

An Study of Portfolio Selection Based on Luxury Goods

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Abstract. Portfolio optimization is the process by which investors select various securities and other assets to form portfolios according to demand and then optimize those portfolios to achieve their investment objectives. Compared with other industries, the consumer industry is a typical non-cyclical industry, less affected by the fluctuations of the economic cycle and more stable. Because high-end consumer prices are less elastic to demand and industry barriers are high, their investment prospects are better, and growth rates are faster. This paper examines whether luxury goods stocks are worth investing in and screens for the best-performing stocks within their sectors. This paper uses stock selection methods: P/E, Payout, EPS, and Dividend Yield. Further, the findings from the four methods are combined to select the two best-performing stocks. This paper focuses on why luxury stocks are worth investing in and the most worthwhile stocks in recent years by analyzing the data, with the experimental data being daily data for seven years from 2016-2022, involving ten representative stocks in the luxury sector in OTCMT and NYSE. Finally, a comparison of the cumulative and annualized returns of each approach demonstrates the superiority of the portfolio selection model put out in this work. It is concluded that more affluent young consumers still drive luxury goods despite slowing global economic growth. The data presents KER and LVMUY as the two stocks with the best investment value. Combined with the great trend of luxury development in recent years, investors can make a choice for these two stocks.

Keywords: Portfolio optimization; Stock selection methods; Luxury goods; Brand benefits

1. Introduction

The luxury sector has achieved moderate growth over the past three years (3 to 4 percent per year), and the major brands have shown greater heterogeneity in their performance across all product categories. The Ernst & Young Luxury & Cosmetics Index has outpaced the market with a total return of 137 percent over the previous ten years, translating to an average annual return of 8.6 percent [1].

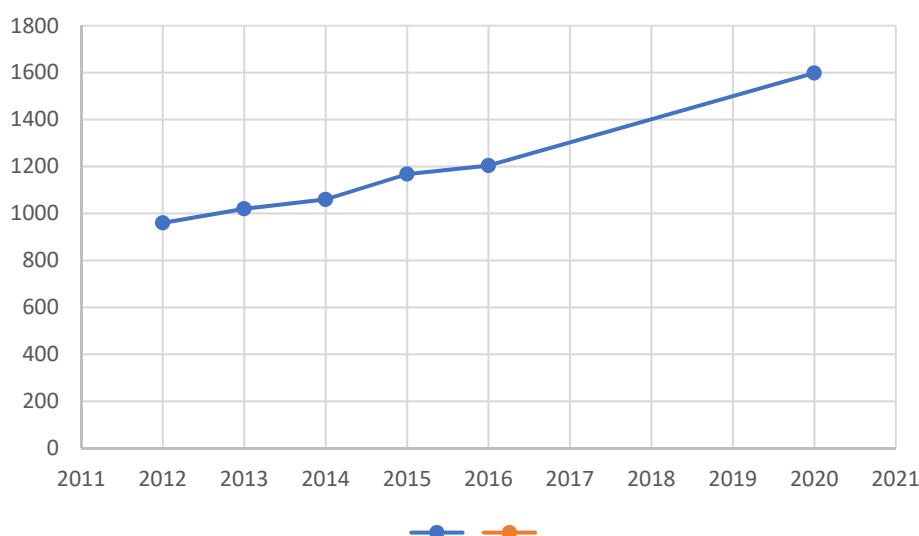


Figure 1. 2012-2021 Total global luxury consumption (Billions of dollars)

Luxury brands have high price-to-earnings ratios, predictable business development, and few investible targets. The global luxury industry is exploring innovations as the luxury industry makes an aggressive push toward sustainability goals. Due to the impact of the epidemic on offline retail,

luxury brands have opened online sales channels and the proportion of online retail is rising. According to the "2021 China Luxury Digitalization Report", luxury online sales reached US\$14.1 billion in 2020, up 88% year-on-year. 2021 luxury online trend continues to deepen, with online sales reaching US\$24.7 billion, up 75% year-on-year [2]. Almost all mainstream luxury companies and brands are starting to report their earnings for the first half of the year, and all the results point to one trend: the luxury industry is experiencing a rebound, The industry's long-term average growth has been consistently higher than GDP growth by about 50-60%, and this trend is set to continue. Obviously, there is bound to be a lot of volatility ahead, but the fundamentals of luxury demand growth remain very solid in the long run [3]. His paper will examine why investing in luxury stocks has a high probability of being profitable.

Using a portfolio strategy, investors can lower the risk of a particular asset without necessarily lowering their expected return. You must manage a portfolio to strike a balance between the demands for safety and return by considering a variety of hazardous and risk-free assets. For safety and profit, you need a combination of risky and risk-free investments. Ratio analysis is also essential for determining performance in relation to competitors in the industry, identifying gaps, and assessing competitive advantages, strengths, weaknesses, opportunities, and threats. Ratios may be used to determine the profitability, liquidity, efficiency, and other characteristics of an organization as well as to forecast its future performance [4].

Therefore, this paper uses four stock selection methods, namely P/E ratio, dividend payout ratio, earnings per share, and dividend yield, to predict the wages of 10 stocks. Then, the top two stocks in the composite ranking are selected for analysis and study. Finally, the cumulative returns and other indicators under each investment strategy are empirically analyzed to derive why luxury stocks are worth investing in and their future development prospects. Based on the data analysis, it is concluded that KER and LVMUY are the best investment value.

After the specific analysis of these two stocks' earnings in recent years and the company's situation, the giant conglomerate is better able to hire the best talent, invest in a solid digital platform, and use economies of scale to improve the profits and operations of its brands [5]. So KER and LVMUY are two stocks worth investing in.

2. Stock Selection Method

The significance of the use of four metrics - P/E ratio, dividend payout ratio, earnings per share and dividend yield - and their formulas.

2.1 Payout Ratio

The percentage of a company's profits that are given as dividends is determined by the dividend payout ratio. We invest in companies with high payout ratios if they tend to be very stable and financially sound.

$$\text{Payout Ratio} = \text{Total Dividends} / \text{Net Income} \quad (1)$$

2.2 P/E Ratio

The P/E ratio is calculated by deducting the market price per share from the company's profits per share.

$$\text{P/E Ratio} = \text{Share Price} / \text{Earnings per Share} \quad (2)$$

The most common way of stock appraisal is to calculate a company's price-to-earnings ratio. A low P/E ratio suggests that investors are getting a good deal on stocks.

2.3 EPS

Earnings per share is the total of the company's profit distributed to each outstanding share of the company's common stock and serves as a gauge of a company's financial health. Higher EPS indicates

greater value since investors would pay more for a company's stock if they expect its earnings to be higher in comparison to its share price.

$$\text{EPS} = \text{Total Earnings} / \text{Outstanding Shares} \quad (3)$$

2.4 Dividend Yield

Dividend yield is computed by taking the yearly dividend per share and multiplying it by the company's share price.

$$\text{Dividend Yield} = \text{Cash Dividend per share} / \text{Market Price per share} * 100 \quad (4)$$

The phrase "dividend yield" describes how much of a company's share price goes toward its annual dividend payment. Some investors may be looking for a high dividend yield, while others may be looking for companies with a history of increasing dividends year over year. Over time, some investors may be looking for stability in dividend yield.

The data of each of the ten stocks are analyzed and ranked by four stock selection methods to come up with the most worthy stocks for investment.

Based on the historical price series of luxury stocks, we compute four financial ratios for each stock in this study, and we offer distinct charts for each financial measure.

3. Data

Since there are many luxury brands, I selected the ten most representative luxury brands for the experiment, which are the best in the industry in terms of both popularity and growth in recent years. In this paper, I selected seven years of daily data from 2016-2022 for ten stocks of OTCMKTS and NYSE. The data is sourced from gurufocus, and the ten stocks are

HESAY (Hermès), Founded in 1837, Hermès International SA is a French luxury design firm with a focus on ready-to-wear, jewels, watches, perfumes, lifestyle accessories, and leather products.

KER (Kering Group), a global corporation with a French origin that specialized in high-end products. Yves Saint Laurent, Gucci, Alexander McQueen, Bottega Veneta, and Balenciaga are just a few of the upscale brands that it owns. The organization has \$13.1 billion in 2020.

LVMUY (LVMH), A luxury goods-focused global business with French ownership has its headquarters in Paris. With a \$329 billion valuation, LVMH will be the most valuable corporation in Europe in 2021.

CHDRY (Dior), Christian Dior SE, is a French luxury fashion company.

EL (Estée Lauder), Based in midtown Manhattan, the American multinational cosmetics firm Estée Lauder Companies produces and markets cosmetics, skincare, fragrance, and hair care goods.

CFRUY (Richemont) is a holding company for luxury products with its headquarters in Switzerland. It produces and distributes jewelry, watches, leather products, pens, firearms, apparel, and accessories through its various subsidiaries. As of November 2012, it was placed sixth in the Swiss market index in terms of market capitalization.

MONRF (Moncler), Moncler is a French-founded Italian luxury fashion company specializing in ready-to-wear and couture jackets. Reports revenues of € ONRF lion in 2022.

BCUCY (Brunello Cuccinelli) is an Italian luxury fashion company that markets its clothing in Europe, North America, and East Asia. It also offers accessories. The company upholds fundamental moral principles.

CJEWf (Chow Tai Fook Group), Hong Kong-based Chow Tai Fook Group is a privately held company with interests in hotels, jewels, real estate, and other industries. On the Hong Kong Stock Exchange, NWD was ranked 47th as of December 31 with a market value of HK\$105,680.61 million.

ESLOY (Essilor Luxottica), a Paris-based French-Italian vertically integrated multinational company, is currently a global leader in designing, producing, and distributing luxury lenses and frames. The company has € 14.4 billion and a capitalization of € 38.2 billion.

The data studied in this article covers the period from January 1, 2016, to August 16, 2022, and includes a daily opening, closing, and high and low prices.

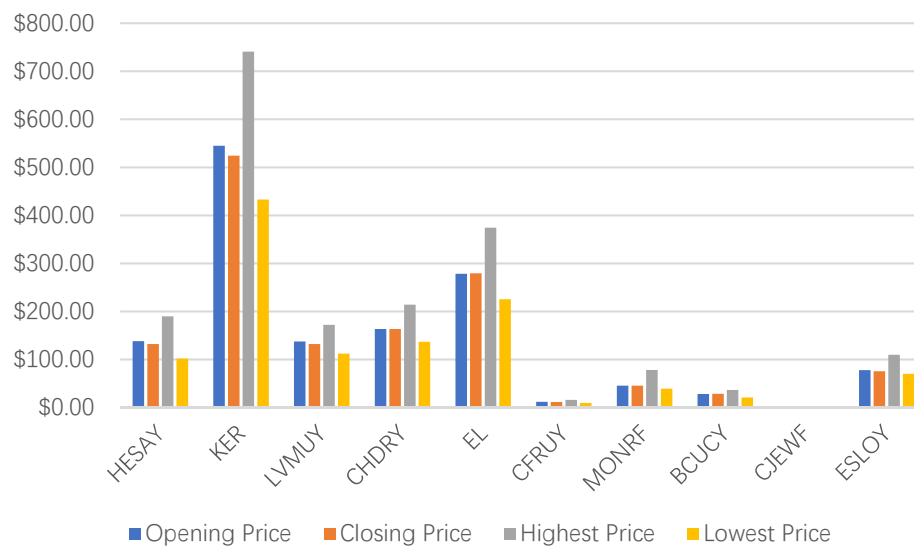


Figure 2. January 1, 2016, to August 16, 2022 Range Data
Sources: <https://www.marketwatch.com>

4. Empirical Analysis

4.1 Basic Analysis

Each financial ratio of the stock is first analyzed through 10 years of daily data from 2012-2022 for 10 stocks in OTCMKTSNYSE.

Table 1. 2012-2022 Four Financial Ratios Data

	HESA Y	KER	LVMU Y	CHDR Y	EL	CFRU Y	MONR F	BCUC Y	CJEW F	ESLO Y
Payout	11.20%	11.10 %	10.70%	10.70%	15.00 %	12.20%	21.60%	15.45%	9.30%	8.60%
P/E	41.78	28.14	22.84	21.84	29.59	25.76	29.13	39.51	18.81	29.61
EPS	\$3.03	\$30.21	\$5.77	\$8.27	\$9.29	\$0.42	\$1.69	\$0.45	\$0.09	\$2.19
Dividend yield	0.61%	2.14 %	1.76%	1.77%	1.04%	1.84%	0.78%	0.65%	3.17%	1.07%

4.1.1 Dividend Payout Ratio Analysis

A high dividend payout ratio is a sign of a strong balance sheet. A range of 0% to 35% is considered to be a good expense. High ratios show that there does not appear to be a better internal use for the money, and that the company's board of directors is basically handing all earnings to investors. This is a clear sign that the company is no longer engaged in any market that is seeing growth.

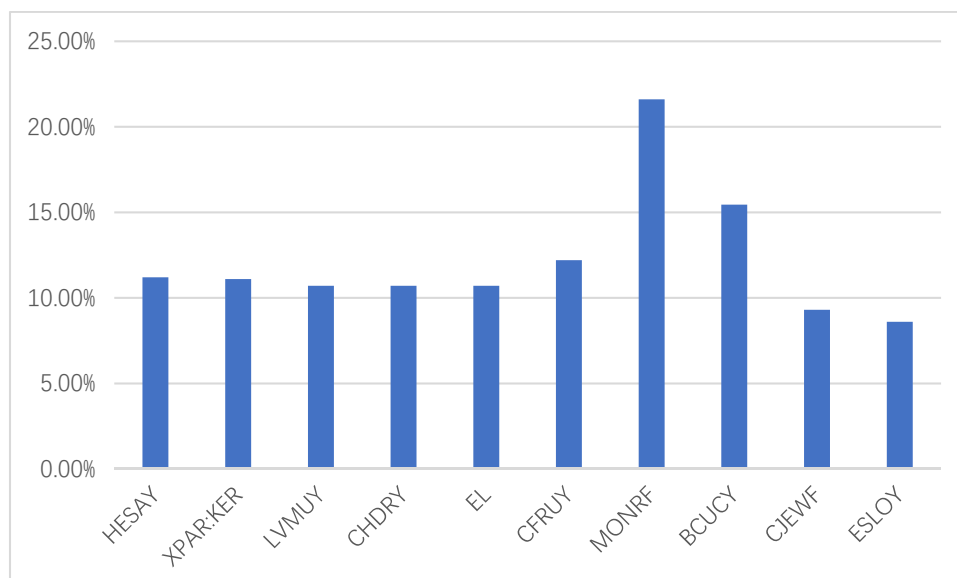


Figure 3. Payout Ratio

HESAY's Dividend Payout Ratio has been ranked better than Retail's 483 companies for the past ten years at 60.04%. XPAR: KER's Dividend Payout Ratio is lower than Retail's 483 companies at 55.9%. LVMUY's Dividend Payout Ratio is more inadequate than Retail's 483 companies at 53.21%. CHDRY's Dividend Payout Ratio is ranked better than Retail's 483 companies at 53.83%. In comparison to 873 other businesses, The dividend payout ratio for EL is higher than the 68.96% industry average. CFRUY's dividend payout ratio is ranked lower than the industry average of 65.63 percent out of 483 companies in the retail industry. MONRF's dividend payout ratio is lower than the 52.25 percent average for the 400 companies in the Manufacturing - Apparel & Accessories sector. BCUCY's dividend payout ratio is ranked lower than 873 other companies in the Retail industry. The dividend payout ratio of CJWF outperforms the 561 companies in the retail industry by 60.07 percent. ESLOY's dividend payout ratio is 79.05 percentage points lower than the 253 Medical Equipment & Instruments companies' average.

As far as Payout data is concerned, MONRF, BCUCY, CFRUY are the four stocks that have shown better performance. Again, based on comparative data within the industry, CFRUY is the best.

4.1.2 P/E Ratio Analysis

A stock's P/E ratio may be used to rapidly assess whether it is overvalued or undervalued. The lower the P/E ratio, the better for the company and potential investors. High expectations for future growth are indicated by a higher P/E ratio, which may be a result of the company's modest size or the market's quick expansion. Investors therefore favor a lower P/E ratio since it suggests that expectations are reasonable and that the firm is more likely to exceed profit projections.

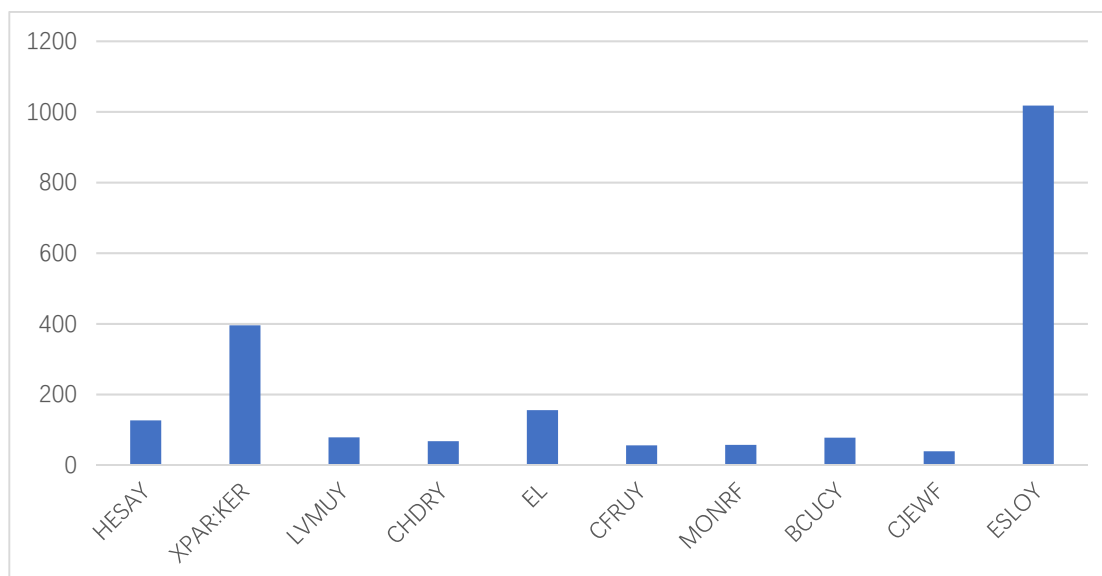


Figure 4. P/E Ratio

During the preceding ten years, HESAY's P/E ratio varied from 30.52 to 126.84, with 41.78 serving as the median. KER's P/E ratio ranged from 395.85 to 12.61, with 28.14 serving as the median. The median P/E ratio for LVMUY was 22.84, with a range of 11.39 to 78.70. The median P/E ratio for EL is 29.59, with a range of 22.29 to 155.55. The median P/E ratio for CFRUY is 25.76, with a range of 11.74 to 56.06. The median P/E ratio for MONRF is 29.13, with a range of 18.43 to 57.46. BCUCY's P/E ratio ranges from 77.55 (high), 28.00 (low), and 39.51 (middle). The P/E ratio for CJEWF ranges from 39.45 (high), 7.97 (low), and 18.81 (middle). The P/E ratio for ESLOY ranges from 1017.68 (high), 19.64 (low), and 29.61 (middle).

Based on the P/E Ratio data, CJEWF, CHDRY, and LVMUY are the three best-performing stocks. Combined with the average EPS, CHDRY is the best performer.

4.1.3 EPS Analysis

A corporation is more profitable if its earnings per share are higher. When calculating earnings per share, higher earnings per share can suggest growth and a rising stock price. Decreased or falling profits per share are a sign of the company's bad health and lower shareholder returns. A company's future growth prospects are poorly predicted by lower or falling increase in profits per share.

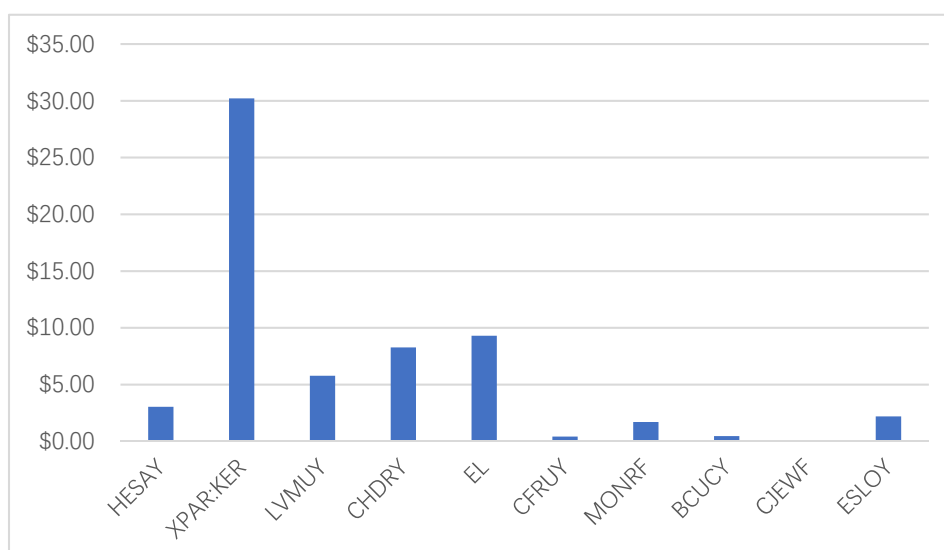


Figure 5. EPS

The 3-year average EPS (excluding NRI growth) over the past 10 years ranged from a high of 37.20% per year for HESAY to a low of 2.10% per year, with a median of 11.70% per year. The high for KER was 61.80% per year to a low of -24.60% per year, with a median of 7.00% per year. The maximum annual growth rate for LVMUY was 402.00 percent, while the minimum annual growth rate for CHDRY was -100.00 percent. The median annual growth rate for LVMUY was 6.45 percent. EL has a median annual return of 9.80 percent and a range of 57.80 percent to -17.80 percent. The annual high for CFRUY is 60.70 percent, the annual low is -25.50 percent, and the annual median is -25.50 percent. Maximum annual percentages for MONRF are 33.20 percent, minimum annual percentages are 3.90 percent, and annual percentages average 23.50 percent. BCUCY has an annual maximum rate of 225.90 percent, a yearly minimum rate of 1.70 percent, and an annual median rate of 13.10 percent. CJEWf has a maximum of 22.50 percent per year, a minimum of -25.10 percent per year, with a median of -1.80 percent per year. ESLOY has a median annual return of 9.05 percent and a range of 22.30 percent to -65.70 percent.

KER, CHDRY, and EL are the three equities that have done best according to P/E Ratio data. Combined with the highest 3-year average earnings per share, the best-performing stock is KER.

4.1.4 Dividend Yield Analysis

Dividend yields aid investors in assessing the prospective return on investment per dollar and the risk of a given investment. Depending on the state of the market, dividend yields between 2 and 6 percent are seen to be desirable. Any stock above the yield may be a good buy, but it is also a risky buy. So a combination of stock values needs to be judged.

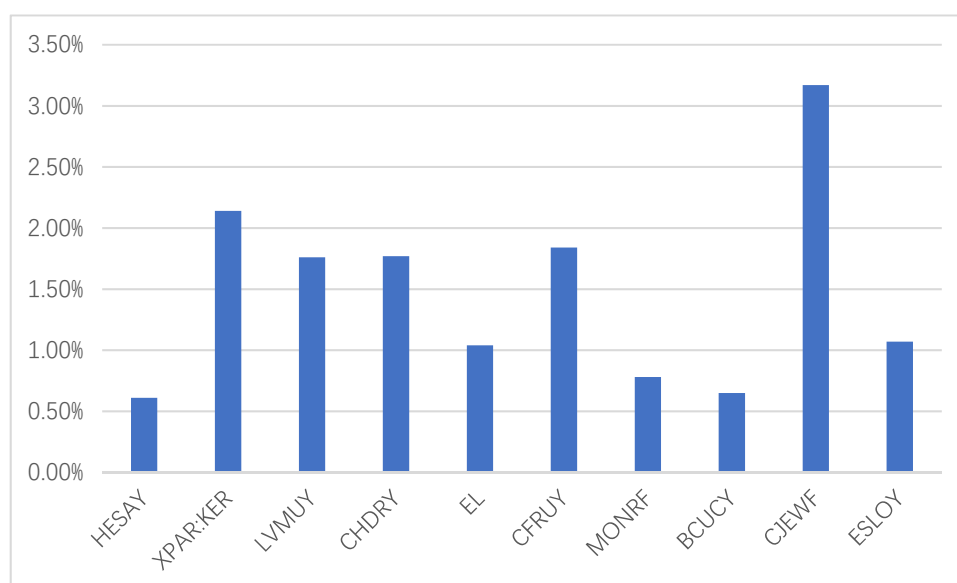


Figure 6. Dividend Yield

HESAY's Dividend Yield % is lower than 561 companies in the Retail sector at 90.91%. KER's Dividend Yield % is lower than 561 companies in the Retail industry at 55.44%. LVMUY's Dividend Yield % is lower than 561 companies in the Retail sector at 70.94%. CHDRY's Dividend Yield % is lower than 561 companies in the Retail sector at 69.34%. EL's Dividend Yield % ranks lower than 84.72% of 1,060 consumer companies. CFRUY's Dividend Yield % ranks lower than 561 companies in the Retail - Cyclical sector at 62.92%. MONRF's Dividend Yield % ranks lower than 540 companies in the Manufacturing sector at 72.96%. BCUCY's Dividend Yield % ranks lower than 561 companies in the Retail sector at 87.17%. CJEWf's Dividend Yield % ranks higher than Retail - Cyclical sector with 60.07% of 561 companies. The Dividend Yield Percentage of ESLOY is 55.59% greater than that of the 295 businesses in the Medical Equipment & Instruments sector.

Based on an analysis of Dividend Yield data, KER, CJWF, and CFRUY are the three best-performing stocks. When combined with the Dividend Yield's relative position within the industry, CJWF is the best performer.

4.2 Comprehensive Analysis

From the above data, we can conclude that the two stocks KER and LVMUY have the best combined performance.

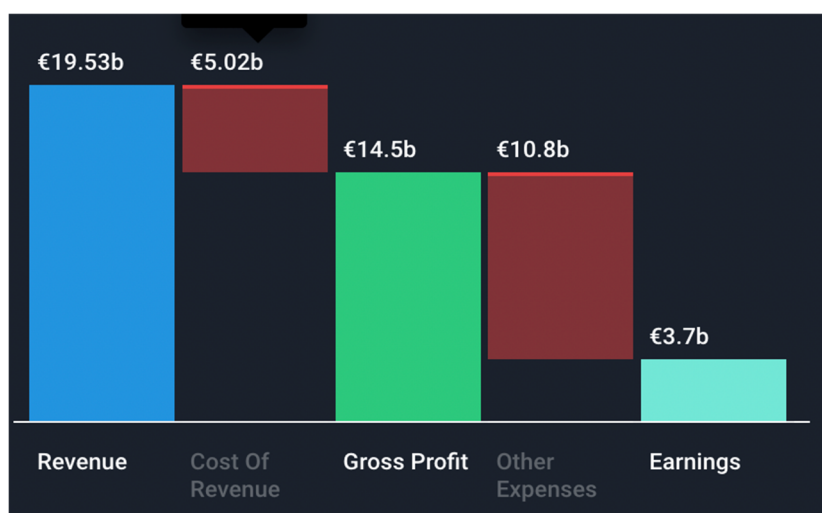


Figure 7. Earnings & Revenue

Sources: <https://simplywall.st>.

KER has high quality earnings, which have grown by 15.7% per year over the last 5 years. KER's short-term assets have increased by 15.7 percent annually over the past five years, and when paired with the dividend yield, KER's debt is adequately covered by operational cash flow (67.9 percent).KER's interest payments on its debt are well covered by EBITDA (40.5 times coverage).

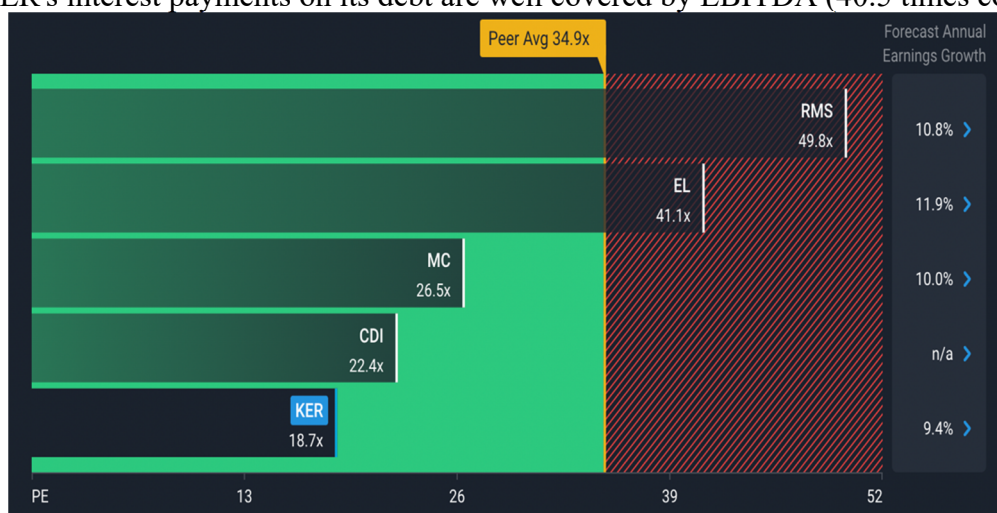


Figure 8. Price to Earnings Ratio vs Peers

Sources: <https://simplywall.st>.

Based on its P/E ratio (18.7x) in comparison to the peer average, KER is a decent value (34.9x). The current valuation of this stock seems very reasonable. This means that if you were to buy Kering today, you would pay a reasonable price for it. More importantly, Kering's share price is likely to become more stable over time (relative to the market), as its low beta suggests. Meanwhile Kering's earnings are expected to grow 29% over the next few years, boding very well for the future [7]. This should lead to stronger cash flows and thus a higher stock value.

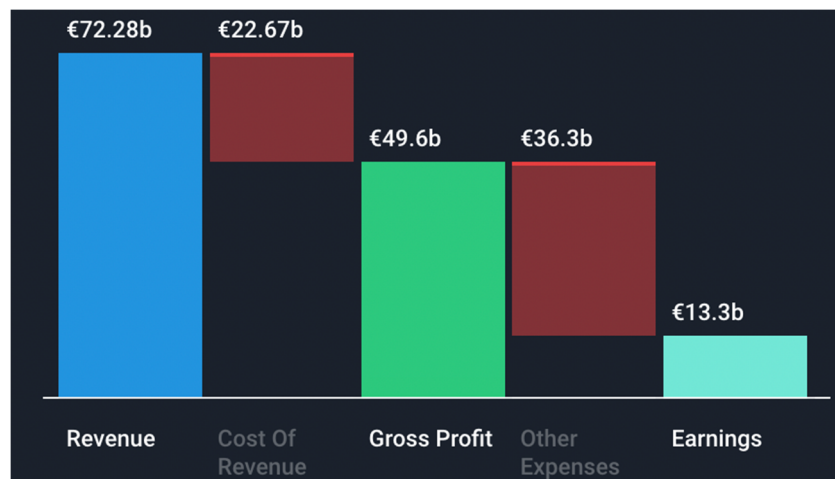


Figure 9. Earnings & Revenue
Sources: <https://simplywall.st>.

LVMH's P/E ratio (25.8x) offers good value compared to the peer average (32x). Based on its P/E ratio (25.8x) in comparison to its anticipated fair P/E ratio, LVMH represents good value (38.6x). Return on equity is expected to reach its highest level (24.9%) within 3 years. LVMH's margins are expanding and its earnings are of good quality: its present net profit margin (18.4%) is better than it was a year ago (17.3 percent). Over the last five years, LVMH's earnings have increased by 18.1 percent annually. Earnings growth in the most recent year (40%) is higher than the 5-year average (18.1 percent per year). Profits and Industry: LVMH's annual earnings growth was 40% higher than the luxury industry's was, at 32% [8].

5. Conclusions

This paper uses four stock selection methods to examine why investing in luxury stocks has a very high probability of being profitable, as well as to screen the best value luxury stocks at this stage. By analyzing the P/E, Payout, EPS, and Dividend Yield data of the 10 stocks selected for analysis, as well as refining the data to industry specific performance, the two best performing stocks, KER and LVMHY, are combined. Over the next three years, Kering's earnings are predicted to increase by 29 percent, which is quite encouraging for the future. This should lead to stronger cash flow and thus a higher stock value. LVMH has very strong cash flow, a low beta, and is likely to grow revenue in 2022. For the major global luxury companies at the moment, business is back on track to where it was before the epidemic. The boom in luxury consumption has completely offset the impact of the epidemic on shopping, and the accelerated digitalization of luxury companies under the epidemic will continue to benefit brands post-epidemic. While stocks, like fashion, may be popular at times and not so popular at others, the world's top luxury brands have endured. Luxury companies benefit from good supply and demand dynamics. That's why both KER and LVMHY are good choices for investors.

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