# Seong-Ho Cho<sup>1</sup>, Hann Earl Kim<sup>2</sup> EBAY'S CROSS-BORDER BID OF KOREAN GMARKET

This paper introduces the cross-border cash flow-based estimation methods for the acquisition of a non-listed company and applies them to the case of eBay's acquisition of Gmarket, a leading Korean Internet shopping company headquartered in Seoul, Korea. This case will primarily discuss the following two questions. First, why would the eBay, a global leader in e-commerce who has already acquired the Korean Auction in 2001, intend to acquire Gmarket for more than 1 bln USD in 2009? Secondly, would the eBay's suggested offer price of \$1.2 bln, or \$24 per share be reasonable?

**Keywords:** acquisition for international growth, cross-border companies estimation, estimation methods, Gmarket, eBay.

## Сюнг-Хо Чо, Ханн Йорл Кім СПРОБА ПОГЛИНАННЯ ОНЛАЙН-АУКЦІОНОМ ЕВАУ КОРЕЙСЬКОГО ОНЛАЙН-АУКЦІОНУ GMARKET

У статті зроблено спробу оцінювання міжнародного поглинання компанією, що має біржові котирування, компанією, яка не котирується на біржі, на прикладі eBay та Gmarket (найбільший Інтернет-аукціон у Південній Кореї з центральним офісом у Сеулі). Акцент у дослідженні зроблено на двох питаннях: навіщо eBay, світовий лідер у галузі Інтернет-торгівлі, у 2009 р. спробував викупити та поглинути корейський аукціон? І друге — наскільки ціну, що пропонує eBay, можна вважати адекватною?

**Ключові слова:** поглинання у контексті міжнародного росту, оцінювання вартості міжнародних компаній, методи оцінювання, Gmarket, eBay. **Форм. 1. Табл. 9. Літ. 22.** 

# Сюнг-Хо Чо, Ханн Ёрл Ким ПОПЫТКА ПОГЛОЩЕНИЯ ОНЛАЙН-АУКЦИОНОМ ЕВАУ КОРЕЙСКОГО ОНЛАЙН-АУКЦИОНА GMARKET

В статье сделана попытка оценить международное поглощение котирующейся компанией некотирующейся на примере eBay и Gmarket (крупнейший Интернет-аукцион в Южной Корее с центральным офисом в Сеуле). Акцент исследования сделан на двух вопросах: зачем eBay, мировой лидер в области Интернет-торговли, в 2009 г. предпринял попытку купить корейский аукцион? И второе — насколько цену, предлагаемую eBay, можно считать адекватной?

**Ключевые слова:** поглощения в контексте международного роста, оценка стоимости международных компаний, методы оценки, Gmarket, eBay.

#### Introduction

On April 16, 2009, the Bloomberg allegedly reported with the following headline: "eBay to Buy South Korea's Gmarket For \$1.2 Billion" (Cho, Galante, 2009):

The "eBay offered to buy a South Korean online retailer, Gmarket, for up to \$1.2 billion, a deal which would make it the leader in the world's sixth-largest e-commerce market. The United States online auctioneer said it had already secured 67% of Gmarket, as top shareholders including Yahoo and Interpark agreed to eBay's cash tender offer. Interpark, a South Korean online mall operator, said it would sell its 29 percent stake in Gmarket to eBay for \$350 million, while Yahoo agreed to sell its 10

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percent stake. Reuters, citing a source familiar with the situation, announced that the sale would result in \$120 million for Yahoo, and a \$52 million pretax gain".

The eBay's tender price of \$24 per share represents a 20.2% premium to Gmarket's latest close of \$19.96 (Nasdaq ticker symbol: GMKT). Assuming all outstanding shares of \$50,331,740 are tendered, the total purchase price will be about \$1.2 bln, which is amongst top 5 M&As in Korea in terms of transaction value (Table 1). Even considering eBay's two biggest bids of PayPal for \$1.4 bln and the Skype for \$4.1 bln, the acquisition of Gmarket is a critical event for both the seller and the buyer.

Table 1. Top 10 Rolean Max transactions								
Target	Acquirer	Value, in mln USD						
KTE	KT	1,810.0						
Petro Tech-Peruana	Investor Group	892.8						
Gmarket	eBay	413.0						
Doosan Corp-Liquor Business	Lotte Chilsung Beverage	385.3						
Taekwang Industrial-Land, Buildings	Heungkuk Life Insurance	304.9						
Jinro	Hit e Holdings	255.3						
Kumho Asiana Buildings	JR Asset Management	185.0						
QRIX Communications	Tbroad	179.8						
Korea Lifeinsurance	Hanwha Chemical Corp	159.2						
Samsung Techwin-Camera	Shareholders	142.9						

Table 1. Top 10 Korean M&A transactions

Source: Thomson Reuters and Bloomberg News.

Gmarket runs customer-to-customer marketplaces and has more than 10 mln registered users in Korea. It competes with eBay's Korean subsidiary, an Internet Auction Company (Auction), acquired in 2001. The open market platforms of Gmarket have proven to be successful internationally. If eBay succeeds in incorporating Gmarket platforms into eBay, it is anticipated they could provide significant clues for eBay's ailing e-marketplace business to revive.

In the early January of 2009, Mr. Jon Donahoe, the 48 year-old former managing director for Bain & Company, became the current president and the CEO of the eBay in 2008 while Ms. Meg Whitman was busy formulating a strategy that could save eBay out of the current slump. For the last 3 months before that, the eBay's sales of \$1.2 bln at the marketplaces showed a 16% decline facing tough competition from Amazon. The lucrative listing fees eBay charges are turning its sellers away to prefer Amazon, instead of providing less expensive subscription fees.

From the eBay's inception in 1995, M&A has been the main engine for its rapid growth. The company has been involved in 69 M&A deals and bought 57 of those deals which accounted for the total value of more than \$12.6 bln. It has led the eBay from a small Internet venture to more than a \$9 bln revenue-generating giant. However, the relentless acquisitions distract the eBay from its core business and make it a notorious IBM-type dinosaur, resulting in rather stagnated performance. The eBay's stock is trading at a five-year low for a very unglamorous 12 times earnings, despite the \$4.7 bln stock buybacks since 2006. Amid poor stock market performance and the widespread sceptics about the prospects of the eBay, another M&A by a newly appointed CEO could cause an even more harsh criticism. To convince investors, he has to come up with a more solid rationale and visible synergy effect.

Since Gmarket's unique platforms could be a breakthrough for the eBay, amongst top agenda for Mr. Donahoe became the potential acquisition of Gmarket, one of the most successful e-marketplace in Asia. The eBay has been discussing the possible M&A with Gmarket for the last 2 years, but they could not reach an agreement. The eBay suggested \$24 per share in 2008, but the Gmarket refused and asked for \$37 instead. Furthermore, there were some negative concerns about the Gmarket. First, its operating margin of 17.8% was far lower than the eBay's long-term margin profile of 35–45%. Secondly, the eBay already had its own Korean subsidiary. Thirdly, it would take more than one third of cash reserve the eBay retains. It could be too much betting for a Korean e-marketplace. Would the Gmarket be another M&A disaster or a breakthrough in restructuring the e-marketplace business to become a growth engine?

#### **Bidder: eBay Company History**

The eBay was founded in 1995 by Pierre Omidyar, a French-born Iranian-American entrepreneur and economist. In 1998, Ms. Whitman was appointed as the president and the CEO to manage 30 employees and half a million users with the revenue of \$4.7 mln in the US. In 1998 the eBay went public and its share price soared up to \$53.50 on the very first day of trading, which was far beyond its target price of \$18. Ms. Whitman made a successful path in the eBay as well as her career for almost a decade and she stepped down in 2008. Mr. Donahue succeeded her as the new president and the CEO. At present, as the world's leading e-commerce company, the eBay Inc.'s global portfolio of businesses enables hundreds of millions of people to buy, sell and pay online. In December 2010 the eBay stated it would acquire the US online shopping mall — Brand4friends for 150 mln euros (\$197 mln) to strengthen the company fashion business in Europe.

#### **Business portfolio**

The eBay was the first to introduce the Internet-based auction model where people buy and sell various goods and services. Their slogans include "Whatever it is, you can get it on eBay," and "From collectibles to cars, buy and sell all kinds of items on eBay." Within the eBay, there are several types of auctions of biddings, auction-style listing, fixed price format and Dutch auction. The auction-style listings help a seller offer one or more items for sale for a specified number of days. A seller can set a reserve price. The fixed price format makes the seller to offer one or more items for sale at a "Buy It Now price". Buyers who agree to pay that price win the auction immediately without submitting a bid. Dutch auction allows a seller provide two or more identical items at the same auction. Bidders can bid for any number from one item up to the total number offered. In 2007, the eBay adapted a "seller rating system" which anonymously grades power sellers to poor sellers into 4 different categories.

Apart from the online auction hosting and the shopping mall, eBay has other business portfolios in electronic commerce, internet telephone (Skype), online money (PayPal), event tickets (StubHub), Gumtree, Kijiji as well as advertising on the site. In order to position itself as the global leader in e-commerce and payments, the eBay obtained the diversified businesses through the acquisitions of various companies expecting synergy with its core businesses.

#### Sales & profit

The company generates its revenue from various fees. The eBay fee system is quite complex; there are fees to list a product and fees when the product sells, plus several optional adornment fees, all based on various factors and scales. In addition, eBay owns the PayPal payment system that has fees of its own.

While being based in the US, the eBay is operating its international websites in more than 30 countries. As it expands all over the world through M&A, the overseas revenue grows rapidly more than 20% annually. In 2004, the number of non-US users for the first time was higher than that of the US users. In 2006, international revenue surpassed the US revenues. In the Q4 of 2007, its revenue sources were represented as follows: eBay.com in the US (26%), PayPal (26%), eBay.de (12%), eBay.co.uk (11%), other eBay-sites (10%), Skype (5%) etc. In 2008, its revenue reached \$8,541 mln and the net income was \$1,779 mln.

#### Challenges for the eBay

From recently, the eBay is facing some challenges. There are even some speculations that the 10-year-old online auction business may enter a permanent decline. Last year, the eBay's gross merchandise volume, or the amount of goods and services passing through its platforms shrinked by 22%. The monthly visitors are reducing in quantity too. The eBay's core e-commerce business is fast losing shoppers to its competitors that offer safer and simpler fixed price-based online shopping. In the fourth quarter of 2008, the company reported the 31% slump in profit, as the revenues in its core marketplace business declined by 16%. Furthermore, the eBay's online marketplaces are very voluptuous. Over the last year, its growth rates showed a rollercoaster with 19% in the first quarter and a negative 16% in the fourth one.

The current turmoil may come from its unattractive auction model and failed international expansion into Asian market. One may not want to hassle with auction biddings on trivial items anymore. Rather, one may want to shop through other simpler marketplaces such as Amazon.com which uses fixed-price sales. While the eBay is ranked #1 in France and the US, Asia used to be a source of frustration for the company. It entered Japan in 2000, but faced a tough competition from Yahoo Japan. eBay exited Japanese market in 2002 and made a strategic alliance with Yahoo Japan instead. In China, the eBay launched its own site but had to shut it down in 2006. Instead, it formed a partnership with Tom Online, controlled by Li Ka-shing. The eBay launched Indian classified site Kijiji in 2005, but 3 years later spinned off to Matrix Partners in India.

#### **Gmarket's advent**

Until 2004, Auction, the eBay's Korean subsidiary, used to be a dominant player at a Korean market. It boasted of being responsible for 75% of eBay's Asian revenues. But, Gmarket grew fast enough to threaten Auction within less than 3 years since its start in 2000. With an intriguing mix of cheaper listings, fixed prices, and a flashing website, it finally took the #1 place in 2006, also tripling its revenues. In early 2006, Gmarket announced its ambitious plan to become the global player by going IPO at NASDAQ. It successfully raised \$92.7 mln in June, 2006. With the money deep in the pocket, it aims to grow as a major Asian player.

# Target: Gmarket, Inc

### **Background**

Gmarket was established by Mr. Ki Hyung, Lee in 1999 under the name of GOODSDAQ as an inhouse venture team of Interpark Corporation, one of Korean leading e-commerce companies. Initially, they focused on the B2C business model, but this business model appeared to be limited in terms of sustainable growth and profit. In 2004, it decided to change its name to Gmarket Inc. and started concentrating on e-commerce.

At Korean retail market in 2007, e-commerce made up about 25% of the total retail. This figure was about the same size with the department store share. The market share of Gmarket and Auction in the total e-commerce was 37% and that at open market was 82%. The open market is a duopoly market and the main players are Gmarket and Auction. In 2008 a competitor entered into the market which is a subsidiary of SK Group, the third largest chaebol in Korea.

Gmarket provides an online open market on which sellers and buyers can transact freely a variety of products. Gmarket receives fees from sellers when a transaction is completed. These fees are calculated as % of the total value of a transaction. The remaining revenue comes mostly from advertising. As Gmarket's site has become increasingly popular, sellers have dramatically increased advertising to attract buyers (Table 2). Thus, transaction fees declined from 85% of revenues in 2004 to 55% in 2008 while the advertising fees increased from 15% in 2004 to 45% in 2008. Moreover, the advertising fees increases about 3 times during 2005–2006, although the transaction fees increased only 70% during the same period.

Table 2. Gmarket Revenues

	200	)4	200	)5	200	)6	200	7	200	08
Transaction Fees	\$0.785	85%	3.704	81%	6.475	64%	8.482	58%	9.933	55%
Advertising and Others	\$0.137	15%	0.885	19%	3.580	36%	6.059	42%	8.248	45%
Total Revenues	\$0.922		4.589		10.055		14.541		18.181	

(unit: \$ million, \$1 =W1532.8)

GMV has grown 45% per year since 2006 reaching Won 3.99 trl. Considering that the total online retail sales in Korea are estimated around Won 18.1 trl (Korea National Statistical Office). Gmarket's share is around 22%.

#### **Competitive advantages**

Gmarket's success to date has been partially due to its website design, its focus on fashionable products, low fees, seller incentive programs and agile management skills. To differentiate, Gmarket develops a website with intelligent features including flashy graphics which consumers can search easily any products they want. Mr. Ku says confidently that "our website function is better than that of eBay or Amazon". Conventionally, most competitors focus on stereotyped products made by large vendors such as computers, electronic products and books. While they handle clothing line, competitors focus only famous brand clothes due to a lot of potential claims in clothing. However, Gmarket was the first one who dared to sell low-priced clothing with the price range of \$10–20. While breaking out the prejudice that vintage clothing cannot sell online, they have achieved a big success. In 2004 there were more than 4,000 transactions a day. On the other hand, for sellers, Gmarket develops a more

user-friendly platform, eliminates listing fees, and lowers its commissions. They provide a variety of sales methods including \$1 random auction, group purchase and random prize drawings for sellers to facilitate more sales. Furthermore, Gmarket's management is likely to understand well Asian consumers and possess agile management skills where they reflect the feedbacks from buyers and sellers to marketing and the system right away.

#### Strategic Rationale of acquiring Gmarket

Why would eBay take over Gmarket in 2009 after buying out Auction Korea in 2001? There are at least two reasons for that: the eBay could become a dominant player at the Korean market; and it could learn best practices of Gmarket, which would be rolled over to other local subsidiaries throughout the world.

### The dominant player at the Korean market

Since Gmarket has innovative platforms which are complimentary to Auction's, the combination of Gmarket and Auction could give the eBay a strong leadership position in Korea, which is one of the world's largest and most dynamic and innovative ecommerce markets. Through the combined business, the eBay would be able to offer benefits both for sellers such as tools for quick simultaneous listing across platforms and for buyers by providing more selection, improved incentives and loyalty programs.

If they are merged, the total turnover would reach 7 trln won and the market share comes to about 37% of the e-commerce market or 82% of the open market. This large market share earned through M&A could enable the eBay expand their advertisement business, such as keyword ads. The managers anticipate the 10% increase of advertisement due to the acquisition of Gmarket.

The business focuses of these two firms appear very complementary. Traditionally, Auction is strong in the products for males over 30 while Gmarket is strong in the young female segment. In fact, 78% of women in Korea in their 20s visit Gmarket once a month. Gmarket focuses on fashion, clothing, shoes and accessories. Since the two segments are different and complementary, the eBay managers do not expect any significant positive synergy in transaction fees from its acquisition of Gmarket. On the other hand, they believe there is a significant synergy which can be made from the savings in costs and expenses by eliminating back office redundancies. The cost and expense reductions can be summarized as presented in Table 3.

Costs and Expen	ses (before PMI)	Costs and Expenses (after PMI)		
Cost of sales	52.0	Cost of sales	51.0	
Sales and marketing	20.0	Sales and marketing	18.0	
General and	10.0	General and	7.0	
administrative costs	10.0	administrative costs	7.5	
Total cost	82.0	Total cost	76.0	
Operating income	18.0	Operating income	24.0	

Table 3. Gmarket's Cost structure before and after PMI, %

PMI means post merger integration.

## Opportunity to roll over Gmarket's best practices to Asian and world markets

The acquisition of Gmarket may provide the eBay with added capabilities with proven platforms to expand into Asian and world markets. Especially, it could provide a powerful competitive foothold for its success in Asia where the eBay has suffered earlier. Furthermore, CEO, Mr. Ku, had the key role in building Gmarket in Korea,

Japan and Singapore. His expertise and experience would be an important asset for the eBay's global expansion in Asia.

Although the synergy from the added capabilities including Gmarket's proven platforms onto the eBay's other Asian subsidiaries appears significant, the management intends not to consider it in its estimations because of the difficulty to quantify properly and implementation uncertainty.

#### **Deal Structure**

Since Gmarket is listed publicly at NASDAQ in the form of American Depositary Shares (ADS), the eBay needs to meet the requirements of both Korean and the US legal and business systems. This is the first acquisition of a Korean company listed partly by ADS in the US.

Since Gmarket is important not only for its dominance at Korean market but also for the applied use of its platforms elsewhere, the eBay wants 100% ownership. Under the Korean Commercial Code, squeeze-out merger is allowed at the 95% ownership level with some strict conditions such as fair pricing and appraisal obligation. To circumvent these strict conditions, the eBay considers making an agreement of tender with 67% significant stakeholders first to secure the majority of shares and then makes a tender offer for the rest of 33%. With the secured majority, the eBay can delist the Gmarket from NASDAQ.

### Cross-border Valuation through a Discount Cash Flow (DCF) Approach

The DCF approach projects future cash flows of a firm within a fixed time horizon (i.e., 10 years) and then applies the discount rate to calculate the discounted cash flow. In the final projection year, a continuing value (CV) is calculated. The value of non-operating or financial assets is added to the operational value obtained above to retrieve enterprise value (EV). To calculate the equity value, the value of initial debt, excess cash and non-operating assets (if any) are subtracted from the market value of EV (Eccles, Lanes, and Wilson, 1999). To handle F/X risk in cross-border M&A, we used a Discount and Convert Approach, which forecasts won cash flows, estimates won discount rates, calculates the won PV and converts at the spot \$/won exchange rate.

#### Cash Flow

To calculate the intrinsic value of Gmarket, or "as-is" value without acquisition, cash flows are projected. Gmarket's revenue sources are both transaction fees and advertising income. Transaction fees are calculated from GMV, which represents the aggregate value of all products and services sold on the Gmarket website for a year. Table 8 presents the actual and the projected revenues for the period of 2004–2018. After 2018, their sales are expected to be stabilized with the growth rate of inflation.

The working capital requirement (WCR) for Gmarket online shopping business is negative percentage of net sales because they are paid first and they pay later. In other words, the more sales there are, the more cash it would be. In our estimation model, therefore, WCR is maintained as 0% of net sales. Capital expenditures are estimated to support sales growth. The effective tax rate for Gmarket is 27.5%.

#### **Discount Rate**

Since the estimation is made by won cash flows, we will apply the won discount rate rather than the \$ discount rate. The won weighted average cost of capital (won WACC) is used for the analysis which is one of the most popular discount rates in the valuation of domestic acquisitions (Kaplan and Ruback, 1995). To calculate the won

WACC, there are 3 components: the cost of debt capital  $(k_d)$ , the cost of equity  $(k_e)$ , and the debt-to-equity ratio.

The cost of debt capital ( $k_a$ ) for the target company is obtained from Bloomberg. It is assumed that the target company's credit rating is AA-. Since the bond market has been unstable due to subprime turmoil, the average yields of 2007 and 2008 are used. The average market yield of 3-year KRW denominated corporate bonds is 6.36% (Table 4).

Table 4. 3-year Korean Corporate Bonds with AA-, %

Credit Rating	South Korea Won Denominated Corporate Bond (AA-)
2007	5.70
2008	7.02
Average	6.36

Source: Bloomberg

To estimate the cost of equity  $(k_e)$  the capital asset pricing model (CAPM) is used as follows, which is a widely accepted general model to obtain the cost of equity capital:

$$k_e = r_f + \beta (r_m - r_f) \tag{1}$$

For the risk free rate  $(r_f)$ , it is customary to use the 10-year Korean Government Bond. Its interest rate in 2008 was 5.57% (according to Bloomberg). Bloomberg also provided the Korean market risk premium  $(r_m-r_f)$  of 6.0% at that time. MRP would be the investors' equity risk premium as a measure against a market index (KOSPI and KOSDAQ). Equity beta  $(\beta_e)$  of Gmarket is given as 1.2. To obtain the levered beta  $(\beta_e^L)$ , HAMADA rule is applied. The levered beta  $(\beta_e^L)$  of Gmarket is 1.37 as presented in Table 6.

Assuming the stock price of \$20 and the exchange rate of 1,262 won/USD, the market value of Gmarket is about 1.3 trln won and the debt is 248 bln won. Applying the effective tax rate of 27.5%, the won WACC is estimated as 12.37% as presented in Table 5.

Table 5. WACC, %

			Remark
	Market Risk Premium	6.00	Bloomberg
Ke	Rf	5.57	Bloomberg
[ Ke	Beta	1.37	Calculated
	Ke	13.80	
Kd*(1-Tc)	7.02	5.09	CP: AA-rating
Taxes (Tc)	27.50		
Target Capital	E/V	83.56	
Structure	D/E	19.68	
WACC		12.37	
Growth rate		0.00	
	Beta (Unleveled)	1.20	
[ Beta	Beta (ReLev.)	1.37	
	Beta Used	1.37	
	Market Value (bil won)	1,262	83.56
[ Capital Structure	Debt (bil won)	248	16.44
	Total	1,510	100.00

Source: Developed by the authors.

Table 6. Inflation rates during 2005–2008, %

			-	-	
	2005	2006	2007	2008	Average
US	3.3	3.1	2.7	3.7	3.22
Korea	2.80	2.20	2.50	4.70	3.05

Source: Bloomberg and Bank of Korea.

Table 7. "As-is" Valuation

(unit - bln won) Actual Projection Proj Actual Year 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 222.89 278.68 334.77 399.08 478.18 575.78 696.55 825.68 917.23 1.005.17 1.101.54 Re venue 728.87 Transaction fees 152.26 397.33 516.85 665.33 730.59 802.26 130.01 196.97 248.88 314.46 502.04594.58 Advertising and other 92.88 126.42 137.80 150.20 163.72 178.45 194.51 212.02 231.10 251.90 274.57 299.28 Costs 119.67 207.52 299.41 429.35 476.96 Cost of revenue 144.47 174.08 248.65 362.21 379.01 522.69 572.80 Sales and marketing 165.14 183.45 52.47 54.83 66.95 79.82 95.64 115.16 139.31 145.77 201.03 220.31 General and admin. 24.2729.75 33.48 39.91 47.82 57.58 69.66 72.89 82.57 91.72 100.52 110.15 Operating profits 26.48 60.26 71.83 103.64 125.38 165.10 49.63 86.07 131.20 148.62 180.93 198.28 Tax es (27.5%) 7.28 19.75 23.67 49.76 13.65 16.57 28.50 34.48 36.08 40.87 45.40 54.53 Net Income 19.20 35.98 43.69 52.08 62.40 75.14 90.90 95.12 107.75 119.70 131.17 143.75 1.63 4.98 8.75 9.81 12.92 13.54 12.94 14.00 10.13 \* Depreciation 6.64 14.41 14.09 Cash Flow Statement 71.83 165.10 180.93 EBIT 26.48 49.63 60.26 86.07 103.64 125.38 131.20 148.62 198.28 7.28 13.65 16.57 19.75 28.50 40.87 45.40 49.76 23.67 34.48 36.08 54.53 Taxes Net Operating Profit 19.20 35.98 43.69 52.08 62.40 75.14 90.90 95.12 107.75 119.70 131.17 143.75 Less Adjusted Taxes + Depreciation Expenses 1.6 5.0 6.6 8.8 9.8 12.9 13.5 12.9 14.0 14.4 14.1 10.1 - Capital Expenditures 19.8 15.9 15.0 0.4 16.8 8.3 10.6 13.0 16.0 5.3 14.4 15.8 Operating Free Cash 20.4 102.7 105.9 119.1 24.2 42.0 50.3 59.2 72.0 84.6 130.8 138.1 Flow CV @ g=3% 1,474 PV Factor 0.890 0.792 0.705 0.627 0.558 0.497 0.442 0.393 0.350 0.312 (WACC=12.37%) PV of OFCF and CV: 37.40 39.82 51.05 46.81 46.86 45.82502.47 41.75 45.19 47.24 Operational Value 904.41 + Excess Cash 227.10 KRW/US 5.56 1,262 - Market Value of Debt 1,034

Equity Value 1,137.07 Equity value per share (won) 22,591

Source:: Developed by the authors.

D: 1,262 1,034
Equity Value 90 1 1,100
E per share 17.90 21.86
(USD)

Table 8. "Synergy" Valuation

											bln won)	
	Actual	Actual	Projection									
Year	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Revenue	222.89	278.68	34.77	399.08	478.18	575.78	696.55	728.87	825.68	917.23	1,005.17	1,101.54
Transaction fees	130.01	152.26	96.97	248.88	314.46	397.33	502.04	516.85	594.58	665.33	730.59	802.26
Advertising and other	92.88	126.42	37.80	150.20	163.72	178.45	194.51	212.02	231.10	251.90	274.57	299.28
Costs												
Cost of revenue	119.67	144.47	170.73	203.53	243.87	293.65	355.24	371.73	421.10	467.79	512.63	561.78
Sales and marketing	52.47	54.83	60.26	71.83	86.07	103.64	125.38	131.20	148.62	165.10	180.93	198.28
General and admin.	24.27	29.75	23.43	27.94	33.47	40.30	48.76	51.02	57.80	64.21	70.36	77.11
Operating Profits	26.48	49.63	80.34	95.78	114.76	138.19	167.17	174.93	198.16	220.14	241.24	264.37
Tax es (27.5%)	7.28	13.65	22.09	26.34	31.56	38.00	45.97	48.11	54.49	60.54	66.34	72.70
Net Income	19.20	35.98	58.25	69.44	83.20	100.19	121.20	126.82	143.67	159.60	174.90	191.67
* Depreciation	1.63	4.98	6.64	8.75	9.81	12.92	13.54	12.94	14.00	14.41	14.09	10.13
Cash Flow Statement	•					•	•				•	
EBIT	26.48	49.63	80.34	95.78	114.76	138.19	167.17	174.93	198.16	220.14	241.24	264.37
Taxes	7.28	13.65	22.09	26.34	31.56	38.00	45.97	48.11	54.49	60.54	66.34	72.70
Net Operating Profit Less	40.20	35.98	58.25	69.44	83.20	100.19	494 90	4 90 99	449 67	450.00	174.90	191.67
Adjusted Taxes	19.20	33.98	36.23	09.44	83.20	100.19	121.20	126.82	143.67	159.60	174.90	191.07
+ Depreciation Expenses	1.6	5.0	6.6	8.8	9.8	12.9	13.5	12.9	14.0	14.4	14.1	10.1
- Capital Expenditures	0.4	16.8	8.3	10.6	13.0	16.0	19.8	5.3	15.9	15.0	14.4	15.8
Operating Free Cash Flow	20.4	24.2	56.6	67.6	80.0	97 .1	114.9	134 .5	141.8	1 59 .0	174.6	186.0
CV @ g=3 %												1,986
PV Factor			0.890	0.792	0.705	0.627	0.558	0.497	0.442	0.393	0.350	0.312
PV of OFCF and CV:			50.36	53.57	56.41	60.90	64.15	66.80	62.69	62.56	61.13	676.86
Operational Value	1,215.4											
•	4											
+ Excess Cash	227.10			1		т						
- Market Value of Debt	5.56		KRW/USD	1,262	1,034							
Equity Value	1,448.1		Equity	1,147	1,401							
name and the name	0		Value	-,111	1,101							
Equity value per share			E per	00.00	07.00							
(won)	28,771		share	22.80	27.83							
` '			(USD)		I	I						

Source:: Developed by the authors.

(USD)

To check the estimations' robustness with respect to the proposed won WACC, sensitivity and scenario analysis are conducted. A sensitivity analysis is performed with respect to WACC (say, 11.5%, 12.37%, and 13.5%) as presented in Table 9.

## **Exchange Rates**

In our model, the choice of KRW/USD exchange rate is critical since the PV of cashflows is converted with the exchange rate. Since the exchange rates around the execution date of early 2009 change dramatically due to subprime turmoil, a sensitivity analysis is done for some applicable exchange rates such as the year end exchange rate of 2008 (KRW 1,262/USD) or the average of 2004–2008 (KRW 1,034/USD).

To check the estimations' robustness with respect to the proposed won WACC, the sensitivity and the scenario analysis are conducted. A sensitivity analysis is conducted with respect to exchange rates (say, KRW 1,262 or 1,034 /USD) as presented in Table 9.

Table 9. Scenario Analysis: Equity Value per Share (USD) WACC vs. F/X for Scenario B

	WACC = 11.5%	WACC = 12.37%	WACC = 13.5%
FX = 1,262  (won/USD)	25.07 USD	22.80 USD	20.40 USD
FX = 1.034  (won/USD)	30.61 USD	27.83 USD	24.91 USD

Source: Developed by the authors.

#### **Continuing Value**

Since Gmarket's business is assumed to be mature and stable since 2019, it would be reasonably fine to assume that the cash flow after 2019 is stable. Gordon growth formula is used to calculate the CV of the company by dividing the operating free cash flow (OFCF) in 2019 by WACC and g. We use Korean inflation rate during 2005–2008 of 3.05% for this analysis (Table 6).

As shown in Table 7, the "as-is" equity value of Gmarket is KRW 1,137 bln (Scenario A). If the year-end exchange rate of 2008 or 1,262 won/USD is used, the share price is 17.9 USD. If the average exchange rate during 2004–2008 or 1,034 won/USD is applied, the equity price per share is 21.9 USD. In Table 8, the "synergy" equity value of Gmarket is presented. The synergy-reflected equity value is KRW 1,448 billion (Scenario B). Thus, the synergy created from the acquisition is estimated as KRW 311 bln. Scenario B is used for the scenario analysis with respect to both WACCs and exchange rates. Table 9 implies that the range of Gmarket's equity value is 20 to 30 USD per share.

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