
            - Fastenal: 11.6%
        - 10-year sales CAGR
            - Grainger: 7.0%
            - Fastenal: 9.8%
        - 5-year sales CAGR
            - Grainger: 6.8%
            - Fastenal: 11.3%
    - Future growth gap will be narrowed
        - Small business now account for just **4%** of Grainger
        - Small + Small Medium business account for **11%** of Grainger
            - => won't be as big drag of growth as in the past
        - Grainger's large-business has been growing fast
            - 2009-2014 CAGR: 9.8%
        - Grainger has great growth potential in
            - MonotaRO
            - Zoro U.S.
            - Zoro U.K.
- It's hard to say which company is better
    - They have slightly different models
        - Grainger has an online model
            - Supplemented by
                - About 350 branches provides
                    - (Average about 22,000 square feet each)
                    - Immediate product availability
                        - Serve emergency need
                    - Technical assistance
                - On-site inventory management services (KeepStock)
                    - VMI

                - Vending machine
            - 85% of Grainger's outbound shipments are made via small parcel
                - Use companies like
                    - UPS
                    - FedEx
                    - DHL
                - Grainger's average order is $250
            - Grainger focuses on unplanned purchases
                - 70% of customer purchases are unplanned
            - Grainger keeps most inventories at DCs
                - Branches carry only high volume SKUs
        - Fastenal has a store-based model
            - 2,737 stores
                - Stores are small
                - Average less than 4 employees per store
            - 54,291 vending machines
            - Focuses on reoccurring purchases
            - Keeps a lot of inventories at branches[3]
                - Stock 160-165 days of inventories
                - Inventories sit in a DC for 60 days
                    - Sit in a store 100-110 days
                - => DC restocks stores on a periodic basis
            - Fastenal ships from store to customers
                - Selling Transportation cost is about **10%** of sales
                    - (consist primarily of Fastenal's store fleet cost)
    - Fastenal claims to have cost advantage[4]
        - It ships from stores
        - Competitors ship from central warehouses
            - => high operating expenses
    - Fastenal's claim contradicts what MSC and Grainger say
        - Grainger says it gain efficiencies as it ship directly from DCs
        - MSC keep little inventories at branches
    - All 3 companies have about **30%** SG&A/Sales
    - It's hard to compare product price
        - Customers get discount off the catalog prices
        - Too many products
        - => can't say that Fastenal offers lower prices

- All 3 companies have very high ROIC
    - 40-60% ROIC
- => Fastenal doesn’t deserve a big premium over Grainger

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[1] Someone said at Corner of Berkshire and Fairfax: “I went through MSC's catalog and compared to amazon supply. Just spot checked it. I was surprised the degree of overlap, particularly for the non-metal working stuff, like safety, etc. amazon was much cheaper.

I don't worry about MSC losing the business, there service is quite good. I worry about them having to match amazon's price. After all, this is a distribution business with 15% margins! They have lots of room to give on price.

I would love others to tell me why I am wrong, because I really like this business...”

[2] “**So we talk about manufacturing being about a third of our business, between heavy and light. But it is really the facilities maintenance piece of it where we have been strongest.**

Some of our competitors have been stronger on the manufacturing floor, and cutting tools and abrasives or fasteners or different areas. And we cross over, certainly; we compete with each other.

But we are investing to become more significant in some of those places as well. So we have segmented part of our salesforce to call on manufacturing only, whereas they used to call on multiple different segments, to help them sharpen their skills and train up on being really good in that space.

The E&R acquisition we made in August really helped us acquire a lot of talented salespeople with many years of experience selling on the manufacturing floor. So oftentimes it is different products but at the same customer, or different levels of expertise. Or it could be the same product but in a different instance.” – Ron Jadin, Grainger’s CFO, Barclays Capital Industrial Select Conference, 20 February 2014

[3] “Right behind you and you've heard us talk over the last few years about THUB, this new distribution center we were building to support our vending initiative. One thing to think about when you're touring THUB and then when you are touring IHUB, is they are fundamentally two different facilities. **If you think of our business for many years, so our public numbers, we stock about 160, 165 days worth of inventory. And if I think about our supply chain, about 60 days of that timeframe is inventory sitting in a distribution center and about 100 to 110 days of that supply chain is inventory physically sitting in a store. So our distribution centers are**

fundamentally about restocking on a periodic basis, inventory going to the store and the inventory is sold from there. What fundamentally changed with vending is the breadth of SKUs that you're talking about isn't this wide anymore. It becomes this wide, but the frequency is off the chart. So requires a fundamentally different type of distribution center to handle that and that's what you will see when you're looking through a THUB facility versus what you're looking in an industrial -- **a typical industrial distribution facility of Fastenal that is more about replenishing a store versus replenishing a machine, because in the machine you're talking about days and weeks of inventory not weeks and months.**" – Dan Florness, Fastenal's CFO, Fastenal Investor Presentation, 05 November 2015

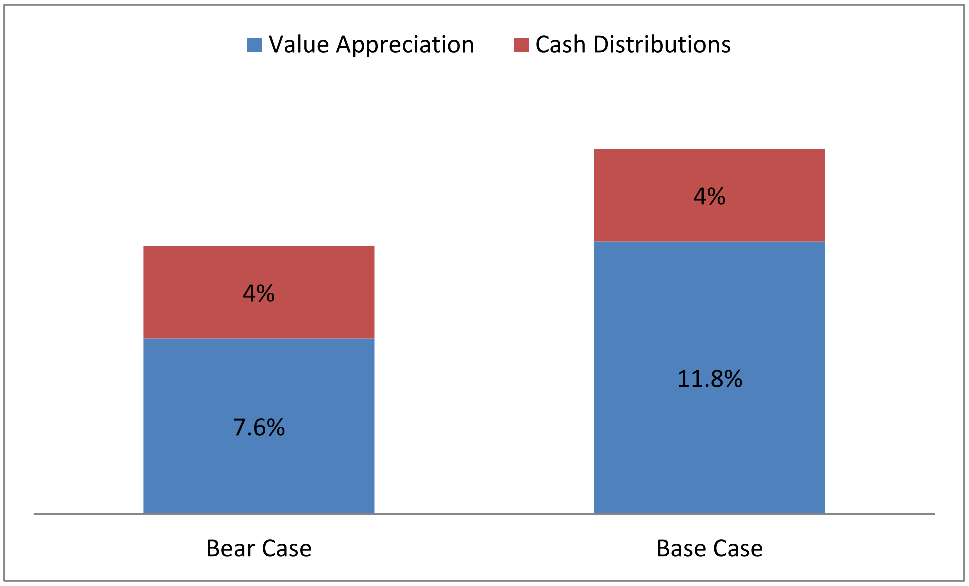
[4] "The other type of competitor, we've large competitors, most of you know them, many of them are public. And there are a lot of good companies out there. We respect all of them. **Most of them have large -- broad product selections, competitive pricing, they ship the product well, good distribution, similar to what we would do; they have good e-commerce platforms**.

The thing that we believe, I believe and I believe our team thinks, is that **we have an advantage over the large competitors. One is that we are much closer to the customer**. We are working very hard to get close to the customer and you're going to hear about that today. **We believe we have better distribution and I am going to talk a little bit more about that in a minute. We have a lower cost distribution model**. And understand, **the product we sell is generally inexpensive**, it's processed steel, It's not like we're shipping electronics, it's inexpensive products, **so distribution and the cost to do it is very important**.

And the third one I would say about most of our large competitors is relative to their business model, they have high operating expenses. **The fact that we have lower operating expenses than companies that are basically just shipping from central warehouses gives us a structural advantage, because we're in the market, but we're not spending any more to be in the market.**" – Will Oberton, Fastenal's CEO, Fastenal Investor Presentation, 05 November 2015

Future

International Businesses May Become Significant in 5 Years



Grainger can give investors 15.8% annual return over the next 5 years

- **Biggest Negative**:
  - Current slowdown may last longer than we expect
- Capital allocation is predictable
  - Grainger may make some small acquisitions
    - To add new capabilities
    - Similar to the acquisitions of
      - E&R
      - Techni-tool
      - Safety Supply
  - Grainger's primary focus will be on the core business
    - Grainger U.S.
    - Grainger Canada
    - Zoro
      - U.S.
      - U.K.
      - Germany
  - Grainger's will return about 2/3 of earnings to shareholders
    - (net of impact of share-based compensation)
    - Grainger won't time share repurchase

        - Dividends will increase overtime
            - Current dividend yield: 2.3%
- Grainger in 2021
    - Grainger U.S.
        - Grainger U.S. will have a difficult year in 2016
            - And possibly 2017
        - But growth will ramp up when the macro environment gets better
            - As proved in growth between 2008 and 2014
                - Large-customers sales CAGR was 9.7%
        - It's conservative to expect 5% EBIT CAGR for the next 5 years
        - 2014 EBIT: $1,297 million
            - Segment EBIT: $1,444 million
            - Total company corporate expense: $147 million
        - Expected 2021 EBIT: $1,655 million
            - = $1,297 million * 1.05^5
        - Applying 12.5x EV/EBIT => **$20,686 million** value
    - Zoro U.S.
        - Grainger has aggressive expectation for Zoro U.S. in 2020
            - $1 billion sales
            - $100 million EBIT
        - We have a more modest assumption
            - Revenue will double in 5 years
                - $600 million
            - EBIT margin expand to 10%
                - $60 million
        - Potential valuation
            - 4.62x sales like MonotaRO today
                - $2,772 million
            - 15x EBIT like Fastenal today
                - $900 million
        - Let's assign **$900 million** value to Zoro U.S.
    - MonotaRO
        - MonotaRO can continue to have high growth
            - The MRO market in Japan is $54 billion
            - MonotaRO Japan's current revenue is just $500 million
        - The business may double its revenue in 5 years
            - Implying 15% CAGR

        - Last 6-year CAGR was 27%
    - If EBIT margin stay unchanged, MonotaRO will make $120 million EBIT
    - If MonotaRO's valuation is similar to Fastenal today
      - Its value will be $1.8 billion
        - 25% decline from today's market cap
      - Grainger's 53% ownership of MonotaRO will be **$954** million
  - Grainger Canada
    - It's really hard to predict the future of Grainger Canada
    - Oil- and gas-related business is about 30% of the business today
      - Will decline for a while
    - Oil- and gas-unrelated business may continue to grow
    - Let's assume it'll make $129 million EBIT
      - Like it did in 2013
    - In 2021, Grainger Canada might be a growing business again
      - Is seen like Grainger U.S. in normal times
    - => it deserves 20x EV/after-tax owner earnings
      - Equivalent to 14.5x EBIT
        - 26.5% tax rate in Canada
    - This business is worth **$1,871** million
  - Cromwell
    - Cromwell currently make
      - $440 million revenue
      - $44 million EBITDA
    - Last 5-year sales CAGR: **8%**
    - Grainger's expectation for Cromwell for the next 5 years[1]
      - Double digit growth
        - Online revenue will become 20-25% of total revenue
      - **15%** EBITDA margin
    - Grainger's plan to grow the online business is very likely to work
      - It enjoyed success in Japan and the U.S.
      - Cromwell provides a great platform
    - If Grainger's online plan work, in 2021, Cromwell may have
      - $600 million revenue
        - $500 million off-line revenue
          - Implying 3.6% 5-year sales CAGR
        - $100 million online
    - Potential value of Cromwell

        - Base case: **$660 million**
            - Apply 1.1x EV/S
            - (price Grainger paid for Cromwell)
        - Aggressive: $800 million
            - 10% EBIT margin
            - 16x EV/EBIT
                - Equivalent to 20x after-tax normal earnings
                - 20% tax rate in the U.K.
    - Let's assign **$660** million value to Cromwell
  - We assume no success in
    - China
    - Germany
    - Mexico
        - Grainger has a successful business in Mexico
        - But it's a small business
            - $100-150 million revenue
            - 4.5% EBIT margin
- => Grainger might be worth $25,071 million
  - Implies 11.8% 5-year CAGR from today's EV
    - Grainger also returns 2/3 of earnings
        - => 4% yield based on today's EV/Current EBIT
    - => total return of 15.8% over the next 5 years
- If we're wrong about Canada, Japan, Zoro U.S., and Zoro U.K.
  - Grainger U.S. is still worth about $20,686 million
    - Implies 7.6% 5-year CAGR from today's EV
        - Grainger also returns 2/3 of earnings
            - => 4% yield based on today's EV/Current EBIT
        - => total return of 11.6% over the next 5 years

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[1] "**As mentioned in the press release this morning, the purchase price for Cromwell is GBP310 million, approximately $482 million, a 10.8 times EBITDA multiple**. We expect the acquisition to be immediately accretive this year, probably $0.01 to $0.02, and next year $0.10 to $0.15 accretion.

As we look out five years **we believe the business can grow to double-digit sales growth from kind of low- to middle-single-digit sales growth today and that the EBITDA margin can improve from 10% today to 15%**. **Similarly the current 5%**

sales growth through the Internet we believe will grow to 20% to 25% online. And we expect the closing to be in early September.

In terms of deal implications, **we believe we are paying an attractive valuation for a market-leading business that has a higher margin rate**. We've got significant cost and operational synergies that more than cover that modest premium, really leaving the online revenue as upside and additional value creation for our business." – Ron Jadin, Grainger's CFO, Acquisition of Cromwell Group Conference, 30 July 2015