

IMAX CORPORATION (IMAX)

“Ideally, what we want is a company that is a leader in its industry, that has the capability of earning above-average returns on capital for the long term, a company that has tremendous long-term economics and those economics are either currently obscured by macroeconomic factors, industry factors, company-specific factors, or just the immaturity of the business.” – Bill Miller, Legg Mason

“The IMAX frame, I think, is really the best way to see a movie.” – JJ Abrams, Producer, Screenwriter, Director

Company History

IMAX, as a brand and movie format, has been around since the movie *Tiger Child* was presented at the 1970 World’s Fair, in Osaka Japan. Soon after, IMAX theaters began appearing in museums throughout the US and Canada in increasing numbers through the 1980s. For years, the IMAX brand was associated with high-quality displays of fascinating images of nature, geography and outer space in museum settings. Through the 1990s, IMAX operated exclusively as a visually stunning format focused on informative museum-style content rather than Hollywood films. It simply was not practical, and therefore impossible, for the company’s more complex camera, film and projection system to synchronize with the entertainment industry.

The company as we know it today first emerged in 2002 with the “Digital Media Remastering” (DMR) of *Star Wars Episode II: Attack of the Clones* and a re-release of *Apollo 13*. DMR was a technological breakthrough that bridged the gap between traditional film and the IMAX format. With a proven technological platform in place, several studios started experimenting with the IMAX format for releases in the early 2000s, yet, despite the transition to popular entertainment, the films were still displayed in museums housing IMAX theaters (and a few standalone IMAX theater centers) rather than the traditional movie theater chains.

The early 2000s were rough for IMAX. The company got caught up in the dot.com bubble overhang with a failing business model and a large debt burden. In 2006-07, as the economy started unwinding, the company was stuck with \$160 million in long-term debt and \$17.1 million in annual interest expense with growing losses and shrinking revenue. The solvency of the company was in question. IMAX was close to becoming a business school case study on how a big step forward in technology simply could not fit the prevailing landscape of an entrenched industry. While conventional film was priced at around \$1,000 per print per studio, IMAX prints were priced at \$22,000 for 2D and \$45,000 for 3D. Worse yet, while traditional film was light enough that no one ever thought to measure its weight, IMAX film weighed between 250 and 500 pounds, depending on the film’s length. This required extra equipment in a theater just to get the film reels in place for showings.

In 2006, when IMAX put themselves up for sale, an SEC investigation into the company's revenue recognition on new theater sales compounded problems even further. The SEC investigation led to a retrenchment from the plan to sell the company and a 40% drop in the share price. This fall hurt business as well, for no theater company wanted to shell out cash up front in order upgrade to IMAX equipment, while bankruptcy remained a possibility. Theater companies who had been hesitant to install IMAX theaters became increasingly apprehensive with the company's finances on the ropes. This inspired the company to create the joint revenue sharing (JRS) arrangement. IMAX would front the costs for its proprietary projection system to cinema chains in exchange for a share of the box office take on the IMAX screens

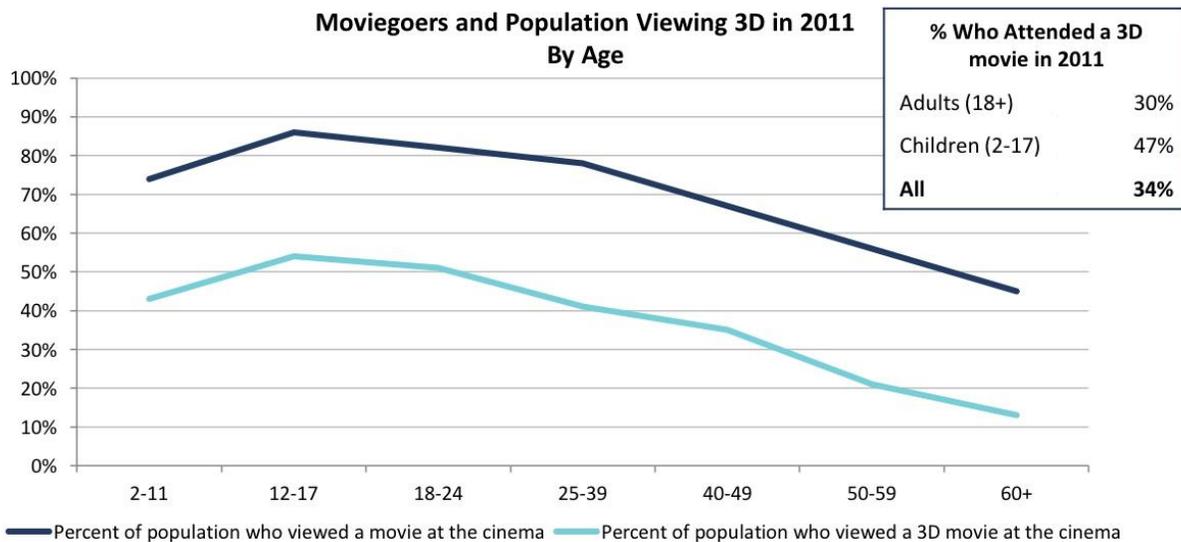
Just as things were bleakest on the financial front, IMAX took its biggest steps forward in technology. In 2006, IMAX finally figured out how to maintain the integrity of their picture quality in digital (rather than film) format; thus rendering the weight differential in film reels a moot point. In 2007, AMC theaters helped IMAX convert a screen in one of their Toronto theaters in order to test and refine digital projection, while exploring an enhancement to the company's business model. **With the transition from film to digital, the average cost per single print dropped by 99.5% from \$30,000 to \$150.** Shortly thereafter, AMC signed a 100 theater deal. Regal quickly followed suit, signing for 31 IMAX screens of its own.

In 2008, the company formally launched the JRS business model, while diluting equity in order to pay down debt. Kevin Douglas bought the majority of the equity dilution via an \$18 million private placement, taking his ownership stake up to 20%. At the same time, IMAX restated some of its past finances and the SEC eventually dropped its investigation with no action taken.

Finally the company had a theater footprint and the finances necessary to compound network growth and invest in further technological advancements.

From here, the IMAX story, as told by Mr. Market, took a turn for the better. IMAX rose on the backs of *Avatar* and promises of a wave of 3D from the movie theater to 3D HDTVs at home. The company's stock encountered problems as it became clear that this latest wave of 3D hype was not a fundamental shift in movie display, but rather a well-executed, touch to replicate synergy between plot and imagery. At that point, investors shed the company's shares, as 3D's momentum subsided.¹

¹ Following chart and industry statistics are from the 2011 Motion Picture Association of America's Report entitled "Theatrical Market Statistics"
<http://www.mpa.org/resources/5bec4ac9-a95e-443b-987b-bff6fb5455a9.pdf>



However, IMAX is by no means a 3D phenomenon; rather, it is a platform. Some of the top grossing movies in IMAX have been 2D, including *The Dark Knight Rises* and *Skyfall*. These visually stunning films draw audiences to IMAX screens because the “immersive” platform helps offers the reward that people want most from a theater: the “suspension of disbelief” and the experience of something magical.

Today, IMAX’s history as a dot.com hyped stock gone belly up combined with the perception of 3D as a passing fad continue to keep investors looking for growth at a reasonable price on the sidelines.

Industry History and the Globalization of Movies

In 1932 with the “Academy Ration”, the Academy of Motion Pictures adopted the first industry-wide standardization for an aspect ratio of a frame. This codified the form of 35 millimeter film used across the entire US cinema industry. Prior to standardization, displays were fragmented on both the studio and theater level, and different providers used different ratios. This resulted in various conflicts and inefficiencies; thus a standardized ratio across all studios and theaters led to increased efficiency and helped eschew what many cinema historians call “The Golden Age of Hollywood.” While many factors led to the rise of Hollywood, the move towards uniformity and efficiency in all stages of production and distribution was instrumental in increasing the capacity for the young film industry to grow.

In the early 1950s, “widescreen” became an increasingly popular format for film. This led, once again, to fragmentation. **Widescreen had first been used in cinema in 1927; however, it never gained broader industry traction until the early 1950s.** With growing traction, the Academy realized it was time to come up with a new standard for the dominance of widescreen, leading to the standardization of the “Anamorphic Format” in 1952. Like the Academy Ratio before it, the Anamorphic Format used 35 millimeter film, but it allowed for the shooting and display of widescreen imagery. **This is the traditional format on which we have watched movies since 1952.**

Since 1952 the film industry has grown tremendously, with little alteration in its display. Picture quality has improved, but the way we see and feel movies hasn't changed. Though the Academy has yet to formally embrace IMAX as a standard across the entire industry, it took notice of IMAX's advancements and awarded IMAX with two Scientific and Technical Achievements at the Oscar's for their "innovations in creating and developing a method of filming and exhibiting large-format, wide-angle motion pictures." IMAX, in contrast to all prior film formats, is in 70 millimeters and at a higher aspect ratio. It may one day become an industry standard, but, even now, the industry has begun to recognize IMAX's significance as a modern, popular and innovative platform.

People in America and the world over love going to the movies, and no one really questioned the vitality of the industry until recently. With the emergence of HDTV, the rise of the continuous plot TV series, and the Great Recession, would-be theatergoers stayed home to watch widescreen from the couch.

Due to the popularity of in-home entertainment, domestic box offices have registered modest growth over the past decade. 2012, the best year to date, notched a 6.4% improvement over 2011 levels. In aggregate, the total domestic box office at the end of 2012 was up a total of 17.3% from a decade prior.² Meanwhile, total admissions are down about 4% over this time period, meaning the growth in domestic box office has been driven by higher ticket prices, rather than increasing numbers of moviegoers.

The last year for which we have good international box office totals is 2011. In that year, the total global box office grew 3% to \$32.6 billion, and the annual domestic cut in 2011 contracted 3.7% to \$10.2 billion. There are two important points to take out of these numbers: 1) global box office growth currently outweighs the domestic slump and 2) global box offices now account for over 2/3rds of all movie revenues.

² <http://www.boxofficemojo.com/yearly/?view2=domestic&view=releasedate&p=.htm>

Global Box Office – All Films (US\$ Billions)



	2007	2008	2009	2010	2011	% Change 11 vs. 10	% Change 11 vs. 07
U.S./Canada ²	\$9.6	\$9.6	\$10.6	\$10.6	\$10.2	-4%	6%
International ³	\$16.6	\$18.1	\$18.8	\$21.0	\$22.4	7%	35%
Total	\$26.2	\$27.7	\$29.4	\$31.6	\$32.6	3%	24%

The major studios are becoming increasingly selective in the quantity of movies they release, while investing more into those that they do:³

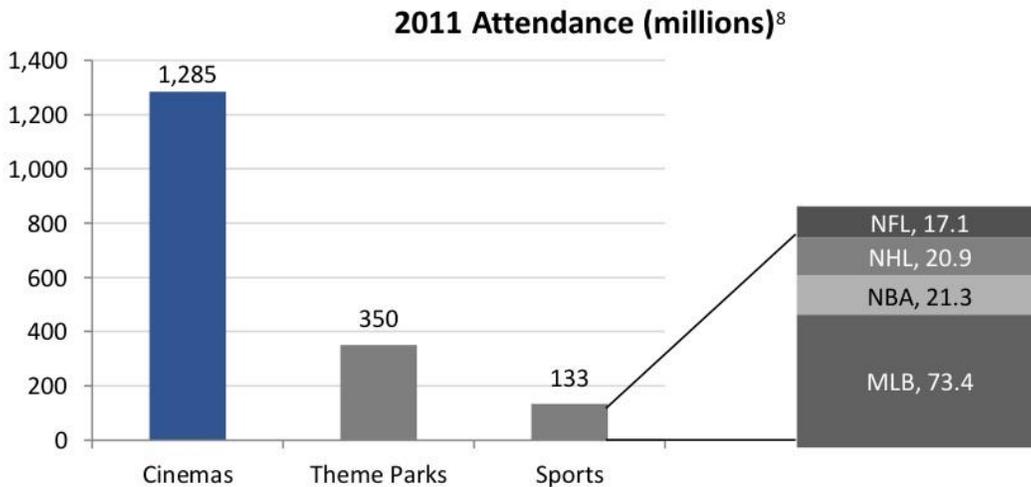
Film Ratings¹¹

Source: CARA

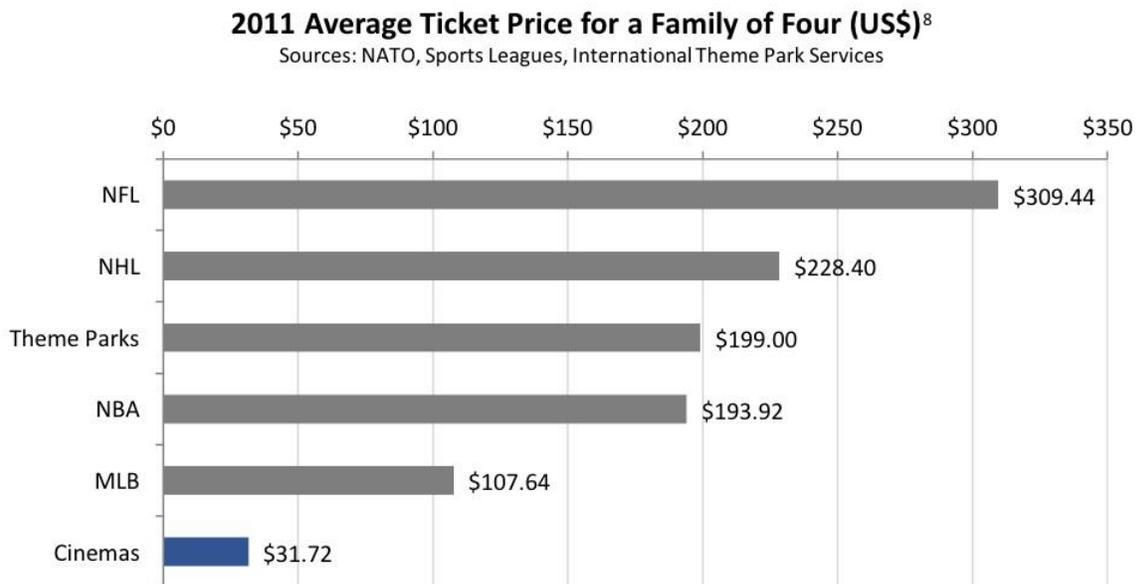
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	11 vs. 10	11 vs. 02
Film ratings	786	939	867	928	853	840	897	793	706	758	7%	-4%
-MPAA members	296	339	325	322	296	233	201	177	174	169	-3%	-43%
-Non-members	490	600	542	606	557	607	696	616	532	589	11%	20%

While movies have struggled in recent years, people still long for public forms of entertainment

³ <http://www.mpa.org/resources/5bec4ac9-a95e-443b-987b-bff6fb5455a9.pdf>



And movies remain the most cost-effective form of public entertainment:⁴



The IMAX platform restores a sense of differentiation between movies as public entertainment and the living room couch. Importantly, the IMAX platform is best equipped for both the globalization of film and steady long-term demand for public entertainment in the US. Further, IMAX is best positioned strategically to benefit from fewer movie releases with a great emphasis on visual effects, franchises and an increased emphasis on quality over quantity.

⁴ <http://www.mpa.org/resources/5bec4ac9-a95e-443b-987b-bff6fb5455a9.pdf>

IMAX's Growing Moat

As established above, the pace of change in movie screen innovation is amazingly slow—only two standards have emerged in the past 100 years, the last of which was codified in 1952. Additionally, the domestic movie business has been experiencing its most challenging performance period in recent history. In the movie business, the big players make money in one of three ways: production, distribution and display. This is an oversimplification, for in each area there are further refinements, but it overviews the competencies of the major industry titans. In order to create a sustainable franchise, it's essential for a company to enhance the value proposition for each key constituent in the ecosystem. IMAX accomplishes that. The company helps studios and theaters alike to make more money (even after IMAX's cut) while also improving the marketing platform; IMAX is the favorite showcase screen for movie directors to display their creative talents; and IMAX is a premium product with the best experience from a user's perspective.

IMAX is the one player best suited in all facets of the movie business. They play an increasingly important role in production, they are the co-distributor of all IMAX movies, and they share display of movies with the traditional cinema companies like Regal and AMC.

Display

Within this landscape, IMAX has dynamic and evolving relationships with each of the major players. We will visit each section in turn, starting with display for that's how IMAX entered the entertainment business and what most people associate with the company today. The Regal Entertainment Group is the largest movie theater chain in America, followed by AMC, then Cinemark. Each company owns several separately named brands; however they remain the major players in the field. AMC was IMAX's first significant partner in the JRS structure, starting in December of 2007. Interestingly, the Dalian Wanda Group, the largest cinema operator in China, and IMAX's largest global partner altogether, recently purchased AMC. Wanda has consistently emphasized the importance of IMAX screens to their own domestic strategy in China and abroad. IMAX also has a significant JRS deal with Regal, and a smaller one with Cinemax.

IMAX sells theaters in three distinct ways: outright sales, sales-type leases, and JRS. JRS offers by far the most advantageous economics for the company, and we will dig into the details in the numbers selection below. Collectively, all three methods increase the IMAX network which has profound Network Effects on the company's competitive position. For both sales and sales-type leases, IMAX generally doesn't receive any direct box office contribution from the theater companies (some sales and sales-type leases come with a small box office cut), but with JRS IMAX receives a contracted cut of the theater's take. In all of these relationships, IMAX receives longer-term maintenance contracts.

The deal with Regal is particularly important. Regal is currently launching its own large screen format in an attempt to compete with IMAX for an increased margin on this decade's higher ticket prices. As of September 27, 2012, Regal has 69 total IMAX screens and existing contracts to open 18 more. That

brings the targeted total to 87. Regal's own large screen, the Regal Premium Experience (RPX), boasts a total of 31 screens, with plans to add 4 more, bringing the target to 35. Though Regal is opening its own large screen formats, the screen counts and plans make it clear that Regal is committed to the IMAX brand. While Regal can create large sized screens, they cannot compete with IMAX on the quality of content that is uniquely customized for the screen itself. IMAX's key role in distribution and production further differentiates IMAX from other big screen competitors.

Distribution

IMAX works with the major labels to co-distribute movies to their platform. The role of a distributor includes marketing a film and setting a release date. IMAX now has deals with all of the major production companies for the distribution of movies. In exchange for a share of the box office take (in addition to IMAX's share of an individual theater's cut), IMAX is contracted to convert movies via DMR for display on IMAX screens. The distribution company then co-brands the release with IMAX (example: *The Dark Knight Rises: The IMAX Experience*) and uses the IMAX name brand in promotional materials, including commercials and print ads for the movie.

Together, the distribution companies and IMAX set dates for the release and IMAX run of the movie. In the past, IMAX had little leverage with distributors, so they were inclined to take anything early supporters of the platform, like Warner Brothers, threw their way. This created situations in which IMAX was forced to play movies with inferior box office potential to nurture relationships with the major studios. Now, the leverage has shifted substantially in IMAX's direction. This is due to accomplishments of the platform as an economic driver of movie success. To that end, *Mission Impossible – Ghost Protocol* and *Skyfall* (the new James Bond film) were both released a week earlier in IMAX than any other platform. *Star Trek: Into Darkness* is the next major movie slated for early release in the IMAX, and it's reasonable to expect more in the future. Further, *Hunger Games*, originally a movie with no plans of display on IMAX screens, was slotted in once the box office potential became clearer. This helped pave the way for the *Hunger Games* franchise to be allocated a premium showcase on IMAX for the next two planned releases. Using the IMAX platform in such a way allows the production companies to increase hype about their movies and to create an event surrounding the release.

Production

The DMR also fits the production side of the equation, for IMAX does the post-production conversion, footing the cost of approximately \$1 million per film. Several important movies have used IMAX cameras, including 72 minutes of *The Dark-Knight Rises*. When IMAX's cameras are used, the studios pay a rental fee for the equipment. IMAX has done substantial work upgrading their camera setup for further adoption in the filming process. In 2013, *Star Trek Into Darkness* and *The Hunger Games: Catching Fire* will both feature IMAX footage. For anyone who enjoys the visualization of movies, and the suspension of reality offered by large screen cinema, IMAX will be the only option to realize the full benefits of the technology. Regal's own large screens simply cannot compete. Filming in IMAX continues to get easier over time, and as IMAX laser projection (using a broad licensing deal of Kodak's intellectual property) is launched network-wide, both filming and production in native IMAX formats has

the potential to accelerate tremendously.⁵ This is an important step in differentiating IMAX from any potential competitors who try to compete on screen size alone.

Some have questioned IMAX's capacity to continue to extract a cut from their partners; however, a quick look at the economics for all players provides a resounding response "yes they can." As CEO Richard Gelfond recently outlined, a "studio is paying us 12.5% but they are getting an average ticket price of \$7 or \$8 from everyone else. **From IMAX they are getting an average ticket price of \$13. So they end up making more money by paying us 12.5%.**" More money is an easy answer.

When looking at a company like IMAX, it's important to analyze how the industry itself perceives of the brand. Here are some relevant quotes from industry leaders about the platform and brand:

James Cameron, director of *Avatar*:⁶

"I'm really stoked about what this film is going to look like in IMAX...The 3-D is an immersive experience, but in IMAX *Avatar* is overwhelming, almost intoxicating. You'll be drawn through the screen into a fantasy that seems utterly real even as it defies description. In our troubled economic times, audiences around the world are going to need more than ever a place to escape into a fantasy world, and with *Avatar* in IMAX, they'll be able to live and breathe in that world, and they won't want to come back."

Joseph Kosinski, director of *Oblivion*⁷

"Tom [Cruise] had a lot of success doing on *Mission Impossible: Ghost Protocol* we had a lot of success on *Tron: Legacy* just in IMAX as a format because of what IMAX offers in terms of brightness, picture quality and sound. *Tron: Legacy* did a lot of business in IMAX. As a percentage I think one of the highest. So from early on, once IMAX found out what this movie was about, the kind of landscapes and shots we were doing we all liked the idea that IMAX would be the first way to experience the film. I think it's the best way. And then roll out from there."

J.J. Abrams, director of *Star Trek*⁸

"Part of it was challenging because of the technical aspects of it, the machinery of it. The cameras themselves are a little unwieldy and a little loud and unpredictable. But then you go to dailies and you watch on this massive screen these images that you've shot having been filmed on a negative that's eight times bigger than what you normally use, and you cannot believe how good it looks. So that's exciting! But unlike *Ghost Protocol*,

⁵ <http://www.deadline.com/2012/04/imax-laser-projection-prototype-clears-way-for-much-larger-screens-cinemacon/>

⁶ <http://blastr.com/2009/07/sdcc-james-cameron-touts.php>

⁷ <http://screenrant.com/oblivion-imax-2013-tom-cruise/>

⁸ <http://insidemovies.ew.com/2013/01/24/j-j-abrams-star-wars-director/>

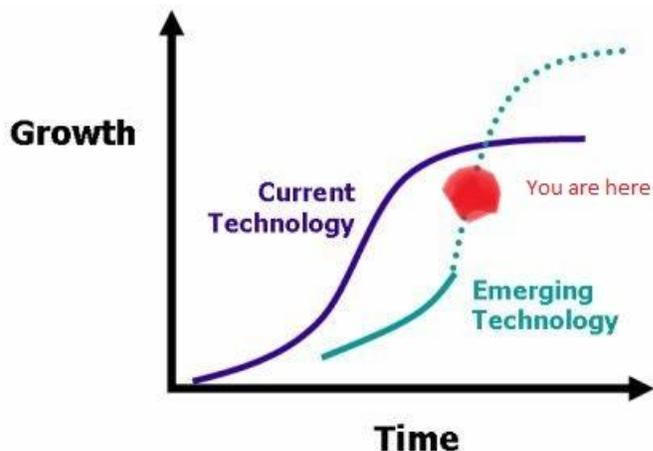
a lot of what we shot is integrated into special effects and visual effects in a way that I cannot wait for people to see. I think it really is mind-blowing, how it looks. The IMAX frame, I think, is really the best way to see a movie.”

Studios, producers, directors, actors and actresses, and moviegoers alike are already fond of IMAX and growing increasingly so.

This is the type of business that has several traits of moats that Buffett and Munger look for. Tren Griffen recently wrote a post on Charlie Munger on Moats from which I will borrow some terminology⁹. What we have largely outlined above is what would be called the demand-side economies of scale (aka the Network Effect). The Network Effect is “when a product or service becomes more valuable as more people use it.” The increased abundance of IMAX screens leads to more movies displayed in IMAX screens; more successful movies in IMAX lead to greater brand awareness and recognition; increased brand awareness creates an aspirational quality to the brand, which leads to further value and yet more movies. **There is also a virtuous cycle/self-reinforcing process at work here. The more success IMAX has, the greater the brand power, the more success IMAX has.**

This plays into the excellent supply-side economies of scale. These occur when a “firm that is part of an oligopolistic market will generate significant supply-side economies of scale in its production...as per-unit costs fall with increasing output.” Another way to say this is that IMAX has tremendous operating leverage, as its costs are largely fixed and the company’s margins grow with each incremental ticket sold. **At present, IMAX’s operating leverage is such that a 10% boost in revenues will lead to an approximately 41% increase in operating income.**

You can conceptualize this using Clayton Christensen’s S-curve as a mental model. The S-curve idea holds that disruptive innovation first must find a niche market where it can use the proceeds to innovate and iterate the technology until it reaches a tipping point upon which it can become the standard. IMAX started with the museum space, pivoted to DMR and heavy film, and finally evolved to the digital format where it has now reached the very early stages of its tipping point into the lucrative entertainment industry.



⁹ <http://25iq.com/2012/12/06/charlie-munger-on-moats-first-of-the-four-essential-filters/>

Business Model Math

IMAX the stock is not cheap on traditional valuation metrics. Its trailing P/E is 43, forward P/E is 20 and its EV/EBITDA is 23 with the stock trading at \$26/share. Clearly, considering the P/E will be chopped in half this year according to consensus estimates, the market is expecting healthy growth in earnings moving forward. In its history, the company has destroyed shareholder value, carrying a negative equity balance through 2008. Since then, much has changed.

We used a discounted cash flow model in order to approximate a fair value for IMAX. **Applying a 13% WACC, five years of net present value, plus terminal growth of 3%, the stock would be worth \$32/share, \$10.51 of which is the present value of 5 years' worth of cash flows.** This means that, buying shares today, we can earn 13% annualized as our compensation for the risk in this stock plus the 23% discount to fair value. Importantly, we believe a 13% WACC is on the conservative side for a company like IMAX that can now completely fund its growth with cash flow from operations without any need to tap capital markets in the foreseeable future and a low cost line of credit available should the company need it for strategic purposes. To put this in perspective, with a 10% WACC, the DCF price jumps to \$45, 40% greater than our \$32 initial target and 73% greater than today's market price.

Even at \$32, IMAX makes for a great growth at a reasonable price investment. This is a more palatable 14x EV/EBITDA for a company whose top line is growing at greater than 14% annualized with the operating leverage necessary to rapidly expand gross margins. To further our case, we will undertake a two-step process: dig into the economics of the business and compare and contrast reasonable numbers based on the consensus to market expectations.

A crucial mistake investors and analysts alike make is trying to model IMAX based on projected box office takes and reacting positively or negatively to the performance of any one film. This is a complete mistake, because it overlooks the network growth and movie releases are inherently unpredictable. This problem is both a cause and effect of just how difficult it is to neatly model a projected share price value for IMAX.

We operate under the premise that "it is better to be roughly right than precisely wrong," while targeting 15% annualized gains over a three to five year time horizon in each of our core portfolio positions. We don't necessarily need to peg a precise value on this company; we simply need to establish a baseline for which it is justifiable to expect 15% annualized gains. The companies best suited to accomplish this goal are those with pricing power and an opportunity to invest their cash flows into their own businesses at high rates of returns. The growth must come from returns on invested capital that outpaces the weighted average cost of capital for the stock.

Now that IMAX has a steady flow of cash from operations, the company has a great opportunity to invest in the growth of its theater network through JRS, which is purely accretive to value. JRS and DMR

are the two ways in which IMAX can capitalize on its growing network. DMR conversions happen at a fixed cost per movie; thus making any increases in the corresponding box office cut accretive to both profits and margins.

The revenues from the JRS platform grow far quicker than the costs. This is equally true of DMR, in which the cost to convert a film to the format stays level while growing per screen averages and an expanding theater network increase the revenue take per film. Throughout the business model, largely fixed costs and a growing revenue base should help drive IMAX gross profit margins from 54% in 2012 to upwards of 60%, well on its way to the company's target of 69% by 2016. Improving gross profitability goes a long way towards increasing the economic power of a business. Because of these dynamics embedded in the JRS and DMR business model, IMAX moving forward will look like a very different company than IMAX looking backwards. While DMR is a great driver for IMAX's business, it is with JRS that the company is really building a valuable asset base and enjoying incredible returns on invested capital today.

JRS as a platform was introduced in 2007. In 2011, JRS accounted for 12.7% of IMAX total revenues, yet in 2012, JRS accounted for 20.2% of total revenues. This growth is due to a better film slate than 2011 but also to a growing network. Not all JRS deals are identical, but all share several common traits. For each JRS theater, IMAX invests \$500,000, which it then depreciates over the course of 3 years. The average JRS theater earns between \$1 and \$1.2 million per year in box office sales and, a portion of concessions estimated at \$300,000 per theater per year, but for the purposes of this exercise we will assume merely a \$1 million annualized box office take. On average, theaters have an 80% gross margin, after which IMAX takes a 40% cut. JRS deals last for 8-10 years. They then come with an option for renewal on the theater company's end. **Using these numbers, factoring in 2% annualized ticket price inflation, each investment of \$500,000 has a pre-tax IRR to IMAX of 60% over the 8-10 year period, assuming no ticket price inflation.** Since ticket prices globally have risen much faster than 2% annualized, we think these are fairly conservative assumptions. Further, the IRR calculation assumes 0 residual value at the end of the 8-10 year term, and considering the value proposition offered to theaters that have IMAX screens, renewals are likely, and would substantially increase the return assumptions.

At present, the company is installing 120 commercial theaters per year, half of which are JRS. This means that, each year, IMAX is investing \$30 million in JRS annually, which will accrete in value at 60% on a pre-tax basis, or adding the equivalent of approximately \$130 million to the company's net present value using the aforementioned 13% WACC just from JRS alone. It takes 13 years of JRS growth at today's pace to add up to the entire value of the company today, and IMAX already has over 600 commercial theaters installed, around 300 of which are JRS, and 137 new JRS installs contracted in backlog as of December 31, 2012.

The existing network has set the stage for steady growth, but continued investment at exceptionally high levels of return will accelerate growth. The company has been very protective of its brand, offering a \$20 million box office zone of exclusivity for each theater while targeting a relatively modest, albeit growing, number of zones around the world.

Zone Analysis Update: 1,700 and counting...

	IMAX Network	% Penetration	IMAX Zones
Domestic	301	62%	485
Greater China	73	18%	400
Rest of Asia	42	19%	225
EMEA	77	19%	415
Latin America	17	10%	175
Worldwide Zones	510	30%	1,700

Note: Includes commercial theatres only as of March 31, 2012.

The “Zone Analysis” highlights a key element to IMAX. In the numbers, we’ve been focusing mostly on the domestic box office situation, but IMAX performs even better abroad than it does at home. Per screen averages are higher, and the brand is perceived as equivalent with American icons like Nike and Starbucks. In February of 2012, through WTO negotiations, China agreed to concessions allowing global media companies more access to the country’s growing markets. IMAX was the one brand that was specifically singled out by name in these accords, as the company was granted the privilege to display more movies in Chinese theaters, and to take a higher percentage of the revenues from its theater network (China had capped the amount of money that foreign companies could extract from ventures there)¹⁰

One way to attempt to peg a value on a franchise is to use Martin Liebowitz’ *Franchise Value* approach. This involves stripping apart the components to a firm’s value: its present value, its franchise growth phase value, and its terminal value. One such conception of the franchise value formula looks at the potential market opportunity. In 2012 global film was a \$34.7 billion market, growing by 6% over the 2011 levels¹¹. 37% of the growth in global box office totals came from China, which recently passed Japan as the second largest global markets. This is significant insofar as IMAX is concerned, for China allows advantageous terms for IMAX compared to the typical Hollywood film export arrangement. Assuming IMAX can capture just 3.5% of the global cinema market (in 2012 the company grossed just 0.45% of the global box office, double its prior year level), using the consensus estimate for 2013 revenues, 16% TTM ROE, 21% projected franchise ROE (we think this is very conservative), we get a derived P/E for IMAX of 46 on 2013’s analyst consensus \$1 of earnings per share, or a price of \$46.00.

¹⁰ <http://www.hollywoodreporter.com/news/imax-welcomes-wto-agreement-china-292607>

¹¹ <http://variety.com/2013/film/news/global-box-office-hits-record-in-2012-as-hispanic-attendance-grows-1200327049/>

Another way we like looking at franchises is to understand what the market is implying about its future earnings power and growth. To do this, we can look at the Market's Implied Competitive Advantage Period (MICAP). With MICAP, we can determine how many years of discounted cash flow it would take for the company to earn 100% of its present value. This is defined as the Competitive Advantage Period. In IMAX's case, using the same DCF assumptions as above, the market believes IMAX can sustain above-average returns for the next 10 years. This means that any growth at all past the 10 year timeframe would give a long-term investor a cash flow yield in excess of today's DCF value. Considering the MICAP for the market is estimated at somewhere between 10-15 years, IMAX presence on the low end of this range is favorable to long-term investors due to the qualitative and quantitative factors of the business model outlined above¹².

At the outset of the numbers section, we stated our belief that pegging a precise number wasn't our goal, and that remains true. What we think we have outlined here is a reasonable basis for this company to a) compound value at a rapid rate moving forward and b) be capable of earning 15% annualized from today's price level. Plus this is a business with strategic asset value in its own right whose replacement value alone is worth well in excess of the company's book value due to the factors outlined above.

Risk factors:

Much of IMAX's value comes from its growth. That alone poses a considerable risk. Further, this increases the vulnerability of the company to execution error from management. Present management has adeptly navigated through a tumultuous history, though success has come following an accounting probe and considerable strokes of luck. These factors are not to be ignored. Today IMAX is a company whose business model affords a much higher margin for error from management.

An increasing global presence comes with its own risks, particularly in China. China has made it very difficult for foreign companies to extract earned income, and the country's track record with intellectual property in the entertainment arena is concerning.

IMAX's earnings are consistently inconsistent over time, and this is due to the nature of the film business. It's very difficult to precisely project numbers over shorter and even medium term time periods. Movie grosses vary from film to film and season to season, and while the persistence of blockbusters is strong over time, the magnitude of blockbuster films, and the time lag between their appearances both varies considerably and carries significant consequences for IMAX's cash flow. We think this actually contributes to IMAX attractiveness, as the unpredictability has left many unwilling to dive deeper into the business model and leaves much of the analyst community focused on projecting individual film box offices rather than pricing IMAX based on network growth. However, this remains a challenge for both management and investors alike in ascribing a fair valuation to the company.

Lastly, one key concern is management's strategy on capital allocation moving forward. Despite the growth runway, the company is in a very different financial situation and state of maturity than in years

¹² <http://people.stern.nyu.edu/adamodar/pdfiles/egnotes/cap.pdf>

past. This year it is almost certain that cash flows will outpace the investment opportunity in JRS alone. This poses the question as to what management will do with surplus cash? Were management to undertake value destroying strategies, this could greatly curtail the long-term value available to shareholders. On the other hand, were management to pursue appropriate, shareholder friendly tactics, this could serve as a great boon to value. While management has mentioned their desire to undertake buybacks and eventually instate a dividend with the “recurring cash machine,” what is discussed and what is implemented can vary substantially. A positive development on this front was the company’s recently revised credit facility which amended the size upwards from \$110 to \$200 million and revised terms of a prior agreement¹³. Previously buybacks and dividends were prohibited. Now they will be allowed, yet what happens remains up in the air.

In Sum:

There is yet more positive we can say about IMAX and feel as though the international story could justify its own long write-up, but we need to draw the line somewhere. The fact of the matter is, IMAX business economics are outstanding. While it may seem far-fetched today, IMAX has a very legitimate opportunity to become the first ever ubiquitous global standardized platform for cinema display. This is a possibility we did not discuss at all above, though we hinted at it when pointing out how overdue the film industry is for an update in screen standards. Should this happen, there is optionality to the value of the company that would be impractical to estimate today. Further, IMAX is the only North American film institution in a position to work as a partner with burgeoning international film regions like Bollywood in India and China’s own domestic production companies.

Whether IMAX becomes a standard or not, the company is in a great competitive position with all of its key partners and fills an important role in production, distribution and display—each of the key verticals in the movie business. Additionally, the company has a very clear-cut runway of growth coming from its conservative management of IMAX “zones” and two years’ worth of installations already in backlog. Now, let us include a caveat. This is not the type of company that prudent investors ought to chase higher. It’s a long-term investment, with a long duration. Anyone interested in accumulating a stake should do so patiently and seek out the opportunity to buy dips rather than sharp pops in the stock.

We would be buyers of IMAX’s stock up to the \$32 price objective cited in our DCF analysis above. As we have attempted to make clear, our objective is not to declare a firm price target, instead we explain how and why this business, at today’s price and up to \$32 has a reasonably high likelihood of returning 15% annualized. When you add up the competitive moat, the ability to invest capital at high rates of return, and the optionality for something extremely positive, the \$26 price/ \$1.78 billion market cap is clearly an attractive level to buy into. The company is a lean business which doesn’t require much capital to fund its growth, throwing off increasing amounts of cash from a recurring revenue stream that will operate well into the future. That is a clear path to accreting shareholder value over time.

¹³ <http://online.wsj.com/article/PR-CO-20130208-908077.html>

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