

## Headline

Purses as a hedge: how designer handbags perform relative to inflation, the S&P 500, and other collectibles.

## Pitch description

The pitch explores luxury handbags as an asset class, presenting them as alternative investment sources to stocks, and collectibles. The historical pricing of Hermes Birkins, Chanel Quilteds, and other iconic models will be used as part of the dataset, and their overall performance will be measured with the rate of inflation (both the percent rate and Consumer Price Index - CPI), the pricing of essential goods, the S&P 500, and other asset classes over time.

Purchasing designer handbags can be seen, at best, frivolous considering inflation and the rising cost of living. However in 2022, Deloitte and Credit Suisse released [a joint collectibles report](#) that posits investing in handbags as a hedging strategy. The report analyzes the low volatility of designer purses in the luxury asset class, citing the Birkin and Quilted retaining and appreciating in value over time. Notably the Chanel Quilted was found to be the top performing asset, relative to value retention, when compared to stocks, crypto and NFT's, watches, and fine art.

While the report was released two years ago, the value in designer bags appears to still hold — the [Wall Street Journal](#) and [Yahoo Finance](#) reports that prices of the most coveted bags continue to rise in 2023 and 2024; [The Real Real's sales summary](#) also reports strong resale value in designer handbags sold second-hand on the platform. These findings suggest the legitimacy of luxury goods as a low-volatility asset worth investing in, as inflation continues. It would be interesting to analyze designer handbags in this context, subverting the conventional lens of the style zeitgeist using the rigor of data.

The story would benefit from interactivity, where readers can toggle and compare between different metrics and models using a dropdown menu. An interactive line-chart would update the main chart's data as the reader scrolls through the article, and the reader would be able to hover over the different lines. I would also include little custom details, such as a bespoke header with raining handbags (Dior Saddle, Hermes Kelly, Louis Vuitton Pochette, etc.) as a catchy hero

## Development process

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- Kim Hyeon
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- After sketching on pen and paper I then transferred elements over digitally. Inspired by a [piece published by Bloomberg](#) on fast fashion, I decided on a collage-esque / zine theme for my story's visuals. I felt it would add an element of

quirkiness and fun, balancing out the dense data. For the mood boarding portion, I created custom graphics on Adobe Illustrator and photoshop by splicing bags using my trusty pen tool.

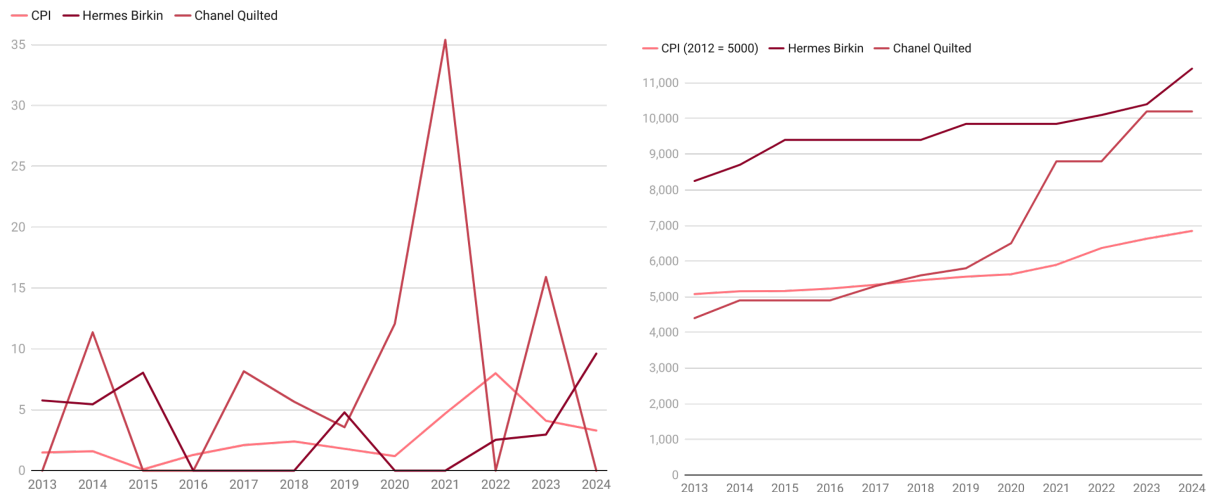


*Spliced out handbags produced by Chanel, Gucci, Dior, and Hermes.*

- Prototyping
  - In order to provide an accurate prototype, a sample dataset would have to be used for the proof of concept. To do this, I manually created my dataset using CPI and inflation rate data provided by the federal reserve data of Minneapolis (found [here](#)). I then manually obtained the purse data for Birkins and Quilteds—this was done by hand using the data from the WSJ piece on purse pricing. These consolidated numbers served as my working datasets for this assessment.
  - From there, I then created a spreadsheet which processed the rates of increase throughout the years as both percent inflation and raw price increases. I felt the story would have more of an impact if we communicated this using two widely

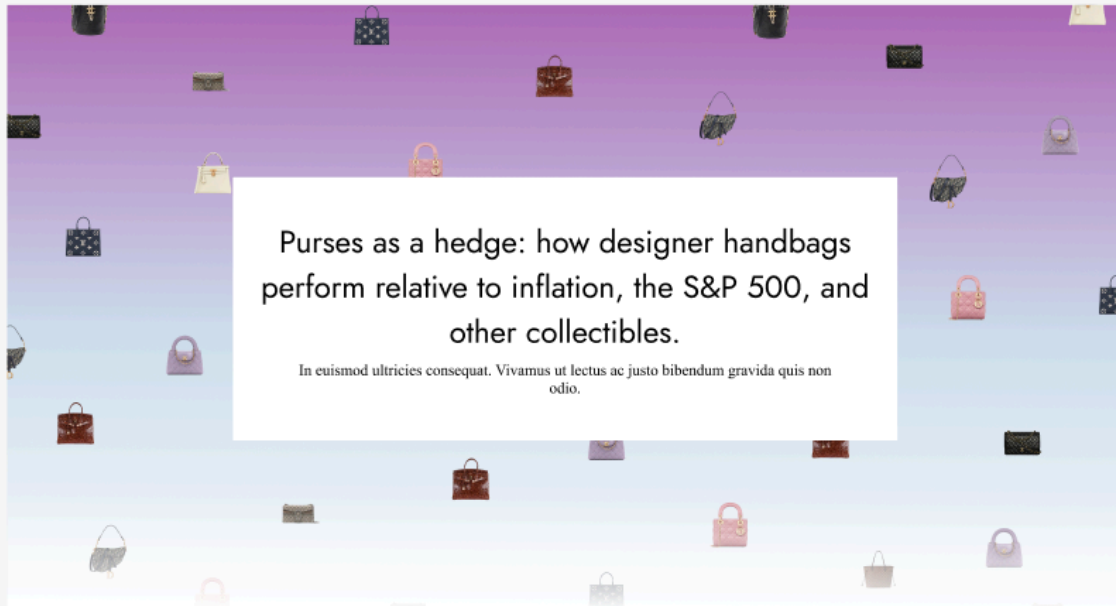
used economic metrics (and would make for a fun experience toggling between the two). For pricing data, I used CPI = 5000 in 2012, as I felt measuring the inflation of a \$5000 dollar item would be more of a realistic comparison point to thousand dollar bags. Measuring percent price increase was a little trickier — To do this, I calculated the year-over-year increase for the bags and converted the rate to a percent. I created two datasets using the percent increase and pricing metrics used for the charts, and my work can be found at the linked spreadsheet [here](#).

- Once the data was processed and transformed, I began prototyping the charts on Datawrapper to see if my hunch for using a line chart was in the right direction. Because what we're analyzing is a continuous time-series, the main point, which is examining performance, was best demonstrated through a line chart. These charts serve as the static foundation, of which is implemented to be interacted with by scrolling and toggling using a dropdown menu.



*Two sample charts measuring the rates of percent increase and increase in raw price for handbags and inflation (rate and CPI).*

- I then decided to visualize the story by designing a sample interface screen of the story found below. This would demonstrate, in high-fidelity, the visuals of this proof of concept and how it would look on a screen. The UI prototype can also be viewed and interacted with in Figma found [here](#).



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- Actual Implementation

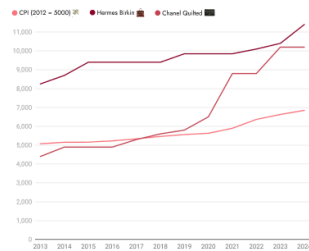
- The hero graphic would have the responsive dimensions of 100vw x 100vh, taking up the device's full screen. The gradient background would be implemented using [CSS](#), and the falling handbags would be implemented using javascript (JS). Essentially, we input the purses as svgs, which then is selected for in our JS script and animated by translating from 0 → 100vh using a [combination of CSS + JS](#).
- The main graphic would be implemented using the D3 library; D3 serves as the gold standard for seamlessly connecting HTML/CSS and JS in the DOM. Since I



plan for there to be a significant amount of customization within the piece, D3 is imperative for fine-tuning selections and performing whatever action after the user prompt as desired. The graphic will be written as an SVG container, which will be drawn, redrawn, and animated.

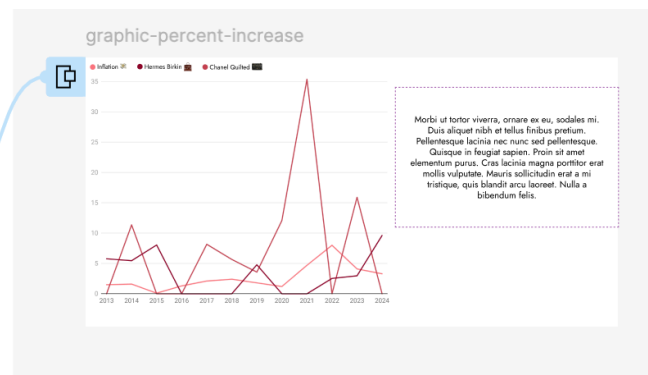
- The primary graphic is completely interactive. This is done in three ways: from scrolling; toggling between the two metrics using a dropdown menu; and from interacting with the line charts from hovering.
- The scrolling capabilities will be handled using javascript and will interact as a sticky scroll adapted from the following template:  
<https://jsoma.github.io/simplified-scrollama-scrollytelling/sticky-side.html>.
- The update will be triggered by y-points on the page that the user scrolls to. At the moment, the scroll will perform an update between selecting and highlighting each path within the line chart with scrolling explanatory div for each path. D3 and JS will perform the selection and update, while CSS is used to style the elements.

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### Prototyping the data update from raw pricing to rate increase (percent).

- The dropdown menu will handle an update from different datasets, where the percent rate increase and raw pricing can be toggled from selection. This will be done using D3's data update handling, and new paths will be drawn from the updated dataset bound to the parent SVG.
- Users hovering over each path will be shown a tool-tip with contextual info. This would include year, price or rate, and asset being examined (in this case the Birkin, Quilted, or CPI / inflation rate). I'm also toying with the idea of adding a little SVG icon per line as a legend for the path in question.

Researching and finding the data or other necessary elements for the story.

The sample dataset used within the assessment can be found [here](#) and [here](#), for inflation and pricing data respectively. As mentioned, the data was obtained from the federal reserve, and the WSJ story.

Since we are comparing performance using various indices (inflation; cost of essential goods; stock market; other asset classes), the dataset will be a comprehensive CSV or JSON containing all this info. I primarily work with a single consolidated dataset versus multiple, and filter the data as necessary using D3's [filter](#) or [nesting](#) functions. However, it would be potentially worth exploring working with a dynamic dataset that is hosted vs static files. This way, multiple datasets can be updated via API, making the process more complicated but organized.

Inflation would be obtained using the Consumer Price Index. This information is readily available from the government, namely through the U.S bureau of labor statistics and federal reserve both of which produce statistics on inflation and CPI; additionally, the historical cost of common household items and essentials are provided in government data. Historical S&P 500 is also readily available through APIs in a JSON file format.

The main challenge is found in obtaining historical purse data. As mentioned, the sample data set was obtained by hand using existing purse data from the WSJ story but pricing data isn't readily available. Notably, historical data is owned by the corporations that sell the bags, and is therefore private. Additionally, resale pricing data is also owned by the platforms they are sold on and aren't publicly released. In order to obtain this data we would either leverage a hidden API containing pricing data on the website; request the data from the companies themselves; or obtain data that is publicly archived using the [wayback machine](#) or [archive.is](#).

Any challenges you would potentially anticipate with your concept and how you would overcome them.

The graphical execution of this story is straight-forward; the principal challenge lies in obtaining a reliable source of data for the historical pricing of handbags. As well, with a single dataset there may be challenges in handling and processing the data to display as desired. Please refer to the above section for the process and caveats in obtaining the data.

## Sketches, mock-ups, and timeframe

The timeframe to complete the edit test was a 4 day (96 hour) window, beginning Tuesday July 9th @ 5pm with a deadline of Saturday July 13th @ 5pm. For a high fidelity demo, please refer to the interactive prototype [here](#). Additional code and datasets are also hosted on github and can be found [here](#).

## References:

- <https://www.wsj.com/finance/stocks/why-prices-for-the-worlds-most-expensive-handbags-keep-rising-ef49c014>
- <https://www.theatlantic.com/technology/archive/2023/03/luxury-fashion-handbag-trends/673558/>
- <https://finance.yahoo.com/news/inflation-luxury-handbags-unaffordable-aspirational-buyer-140243863.html>
- [https://the-realreal.cdn.prismic.io/the-realreal/88351e3e-1c67-46de-90e8-6b9d95c8f648\\_Resale+Report+2023-Final.pdf](https://the-realreal.cdn.prismic.io/the-realreal/88351e3e-1c67-46de-90e8-6b9d95c8f648_Resale+Report+2023-Final.pdf)
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- <https://www.bls.gov/opub/ted/2024/consumer-price-index-2023-in-review.htm>
- <https://www.minneapolisfed.org/about-us/monetary-policy/inflation-calculator/consumer-price-index-1913->
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