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Hamilton^a

In the theater you can make a killing, but you cannot make a living (Old Broadway adage)

In the fall of 2014, with the draft of a new musical on the life of Alexander Hamilton nearing completion, Jill Furman and her two co-producers, Jeffrey Seller and Sander Jacobs, had to decide whether to back the show's composer, Lin-Manuel Miranda. With his first musical in 2008, *In the Heights*, Miranda had demonstrated that there was a large potential market for his hip-hop-infused approach to musical theater. A Vassar Workshop in the summer of 2013 had recently confirmed that there was interest in his newest musical about Hamilton. For his part, Miranda was eager to again partner with Furman, Seller, and Jacobs, each of whom had served as co-producers of *In the Heights*.

However, staging a Broadway musical was not simply an artistic undertaking: it was also a large-scale and high-risk business venture. Forecasting which, if any, of the ten or so major Broadway productions that debuted each year would become a profitable blockbuster was notoriously difficult. But from an investor perspective, this was a critical task. Launching a major Broadway production generally cost between \$5 and \$15 million. Some productions could be even more expensive to launch, offering their backers even greater potential upside in exchange for this additional downside. For instance, *Spiderman* had cost \$75 million to produce in 2010 and had failed to return any capital to its investors¹. The *Lion King* had cost \$27.5 million to produce in 1997 but went on to become the highest grossing musical of all time². In the vast majority of productions, investors failed to recoup their investment. The key to success for Furman, Seller, and Jacobs was to avoid the next *Spiderman* and, hopefully, to find the next *Lion King*.

Without hundreds of thousands of people willing to pay around \$100 each to see *Hamilton: An American Musical* performed, they knew that their excitement would mean nothing. The streets of Broadway were littered with the playbills of expensive and exciting musicals that later bombed at the box office. Would audiences really line up in large numbers to see a Broadway cast perform a series of hip hop songs about a relatively obscure Founding Father whose main claim to fame was having died in a duel over 200 years ago?

^a The simplified tax rules, merchandise contributions, touring earnings, sequential staging at The Public, the absence of an investor waterfall, and the probabilities of critical acclaim and box office demand that are described in the text are not meant to be an exact depiction of the Hamilton investment opportunity.

Broadway

Located in Midtown Manhattan, Broadway was a district of 41 professional theaters, each with 500 or more seats. Representing one of the world's largest concentrations of live commercial theater, Broadway was perhaps the premier tourist destination within New York City. In 2014, over 12.2 million people attended Broadway shows, bringing in gross receipts of \$1.27 billion³.

The first decade and a half of the 21st century had been something of a second golden age on Broadway. After decades of modest growth, a surge in public demand had pushed up ticket prices rapidly, with ticket price growth outpacing inflation by almost 2.5 percent per year since 2000^b. Ticket prices were expected to continue rising at this rate for the next five years, and to grow with inflation thereafter. And, with over 600 productions debuting since 2000, the past 15 years represented perhaps Broadway's greatest period of creative output to date. The vast majority of these were revivals, plays, and temporary runs. But over 100 were full-scale musicals—productions that required millions of dollars of upfront investment and thousands of hours of set and costume design, choreography, and rehearsal before a single audience member could see the author's vision come to life. Some of these musicals succeeded and many more failed. But a few would go on to become blockbusters. Three of the ten longest-running and top-grossing musicals of all time had been introduced since 2000, and several others were well on their way to joining this elite club. (See **Exhibit 1**.) Blockbusters played before packed houses eight times a week and generally sold out many months in advance. And, as their Broadway run continued and demand far outstripped supply, they often launched productions in London, Chicago, and San Francisco and spawned touring companies that would perform in cities across the U.S. and abroad.

Financing Broadway

Typically, Broadway producers raised funds from what were known as “accredited investors” — individuals with at least \$1 million in net worth (excluding their home) and an annual income of at least \$200,000 (or \$300,000 for married couples) for the past two years^c. Because of the significant risk, most financial advisors steered their well-heeled clients away from Broadway investments. The minimum investment size usually was \$25,000^d. And, productions were typically funded as limited liability corporations, so investors were not liable for any legal problems that arose. As Furman said:

[Finding investors is] a large piece insofar as you cannot produce your show unless you raise the money. I will ask anyone for money. The MBA helped with that, too, because I feel at ease discussing numbers, but I think most people I ask for money feel this way, too. They want to support me and theater. I'm selling my passion for a project. But there's a saying in our business: You can't make a living, but you can make a killing. Producers don't make money until a show is up and running. But 80 percent of shows don't work. I look at all these shows as if they're startups. From what I understand, startups have the same success rate. It is super-risky.⁴

Major upfront costs included those for constructing sets, designing costumes, setting up lighting and sound, and paying creative fees and advances. (See **Exhibit 2**.) Ongoing operating costs or “running costs” were also considerable. Each week that it was ongoing, most major productions spent between \$500,000 and \$700,000 on performer salaries, theater rental, advertising, and production

^b Calculated using data from The Broadway League (<https://www.broadwayleague.com/research/statistics-broadway-nyc/>)

^c The Broadway Investor's Club, “What is an Accredited Investor?” <https://www.investingbroadway.com/what-is-an-accredited-investor>

^d Cody Lassen & Associates, “Broadway Investing FAQs,” <https://codylassen.com/broadway-investing-faq/>

salaries. Since the typical production ran eight shows a week, breaking even each week meant taking in almost \$100,000 in ticket sales per show. And, with theaters that ranged in capacity from around 600 to over 1,900, and prices averaging around \$100 per seat, the typical show needed to sell most of its available seats at the full retail price for most of its performances simply to avoid ongoing operating losses. (See **Exhibit 3**.)

And, for investors to recoup their upfront costs, their show needed to remain open and profitable for many weeks. An early indicator of a show's longevity was the enthusiasm of critical reviews. Shows that received favorable reviews garnered attention from Tony Awards voters, and Tony Award nominations and wins generated greater interest from the theatergoing public.

Jill Furman and Lin-Manuel Miranda

Jill Furman was born and raised in Manhattan. Regularly attending movies and the theater from a young age, she knew she wanted to be a producer one day. After graduating from Brown University in 1990, she spent several years living in Los Angeles and working for a talent agency. She then returned to New York, received an MBA from Columbia Business School in 1997, and worked as an associate producer for several Broadway shows.

Lin-Manuel Miranda had grown up nearby Manhattan's Washington Heights neighborhood – the largely Latino neighborhood that he would one day celebrate with the freestyle-rap and salsa-infused numbers of *In the Heights*. Miranda attended Wesleyan University where he wrote and performed the earliest versions of *In the Heights* in 1999 during his sophomore year. After graduating from Wesleyan in 2002, Miranda moved back to Manhattan, working as an English teacher at his former high school by day while pursuing his career in musical theater by night.

In 2003, in the basement of a tiny Manhattan theater, Furman had seen Miranda and his cast perform several songs from *In the Heights*. She immediately signed on to help develop and co-produce *In the Heights*. (See **Exhibit 4**.) "I had never heard rap in musical theater," recalled Furman, "I had to get behind this person so that more people would experience his genius."⁵ *In the Heights* took many years of development. As Furman remembered:

[The other producers and I] invested several hundred thousand dollars, over the course of a couple years. That paid for space, actors, and presentations. I gave feedback: what worked, what didn't, what needed to be strengthened. In theater, the writer is king or queen, but if you're working with producers who really believe in you and know what they are doing, they're looking out for your best interest. So, there's a give-and-take.⁶

Premiering on Broadway in February 2008, *In the Heights* would go on to be nominated for 13 Tony Awards and would win four Tonys, including those for Best Musical and Best Original Score, announcing Miranda's arrival as an important new Broadway composer.

The Hamilton Mixtape

In 2009, following the success of *In the Heights*, Lin-Manuel began working on an even more audacious project. While vacationing in Mexico, Miranda read Ron Chernow's biography of Alexander Hamilton and became enthralled with the life story of this unique American Founding Father. An orphaned immigrant, Hamilton had risen rapidly to become George Washington's top aide during the American Revolution, played a crucial role in ratifying the U.S. Constitution, and served as the first U.S. Secretary of the Treasury, only to later stumble with a sex scandal and die in a gun duel at the hands of Vice President Aaron Burr. Soon after his vacation, Miranda began working on a project that

he called *The Hamilton Mixtape* that attempted to tell Hamilton's story through a series of hip hop, R&B, and pop numbers.

Early on, Miranda had decided to use "race-reversed casting," having Black, Latino and Asian actors portray Hamilton, George Washington, Thomas Jefferson, Aaron Burr, and other white historical figures in *Hamilton*. As Miranda explained, "Our cast looks like America looks now, and that's certainly intentional. It's a way of pulling you into the story and allowing you to leave whatever cultural baggage you have about the Founding Fathers at the door."⁷ During the summer of 2013, Miranda performed some of the numbers from the *Mixtape* at a Vassar College workshop. As Furman recalls, "It was totally bananas. Everyone was just blown away, and every age group, every ethnicity, was represented at these workshops. So, we knew we had something special."⁸

To launch on Broadway, *Hamilton*'s backers would need to raise \$12.5 million from investors⁹. This would be no small task, even in the wake of Miranda's success from *In the Heights* and with many deep-pocketed investors who trusted Furman's judgement.

The Public Theater

For many years, Oskar Eustis, the artistic director of The Public Theater, had been trying to convince Miranda to develop and premier his show at The Public¹⁰. Located in lower Manhattan, The Public was a non-profit focused on developing and showcasing "the works of up-and-coming playwrights and performers."¹¹

Polishing and debuting the musical at The Public prior to launching it on Broadway was attractive along several dimensions. First, it would give Miranda the time and creative space to bring *Hamilton* to life. Second, the cost of staging the production at the Public would only be \$1.9 million¹². If the musical received the reception they hoped for, they would be far more capable of raising the remaining \$10.6 million needed to open on Broadway. However, if the show's appeal turned out to be more limited, they could easily regroup and reconsider.

Of course, The Public route was not costless. The Public's proposed legal agreement stipulated that "commercial partners will have no control, artistic or financial, over the Public Theater presentation of *Hamilton*, nor can they benefit financially from the tryout."¹³ In addition, should the show move to Broadway and prove successful, The Public would be entitled to up to 1.5 percent of the gross adjusted weekly box-office revenues plus 6 percent of net profits¹⁴, thereby reducing the profits available to other investors and the show's producers.^e

There's No Business Like Show Business

To bring *Hamilton* to Broadway as a full-scale musical, costs would follow those in **Exhibit 2**. *Hamilton* would not have elaborate sets but the size of its cast and its wardrobe and musical needs put its upfront costs squarely among those of other large-scale Broadway productions.

The upfront **operating costs** would be expensed immediately, generating a tax credit to *Hamilton*'s investors. Some of the upfront costs, including investments in scenery and costumes, were considered **capital expenditures** that would be capitalized and then depreciated over a five-year period. If the show shut down, either before or after the five-year depreciation schedule, these capitalized investments would have no sale value. A final portion of the upfront costs consisted of pre-paid expenses of \$3.9 million¹⁵. These upfront **working capital needs** would rise with inflation until the

^e Gross adjusted box-office revenues were typically ten percent lower than gross ticket sales due to credit card deductions, group sales commissions, ticket printing expenses, and the like.

show shut down, at which point they could be recouped. In addition to these upfront expenditures, *Hamilton's* weekly running costs would be considerable. (**Exhibit 5** details these costs, which depended in part on whether the show won nominations and Tony awards.)

Blockbusters and Flops^f

Revenues were far more challenging to forecast. But the history of Broadway and the experience of earlier shows provided some guidance. (See **Exhibit 1**.) The outcomes for major Broadway musicals since 2000 fell into three broad categories: Blockbusters, Successes, and Flops. **Blockbusters** were the rare musical whose Broadway run was measured in years rather than months; they invariably received Tony nominations and awards; they sold out months ahead and were able to charge significantly higher prices than other shows; and importantly, their success on Broadway spawned numerous tours and runs in U.S. cities and abroad.

The second category, **Successes**, were productions that ran for largely full theaters for many months to several years. Many of these productions received Tony nominations and awards and occasionally even spawned limited tours and or other productions. Investors in Successes generally recovered their initial investment and often earned an attractive return.

The final category, **Flops**, were the productions that, despite the best efforts of everyone involved, failed to cover their running operating costs and were forced to shut down after several weeks.

Of the roughly 125 large-scale original musicals that debuted on Broadway since 2000, only 11 of them had been true Blockbusters or were well on their way to being considered as such. These musicals had average attendance of 1,362 per show and charged an average price per ticket of \$126 in inflation-adjusted dollars, appropriate for the July 2014 through June 2015 Broadway Season. By the end of the first year, a Blockbuster would sell the average ticket two months in advance, for a total of 16.7% of gross adjusted box-office revenue. A Blockbuster would win more nominations and win more Tony awards. A Blockbuster could be expected to run for a minimum of four years. At the end of the fourth year and each year after that, Blockbusters faced a 13 percent chance of shutting down. Merchandise sales would increase the EBITDA of a Blockbuster by 5 percent of gross adjusted box-office revenues. And finally, beginning in their third year, Blockbusters could be expected to begin to receive a boost from touring income which would increase EBITDA by 185 percent for each year that the show remained on Broadway. With the management of the tour outsourced, there would be no additional operating expenses, working capital investments, advance ticket sales, or capital expenditures associated with the tour.

Another 39 musicals that debuted since 2000 could be considered Successes. These musicals averaged attendance of 1,036 per show and ticket prices of \$104. They would sell the average ticket one month in advance, for a total of 8.3% of gross adjusted box-office revenue. The average Success would run for at least two years and then face a 45 percent chance of shutting down at the end of that year and each year after that. Merchandise sales would increase the EBITDA of a Success by 2 percent of gross adjusted box-office revenues. Although a few of them launched tours, the associated contribution to earnings was negligible in expectation. For a new show in 2015, whether a Blockbuster or Success, the appropriate tax rate on its EBIT would be 35% for the upcoming Broadway season and beyond.

^f This section contains illustrative estimates for Blockbusters, Successes, and Flops developed by the casewriters from Jeremy Gerard, "Hamilton' By The Numbers: Anatomy of A Broadway Blockbuster," Deadline (September 18, 2015) deadline.com/2015/09/hamilton-by-the-numbers-anatomy-of-a-broadway-blockbuster-1201534240/

The remaining 75 shows were Flops as they had failed to provide any return to their investors in the form of cash flow or tax benefits. In addition to these 75, some shows failed to launch entirely.

Decisions⁸

Reviewing these figures, recalling Miranda's success with *In the Heights*, and reflecting on the *Mixtape's* reception at Vassar, Furman assessed *Hamilton's* prospects of experiencing each of these outcomes.

Without a run at The Public in the spring of 2015, the new musical stood a 6 percent chance of becoming a Blockbuster, a 24 percent chance of becoming a Success, and a 70 percent chance of being a Flop. But the critics' reception of a run at The Public would be highly informative of how a Broadway run would unfold. There was a 25 percent chance the critics would love it, a 50 percent chance the reviews would be good, and a 25 percent chance the reception would be poor. Should the show receive rave reviews, there was a 20 percent chance it would go on to be a Blockbuster and a 41 percent chance it would be a Success, with the remaining 39 percent as a Flop. With good reviews, the show had a 2 percent chance of becoming a Blockbuster and a 20 percent chance of being a Success. And finally, with poor reviews, the show stood no chance of becoming a Blockbuster and only a 15 percent chance of becoming a Success.

It was unclear whether *Hamilton* could be expected to earn a reasonable rate of return for their investors. If *Hamilton* debuted at The Public, royalties and profits would be allocated as shown **Exhibit 6**. The royalty expenses would be assessed based on the show's gross adjusted box-office revenues. If Furman and Miranda went straight to Broadway and skipped the initial run at The Public Theater, outside investors would be responsible for the entire upfront investment of \$12.5 million in June 2015. Investors would receive a 45% share of all subsequent free cash flows in this case, because The Public would not receive a profit share. If they instead decided to stage a trial run of *Hamilton* at The Public in early 2015, outside investors would be responsible for the initial \$1.9 million in December 2014. Afterwards, investors would have the option to provide an additional \$10.6 million in June 2015 to take the show to Broadway. In this case, outside investors would receive 42% of all subsequent free cash flows from the production of *Hamilton*. (All of the relevant cash flow assumptions are collected in **Exhibit 7**. In **Exhibit 8**, these assumptions are used to forecast the EBITDA for *Hamilton* assuming that Furman and Miranda went straight to Broadway and the show proved to be a Blockbuster.)

The decision to steer investors to fund in *Hamilton* would not be an easy one for Furman. Should she use The Public Theater to test the concept? How could she be sure that the new show would resonate with the broader theatergoing public and not just the critics? After all, tourists were the largest segment of Broadway theatergoers. "The late William Goldman famously wrote, 'Nobody knows anything' about the movie business," she said, "The same is true in the theater. It's almost impossible to know what will work and what won't."¹⁶

⁸ This section contains illustrative estimates for the probability of the show's box office outcomes and critical reviews made by the casewriters.

Exhibit 1 Broadway Musicals, 2000-2014

Show	Opening	Run (weeks)	Broadway Attendance Per Show	Broadway Ticket Price	% of Capacity
Blockbusters					
Wicked	Oct-03	584*	1,781	\$135.29	98%
The Book of Mormon	Mar-11	200*	1,093	\$192.21	103%
The Producers	Apr-01	317	1,449	\$128.13	85%
Kinky Boots	Apr-13	95*	1,376	\$128.88	97%
Aladdin	Mar-14	43*	1,714	\$98.58	99%
Jersey Boys	Nov-05	478*	1,149	\$137.15	94%
Mamma Mia!	Oct-01	685*	1,327	\$113.42	90%
Matilda the Musical	Apr-13	94*	1,366	\$104.09	95%
Hairspray	Aug-02	334	1,279	\$111.92	90%
Mary Poppins	Nov-06	331	1,464	\$95.85	82%
Beautiful: Carole King Musical	Jan-14	58*	980	\$137.61	96%
Average of 11 Blockbusters		455**	1,362	\$125.74	93%
Average of 39 Successes		116***	1,036	\$104.19	81%
Average of 75 Flops		19	799	\$79.09	67%
Average of All 125 Musicals		88	922	\$91.03	74%

Source: Casewriter adaptation from "Cumulative Broadway Grosses by Show," *BroadwayWorld.com*, <https://www.broadwayworld.com/grossescumulative.cfm>, accessed July 2021.

Note: Weekly gross and ticket prices are inflation-adjusted to the 2014/2015 season.

* Still running

** Does not include Blockbusters that have opened since 2010

*** Does not include Successes that are still running

Exhibit 2 Typical Up-Front Cash Flows of a Broadway Musical, \$000

	<i>The Public, Then to Broadway</i>		
Item	The Public	Incremental to Broadway	Direct to Broadway
Up Front Capital Expenditure			
Scenery	600	0	600
Costumes	300	0	300
Lighting	50	100	150
Sound	50	200	250
Creative fees	400	300	700
Total	1,400	600	2,000
Up Front Operating Expenses			
Music	77	692	769
Artistic salaries	231	3,769	4,000
Management salaries	77	615	692
Production salaries	77	462	538
Rehearsal expenses	77	692	769
Advertising	77	231	308
Publicity	77	538	615
Administrative	77	2,385	2,462
Tax Credit*	-269	-3,285	-3,554
Total	500	6,100	6,600
Up Front Working Capital Investment			
Prepaid expenses: Advances	0	1,500	1,500
Prepaid expenses: Bonds & deposits	0	700	700
Prepaid expenses: Reserve	0	1,700	1,700
Total	0	3,900	3,900
Total	1,900	10,600	12,500

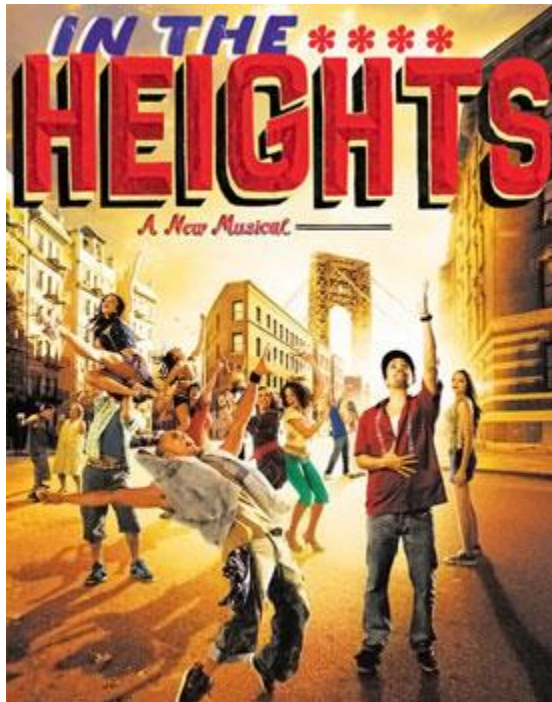
Source: Excerpted from Olivia Rubino-Finn, "Broadway Budgets 101: Breaking Down the Production Budget," *New Musical Theatre*, January 22, 2016, <https://newmusicaltheatre.com/blogs/green-room/broadway-budgets-101-breaking-down-the-production-budget-1>, accessed July 2021.

* With an initial run at The Public *Hamilton*'s EBIAT would be equal to -500 in December 2014 and -6,100 in June 2015. Without an initial run, EBIAT would be equal to -6,600 in June 2015.

Exhibit 3 Broadway Theater Capacity, Top 20 Venues

Theater	Address	Capacity
Gershwin Theatre	222 W. 51st St.	1,933
Broadway Theatre	1681 Broadway	1,761
New Amsterdam Theatre	214 W. 42nd St.	1,747
Palace Theatre	1564 Broadway	1,743
Minskoff Theatre	200 W. 45th St.	1,710
St. James Theatre	246 W. 44th St.	1,709
Majestic Theatre	245 W. 44th St.	1,645
Lyric Theatre	214 W. 43rd St.	1,622
Marquis Theatre	210 W. 46th St.	1,612
Winter Garden Theatre	1634 Broadway	1,526
Lunt-Fontanne Theatre	205 W. 46th St.	1,519
Neil Simon Theatre	250 W. 52nd St.	1,467
Shubert Theatre	225 W. 44th St.	1,460
Imperial Theatre	249 W. 45th St.	1,443
Al Hirschfeld Theatre	302 W. 45th St.	1,424
Richard Rodgers Theatre	226 W. 46th St.	1,400
Nederlander Theatre	208 W. 41st St.	1,235
August Wilson Theatre	245 W. 52nd St.	1,228
Broadhurst Theatre	235 W. 44th St.	1,186
Ambassador Theatre	219 W. 49th St.	1,125

Source: Excerpted from Alyssa, "Broadway 101: Theaters, Current Shows, and Seating Guides," *VividSeats.com*, October 12, 2016, <https://www.vividseats.com/blog/broadway-101-theaters-current-shows-and-seating-guides>, accessed July 2021.

Exhibit 4 *In the Heights* Ticketmaster Advertisement

Source: Available via: https://en.wikipedia.org/wiki/File:In_the_Heights.jpg, accessed July 2021.

Exhibit 5 Typical Weekly Operating Expenses of a Broadway Musical, \$000

Item	Amount	<i>Success</i>		<i>Blockbuster</i>	
		Nomination and Award Probability*	Expected Amount	Nomination and Award Probability*	Expected Amount
Base Salary	53.2		53.2		53.2
Tony Nominee Bonus	14.0	71.0%	9.9	100.0%	14.0
Tony Award Bonus	28.0	24.0%	6.7	50.0%	14.0
Rent, Including Full Support Staff	295.0		295.0		295.0
Advertising	100.0		100.0		100.0
Other Operating Expenses	152.8		152.8		152.8
Total			617.7		629.0

Source: Excerpted from Philip Boroff, “‘Hamilton’ Pays Miranda & Seller Tens of Millions a Year” *Broadway Journal*, April 26, 2018, <http://broadwayjournal.com/hamilton-pays-miranda-seller-tens-of-millions-a-year/>, accessed July 2021.

Note: Expenses are inflation-adjusted to the 2014/2015 season.

* A Blockbuster would win more awards, leading to higher operating costs, reflecting bonus payments to actors.

Exhibit 6 Anticipated Royalties and Free Cash Flow Shares

	Initial Run at the Public Before Broadway	Direct to Broadway
Royalties		
Miranda	7.0%	7.0%
Producers	3.0%	3.0%
Kail (director)	2.5%	2.5%
Blankenbuehler (choreographer)	1.8%	1.8%
Lacamoire (music)	1.0%	1.0%
Tazewell, Binkley and Steinberg (costume, lighting, sound)	1.3%	1.3%
Chernow	1.0%	1.0%
Public Theater	1.5%	
Total	19.0%	17.5%
Free Cash Flow Split		
Outside Investors	42.0%	45.0%
Producers	42.0%	45.0%
Sellers (creative input)	5.0%	5.0%
Kail (director)	1.5%	1.5%
Blankenbuehler (choreographer)	0.5%	0.5%
Miranda	3.0%	3.0%
Public Theater	6.0%	
Total	100.0%	100.0%

Source: Excerpted from Philip Boroff, "'Hamilton' Pays Miranda & Seller Tens of Millions a Year" *Broadway Journal*, April 26, 2018, <http://broadwayjournal.com/hamilton-pays-miranda-seller-tens-of-millions-a-year/>, accessed July 2021.

Note: The royalty expenses would be assessed based on *Hamilton's* gross adjusted box-office revenues. The free cash flow split pertains to all subsequent free cash flows after the upfront investments, which would be made in either December 2014 or June 2015. Outside Investors would be fully responsible for the cost of these upfront investments.

Exhibit 7 Key Assumptions in the Valuation of *Hamilton*

	Blockbuster	Success	Flop
Panel A. Broadway Assumptions By Show Types			
Broadway Attendance Per Show	1,362	1,036	0
Shows Per Week	8	8	NA
Weeks of Shows Per Year	52	52	52
Ticket Prices (2014/2015 Season \$)	\$125.74	\$104.19	NA
Merchandise Contribution (% of Gross Adjusted Box-Office Revenue)	5.0%	2.0%	NA
Weekly Ongoing Operating Expenses (2014/2015 Season \$000)	629.0	617.6	NA
Touring Contribution, Starting in Year 3 (% of Pre-Touring EBITDA)	185.0%	0.0%	NA
Advance Ticket Sales (% of Gross Adjusted Revenue)	16.7%	8.3%	NA
Panel B. Broadway Run Probabilities			
Minimum Running Time (Years)	4.0	2.0	0.0
Subsequent Annual Probability of Shutting Down	13.0%	45.0%	NA
Panel C. Broadway Probabilities for <i>Hamilton</i>			
With No Initial Run at The Public Theater	6.0%	24.0%	70.0%
After An Initial Run at The Public Theater, Rave Reviews (25%)	20.0%	41.0%	39.0%
After An Initial Run at The Public Theater, Good Reviews (50%)	2.0%	20.0%	78.0%
After An Initial Run at The Public Theater, Poor Reviews (25%)	0.0%	15.0%	85.0%
Panel D. Broadway Assumptions Common to All Show Types			
Opening Season on Broadway	July 2015 - June 2016		
Ticket Price Inflation for Upcoming 5 Years	4.5%		
Gross Adjusted Revenue (% of Gross Revenue)	90.0%		
Upfront Operating Expenses (\$000), Net of Tax Credit	6,600		
Upfront Prepaid Expenses (\$000)	3,900		
Upfront Capital Expenditures (\$000)	2,000		
Expense Inflation/Ticket Price Inflation Beyond the Upcoming 5 Years	2.0%		
Applicable Tax Rate on EBIT	35.0%		
Depreciation	5-Year Straight Line		
Panel E. The Public Theater Assumptions Common to All Show Types			
Timing of An Initial Run at The Public Theater	January 2015 - June 2015		
Component of Upfront Operating Expenses (\$000), Net of Tax Credit	500		
Component of Upfront Prepaid Expenses (\$000)	0		
Component of Upfront Capital Expenditures (\$000)	1,400		
Panel F. Royalty and Profit Shares			
Royalty with an Initial Run (% of Gross Adjusted Box-Office Revenue)	19.0%		
Royalty without an Initial Run (% of Gross Adjusted Box-Office Revenue)	17.5%		
Investor Share with an Initial Run (% of Free Cash Flow)	42.0%		
Investor Share without an Initial Run (% of Free Cash Flow)	45.0%		

Source: Casewriter estimates.

Exhibit 8 Hamilton EBITDA forecast for the Blockbuster Case without an Initial Run at The Public

SEE EXCEL FILE

Source: Casewriter estimates using Exhibit 7.

Endnotes

¹ Andrew Gans, "Charles Fuller's *One Night...*, Featuring Rutina Wesley, Opens Off-Broadway Nov. 20," *PLAYBILL* (November 20, 2013) <https://playbill.com/article/charles-fullers-one-night-featuring-rutina-wesley-opens-off-broadway-nov-20-com-211892>

² Lorena, "The 10 Most Expensive Broadway Musicals," *The Richest* (April 5, 2014) <https://www.therichest.com/most-expensive/the-10-most-expensive-broadway-musicals/>

³ Reuters Staff, "Broadway 2014-2015 season is best ever with \$1.36 billion in grosses," *Reuters* (May 26, 2015) <https://www.reuters.com/article/theatre-broadway/broadway-2014-2015-season-is-best-ever-with-1-36-billion-in-grosses-idINL1N0YH2FZ20150526>

⁴ Lea Goldman, "Meet the Woman Who Helped Bring 'Hamilton' to the Stage," *Marie Claire* (May 06, 2016) www.marieclaire.com/culture/a20761/jill-furman-hamilton-producer/

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