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The Investment Potential of Modern Hip Hop Artists

A Capstone Project Submitted in Partial Fulfillment of the Requirements of the Renée Crown University Honors Program at Syracuse University

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Abstract

Popular modern hip-hop artists are often seen flaunting custom jewelry, pricey cars, expensive personal collections, and other highly-depreciative luxury items. The influence of hip hop culture on the spending habits of its members is responsible for these traditional portrayals. Members of the hip hop community feel the need to mold to the norms established by its history and momentous idols. If those who identify themselves as members of the hip hop community invested their money in the financial markets and instruments, they may have the opportunity to grow their income at a much larger rate.

I propose possible market investment scenarios to determine if opportunity costs are undertaken by hip hop artists who inevitably conform to the conventions of hip-hop culture and purchase custom jewelry.

Executive Summary

Hip hop culture has shaped the way artists, producers, and influencers think and act from its birth. Beginning as a method for young, impoverished men to project how they think, socialize, and view themselves in America, hip hop culture quickly became a melting pot of surrounding geographical influencers. Since the Sugar Hill Gang's "Rapper's Delight" debuted in 1979, hip hop culture has grown to become a crucial piece of the identity of each member within the group. The culture imposes its norms on the members of the group based on tradition and its former idols, leading many modern members of the culture to excessively spend their earnings on jewelry.

Modern hip-hop artists have amassed collections of luxury items in the hundred-thousand to millions range. With such large amounts of money, most individuals outside of the culture would choose to invest in a diverse portfolio of assets to increase their net worth over time. This thesis analyzes the spending habits of two modern hip hop artists, Lil Yachty and Lil Pump, to determine the potential returns each could have realized in an investment portfolio if they had chosen to invest the enormous amounts of money they spent on jewelry. Data on each artist's jewelry expenses was collected from interviews of the artists, with total expenditures of \$1,408,500 and \$975,000 for Lil Yachty and Lil Pump respectively. The investment portfolios chosen included allocations in the U.S. corporate bond market, the S&P 500, and gold.

The initial hypothesis of this thesis was that members of hip hop culture who excessively spend on jewelry could earn much larger returns if they invested their money into a portfolio of diversified assets. After analysis using two distinct portfolio allocations and two methods of growth prediction, it appears that hip hop members who may choose to invest their money earn insignificant returns. The reason for this is members of hip hop culture become famous at an exponential rate, with their jewelry purchases increasing at a rate similar to their level of popularity. The returns are not realized fast enough to be valuable during an artist's early years. In contrast to the original hypothesis, excessive spending on jewelry appears to be an investment in itself. With the current available data, it is impossible to measure the returns of an individual's investment in their "image", but the correlation of jewelry purchases with increasing fame shows it may be a more formidable investment for members of hip hop culture than a market portfolio.

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Introduction

Hip hop culture is an influencer with power comparable to belonging to a political or economic group. Similar to the way involvement in a sports program inspires young students to purchase the latest sports gear endorsed by their favorite athletes, hip hop culture and its idols have extremely influential effects on those who identify themselves as members of the group. These effects typically take the form of inheriting the culture's fashion and spending norms. While incumbent individuals experience the height of the effects, avid fans of the hip hop industry are also affected.

Extreme spending within hip hop culture originates from its associations with people of lower economic status (Osumare, 2008). Its roots in gangs and poor communities have created a modern culture where excessive spending on depreciable, yet often luxurious, items is the standard. Flashy collections of shoes, jewelry, or cars are used a status symbol by hip hop culture's incumbents to display success due to association with the culture. The history of the culture is a large influencer of this, but what other hip-hop artists are wearing and what former artists have worn also influences the new generation of artists. Modern artists purchase expensive custom jewelry that mimics what they have seen on those they idolize. They also buy similar jewelry owned by their friends within the culture to emphasize companionship, or in some cases, gang affiliation. Rather than purchase one diamond necklace, rappers buy ten custom-made pieces that are dismantled upon resale at a fraction of the price. Rather than invest the income from his first record deal in instrumental assets or assets earning interest, a producer will

buy a luxury car that loses value immediately after purchase. The excessive spending done by modern artists is often in the hundred-thousand to millions range. In this range, one would expect that these purchases are insurable and investment-grade. However, the potentially depreciable nature of custom jewelry shows that conforming to hip hop culture is influential enough for these individuals to spend their high income in a seemingly unintelligent way.

If modern hip hop artists did not spend their fortunes on custom jewelry and ignored the influence of hip hop culture, one would expect that investments in appreciable assets could bring exponentially higher wealth to the artists over time.

Hip Hop Culture and Identity

In order to understand the effects of hip-hop culture on excessive spending, one must know the definition of hip-hop culture and its history. Yvonne Bynoe describes hip hop culture as an entertainment vehicle rooted in history and traditions of racial realities existing in America (2002). Without an understanding of the history and traditions of its incumbents, it is impossible to be considered a member of the culture. Those that are fans of hip hop may listen to the music or follow popular fashion trends, but to become a member of the culture one must live in it. For this thesis, the assumption is that hip hop culture members include those who have distributed a hip hop song to the general public, worked as a promoter for an individual in the hip hop industry, or have provided public reviews or critiques of hip hop artists and their work.

This brings up the need to discuss individual identity and its role in hip hop culture. Amartya Sen asserts that "in our normal lives, we see ourselves as members of a variety of groups – we belong to all of them" (Sen, 2008). The identity of the individual is a combination of all the groups one belongs to and is unique by its very nature. Every interaction experienced by an individual augments the dynamic, fundamental identity of oneself. Hip hop culture is one of these identity groups that modern artists, producers, managers and others are members of. African American artists Drake, Chance the Rapper, and J. Cole identify themselves as members of hip hop culture the same way the late Mac Miller did (Kreps, 2018). While they may have their own distinct

¹ This includes, but is not limited to: singers, rappers, producers, mixers, sound engineers, and song marketers.

² This is not derived from a citation but remains a key assumption in the thesis. "Fans" or "followers" of hip hop must be excluded from the cultural group to provide key analysis on how group membership affects its affiliates.

identity, they are all members of hip hop culture regardless of factors such as race or political background.

Now that hip hop culture has been established as a deeply rooted fundamental aspect of individual identity, one can analyze how its history influences excessive spending. Hip hop culture emerged from New York City during the early 1970s (Bynoe, 2002). Specifically, its origin was from economically poor communities in the South Bronx (Osumare, 2008). Rap music, one of the key elements of hip hop culture, was initially a method for young, impoverished people to project how they think, socialize, and view themselves in America.

It was not until the release of "Rappers Delight" by The Sugar Hill Gang in 1979 that hip hop became a nationwide practice of African American expression. Through the popularization of its catchy beats, hip hop culture began to adopt new members who were not traditionally associated with it. The most interesting change is its adoption by criminals and those wishing to be a part of the aesthetic portrayed by the outlaws of society. The Sugar Hill Gang, who are widely recognized as some of the first pioneers of rap and hip hop culture, were not a violent gang and had no criminal background. It was the next generation of artists and fans, the young individuals living in the poor New York communities where hip hop was founded, that began to associate it with gang culture, violence, and the outlaw aesthetic.

New York's gang members in the 1980s were often seen sporting homemade gang emblems embroidered on jackets and Yankees sports memorabilia. In some cases, they wore certain colored hats to indicate whether they had drugs for sale to those passing by them on the street (George, 2005). In Los Angeles, a similar 'Silicon Valley' of hip hop culture, the Los Angeles Raider's iconic pirate logo was donned by drug dealers and members of the Bloods and Crips gangs. Once these criminals began to wear similar attire, their long hours spent conducting criminal activity on the streets was quickly noticed by others in their community. "Street" fashion evolved quickly with items like Timberland boots becoming a staple to street culture nearly overnight. With the evolution of street fashion and hip hop culture so geographically close, they slowly became homogeneous as their members identified with both groups (George, 2005).

After years of cultural development, Scott Ruff identified in 2001 why members in hip hop culture have made their modern fashion choices. In his writing, he acknowledges that "the use of heavy jewelry supports allusions to heaviness and massiveness as well as material wealth and power" (Ruff, 2001). Typical usage of jewelry includes large necklaces, earrings, bracelets, rings, anklets and grillz.³ These common elements of hip hop fashion are not seen in everyday Western trends. Traditionally, earrings are worn predominantly by women in America. In addition, grillz are extremely uncommon outside of hip hop as their design limits the wearer's ability to eat and speak in exchange for a luxurious appearance.

³ Grillz (or "grills") are mouthpieces that can be worn to cover the teeth with gold, diamonds, or other expensive materials.

Although purchasing many of the items referenced by Ruff results in expensive, unreasonable financial choices, it is a result of the melting pot of gang and city culture that has decided what is considered standard fashion. Through continuous development of hip hop culture and its proximity to these other influencers over the years, overspending and hip-hop have become complementary.

Case Study Artists - Introduction

Hip hop culture continues to influence excessive spending by new artists, regardless of race, religion, or background. To understand the effects that hip hop culture has on its member's spending, I have analyzed 2 prominent artists who have notable collections of custom luxury items. Each of these individuals were identified as members of the hip hop community using the previously stated definition on page 3 of this thesis. The individuals selected are:

- 1. Lil Yachty
- 2. Lil Pump

Lil Yachty, born Miles Parks McCollum, is a professional rapper known for donning braided hair with red beads. Lil Yachty met Billboard success after the releases of his 2015 singles "One Night" and "Minnesota", and the subsequent release of his debut album "Lil Boat" in 2016. He has modeled for Kanye West's "Yeezy" fashion line, collaborated with artists from Quavo to Bhad Bhabie, and has his very own Nautica clothing line (Coscarelli, 2016). At 21 years old, he has earned millions from his clothing sponsorships and music career.

Lil Pump, born Gazzy Garcia, is an 18-year-old hip hop artist known for his rise to fame from his Soundcloud music releases. His most popular song, "Gucci Gang", has reached over a billion hits across all streaming platforms, making him an internet success before the age of 20. Lil Pump is often disliked by fans and members of the hip hop community alike due to his reckless attitude, idolization of drugs like Xanax, and his Soundcloud streaming origins. Regardless of one's views

on the artist, with Warner Bros. signing him to an \$8 million one-album deal, he has made enough money to purchase numerous luxury items (Kostidakis, 2018).

While their rise to fame was largely based on talent, record label contracts, and luck, both Lil Yachty and Lil Pump have attributed some of their success to their inspirations within the hip hop industry. Inspirations to Lil Yachty include Kanye West, Kid Cudi, Lil B, and Soulja Boy. These artists are prolific stars with immense influence over modern day hip hop. In a recent interview, Yachty's idol Soulja Boy claims to have even been an influence for today's biggest hip hop artist: Drake (Espinoza, 2019).

Lil Pump's influencers stem from his hometown in South Florida to Illinois. Pump has recognized Chief Keef, Lil B, and most importantly, Future as having a major influence on his music and style. Future's influence is particularly noticeable as it traces directly to Lil Pump's references to codeine cough syrup and other controlled substances (Guan, 2017). As with Lil Yachty, many of the artists Lil Pump idolizes are well-known influencers within hip hop culture.

Both Lil Yachty and Lil Pump have amassed large collections of clothing, jewelry, cars, sneakers, and other expensive items over the course of their fame. Through interviews with GQ, Complex Magazine, and other independent sources, it is possible to analyze how much each artist has spent on their respective jewelry collections and who influenced their purchases.

Excessive Spending on Jewelry

This thesis focuses specifically on the jewelry collections of each selected artist. Jewelry was

selected out of all other asset classes because many artists have quantifiable collections of

jewelry. The influence of hip hop culture on Lil Yachty and Lil Pump has lead them to buy pieces

containing real gold, silver, diamond, and other jewels. In addition to their traditional jewelry

purchases, each artist has purchased custom pieces made by famous jewelers for an extremely

high price⁴.

Over the course of their careers, from the debut of their first hit single to January 1st, 2019, each

artist has spent an enormous amount of money on jewelry. Excluding lost items and pieces they

cannot remember the price of, the totals of their purchases are:

Lil Yachty:

\$1,408,500

(McCollum, 2018)

Lil Pump:

\$975,000

(Garcia, 2018)

The information on each artist's jewelry expenses was gathered from secondary interviews of

the artist and added to determine a combined total. Appendices D and E break down each of the

artist's claimed purchases, the cost of the item, and the influence behind the purchase (if

applicable). In some cases, the artists claim to have lost many of the pieces they've purchased,

leaving virtually no accurate record of how much the item is worth today. Prices of some items

⁴ Refer to charts in Appendices D and E.

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were not indicated by the artists, and as many of these pieces are custom or vary by style, they were not included in the total. Purchased items are tracked up to January 1, 2019. Due to the size of each of these collections, the artists do not have a confirmed purchase date, sale date, or loss date on each of the items.

Breakdown of Potential Market Investments

As each artist gained fame, their spending on luxury jewelry reached astronomical levels as seen on page 9. Rather than spend their money on custom jewelry and expensive watches, they could have considered investing in other financial instruments such as corporate securities or commodities. The potential investments analyzed in this thesis are the S&P 500, U.S. corporate bonds, and gold.

The S&P 500 is an index that tracks 500 leading public U.S. companies and covers approximately 80% of total equity market capitalization (S&P Dow Jones Indices LLC, 2019). The index is not directly tradeable, but investors wishing to capture the returns of the index in their portfolio can use the popular exchange traded funds (ETFs) \$SPY and \$IVV, which attempt to mimic the returns of the S&P 500 through holding proportionate stocks and managing dividends appropriately. While the everyday investor would have the opportunity to reinvest these dividends into the ETF they purchase that tracks the S&P 500, this thesis uses the S&P 500 as the hypothetical investment as it best tracks the returns of the majority of the U.S. stock market.

To gauge the overall investment environment of the U.S. bond market, the ETF \$AGG was selected for analysis in this thesis. Managed by Blackrock's iShares, "the Core U.S. Aggregate Bond ETF (AGG) seeks to track the investment results of an index composed of the total U.S. investment-grade bond market" (BlackRock, Inc., 2019).

Finally, the commodity gold was selected because it is a common material used to create custom jewelry. In addition to this, it can be used as a hedge for interest rate fluctuations, making it a common asset in many investor portfolios (Bloomenthal, 2018).

Through utilizing these three investment options, the financial model used in this thesis can be considered somewhat diversified as it captures returns from the U.S. bond market, equity market, and worldwide gold market.

Between August 2015 and January 2019, the time period including both Lil Yachty's and Lil Pump's rise to fame, each selected asset had the following returns:

S&P 500 ⁵ :	37.11%	(Yahoo! Finance, 2019)
		(

⁵ Graphical returns show in Appendix A

⁶ Graphical returns show in Appendix B

⁷ Graphical returns show in Appendix C

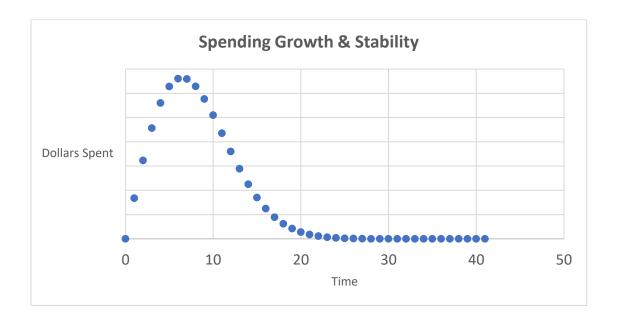
The Financial Model

The financial model used to analyze the investment potential of Lil Yachty and Lil Pump uses two different methods to predict the timing of both artists' spending. It is assumed that each artist did not purchase the entirety of their collections during the same month, therefore it is necessary to predict when their spending occurred to obtain accurate estimations of investment returns.

1) Custom Exponential Decay Formula: $y_t = P_{t-1}^* (1-g)^t$

The exponential decay formula contains the following variables:

- t = current period (month)
- y_t = spending during period t
- P = artist's total spending on jewelry
- P_{t-1} = principal remaining from the previous period
- g = percentage of constant decay 100% divided by t



Graphical representation of the Custom Exponential Decay Formula.

Method 1 of the financial model utilizes a custom inverse exponential decay equation to track approximately how much spending the artist had contributed up to a certain point in time. Since hip hop artists may experience exponential growth from the time they are noticed, to their first record deal, to their current endorsements and contracts, their total cumulative spending on their luxury collections may grow quickly immediately following their debut "hit" song (Cirisano, 2019). The variable that makes this formula differ from a typical exponential decay formula is the use of Pt-1. Using this variable as opposed to P creates a period of hyper growth followed by a slower period of spending decay. This is intentionally incorporated to simulate the explosive growth of spending as an artist builds their brand and image followed by a period of lesser growth where popularity and luxury spending may not grow as quickly. Should the user of the model find this formula inadequate, a second method to track an artists' spending is incorporated as well.

2) Google Trends Internet Search Popularity

The time in which artists completed major purchases is crucial to analyze potential investment returns. Artists who made large purchases right before a bull market are more poorly affected than artists who made purchases before a bear market. While it is impossible to gather information on the specific days that artists made their purchases, one workaround is to track the popularity of the artists. Theoretically, the more popular an artist is, the more they are paid with streaming revenue. In an interview with Syracuse-based hip hop artist Justin Witter, he describes how artists without a record label can pay a small flat fee to services such as Amuse, Tunecore, and CD Baby to post their music to all streaming services and instantly start earning

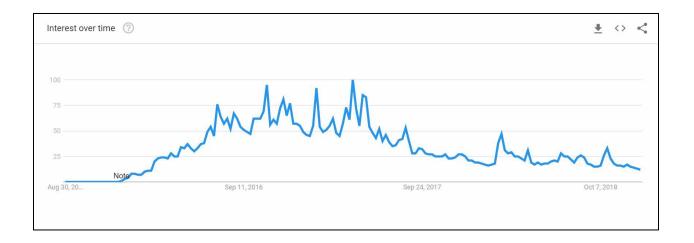
money based on stream count. Artists signed to record labels have some of their streaming profits sent to the record label, but they generally make more money on streams as their popularity increases. Simple economic theory predicts that a higher income from streams directly relates to higher spending. With these assumptions in place, data was extracted from Google Trends to obtain a more accurate estimate of an artist's spending habits over specific periods of time.

Google Trends is "an unbiased sample of Google search data. Only a percentage of searches are used to compile Trends data" (Google, 2019). Realtime data is a random sample of searches from the last 7 days. Non-realtime data is a random sample of Google search data that can be pulled from as far back as 2004 and up to 36 hours before a search. After collection, the data is categorized, connected to a search term, and all personally identifying information is removed from the query. Repeat searches by the same person are eliminated to prevent data bias.

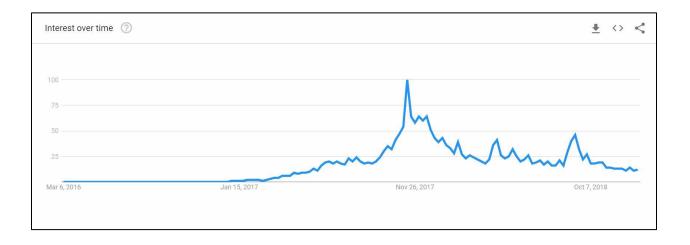
Google Trends was used to track the popularity of the two artists used in this thesis paper, Lil Yachty and Lil Pump, from the date of their first hit songs to January 1st, 2019. As discussed on page 8, Lil Yachty's breakout song was "One Night" while Lil Pump rose to Soundcloud fame with his hit "Elementary". The assumption is that after the release of their hit songs, the two artists begin to accumulate more income and in turn spend the money on luxurious items. As their internet popularity rises, their spending on luxury items rises proportionately.

Google Trends scales the popularity of a search term from 0-100 based on when it reached its peak popularity. For example, if Lil Yachty reached peak popularity in July 2018, then that month is ranked at 100. For months with half as many searches, the result is 50. Months with negligible search volumes appear as "0" (Google, 2019). To convert these results into percentages of his overall popularity, the financial model used by this thesis takes the total of all numbers since an artist's first hit song. In Lil Yachty's case, the sum of all Google data was 1638. Next, each month's data point is divided by the total to obtain the percentage of searches that occurred during the month. For example, the chart on page 17 shows that in March 2016, Google Trends returned a score of 22. 22 divided by the sum of the data, 1638, returns 1.3%. This means that 1.3% of Lil Yachty's internet popularity from his first hit to January 1, 2019 was during March 2016.

Similar methods were used to determine Lil Pump's internet popularity. Pump's popularity came slightly later than Yachty's. His first hit song was released on Soundcloud in March 2016, which explains why there is a 5-month gap between the start of his popularity and the start of Yachty's in the previous chart.



Screenshot from Google Trends of Lil Yachty's Popularity from August 2015 to January 2019.



Screenshot from Google Trends of Lil Pump's Popularity from March 2016 to January 2019.

Date	Yachty's Google Popularity	Yachty % of Total	Pump's Google Popularity	Pump % of Total
8/1/2015	0	0.0%		0.0%
9/1/2015		0.0%		0.0%
10/1/2015	0	0.0%		0.0%
11/1/2015	0	0.0%		0.09
12/1/2015	0	0.0%		0.09
1/1/2016	5	0.3%		0.0%
2/1/2016	9	0.5%		0.09
3/1/2016	22	1.3%		0.0%
4/1/2016	26	1.6%	3	5 2.2%
5/1/2016	35	2,1%	3	5 2,2%
6/1/2016	37	2,3%	3	7 2.3%
7/1/2016	63	3.8%	6	3.99
8/1/2016	64	3.9%	6	4.0%
9/1/2016	58	3.5%	.5	8 3.6%
10/1/2016	77	4,7%	7	7 4.7%
11/1/2016	72	4.4%	7	2 4.4%
12/1/2016	83	5.1%	8	3 5.1%
1/1/2017	62	3.8%	6	2 3.8%
2/1/2017		4.5%	7	3 4.5%
3/1/2017	66	4.0%	6	6 4.1%
4/1/2017	72	4.4%	7	2 4.4%
5/1/2017		6.1%	10	0 6.2%
6/1/2017	66	4.0%	6	6 4.1%
7/1/2017	53	3.2%	5	3.3%
8/1/2017		3.7%	6	
9/1/2017	45	2.7%	4	5 2.8%
10/1/2017	39	2.4%	3	9 2.49
11/1/2017	38			8 2.4%
12/1/2017	37	2,3%	3	7 2.3%
1/1/2018	29	1.8%	3	0 1.8%
2/1/2018	24	1.5%	2	5 1.5%
3/1/2018	46	2.8%	4	6 2.9%
4/1/2018	34	2,1%	. 3	5 2,1%
5/1/2018	33	2.0%	3	4 2.1%
6/1/2018	27	1.6%	2	8 1.79
7/1/2018	33	2.0%	3	4 2.1%
8/1/2018	31	1.9%	.3	2 1.9%
9/1/2018	27	1.6%	2	8 1.79
10/1/2018	28	1.7%	2	9 1.8%
11/1/2018	24	1.5%	2	5 1.5%
12/1/2018		1.3%	2	2 1.3%
1/1/2019	19	1.2%	2	0 1.2%

Transformation of Google Trends data to percentage of total popularity.

After determining the approximate spending of each artist over time using both the growth equation and Google trends, the money spent during each month of fame must be allocated to a portfolio consisting of the three investment classes noted on pages 10-11. For this thesis, two different portfolio allocations were analyzed:

Portfolio 1: Moderate Growth Strategy

- 50% Stocks
- 40% Bonds
- 10% Gold

An allocation of 50, 40, 10 assumes a moderate growth strategy with slight hedging into U.S. Bonds and gold. U.S. stocks had the highest yield during the investment period (approx. 37%), and history shows that U.S. stocks are considered more volatile than corporate bonds or commodities like gold (Smith 2018). It is often suggested that younger individuals should invest into equities and move their money toward safer investments as they grow older (corporate bonds, commodities, and treasuries). In theory, this would allow the young investor to take big risks young, make large potential gains from stocks early, and minimize losses later in life through less volatile assets. While the Sharpe ratio disproves this theory by stating the optimal risky portfolio is based off an investor's risk aversion rather than his age, this ratio cannot be used in the financial model as it is extremely difficult to retrieve information on a popular rapper's risk aversion (Hargrave, 2019). In addition, the Sharpe ratio would require a reallocation of funds during each period (month), making the investment model significantly

more convoluted. Therefore, the 50-40-10 ratio is assumed to be a reasonable, consistent moderate growth strategy for a young investor.

Portfolio 2: Aggressive Growth Strategy

- 80% Stocks
- 10% Bonds
- 10% Gold

Expanding on the assumption made in Portfolio 1, the 80-10-10 ratio is assumed to be a reasonable aggressive growth strategy for each rapper. With a large majority of funds allocated to stocks, an investor can expect to experience a larger gain or loss when compared to the returns of bonds and commodities due to the increased volatility of the U.S. stock market.

Model Results

To summarize the previous chapters, four scenarios for each rapper were created and input into the financial model for a total of eight unique portfolio returns.

Lil Yachty:

Lil Yachty spent \$1,408,500 on jewelry from the debut of his first hit song to January 1st, 2019. The time between these two dates is approximately 40 months (3 years & 4 months). If Lil Yachty had invested this money into a portfolio consisting of U.S. stocks, corporate bonds, and gold, he could have earned the following:

Exponential Decay Formula (Method 1):

Allocations 50-40-10

Portfolio Value at January 1st, 2019: \$1,589,379
 Total return (%): 12.842%

Allocations 80-10-10

Portfolio Value at January 1st, 2019: \$1,666,963
 Total return (%): 18.350%

Google Trends Data (Method 2):

Allocations 50-40-10

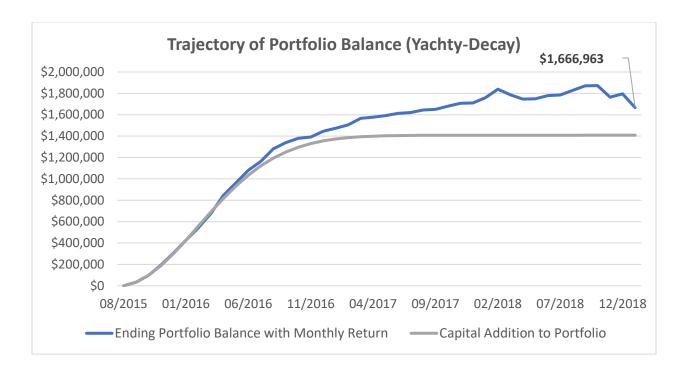
Portfolio Value at January 1st, 2019: \$1,458,857
Total return (%): 3.575%

Allocations 80-10-10

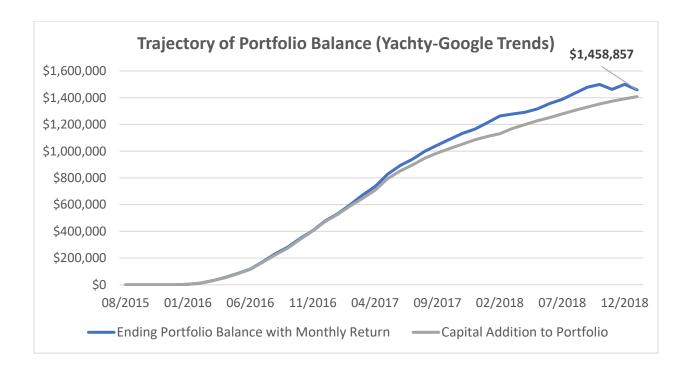
Portfolio Value at January 1st, 2019: \$1,477,007
 Total return (%): 4.864%

The scenario with the highest return is the Exponential Decay Formula with an allocation of 80% stocks, 10% bonds, and 10% gold. In this best-case scenario, Lil Yachty would have made 18.350% over 40 months with a final portfolio balance of \$1,666,963 after investing \$1,408,500 throughout the time period. Leaving all other outside variables equal, the opportunity cost of Yachty's purchases was \$258,463 in the best-case scenario. This is a reasonable return, as the average S&P 500 return since its inception is approximately 10% annually and Lil Yachty's money was spent periodically rather than all at once (Maverick, 2019).

The worst-case scenario is a result of the Google Trends Data with an allocation of 50% stocks, 40% bonds, and 10% gold. Yachty would have made a small 3.575% return on his initial \$1,408,500 investment over 40 months. Leaving all other outside variables equal, the total opportunity cost of purchasing jewelry in this case was \$50,357. This is an extremely low return over a period where stocks rose by about 37%. While a portion of these results are due to the more diversified nature of this portfolio, the Google Trends spending predictions are largely responsible.



Results of Method 1 with allocations of 80-10-10 (best-case scenario).



Results of Method 2 with allocations of 50-40-10 (worst-case scenario).

Lil Pump:

Lil Pump spent \$975,000 on jewelry from the debut of his first hit song to January 1st, 2019. The time between these two dates is approximately 33 months (2 years & 9 months). If Lil Pump had invested this money into a portfolio consisting of U.S. stocks, corporate bonds, and gold, he could have earned the following:

Exponential Decay Formula (Method 1):

Allocations 50-40-10

Portfolio Value at January 1st, 2019: \$1,050,990
Total return (%): 7.794%

Allocations 80-10-10

Portfolio Value at January 1st, 2019: \$1,088,437
 Total return (%): 11.635%

Google Trends Data (Method 2):

Allocations 50-40-10

Portfolio Value at January 1st, 2019: \$1,006,630
Total return (%): 3.244%

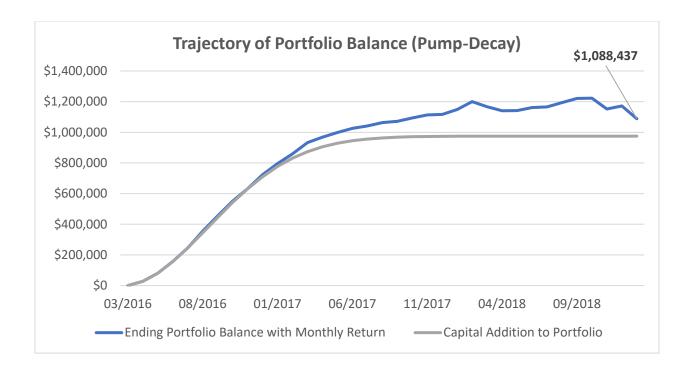
Allocations 80-10-10

Portfolio Value at January 1st, 2019: \$1,017,966
 Total return (%): 4.864%

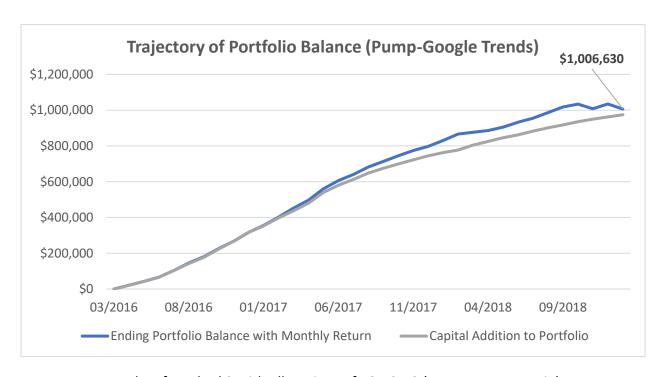
The scenario with the highest return is the same as Lil Yachty's: The Exponential Decay Formula with an allocation of 80% stocks, 10% bonds, and 10% gold. In this best-case scenario, Lil Pump would have made 11.635% over 33 months with a final portfolio balance of \$1,088,437 after

investing \$975,000 throughout the time period. Leaving all other outside variables equal, the opportunity cost of Pump's purchases was \$113,437 in the best-case scenario. Again, this is a reasonable return, but could be considered low for the risk taken on over 33 months.

The worst-case scenario is also the same as Lil Yachty's: Google Trends Data with an allocation of 50% stocks, 40% bonds, and 10% gold. Pump would have made an even smaller return than Yachty at 3.244% over 33 months. This would bring his initial investment of \$975,000 to only \$1,006,630. Leaving all other outside variables equal, the total opportunity cost of purchasing jewelry in this case was \$31,630. This is a nearly negligible return over 33 months where stocks rose by about 37%.



Results of Method 1 with allocations of 80-10-10 (best-case scenario).



Results of Method 2 with allocations of 50-40-10 (worst-case scenario).

Conclusion

Hip hop culture has shaped the way new artists, producers, and influencers think and act from its birth. Since The Sugar Hill Gang's "Rapper's Delight" debuted in 1979, hip hop culture has grown to become a crucial piece of the identity of each member in the group. The culture imposes its norms on the members of the group based on tradition and its former idols, leading many modern members of the culture to excessively spend their earnings on jewelry.

While this thesis set out to prove that the excessive spending on jewelry by members of hip hop culture is harming their own success, the results are mixed. Investment opportunities are always dependent on the current state of the financial markets, but the results of the financial model proved the artists had few opportunity costs after excessive spending on jewelry. Shockingly, the best-case investment scenarios for Lil Yachty and Lil Pump brought total returns of 18.350% and 11.635% respectively over the course of their fame. The worst-case scenarios further disproved the original hypothesis, with total returns of 3.575% and 3.244% respectively. While custom jewelry could be difficult to resell, the potential returns for each artist may not be enough to justify saving over indulging. Overall, it can be concluded that even during a 40-month period where the S&P 500 rose over 37%, periodic contributions to a slightly diversified investment portfolio may not be an optimal investment for new, rising members of hip hop culture.

The most important question that arises from this thesis is the following: is the excessive spending on luxury items by hip hop artists an investment in themselves? Hypothetically,

purchasing expensive jewelry portrays an image to fans that could increase the popularity of the artist, which increases their respective income. Should more data become available on the correlation between artist popularity/income and luxury purchases, it may reveal that artists are better off purchasing jewelry than investing in financial instruments. The artist's return on an investment in their brand through jewelry purchases would be considered a premium for the increased amount of risk they take on. Especially during periods of contraction in the financial markets, artists may be better off investing their money in flashy jewelry to enhance their own personal image.

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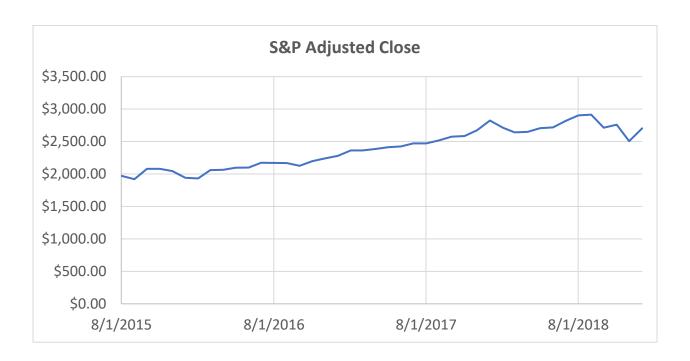
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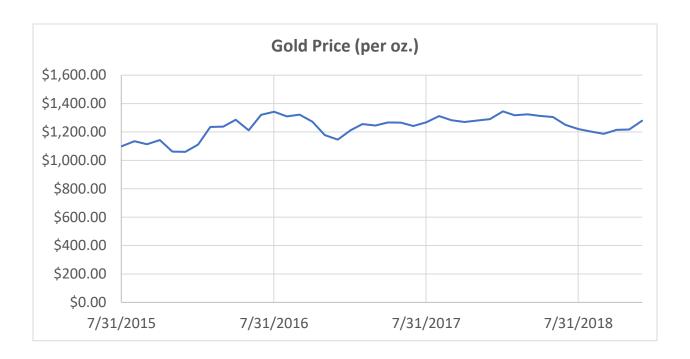
Appendix A



Appendix B



Appendix C



Appendix DLil Yachty's Jewelry Collection

#	Item Type	Item	Cost	Inspiration
1	Necklace	Cuban Link Chain	\$ 60,000	
2	Necklace	Self-Portrait Chain	\$ 50,000	
3	Necklace	Boat Simpson Chain	\$ 100,000	Gucci Mane
4	Necklace	Unspecified Chain A	\$ 25,000	
5	Necklace	Yachty Jesus Chain	\$ 25,000	Soulja Boy
6	Necklace	Diamond Rosary	\$ 50,000	
7	Necklace	Quality Control Pendant	Unknown	Record Label
8	Necklace	Boat Boy Bracelet	Unknown	
9	Necklace	S Pendant	\$ 55,000	Migos, Trippie Redd
10	Necklace	Icebox Chain	\$ 140,000	
11	Necklace	90 Pointer Chain	\$ 90,000	
12	Necklace	Gold Chain B	\$ 7,500	
13	Necklace	Gold Chain C	\$ 75,000	
14	Necklace	First Diamond Chain	\$ 15,000	
15	Necklace	50 Pointer Longest Chain	\$ 50,000	
16	Necklace	Super Big Stones Chain	\$ 55,000	
17	Necklace	Custom Lock Chain	Unknown	Skepta
18	Necklace	2 Kilo Cuban Chain	\$ 150,000	
19	Necklace	Puffer Cuban Chain	\$ 77,000	DMX
20	Necklace	Puffer Cuban Bracelet	\$ 40,000	
21	Necklace	Sailing Chain	Unknown	His Team
22	Necklace	Big Daddy Kane Chain	Unknown	
23	Necklace	Prototype Gang Chain	Unknown	
24	Watch	Patek Phillipe Rose Gold	Approx.	
25	Watch	First Rolex - Yacht Master	\$ 40,000	
26	Watch	Jubilee Two-Tone	\$ 20,000	
27	Watch	Rolex Sky Dweller	Unknown	Offset
28	Watch	Presidential Rolex	Approx.	
29	Watch	Audemars Piguet	\$ 85,000	
30	Watch	Grand Skeleton AP	\$ 150,000	
31	Grills	Yellow Canary	Unknown	
32	Grills	Colorful Set	Unknown	
33	Grills	Lost 7 Sets (\$7,00 each)	\$ 49,000	

TOTAL	\$	1,408,500
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Appendix ELil Pump's Jewelry Collection

#	Item Type	Item	Cost	Inspiration
1	Ring	Ring A	\$ 60,000	
2	Ring	Ring B	\$ 60,000	
3	Ring	Star Ring 1	\$ 17,000	
4	Ring	Star Ring 2	\$ 25,000	
5	Ring	Square Ring	\$ 10,000	
6	Ring	Lost Ring	\$ 11,000	
7	Bracelet	Spiked Bracelet 1	\$ 13,000	
8	Bracelet	Spiked Bracelet 2	\$ 13,000	
9	Bracelet	Spiked Bracelet 3	\$ 13,000	
10	Bracelet	Spiked Bracelet 4	\$ 13,000	
11	Necklace	Diamond Studded Face	\$ 360,000	Himself
		Eskeetit Catch Phrase		
12	Necklace	Piece	Unknown	
13	Necklace	Gold Gucci Chain	Unknown	
14	Necklace	Drug Addict Chain	\$ 380,000	

TOTAL		075 000
TOTAL	Ş .	975,000