# 01/23/2021: Walgreens (WBA) & ShotSpotter (SSTI)

Good morning Operators,

Last week we discussed two of our latest additions to the MO portfolio: EGOV and XONE. EGOV is one of my three stocks for the 2021 MO Stock Picking Challenge. I set a **low bar** for myself after last year's performance. If I don't perform better this year, well, I don't want to think about it.

This week I'm highlighting my two other picks in the trio: Walgreens (WBA) and ShotSpotter (SSTI). WBA and SSTI are great businesses with fantastic chart pattern developments.

The two companies are at different points in their growth cycle. WBA is a Stallworth trading at a discount to what they're cash flows are worth. And SSTI is *just now* turning profitable.

Let's start with Walgreens (WBA).

# Walgreens, Inc, (WBA): A Growing Retail Pharmacy Biz Trading For 10% Earnings Yield

Walgreens Boots Alliance, Inc. (WBA) is the largest retail pharmacy drugstore in America, operating in over 9,000 locations serving 8M omnichannel customers per-day while boasting a strong loyalty program with 100M+ members. Its *myWalgreens* app has a 4.8/5 rating on the iOS app store with 3M+ reviews.

The company hit a rough patch the last five years as margins decreased, debt increased and the share price plummeted 50%. The good news is that these hiccups are transitory. The next five years will look different than the previous five years.

WBA is rapidly shifting its focus to its core retail pharmacy segment. In doing so, they've divested from Alliance Healthcare which freed-up ~$6B in proceeds to reduce debt and expand their digital pharmacy healthcare offering. They've also implemented a $2B cost-savings program led by closing ~215 underperforming retail pharmacies (as of Q4 2020).

The company can improve margins and free cash flow by doing three things:

1. Expand healthcare platform to offer personalized experiences
2. Accelerate omnichannel offerings
3. Leveraging its 9,000+ retail stores to offer fastest drug delivery services

Fortunately Mr. Market isn't buying the turnaround story. The company's trading at prices that reflect GDP-like revenue growth and zero net margin improvements. And given the company's sizable revenue base ($140B in 2019), a small change in net margins translates to **massive** growth in EBIT and free cash flow.

Investors can buy WBA for <1x revenue and <10x normalized earnings (10% earnings yield).

## Amazon Worries & WBA's Moat

The first question we should ask ourselves is why/how can WBA defend itself against Amazon (AMZN). The Seattle-based behemoth entered the pharmacy market in 2017 with *Amazon Pharmacy*. Here's Amazon's press release from their November 2017 announcement (emphasis mine):

> *"Amazon Pharmacy, a new store on Amazon,* ***allows customers to complete an entire pharmacy transaction on their desktop or mobile device through the Amazon App.*** *Using a secure pharmacy profile, customers can add their insurance information, manage prescriptions, and choose payment options before checking out. Prime members receive unlimited,* ***free two-day delivery on orders*** *from Amazon Pharmacy included with their membership."*

AMZN has 112M *Prime* members in the United States. This makes it easy to cross-sell their *Pharmacy* services into their existing subscriber base and quickly disrupt WBA and CVS.

WBA has a giant ace up its sleeve in this race: **retail footprint.**

Walgreens has over 9,000 stores throughout the US. Most of these stores are the only places people have access to prescription and full-service primary care.

On top of their retail scale, WBA has 100M loyalty members and 40M *myWalgreens* app users (launched November 2020).

By allocating all resources and focus to a retail pharmacy, WBA can now compete against AMZN.

Another advantage WBA has over AMZN is its ability to deliver same-day prescriptions, usually within 30 minutes of ordering. This is the fastest same-day delivery in the pharmacy space. WBA can do this because of its strategically placed retail stores and drive-thru delivery style.

Finally, we should ask ourselves how WBA competes against Rite Aid (RAD) or CVS Pharmacy (CVS). WBA wins in cost advantages and revenue-per-store. As of 2020, WBA generated ~$13M in revenue per-store. That's almost **double** the $8M per-store revenue CVS generates.

## Expanding Healthcare Platform: VillageMD Integration

WBA launched its partnership with VillageMD in 2019. This created a full-scale primary healthcare facility inside existing WBA stores. Think of it like an urgent center and a WBA had a baby. After a successful trial run in Houston, WBA expects to launch 40 new VillageMD integrations by the summer of 2021.

If the integration works like WBA management thinks it will, the company *should* roll-out 500 - 700 VillageMD integrations over the next five years. WBA is also the first-mover in this space. The VillageMD hybrid store is a great idea. Studies show that 6/10 Americans live with *at least one* chronic medical condition requiring multiple daily medications. Current VillageMD integrations data reveal that a vertically integrated approach between care center and pharmacy increases medication adherence and improved patient outcomes.

Moreover, 50% of these hybrid WBA stores will be in Health Professional Shortage Areas/Medically Underserved Populations.

The benefits of a hybrid approach are massive. WBA's VillageMD locations provide crucial primary care services while offering the prescriptions these hard-to-reach patients need.

## Accelerate Omni-Channel Revenue: The *myWalgreens* Mobile App

WBA introduced its new *myWalgreens* mobile app in November 2020. The app sends personalized offers to customers, notifies them of upcoming prescription refills, and stores *Walgreens* rewards cash.

Consumers love the app. It has a 4.8/5 rating on the iOS store. The app also incentivizes shoppers to purchase WBA own-brand products. For example, customers get 5% cashback on all WBA own-brand products (1% cashback on anything else). Shoppers can also order prescriptions through the app and pick-up via drive-thru. There's also 24/7 pharmacist support.

## What's WBA Worth?

Mr. Market expects WBA's margin improvement efforts to fail. The stock price assumes ~2% top-line growth and low margins. If revenue grows ~3% for the next five years with ~4% EBITDA margins we end 2024 with $164B in revenue and $7.4B in EBITDA.

We land at the current stock price after applying a 10% discount rate and ~13x exit EBITDA multiple. In other words, the current stock price indicates a ~10% forward return without giving credit to WBA's digital transformation efforts.

What's a reasonable EV/Sales multiple should WBA successfully transition to a digital-first, omnichannel retail pharmacy? It isn't the current 0.57x figure. A 0.75x EV/Sales multiple on our 2023 revenue estimates gets us $120B in Enterprise Value. Subtract net debt and you're left with ~$80B in shareholder value or $111/share. That's a 131% upside from the current price.

## Concluding Thoughts

WBA's price offers a low-risk opportunity to buy America's largest retail pharmacy amid a digital-first transformation. At <10x normalized earnings, we're paying a cheap price for substantial positive optionality.

The long-term charts also point to a bottom/reversal in the company's stock price. There's plenty of room to run after a 50%+ decline in three years (see below).


Alright, onto ShotSpotter!

# ShotSpotter, Inc. (SSTI): A Stanford Physicist's Answer To A Real-World Problem

Gun violence destroys lives, economies, and communities. Gun-related incidents took 40,000 lives in 2017 alone. Nearly 14,000 people were murdered via firearm in 2018. These numbers are likely lower than the *real* figure as ~80% of gun violence goes unreported. Gun violence is also on the rise, growing 30% from 2014 - 2017.

Reducing gun violence is something *everyone* can get behind. Yet it's hard to implement solutions at scale. Police response times aren't always fast enough, leaving lots of questions, few leads, and no suspects.

In 1994, a Stanford physicist found a solution to reduce gun violence. The solution used sound waves to alert officers of the precise geolocation of the shot fired. Backed by a prominent (low-profile) venture investor, the company bootstrapped from walkie-talkies taped on trees to a real product and solution. Four years later, ShotSpotter was born.

ShotSpotter (SSTI) is a wide-area, acoustic gunshot detection location, and alerting system.

**SSTI's product works.** For example, the Las Vegas Police Department did a 9-month pilot over six square miles in 2017. During that time they saw a 26% decrease in violent crimes, reported an extra 65% of gunfire incidents that would've gone unreported, and responded to incidents 86% quicker than traditional 911 calls. This also explains their astronomical 70 NPS rating (anywhere from 50-100 considered great).

The company's technology is backed by 35 patents giving it ample barriers to entry. Moreover, SSTI benefits from increased data generated by its acoustic sensors.

This data allows SSTI to provide better, *more accurate* insights to police officers. In turn, better data improves officer response times. This leads to increased interventions and prevention in high-risk cities. **Data**

**advantages scale exponentially as the company penetrates more cities and greater square footage covered.**

They turned EBIT profitable in 2019 as it expanded gross margins to leverage its fixed cost base.

The company has a clear path to increasing revenue in a $1B addressable market. EBIT margins should expand as the company leverages its fixed cost base. SG&A will further decline as a percentage of revenues and reveal 25%+ run-rate EBITDA margins. Other shots (pun intended) on goal could add significant value to SSTI's technology. We're not including it in our valuation.

**Why The Opportunity Exists:** SSTI looks expensive on current earnings and will fail most value stock screeners. Yet it provides a patented technology that reduces one of the worst aspects of our society. Its technology saves lives, creates safer communities, and improves police response times.

## One Scientist + One Famous Grandson = ShotSpotter

SSTI was founded by Dr. Robert Showen in 1994. The Stanford physicist founded the company after seeing his home-town (East Palo Alto) ravaged by gun violence. Elizabeth MacBride's *Forbes* article documents SSTI's early days (emphasis mine):

> *"[Dr. Showen] started talking to local police departments, like the one in Menlo Park about it. He found there was a scientist who was* ***supplying the information on an ad-hoc basis, using walkie-talkies hung from trees, laboriously plotting the gunfire on maps.*** *The police were finding the information useful, he was told."*

Walkie-talkies hung on trees were enough to spark Dr. Showen's interest in creating the company. From there, Showen added two engineers: Dr. Robert Calhoun and Jason Dunham. The three men bootstrapped the business for five years. During that time they secured five contracts.

Enter Gary Lauder. Yes, *that* Lauder. Gary's the grandson of the famous entrepreneur Estee Lauder, founder of the now $93B cosmetics empire. Lauder runs a family office of sorts, investing his capital in public and private businesses. He has a cool website documenting his various investments, which you can find here. Some notable investments include Palantir in 2009, PillPack in 2016, and Uber in 2015.

Gary has a nose for finding great businesses. He also loves collecting maps. Browsing a map collecting forum one day, Gary noticed people talking about this company "ShotSpotter" using geospatial technology to triangulate gunshot locations. The article piqued his interest but didn't lead to an investment.

It wasn't until September 11, 2001, that Lauder revisited that ShotSpotter thesis. Lauder matched Dr. Bob with tech executive James Bedlock. Together, the team developed a better product, with Lauder investing in 2004. Lauder's added $20M+ to his original $500K stake in 2004.

## Failed Models & Burnt Capital Leads To Stellar CEO

By 2009, ShotSpotter had the technology but no clear (nor profitable) business model. That's when Lauder and company recruited Ralph Clark to join as CEO. Before ShotSpotter, Clark built data protection company GuardianEdge (which he later sold to Symantec for $73M).

I'll let the Forbes article take it from here (emphasis mine):

> *"He spent a few months in the ShotSpotter office before he took the job. In part, that was because **he wasn't sure he saw a way to make the company grow or become profitable.** As part of that process, he attended a gathering of the National Association of Black Law Enforcement Officers. When he realized how many police departments there were, he had the lightbulb moment: "I realized we had to sell to the smaller departments,""*

You could see Clark's skill before he even took the job. He wanted to *ensure* that there was a *legitimate* way to make this business model work before taking control. Once he found it. He seized the opportunity.

As CEO, Clark cut prices to get the technology in the hands of smaller police forces. The move worked and created a sticky product that cops loved at a price they could afford. Soon, police stations couldn't *imagine* operating without ShotSpotter technology.

The transition to lower prices resembles many software companies offering "freemium" models. Where they get the product into the customers' hands, wait for them to love it, then incrementally raise prices over time.

Clark owns ~4% of the company. That's lower than we'd like to see. But interests appear aligned.

## ShotSpot: Creating Its Category

SSTI created the acoustic-sensory gun-fire detection industry. There are four aspects of SSTI's technology:

- Spatial Filter & Location
- Adaptive Noise Filtering
- Pulse Set Selection
- Machine Classification

The company uses these technologies to identify the gun-shot location, filter non-gun-shot noise (like a car backfiring, etc.), and classify the acoustic data to add to its dataset.

Here's how the SSTI technology works in real life. A gun goes off and sends a spherical acoustic impulse outward. The impulse triggers the sensors in the area to time-stamp the received signal. Using all triggers in the area, the sensors triangulate the location of the gunshot within seconds. ShotSpotter experts then review and qualify the impulse as "gunshot".

From there, an alert is sent to ShotSpotter subscribers and video management systems. Officers receive the data and arrive at the precise location of the gun-shot with greater information about the event. Finally, gun-shot data is used as legitimate evidence in court.

35 patents are protecting SSTI's gun-shot detection technology. But the patents aren't the most important part of the bull thesis. It's the **data**.

## Defensible Datasets & First-Mover Advantage

In early November I wrote about how AI companies create defensible datasets and strong moats through first-mover advantages. You can read the essay here. In short, AI companies' competitive advantage isn't in their technology, but the *data* they capture using that technology.

This creates what William Vorheis of *DataScience Central* calls Data Dominance (emphasis mine):

> *"To create a successful AI company you must create such a wide moat that no one can catch up unless they pay your price. That moat is not about technology. There are essentially no monopolies on deep learning technologies, only leaders that can quickly be copied.* ***The secret to a wide moat in AI is to have a virtual monopoly on the data you are using to train. In this case, monopoly also means such a large lead in users and data volume that no one can reasonably catch up.****"*

SSTI has a monopoly on gun-shot acoustic location data. This data solves myriad problems for police officers and local communities. The more data SSTI generates through their sensors, the better their sensors get. This allows the company to develop better models to help police officers find gun-shot locations faster. In turn, police departments further depend on SSTI's technology to do their job. Which creates more (and better data).

Wash, rinse, repeat.

**Data-first competitive advantages scale exponentially**. We can't quantify this in a valuation model, but it's the most important aspect of SSTI's business.

## Addressing Common Bull Objections

One major bear case against SSTI rests on police department budgets and allocation to SSTI technology. The premise goes like this: "What happens when police departments meet budgetary restrictions? Wouldn't they cut SSTI from their budget? What about the #DefundThePolice movement?"

The company's mission is to create greater *precision* policing. This means sending officers to *real* gun-shot situations in *less time* with *greater* accuracy. Doing so, SSTI helps departments do *more* with *less* workforce.

Let's role-play for a second. You're the Chief of Police at XYZ Station. You've used ShotSpotter for the last year and noticed reduced response times, more accurate arrests, and fewer criminals on the streets. The local government calls to say you're getting 25% less than last year's budget. What do you do? Do you remove the software that's enabled greater efficiency with fewer cops to produce safer streets? Or do you lay off a few officers?

You lay off officers. Remember, with ShotSpot, you're doing *more* with *less.*

Another issue is how/where they implement their sensors. The company solves this problem by placing its sensors at places where police hardware already exists (traffic cams, speed cams, etc.).

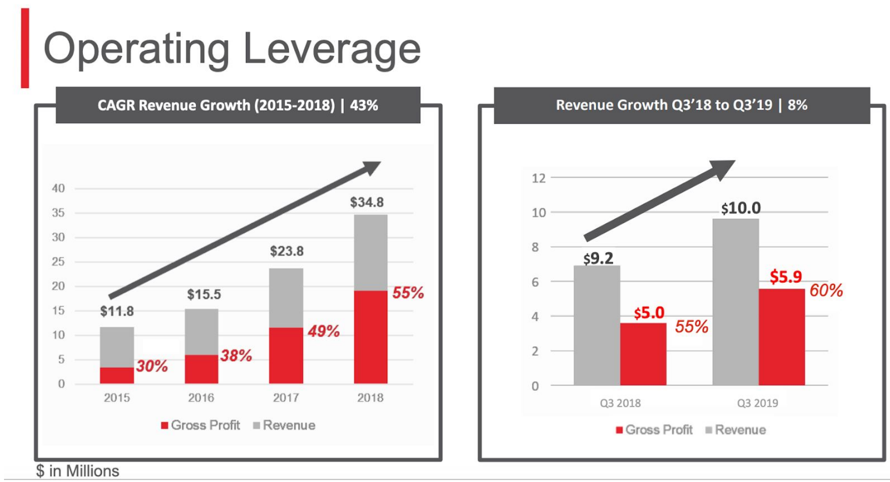
 

## Operating Leverage: Price Increases + Low Variable Costs

Those seeking evidence of SSTI's "stickiness" should look to their price increases for their product. The company charges customers by total square footage covered. Clark initially lowered the price to $40K/square mile when he assumed the role of CEO. Since then the company's increased prices like clockwork with *low* attrition (<5%).

This year SSTI's increased prices by $5K/sq mile (from $65K to $70K). Clark noted in the Q3 earnings call that they've received "little pushback" with the price increase.

This creates substantial operating leverage in their business model as early customers stay and new ones join at incrementally higher prices (see below):




## The $1B Addressable Market

The company sees a $1B addressable market ahead. When they get there and how much they capture, I don't know. But here's *how* they get there. SSTI segregates its market opportunity into four sections:

### 1. Domestic Public Safety Flex

This is their standard product serving police departments throughout the US. The company serves 100+ cities and 770+ square miles. The company sees ~1,400 cities adopting their technology.

If we assume each city does ~6.15 sq miles per contract, we get a potential 8.62K square miles of additional revenue. At ~$65K per square mile that's a potential $560M in annual revenue. That's also assuming zero price increases over the next 5-10 years.

### 2. SecureCampus

There are ~5,000 college campuses in the US. If each campus used SSTI's technology at a $50K/year contract that's another $250M in annual revenue.

### 3. International Flex

SSTI estimates a potential 200+ cities that could use their technology. They estimate ~$1M/year in revenue per city, or $200M total revenue.

### 4. ShotSpotter Missions

Missions work includes Patrol Resource Management and Precision Policing. These are ancillary SSTI products. The company estimates ~1,500 city adoptions at $50K/year contracts. That's another $75M in annual revenue.

Combined, these markets create a $1B market opportunity for a company without competition and an exponential head-start on potential competitors. In 2019, SSTI spent $0.43 to acquire each $1 of revenue while maintaining 111% net retention rates.

## What's It Worth?

The company has little competition in the gunshot detection market. This brings first-mover advantages in an industry where data is the most important asset. When we think about valuation, we should think about what percent of the market SSTI can capture over the next 5-10 years.

Given the $1B opportunity set, how much can SSTI *realistically* capture? 20%? 50%? I don't know. But let's start with 25%.

At 25% market capture, SSTI will do ~$250M in annual revenue at *much higher* EBIT margins. The company expects to hit 25-26% EBITDA margins by year-end 2021. That gives us $62.5M in EBITDA (~8x EV/EBITDA). If they spend an average of ~5% on cap-ex (which they anticipate in 2021) we get ~$59M in free cash flow. The stock currently trades ~$550M market cap with $30M in net cash on the balance sheet with no debt.

The above estimates assume **no increase in average price-per-square-mile** and **25% market share**. Those two assumptions could prove wrong with SSTI doing annual price increases and taking a greater percentage of market share than expected.

## Extra Shots on Goal

There are three extra shots on goal that could add incremental value to SSTI's product offering:

1. Animal Poaching
2. Anti-Blast Fishing
3. Ride-Sharing/Map Integration

SSTI's technology provides a logical solution to animal poaching and "fish bombing" (yes, it's exactly what it sounds like).

The company could also integrate with Google Maps, Waze, or Uber to provide an extra layer of transportation transparency. Waze does this already by identifying accidents or cops shooting radar along your route. With SSTI's technology, the leading map apps could alert drivers to gun-shots along the driver's route.

## Why The Opportunity Exists

Why are we the lucky ones to find this idea? What makes Mr. Market wrong? There are a few hypotheses:

- SSTI looks expensive on **current** revenues, cash-flow, fewerEBITDA
- Misconceptions about police budgets and stickiness of SSTI product
- Investors underestimate the size of the addressable market and the operating leverage in the core product

The company helps police departments do their job better with less resources. Customers love it enough to give SSTI a 70 NPS rating. Such devotion means they can increase the price with little attrition. That gives us a larger customer base with incrementally higher gross/EBITDA margins.

Over time, SSTI's first-mover advantage will translate into lasting competitive advantages as they take the lion's share of the $1B addressable market.

## Reading The Tape

SSTI is breaking out of a three-year symmetrical triangle pattern. This is a bullish signal and could indicate much higher prices over the next 12-18 months.