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INFLUENCE OF THE COVID-19 PANDEMIC ON THE CONSUMPTION PATTERNS OF THE LUXURY MARKET

by
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ABSTRACT
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The luxury market has experienced significant growth and diversification in recent years, driven by globalization, technological advancements, and evolving consumer preferences. This study aims to explore the motivations behind luxury consumption, the industry's adaptability during economic crises, and the impact of the COVID-19 pandemic on the luxury market. By analyzing data from the global market, the US market, and state-by-state in the US, the paper provides a comprehensive understanding of luxury consumption patterns and the resilience of the industry during challenging periods.

Our findings have shown that lockdown policies and stimulus packages played a crucial role in shaping consumer behavior and the performance of luxury brands, such as LVMH and Peloton. The study further demonstrates the importance of understanding the relationship between government interventions and luxury market trends, as well as the factors that drive luxury consumption, in order to navigate the post-pandemic landscape. This research highlights the adaptability and resilience of the luxury market and offers valuable insights for luxury brands as they continue to navigate the complexities of the ever-growing sector.

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CHAPTER I

INTRODUCTION

The luxury industry has experienced significant growth and diversification, becoming a multi-billion-dollar market that caters to a diverse range of consumers and sectors, this growth was impacted by the globalization and technological progress. Traditionally associated with wealth, exclusivity, and high social status, luxury goods have witnessed remarkable growth and transformation over the years, raising questions about the impact of this trend on social dynamics, consumer behavior, and the industry's resilience during economic crises. This paper aims to explore various aspects of the luxury market, looking into the motivations behind luxury consumption, and examining the sector's adaptation to fluctuating market conditions, such as the COVID-19 pandemic.

In addition to discussing the psychological and social factors that drive the consumption of luxury items, this paper will analyze the role of luxury in socioeconomic disparities and the strategies employed by luxury brands to navigate challenging periods. By exploring the concept of luxury goods and their economic and sociological dimensions, we will gain a comprehensive understanding of this ever-growing industry.

The COVID-19 pandemic has had a profound impact on various aspects of the global economy, including the luxury market. To gain deeper insights into the effects of the pandemic on luxury consumption patterns, this paper presents a study examining multiple factors, such as lockdown policies, stimulus packages, personal and luxury consumption of households, and stock prices of specific luxury brands like LVMH and Peloton. Employing quantitative methods, this study will analyze data from the global market, the US market, and state-by-state in the US.

The paper will first investigate the impact of lockdown policies and stimulus packages on luxury consumption. Followed by explore the stock market performance of LVMH and Peloton during the pandemic, shedding light on the potential effects of COVID-19 on specific luxury markets. Finally, the paper will present the results of these analyses, offering valuable insights into how the pandemic has shaped the luxury market and consumer behavior.

CHAPTER II

DEFINING THE LUXURY MARKET

The luxury market is a vast industry worth billions of dollars that no longer caters exclusively to the wealthy and elite. Instead, it is expanding to include more modest classes. The market is dominated by key players such as LVMH, Kering, Richemont, and Chanel, who own multiple luxury brands across various sectors. With technological advances and globalization in the 20th century, the luxury market has become more accessible to wider audiences and expanded beyond traditional categories such as fashion and jewelry to include automobiles, housing, travel, and other sectors.

A. What are Luxury goods?

Authors such as Mary Douglas and Baron Isherwood argue that "luxury" is subjective and can vary based on the field of study, culture, and period. Nevertheless, luxury has always been associated with wealth, exclusivity, and unattainability. Although younger generations like Generation Z and Alpha are attempting to reshape the market to be more inclusive to a broader audience, luxury goods are still perceived as limited-edition, high-end items that only the elite can obtain, symbolizing a luxurious lifestyle and high social status.

From an economic perspective, Thorstein Veblen was the first economist to explain luxury as a good whose demand increases with an increase in price and income, known as "Veblen goods" (T. Veblen, 1899). Since its inception, wealthy consumers have felt compelled to purchase these goods to showcase their means and power. This phenomenon can also be explained by the income elasticity of demand, which means that as people become wealthier, they tend to purchase more luxury goods, leading to unnecessary consumption that does not contribute to the economy or society. T. Veblen (1899) referred to this behavior as "conspicuous consumption" and "conspicuous leisure." From a sociological perspective, luxury goods can be defined as goods that represent high status and provide a pleasurable experience to the consumer, elevating luxury goods from a mere necessity to an indulgence. This notion is captured in the famous quote by Gabrielle "Coco" Chanel, the founder of the House of Chanel, who stated, "Luxury is a necessity that begins where necessity ends."

B. Luxury good's main characteristics

As defined above, luxury good is not a primary needed good to maintain an adequate quality lifestyle, and so is unnecessary. However, consumers still feel the need to purchase these goods. This is not only due to the psychological need of belonging that consumer will receive as they move toward the elite class, but also to other characteristics. One of the main characteristics that luxury goods hold is high quality and price premium. This price perceived quality led the consumer towards an insensitivity towards high pricing and led them to higher desire of the luxury good as it is now seen as better quality, unique and 'priceless.' And so, bringing us back to the sociological effect of luxury goods, where one's main incentive is integration to a higher elite social statue. Another main characteristic would be the high sensitivity of luxury goods to the income elasticity of demand. Referring to "the sensitivity of the quantity demanded for a certain good to a change in real income of consumers who buy this good, keeping all other things constant" (Investopedia, 2022).

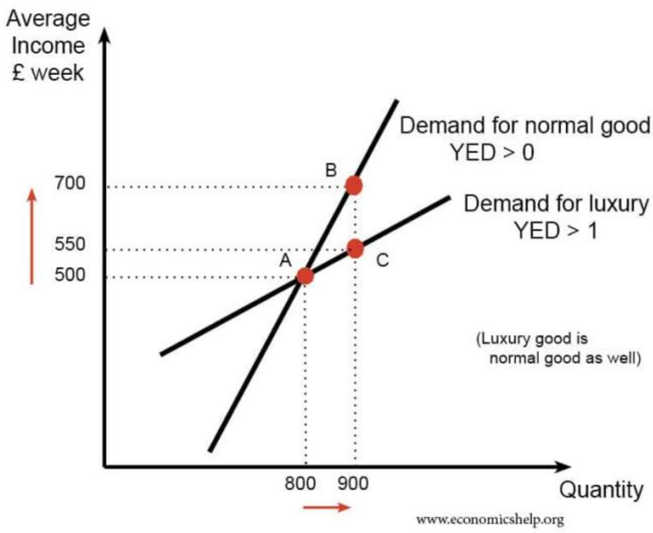

Figure 1. Normal Goods vs. Luxury Elasticity of Demand Graph

As shown in Figure 1, an increase in income leads to a larger percentage increase in demand, resulting in a YED (income elasticity of demand) greater than 1.

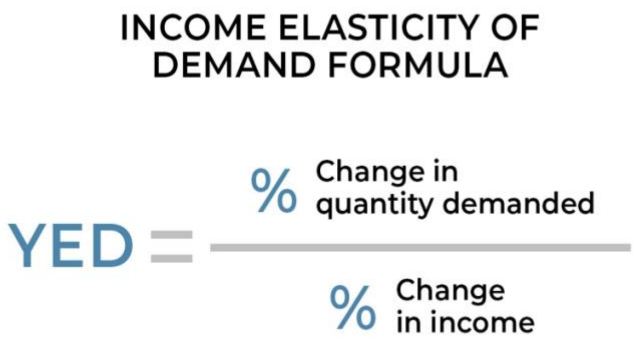

Figure 2. Income Elasticity of Demand Equation (YED)

Figure 2 provides an explanation of how YED is calculated, with Y representing average income and Qd representing quantity. A YED greater than 1 indicates that a change in consumer income has a significant impact on the demand for luxury goods. In contrast, the demand for normal goods has a steeper slope than that of luxury goods, indicating that a percentage change in consumer income results in a smaller percentage change in quantity demanded.

Finally, one of the primary characteristics of luxury goods is their rarity and exclusivity, as they tend to be in limited supply. The desirability of a luxury good is likely to decrease as the number of individuals purchasing it increases. Thus, the more accessible an object becomes, the less luxurious it appears, as its uniqueness and exclusivity are diminished.

CHAPTER III

LITTERATURE REVIEW

Over the years, the expanding luxury markets have led to social tensions among different socioeconomic classes. This phenomenon has prompted individuals from low and middle-income backgrounds to work longer hours and exert greater effort in pursuit of a higher social standing. In the process, they often sacrifice precious time with their families and overall well-being, all for the sake of increasing their wealth. R.H. Frank (2010) contends that these patterns neither lead to increased happiness nor actual wealth, deeming them a waste. He further argues that the desire to emulate the wealthy is not an individual's fault, but rather a systemic issue that could be addressed by regulating the excessive spending of affluent individuals.

M. Douglas and B. Isherwood (1996) propose that promoting luxury to wealthy consumers can incite envy and jealousy among those with lower incomes, fostering the perception that such wealth is unattainable. By integrating anthropology and psychology into their analysis, these authors offer a unique perspective on luxury theory. They argue that luxury goods are not merely items with inherent utility or status, but rather are deeply ingrained within social and cultural systems. Building on this view, authors Aleš ROD, Jonáš RAIS, and Jiří SCHWARZ (2015) suggest that the demand for luxury goods is driven by a combination of economic, psychological, and social factors. They argue that individuals with high disposable incomes are more likely to purchase these items, which are further influenced by social and cultural dynamics. As such, luxury consumers are motivated by the desire for social signaling, which others perceive as a marker of elevated social status.

Literature reviews examining the impact of economic crises on luxury goods consumption have primarily focused on consumer behavior and marketing strategies that respond to crises. Robert Olorenshaw (2011) argued that even during economic downturns, luxury brands have quickly adapted to shifting consumer preferences by introducing more affordable products and repositioning themselves as "accessible luxury" brands. This adaptability is crucial for luxury brands to navigate crises and succeed in the post-crisis market.

During more recent crises, such as the COVID-19 pandemic, this rapid adaptation has been instrumental in preventing a market collapse. Luxury brands have maintained their core market values of high quality and premium pricing while exploring innovative ways to engage with consumers during isolation and lockdowns. They have adopted more digital marketing strategies and e-commerce (KPMG, 2022), which helped mitigate the damage to the luxury market during 2020 and 2021. Bain and Co.'s luxury report (2021) reveals that the luxury market has grown significantly over the years, accounting for around 80% of the total market, including luxury cars, personal goods, and hospitality. The market expanded by 13% to 15% in 2021, reaching €1.14 trillion.

Personal luxury goods are expected to experience annual growth rates of 6% to 8% until 2025. Luxury brands will continue to evolve in response to changing consumer preferences, technological advancements, and global trends, thereby contributing to economic, cultural, and social development.

The swift adaptation during the COVID-19 pandemic enabled the luxury market to recover in 2021, transitioning from a primarily in-store experience to a more diversified approach that includes online and monobrand stores. The report highlights four growth trends projected to reshape the luxury market by 2025: (1) Chinese consumers will become the dominant nationality for luxury, representing between 40% to 45% of global purchases; (2) mainland China will overtake the Americas and Europe as the largest luxury market; (3) online channels will lead luxury purchases, with more consumers opting for digital transactions; and (4) younger generations (Y and Z) will become more demographically dominant in luxury, making

CHAPTER IV

DATA

In order to gain a deeper understanding of how the COVID-19 pandemic has impacted the consumption patterns of the luxury market, this paper presents a study that considers various factors, such as lockdowns, stimulus given during lockdowns, personal and luxury consumption of households, and stock prices of specific luxury brands like LVMH and Peloton. To provide further insights into this matter, quantitative methods will be employed, including the analysis of the global market[1], the US market, and the US state-by-state market.

A. Lockdown and Stimulus effect

The data analyzed for the first study involved several steps, including collecting and analyzing data on luxury consumption, personal consumption, stimulus given during lockdowns, and lockdown policies across 34 countries between 2018 and 2022. The second study, similarly to the first one, had however a smaller sample size and was conducted across all 50 states in the US.

Firstly, data was collected on luxury consumption and personal consumption on a yearly basis from various sources, including industries and governmental reports. This data was used to calculate the yearly averages of luxury consumption and personal consumption in each country. Using this data, we calculated the ratio of luxury consumption to personal consumption for each country in each year, and were able to

[1] In this study we have only considered a sample of 34 countries.

create the dependent variable, y (yearly). This allowed for a standardized measure of luxury consumption that could be compared across countries and years.

Secondly, data was collected from government reports and other official sources on the stimulus given during lockdowns in each country. The annual budget for stimulus was collected for each country to determine the level of support given to citizens during the pandemic. A similar approach was taken to collection of data on the lockdown policies in each country and was used to determine which countries had lockdowns and whether they were full or partial lockdowns.

Finally, the data was analyzed using the following regression analysis:

$$Y = \alpha_0 + \alpha_1\ Post + \alpha_2 T_i + \alpha_3\ Post \times T_i + \varepsilon_t$$

Where Y represent any of the outcomes we seek to estimate in this paper. The variable Post indicates years post Covid-19. And the treatment variable T_i represent the two dummy variables, L and S, which takes the value of 1 if countries and states implemented lockdown policies and gave stimulus packages, respectively. This helped determine the relationship between the dependent variable (y) and the independent variables (stimulus and lockdown policies). The data was analyzed twice, first including all countries with lockdown policies (full and partial lockdowns), and then only including countries with full lockdown policies. With regards to the data on states, we analyzed the data once and considered all states, including those with full and partial lockdowns, as having implemented lockdown policies. This was done to determine if there was a significant difference in the relationship between the dependent variable and independent variables based on the severity of lockdown policies.

B. Stock of Luxury brands

The data analysis for this first study involved collecting and analyzing data on luxury consumption, personal consumption, stimulus given during lockdowns, lockdown policies, and stock prices of LVMH and Peloton across 34 countries between the years 2020 and 2021. The second study, similarly to the first one, had however a smaller sample size and was conducted across all 50 states in the US. All data used for these analyses was the same as in the previous study (lockdown and stimulus effect), with the exception of the below.

In order to examine the potential impact of COVID-19 on specific luxury markets, we have collected data on the stock prices of LVMH and Peloton on a monthly basis. This data was collected from financial websites and databases. Finally, the data was analyzed using regression analysis to determine the relationship between the dependent variable (stock), and the independent variables (stimulus, lockdown policies). The data was analyzed once, accounting for partial lockdown countries and states as full lockdown.

CHAPTER V

RESULTS

A. Lockdown and Stimulus effect

The results of the first analysis of the 34 countries showed that there was a significant relationship between the dependent variable (y) and the independent variable, stimulus (S). However, the analysis showed insignificance between (y) and the independent variable, lockdown policies (L). This suggests that the severity of lockdown policies did not have a significant impact on consumer behavior in relation to luxury consumption. It is still important to note that countries that implemented stimulus showed positive significance towards the stability of the market. The results also revealed that the interaction between stimulus and years post COVID-19 had a positive relationship with the dependent variable (y). This suggests that the impact of stimulus on luxury consumption patterns is more pronounced in the post-pandemic years. The second analysis, which omitted countries that implemented partial lockdown policies, showed similar results (Table 1&2).

Moving to the third analysis of the 50 US States. Results showed insignificance between (y) and the independent variable (L). This implies that the inconsistency in the implementation of lockdown policies across states did not have a significant impact on consumer behavior in relation to luxury consumption. However, the analysis showed a significant relationship between the dependent variable (y) and the independent variable (S). Implying that states that provided higher levels of stimulus tended to have higher ratios of luxury consumption to personal consumption, indicating a positive impact on the luxury market. Although the actual impact of lockdown policies on luxury consumption patterns across different states could not be deduced, the results suggest that the consumption behavior pattern of US citizens did not drastically change (Table 3).

Overall, this data analysis provided insights into the impact of the COVID-19 pandemic on the luxury market and consumer behavior. It showed that stimulus given by countries and states during lockdowns can positively influence luxury consumption patterns, and that the severity of lockdown policies in certain countries and states does not really affect consumer behavior. It is important for luxury brands to consider the impact of government stimulus policies on consumer behavior, as this can potentially affect market trends during and post-pandemic.

B. Stock of Luxury brands

To gain a better understanding of the luxury market during the COVID-19 pandemic, the below examine the impact of the pandemic on the stock market of some luxury brands, specifically LVMH and Peloton.

The results of the first analysis of the 34 countries showed significant relationship between the dependent variable (stocks) and the independent variable (S) regarding the Peloton stocks, indicating that stimulus packages implemented by countries positively impacted the stability of the Peloton stock market. However, the analysis showed insignificance between (stock) and the independent variable (L). This suggests that the severity of lockdown policies did not have a significant impact on consumer behavior in relation to the Peloton stock market. It is still important to note that countries that implemented stimulus showed positive significance towards the stability of the market, stabilizing the stock prices of Peloton (Table 4).

In the second analysis, the results were focused on the overall spending of the US with the LVMH stock market, as US citizens are part of their biggest consumers. However, for this analysis we have omitted the variable (L) and counting the US as a country that has implemented lockdown, even partially. Results have shown a significant relationship between the dependent variable (stocks) and the independent variable (S) regarding the LVMH stocks. Indicating that even during lockdown policies, Covid-19 did not have a negative impact on consumer behavior in relation to the LVMH stock market and has kept the market stabilized with the help of stimulus packages (Table 5)

The last analysis considered the overall spendings of the 50 US states with the LVMH and Peloton stock market. Results have found a significant relationship between the dependent variable (stocks) and the independent variable (S) regarding both LVMH and Peloton stocks. However, it showed only one significance between (stock) and the independent variable (L) for the LVMH stock. For the Peloton stock market, the results were insignificant. Although a negative significancy was found for LVMH, the results still suggests that even during lockdown policies, Covid-19 did not have a negative impact on consumer behavior of the US states and has kept the market stabilized with the help of stimulus packages (Table 6&7).

In summary, this data analysis presented emphasized the importance that stimulus packages given during lockdowns can influence luxury consumption patterns, and that the severity of lockdown policies can also positively affect consumer behavior. Moreover, it highlighted the importance of stock prices of luxury brands in predicting luxury consumption patterns.

CHAPTER VI

CONCLUSION

This paper has provided a comprehensive analysis of the luxury market, looking into the motivations behind luxury consumption, the industry's adaptation to fluctuating market conditions, and the impact of socioeconomic disparities on luxury goods. Through the examination of psychological and social factors that drive the consumption of luxury items, we have gained a deeper understanding of the industry's appeal and its resilience during challenging periods, such as the COVID-19 pandemic.

Our study on the effects of the pandemic on luxury consumption patterns revealed that lockdown policies and stimulus packages played a significant role in shaping consumer behavior and the performance of luxury brands like LVMH and Peloton. By analyzing data from the global market, the US market, and state-by-state in the US, we have uncovered valuable insights into how government interventions, such as stimulus packages, positively influenced luxury consumption patterns during the pandemic. Moreover, our analysis showed that the severity of lockdown policies did not significantly impact consumer behavior, suggesting that luxury brands were relatively resilient during this challenging period. The stock market performance of LVMH and Peloton during the pandemic further demonstrated the industry's adaptability, with stimulus packages contributing to the stabilization of stock prices and luxury consumption.

In conclusion, the luxury market has displayed remarkable resilience and adaptability during the COVID-19 pandemic. By understanding the factors that drive luxury consumption and the industry's response to market fluctuations, we can better appreciate the complexities and dynamics of this ever-growing sector.

APPENDIX I

Table 1. Global market Lockdown and Stimulus effect for partial and full lockdown countries

```
Linear regression                               Number of obs     =        204
                                                F(5, 33)          =       8.60
                                                Prob > F          =     0.0000
                                                R-squared         =     0.2202
                                                Root MSE          =     1.6704

                                  (Std. Err. adjusted for 34 clusters in Country)
```

Y	Coef.	Robust Std. Err.	t	P>|t|	[95% Conf.	Interval]
L	.3675602	.5945426	0.62	0.541	-.8420459	1.577166
S	1.57407	.5559399	2.83	0.008	.4430017	2.705138
Post	-.2191339	.0666654	-3.29	0.002	-.3547657	-.0835021
inter1	-.0034004	.0950211	-0.04	0.972	-.1967224	.1899215
inter2	.1667426	.0789242	2.11	0.042	.00617	.3273151
_cons	1.375741	.399598	3.44	0.002	.5627527	2.188729

Table 2. Global market Lockdown and Stimulus effect for full lockdown countries

```
Linear regression                               Number of obs     =        204
                                                F(5, 33)          =      19.86
                                                Prob > F          =     0.0000
                                                R-squared         =     0.2198
                                                Root MSE          =     1.6708

                                  (Std. Err. adjusted for 34 clusters in Country)
```

Y	Coef.	Robust Std. Err.	t	P>|t|	[95% Conf.	Interval]
L	-.3793368	.3826332	-0.99	0.329	-1.15781	.3991362
S	1.572271	.5085914	3.09	0.004	.5375337	2.607008
Post	-.2385152	.0659786	-3.62	0.001	-.3727496	-.1042808
inter1	.0460161	.0539991	0.85	0.400	-.063846	.1558781
inter2	.1732533	.0716486	2.42	0.021	.0274832	.3190234
_cons	1.747717	.2810205	6.22	0.000	1.175977	2.319458

Table 3. US states Lockdown and Stimulus effect for partial and full lockdown states

```
. reg Y Stimulus L  , vce(cluster States)

Linear regression                               Number of obs     =        102
                                                F(2, 50)          =       9.28
                                                Prob > F          =     0.0004
                                                R-squared         =     0.0002
                                                Root MSE          =     .00086

                                  (Std. Err. adjusted for 51 clusters in States)
```

Y	Coef.	Robust Std. Err.	t	P>|t|	[95% Conf.	Interval]
Stimulus	3.92e-06	9.73e-07	4.03	0.000	1.97e-06	5.88e-06
L	-6.68e-06	3.51e-06	-1.90	0.063	-.0000137	3.76e-07
_cons	.0127258	3.00e-06	4240.86	0.000	.0127198	.0127318

Table 4. Global market & Peloton stocks

```
. reg Stock Stimulus LuxuryConsumption L S , vce(cluster Country)

Linear regression                               Number of obs     =        768
                                                F(4, 31)          =      14.85
                                                Prob > F          =     0.0000
                                                R-squared         =     0.0043
                                                Root MSE          =     38.342

                                 (Std. Err. adjusted for 32 clusters in Country)
```

Stock	Coef.	Robust Std. Err.	t	P>|t|	[95% Conf.	Interval]
Stimulus	-6.64e-06	1.25e-06	-5.33	0.000	-9.18e-06	-4.10e-06
LuxuryConsump~n	.0000492	.0000304	1.62	0.116	-.0000128	.0001112
L	.9642278	.8580198	1.12	0.270	-.7857151	2.714171
S	-.0169146	.687305	-0.02	0.981	-1.418682	1.384853
_cons	83.74536	.6758006	123.92	0.000	82.36705	85.12366

Table 5. US & LVMH stocks

```
. reg Stock Stimulus

      Source |       SS           df       MS      Number of obs   =        24
-------------+----------------------------------   F(1, 22)        =     92.21
       Model |  307490.695         1  307490.695   Prob > F        =    0.0000
    Residual |  73360.6192        22   3334.5736   R-squared       =    0.8074
-------------+----------------------------------   Adj R-squared   =    0.7986
       Total |  380851.314        23  16558.7528   Root MSE        =    57.746

------------------------------------------------------------------------------
       Stock |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
    Stimulus |  -.0002058   .0000214    -9.60   0.000    -.0002502   -.0001614
       _cons |    1019.48   53.81389    18.94   0.000     907.8771    1131.083
------------------------------------------------------------------------------
```

Table 6. US states & LVMH stocks

```
Linear regression                               Number of obs     =      1,224
                                                F(2, 50)          =       9.45
                                                Prob > F          =     0.0003
                                                R-squared         =     0.0002
                                                Root MSE          =     126.11

                                 (Std. Err. adjusted for 51 clusters in States)
------------------------------------------------------------------------------
             |               Robust
       Stock |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
    Stimulus |   .5213853   .1280975     4.07   0.000     .2640939    .7786767
           L |  -.8883491   .4629066    -1.92   0.061    -1.818124    .0414263
       _cons |   514.0836   .3952034  1300.81   0.000     513.2898    514.8773
------------------------------------------------------------------------------
```

Table 7. US states & Peloton stocks

```
. reg Stock Stimulus L S , vce(cluster States)

Linear regression                               Number of obs     =      1,224
                                                F(3, 50)          =       6.37
                                                Prob > F          =     0.0010
                                                R-squared         =     0.0000
                                                Root MSE          =     38.362

                                  (Std. Err. adjusted for 51 clusters in States)
```

Stock	Coef.	Robust Std. Err.	t	P>|t|	[95% Conf.	Interval]
Stimulus	.0669422	.0164386	4.07	0.000	.0339242	.0999601
L	-.114705	.0592521	-1.94	0.059	-.2337163	.0043063
S	-.0101676	.126241	-0.08	0.936	-.2637301	.2433949
_cons	84.34437	.1308472	644.60	0.000	84.08155	84.60718

APPENDIX II

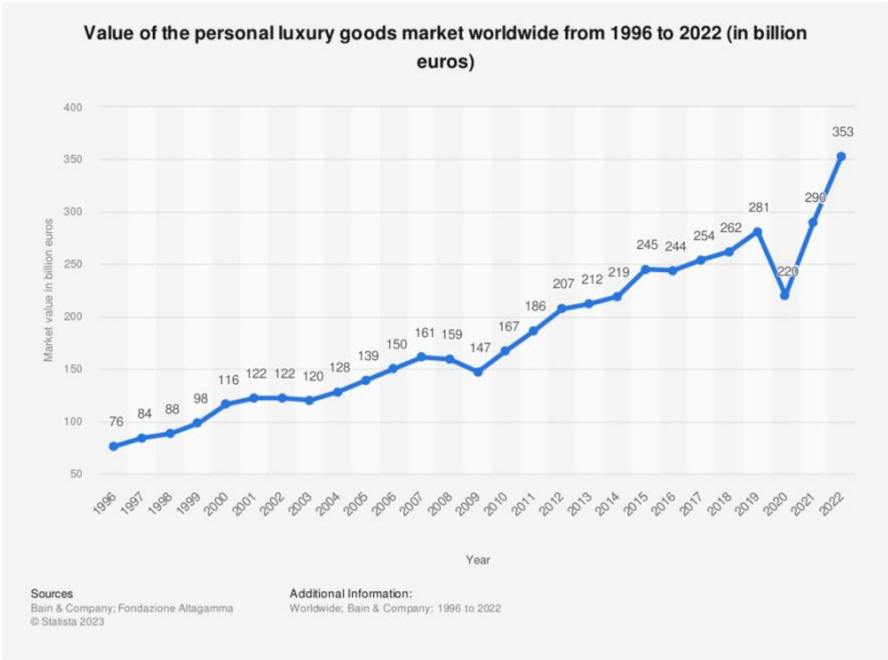

Figure 3. Value of the personal Luxury goods market worldwide from 1996 to 2022.

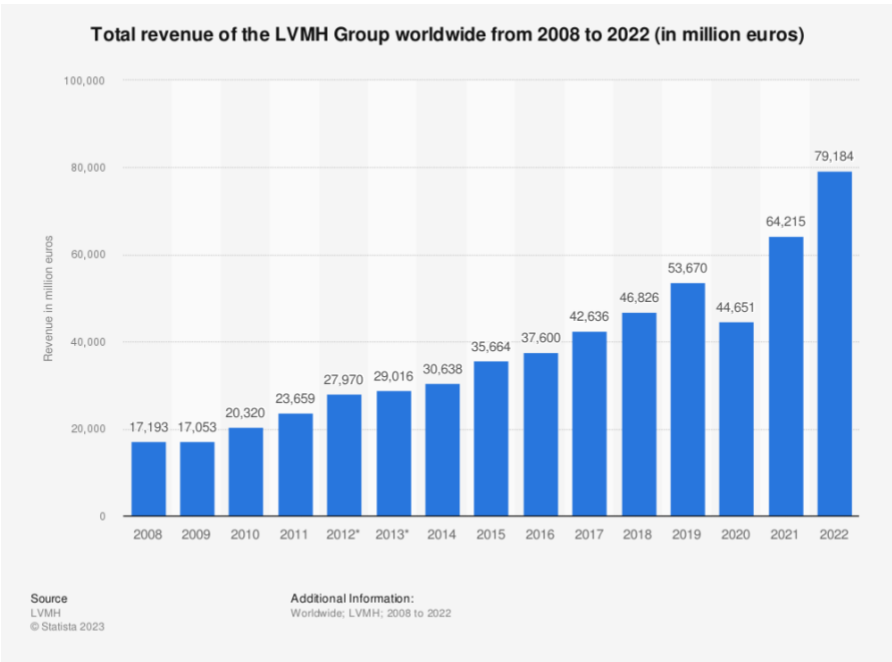

Figure 4. Total revenue of the LVMH Group worldwide from 2008 to 2022

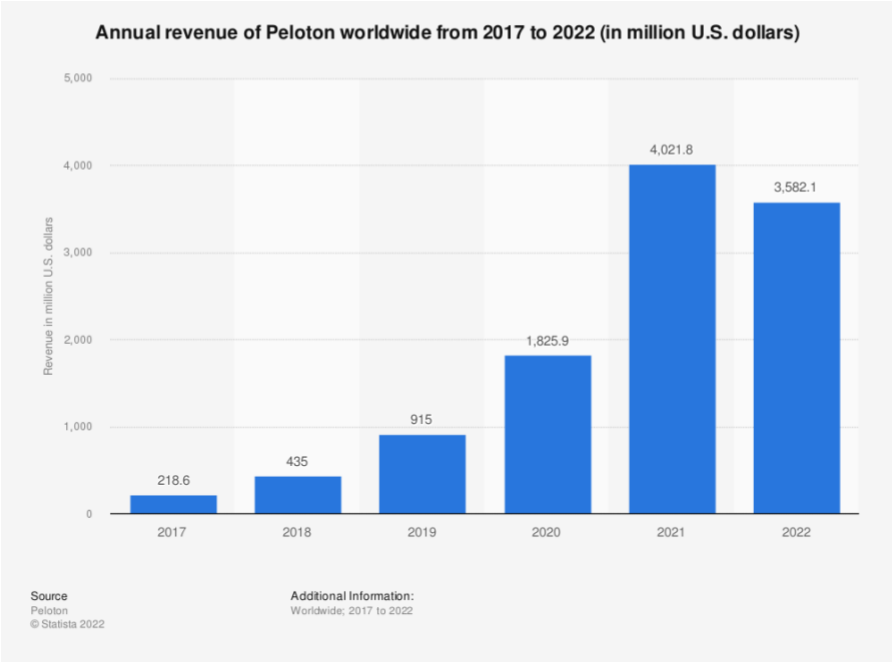

Figure 5. Annual revenue of Peloton worldwide from 2017 to 2022

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