

## Consumer Ironic Consumption: Luxury Apparel Purchase Rebounds in a Dismal Economy

Shuling Liao<sup>1</sup> & Chianghui Wang<sup>2</sup>

### Abstract

This study addresses and investigates consumer ironic purchase rebounds from restrained luxury consumption during the recent economic recession period. Analyses are based on 51 luxury and non-luxury brands' sales data in the USA and Europe and monthly national economic data in these areas from year 2008 to year 2011. The results reveal signals of consumer ironic luxury consumption catalyzed by social purchase climate that releases consumers from psychological suppression of buying desire due to economic hardship. Also, the secondary effect of Ironic purchase postulated the limitation of the buying rebound when longer suppression. In addition, the buying rebound patterns indicate brand loyalty towards some specific luxury brands. Finally, monetary changes appear not a prominent factor in undermining the final ironic effect on sale and thusly the potential confounding influence of price changes on ironic consumption is excluded. In all, the study explains why luxury brands remain strong in economic suppression.

**Keywords:** Ironic Effect, Consumption Suppression, Purchase Rebound, Mental Control, Luxury Consumption, Economic Recession

### 1. Introduction

The global economic recession and the European Debt Crisis since the year 2008 have troubled enterprises and consumers with sales declines and personal unemployment, respectively. Due to economic uncertainty, many consumers worry about their future earnings and become thrifter as they fear being unable to meet future spending. This, in turn, curtails and suspends consumers' consumption for living, shopping, travelling, and luxury buying (Wohl, 2012). The conflict between consumer buying desire and concerns about the bad economy creates an intriguing paradox in consumer decision making before and on Black Friday. A previous study showed that until the Black Friday weekend, consumers psychologically reduce their shopping budget and suppress shopping enthusiasm even though they still have sufficient earnings for household expenditures (National Retail Federation, 2011). Accordingly, though the Black Friday pre-sale forecast predicted a flat sales scenario, the consumption rebounds shown by actual retail sales have surprised retailers. A survey by University of Michigan indicates that unlike other sales, Black Friday shoppers are not traditional consumers who only buy door-buster sale items; instead, they utilize smartphones or tablets to research the items they want once they walk in stores (National Retail Federation, 2011). This phenomenon is even more prominent in severe economic circumstances such as the recent economic recession of 2008. On Black Friday weekends, consumers have purchased more intended goods than expected (Byun & Mann, 2011). This implies that consumers release long-suppressed desires in one weekend through massive impulse buying of luxury and hedonic products (Hagtvedt & Patrick, 2009). Contrary to conscious budget control and regulated practices of discrete spending, the luxury purchase rebounds indicated in the above survey illustrate some interesting ironic behaviors worth further investigation.

<sup>1</sup> College of Management, Yuan Ze University, Taiwan (R.O.C.), 135 Yuan Tung Rd., Chung-li City, Tao-yuan County, Taiwan (R.O.C.). Email: [wangch9999@gmail.com](mailto:wangch9999@gmail.com); [mandyw@cht.com.tw](mailto:mandyw@cht.com.tw), Phone: +886 921-188-378, Fax: +886 2 2396-2095

<sup>2</sup> College of Management, Yuan Ze University, Taiwan (R.O.C.), 135 Yuan Tung Rd., Chung-li City, Tao-yuan County, Taiwan (R.O.C.).

Past research on the ironic effect has mostly been limited to physiological desire suppression and behavioral rebounds such as binge eating (Heatherton, Herman, & Polivy, 1991) or insomnia (Harvey, 2002). With regard to purchase rebounds in a consumer buying context and in a sluggish economy, the ironic effect remains unexamined. To unveil the ironic effect of luxury consumption (e.g., apparels and accessories), we first review and introduce the theory of the ironic mental control process. Next, we connect desire for luxury to ironic luxury consumption by discussing the vice and virtue of luxury versus necessity buying. To disclose the ironic luxury consumption during the recent economic recession, we collect secondary data of economic indicators and retail apparel sales across the USA and Europe and investigate the ironic effect by testing three models in Study 1. Next, Study 2 examines whether or not sizable discounts and perceived affordability undermine the ironic effect in luxury apparel purchasing. The present study contributes to the knowledge of the socio-economic suppression and rebound factors that lead to consumer ironic buying behavior. First, by addressing the psychological ironic process, this study sheds light on consumer buying bursts and the underlying rebound mechanisms in association with socio-economic influence. Second, this study helps to gain a better understanding of why luxury apparel brands continue to stand strong during an economic downturn. Last but not least, this study provides insight into plausible strategies by which luxury apparel retailers can revive consumer buying by resolving consumption suppression.

## **2. Theoretical Background**

### **2.1 Ironic Mental Control Process**

The ironic mental control process addresses the psychological process in which people intend to suppress thoughts of desire but end up producing more thoughts instead (Wegner, 1994). The ironic effect is an inherent mental process which undermines the control of regulated intentions such as eating impulses or buying desire and this process paradoxically creates both intentional and counter-intentional thoughts (Wegner, 1994). An ironic behavior is guided by two different mental processes, operating and monitoring, to control and balance the counter-intentional effect. A controlled operating process seeks contents that are similar to counter-intentional thoughts. Such a conscious process demands more cognitive effort to create counter-intentional contents (Woodman & Davis, 2008). On the contrary, an ironic monitoring process is an unconscious process in which little mental effort is needed to denote the regulated desire contents, such that the process acts to soothe the intense counter-intentional state of mind. Altogether, an ironic mental control procedure produces a cycle rotating between the operating and monitoring processes. This cycle repeats itself and the intensity of the target desire thoughts becomes stronger than the initial state (Wegner, 1994; Wenzlaff & Wegner, 2000). In sum, ironic mental control involves both the acts of avoiding temptation and practicing suppression. Once the consciously suppressed thoughts are distracted, the strength of the tempted action itself is likely to grow stronger than its primary state. Most mental controls are successful in daily life. However, some unsuccessful mental controls happen due to imbalance between conscious and unconscious minds under certain situations such as an individual negative emotional state or contagious social climate (Byun & Mann, 2011; Withall, 1949). Such mental control failures produce ironic effects in which the quelled desires are reverted or even become more intense. As follows, this study attempts to discover such an ironic effect in consumers' luxury consumption during a period of economic downturn.

### **2.2 Ironic Consumption of Luxury**

Consumers perceive luxury based on the aspects of the item being focused upon. Luxury consumption perceived as indulgence is typically related to hedonic rather than utilitarian benefits. Self- and personality-related hedonic consumption determines what a luxury brand symbolizes by whether and how that brand's hedonic image coheres to personal-oriented perceptions (Dubois & Duquesne, 1993). Consumers make use of such consumption to develop self-identification and social belongingness (Lyubormirsky & Nolen-Hoeksema, 1993; Vigneron & Johnson, 2004). Consumers also pursue luxury brands to attain the attributes of wealth and affluence (Truong et al., 2008). As luxury involves frivolous purchases of expensive clothing, jewelry and technological products, people sometimes link indulgent acts to negative outcomes (Dahl, Honea, & Manchanda, 2003); such acts are viewed as impulsive and wasteful and meet with social disapproval (Keinan & Kivetz, 2008). In contrast to luxury buying, righteous consumption is associated with virtues such as frugality and thriftiness, and it is perceived to provide long-term benefits (Mishra & Mishra, 2011).

Virtuous behavior, such as frugality or thriftiness, is commonly practiced during expenditure cutbacks; this type of behavior is highly concentrated on restraining resource usage and possession acquisition (Lastovicka et al., 1999). Frugality particularly relates to low materialism. It emphasizes savings, resources conserving, and discreet spending (Krishna et al., 2002; Pepper, Jackson, & Uzzell, 2009).

To fulfill righteous consumption, consumers suppress buying desires and restrict their mental accounts from purchasing items categorized as indulgent (Labroo & Mukhopadhyay, 2009). Self-hedonic or social identity (Feinberg, Mataro, & Burroughs, 1992) greatly drives consumers to buy expensive luxury items, yet monetary issues such as income stability are a major concern for the middle-class. During economic recession, due to their frivolousness, luxury brands become the primary target of suppressed consumption (Hilton, 2004). Therefore, based on the concept of ironic consumption, this study intends to discover if consumers' restrained desires for luxury due to worries about economic recession (i.e., the controlled operating process) will ironically rebound as a result of the social purchase climate during holiday sales (i.e., the ironic monitoring process). Specifically, the present study postulates that the ironic effect of luxury consumption resides in the paradox between the vice and virtue of luxury buying. On the vice side, the hedonic experience of luxury arouses consumers' unconscious and endless desires and therefore luxury consumption has long been regarded as a vice (Steinhart, Ayalon, & Puterman, 2013). On the virtue side, purchase of utilitarian necessities is easier to justify compared to the vice associated with luxury consumption. Meanwhile, the feelings of uncertainty created by economic depression further restrict consumers' mental budgeting of luxury accounts. During an economic downturn, consumers may escalate suppression of hedonic desire to restrict spending only on necessities items. They may even suppress socially conscious consumption in response to social norms or feelings rules (Freeburg & Workman, 2009; Pepper, Jackson, & Uzzell, 2009).

Nonetheless, the pursuit and purchase of luxury seems ceaseless despite it is considered a vice that should be curbed. The prior self-control dilemma prohibits consumers from being indulgent (DeWitt, Evers, & DeRidder, 2012), yet consumers increasingly choose vices over virtues (Chernev & Gal, 2010). This may be because indulgence leads to more psychological satisfaction in the long run (Keinan & Kivetz, 2008), such that consumers assert self-control to accentuate the virtues of utilitarian necessities but at the same time seek opportunities for psychological gratification through hedonic buying. As luxury consumption endows feelings of happiness, indulgence in luxury buying is no longer a mere self-control issue, but more importantly it relates to the wellness of oneself and others (Huhmann & Brotherton, 1997). Therefore, the vice of indulgence can be justifiably converted into a virtue. This may explain why consumers engage in ironic luxury consumption even during difficult times. In sum, for the sake of social compliance, consumers tend to suppress luxury consumption, yet situations may release such suppression when luxury buying is legitimately licensed by virtuous reasons (e.g., wellness) or positive self-concepts (Wiedmann, Hennigs, & Siebels, 2009), or provided with accessible and justifiable reasons for indulgence (Mukhopadhyay & Johar, 2009). In such cases, consumers may intentionally subdue luxury consumption during the initial state to conform to a frugal stereotype but end up buying more luxury items in the counter-intentional stage due to desire rebounds, consequently resulting in ironic consumption. A dismal economy may intensify the initiative to withhold luxury consumption; however, the craving for personal well-being and holiday buying atmospheres provide both the internal and external driving forces for luxury buying rebounds. Furthermore, due to the ironic monitoring process, the more the desire for luxury is suppressed during economic depression, the greater the consumption rebound is likely to be. Therefore, the ironic effect of luxury consumption is predicted as follows.

**H1:** The worse the economic conditions, the greater the luxury consumption rebound will be.

### 2.3 Monetary Intrusion of Ironic Consumption

According to the above prediction, the surge of luxury buying on Black Friday is attributed to ironic consumption resulting from the needs for personal wellness and certain social shopping climate that induces desire rebounds. However, the contribution of big discounts cannot be neglected and excluded without inspection. To eliminate the possible confounding effects of price discounts on ironic consumption, we examine whether price-related factors influence the ironic effect of luxury buying. Two monetary reference levels, income-based and price-based, are discussed. The income-based reference level refers to the income changes perceived by consumers, whereas the price-based reference level is defined as the price changes experienced by consumers (Galí, 2011; Ranyard et al., 2008). The magnitude of income changes affects consumer perception of affordability, while the impact of price changes affects how consumers experience price adjustment.

We assume that the big discounts in Black Friday sales cause both affordability perceptions (i.e., income-based change) and price adjustment experiences (i.e., price-based change). Hence, we include both factors as monetary intruders of the ironic effect. Therefore, it is proposed that,

**H2:** The ironic effect on luxury consumption is moderated by consumers' income change perceptions and price change experiences.

### 3. Methodology

We selected apparels and accessories as the retailing categories considering that seven out of the top ten world luxury brands are in the apparel industry. By referring to *The World's 10 Most Powerful Luxury Brands* (Sherman, 2010), we sorted out the luxury brands in apparels and accessories and separated these brands from the brands that carry utilitarian and necessity images. Next, we formulated luxury models to quantify the ironic consumption during both the suppression and rebound periods. Finally, the necessity models were examined to compare the cross-category brand variations in consumption between luxury and necessity brands. Overall, the aggregate level of retail sales enabled us to assess rebounds across different categories of brands. We also used global economic parameters as control variables across brands and models. The 2008–2011 time frame was chosen as the period of economic recession considering its global impact, time recency, and duration.

#### 3.1 Suppression Indicators

Unemployment rate as a suppression factor of consumption increases with the reconstruction of the economy. This has become a critical issue since the start of the global economic recession in 2008. The consequences of unemployment cast a toxic impact on psychological health (Paul & Moser, 2009), especially for employed individuals. The experiences of unemployment intensify mental stress, depression and fear of descending future status (Brown, Hesketh, & Williams, 2003). Gross Domestic Product (GDP) is the aggregated market data of all final products including visible goods and invisible services measured in a country. GDP is the indicator most used to identify a recession as global economic conditions decline and it is related to energy or utilitarian consumption (Mozumder & Marathe, 2007). Accordingly, compared to December 2007, the National Bureau of Economic Research data in December 2008 indicated signs of recession in the United States. As a macro-economic indicator, the real GDP serves as a proxy for the general economic activities and it has been proven to be a good indicator of the global environment. As GDP involves the total spending of consumers, we hypothesize that GDP is one of the suppression variables of ironic consumption.

#### 3.2 Monetary Reference Level

The measures of price change frequency are alternated in several ways. Related research tends to employ Consumer Price Index (CPI) to present the price-based level of changes (Gurkaynak, Sack, & Swanson, 2007). At an aggregate level, decomposition analysis suggests that reference prices are the main source of price changes for retailers (Lattin & Bucklin, 1989). Consumers apply a reference price to make comparisons with the actual retail price in order to assess the attractiveness of the price offer of a product. CPI measured by retail prices affects both consumers' product perceptions and decisions. Historic CPI contributes to the construction of an internal reference price (Martín-Herrán, Taboubi, & Zaccour, 2012). We thus set the CPI in the current quarter as the external reference price which is the most common price in the apparel product category. We then set the CPI in the previous period as the internal reference price consumers stored in their memory and retrieved for price comparison (Greenleaf, 1995; Kalyanaram & Winer, 1995). The price changes in this study were measured by the difference between the current CPI as the external reference price and the previous CPI as the internal reference price (Deleersnyder et al., 2009). Income change is the extent to which consumers evaluate budget changes in income-based levels (Hall & Mishkin, 1982). The consumption function proposes that instead of focusing on current income, consumers look forward toward their future and permanent income. Income change not only affects income perceptions but also reflects budget expectations, which influence consumers' perceptions of economic well-being in a relative way. Past research has applied OECD household income indicators for cross-country comparison (Hall & Mishkin, 1982). Standardized household income indicators can be used to evaluate the national consumer mental budget as a result of perceptions of changes in household income, which are also employed to forecast the level of consumption desire.

In the present study, the income-based reference level was used to evaluate expected changes rather than experienced changes in consumers' expenditure budgets (Azzam & Rettab, 2013).

### 3.3 Rebound Effect

For assessing the luxury consumption rebound effect, the national unemployment rate and GDP growth rate were used as proxy variables of economic suppression forces and retail sales of selected luxury categories and brands to estimate consumer buying rebounds.

As the unemployment rate grows, luxury consumption suppression gets deeper psychologically. According to the ironic process theory, the longer the suppression, the greater the rebound will be. Therefore, under dismal economic conditions, luxury retail sales should grow as a result of the consumption rebound effect.

## 4. Data Collection

### 4.1 Brand Selection

Ten luxury apparel and accessory brands (i.e., Bottega Veneta, Burberry, Gucci, Harry Winston, HERMES, Moët Hennessy, Louis Vuitton, Fendi, Tiffany & Co, and Yves Saint Laurent) from the United States and Europe were selected as the sample based on *Fashionista* (one of the largest independent fashion news sites for the industry and leading consumers). Another 41 necessity brands without luxury images were also included in the sample for comparison purposes.

### 4.2 Data Source and Time Span

We expect that personal expenditures on luxury brands indicated by retail sales reflect the ironic effect of consumption. Accordingly, we collected the retail sales data of the selected brands' quarterly returns from January 2008 to December 2011 during the recent dismal economic period. For the 10 luxury brands, the retail sales data were collected from financial statement reports disclosed on each brand's official website. The retail sales data of necessity brands were obtained from RetailSails website (<http://www.retailsails.com/>) which provides sales data for brands from the retail and consumer goods industries in the USA. All of the retail sales data including both store and non-store sales were derived from sources including firm financial report releases, conference calls, and sales presentations. Next, we pretested the dataset collected for empirical analysis by setting the unemployment rate and GDP growth rate to be the suppression factors of luxury buying (Ha-Brookshire & Lu, 2010). The cyclicity of the unemployment rate and GDP growth rate has been proven to serve as an excellent indicator of overall economic recession periods (Allen, Bali, & Tang, 2012). To determine if consumers who experience economic depression undergo mental suppression which later incurs purchase rebounds, we predicted that the unemployment rate and GDP growth rate are positively associated with luxury consumption. Data of micro-economic (UR) and macro-economic (GDP%) indicators as suppression proxies were obtained from the OECD (Organization for Economic Cooperation and Development). These proxy datasets were inflation-adjusted, integrated and expressed in constant values by season. Finally, for monetary intruders, we used Consumer Price Index (CPI) as macro-proxy intruder ( $X_{price\_diff}$ ) and Personal Income (PI) as micro-proxy intruder ( $X_{income\_diff}$ ).

## 5. Study 1: Ironic Rebounds Effect

Study 1 consisted of three models. Model 1 examined the generalization of ironic consumption for hypotheses validation. The retail sales aggregated data used have been adjusted in correspondence to the ironic consumption cycle. Every quarter's retail sales data were extracted for each apparel brand during the years in the economic recession period. The retail sales variable was subsequently regressed on the dummy variable of product category. Sales volume of a luxury apparel brand is the dependent variable which was used to examine the consumption rebounds in the micro-economic and macro-economic environments. We estimated the hypothesized relationships by using brand sales as the proxy of consumption rebounds. To detect consumption suppression and its effectiveness, the number of each quarter was coded as a time point (Time) in order to simulate the suppression process and duration in the consumer's mind, as suggested by Wegner et al. (1987). Consumer Confidence Index (CCI) is highly related to current consumption level; this index predicts a relatively uncertain amount of different alterations in consumer future spending (Ludvigson, 2004). Considering that CCI may reduce uncertainty about the future and undermine the thrifty motivation for savings, we included it as a control variable. Stock Price Index (SPI) is correlated with current and future economic growth; it measures the trends of world capital markets (Levine & Zervos, 1998). This index was also controlled for its relatedness to other indicators of global economic circumstances.

Model 2 examined not only the ironic effect but the actual suppression strength on luxury consumption during the ironic mental control period. We assumed that only an appropriate level of suppression produces the ironic effect on luxury consumption. The quadratic effect of the unemployment rate found in this model may reflect an overall economic condition within the sample. Similar to Model 1, the aggregated data of retail sales used in Model 2 have been adjusted in correspondence to the ironic consumption cycle every fourth quarter during the year.

The retail sales variable was subsequently regressed on the dummy variable of product category. With the same rationale and variables as Model 1, Model 2 estimated the hypothesized relationships using retail sales of luxury brands as the proxy of consumption, including the quadratic suppression variable. We expected that the buying rebounds of luxury brands indicated by sales will occur in a curvilinear association with the unemployment rate. Model 3 followed the same method used in Model 2, but for necessity brands. With the same function as in Model 2, Model 3 compared the ironic consumption results of the necessity and luxury brands during the economic recession in the mental suppression period.

### 5.1 Study 1 Results

Model 1 focused on the generalizability of the ironic effect of luxury consumption. We established this model by using the entire quarterly luxury brand sales data during the 2008-2011 economic recession years. The estimated coefficients of the independent variables in the three models of Study 1 are presented in Table 1. The results show that unemployment rate ( $\beta=.258$ ,  $t(534)=5.323$ ,  $p<.001$ ) was significantly and positively associated with the luxury brand quarterly sales, but the GDP growth rate ( $\beta=-.006$ ,  $t(534)=-.140$ ,  $p>.05$ ) did not appear to affect quarterly sales of luxury brands. As control variables, Stock Price Index ( $\beta=.288$ ,  $t(534)=5.242$ ,  $p<.001$ ) and Time ( $\beta=.111$ ,  $t(534)=2.677$ ,  $p<.05$ ) showed significantly positive influences on escalating the strength of rebounds in luxury brand sales, whereas the Consumer Confidence Index ( $\beta=.016$ ,  $t(534)=.322$ ,  $p>.05$ ) was not significant. Time point showed that the closer to the end of the year, the stronger the intensity of the consumption rebounds. This regression model as a whole indicated a significant prediction ( $F(534)=10.904$ ,  $p<.001$ ) with moderate explanatory power ( $R^2=.094$ ). Overall, results of Model 1 indicated a significant consumption rebound effect under suppression. Change in micro-economic indicators, such as higher unemployment rate, which was supposed to suppress consumers' luxury desire, was contrarily associated with greater retail sales, which provides signals of luxury consumption rebounds. Among the brands that showed changes in investment, large variation in the luxury buying was observed as indicated by sales. This finding supports our hypothesis; higher unemployment rate is associated with more luxury brand sales, which exhibits a sign of consumption rebounds. As the sale time approaches the end of year, the ironic consumption effect becomes even more salient.

**Table 1: Luxury Consumption Rebounds (Models 1 & 2) vs. Necessity Consumption**

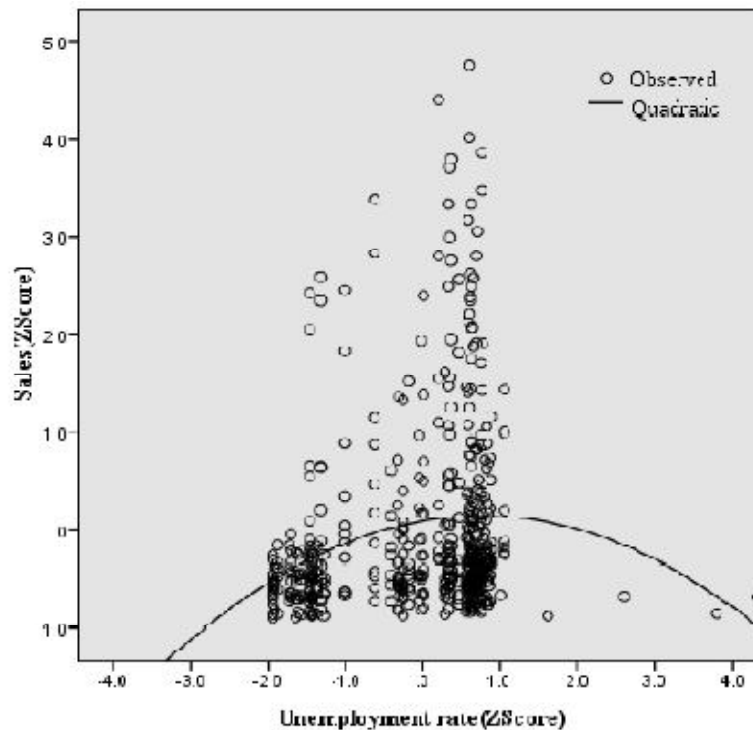
	Luxury Consumption (Model 1)		Luxury Consumption (quadratic) (Model 2)		Necessity Consumption (quadratic) (Model 3)	
<b>Suppression factor</b>						
Unemployment rate	0.258	***	1.409	***	0.052	
Unemployment rate <sup>2</sup>			-1.129	***	-0.059	
GDP growth rate	-0.006		-0.056		0.012	
<b>Control variable</b>						
CCI	0.017		0.036		-0.003	
Stock price index	0.289	***	0.410	***	0.004	
Time	0.111	*	0.111	*	0.023	

\*\*\* $p < 0.001$ ; \*\* $p < 0.005$ ; \* $p < 0.01$

Model 2 examined not only the rebound effect associated with the unemployment rate and luxury sales, but more importantly the impacts of various unemployment rates that create different degree of suppression intensity on shaping the luxury consumption rebound and the corresponding pattern.

We estimated the quadratic results (see Figure 1) by using the entire quarterly luxury brand sales data during the economic recession years. The results show that unemployment rate ( $\beta=1.409$ ,  $t(534)=7.903$ ,  $p<.001$ ) was significantly positive and the quadratic effect ( $\beta=-1.129$ ,  $t(534)=-6.688$ ,  $p<.001$ ) was significantly negative in relation to luxury brands' quarterly sales. The quadratic examinations of unemployment rate indicated that the level of unemployment rate is the key to producing the intensity of suppression needed to form ironic consumption under dismal economic conditions. Conversely, results of GDP growth rate as another suppression indicator did not appear to significantly affect quarterly sales of luxury brands ( $\beta=-.056$ ,  $t(534)=-1.318$ ,  $p>.05$ ). This is similar to the findings of Model 1. Across all models, economic recession as indicated by the GDP growth rate did not seem to affect luxury brand sales.

For the control variables, Stock Price Index ( $\beta=.410$ ,  $t(534)=7.332$ ,  $p<.001$ ) and Time ( $\beta=.111$ ,  $t(534)=2.773$ ,  $p<.01$ ) were both shown significantly and positively to increase the strength of luxury brand sales rebounds. Consumer Confidence Index ( $\beta=.036$ ,  $t(534)=.726$ ,  $p>.05$ ) again was not significant, which is consistent with Model 1. Overall, this quadratic regression model provided accurate prediction of luxury brand sales ( $F(534)=17.295$ ,  $p<.001$ ) with good explanatory power ( $R^2=.165$ ).



**Figure 1: Quadratic Results of Unemployment Rate and Luxury Sales Rebound**

Model 3 followed the same method as Model 2 for necessity brands. The results were very different from those of the first two models. All the independent variables displayed insignificant results. Regarding the effects of micro-economic indicators, unemployment rate ( $\beta=.052$ ,  $t(1488)=.551$ ,  $p>.05$ ), the quadratic effect of unemployment rate ( $\beta=-.059$ ,  $t(1488)=-.674$ ,  $p>.05$ ), and GDP growth rate as a macro-economic indicator ( $\beta=.012$ ,  $t(1488)=.360$ ,  $p>.05$ ) were all insignificant in predicting necessity brand sales. None of the control variables, including Stock Price Index ( $\beta=.004$ ,  $t(1488)=.113$ ,  $p>.05$ ), Consumer Confidence Index ( $\beta=-.003$ ,  $t(1488)=-.109$ ,  $p>.05$ ), and Time ( $\beta=.023$ ,  $t(1488)=.875$ ,  $p>.05$ ), showed to significantly affect necessity brand consumption. In all, the parameters in Model 3 failed to predict the necessity apparel sales ( $F(1488)=.301$ ,  $p>.05$ ) during the recession period.

## 5.2 Study 1 Discussion

The results of Study 1 have several implications. First, the findings of Model 1 implicate that the unemployment rate, on the one hand, piles up consumers' worries about their future financial situations and aggravates mental suppression of luxury spending; yet on the other hand, combined with suppression, the unemployment rate increases the counterforce of desire that eventually leads to buying rebounds. This counter-intentional ironic phenomenon is evidenced by the significant effects of sale time on retail sales.

Second, the quadratic results of Model 2 indicate an inverted U relationship between unemployment rate and luxury apparel sales, which reveals a buying rebound effect. Such a finding sheds light on the underlying process of ironic consumption and its relationship to unemployment rate. When consumer buying desire is suppressed due to economic hardship, it is, to a degree, accompanied by a counter-intentional drive to release the pressure of suppression through a surge in buying rebounds. Both Models 1 and 2 provide support for our assumptions about ironic consumption phenomenon, and thus sustaining hypothesis 1.

## 6. Study 2: Monetary Intrusion Effects

To assess the possible undermining influence of discount-based price variations on the ironic consumption, we included variables of price change and income change in Study 2 to see if these two monetary intruders interact with economic suppression. Study 2 consisted of two models: Model 1 examined luxury consumption whereas Model 2 examined necessity consumption.

### 6.1 Study 2 Results

The results of study 2 are shown in Table 2. The main suppression results of Model 1 on luxury consumption are consistent to the results of Study 1. Both unemployment rate ( $\beta=1.262$ ,  $t(534)=6.401$ ,  $p<.001$ ) and the square of unemployment rate ( $\beta=-1.009$ ,  $t(534)=-5.530$ ,  $p<.001$ ) significantly affected luxury apparel sales. As for the possible confounding effect of monetary changes on ironic consumption, the results demonstrate that both monetary change factors failed to present individual effects [Price\_change ( $\beta=.197$ ,  $t(534)=1.519$ ,  $p>.05$ ); Income\_change ( $\beta=-.077$ ,  $t(534)=-1.394$ ,  $p>.05$ )] or interactive effects on the economic indicators [Price\_change x Unemployment rate ( $\beta=-.124$ ,  $t(534)=-1.080$ ,  $p>.05$ ); Income\_change x GDP growth rate ( $\beta= 0.006$ ,  $t(534)=.136$ ,  $p>.05$ )]. This reveals that monetary changes in terms of income change perception and price change experience did not affect luxury apparel sales. The confounding influence of discounts is thus excluded from our explanation of luxury sales rebounds. As for the results of control variables, Stock Price Index ( $\beta=.387$ ,  $t(534)=6.735$ ,  $p<.001$ ) and Time ( $\beta=.137$ ,  $t(534)=3.069$ ,  $p<.005$ ) were significantly and positively associated with the quarterly sales of luxury apparel brands, while Consumer Confidence Index ( $\beta=.024$ ,  $t(534)=.482$ ,  $p>.05$ ) was insignificant. Altogether, this regression model provided accurate prediction of the quarterly sales of luxury apparel ( $F(534)=10.683$ ,  $p<.001$ ) with moderate explanatory power ( $R^2=.170$ ). Similar to Study 1, Model 2 in Study 2 showed varying results for necessity and luxury apparel sales. For the necessity brands, all economic suppression indicators, i.e., unemployment rate ( $\beta=-.061$ ,  $t(1488)=.610$ ,  $p>.05$ ), the square of unemployment rate ( $\beta=-.063$ ,  $t(1488)=-.700$ ,  $p>.05$ ), and GDP growth rate ( $\beta=.010$ ,  $t(1488)=.303$ ,  $p>.05$ ), were insignificant in predicting sales. The results of monetary changes on necessity consumption demonstrated that neither of the monetary change factors were significant [Price\_change ( $\beta=.024$ ,  $t(1488)=.355$ ,  $p>.05$ ); Income\_change ( $\beta=-.008$ ,  $t(1488)=-.255$ ,  $p>.05$ ); Price\_change x Unemployment rate ( $\beta=-.015$ ,  $t(1488)=-.224$ ,  $p>.05$ ); Income\_change x GDP growth rate ( $\beta=-.003$ ,  $t(1488)=.095$ ,  $p>.05$ )]. This indicates that sales of the necessity apparel brands were not associated with the two monetary changes. Finally, none of the control variables displayed any significant impacts on necessity brand consumption [Stock Price Index ( $\beta=.001$ ,  $t(1488)=.046$ ,  $p>.05$ ); Time ( $\beta=.027$ ,  $t(1488)=.973$ ,  $p>.05$ ); Consumer Confidence Index ( $\beta=-.004$ ,  $t(1488)=-.138$ ,  $p>.05$ )]. In sum, all the parameters in Model 2 failed to predict the necessity apparel sales during the recession period ( $F(1488) = .203$ ,  $p>.05$ ).



**Table 2: Ironic Rebounds with Monetary Intrusion**

	Luxury Consumption (Model 1)		Necessity Consumption (Model 2)
<b>Suppression factor</b>			
Unemployment rate	1.262	***	0.061
Unemployment rate <sup>2</sup>	-1.009	***	-0.063
GDP growth rate	-0.032		0.010
<b>Monetary intruder</b>			
Price_change	0.197		0.024
Income_change	-0.077		-0.008
Price_change x Unemployment rate	-0.124		-0.015
Income_change x GDP growth rate	0.006		-0.003
<b>Control variable</b>			
CCI	0.024		-0.004
Stock price index	0.387	***	0.001
Time	0.137	**	0.027

\*\*\* $p < 0.001$ ; \*\* $p < 0.005$ ; \* $p < 0.01$

## 6.2 Study 2 Discussion

Study 2 explored potential monetary intruding influences of price discount factors to further clarify the ironic rebound effect. Model 1 showed that changes in affordability perception and in external price setting do not appear to be an effective booster of luxury consumption. Such insignificant confounding results help to form a clearer picture of the ironic consumption effect. Therefore, based on the findings of this study, we cannot conclude that monetary intrusion bolsters ironic sales rebounds. Hypothesis 2 is unsupported.

## 7. General Discussion

Though the ironic effect has been widely discussed in the field of psychology, to the best of our knowledge, it has not been probed in the consumer or retailing context in relation to economic conditions. Results of analyses based on retail sales of 51 brands in apparel and accessories categories in the United States and Europe substantiated our speculation about suppression and rebounds of luxury apparel consumption during economic recession periods. By conventional wisdom, it is natural to relate a harsh economy to poor buying power and thus less luxury consumption. Yet, ironically, consumer purchasing of luxury apparel brands does not seem to correspond to economic conditions, as indicated by our findings. The quadratic testing of suppression factors in Study 1 indicates that the level of unemployment rate is critical in determining the suppression effect. As the inverted U relationship demonstrated, only a moderate unemployment level can both restrain and promote a rebound in luxury consumption under dismal economic conditions. Neither low nor high unemployment rates produce proper mental suppression and rebound effects on luxury apparel spending. The above curvilinear findings can be explained well by the ironic effect theory. Although continual high unemployment rates riddled with financial worries trigger and intensify consumer mental suppression of luxury spending, the restraining of desire to the utmost tends to recoil against the psychological suppression with more buying temptation, eventually leading to buying rebounds. Such a counter-intentional phenomenon is evidenced by the significant effects of sale time on luxury apparel sales in both studies. That is, the closer the time is to the end of year, the more retail sales the luxury brands generate, demonstrating greater buying rebounds, which indicates the consumers' tendency to suppress luxury consumption in the beginning of the year but loosen up as time goes by. Finally, sales discounts which create changes in affordability perception and in external price setting do not appear to be an effective booster or economic co-player contributing to holiday luxury consumption. Statistically rejecting the two monetary intruders' confounding influences helps clarifying the ironic consumption effect.

## 8. Managerial Implications

Consumers are under escalating economic pressure to suppress various desires and hedonic enjoyment through luxury consumption. The insights provided by this study facilitate personal wellbeing by helping consumers regain a happier, healthier approach to making wiser decisions about how to better allocate their financial resources to meet not only the utilitarian needs of necessity but also their desires for luxury. This study's findings can serve as a meaningful and valuable reference for luxury apparel brands. Based on the findings, these brands can develop and launch incentive campaigns to promote luxury consumption when consumers are experiencing economic hardship and suppressing their desires as part of an ironic mental cycle. Instead of applying seasonal pricing, luxury retailers are encouraged to entitle consumers with virtuous reasons to buy and assist them to justify the expenditure spent on luxury and hedonic goods. As the ultimate values of luxury brands are largely redeemed from social consumption, retailers may seek to provide more social reasons for luxury apparel buying (Goldsmith, Heitmeyer, & Freiden, 1991), for instance, utilizing the pretext of gift giving to produce strong self-licensing initiatives for buying. For both necessity and luxury brands, as our findings indicate that price promotions do little to increase sales, whereas, releasing restrained desires can lead to create salient buying rebounds. Therefore, it is suggested that retailers focus on addressing and enriching the hedonic features of their brands rather than sticking to price adjustment and promotion.

## 9. Limitations and Future Research Directions

The present study examined consumption suppression and rebounds using sets of secondary data constituted of the retail sales of the top 10 luxury brands and 41 necessity brands in the apparel and accessories categories in the USA and Europe. The findings may not fully apply to other product categories and durable goods.

Brands in different categories with different country origins can be further investigated to verify the generalizability of the ironic consumption effect. Second, in addition to luxury brands, only national necessity brands were examined in this study; however, a large amount of apparel sales have shifted to private-label brands during the economic recession. Future research may enlarge the dataset by incorporating more brands and more different economic environments into the examination. Third, the analyses of the relationship between national economic indicators and the retail sales of the selected luxury brands confine the findings to correlational observations of economic impacts, which fall short of direct psychological evidences about how mental suppression may engender the ironic consumption effect. To remedy this limitation, experimental studies should be carried out to verify the psychological processes that generate the ironic effect of consumption. In the present study, unemployment rate is shown to be a valid short-term external suppression factor that produces the ironic effect. Some internal suppression factors such as consumer personality or emotional stability need to be further assessed to identify determinants of chronic or situational consumption suppression. Fourth, drawing on the notion of monetary intrusion, we clarified and explained the Black Friday consumption rebound phenomenon that happens at the end of the year. In addition to price discount intrusion, windfall income can spawn changes in income perception. Thus, windfall income is another monetary factor that warrants more investigation and discussion. Finally, as mental suppression of desire can potentially be released by social, emotional and environmental factors (Byun & Mann, 2011) other than the economic conditions, consumer impulse buying resulting from agitated emotions or buying rebounds due to interpersonal and marketing influences are also some promising research agendas worthy of further examination.

## References

- Allen, L., Bali, T. G., & Tang, Y. (2012). Does systemic risk in the financial sector predict future economic downturns? *Review of Financial Studies*, 25, 3000-3036.
- Azzam, A. & Rettab, B. (2013). Food price cap policy and household welfare in the UAE. *Journal of Economic Policy in Emerging Economies*, 6, 64-77.
- Brown, P., Hesketh, A., & Williams, S. (2003). Employability in a knowledge-driven economy. *Journal of Education and Work*, 16, 107-126.
- Byun, S. E., & Mann, M. (2011). The influence of others: The impact of perceived human crowding on perceived competition, emotions, and hedonic shopping value. *Clothing and Textiles Research Journal*, 29, 284-297.
- Chernev, A. & Gal, D. (2010). Categorization effects in value judgments: Averaging bias in evaluating combinations of vices and virtues. *Journal of Marketing*, 47, 738-747.

- Dahl, D. W., Honea, H., & Manchanda, R. V. (2003). The nature of self-reported guilt in consumption contexts. *Marketing Letters*, 14, 159-171.
- Deleersnyder, B., Dekimpe, M. G., Steenkamp, E. M., & Leeflang, S. H. (2009). The role of national culture in advertising's sensitivity to business cycles: An Investigation across Continents. *Journal of Marketing Research*, 46, 623-636.
- DeWitt, J. C., Evers, C., & DeRidder, T. D. (2012). License to sin: Self-licensing as a mechanism underlying hedonic consumption. *European Journal of Social Psychology*, 42, 490-496.
- Dubois, B. & Duquesne, P. (1993). The market for luxury goods: Income versus culture. *European Journal of Marketing*, 27, 35-44.
- Feinberg, R. A., Mataro, L., & Burroughs, W. J. (1992). Clothing and social identity. *Clothing and Textiles Research Journal*, 11, 18-23.
- Freeburg, B. W., & Workman, J. E. (2009). A method to identify and validate social norms related to dress. *Clothing and Textiles Research Journal*, 28, 38-55.
- Galí, J. (2011). The return of the wage Phillips curve. *Journal of the European Economic Association*, 9, 436-461.
- Goldsmith, R. E., Heitmeyer, J. R., & Freiden, J. B. (1991). Social values and fashion leadership. *Clothing and Textiles Research Journal*, 10, 37-45.
- Greenleaf, E. A. (1995). The impact of reference price effects on the profitability of price promotions. *Marketing Science*, 14, 82-104.
- Gurkaynak, R. S., Sack, B. P., & Swanson, E. T. (2007). Market-based measures of monetary policy expectations. *Journal of Business & Economic Statistics*, 25, 201-212.
- Ha-Brookshire, J. E., & Lu, S. (2010). Organizational identities and their economic performance: an analysis of US textile and apparel firms. *Clothing and Textiles Research Journal*, 28, 174-188.
- Hagtvedt, H. & Patrick, V. M. (2009). The broad embrace of luxury: Hedonic potential as a driver of brand extendibility. *Journal of Consumer Psychology*, 19, 608-618.
- Hall, R. E. & Mishkin, F. S. (1982). The sensitivity of consumption to transitory income: Estimates from panel data on households. *Econometrica*, 50, 461-481.
- Harvey, A. G. (2002). A cognitive model of insomnia. *Behavior Research and Therapy*, 40 No. 8, 869-893.
- Heatherton, T. F., Herman, C. P., Polivy, J. (1991). Effects of physical threat and ego threat on eating behavior. *Journal of Personality and Social Psychology*, 60, 138-143.
- Hilton, M. (2004). The legacy of luxury: Moralities of consumption since the 18th century. *Journal of Consumer Culture*, 4, 101-123.
- Huhmann, B. A. & Brotherton, T. P. (1997). A content analysis of guilt appeals in popular magazine advertisements. *Journal of Advertising*, 26, 35-45.
- Kalyanaram, G. & Winer, R. S. (1995). Empirical generalizations from reference price research. *Marketing Science*, 14, 161-169.
- Keinan, A. & Kivetz, R. (2008). Remedying hyperopia: The effect of self-control regret on consumer behavior. *Journal of Marketing Research*, 45, 676-89.
- Krishna, A., Briesch, R., Lehmann, D. R. & Yuana, H. (2002). A meta-analysis of the impact of price presentation on perceived savings. *Journal of Retailing*, 78, 101-118.
- Labroo, A. A. & Mukhopadhyay, A. (2009). Lay theories of emotion transience and the search for happiness: A fresh perspective on affect regulation. *Journal of Consumer Research*, 36, 242-254.
- Lastovicka, J. L., Bettencourt, L. A., Hughner, R. S., & Kuntze, R. J. (1999). Lifestyle of the tight and frugal: Theory and measurement. *Journal of Consumer Research*, 26, 85-98.
- Lattin, J. M. & Bucklin, R. E. (1989). Reference effects of price and promotion on brand choice behavior. *Journal of Marketing Research*, 26, 299-310.
- Levine, R. & Zervos, S. (1998). Stock markets, banks, and economic growth. *The American Economic Review*, 88, 537-558.
- Ludvigson, S. C. (2004). Consumer confidence and consumer spending. *The Journal of Economic Perspectives*, 18, 29-50.
- Lyubormirsky, S. & Nolen-Hoeksema, S. (1993). Self-perpetuating properties of dysphonic rumination. *Journal of Personality and Social Psychology*, 65, 339-349.

- Martín-Herrán, G., Taboubi, S. & Zaccour, G. (2012). Dual role of price and myopia in a marketing channel. *European Journal of Operational Research*, 219, 284-295.
- Mishra, A. & Mishra, H. (2011). The influence of price discount versus bonus pack on the preference for virtue and vice foods. *Journal of Marketing Research*, 48,196-206.
- Mozumder, P. & Marathe, A. (2007). Causality relationship between electricity consumption and GDP in Bangladesh. *Energy Policy*, 35, 395-402.
- Mukhopadhyay, A. & Johar, G. V. (2009). Indulgence as self-reward for prior shopping restraint: A justification-based mechanism? *Journal of Consumer Psychology*, 19, 334-345.
- National Retail Federation, (2011), Black Friday weekend shines as shoppers line up for deals, spend record \$52 billion. [Online] Available: <https://nrf.com/media/press-releases/black-friday-weekend-shines-shoppers-line-deals-spend-record-52-billion> (November 27, 2011)
- Paul, K. I. & Moser, K. (2009). Unemployment impairs mental health: Meta-analyses. *Journal of Vocational Behavior*, 74, 264-282.
- Pepper, M., Jackson, T., & Uzzell, D. (2009). An examination of the values that motivate socially conscious and frugal consumer behaviours. *International Journal of Consumer Studies*, 33, 126-136.
- Ranyard, R., Missier, F. D., Bonini, N., Duxbury, D., & Summers, B. (2008). Perceptions and expectations of price changes and inflation: A review and conceptual framework. *Journal of Economic Psychology*, 29, 378-400.
- Sherman, Lauren, (2010), FASHIONISTA: The world's 10 most powerful luxury brands. [Online] Available: <http://fashionista.com/2010/04/the-worlds-most-powerful-luxury-brands> (April 28, 2010)
- Steinhart, Y., Ayalon, O., & Puterman, H. (2013). The effect of an environmental claim on consumers? Perceptions about luxury and utilitarian products. *Journal of Cleaner Production*, 53, 277-286.
- Truong, Y., Simmons, G., McColl, R., & Kitchen, P. J. (2008). Status and conspicuousness? Are they related? *Strategic marketing implications for luxury brands. Journal of Strategic Marketing*, 16, 189-203.
- Vigneron, F. & Johnson, L. W. (2004). Measuring perceptions of brand luxury. *The Journal of Brand Management*, 11, 484-506.
- Wegner, D. M., Schneider, D. J., Carter, S. R., & White, T. L. (1987). Paradoxical effects of thought suppression. *Journal of Personality and Social Psychology*, 53, 5-13.
- Wegner, D. M. (1994). Ironic processes of mental control. *Psychological Review*, 101, 34-52.
- Wenzlaff, R. M. & Wegner, D. M. (2000). Thought suppression. *Annual Review of Psychology*, 51, 59-91.
- Wiedmann, K. P., Hennigs, N., & Siebels, A. (2009). Value-based segmentation of luxury consumption behavior. *Psychology & Marketing*, 26, 625-651.
- Withall, J. (1949). The development of a technique for the measurement of social-emotional climate in classrooms. *The Journal of Experimental Education*, 17, 347-361.
- Wohl, Jessica, (2012), Retailers see a somewhat jolly U.S. holiday season. [Online] Available: <http://graphics.thomsonreuters.com/12/09/RetailandConsumerSummit.pdf> (January 30, 2013)
- Woodman, T. & Davis, P. A. (2008). The role of repression in the incidence of ironic errors. *The Sport Psychologist*, 22,183-196.