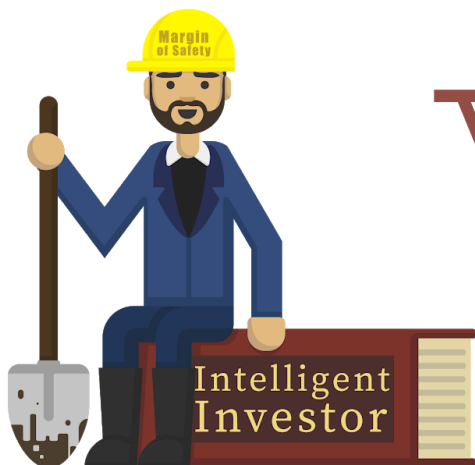




Value Ventures: February 2020
Long-term thinking in a world of short-term orientation.

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Value Ventures

Six Types of Business Models (Part 2) & Two Polish Ideas

by Brandon Beylo on 10 February 2019

Table of Contents

Six Types of Business Models (Part 2) & Two Polish Ideas	1
Table of Contents	1
Six Types of Business Models: A Beginner's Guide Part 2	3
The Subscription Model	4
Pros and Cons of Subscription-Based Business Models	4
Pros	4
Cons	5

What Should We Look For?	6
How To Value Subscription-Based Businesses	7
Research Papers on Subscription-Based Models	8
The Sharing Economy Model	10
Pros	11
Cons	11
Real-World Applications of Shared Economy	12
Uber	12
eBay (EBAY)	12
Nextdoor	13
Airbnb	13
Research Papers on Sharing Economy Model	14
Debating the Sharing Economy, Juliet Schor	14
The Sharing Economy: Why People Participate in Collaborative Consumption, Juho Hamari, Mimmi Sjöklint and Antti Ukkonen	14
Performance in the Sharing Economy, Lizzie Richardson	15
The Customer Data Monetization Model	16
Real-Life Application of Customer Data Monetization Model	17
How Facebook Turns Data into Cash	17
Why Telephone Carriers Love Your Data	17
Research Papers on Customer Data Monetization	18
How to Monetize Your Data, Barbara H. Wixom Jeanne W. Ross	18
Stocks That Fit This Model	19
Conclusion	21
Cliff-Notes: Odlewnie Polskie (ODL) & Maxcom (MXC)	22
Deep Dive: Odlewnie Polskie (ODL)	22
Monopoly on ADI Manufacturing	23
The Power of ADI Cast Iron	24
More ADI Applications & ODL End-Uses	24
ODL In The News	25
Revenue Breakdown	25
Management	26
Valuation	26
Risks	27
1. Slowdown in End-Customer Industries	27
2. Complicated Share Structure	27
3. Better Technology/Product Beats out ADI	27
4. Regional Concentration	27
Deep Dive: Maxcom (MXC)	28
A Failed IPO Trading at Massive Discount	28
Rapidly Aging Population	28
How Maxcom Makes Money	29



Four Types of Cell Phones	29
Addressing The Share Price Collapse	29
Current Financials & Balance Sheet	30
Valuation	31
Scenario 1: No Revenue Growth from SG&A Investment	31
Scenario 2: Low Growth and Gradual Margin Expansion	31
Scenario 3: Higher Sales Growth & Greater Margin Expansion	31
A Family of Founders	32
1. Larger Smartphone Companies Penetrate Senior Market	32
2. Slower Sales Growth Post SG&A Spending	33
3. Insider Selling	33
Value Ventures Portfolio Review	33

THIS MONTH'S
PHILOSOPHY CORNER



Six Types of Business Models: A Beginner's Guide Part 2

Last month we discussed three business models:



- I. Add-on
- II. Bait and Hook (razor-and-blade)
- III. Freemium

This month we're wrapping up our business model series with the final three models:

- IV. Subscription
- V. Sharing Economy
- VI. Customer Data Monetization

The number of companies using these models is growing. It's paramount that we learn how companies structure these models and how to value such enterprises.

We don't want to miss out on a great opportunity because we weren't fully equipped with the proper knowledge. This philosophy section takes care of that.

Let's dive in!

The Subscription Model

The subscription-based business model is simple. A company receives periodic payments (monthly, quarterly, yearly, etc.) for delivering software, etc.

We see subscription models in the software space, hence the phrase "Software-as-a-Service". So much so, it feels like every software company now operates on a subscription model.

We see significant overlap between the freemium model and the subscription model. Freemium companies use subscription-style models after converting free customers into paying customers.

There's a lot to like about the subscription-style business. But it doesn't come without its share of downsides. Let's dive into each.

Pros and Cons of Subscription-Based Business Models

Pros

- 1) A predictable and consistent stream of revenue: You know exactly how much you're making every billing interval. This could be monthly, weekly, annually or quarterly.



- 2) Rapid Scalability & High Margins: The beauty of a subscription model lies in its incremental cost structure. It doesn't cost Microsoft *that much* to provide its software to the next buyer. They've built the software. All they have to do is license it. This low incremental cost model creates two things. First, it creates rapid scale effects. It costs the same to create a service that meets the needs of 10 as it does 10,000. Second, it raises incremental margins. It costs almost nothing to provide the service to the 10th customer as you did your first.

- 3) High percentage of recurring revenues: Not only is the revenue predictable, but almost 100% of that revenue is recurring in nature. A plumbing company could boast consistent, top-line growth, but they don't know where or when they'll get paid. Recurring revenues also make it easier to forecast customer acquisition cost/lifetime value.

- 4) Strong customer relationships: Companies can leverage subscription models to fit the specific needs of their customers. For example, many popular SaaS businesses (Slack, DropBox, etc.) offer "Enterprise" level subscriptions. Such subscriptions offer "white-glove" treatment and discounted prices. Those offerings create strong relationships (i.e., sticky customers).

Cons

- 1) High percentage of accounts receivables: Another way to phrase this is "high deferred revenues". This isn't *necessarily* a bad thing. But it's not optimal. I'm going to put on my accounting hat real quick. High accounts receivables indicate that you've charged a customer for a service (or product) and have recognized that revenue upfront.

But, you haven't fully delivered that product or service to the customer. Let's take a SaaS business for example. A company that locks in a year-long subscription service recognizes one year of deferred revenues up-front. Then, as the company delivers the service, they move deferred into recognized revenue.

- 2) Higher chance for increased customer churn: Increased churn is bad. In essence, it measures how many users *leave* your platform/service over a defined period of time (months, quarters, etc.). The shorter your time-frame for subscription the higher the chances of churn. For example, customers that pay monthly have an *easier* time churning than year-long committed customers.



What Should We Look For?

We've already seen real-life examples in our freemium model section. For the sake of redundancy, we won't repeat them here. What I do want to spend time on is what we need to look for within these subscription businesses.

There's four things we need to watch when valuing subscription-based businesses:

1. Bookings (or sales)
2. Monthly Recurring Revenue
3. Churn Rate
4. Recognized & Deferred Revenues

GAAP Accounting does a poor job of tracking the health of a subscription business. There's a simple reason for this. Subscription-based businesses expense all costs to acquire a customer up-front.

But they generate the revenue from that customer over a longer period of time (monthly, quarterly, etc.). This creates a short-term bifurcation on the income statement. It under-reports earnings and over-reports expenses.

Those that have been with me since the dawn of Value Ventures remember LiveChat, Inc. (LVC). LiveChat runs this exact model. And it works very well for them. In the October issue, I looked at Subscription-based models from an accountant's point-of-view. Here's a snippet from that piece (emphasis mine):

“Under GAAP, XYZ must recognize the costs (expenses) to acquire the customer up-front. XYZ then recognizes revenue once XYZ provides the service. Instead of booking \$3,600 as revenue from the customer, you have to recognize it over time, say per-month.

Doing that clouds the financial performance of the company. Now you have \$400 of expenses up-front and only \$300 of revenue coming in the door. That's -\$100 in losses for each new customer. That looks nothing like our above assessment of the company's LTV.

Fig. 3: KPIs for Measuring Performance of Subscription Business



GAAP accounting creates a natural distortion between the costs associated with acquiring the customer, and the profit from that customer. As you can see, this translates to optically negative financial statements. Which in turn, leads many SaaS businesses off value stock screens.”

How To Value Subscription-Based Businesses

So how should we value these businesses? Income statements aren't helpful for early-stage subscription-based businesses. They won't help us with later-stage companies focused on acquiring customers, either. What we want to focus on is cash flow, customer acquisition cost and lifetime value.

The cash flow statement shows us how much *cash* the company's bringing in on a quarter/annual basis. But we need to know *how* they're using that cash. If it's not dropping to the bottom-line on the income statement, where's it going? This is where customer acquisition and lifetime value come in.

Customer Acquisition Cost (or CAC) is an intuitive concept. It costs money to get a new customer to join your business. This “cost” comes in the form of marketing, advertising, free products, etc. Many subscription-based businesses forecast their CAC as a ratio against Lifetime Value (LTV). Lifetime Value's a bit more nuanced. Let's get into the rabbit hole.

LTV isn't a hard-coded GAAP metric. It's a rough estimation from a company's management team on how many dollars in value they'll extract from each customer. For example, let's say DropBox (DBX) knows it costs \$2 to acquire one customer. That \$2/customer is a combination of unit-based spending on advertising, marketing, etc.

At the same time, DBX estimates two data points:

- 1) Each DBX customer stays, on average, for three years
- 2) DBX receives, on average, \$2/year from each individual customer

Now we can calculate LTV as such:

$$\mathbf{3 \text{ (lifetime of customer)} \times \$2 \text{ (value of customer)} = \$6 \text{ in total LTV per customer}}$$

You can see the power of this type of thinking when it comes to subscription-based businesses. In this example, we know it costs DBX \$2 to acquire one customer. We also know they receive \$6 in lifetime value for that customer.

Knowing that it makes complete sense for that business to invest every dollar they have into acquiring customers. You're receiving 3x the return per-dollar in acquisition cost.

At the end of the day, if it costs a company \$2 to acquire something that will generate \$6 in total value, it's an interesting idea. Regardless of what the income statement may show.



But that might not be a good enough answer. You're thinking, "thanks Brandon, but *how* can I know a company's cheap despite great CAC/LTV metrics?" Good question. If you're looking for metrics, focus on EV/Sales. Top-line revenue growth matters more for these types of businesses than others. If you can pay <2-3x sales for a subscription-based business with attractive CAC/LTV metrics, you're off to a good start.

Research Papers on Subscription-Based Models

[The utility business model and the future of computing services](#), M. A. Rappa

M. A. Rappa wrapped the idea of a subscription model inside a broader, "computers-as-a-utility" idea. Let's start with the premise (emphasis mine):

*"The utility business model is shaped by a number of characteristics that are typical in public services: users consider the service a necessity, high reliability of service is critical, the ability to fully utilize capacity is limited, and services are scalable and benefit from economies of scale. This paper examines the **utility business model and its future role in the provision of computing services**"*

The table below shows various utility-like businesses and their standard business models. Interesting to see subscription in a lot of these:

Table 3 Business models of utility services

Type of Service	Business Models
Water	Metered usage of service
Electricity	Metered usage of service
Common Carrier Transportation	Basic pay-as-you-go fare for one-way or roundtrip service; subscription for commuter service
<i>Telephone:</i>	
POTS	Subscription for local service; metered usage of long distance service; equipment is leased or purchased
Cellular	Subscription with usage limits; metered usage in excess of the subscription limit; equipment purchased or bundled with subscription
<i>Radio and Television Broadcasting:</i>	
Terrestrial	Advertiser-sponsored, community-sponsored
Satellite	Subscription with basic package and premium services
Cable	Lease or purchase equipment Subscription with basic package and premium services Pay-per-view for special event programming and movie selections Leased equipment is bundled with service
<i>Internet Access:</i>	
DSL	Subscription for unlimited ("always on") service Leased equipment is bundled with service
Cable	Subscription for unlimited ("always on") service Leased equipment is bundled with service
Dial-up	Subscription for limited service or metered usage based upon connection time Equipment is purchased

Rappard then dives into utility computing and its switch from the license model to a subscription-based model:



“At the application layer, there is already a move away from a pure license model toward subscription-based services. It is also conceivable that some kinds of applications could be adapted to a metered usage model, or a combination of subscription and metering”

Rappard concludes with an explanation of the model’s benefits and applications:

“In comparison, the subscription model provides users with more flexibility, and provides managers with a more accountable, if intermediate, approach on the path toward utility computing. A subscription-based service is more amenable to high value-added proprietary services that require more elaborate service level agreements. In a situation where there remains uncertainty about the upside demand for services or where there are weak controls on usage levels, we are more likely to see adoption of a subscription approach.”

I’ll leave you with this comparison between the standard utility model approach vs. subscription-based models:

Table 4 Factors favoring subscription versus metered utility model for computing services

Metered Model	Subscription Model
Usage measures are easy to define, monitor, and verify	Usage measures are difficult to define, monitor, or verify
Strong managerial controls on usage patterns	Weak managerial controls on usage patterns
Commoditized, low value-added services	Proprietary, high value-added services
Favored by cost-conscious users with an ethic to conserve resources	Favored by users who are less conscious of resource costs and the need to conserve
Easy to forecast resource usage patterns	Hard to forecast resource usage patterns

[Subscription Economy: Business Perspective](#), Nets.eu

This paper highlights subscription-based models in Nordic countries. The paper mentioned three types of subscription-based models and their offerings:

- 1) Physical goods providing ownership or consumption of a tangible item (grocery subscriptions)
- 2) Access-dependent offering access to service or platform (software subscription/digital product).
- 3) Person-dependent offering personalized access or services to individual persons (fitness trainers, etc.).



The Sharing Economy Model

The sharing economy isn't a new phenomenon. In fact, it's been around for thousands of years. *The Economist* describes the sharing economy as, "what's yours is mine .. for a fee."

Who's driving the rise in the model's popularity? Younger adults with incomes between \$50K and \$75K. This makes sense as the sharing economy's purpose is to reduce the cost of using particular assets (cars, homes, etc.).



A sharing economy hinges on three pillars:

1) Renting not owning.

A popular phrase amongst the sharing economy is "access not ownership".

2) Platform connecting owners and renters

Every great sharing economy model has a platform connecting renters and owners. Your sharing economy is only as good as its platform. If your platform is slow, wonky and sketchy, you won't succeed.

3) Trust is the main currency

Trust is the *main* factor in sharing economies. Without trust, sharing economies *wouldn't* work. Trust increases community-building and network effects. The stronger the trust, the stronger the network.

This creates a positive feedback loop as more people join the platform. In essence, every incremental user to the sharing platform reaffirms the trust (and validity) of that platform.

Pros and Cons of Sharing Economy

Remember, we're thinking about these models from an **investor's perspective**. Not a consumer's point-of-view. This is important in the sharing economy for two reasons:

- 1) The sharing economy creates fantastic services
- 2) The sharing economy *doesn't* always create fantastic, investable businesses.

Let's hash these out.

Pros

- 1) Quick start-up and scalability: The platform owner doesn't own the physical assets, nor do they need to invest in them. This creates an asset-light, flexible business model from day one.
- 2) Sustainability: The sharing economy has strong environmental tailwinds. Sharing resources reduces waste and allows greater access to resources. What's not to love?
- 3) Win-Win Platform: Offering owners of assets the chance to make extra money on the things they own (but don't use as often). It's the classic win-win scenario. People respond to incentives. If your platform offers owners the chance to earn extra money while providing consumers with something they want (temporary house, quick ride to the bar, etc.).

Cons

- 1) Fragile Trust System: One bad apple can damage the whole platform. The sharing economy is one built on trust. Even *one* breach of that trust agreement could send the entire platform down. We don't need to go into the reasons behind that, we experience this idea in relationships. An example of these trust breaches include [Uber killers](#).
- 2) Failure to build critical mass: A platform business is only as good as its network of connecting parties. If you don't have a large (and fanatic) network of users, the value of your platform decreases.

Who is most excited about the sharing economy once they have tried it?



18 to 24 year olds



Households with income between \$50k and \$75k



Those with kids in the house under age 18

- 3) Great service, terrible investment: Uber is a perfect example of a great service but terrible investment (so far). The company's burning over \$4B in cash a year. The stock hasn't done well, either (via [stockcharts.com](https://www.stockcharts.com)).



Let's take a look at some private and public companies engaging in the sharing economy.

Real-World Applications of Shared Economy

1) Uber

Uber is one of the most popular sharing economy companies in the world. It's premised on the idea of *shared assets*. Take your car, turn it into a tax service for others to use, receive money from Uber for allowing others to use your platform (car).

Passengers have access to transportation they otherwise wouldn't without having to own the vehicle. Uber's also getting their feet wet in food delivery, via Uber Eats. It goes back to access without ownership.

The company makes money by charging per-ride based on mileage, car used and service (XL, Luxury, etc.).

The model works for consumers, but does UBER's model work for investors? Time will tell.

2) eBay (EBAY)

eBay also engages in the sharing economy. The company provides a platform to connect sellers and buyers of goods. eBay is a great example of the power of trust. The company built its platform on trust. The idea that one party (the seller) would deliver the advertised good. Then they had to trust the other party (the buyer) to actually pay for that good.



eBay's a testament to the sharing economy working for both consumers and investors.

The stock is up over **4,000% since its IPO** in 1998. A \$10,000 investment in EBAY at IPO would be worth over \$400,000 today.



The company sports 70% gross margins and near 20% pre-tax margins. How do they use the sharing economy to profit? eBay earns a commission for connecting buyers and sellers. They earn this commission on each individual exchange. This is a very profitable venture.

Today, eBay generates close to \$3B in free cash flow per year.

3) Nextdoor

Nextdoor is a popular private social network for individual neighborhoods. The platform connects homeowners within a specific community, providing real-time updates on everything happening throughout the zip code.

Nextdoor prides itself on being the go-to space to find a babysitter, report a lost dog, or share information about a natural disaster.

In the Nextdoor shared economy, information is the main currency.

Venture capital-funded until 2016, the [company's now trying to monetize its platform](#).

Here's how they're doing it:

- A. Sponsored Advertisements
- B. Neighborhood Sponsorships
- C. Local Deals

Nextdoor's monetization model differs from the popular commission-based method.

If you're interested in learning more about Nextdoor's model, check out [Bill Gurley's interview](#) on *Invest With The Best*. Nextdoor commentary starts at the 16-minute mark.

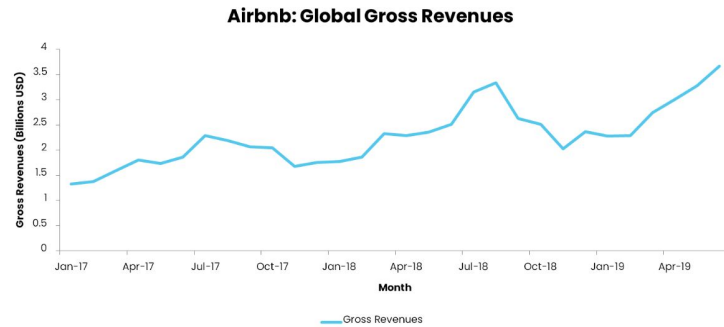
4) Airbnb

Besides Uber, Airbnb is the most popular benefactor of the shared economy model. The company's most recent valuation [topped \\$38B in April](#), making it one of the world's largest "unicorns".



Their model is a textbook shared economy. It's a platform that connects homeowners with people looking to rent (short or long-term) spaces. Again, access not ownership.

Airbnb makes money on both sides of the transaction. They charge between 6-12% to the renters and 3% to the hosts.



According to *AllTheRooms*, Airbnb has generated over \$3B in gross revenue.

Research Papers on Sharing Economy Model

[Debating the Sharing Economy](#), Juliet Schor

Juliet Schor discusses the difference between P2P (peer-to-peer) and B2P (business-to-peer) when it comes to the sharing economy.

She notes, “P2P entities earn money by commissions on exchanges so revenue growth depends on increasing the number of [transactions] (page 5).” Whereas B2P platforms, “seek to maximize revenue per transaction, as traditional businesses often do.”

It's a subtle (but important distinction). If a shared economy platform is peer-to-peer, the number of transactions (or users) matters most. But if it's businesses selling to peers (i.e., consumers), it's the average dollar amount that counts.

Let's think about this idea within the eBay model. eBay is a classic P2P auction site. eBay doesn't care about the average dollar amount per sale on their site. They care about how many users buy and sell on their platform. P2P focuses on flywheel effects and inertia. More people using the platform increases its legitimacy, which in turn spurs more users, etc.

Our key performance indicators (KPIs) are different for B2P. Take Lamborghini or Ferrari. Their goal isn't to increase the purchases of their cars but rather to increase the average dollar amount per car they sell.

[The Sharing Economy: Why People Participate in Collaborative Consumption](#), Juho Hamari, Mimmi Sjöklint and Antti Ukkonen

In their article, Hamari, Sjöklint and Ukkonen break down the four characteristics of a shared economy. The team also dives into the determinants of participation within a sharing economy.



According to the authors, the four characteristics of a shared economy are:

1) Online collaboration

“A particularly well-known example is Wikipedia, where online users work together to produce content by sharing knowledge. In addition, studies on participation motives in open-source software (OSS) projects (Lakhani & Wolf, 2005; Oreg & Nov, 2008; Roberts, Hann, & Slaughter, 2006) suggest that participation is influenced by a variety of factors such as reputation, enjoyment, and both intrinsic and extrinsic motivation (see also Wasko & Faraj, 2005).”

2) Social commerce

“Social commerce thus relies on platforms with peer-to peer interaction, which in turn rely on users being motivated to continue using and engaging through social networking sites (SNS). SNS and social commerce share common ground as both involve peer-to-peer interaction on social media, although the latter also include mercantile features (Ellison & boyd, 2013; Wang & Zhang, 2012).”

3) Sharing online

“For example, Couchsurfing, a community for sharing accommodation among travelers and one of the most successful sharing services to date, has received the most attention (Molz, 2012; Rosen, Lafontaine, & Hendrickson, 2011).”

4) Consumer ideology

“Open-source and in particular the free software movement have strong ideological underpinnings (Raymond, 1999). However, the ideology and ideas that underlie the sharing economy may go beyond collective action for political purposes, even if notions of anticonsumerism clearly are related (Ozanne & Ballantine, 2010).”

As seen in the results, the enjoyment of participation was the strongest determinant. Therefore, simply, attempting to make participation more pleasurable, more communal, and supportive for the ideological cause by promoting a positive buzz should prove to hinder the crowding-out effect via enforcing the intrinsic motivations (page 10).

Performance in the Sharing Economy, Lizzie Richardson

My three favorite snippets from Lizzie’s paper include the peer-to-peer nature of the sharing economy, performance of sharing economies and collaboration within such economies.

Highlights:

- The peer-to-peer nature of the sharing economy means that the institutional structures that offer (a sense of) security to both client and service provider are bypassed (page 9).



- Thus the performance of sharing through community provides the potential for a greater volume and intensity of participation in shared experiences and resources. Simultaneously though, it can limit participation through a prescription of ‘trustworthy’ attributes that can overdetermine the sorts of sharing activities that might take place (page 10).
- Collaboration in the sharing economy encompasses open and decentralized practices that blur (and casualize) production and consumption. The ‘collaborative economy’ is often used interchangeably with the ‘sharing economy’ to point to the way the crowdsourcing of goods and services involves forms of cooperation (page 13).

The Customer Data Monetization Model

Customer Data Monetization is the last model in our six model series. This model is highly profitable and requires almost zero cap-ex. Yet it comes with certain ethical challenges, which we’ll discuss later.

According to bmttoolbox, there are three types of monetize-able data:

- **Raw data**

Wikipedia Definition: Data collected from a source. In the context of examinations, the raw data might be described as a raw score.

Examples include a list of phone numbers, emails, or home addresses. The term “raw” implies zero structure to the data. In other words, raw data looks like the image on the right:



- **Processed data**

Definition: Think of processed data as a “cleaned-up” version of raw data. In other words, processed data brings structure and order to an otherwise messy (commonly used word, “dirty”) data set.

Processed data would present a collection of phone numbers by city. Instead of raw street addresses, it would congregate by zip code.



- **Insights**

Definition: An insight is a realization, conclusion or actionable idea that you garner from interpreting the data.

There's a stock whose business model relies on insights from data, which we'll discuss later. Generally, we think of insights like spotting trends, patterns or outliers in the data. Sometimes they're helpful, other times not. Remember, humans, evolved to recognize patterns (via stars, animal tracks, etc.). [We humans can form patterns out of complete randomness](#). It's a blessing and a curse.

Real-Life Application of Customer Data Monetization Model

There are two main examples to describe the customer data monetization model:

1. Facebook
2. Mobile Telecom Companies (AT&T, Sprint, Verizon, T-Mobile)

How Facebook Turns Data into Cash

A common misconception surrounding Facebook is that it sells user data to advertisers. That's not how Zuckerberg's company makes money. It's nuanced, yet still requires hefty amounts of user data.

Zuckerberg [laid out his monetization strategy](#) during the Cambridge Analytica court hearing. Here's a snippet from the *Business Insider* link:

"What we allow is for advertisers to tell us who they want to reach, and then we do the placement. So, if an advertiser comes to us and says, 'All right, I am a ski shop and I want to sell skis to women,' then we might have some sense, because people shared skiing-related content, or said they were interested in that, they shared whether they're a woman, and then we can show the ads to the right people without that data ever changing hands and going to the advertiser."

It's an important distinction between companies outright selling user data to third-parties. Facebook keeps everything in-house (well, supposed to at least) without giving third-parties the actual data. It's a great business model, not sure the ethics behind it.

Let's get to another example, mobile phone carriers.

Why Telephone Carriers Love Your Data

Privacy lovers might want to skip these next few paragraphs. If you thought Facebook's fiasco with Cambridge Analytica was bad, just wait. Many of the leading mobile phone



carriers (AT&T, Verizon, Sprint and T-Mobile) sold user data to third-party companies without the user's consent.

It wasn't the fact they sold user data without consent. To make matters worse, mobile carriers sold *real-time location* data to these third party companies. According to a January 2019 [TechCrunch article](#), carriers sold the data to third parties, which then sold that data to other companies. Let's pick up from the article:

“At first, little-known company LocationSmart was obtaining (and leaking) real-time location data from AT&T, Verizon, T-Mobile and Sprint and selling access through another company, 3Cinteractive, to Securus, a prison technology company, which tracked phone owners without asking for their permission. This game of telephone with people's private information was discovered, and the cell carriers, facing heavy rebuke from Sen. Ron Wyden, a privacy-minded lawmaker, buckled under the public pressure and said they'd stop selling and sharing customers' locations.”

That's the problem with this model. Heightened privacy concerns have customers focused on who has their data. And more importantly, how their data is used. Because of this, I don't know how viable this business model will be over the next five years.

Also, I don't know how I could invest in a company that sold user data to third parties. This could be a personal bias -- one I'm willing to keep. You might hold different views which enable you to invest in such companies.

Fortunately, there isn't *one way* to monetize company data. Let's dive into an MIT research paper to uncover two alternative methods.

Research Papers on Customer Data Monetization

[How to Monetize Your Data](#), Barbara H. Wixom Jeanne W. Ross

According to the paper, there are two ways a company can monetize their data (besides selling to third parties):

- 1) **Improving Internal Processes**
- 2) **Wrapping Information Around Products**

Let's break each down.

Improving Internal Processes

Businesses can improve operations through data insights. Here's a few quotes regarding this idea from the article:



“Executives often underestimate the financial returns that can be generated by using data to create operational efficiencies.”

“With data-based insights and clear decision rules, people can deliver more meaningful services, better assess and address customer demands, and optimize production.”

Wixom and Ross illustrate this idea through the story of Microsoft CEO, Satya Nadella.

Satya wanted to leverage MSFT's data to improve the company's sales process.

To do this, MSFT needed two things:

1. Define shared concepts (or KPIs)
2. Locate data sources to calculate those share KPIs

Internal data provides these things.

Wrapping Information Around Products

The research team provides two examples of wrapping data around products to make their product better. Let's go to the article:

- *“FedEx Corp. (FDX) was an early exemplar of wrapping when it introduced online package tracking as a free service in the 1990s.”*
- *“Johnson & Johnson has discovered the value of providing pattern identification to users of its health-monitoring products, including those for diabetics.”*

These are two examples of companies leveraging data to improve their product offering. That's the power of data. It's another way to “monetize” your data without selling it to third-parties. Leveraging internal data can lead to a better product, higher margins, and happier customers. And while it's challenging to put a dollar value on things like “happier customers”, we know such actions increase value.

Stocks That Fit This Model

There's the obvious Facebook (FB) and Alphabet (GOOG) example, but let's talk about a little unknown company. Riwi Corp (RIW). You'll end up getting three stock ideas in one report -- talk about a value.

RIW is a global trend-tracking and prediction software company that trades on the TSX Venture Exchange. They're the fifth fastest-growing company in Canada, increasing revenues over 300% in the last *three* years.



What's their special sauce? The company tracks and tries to predict significant events. These events have financial ripple effects, and thus can be exploited if the predictions are right.

For example, take a look at RIW's predictions of the 2018 November Primary (source: investor slide deck):

RIW's continuous tracking was more accurate than conventional polls.

	Florida	Indiana	Missouri	North Dakota	Montana	Nevada	New Jersey	West Virginia
RIW Prediction	Rep.	Rep.	Rep.	Rep.	Dem.	Dem.	Dem.	Dem.
Election result	✓	✓	✓	✓	✓	✓	✓	✓

Not bad. How does RIW make money through their data?

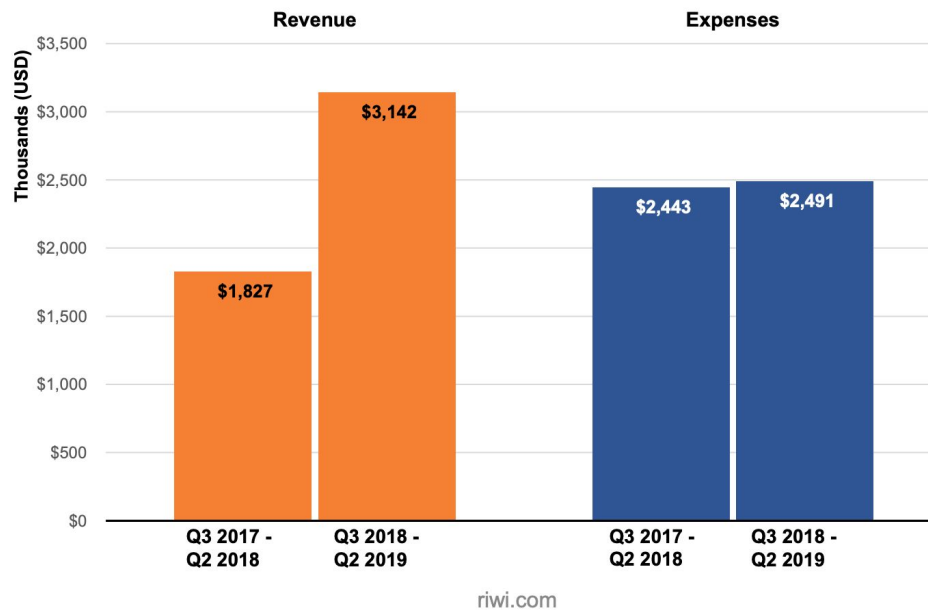
How RIW Makes Money on Their Data

Hedge funds, investment banks, nonprofits, and other interested companies pay for RIW's data-driven insights and predictions. The above example was from a contract with a US-based hedge fund. The hedge fund paid RIW to predict the November mid-term.

RIW is the perfect example of how companies can leverage data for profit. Turn insights into a profitable business model.

And the beauty of a data-driven company like RIW is the ability to scale without increasing expenses. Check out RIW's cost structure breakdown below:





The company has specifications on their data, like:

- Anonymous, non-identifiable answers
- Non-incentivized responses
- Rural and urban answers (even closed societies)
- Continuous, real-time feed

There are parts of RIW's strategy that are "black-box" like, but the advantages are obvious. People are willing to pay for continuous data and predictions on that data. Hence RIW's explosive three-year growth.

I wouldn't be surprised to see other companies try and copy this strategy. But instead of casting a wide net, the next data-driven companies will focus on niche specialties. Rural communities in Northwest US, for example. Real-time, niche-specific data-driven insights.

Conclusion

This completes our two-part series on business models. I learned a lot from writing each part. I hope you found similar value in your reading.

Like we mentioned in the beginning, the list isn't exhaustive. We'll go through more over the course of 2020. But I wanted to give you a flavor of the top six that we see in today's economy.

As investors, we should *know* how businesses operate. Even if that looks different than it did 30 years ago. Value investors often use antiquity as an excuse for not finding "good"



ideas. Don't listen to them. They're lying. Good value ideas are around all the time. Regardless of the market cycle. Regardless of the country. You just have to know how to think about them.

THIS MONTH'S
DEEP DIVE

Cliff-Notes: Odlewnie Polskie (ODL) & Maxcom (MXC)

- **What We Like:**
 - **Trade at discounts to tangible book value**
 - **Current prices imply low expectations of future business performance**
 - **Dominant player in their respective industries**
 - **Boring businesses**
 - **Strong balance sheets**
 - **Insider Ownership**
 - **Return capital to shareholders via dividends and buybacks**

- **What We Don't Like:**
 - **Commodity-type businesses**
 - **Lowest-cost producer tendencies**
 - **Language barrier with financial statements**
 - **Balance sheet has a lot of inventory value**

- **What We Think They're Worth:**
 - **Asset-Based Scenario: 40% upside**
 - **No-growth Scenario: ~100% upside**
 - **Historical Growth Scenario: >200% upside**

Deep Dive: Odlewnie Polskie (ODL)

Odlewnie Polskie (ODL) is a 121 year old Polish company specializing in the production of iron castings. The company manufactures casting components. They also do thermal



processing, painting, assembly, and distribution of castings. ODL's headquartered in Starachowice, Poland.

The company even trades foreign castings and provides assistant services to German foundries. Although an old company, ODL's passionate about investing in future technology. The company has its own R&D department. In it, they develop tools to improve production, increase efficiency and reduce costs. They've spent more than their market cap in R&D over the last ten years to develop such technology.

The ODL thesis is simple.

It's a small, under-the-radar \$25M market cap company involved in a business people aren't rushing to enter (iron castings). Meanwhile, they've grown revenues at 20% a year for the last ten years, increased EBITDA margins from 3.5% to 13%, bought back nearly 5% of their stock and generated enough EBITDA to service their debt 143x over. The company pays a handsome 6.60% dividend, spits off close to 30% of its earnings back to shareholders, and maintains a fortress balance sheet.

The company hasn't released its FY2019 report, but September's LTM figures look promising. Revenues are 6.5% higher, EBITDA margins grew to 17% with 26M in operating income (compared to 19M in 2018). All that with three months of reporting left.

Shares are up over 20% since the start of 2020. Yet despite the 20% bump, the business still trades at 4x earnings, 2x EBITDA and around 1.25x NAV. For a company that's crushed every industry growth metric, it trails the industry average EV/EBITDA by three turns (5x vs. 2x). A mere re-rating to industry averages gives us 100% upside.

Monopoly on ADI Manufacturing

A responsible follow-up question would be, "that's nice, but how are they able to grow revenues and EBITDA margins with such consistency?" We know high returns bring competition. Luckily for ODL, there is no competition. According to the company website, ODL is the only producer of Austempered Ductile Iron in Poland. They're also the leading producer of general ductile iron.

ODL works with five cast iron materials:

- Grey cast iron
- Nodular cast iron
- ADI cast iron
- SiMo cast iron
- Steel cast

For our purposes we'll focus on ADI Cast Iron.



The Power of ADI Cast Iron

It's not enough that ODL has a monopoly on ADI cast iron production. In fact, ADI cast iron is the best solution for the types of products ODL produces. I had to go to academic research to find this out. I found the paper [Austempered Ductile Iron Manufacturing Data Acquisition Process With The Use Of Semantic Techniques](#) very helpful.

According to the paper, ADI is the result of heat treatment carried out on the cast iron with nodular graphite. This combination creates a powerful substance, the best on the market. But here's the biggest takeaway:

ADI has a high fatigue strength, higher than aluminum, is resistant to abrasive wear like steel, but most of all – its use can significantly reduce the cost of production.

Significant reductions in production costs for end-users makes ADI products the go-to choice. Best of all, ODL has the entire ADI market in Poland. It's a monopoly on the highest strength, lowest-cost source of end components. They're not producing large pieces of a customer's product. These are small parts in a larger cog. This gives ODL an even greater advantage. If their end customers experience shortages, they're not going to remove ODL's products. Why? Because ODL already produces the cheapest form of that product.

The benefits don't end there.

More ADI Applications & ODL End-Uses

The company produces castings for seven industries (customers):

- Machine industry
- Automotive industry
- Industrial instruments
- Plumbing and sewage systems
- Heavy rail industry
- Energy industry
- Appliance industry

There's pictures of some of their products below. These are boring end-industries that buy small cogs in larger productions. It's a great spot.

Let's go back to the academic paper. The paper continues saying "ADI is generally recommended as a structural material because of the very encouraging cost of production of parts compared to the cost of other materials. First of all, it offers a very good castability, which enables complex shapes to be reproduced with higher yield and raw castings to have better dimensional accuracy. This, in turn, implies savings in machining."

Another research paper, [Role of Austenitization Temperature on Structure Homogeneity and Transformation Kinetics in](#)



[Austempered Ductile Iron](#), reaffirms the benefits of ADI cast iron. The article notes (emphasis mine):

Machine industry



"From the viewpoint of material selection, ADI is, therefore, the most cost-effective solution in many applications, including automotive and light/heavy trucks, construction and mining equipment, railroad, agricultural, gears and crankshafts, and brackets, among others."

We know two things. First, we know ODL's the only ADI cast iron producer in Poland. We also know ADI cast iron creates stronger, lighter, more cost-efficient products. Those two factors are enough to make this an interesting investment. Let alone the fact that this monopoly-like business trades for <3x

EBIT.

ODL In The News

The company's also made headlines within popular foundry-specific websites (such as foundry-planet.com). An April 2019 article hints at ODL's technology improvements. The article describes the transformation:

"One of the concepts of the Research and Development Centre is, among others, reducing the assembly time of metal plates on the HWS moulding line . An "APC" has been designed - a device for automatic model plate change, the implementation of which will shorten the change time to 30 seconds, i.e. by as much as 85%. Another idea is to shorten the retooling time of the grinding robot, which in grinding castings at the Foundry replaces people, being more economical and safer for the operator than a manual grinder. The Foundry is also planning to purchase more robots of this type. Also planned is another machining cell after the horizontal machining centre for CNC castings, which requires the product to be fixed in the device by means of an electric winch. The new Fastems robotic CNC/FMS system, incorporating a scanner, among others, would result in a significant increase in machine tool throughput and minimization of errors."

Cost savings, cost savings, cost savings.

Revenue Breakdown

The company sells most of its products and services to Germany, 60% in fact. Below is a breakdown of their percentage sales to various countries. Note that the US (and North America in general) represent a mere 1.4% of sales:

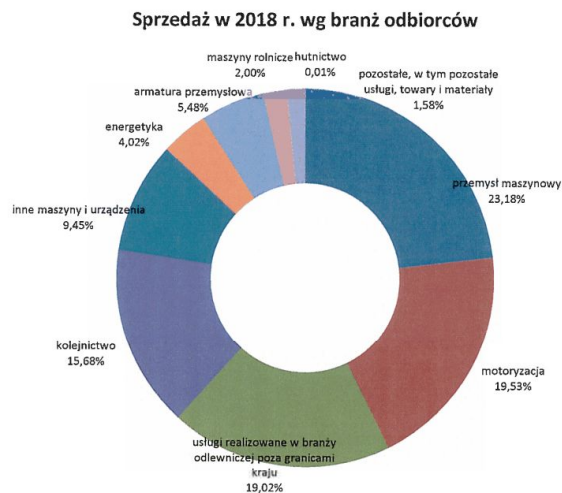


The company also segregates its revenue streams by industry. As the graph below shows, automotive makes up 20%, 23.18% machining, 15.68% heavy rail and 19% service-related revenue.

Management

Management owns a good amount of stock. Directors all together own roughly 11%. Yet, through buybacks and tenders, ODL owns roughly 28% of the common shares. Interests are aligned.

Management seems to think they're shares are undervalued, initiating buybacks and tenders to buy 5% blocks at a time. They've reduced share count by 400K over the last few quarters.



Valuation

We've demonstrated the reasons why ODL should see increased revenues and margins over the next five years. They have the best product at the cheapest price. At the same time, they're investing loads of money into their internal R&D team to improve production capabilities.

Improvements include increased automation and robots to take over human positions. These actions further increase cost-savings, allowing ODL to pass those savings to their customers, or to raise margins.

Mr. Market is pricing in little revenue growth and no margin expansion over the next five years. He's also assuming a prolonged period of increased cap-ex spending. The company increased cap-ex in 2018 to support R&D developments, but YTD figures show a reversion to their five-year average of ~7% of revenues. Regardless, Mr. Market's expectations aren't the highest at current prices.

Not a lot has to happen for ODL to beat the market's expectations.

Let's assume the company's able to increase revenues by a modest 5%/year over the next five years. This doesn't seem unrealistic given their 20% historical 10-year CAGR. We could also assume that they'll expand EBITDA margins given their competitive advantage (i.e., monopoly on ADI cast iron). They did close to 18% in EBITDA margin YTD 2019. Over the next five years, we'll assume ODL reaches at least that.



We'll also assume the company winds down its cap-ex spending more in-line with historical averages. In this scenario, we end 2023 with 254M zloty in revenues, 46M zloty in EBITDA and 21M in free cash flow. Free cash flow will expand as EBITDA margins grow, giving us cumulative 36M zloty by 2023.

Adding our terminal value cash flows gets us 256M in enterprise value. Add in 18M and subtract 2M of long-term debt and you're left with 271M in shareholder value, or near 14/share. That's around 220% upside over the next five years under conservative assumptions.

We could assume they hit double-digit growth each year for the next five years, but anything above our conservative estimates is a cherry on top. What we want to focus on is the downside.

As it stands, the company has 3.80 zloty/share in net asset value, which is about 16% downside at current prices. The company should trade at least at its NAV.

Risks

1. Slowdown in End-Customer Industries

If there's a global slowdown, ODL's end market customers will feel the burden. These are cyclical businesses. A slowdown in one (or more) of these divisions could impact sales. This isn't as bad as it could be. Like we mentioned earlier, ODL makes small pieces of larger end products. They're also one of the cheapest manufacturers. Odds are high customers won't remove them first.

2. Complicated Share Structure

As a general rule, I prefer simple over complex. Simple theses, simple businesses, etc. ODL's share structure isn't simple. They have seven share classes (A-G) with the G-series consisting of 8.14M shares.

3. Better Technology/Product Beats out ADI

There's also the chance that someone comes up with an even stronger, lighter and cheaper material than ADI cast iron. If that's the case, ODL's margin power and monopoly are worth way less.

The fact remains that ODL has one of the strongest internal R&D departments. And they generate enough cash to fund industry-leading technology projects. If anyone figures out a stronger, lighter product, it's probably them.

4. Regional Concentration



Over 60% of the company's sales come from Germany. A recession in Germany would hit ODL's revenues hard. How hard? I don't know. But a 20-40% haircut doesn't sound out of the realm of possibility.

Deep Dive: Maxcom (MXC)

Maxcom is a leading European provider of telecommunications products - traditional telephones dedicated to specialized groups of recipients: the elderly. The company develops other business lines that are synergistic with respect to the core business, in line with the trends of electromobility, leading a healthy lifestyle and increasing the quality of life of seniors. As of 2017, the company claimed 40-45% market share.

There's nothing sexy about making cell phones for old people. It's a boring industry. The company's taking action and investing in other areas, such as electric scooters, FitBit-like wristbands, etc, but focused on maintaining (and growing) their share of their core business (smartphones for seniors). An investor should look at these other investments as call-like options on potential trends within the Polish / European culture.

A Failed IPO Trading at Massive Discount

MXC went public in July 2017. The company IPO'd at 55 zloty per share. Like clockwork, share prices fell a whopping 73.50% to its current trading price of around 15 zloty. The embedded expectations from the stock price are dismal. In short, the company would need to slash margins by 60% and reduce revenue 15% per-year before arriving at today's market price. Take the cash-flows out of the picture and they trade for a 60% discount to NAV.

Given that the company produces cell phones for old people, we can't grant them 100% value on their inventory. Still, if we cut inventory values in half, we end up with a 30% discount to NAV. That's not bad given that the company's profitable and growing.

Under conservative assumptions, MXC should trade around 34 zloty, or 125% higher than current market prices. If we assume historical growth rates, margins and multiples we get north of 60 zloty per share (near 300% upside).

Rapidly Aging Population

One major crux of the MXC thesis is that old person will need and use their phones. It seems obvious, but it's true. If there aren't elderly people around, there's no reason to buy



MXC's phone. The terminal value for anyone below 65 is close to 0. Luckily MXC's in the perfect market, Poland.

According to [Jyu.fi](#), 27% of Poland's population will be 65 or older by 2030. That's 10.26M elderly people needing communication devices. The company has at least a ten-year runway ahead of them.

On population, Poland's seems to have peaked around 38M. They're projected to lose around 25% of their population over the next 80 years. Fortunately, we look out over three-to-five years.

How Maxcom Makes Money

The company sells its phones through various distribution channels over 20 countries. MXC also sells through four major mobile operators in Poland (Orange, Plus, T-Mobile and Play), and a dozen mobile operators abroad (Telematch, Telekom, Slovenije, Telenor, Bazile Telecom, Velcom).

Like we mentioned earlier, the company offers more than old-people phones. They sell other products under the following brand names:

1. FitGo: High-quality sports accessories (smartwatches, Fitbit-type wristbands, etc.)
2. Maxton: Wireless speakers
3. ACC +: Value-add cell phone accessories

Four Types of Cell Phones

Maxcom sells four types of phones:

1. Comfort: Physical buttons, semi-large screen, large numbers on the buttons, basic call features.
2. Classic: Larger screen, smaller screen font, smaller number touchpad, calls and texts.
3. Strong: These are like the rugged smartphones you see from Verizon or Sprint. Designed for construction/trade workers. Android software with a rugged exterior.
4. Smart: Standard smartphone. Android software, smooth finish around the edges, app capability.

Addressing The Share Price Collapse

As we mentioned earlier, shares of MXC dropped over 70%, from 55 zloty/share to 15. I can't find a reason for the share price decline in the financials. Maybe this is a sign of my ignorance as an analyst. But my guess is the collapse is due to over-optimistic claims on growth and EBITDA. For example, MXC anticipated 156.7M zloty in 2017 revenue, 22.9M zloty in EBITDA and 17.7M zloty in net profit. The company was also on the brink of IPO.



Maybe management wanted to boost excitement surrounding the IPO and overshot their expectations? Regardless, they gave the street a hard figure. And boy did they miss.

Granted, they generated good numbers: 111.5M revenue, 11.8M EBITDA and 9.2M net income. But it wasn't close to their initial projections. This could explain the sharp share price collapse towards the end of 2017. To make matters worse, the company forecasted 2018 figures in their prospectus: 209M zloty in revenues, 28M zloty in EBITDA and 22M zloty in net profit.

Once again, MXC missed projections by a country mile. The company ended 2018 with 124M zloty in revenues, 15M zloty in EBITDA and 11.4M zloty in net profits.

Management may make great phones, but they suck at projecting revenues and profits.

Yet despite the misses, the company's grown over 200% in the last three years and remains profitable, generating over \$10M in EBIT per year.

Current Financials & Balance Sheet

MXC generates 30% gross margins and ~11% pre-tax margins. They've grown revenue about 3%/year over the last three years. This is a glaring difference compared to 2014 - 2016's pace of 82% growth. In fact, the company's shrunk net profits by about \$2M over the last three years. At first glance, things look bad. But management's pouring cash into sales and marketing to expand their addressable markets throughout Europe (recently Italy and Romania):

"Higher operating costs are primarily a consequence of high advertising and marketing expenditure aimed at increasing market share. These activities already have effects in the form of growing sales, especially in the markets of Western Europe and Scandinavia, where we have recorded over 50% increases. To restore profitability, we are working on developing new business lines. We also count on positive effects of the offer development on the attractive telephone market for seniors" - says Andrzej Wilusz, Vice President of the Management Board of Maxcom SA

MXC should see increased profits as they wind down their R&D and sales/marketing spend over the next few years. The good news is we don't need them to increase profits to generate outsized returns at current prices.

Let's take a look at the balance sheet.

The company sports around 4.7M zloty in net cash with 67M (25/share) zloty in net asset value. Granted, most of their assets are in inventories. In the event of a liquidation we'd get roughly 50% of that value, maybe. I'm guessing at this figure. But in doing that, we'd get 58M zloty in net asset value, or 17 zloty/share. That's a good margin of safety, but let's look at the cash flows.



Valuation

MXC's generated 87.6M zloty in revenues and 3.7M EBITDA through three quarters of 2019. Compressed EBITDA margins make sense as the company's investing to grow international markets and product offerings. We see this in the income statement. MXC's grown SG&A expenses as a percentage of revenues from 11% in 2016 to nearly 18% in 2019.

Scenario 1: No Revenue Growth from SG&A Investment

For our first scenario, let's assume the company doesn't recognize increased sales from their SG&A spending over the course of the next five years. This means sales stay flat at 124M zloty. We're also taking the 4% EBITDA margin from our 2019 YTD financials and project that into the next five years.

At the end of 2023, we're left with 5M in EBITDA, 4M in NOPAT and 3M in cash flow. This gives us 7M zloty private value and 16M zloty in terminal value for a total Enterprise Value of 23M zloty. Adding back cash and subtracting debt gets us total shareholder value of 35M zloty, or 13.13/share. This is roughly around the current trading price.

That means that the current market price expects zero revenue contribution from the increase in SG&A spend. This is the market's expectations despite the fact that MXC's grown revenues 50% in Western Europe and Scandinavia.

Scenario 2: Low Growth and Gradual Margin Expansion

In our second scenario, we're assuming that the increased SG&A investment leads to modest, 3% sales growth each year for the next five years. Keep in mind the company's historical growth rate (over the last four years) is 48%. To say a 3% sales growth rate is a conservative estimate is laughably under-emphasizing.

On top of the revenue growth, we're assuming MXC returns to higher EBITDA margins post-SG&A investment cycle. In this scenario, EBITDA margins start at the current 4%, and converge to 8% by the end of 2023.

Thanks to modest revenue growth and slow margin expansion, MXC ends 2023 with 144M zloty in revenues and 12M zloty in EBITDA. After subtracting D&A and taxes we're left with 8M zloty in NOPAT. Further reductions for cap-ex and NWC result in 6M zloty in free cash flow.

Increased revenue growth and margin expands leads to 9M zloty in private value cash flows and 62M zloty in terminal value for 71M Enterprise Value. Adding back cash and subtracting debt gets us 83M zloty in shareholder value, or 30.70/share. That's over 100% upside from current prices.

Scenario 3: Higher Sales Growth & Greater Margin Expansion



This third scenario paints a pie-in-the-sky outcome. Let's assume close to 9% annual revenue growth over the next five years. That gets us 188M zloty by 2023. Seems doable given the company's dedication to international expansion and secular tailwinds. Let's also assume MXC is able to raise EBITDA margins closer to historical averages at 9% by 2023. That gets us 17M zloty in EBITDA, 13M zloty in NOPAT and 8M zloty in FCF by 2023.

We'd end up with 13M in cumulative, private value cash flows and 100M in terminal value cash flows for ~114M Enterprise Value. Add back cash and subtract debt and we're left with 126M zloty in shareholder value, or 46/share (200% upside).

A Family of Founders

The company's run by two brothers, Arkadiusz Wilusz and Andrzej Wilusz. Collectively they own over 60% of the company and have run the business since its founding in 2001. There's a great [Forbes Poland](#) article that dives deeper into their background. Here's some of my favorite snippets from the piece:

“Arkadiusz Wilusz, a graduate of the electronic technical college in Tychy and the University of Economics in Katowice, in the mid-90s sniffed the opportunity offered by the following telephony in Poland. This is how his adventure with telephones began - first as a distributor and then also as a producer. But not the ultramodern technological tweens that are most often produced by companies from the United States, China or South Korea, but the so-called feature phones - simple phones with a classic look and equipped only with some smartphone functions, such as web browser or email support. Dedicated primarily to seniors and manual workers.”

Wilusz saw an opportunity in a boring, not-so-sexy industry and he took advantage of it. They rode with this idea and expanded their market. They focused on those that wouldn't ever use a smart-phone:

“We had intuition supported by market observations and data saying that there is a large group of customers who will quickly or maybe never use smartphones. This concerned not only the elderly, but also employees of mines, smelters and farmers who have large and tired hands. The Silesian region, with which we have always been associated, has opened our eyes to many business opportunities.”

The brothers eat their own cooking. They've ridden the share price down with the rest of their shareholders. Going forward, management *should be* cautious in their projections. Not painting pie-in-the-sky figures.

Risks

1. Larger Smartphone Companies Penetrate Senior Market

Poland is the clearest example of the larger aging trend throughout the world. What's to stop larger cell phone makers like Samsung, Apple or LG from producing a basic, powerful



phone for seniors? We're starting to see signs of [Apple targeting the senior market](#). Offering ways to make their device more "senior-friendly".

2. Slower Sales Growth Post SG&A Spending

While we've seen positive signs from the SG&A increase in the short-term, it's too early to decide if this growth is good or bad. After the proverbial dust settles from the income statement, we'll need to check operating margins. A swift recovery of operating margins is a good sign. A slow, or stalling recovering signals destructive growth (i.e., investments below the cost of capital).

3. Insider Selling

The company's run by its founders, who also own the bulk of the stock. This is a good thing, for obvious reasons (aligned incentives), but what happens if sales slow and the business starts losing money? Will the founders sell out? Or will they seek "strategic alternatives" for the business? Either way, we should watch how the owners act over the next couple years.

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Value Ventures Portfolio Review

Company	Ticker	Price at Issue	Current Price	% Change	Notes
S&W Seed, Co., Inc.	SANW	\$2.79	\$2.15	-22.94%	
Covetrus, Inc.	CVET	\$12.61	\$13.00	3.09%	
Carbo Ceramics	CRR	\$1.75	\$1.40	-20.00%	Exit price: \$1.40, delisted
LiveChat, Inc.	LVC (Warsaw Stock Exchange)	34.15	46	34.70%	
Grupo BMV	BOLSA (MXN)	42.61	42.86	0.59%	
Bio Pappel	CADGF (USD)	\$1.20	\$1.17	-2.50%	
Surge Components, Inc.	SPRS	\$2.85	\$2.65	-7.02%	
Paragon Technologies	PGNT	\$2.40	\$2.37	-1.25%	
Odlewnie Polskie	ODL	\$4.90	\$5.00	2.04%	
Maxcom	MXC	\$14.90	\$14.90	0.00%	



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