

**CASE STUDY: COMPANY VALUATION OF HAITONG
BANK S.A.**

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Abstract

In the past year, Chinese companies were more and more positive to participate in the international business activity. For instance, in global cross-border Mergers & Acquisitions, China became the second largest global investor behind the United States with US\$ 140 billion in completed M&A transactions in 2016. The popular targets for Chinese buyers in 2016 were industrial, high tech, financials, and entertainment. Hence it is interesting to select a Chinese company, Haitong Bank S.A., and understand its performance after-acquisition. The analysis of Haitong Bank, which included estimating its equity value and comparing it with its peers, could be a reference for the investors in Haitong Bank S.A., making them consider whether they should continue to invest in Haitong Bank S.A.

In the valuation process, the change of business model of Haitong Bank and the cost reduction strategy had a significant impact on the final outcomes.

In this study, the final recommendation for the investor is to continue investing.

Keywords: Equity Value, Free Cash Flow Model, Multiples;

Jel Classifications: G30; G34;

Resumo

Nos últimos tempos, as empresas chinesas participaram mais nos negócios a nível internacional. Por exemplo, a nível das fusões e aquisições internacionais a China foi o segundo maior investidor logo depois dos Estados Unidos, tendo atingido um volume global de US\$ 140 biliões de transações realizadas. Os alvos mais habituais para os compradores Chineses em 2016 foram empresas industriais, de alta tecnologia, instituições financeiras e empresas de entretenimento. Daí que seja interessante escolher uma empresa chinesa, Haitong Bank S.A., e analisar a sua performance após a sua aquisição. A análise do Haitong Bank, que inclui a estimativa do seu valor e a sua comparação com outras empresas do sector, pode ser uma referência para ajudar os investidores a decidir se devem ou não continuar a investir naquela instituição financeira.

No processo de avaliação a mudança do modelo de negócio do Banco e a estratégia de redução de custos têm um impacto significativo nos resultados obtidos.

Neste estudo a recomendação final para os investidores é que devem continuar a investir na empresa.

Palavras Chave: Valor dos Capitais Próprios, Cash Flow Livre para os Acionistas. Múltiplos.

Classificação Jel: G30; G34;

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1. Introduction

The main objective of this study is to estimate the performance of Haitong Bank S.A. after the acquisition and to evaluate whether the acquisition of Haitong Securities for Banco Espirito Santo de Investimento (BESI) is valuable or not. Using different valuation methods, we will be able to find out if the investor should continue to invest in this company?

The reasons for valuating Haitong Bank S.A. are, as follows:

- 1) This is the first case in which a Chinese Securities firm purchased an investment bank headquartered in Europe. Therefore, it sets the precedent for Chinese Securities firms entering in the European and American investment banking sector. The acquisition has great strategic importance for both Haitong Securities and BESI.
- 2) The acquisition price was lower than the net asset value. In 8th, December 2014, Haitong Bank announced to acquire BESI with 379 million euros. However, at the end of June 2014, the net asset value of BESI was 618 million euros. The acquisition price provided by Haitong Securities was around 60% of the net assets of BESI. Seemingly, the acquisition price undervalued the real value of BESI.
- 3) The finance crisis of Banco Espirito Santo (BES). The parent company Banco Espirito Santo, entered in a financial crisis when it delayed the payment of interest of the group's short-term debt and then triggered its debt default. This financial

crisis also affected its subsidiary BESI, causing a loss 3.58 billion euros, in 2014.

This negative impact of the financial crisis could have continued in the following years after the acquisition by Haitong Bank S.A..

- 4) Availability of data. Before the acquisition, BESI was a listed company in Lisbon Stock Exchange, which means it is possible to find the historical data of BESI. In terms of Haitong Securities, it listed on the Shanghai Stock Exchange and Hong Kong Stock Exchange, its data is available too. After acquisition, the financial data of Haitong Bank S.A. may also be found on its website.

The case study can be a reference for the investors in Haitong Bank S.A., making them consider if they should continue to invest in Haitong Bank S.A.

2. The acquisition of Haitong Securities for BESI and its development

In this part, we are going to review the acquisition process in more detail and present the development of Haitong Bank after the acquisition.

2.1. Haitong Securities

Haitong Securities was established in 1988 and completed the share reform in 2001. In 2007, Haitong Securities was listed in the Shanghai Stock Exchange through backdoor listing. After that, it started to trade on the Hong Kong Stock Exchange in 2012. In short, the equity capital structure of Haitong Securities is as follows: 70.36% class A shares and the remaining 29.64% class H shares. While A shares are traded on the Shanghai Stock Exchange H shares are traded on the Hong Kong Stock Exchange. In this study, we are going to analyze just the H shares of Haitong Securities.

Currently, Haitong Securities is the second largest Chinese securities company. It provides a comprehensive service for its clients in 14 countries, including, for instance, brokerage, investment banking, asset management services.

The net income of Haitong Securities reached 7,710 million RMB in 2014, 15,838 million RMB in 2015 and 8,043 million RMB in 2016. Besides, the total assets of Haitong Securities were 352 billion RMB in 2014 and increased to 560 billion RMB in 2015 and 576 billion RMB in 2016.

Considering BESI's acquisition, Haitong Securities had several strong motivations:

- 1) Conformation to the internationalization strategy. In order to develop Haitong Securities' international strategy, it acquired Dafu Securities to hold Hong Kong's business. Following that, Haitong Securities acquired Hong Kong Hengxin to strengthen its position in Hong Kong market in 2013. And then Haitong Securities bought Japan Invest to operate business in the Japanese Market. But it still had a lack of opportunity to explore European and North American Market. Additionally, the overseas revenue increased dramatically from 1,006 million RMB in 2012 to 2,528 million RMB in 2014, and 6,002 million RMB in 2015 and 7,813 million RMB in 2016. The growth of overseas revenue promoted Haitong Securities to accelerate its international process.
- 2) The recovery of the economy. Due to the global and euro crisis, Portugal accepted the financial support From Europe Unit, the European Central Bank and International Monetary Fund in 2011. And it had dropped out from the program since the economy was recovering. At the same time, Moody's enhanced the rating of Portugal from Ba2 to Ba1. The positive macroeconomic environment was a good sign
- 3) Investment Businesses of BESI. As it is known, BESI is a full-licensed investment bank. Over 50% of its operating revenues come from the investment bank business. Besides, it had been awarded "the best investment bank in Portugal" for years. BESI had a professional and excellent investment banking team and sufficient

resources, which could quickly improve the overseas investment banking business of Haitong Securities. After BESI's acquisition, Haitong Securities could rapidly obtain European and American customer resource and expand its business scope to increase its market position.

In general, the financial problem of BES provided an opportunity for Haitong Securities to purchase BESI.

2.2. Banco Espirito Santo de Investimento (BESI)

BESI was founded in February 1983, its headquarters were located in Lisbon, Portugal. The original name was FINC-Sociedade Portuguesa Promotora de Investimentos, S.A.R.L... In 1986, it was integrated in Esiprito Samto Group and changed its name to Espirito Santo-Sociedade de Investimentos, S.A. In 2000, BES hold BESI stake completely. Until 2014, BESI was split from BES, and was operated under the Novo Banco due to BES's financial crisis.

BESI had branches in Madrid, London, Warsaw, and New York, while setting subsidiaries and the representative offices in Britain, Brazil, Portugal, Ireland, Mexico and Germany. BESI depended on its strengths and comprehensive business capacity providing professional services for their clients, especially in the Merger & Acquisition, Equity Market, and Fixed Income Market areas.

In terms of the operating performance, the operating indicators of BESI remained stable with a gradual increasing trend. The return on equity of BESI was around 10% during

the period from 2007 to 2013. BESI had enjoyed a high reputation in the business and won “Best Investment Bank of Portugal” of “Global Finance” and “World Finance”. Although BESI was a regional investment bank, it was a leader in the Portuguese and Spanish Investment banking sector with its strength and ability.

The acquisition Process and Price

According to the announcement of Haitong Securities, it took ten months from Haitong Securities involvement in the acquisition to completing the acquisition process. And we present a short summary of the whole process according to the timeline, which is the following:

Table 2-1 - Acquisition Process of Haitong Securities for Banco Espirito Santo de Investimento

Time	BESI and BES	Haitong Securities
7.2014	The parent company of BES broke out in financial crisis since BES did not comply with regulation and increased the exposure to other entities of the Grupo Espirito Santo.	
9.2014	The Central Bank of Portugal took over BES and separated the company into "good bank" and "bad bank" according to the quality of assets. BESI was included in the part called "good bank".	Haitong Securities, Anbang Insurance Group, Fuxin Group, Banco Santander, Banco BPI S/A and other Financial Institutions were interested in the takeover of BESI.
4.12.2014	Haitong Securities and BESI was suspended, then started to restructure.	

8.12.2014	BESI resumed trading.	Haitong Securities announced its bid for BESI at 379 million euros. In the announcement of Haitong Securities, it mentioned that Haitong International would pay in cash. And 56.85 million would be paid before December 19, the rest of amount would be paid when the transaction would be settled.
7.9.2015	The transaction was concluded. BESI was acquired completely and changed its name to Haitong Bank S.A.	The transaction was concluded. Haitong Securities held the 100% stake of BESI.
10.2015	Haitong Bank S.A. gradually completed the regulatory approval from China, Portugal, UK, US and other countries' antitrust authorities.	
Result	Haitong Securities acquired BESI, and changed its name to Haitong Bank S.A.	

Source: Summarized from the announcements of Haitong Securities Group.

It should be noticed that the acquisition happened in the global crisis and euro crisis environment. Due to that situation, the banking system and whole country's economy had a significant negative impact. If a company was involved in a financial dilemma, other related companies could also be affected.

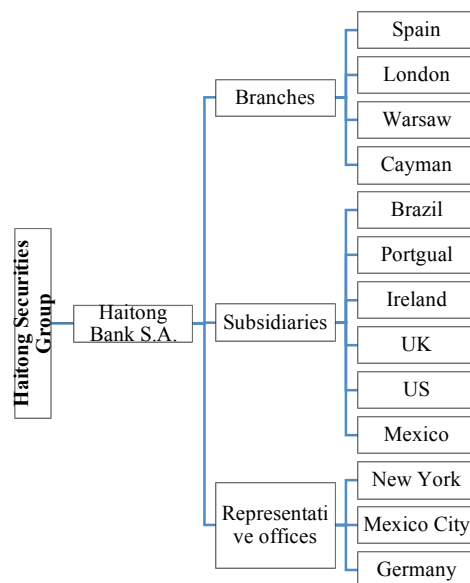
At the beginning, the parent company BES, Banco Espirito Santo, delayed paying its interest expense of short-term debt, which raised investors' attention. After investigation, it was found out that BES had increased its exposure to other entities, Espirito Santo Group companies, illegally. The financial crisis of BES also caused its subsidiary BESI a loss of 3.58 billion euros.

The central bank of Portugal was worried that the bankruptcy of BES could cause more trouble. It provided the financial resume to BES and reorganized the assets of BES based on the quality of assets. After the reorganization, Novo Banco hold BESI stake completely. However, BESI still could not completely recover its operating activities without sufficient capital support. Novo Banco decided to sell BESI. In this auction, Haitong Securities, Anbang Insurance Group, Fuxin Group and other financial institutions bided together. At last, Haitong Securities outbid other institutions with a final price 379 million euros.

2.3. Development after the Acquisition

After concluding the transaction, the relation between Haitong Securities and BESI become as follows:

Figure 2-1 - the Relationship between Haitong Securities and BESI.



Source: Haitong Bank 2016 Annual report

BESI became a whole-owned subsidiary of Haitong's Securities Group. And it can foster investment and capture cross-border flows between Asia, Europe, Latin America and Africa. It should be mentioned that the international platform can support its parent company's international strategy.

In fact, Haitong Bank faces several integration issues, one of the most critical issues being its business overlap.

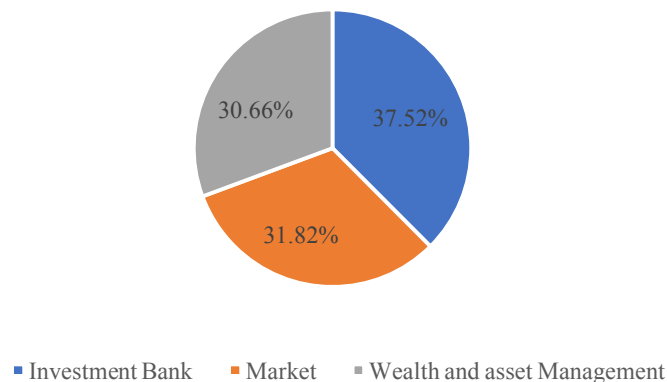
Since Haitong Securities and BESI are fully-licensed financial companies. The business area of the two companies could be overlapped. How to integrate the business model is critical for both companies. It could affect the development of Haitong Bank and determine if Haitong Bank S.A. is going to create value in the future.

In order to operate Haitong Bank S.A.'s business successfully and enhance its profitability, Haitong Bank S.A. had to make some adjustments in its business model and promote a strategy of which was called "Haitong Bank 2025".

This new strategy is based on two strategic pillars, China Angle and Emerging Markets. Simultaneously, it mentions that the new business structure of Haitong Bank will focus on three main business areas, Investment Banking, Markets (focused on Fixed Income), and Interactive Products. According to the past five years records, the revenues from these three areas roughly accounted for a third on average, which make it significant to focus on the three areas in the future years.

Figure 2-2 - Business model of Haitong Bank S.A

Business Model of Haitong Bank S.A.



Data from: 2012-2014 annual report of BES I and 2015-2016 annual report of Haitong Bank

S.A.

Moreover, the new business model would be operated chiefly in the core domestic markets – Iberia, Poland and Brazil, but also the distribution hubs – New York and London. Haitong Bank planned to complete the business restructure in 2017, accompanying with a cost reduction plan.

The previous cost structure of Haitong Bank had a great impact on net profit, the previous cost structure was connected with the former strategy and the need to establish a new banking infrastructure. The inappropriate cost structure could fundamentally affect the further development of Haitong Bank. In the cost reduction plan: Haitong Bank had a significant staff reduction in London and Sao Paulo offices which immediately affected the operating costs.

Besides, in order to better integrate with the business of Haitong Bank, the parent company Haitong Securities provided both operational and financial support for

Haitong Bank. in the following years, Haitong Securities plans to further strengthen the Haitong Bank's position through:

- 1) The conversion of EUR 80 million subordinated additional Tier 1 instruments into Common Equity Tier 1 capital;
- 2) A further EUR 139 million capital increase in Haitong Bank, S.A. through the conversion of the Shareholder loan into capital.
- 3) An additional EUR 200 million capital injection.

Apparently, those changes and reorganization of Haitong Bank will influence the estimation of its equity value.

In short, Haitong Bank is expected to continue its positive and constructive efforts towards the integration process with the support from its investors.

3. Literature Review

In this chapter, we are going to review several topics about corporate valuation from most outstanding scholars, while it also intends to present some common valuation models.

First, we have the definition of value. From an economics perspective, it can be expressed like, “value is a kind of potential capability of a thing that can satisfy people’s needs or demands”.

However, from the financial perspective, according to the International Glossary of Business Valuation Terms (2001), it is stated that “The value that, an investor considers on the basis of an evaluation of available facts, to be the true or real value that will become the market value when other investors reach the same conclusion.”

To some extent, value in finance refers to the potential capability of a company or financial instruments meeting investors required returns. In order to know the amount of value, some calculation should be involved. This process called valuation. Currently, there are two directions related to valuation. One is to calculate the enterprise value, another is to calculate the equity value. On the other hand, the equity value can be computed by enterprise value deducting from it financial debt and adding to it non-business related assets also held by the company.

3.1. Corporate Valuation

Most researchers indicate that the target of companies is to maximize companies' or shareholder's value during its entire operating life, while valuating a company is a simple way to know the current value of a company and how to increase it. This means valuation is a way to examine value creation from a managerial perspective, such as, creating value through mergers and acquisitions and divestitures, and adjusting capital structure to support value creation. (Koller, Goedhart and Wessels; 2005)

Apparently, there are numerous methods in valuation. At this point, we are going to introduce mainly two of them: Discounted Cash Flow Method and the Relative Method (Multiples).

3.1.1. Discounted Cash Flow Valuation

The logic of discount cash flow is that the intrinsic value of an asset is equal to the present value of cash flow generated by the asset in the future. (Damodaran, 2002)

The basic formula of discounted cash flow method is as follows:

$$value = \sum_{t=1}^{t=N} \frac{CF_t}{(1+r)^t} \quad (1)$$

where,

CF_t : expected cash flow generated from the asset.

t: specific year

N: life of the asset

r: discount rate (Damodaran, 2002)

Typically, the general formula can be detailed into three different categories. The first is to compute the present value of a firm available to the equity. The second one is to compute the present value of the entire firm, which means it includes equity but also other stakeholders, like creditors. The third one is to compute the present value of firm in parts..It means it starts valuing a firm with operations, then adding value of debt and other value from non-equity and non-debt items. Obviously, the three approaches have their own different cash flows and also different discount rates. (Damodaran, 2002)

The first one is about valuing directly the equity. The numerator is the expected free cash flow to equity while the denominator changes to the required return rate by investors. In terms of the free cash flow to equity, it means the remaining free cash flow available to equity. It could be computed by free cash flow excluding debt part and other non-equity part. The formula for discounting free cash flow to equity method is as follows:

$$\text{Equity value} = \sum_{t=1}^{t=N} \frac{\text{Free cash flow to equity}_t}{(1 + r_e)^t} \quad (2)$$

Where,

Free cash flow to equity_t: expected free cash flow to equity in period t

r_e: required rate of return by investors. (Damodaran, 2002)

The second one is to compute the entire firm's value. Regarding this approach, the numerator is the expected free cash flow to firm. It includes the free cash flow available to the firm after deducting all operating expenses, reinvestment and tax requirements. The denominator is the cost of capital computed by the weighted average of the cost of debt and the cost of equity. The detailed formula is as follows:

$$\text{Enterprise value} = \sum_{t=1}^{t=N} \frac{\text{Free cash flow to firm}_t}{(1 + WACC_e)^t} \quad (3)$$

Where,

Free cash flow to firm_t: expected free cash flow to firm in period t

WACC: Weighted average cost of capital (Damodaran, 2002)

The third approach is still about the value of entire firm, but by using a different method. It is also called adjusted present value (APV). It computes the value of the firm by evaluating the value of each claim. it could be present as follows:

$$\begin{aligned} \text{Enterprise value} & \quad (4) \\ & = \text{Value of all equity financed firm} \\ & + \text{Present values of tax benefits} \\ & - \text{Expected Bankruptcy Costs} \end{aligned}$$

(Damodaran, 2002)

As we can see, the principle of discounted cash flow is quite simple. However, when practicing this method in a real company, numerous factors should be taken into

consideration, such as how to predict cash flow accurately and discount rates objectively. In other words, there is always a bias between theory and practice.

3.1.2. Relative Valuation (Multiples)

There is no doubt a lot of research related to the discounted cash flow method. Nevertheless, the most common valuation in practice is relative valuation, also named multiples. Relative valuation is to estimate “the value of an asset by looking at the pricing of ‘comparable’ assets relative to a common variable such as earnings, cash flows, book value or sales” (Damodaran, 2002). Namely, valuating an asset can be conducted from similar assets in the market via intermediate ratios.

Through intermediate ratios, the value of a company may be computed directly. In terms of the process of relative valuation, the peer group should be built according to the definition of multiples. In practice, sometimes it could be replaced by the industry average.

In terms of categories of multiples, Fernandez (2015) proposed three groups. The first one is based on equity value, for instance price earnings ratio (PER), price to book value (P/BV). The second one is based on company’s value, like enterprise value to EBITDA (EV/EBITDA) and enterprise value to sales (EV/Sales). The last one being growth reference multiples, for instance PER to EPS growth and Enterprise value to EBITDA growth.

Nevertheless, multiples still have some shortcomings. First, it is subjective when choosing ‘comparable’ firms. It means it is difficult to find a group of firms with similar capital structure and with a completely similar business model. (Damodaran, 2012) Second, the relative valuation requires market efficiency, which means share price must reflect the company’s value correctly. And it is known that market efficiency exists only in theory. On the other hand, the simple operation and understandability of relative valuation makes it popular in practice.

3.2. Valuating Financial Institutions

Since this research is going to focus on financial institutions, we must make some adjustments in the general equity valuation methods to match the characteristics of the financial institution sector. Obviously, with those changes, more accurate results may be achieved.

3.2.1. Discounted Cash Flow Valuation

The most noticeable difference between financial companies and non-financial companies is that in the first it is hard to separate the operating activities from the financial activities completely. It means, to some degree, that net interest income should be included in the operating revenues. (Koller, Goedhart, and Wessels; 2005) At the same time, it is difficult to estimate capital expenditures and the variation of working capital, which are quite important items in the free cash flow to firm. (Damodaran, 2002) Thus, this research chooses discounted free cash flow to equity valuation method.

Inputs to the model

➤ Free Cash Flow to Equity:

The general formula of computing free cash flow to equity is based upon free cash flow to firm, then add variation of debt and interest cost. However, it is hard to estimate financial institution's net capital expenditure and working capital. Thus, Tim Koller, Marc Goedhart and David Wessels (2005) raised two relatively simple approaches to estimating free cash flow to equity.

The formula of first approach is as following:

$$\begin{aligned} \text{Free cash flow to Equity} & \qquad \qquad \qquad (5) \\ & = \text{Net income} - \text{Increase in Equity} \\ & \quad + \text{Other Comprehensive income} \end{aligned}$$

Theoretically speaking, net income is currently available to shareholders. However, it is noticeable that net income is not cash flow. In order to keep stable capital structure, there is a need to increase equity, which causes free cash flow to equity to decrease. Then the relatively accurate result of free cash flow to equity can be presented by adjusting other comprehensive income related to equity. (Koller, Goedhart, and Wessels; 2005). To some extent, the last two parts of the formula can be expressed as the change in equity value. From the financing source viewpoint, the change in assets is equal to change in debt and equity. In other words, the change in the equity value can

be computed by the change in assets deducted by the change in debt. Thus, the first approach's formula is equal to:

$$\begin{aligned} \text{Free cash flow to Equity} & \qquad \qquad \qquad (6) \\ & = \text{Net income} - (\text{Changes in Assets} \\ & \quad - \text{Changes in Liabilities}) \end{aligned}$$

The formula of the second approach is directly the sum of all cash flows related to shareholder that they either receive or pay. (Koller, Goedhart, and Wessels; 2005)

➤ Discount Rate

In terms of discounted cash flow to equity valuation, the discount rate is the required rate of return by investors. In this research, the required rate of return is computed by the capital asset pricing model (CAPM). It means the required rate of return by

investor is determined as follows:

$$r_e = r_f + \beta * (r_m - r_f) \qquad (7)$$

where,

r_e : required rate of return by investors

r_f : risk free rate

β : stock's sensitivity to the market

r_m : expected return of the market

The risk-free rate represents a return rate of an asset without any risk, such as default risk or reinvestment risk (Damodaran, 2008). In practice, the risk-free rate can be replaced by the return rate of a long-term government bond. For instance, US treasury bonds and Germany ten-year bonds.

Beta can be estimated by the regression analysis based on some historical data.

The market premium is the market return over the risk-free return rate. It can be the estimated return of a market index excluding the risk-free rate. Normally, the market risk premium is around 4.5% to 5.5%. (Koller, Goedhart, and Wessels; 2005)

3.2.2. Relative Valuation (Multiples)

Aforementioned, there are numerous multiples used to value companies. Nevertheless, not all of them are appropriate for valuating financial companies. For instance, multiples, like enterprise value to EBITDA or enterprise value to EBIT, are not suitable for financial institution. Since it is not easy to identify operating income completely for financial companies (EBITDA or EBIT being both operating results). In order to evaluate financial companies accurately, the research considers calculating the equity value of financial companies directly. The general equity multiples are price to earnings ratio, and price to book value ratio. (Damodaran, 2002)

➤ Price earnings ratios (PE ratios)

The formula of PE ratios is equal to share price divided earning per share.

$$\text{Price to Earnings Ratio} = \frac{\text{Price per share}}{\text{Earnings Per share}} \quad (8)$$

(Damodaran, 2002)

➤ Price to Book Value Ratio

The formula of price to book value ratio for financial companies is equal to price per share divided by the book value of equity per share.

$$\text{Price to Book Value Ratio} = \frac{\text{Price per share}}{\text{Book value of equity per share}} \quad (9)$$

(Damodaran, 2002)

3.3. Valuating Distressed Companies

When valuating distressed companies, the complicate point is the negative earnings. In other words, the key point to valuating distressed companies is to focus on how to deal with negative earnings.

It is noticed that predicting earnings should be paid more attention when evaluating a firm that currently has negative earnings. The general approaches of a directly applying a growth rate are not appropriate for those company. Since the earnings will still be negative if using a general growth rate. It means that predicting earnings with those usual approaches is meaningless.

The negative earnings should be treated objectively. It means that the negative earnings can be caused by companies' temporary issues, or long-term problems, like sluggish state economic. The normal valuation methods are not suitable for those companies

with long-term problems. Some specific adjustments should be taken into consideration in order to valuating them accurately. For instance, changing the projected growth rate with economic status, and then normalize earnings. (Damodaran, 2002)

With respect to those companies with temporary problems or problems just occurred one-time, the valuation can concentrate on the normalization of earnings. It means that those temporary events should not affect operation of companies in the long-term. Therefore, the process of normalizing earnings is about excluding the expenses and benefits related to those events from that year's earnings. To some extent, the simplest and most direct method for normalizing earnings is to compare each current account of firms with the account of the previous years. If the account is an extreme value compared to the previous year, the account can be estimated based on an average of historical data in the projected period. (Damodaran, 2002)

Other adjustments related to firms' earnings should be taken into account if the firms made acquisitions or strategic actions. "..., Since the accounting statements in these years will be skewed by large items that are generally non-recurring and related to the acquisition." (Damodaran, 2002)

4. Equity Valuation

In this chapter, we are going to introduce the information about the M&A sector from Global, North America and European perspectives. Moreover, we are also going to present Haitong Bank S.A. and the valuation models we are going to apply in this research.

4.1. The M&A Sector

Global

Generally speaking, a lot of companies went bankrupt in the financial crisis occurred in 2008 and a great number of people lost their jobs. On the other hand, based on the economic cycle theory knowledge, the global economic should follow with recovery and then reach a new peak. Lots of leading companies want to seize larger and/or newer market shares through this economic reshuffle opportunity. There is no doubt M&A is the quickest method to enter a new market and get a larger market share. Thus, M&A became more popular since 2008.

It is worth to mention that the amount of global M&A transactions kept an upwards trend and reached a peak, 107,182 deals and 6,011,581 million USD, in the past six years both in volume and in value.

In addition, the volume and value of global M&A deals in 2016 reduced slightly compared to 2015's. The volume of global M&A transactions decreased from 107,182 in 2015 to 96,665 in 2016, which means a 9.81% decrease, while the value of global

M&A transactions also dropped from 6,011,581 million USD in 2015 to 4,734,165 million USD in 2016, a 21.25% reduction.

Simultaneously, the volume of global M&A transactions in Banking declined to 1,911 operations in 2015 from 1,941 in 2014, and then raising up to 2,118 units in 2016. However, in terms of the value of global M&A deals in Banking, it presented a continuous decreasing trend, which dropped from 352,297 million USD in 2014 to 203,884 million USD in 2016.

Furthermore, most of M&A transactions happening after 2008 are strategic acquisitions rather than the leveraged acquisitions conducted by private funds. This means that companies are now paying more attention to operating their business after acquisitions.

North America and Europe

It is known that the economies of US and Europe were hit hard because of the financial crisis in 2008. On the other hand, it also provided opportunity for large companies seizing market shares. Those companies with sufficient capital could take this advantage to acquire or invest in other companies that underperformed in the financial crisis to enhance their global market position.

The volume of North American M&A transactions accounted for about 30% of the total volume during the past six years, while the value of North American M&A transactions had a growth trend since 2011, and reached a peak of 2,139,657 million USD in 2015, and then followed a slight drop in 2016. In general, the M&A market of North America

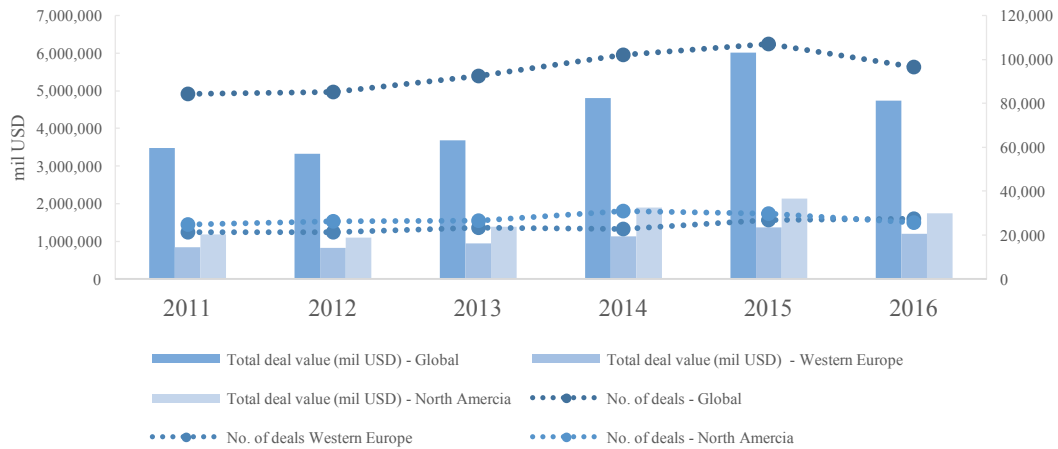
kept a relatively active status, which accounted for a quarter of global M&A transactions.

In Western European M&A market, the volume and value generally maintained an upward trend since 2011. The number of M&A deals in Europe was 27,454 in 2016 while the total value was 1,199,313 million USD. Compared with 2015's, the volume increased in 2016 while the value of M&A transaction in European market slightly decreased.

Those operations benefited from the relatively low interest rate, the economy's recovery, and led investors to regain confidence in the market. Additionally, Basel Committee raised Basel III in 2010, which mentioned that the Tier 1 Capital of bank institutions must be at least 6.0% of risk-weighted assets at all times while Total Capital (Tier 1 Capital plus Tier 2 Capital) of banks must be at least 8.0% of risk-weighted assets at all times. It is out of question that those changes in the policies could reduce the investment opportunities in the relative sectors.

Figure 4-1 - M&A Deals by Volume and Value

M&A Deals By Volume and Value



Source: BUREAU VAN DIJK, M&A Review global, full year 2016.

Asia

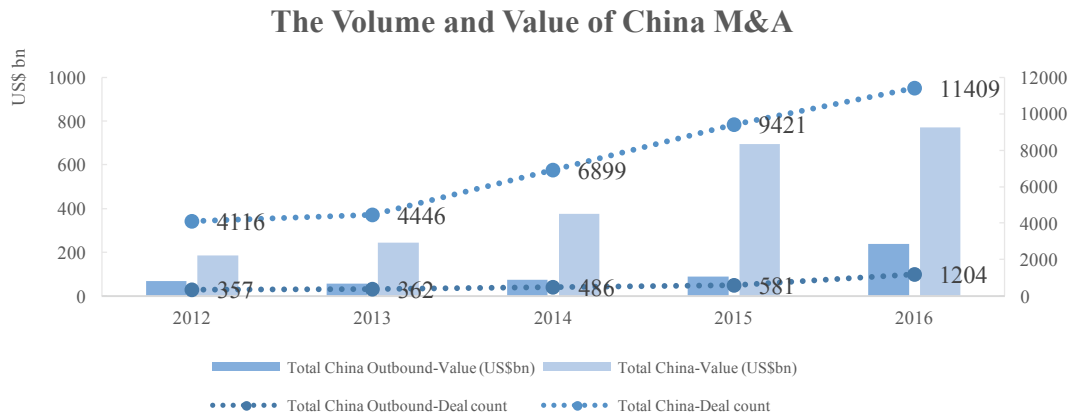
When western countries' economies slowed down, emerging countries' economies developed quickly compared to the Western countries, especially in the case of China. Therefore, benefiting from the growth in their economy, Chinese investors managed to accumulate abundant capital. And they continued looking for valuable programs to invest at home and abroad.

In general, the total volume and value of M&A transaction involving in Chinese companies (including China Mainland and Hong Kong Companies) were 11,409 units and 770.1 billion USD in 2016, respectively, and could be following a growing trend.

Additionally, the number of overseas merger and acquisition transactions increased dramatically from 357 in 2012 to 1204 in 2016, increasing by as much as 237%, almost 3.5 times as much as in 2015. Among them, 51 overseas investment transactions amounted to over 1 billion U.S. dollars, which was almost twice the value registered in

2015. Furthermore, the deals of M&A that Chinese companies operated in Europe grew from 110 in 2015 to 300 in 2016.

Figure 4-2 - The Volume and Value of China's M&A



Source: Edited by author; data from: Thomson Reuters, China Venture and PWC analysis
 In addition, there were 81 oversea M&A transactions in the Financial services sector in 2015 while the number of oversea M&A transactions in the same sector in 2016 was 32, which was a great reduction (Source: PwC, M&A 2016 review and 2017 outlook).

The most relevant deals involving Chinese companies occurred in the European market, including the acquisition by Haitong group of Banco Espirito Santo de Investimento (BESI) through its wholly owned subsidiary, Haitong International Securities, as well as the acquisition by Anbang Insurance of Delta Lloyd Bank Belgium. In this research, we are going to analyze the acquisition of BESI by Haitong Securities in more detail.

4.2. Introduction of Haitong Bank S.A.

Before introducing Haitong Bank S.A, we must point out that BESI is the predecessor of Haitong Bank S.A. and as Haitong Securities acquired BESI in 2015, we decided to introduce Haitong Securities and BESI before presenting Haitong Bank S.A...

Haitong Securities – The Acquirer

Haitong Securities is one of the earliest and second large-scale brokers in China. It was founded in 1988, then named Shanghai Haitong Corporation. In 1994, it changed its name to Haitong Securities after National Transformation.

Currently, Haitong Securities is a listed company on the Shanghai Stock Exchange and Hong Kong Stock Exchange. The main businesses of Haitong Securities are Brokerages, Investment Bank, Mergers and Acquisitions, Asset Management, Self-management, Derivative, Alternative Investment, International Business, Private Equity Investments, Financial Leasing, etc. Generally speaking, Haitong Securities operates numerous businesses in domestic and abroad markets.

To some degree, Haitong Securities explores abroad markets chiefly through Merger and Acquisitions. In 2010, Haitong Securities acquired Dafu Securities to deal with Business in the Hong Kong market. Following that, Haitong Securities acquired Hong Kong Hengxin to manage business in China and Hong Kong market in 2013. Then in 2014 Haitong Securities acquired Japan Invest to handle business in the Japanese market. Recently, Haitong Securities acquired BESI to explore European and Latin

America markets. It can be said that this acquisition is a strategic action of Haitong Securities.

Banco Espirito Santo de Investimento (BESI) – The Acquiree

BESI was a subsidiary of BES before 2014. However, in 2014 its parent company - Banco Espirito Santo (BES), which at that time was one of the largest listed banks in Portugal – entered into a liquidity crisis, as BES was unable to repay its short-term debt and related expense. This caused a huge loss to BESI, close to 3.58 billion euros. In order to avoid greater damages the Portuguese Central Bank took over BES and then separated it into two different parts: “Good Bank” and “Bad Bank” based on the quality of the assets included in each part. After that, the “Good Bank”, Novo Banco, held the whole shares of BESI.

BESI had already more than 25 years history and it was a leading investment bank in Portugal and Spain, while it ran business in 12 countries and 4 continents. The headquarter of BESI was located in Lisbon, Portugal. And BESI had set up branches in Spain, London, Warsaw and Cayman while its subsidiaries covered in Brazil, Portugal, Ireland, United Kingdom, the United States of America, and Mexico. In addition, BESI also had representative offices in New York, Mexico City and Germany.

In terms of business model, BESI provided a lot of financial service in numerous areas. Such as, Investment Banking business, Capital Market, Equities, Fixed Income, Corporate Finance, Mid-Cap Financial Advisory, Project Finance and Securitization,

Acquisition Finance and Other Lending, Treasury, Asset Management and Private Banking. In fact, BESI was a leader in this sector in Portugal, and in Iberia. The impressive performance of BESI gained reputation. At the same time, it was awarded “Best Investment Bank of Portugal” of “Global Finance” and “Portugal’s Best Investment Bank” of “European Currency”.

We may consider that for Haitong Securities the acquisition of BESI was a strategic acquisition. This operation may assist them in quickly exploring western markets as well as in getting access to those African markets where Portuguese is spoken.

4.3. Financial Analysis

Before evaluating Haitong Bank S.A., it is important to know the historical financial situations of Haitong Securities and BESI, such as profitability, liquidity, and solvency.

After that, we are going to analyze the financial situation of Haitong Bank S.A. after the acquisition. Some key ratios are summarized, as follows:

Table 4-1 – Important Ratios

	2012			2013			2014			2015	2016
	Haitong S. thousand RMB	Haitong S. thousand euro(8.1058:1)	BESI thousand euros	Haitong S. thousand RMB	Haitong S. thousand euros (8.1648:1)	BESI thousand euros	Haitong S. thousand RMB	Haitong S. thousand euros (8.1857:1)	BESI thousand euros	Haitong B. thousand euros	Haitong B. thousand euros
Income Statement											
Fees and commission income	4,954,145	611,185	101,110	6,416,692	785,897	102,274	9,088,673	1,110,311	98,322	82,471	45,187
Net interest income	2,172,331	267,997	94,539	2,186,595	267,808	82,267	3,359,782	410,445	65,945	44,444	57,110
Market Result	2,653,247	327,327	65,521	2,380,581	291,566	61,984	6,450,725	788,048	85,779	7,123	6,573
Total operating income	9,779,723	1,206,509	261,170	10,983,868	1,345,271	246,525	18,899,180	2,308,804	250,046	134,038	108,870
Operating costs	3,028,438	373,614	176,053	3,442,992	421,687	171,976	5,283,634	645,471	160,959	141,089	155,939
Net operating income before impairments	6,751,285	832,896	85,117	7,540,876	923,584	74,549	13,615,546	1,663,333	89,087	(7,051)	(47,069)
Income before tax	4,109,472	506,979	39,013	5,454,748	668,081	15,426	10,420,394	1,273,000	(167,347)	(112,446)	(104,563)
Net income	3,234,492	399,034	20,542	4,280,994	524,323	7,363	8,119,023	991,854	(137,631)	(92,540)	(94,792)
Balance sheet											
Total assets	126,482,104	15,603,901	6,481,863	169,123,603	20,713,747	5,961,799	352,622,149	43,077,825	4,441,419	4,104,783	4,754,747
Total liabilities	66,051,508	8,148,672	5,775,858	105,018,445	12,862,341	5,342,304	280,357,946	34,249,722	4,003,816	3,744,006	4,404,224
Shareholder's equity	60,430,596	7,455,229	706,005	64,105,158	7,851,406	619,495	72,264,203	8,828,103	437,603	360,777	350,523
Profit and efficiency ratios											
Gross return on Equity - ROE	11.17%		12.06%	11.76%		12.03%	18.84%		20.36%	-1.95%	-13.43%
Net return on equity - ROE	5.35%		2.91%	6.68%		1.19%	11.24%		-31.45%	-25.65%	-27.04%
Gross return on assets - ROA	5.34%		1.31%	4.46%		1.25%	3.86%		2.01%	-0.17%	-0.99%
Net return on assets - ROA	2.56%		0.32%	2.53%		0.12%	2.30%		-3.10%	-2.25%	-1.99%
Cost-to-income	0.31		0.67	0.31		0.70	0.28		0.64	1.05	1.43
Total operating income / Average assets	7.73%		4.03%	6.49%		4.14%	5.36%		5.63%	3.27%	2.29%
Capital Structure											
Debt / Assets	52.22%		89.11%	62.10%		89.61%	79.51%		90.15%	91.21%	92.63%
Equity / Assets	47.78%		10.89%	37.90%		10.39%	20.49%		9.85%	8.79%	7.37%
Debt / Equity	1.09		8.18	1.64		8.62	3.88		9.15	10.38	12.56
Solvency ratios											
Net capital/total of risk capital reserves	1428.52%		N/A	1241.14%		N/A	819.66%		N/A	N/A	N/A
Tier 1 Ratio	N/A		11.60%	N/A		11.03%	N/A		9.44%	10.50%	9.60%
CET 1 Ratio (common equity Tier 1 ratio)	N/A		11.60%	N/A		11.00%	N/A		9.40%	10.50%	7.10%
Solvency ratio	91.49%		12.22%	61.04%		11.60%	25.78%		11.58%	9.64%	7.96%
Leverage and liquidity ratio											
Current ratio	1.77		2.53	1.80		2.58	1.37		2.58	2.19	2.05
Quick ratio	1.01		1.84	0.77		2.06	0.50		1.75	1.65	1.69
TIE	5.74		0.16	3.60		0.06	2.36		-0.65	-0.54	-0.49
Ratings											
Standard & Poor's	BBB/A-		B/BB-	BBB/A-		B/BB-	BBB/A-		B/BB-	BB-/B	BB-/B

In terms of the income statement, the net income of Haitong securities (for H shares) kept an upward trend from 2012 to 2014, while the net income of BESI had a constant decrease in the same period and it had negative earnings in 2014. However, it must be stressed that the net income before impairments of BESI in 2014 was positive.

In the balance sheet, it can be observed that the total assets of Haitong Securities increased dramatically, but BESI had an opposite situation. And the increasing assets of Haitong Securities were mainly from the liabilities resources.

As it is mentioned earlier, the return on equity (ROE) represents the profitability of the equity capital of company's shareholder. In this study, the ROE of Haitong securities maintained a relatively high level compared to the ROE of BESI. The average ROE of Haitong Securities in the period from 2012 to 2014 was 7.76% while the average of ROE of BESI in the same period was a negative value, -9.12%.

Return on assets (ROA) means the profitability of a company based on its total assets. The ROA of Haitong Securities was around 2% in the time from 2012 to 2014. And the ROA of BESI was below 1% and got a negative value in 2014.

The cost to income ratio is using the operating expense divided by the total operating income. In the study, the operating expenses include the general and administrative expenses, staff cost and depreciation and amortization expenses. The cost to income ratio of Haitong securities was generally below 0.5 while the cost to income ratio of BESI was above 0.5, which indicated that the operating expenses of BESI were higher

than Haitong Securities. The cost structure of BESI had a constant impact for Haitong Bank S.A.. As it is seen, the cost to income of Haitong Bank S.A. was over 1, which means operating costs was over its operating income.

The capital structure can present the financial resources of the company. For both companies, the financial leverage (D/E ratio) was higher than 1, therefore over fifty percent of assets were financed through debt. Furthermore, the leverage of BESI was obviously higher than Haitong Securities, since the D/E ratio of BESI was around 8 or 9, while the D/E ratio of Haitong Securities was not over 4.

In terms of solvency, Haitong Securities follows the risk management regulations of China Securities Regulatory Commission (CSRC), while BESI followed the Basel Committee's regulation. In general terms, Haitong Securities met the requirements of CSRC, for instance, the net capital to the total of risk capital reserves of Haitong Securities in the period from 2012 to 2014 was far more than 1, which complied to the requirement of CSRC.

At the same time, the Tier 1 of BESI met the requirement of Basel Committee, 4.5%, but with a decreasing trend. Normally, the investors require 10% Tier 1 of the bank. However, the Tier 1 of BESI was 9.4% in 2014. And Tier 1 is the percentage of a banking firm's core capital to its total risk weighted capital, where the core capital mainly includes the common stock and retained earnings.

The solvency ratio is one of the indicators to measure if a company is able to meet its long-term debt. In our study, we simplified the ratio as the comparison of total equity to total liabilities. Apparently, the solvency ratio of BESI in the period from 2012 to 2014 was lower than the value for Haitong Securities.

Current ratio and quick ratio both are the indicators of a company's liquidity. The average current ratio from 2012 to 2014 of Haitong Securities was 1.67 while the average current ratio of BESI was 2.57. Furthermore, the Quick ratios of BESI were around 2 from 2012 to 2014, while the quick ratios of Haitong Securities were roughly 0.7. Generally speaking, BESI and Haitong Securities can repay their current liabilities on time. On the other hand, the liquidity of BESI was relatively better than Haitong Securities.

The Time Interests Earned (TIE) ratio is an indicator that measures if the earnings of a company can afford its interest expenses. The TIE of BESI was really low. It means that it is quite hard for BESI to pay the interest expense using its earnings. On the other hand, the average TIE in the period from 2012 to 2014 of Haitong Securities was around 3.

Based on Standard & Poor's (S&P) Rating, the short-term and long-term rating of Haitong Securities basically maintained at BBB and A- respectively in the years from 2012 to 2014. In the same years, the BESI's short-term and long-term ratings were B and BB-, which was mainly impacted by Portugal's Country Rating.

In general, the financial situation of Haitong Securities was better than BESI's. In general, the financial situation of BESI was relatively good before 2014, due to the financial crisis of BESI's parent company, the situation deteriorated, which provided the opportunity for Haitong Securities Group's acquisition.

After the acquisition, it is critical to know the financial situation of Haitong bank S.A., which could help us to know the performance in the more two recent years and is also beneficial to the valuation process.

Apparently, because of the huge loss of BESI in 2014, the negative impact still continued in the past two years for Haitong Bank S.A..

The net income of Haitong Bank in 2015 and 2016 were still negative due to the changes in the business model and cost structure. And the net operating incomes before impairment were positive, which meant the impairment, especially the credit impairment still had a great impact on the final results of Haitong Bank S.A..

In the balance sheet, the total assets were 4,755 million euros, increasing 15.83% compared to the assets in 2015, which mainly resulted from the increase of the securities portfolio and particularly in Loans and Advances to Banks. At the same time, the total liabilities increased 17.63% in 2016 which resulted from significantly increasing of the financial liabilities held for trading. However, the total equity decreased 2.84% compared to the equity of 2015.

Since Haitong Bank S.A. had negative earnings in 2015 and in 2016, the return on asset (ROA) and Return on Equity (ROE), both of them were negative values.

The cost to income ratios were 1.05 and 1.43 in 2015 and 2016, respectively. It means that the cost of Haitong Bank S.A. was higher than its income, which was not normal.

The high-cost structure was related to the former strategy and the need to set up a new banking infrastructure after severing ties with Novo Banco.

The financial leverage of Haitong Bank S.A. continued to maintain a really high level.

The D/E ratio was 10.38 and 12.56 in 2015 and 2016, respectively.

According to Basel III regulations, the Common Equity Tier 1 (CET1) must be at least 4.5% of risk weighted assets. Tier 1 cannot be below 6.0% of risk weighted assets. And the total capital cannot be below 8.0% of risk weighted assets. The CET1 and Tier 1 of Haitong Bank S.A. were 7.1% and 9.6% respectively in 2016, which met the minimum capital requirements of Basel III. However, both of them decreased compared to the value of 2015. Another indicator, solvency ratio, still exhibited a relatively low level, 9.64% in 2015 and 7.96% in 2016.

Meanwhile, the current ratio and quick ratio, which represent the ability of the company to repay its short-term obligations, maintained at a relatively high level. The current ratios were 2.19 and 2.05 in 2015 and 2016, respectively. Meanwhile, the quick ratios were 1.65 and 1.69 in 2015 and 2016, respectively.

Both Time Interest Earned (TIE) had negative values, -0.54 in 2015 and -0.49 in 2016, because of the negative earnings.

Currently, S&P put Haitong Bank S.A. at BB- and B in the short-term and long-term with a positive outlook.

4.4. Valuation of Haitong Bank S.A.

This part is going to present the valuation of Haitong Bank S.A. based in detail on the historical performance of Haitong Bank S.A. and BESI for predicting the future performance of Haitong Bank S.A.. Since currently Haitong Bank S.A. shares are suspended, the share price of Haitong Bank S.A. is not available, therefore we are going to compare the final estimated results with the book equity value. Consequently, the aim is to find out: whether investors should continue to invest or not?

4.4.1. Forecast for the Next Five Years

Since currently, Haitong Bank S.A. has negative earnings, this part is going to normalize the negative earnings based on the historical performance of BESI. As mentioned before, normalizing the abnormal accounts is mainly done through excluding the expense and benefits related with the acquisition and the previous financial crisis of BESI, and then using a recent average change rate and gradually back to the average growth rate of Investment & Asset management sector.

There are some important items' growth rates in the following year, as below:

Table 4-2 - The Growth Rates of some Important Items

Growth Rate	2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022
Growth Rate of Fees and Commission Income	-45.21%	10.00%	10.00%	12.90%	12.90%	12.90%	
Growth Rate of Net Interest Income	28.50%	24.33%	24.33%	18.81%	18.81%	18.81%	
Growth Rate of Market Result	12.69%	24.33%	24.33%	18.81%	18.81%	18.81%	
Growth Rate of Staff Costs (Expected Inflation rate)	0.64%	-5.00%	2.01%	2.10%	2.20%	1.93%	
Growth Rate of General and Administrative Expense	5.35%	-5.00%	2.01%	2.10%	2.20%	1.93%	
Growth Rate of D&A	-2.95%	-1.84%	-0.73%	0.38%	1.50%	2.61%	
Permanent Growth Rate							3.72%
Growth Rate of Impairment and Provision	-44.69%	-37.86%	-31.03%	-24.21%	-17.38%	-10.55%	-3.72%
Tax Rate	9.34%	13.52%	13.52%	23.00%	23.00%	23.00%	23.00%
Growth Rate of Financial asset held for trading	11.02%	1.50%	2.50%	2.58%	2.65%	2.73%	2.80%
Growth Rate of available for financial assets	72.87%	1.50%	2.50%	2.58%	2.65%	2.73%	2.80%
Growth rate of loans and advance to banks	229.87%	1.50%	2.50%	2.58%	2.65%	2.73%	2.80%
Growth rate of loans and advance to customers	-18.75%	1.50%	2.50%	2.58%	2.65%	2.73%	2.80%
Growth rate of other assets	-23.08%	1.50%	2.50%	2.58%	2.65%	2.73%	2.80%
Growth rate of financial liabilities held for trading	107.56%	1.35%	2.25%	2.32%	2.39%	2.45%	2.52%
Growth Rate of loans and advance to banks	20.93%	1.35%	2.25%	2.32%	2.39%	2.45%	2.52%
Growth Rate of customers accounts	29.75%	1.35%	2.25%	2.32%	2.39%	2.45%	2.52%
Growth Rate of debt securities issued	-37.59%	1.35%	2.25%	2.32%	2.39%	2.45%	2.52%
Growth Rate of other liabilities	-37.33%	1.35%	2.25%	2.32%	2.39%	2.45%	2.52%

Source: Author

Since Haitong Bank S.A. is a relatively new post-acquired company, the growth rate of some accounts can be abnormal. In this part, we make some adjustments and assumptions for the growth rates of some important items.

Items from Income Statement:

The growth rate of the fees and commission income in 2016 was negative, -45.21%, which was due to the change in the business model that has affected revenue generation and also the existing disproportionate cost structure. The change in business model could be beneficial to improving Haitong Bank's profitability. Thus, we assume that the growth rate of fees and commission income will turn to a positive value, 10%, following the estimated growth rate of revenues of Investment bank sector in the following two years presented in Damodaran's database, and then grow with a rate also taken from Damodaran's estimation in the next five years and then stabilize in line with the permanent growth rate.

The growth rate of net interest income of Haitong Bank S.A. was 28.50% in 2016. Since the global economies are recovering, the interest rate is relatively stable. We assume that the following two years' growth rate of net interest income will be the expected growth rate of Damodaran's in the next two years in the Investment & Assets Management Sector, and then the growth rate of net interest income will change to the estimated growth rate by Damodaran in the following five years in the Investment & Assets sector.

With respect to the growth rate of the market result, we assume that the growth rate will follow the same trend as of net interest income.

Given its inappropriate cost structure, Haitong Bank S.A. is going to revise the cost structure as stated in "Haitong Bank 2025". Accordingly, the total operating expense of Haitong Bank S.A. should decrease in the following years. Therefore, we make some assumptions about relative operating expense items.

The growth rate of staff cost will decrease 5% since Haitong Bank had a staff reduction in London and Sao Paulo offices and will then keep consistent with the expected inflation rate of Portugal.

The growth rate of general and administrative expense of Haitong Bank S.A. will move like the growth rate of staff cost item.

The growth rates of depreciation and amortization, and impairment and provision will increase gradually from -2.95% and -44.69% respectively in 2016 to the permanent growth rate.

The permanent growth rate is equal to the estimated growth rate of Earning before Interests and Taxes (EBIT) of Investment & Assets Management Sector, 3.72% on the Damodaran's Website.

In terms of tax rate, since the net earnings of Haitong Bank S.A. is currently negative, we assume that the tax rate of Haitong Bank is equal to the average tax rate of 2015 (restatement) and 2016 in the projected period if the predicted EBIT is negative. On the other hand, the tax rate is 23% in the projected period if the predicted EBIT is positive.

Items from Balance Sheet:

Since Haitong Bank S.A. is in a reorganization process, the important items, such as loans and advance to banks, can change a lot due to one-time activities, such as, Haitong Bank S.A. concluded the winding up of its New York Branch and Haitong & Company (UK) Limited. But from a long-term operating perspective, it cannot produce long-term impact. Therefore, when estimating the growth rate of assets, it should be taken into account.

At the same time, Haitong Bank S.A. mentioned that it will adjust the company's size and cost structure in "Haitong Bank 2015". Therefore, we deduce that Haitong Bank S.A. will slow down the growth rate of total assets and liabilities to prepare for the

adjustments that are going to be made in the following year, after that it can follow the growth rate of country economies. In our study, we assume that the growth rates of assets of Haitong Bank S.A. will move following the expected growth rate of Portugal GDP on the Trading Economics Website.

The growth rate of assets items will be 1.5% and 2.5% in 2017 and 2018, respectively, and then they will decrease gradually from 2.58% to the permanent growth rate 2.8%.

The growth rate of liabilities items will be 1.35% and 2.25%, which are following the average capital structure of Haitong Bank S.A., and then they will decrease gradually from 2.52% to the permanent growth rate.

4.4.2. Required Rate of Return of the Investors (Cost of Equity)

The required rate of return of the investors is the discount rate of discounted free cash flow to equity method. As it was mentioned before, the required rate of return by the investors is estimated by the CAPM model. Based on the formula of CAPM, it is important to estimate the risk-free rate, the market premium and the beta of Haitong Bank S.A..

Risk-free rate

As mentioned before, the risk-free rate can be replaced by the rate of the return of a long-term government bond in practice.

However, it is not accurate to use the rate of return of 10-year Portuguese Government Bonds as the risk-free rate. Since Portuguese Government Debt has default risk according to the rating of S&P, Moody's, and Fitch. Currently, the rating of Portugal is BBB for S&P, Ba1 for Moody's and BBB for Fitch.

Therefore, the rate of return of US 10-year government bond is recognized as the risk-free rate in this study. At the same time, the country risk should be taken into consideration because of the existing of default risk. Therefore, the real risk-free rate is equal to the rate of return of US 10-year government band plus the country risk premium, which can be found on the Damodaran's website.

Market Risk Premium

According to the definition of market risk premium, it is the part that the market return is over the risk-free rate. Therefore, it is important to define the market and estimate the market return.

However, it should be noticed that the stock market of Portugal is not quite stable, which means it is not the best choice using the return of Portugal stock market as a market return to compute the market risk premium.

In this study, we estimate the market risk premium through computing the risk premium of US market.

Beta

The beta indicates that the return of an individual asset is more or less volatile than the entire market in general.

Since Haitong Bank S.A. is a relatively new company, we are going to use the average beta of Investment & Asset Management sector as the estimated beta. The average beta of Investment & Asset Management sector can be found from the website of Damodaran, which is equal to 0.9. And we assume that the beta can be constant in the following years.

Estimate of Rate of Return of Investors

Table 4-3 - The Rate of Return of Investors

Risk-free Rate of US	4.24%
Country Risk premium of Portugal	2.88%
Risk-free Rate of Portugal	7.12%
Market Return of US	8.89%
Market Risk Premium	4.65%
Beta	0.9
Rate of Return by the investors	11.31%

Source: Author based on Damodaran's Website

Based on some assumptions and calculations, the rate of Return of the investors of Haitong Bank S.A. is 11.31%.

4.4.3. Discounted Cash Flow to Equity

In order to apply the discounted cash flow to equity method, we are going to estimate free cash flow to equity firstly.

Table 4-4 - Discounted Cash Flow to Equity

thousand euros	Historical	Projected					Continuing
	2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022
Net income		(47,634)	(19,448)	4,653	27,696	53,682	56,472
Changes in Assets		649,964	71,321	120,652	127,378	134,464	141,933
Changes in Liabilities		660,218	59,457	100,433	105,773	111,377	117,260
Free Cash Flow for Equity		(37,380)	(31,312)	(15,566)	6,091	30,595	31,799
Required rate of return by investors		11.31%	11.31%	11.31%	11.31%	11.31%	11.31%
Cumulative investors' required rate of return		1.11	1.24	1.38	1.53	1.71	1.90
Perpetuity Growth Rate							3.72%
Terminal value							220,479
Present value		(33,584)	(25,275)	(11,288)	3,969	17,909	
SUM=Total Equity Value in 2016	172,209						
The book equity value at the end of 2016	350,523						
The acquired Price in 2014	379,000	205,582					
Net asset value in 2014	618,000						

Source: Author

As the table is presented, the estimated free cash flows to equity of Haitong Bank S.A. are negative in the following three years. After that, the free cash flows to equity are increasing through time.

In this valuation method, the estimated equity value of Haitong Bank S.A. is actually lower than the book equity value in 2016.

4.4.4. Relative Valuation (Multiples)

As mentioned before, the principle of multiples is to estimate the target company's value via intermediate ratios of peer companies.

Since the stock of Haitong Bank S.A. is not traded on the market, we are unable find the real equity value of Haitong Bank S.A. directly from the market. Thus, we are going to estimate the real equity value of Haitong Bank S.A. from its ‘comparable’ companies.

The following table presents the ratios we decided to include as well as the composition of the peer group.

Table 4-5 - Multiples

	Haitong Bank S.A.	Banco Comercial Portuguese S.A.	Banco BPI S.A.	Caixa Geral de Depositos S.A.
Price to Book Value	0.41	0.26	0.56	NA
Price to Earnings Ratio (current)	7.35	9.47	5.23	NA
ROE (%)	-27.04%	0.03	0.11	-47.89%
Debt/Equity (unadjusted)	12.56	12.54	12.16	23.09
Beta	0.9	1.9949	1.6848	-
Net earnings of Haitong Bank S.A. in 2016 (thousand euros)	(94,792)			
Book equity value of Haitong Bank S.A. (thousand euros)	350,523			
Estimated equity value of Haitong Bank S.A. in 2016 (through PBV) (thousand euros)	144,716			
Estimated equity value of Haitong Bank S.A. in 2016 (through PER) (thousand euros)	218,364			

Source: Author

The price to book value ratio compares the market value of the company with its book value. It can be seen that the average price to Book value of Haitong Bank S.A.’s competitors is lower than 1, from which can be deducted that those companies’ performance in the market is lower than their shareholders expectations.

The estimated equity value of Haitong Bank S.A. through PBV ratio is 274,018 thousand euros.

To some degree, the price earnings ratio is to compare the market value of the company with its net earnings. In 2016, the net income of Haitong Banks S.A. is negative, it

makes no sense if we consider the positive average PER, because we then would get a negative equity value. We estimate the equity value of Haitong Bank via the average PER of BCP and BPI (i.e. 7.35), we then multiply this ratio by the expected earnings for 2022 ($56.472 \times 7.35 = 415.069$) and then we discount this value to 2016 (using our 11.31% discount rate for the six years period), we then get an equity value of 218,364 thousand euros.

At the same time, we compare the return on equity (ROE) and D/E of Haitong Bank S.A. with its peers.

The Return on Equity (ROE) is the net profits of a company compared to its total equity value. Since Haitong Bank S.A. had a negative income in 2016, the ROE of Haitong Bank S.A. is negative.

The Debt to Equity ratio indicates the financial leverage of the company. In this study, the D/E ratios of these companies, except for Caixa Geral de Depositos S.A., are almost equal.

The estimated equity values of Haitong Bank S.A. through PBV and PER are 144,716 and 218,364 thousand euros respectively, those values are quite different. On the other hand, both are below the book value of equity, and the estimated value using PBV method is above our estimated value based on FCFE while the estimated value based on PER is opposite.

4.4.5. Comparison Between Methods

Table 4-6 Comparison of Methods

Valuation Methods (thousand euros)	Estimated Equity Value	Compare to BV (350,523)	Compare to acquisition price (379,000)
Discounted Free Cash Flow to Equity	172,209	Lower	Lower
Price to Book Value	144,716	Lower	Lower
Price Earnings Ratio	218,364	Lower	Lower

Source: Author

As the table presents, the estimated equity values by the three valuation methods are lower than the book value of Haitong Bank S.A. in 2016.

It is worth noting that the estimated equity value based on all of the above methods is below the acquisition price even without considering the time value of money. It seems that Haitong Securities has overpaid.

However, it should be noticed that the estimated equity value obtained through the discounted cash flow to equity is computed using forecasted data, while the estimated equity value with multiples is using either historical (P/BV) or forecasted (PER) data. This means, in some ways, that it does not make much sense to compare the computing results of the two valuation methods.

4.4.6. Sensitivity Analysis

The sensitivity analysis is to analyze how does the dependent variable change when we change the values of the independent variables under some certain specific conditions.

In general, the estimated equity value can be affected a lot by the perpetual growth rate and the discount rate in the discounted free cash flow method. In this study, the sensitivity analysis is concentrated on analyzing how does the estimated equity value change when we have different values of perpetual growth rate and discount rate (required rate of return by the investors)?

Table 4-7 – Sensitivity Analysis

g/Re	8.91%	9.66%	10.41%	11.16%	11.31%
2.72%	287,132	275,861	203,883	173,881	168,549
2.30%	265,792	255,240	190,811	163,344	158,437
2.55%	278,155	267,186	198,424	169,492	164,339
2.80%	291,530	280,110	206,536	176,008	170,589
3.72%	351,859	338,404	241,616	203,762	197,134

(thousand euros) Source: Author

According to the result of sensitivity analysis, we could get an estimated equity value similar to the book value when maintaining the perpetual growth rate and decreasing the discount rate.

5. Future of Haitong Bank S.A.

Based on the “Haitong Bank 2025”, it is stated that the business model of Haitong Bank will focus on the three main areas: Investment Bank, Market (centered on fixed Income market), and Alternative Investments, operating in the domestic market - Iberian Peninsula, Poland and Brazil - as well as in distribution centers - New York and London. And this new strategy is based on two strategic pillars - China Angle and Emerging Market.

Simultaneously, Haitong Bank would adjust the structure of human resources and some infrastructure systems in the reorganization of the business model. As mentioned before, this can be related to the cost reduction strategy, with some extent, the cost reduction could enhance the profitability of Haitong Bank.

To some degree, this new strategy can change the current situation and improve the profitability of Haitong Bank, as well as boost the internationalization process of Haitong Securities Group.

At the same time, acquiring Haitong Bank was an important event for Haitong Securities Group. It also had a positive influence for Haitong Securities. The most obvious aspect was that the price of Haitong S. increased significantly in the period from September to December of 2014, when Haitong S. joined in the auction of BESL.

Figure 5-1 – Price of Haitong Securities and the Change of Price

Price of Haitong S and the Change of Price



6. Conclusion

The goal of this study is to estimate the equity value of Haitong bank. And then it could be a reference for investors in whether they should continue investing in Haitong Bank.

The Discounted cash flow method and relative method had different results. On the other hand, both estimated equity values were lower than the current book value of Haitong Bank.

If the estimating process is correct, it means that the market was not optimistic about the development of Haitong Bank. In other words, it could be undervalued by the market. For most investors, they were looking for some undervalued companies and then invested in them. Because they thought they could make a profit if the market was wrong.

In this study, the recommendation is that the investors of Haitong Bank, which is Haitong Securities, should continue investing in Haitong Bank. The main reasons are as follows:

- International strategy. Haitong bank is a part of Haitong Securities' Internationalization. From a long-term perspective, it may help Haitong securities in entering and further expanding European, American and African markets. Meanwhile, it could help more Chinese capital entering the international market.
- Improvement of the macroeconomic environment. With the improved of Portugal and global macroeconomic environment, Haitong bank could be

confronted with more opportunities for development in the domestic market.

- The valuation process is based on restrictive assumptions, leading the valuation results to be lower than book value of Haitong Bank, as well as the acquisition price.

However, this study has some limitations.

- the number of models. Only two models were used in this study, which may be not convincing enough. Furthermore, the final results achieved by the two methods cannot be directly compared which is disadvantageous.
- the characteristics of the models used. The discounted cash flow method is sensitive upon the involved assumptions. A small change can cause a very different result. Furthermore, it also involves forecasting the company's future performance, which is a difficult thing. Especially Haitong Bank shares remain in a suspended state, which further reduces our benchmarking possibilities. While the relative method (Multiples) is more related with the history and it relies on the need to select 'comparable companies' that are always hard to find.
- the Assumptions. To some extent, the assumptions in this study are quite a bit subjective. For instance, the permanent growth rate is equal to the estimated growth rate of Earnings before Interests and Taxes (EBIT) of Investment & Assets Management Sector, 3.72%, however, this growth rate could be changed with the global economies development.

For future studies, they could focus on more accurately forecasting the future cash flows of Haitong Bank with more valuation methods, such as using economic value-added methods. With a more complete prediction of the future performance, the estimated equity value of Haitong Bank should be closer to its real value.

As it is mentioned before, the main business activities of Haitong Bank will focus on Investment Banking, Market (especially Fixed Income), and Alternative Investments in the domestic market as well as its distribution centers. Therefore, it could be attractive for investors to evaluate the whole company from the three business areas. This means using a sum of parts approach, having to value different cash flows and discount rates for the different business segments: investment banking, fixed income markets and alternative investment areas.

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8. Appendix

A: Consolidated Income Statement of Haitong Securities (H Share)

Consolidation Income Statement of Haitong Securities (for H shares)			
(Thousand RMB)	2012	2013	2014
Revenue			
Commission and fee income	5,213,180	6,751,188	9,516,170
Interest income	2,876,735	3,670,965	7,699,971
Net investment gains	2,402,689	2,150,038	5,708,662
Total revenue	10,492,604	12,572,191	22,924,803
Other income and gains	250,558	230,543	742,063
Total revenue and other income	10,743,162	12,802,734	23,666,866
Depreciation and amortisation	(316,841)	(307,319)	(284,304)
Staff costs	(2,142,298)	(2,621,465)	(4,131,308)
Commission to account executives	(259,035)	(334,496)	(427,497)
Brokerage transaction fees and other services expenses	(569,299)	(514,208)	(868,022)
Interest expenses	(704,404)	(1,484,370)	(4,340,189)
Other Expenses	(2,707,679)	(2,203,068)	(3,362,486)
Total Expenses	(6,699,556)	(7,464,926)	(13,413,806)
Share of results of associates	65,866	116,940	167,334
Profit before income tax	4,109,472	5,454,748	10,420,394
Income tax expense	(874,980)	(1,173,754)	(2,301,371)
Profit for the year	3,234,492	4,280,994	8,119,023
Attributable to			
Owners of the Company	3,019,776	4,035,024	7,710,623
Non-controlling interests	214,716	245,970	408,400
	3,234,492	4,280,994	8,119,023
Earning per share (Expressed in RMB per share)			
-Basic	0.33	0.42	0.80
-Diluted	0.33	0.42	0.80

Source: 2012-2014 Annual Report of Haitong Securities (H Share)

B: Statement of Financial Position of Haitong Securities (H Share)

Statement of Financial Position (for H shares)

(Thousand RMB)	2012	2013	2014
Loans and advance to Customers	11,338,687	26,531,096	64,883,359
Account receivable	1,113,355	1,647,258	4,384,354
Finance lease receivables	—	—	7,399,072
Other receivables and prepayments	1,205,234	1,889,348	2,453,972
Available-for-sale investments	7,427,046	4,951,872	3,990,608
Loan and receivable investments	1,894,100	2,086,056	3,347,033
Held-to-maturity investments	4,861	281,613	3,006
Financial assets held under resale agreements	2,234,569	9,036,993	52,873,455
Placements to banks and other financial institutions	—	—	2,000,000
Financial assets at fair value through profit or loss	32,418,247	47,590,047	56,273,055
Deposits with exchanges	3,995,291	3,693,835	5,495,664
Clearing settlement funds	3,050,106	5,751,053	14,818,876
Bank balance and cash	52,000,241	52,586,993	85,703,611
Total Current Assets	116,681,737	156,046,164	303,626,065
Non-Current assets			
Property and equipment	1,134,459	1,171,604	1,210,145
Investment properties	90,143	86,814	20,455
Goodwill	642,398	623,072	2,600,616
Other intangible assets	289,243	256,125	254,785
Investments accounted for using equity method	1,727,890	2,231,269	5,686,141
Finance lease receivables	—	—	12,826,397
Available-for-sale investments	3,202,231	4,720,906	8,714,786
Loan and receivable investments	1,278,302	1,829,199	4,470,404
Held-to-maturity investments	651,858	353,349	309,816
Deferred tax assets	369,606	430,935	566,817
Restricted bank deposits	320,586	349,231	384,473
Other assets	93,651	90,735	131,233
Loan and advances to customers	—	934,200	—
Financial assets held under resale agreements	—	—	10,292,634
Financial assets at fair value through profit or loss	—	—	1,527,382
Total Non-current assets	9,800,367	13,077,439	48,996,084
Total Asset	126,482,104	169,123,603	352,622,149
Current liability			
Borrowings	8,626,314	5,796,395	19,807,574
Short-term financing bill payables	—	3,000,000	22,926,586
Placements from other financial institutions	2,150,000	1,120,000	14,270,000
Accounts payable to brokerage clients	36,956,823	40,429,567	80,766,843
Other payables and accruals	1,904,464	3,295,497	7,697,576
Provisions	3,143	2,740	2,493
Tax liabilities	85,471	395,277	816,775
Financial liabilities at fair value through profit or loss	134,769	6,506,512	15,028,545
Financial assets sold under repurchase agreements	16,040,561	26,111,914	59,807,864
Total current liabilities	65,901,545	86,657,902	221,124,256
Non-current liabilities			
Deferred tax liabilities	149,963	85,586	758,197
Bond payable	—	17,939,628	35,775,667
Long-term borrowing	—	—	4,537,684
Long-term payables	—	—	1,941,119
Financial assets sold under repurchase agreements	—	335,329	14,910,000
Financial liabilities at fair value through profit or loss	—	—	1,008,065
Other payable and accruals	—	—	302,958
Total non-current liabilities	149,963	18,360,543	59,233,690
Total liabilities	66,051,508	105,018,445	280,357,946
Equity			
Share capital	9,584,721	9,584,721	9,584,721
Capital reserve	32,376,205	32,383,071	32,383,596
Investment revaluation reserve	63,963	163,065	407,434
Translation reserve	(250,116)	(413,634)	(361,545)
General reserves	6,740,034	8,009,216	9,792,774
Retained profits	10,164,876	11,780,552	16,557,451
Equity attributable to owners of the company	58,679,683	61,506,991	68,364,431
Non-controlling interests	1,750,913	2,598,167	3,899,772
Total equity	60,430,596	64,105,158	72,264,203
Total liabilities and total equity	126,482,104	169,123,603	352,622,149

C: Income Statement of BESI

Income statement of BESI			
(thousand euros)	12.31.2012	12.31.2013	31.12.2014
Interest and similar income	342,182	342,615	321,053
Interest and similar expense	247,643	260,348	255,108
Financial margin	94,539	82,267	65,945
Dividend income	625	437	97
Fees and commissions income	126,661	126,280	119,336
Fees and commissions expenses	(25,551)	(24,006)	(21,014)
Net gains/(losses) from assets and liabilities at fair value through profit or loss	55,333	34,755	59,255
Net gains/(losses) from available-for-sale financial assets	57,080	52,760	75,905
Net gains/(losses) from foreign exchange revaluation	(37,148)	(15,283)	(32,985)
Net gains/(losses) arising from the disposal of other assets	(3,300)	(49)	(6,750)
Other operating results	(7,069)	(10,636)	(9,743)
	166,631	164,258	184,101
Operating Income	261,170	246,525	250,046
Employee costs	111,399	104,880	96,289
Administrative costs	58,876	60,370	57,449
Depreciation and amortisation	5,778	6,726	7,221
Provisions net of reversals	8,104	19,411	16,844
Loan impairment net of reversals and recoveries	32,855	37,875	169,605
Impairment on other financial assets net of reversal and recoveries	4,627	1,801	49,144
Impairment on other assets net of reversals and recoveries	615	410	20,570
Operating expenses	222,254	231,473	417,122
Share of profit in associates	97	374	(271)
Profit / (Loss) before Income Tax	39,013	15,426	(167,347)
Income tax			
Current tax	17,584	14,653	17,215
Deferred tax	887	(6,590)	(46,931)
	18,471	8,063	(29,716)
Net Profit / (Loss) for the year	20,542	7,363	(137,631)
Attributable to shareholders of the parent company	22,018	7,062	(138,493)
Attributable to non-controlling interests	(1,486)	301	862
Net income	20,542	7,363	(137,631)
Basic Income per Share (in euros)	0.42	0.10	(2.13)
Diluted Income per Share (in euros)	0.42	0.10	(2.13)

D: Financial Position of BESI

Financial Position of BESI			
(thousand euros)	31.12.2012	31.12.2013	31.12.2014
Assets			
Cash and deposits at central banks	1,202	4,836	1 524
Deposits at other credit institutions	40,717	65,493	49 067
Financial assets held-for-trading	2,439,729	1,604,606	1,468,473
Available-for-sale financial assets	485,917	783,352	554,680
Loans and advances to banks	243,755	433,623	34,308
Loans and advances to customers	2,187,524	1,946,582	1,549,218
Hold-to-maturity investments	107,202	314,329	-
Risk management derivatives	60,022	72,228	25,754
Non-current assets held-for-sale	1,159	17,946	3,600
Other tangible assets	17,904	19,310	15,493
Intangible assets	74,349	73,622	77,396
Investments in associated companies	51,073	52,124	26,878
Current income tax assets	3,323	15,029	5,173
Deferred income tax assets	53,703	62,178	97,414
Other assets	714,284	496,541	532,441
Total Assets	6,481,863	5,961,799	4,441,419
Liabilities			
Resources of central banks	151,087	151,907	61,108
Financial liabilities held-for-trading	751,715	480,688	621,550
Resources of other credit institutions	2,020,686	1,680,584	1,397,284
Resources of customers	967,374	1,054,389	448,912
Debt securities issued	1,382,888	1,449,549	1,072,210
financial liabilities associated to transferred assets	29,665	22,982	-
Risk management derivatives	57,031	54,089	33,939
Provisions	22,392	37,371	46,425
Current income tax liabilities	18,135	11,560	17,728
Deferred income tax liabilities	25,053	18,911	718
Subordinated liabilities	66,058	55,152	37,096
Other liabilities	283,774	325,122	266,846
Total Liabilities	5,775,858	5,342,304	4,003,816
Equity			
Share capital	326,269	326,269	326,269
Share premium	8,796	8,796	8,796
Other equity instruments	3,731	3,731	3,731
Fair-value reserves	2,968	(3,596)	(11,639)
Other reserves and retained income	266,681	225,349	200,560
Net profit/(loss) of the year attributable shareholders of the parent company	22,028	7,062	(138,493)
Total equity attributable to the shareholders of the parent company	630,473	567,611	389,224
Non-controlling interests	75,532	51,884	48,379
Total Equity	706,005	619,495	437,603
Total Equity and Liabilities	6,481,863	5,961,799	4,441,419

E: Income Statement of Haitong Bank S.A.

Income statement (thousand euros)	31.12.2015	015 (Restatement)	31.12.2016
Interest and similar income	251,514	251,514	271,135
Interest and similar expense	207,070	207,070	214,025
Financial margin	44,444	44,444	57,110
Dividend income	-	-	-
Fees and commissions income	94,274	94,274	52,684
Fees and commissions expenses	(11,803)	(11,803)	(7,497)
Net gains/(losses) from assets and liabilities at fair value through profit or loss	77,887	74,940	(27,581)
Net gains/(losses) from available-for-sale financial assets	3,080	3,080	995
Net gains/(losses) from foreign exchange revaluation	(61,930)	(61,930)	26,365
Net gains/(losses) arising from the disposal of other assets	95	95	10,752
Other operating results	(9,062)	(9,062)	(3,958)
Operating Income	136,985	134,038	108,870
Employee costs	80,785	80,785	92,955
Administrative costs	53,694	53,694	56,569
Depreciation and amortisation	6,610	6,610	6,415
Provisions net of reversals	(23,637)	(22,020)	2,380
Loan impairment net of reversals and recoveries	60,231	66,414	49,269
Impairment on other financial assets net of reversal and recoveries	2,495	6,081	4,780
Impairment on other assets net of reversals and recoveries	(224)	53,777	1,231
Operating expenses	179,954	245,341	213,599
Share of profit in associates	(1,143)	(1,143)	166
Profit / (Loss) before Income Tax	(44,112)	(112,446)	(104,563)
Income tax			
Current tax	26,606	26,606	(7,109)
Deferred tax	(41,729)	(46,512)	(2,662)
	(15,123)	(19,906)	(9,771)
Net Profit / (Loss) for the year	(28,989)	(92,540)	(94,792)
Attributable to shareholders of the parent company	(35,402)	(98,328)	(96,181)
Attributable to non-controlling interests	6,413	5,788	1,389
Net income	(28,989)	(92,540)	(94,792)
Basic Income per Share (in euros)	(0.54)	(1.49)	(1.13)
Diluted Income per Share (in euros)	(0.54)	(1.49)	(1.13)

F: Financial Position of Haitong Bank S.A.

Financial Position (thousand euros)	12.2015 (published)	2015 (Restatement)	31.12.2016
Assets			
Cash and deposits at central banks	117,684	117,684	37,550
Deposits at other credit institutions	38,960	38,960	104,254
Financial assets held-for-trading	1,346,489	1,346,489	1,494,915
Available-for-sale financial assets	468,311	457,198	790,346
Loans and advances to banks	258,795	258,795	853,687
Loans and advances to customers	1,041,341	1,035,158	841,095
Hold-to-maturity investments	-	-	-
Risk management derivatives	15,236	15,236	18,273
Non-current assets held-for-sale	3,600	3,600	3,600
Other tangible assets	12,164	12,164	11,853
Intangible assets	80,280	26,279	26,013
Investments in associated companies	10,343	10,343	6,591
Current income tax assets	10,029	10,029	11,286
Deferred income tax assets	139,906	145,933	145,618
Other assets	629,444	626,915	409,666
Total Assets	4,172,582	4,104,783	4,754,747
Liabilities			
Resources of central banks	61,139	61,139	60,000
Financial liabilities held-for-trading	502,350	502,350	1,042,681
Resources of other credit institutions	1,632,522	1,632,522	1,974,169
Resources of customers	567,038	567,038	735,708
Debt securities issued	547,266	547,266	341,567
financial liabilities associated to transferred assets	-	-	-
Risk management derivatives	116,397	116,397	32,907
Provisions	8,543	10,810	8,815
Current income tax liabilities	4,370	4,370	4,111
Deferred income tax liabilities	194	194	1,628
Subordinated liabilities	215	215	-
Other liabilities	301,705	301,705	202,638
Total Liabilities	3,741,739	3,744,006	4,404,224
Equity			
Share capital	426,269	426,269	426,269
Share premium	8,796	8,796	8,796
Other equity instruments	3,731	3,731	83,731
Fair-value reserves	(11,919)	(11,919)	(2,312)
Other reserves and retained income	187	(5,453)	(111,455)
Net profit/(loss) of the year attributable shareholders of the parent company	(35,402)	(98,328)	(96,181)
Total equity attributable to the shareholders of the parent company	391,662	323,096	308,848
Non-controlling interests	39,181	37,681	41,675
Total Equity	430,843	360,777	350,523
Total Equity and Liabilities	4,172,582	4,104,783	4,754,747

G: Income Statement Analysis of Haitong Securities (H share)

Consolidation Income Statement analysis of Haitong Securities (for H shares)

(Thousand RMB)	2012	2013	2014	2012 in %	2013 in %	2014 in %	g 2013/2012	g 2014/2013	g 2014/2012
Operating Revenue	10,743,162	12,802,734	23,666,866	100.00%	100.00%	100.00%	19.17%	84.86%	120.30%
Commission and fee income	5,213,180	6,751,188	9,516,170	48.53%	52.73%	40.21%	29.50%	40.96%	82.54%
Interest income	2,876,735	3,670,965	7,699,971	26.78%	28.67%	32.53%	27.61%	109.75%	167.66%
Net investment gains	2,402,689	2,150,038	5,708,662	22.36%	16.79%	24.12%	-10.52%	165.51%	137.59%
Other income and gains	250,558	230,543	742,063	2.33%	1.80%	3.14%	-7.99%	221.88%	196.16%
Operating Expenses	(6,699,556)	(7,464,926)	(13,413,806)	62.36%	58.31%	56.68%	11.42%	79.69%	100.22%
Depreciation and amortisation	(316,841)	(307,319)	(284,304)	2.95%	2.40%	1.20%	-3.01%	-7.49%	-10.27%
Staff costs	(2,142,298)	(2,621,465)	(4,131,308)	19.94%	20.48%	17.46%	22.37%	57.60%	92.84%
Commission to account executives	(259,035)	(334,496)	(427,497)	2.41%	2.61%	1.81%	29.13%	27.80%	65.03%
Brokerage transaction fees and other services expenses	(569,299)	(514,208)	(868,022)	5.30%	4.02%	3.67%	-9.68%	68.81%	52.47%
Interest expenses	(704,404)	(1,484,370)	(4,340,189)	6.56%	11.59%	18.34%	110.73%	192.39%	516.15%
Other Expenses	(2,707,679)	(2,203,068)	(3,362,486)	25.20%	17.21%	14.21%	-18.64%	52.63%	24.18%
EBIT	4,043,606	5,337,808	10,253,060	37.64%	41.69%	43.32%	32.01%	92.08%	153.56%
Share of results of associates	65,866	116,940	167,334	0.61%	0.91%	0.71%	77.54%	43.09%	154.05%
EBT	4,109,472	5,454,748	10,420,394	38.25%	42.61%	44.03%	32.74%	91.03%	153.57%
Income tax	(874,980)	(1,173,754)	(2,301,371)	8.14%	9.17%	9.72%	34.15%	96.07%	163.02%
Profit for the year	3,234,492	4,280,994	8,119,023	30.11%	33.44%	34.31%	32.35%	89.65%	151.01%
Attributable to shareholders of the parent company	3,019,776	4,035,024	7,710,623	28.11%	31.52%	32.58%	33.62%	91.09%	155.34%
Attributable to non-controlling interests	214,716	245,970	408,400	2.00%	1.92%	1.73%	14.56%	66.04%	90.20%
Net income	3,234,492	4,280,994	8,119,023	30.11%	33.44%	34.31%	32.35%	89.65%	151.01%
Basic Income per Share (in RMB)	0.33	0.42	0.80	-	-	-	27.27%	90.48%	142.42%
Diluted Income per Share (in RMB)	0.33	0.42	0.80	-	-	-	27.27%	90.48%	142.42%

H: Financial Position Analysis of Haitong Securities (H share)

Balance Sheet Analysis of Haitong Securities (for H share)

(Thousand RMB)	2012	2013	2014	2012 in %	2013 in %	2014 in %	g 2013/2012	g 2014/2013	g 2014/2012
Loans and advance to Customers	11,338,687	26,531,096	64,883,359	8.96%	15.69%	18.40%	133.99%	144.56%	472.23%
Account receivable	1,113,355	1,647,258	4,384,354	0.88%	0.97%	1.24%	47.95%	166.16%	293.80%
Finance lease receivables	-	-	7,399,072	-	-	2.10%	-	-	-
Other receivables and prepayments	1,205,234	1,889,348	2,453,972	0.95%	1.12%	0.70%	56.76%	29.88%	103.61%
Available-for-sale investments	7,427,046	4,951,872	3,990,608	5.87%	2.93%	1.13%	-33.33%	-19.41%	-46.27%
Loan and receivable investments	1,894,100	2,086,056	3,347,033	1.50%	1.23%	0.95%	10.13%	60.45%	76.71%
Held-to-maturity investments	4,861	281,613	3,006	0.00%	0.17%	0.00%	5693.31%	-98.93%	-38.16%
Financial assets held under resale agreements	2,234,569	9,036,993	52,873,455	1.77%	5.34%	14.99%	304.42%	485.08%	2266.16%
Placements to banks and other financial institutions	-	-	2,000,000	-	-	0.57%	-	-	-
Financial assets at fair value through profit or loss	32,418,247	47,590,047	56,273,055	25.63%	28.14%	15.96%	46.80%	18.25%	73.58%
Deposits with exchanges	3,995,291	3,693,835	5,495,664	3.16%	2.18%	1.56%	-7.55%	48.78%	37.55%
Clearing settlement funds	3,050,106	5,751,053	14,818,876	2.41%	3.40%	4.20%	88.55%	157.67%	385.85%
Bank balance and cash	52,000,241	52,586,993	85,703,611	41.11%	31.09%	24.30%	1.13%	62.97%	64.81%
Total Current Assets	116,681,737	156,046,164	303,626,065	92.25%	92.27%	86.11%	33.74%	94.57%	160.22%
Property and equipment	1,134,459	1,171,604	1,210,145	0.90%	0.69%	0.34%	3.27%	3.29%	6.67%
Investment properties	90,143	86,814	20,455	0.07%	0.05%	0.01%	-3.69%	-76.44%	-77.31%
Goodwill	642,398	623,072	2,600,616	0.51%	0.37%	0.74%	-3.01%	317.39%	304.83%
Other intangible assets	289,243	256,125	254,785	0.23%	0.15%	0.07%	-11.45%	-0.52%	-11.91%
Investments accounted for using equity method	1,727,890	2,231,269	5,686,141	1.37%	1.32%	1.61%	29.13%	154.84%	229.08%
Finance lease receivables	-	-	12,826,397	-	-	3.64%	-	-	-
Available-for-sale investments	3,202,231	4,720,906	8,714,786	2.53%	2.79%	2.47%	47.43%	84.60%	172.15%
Loan and receivable investments	1,278,302	1,829,199	4,470,404	1.01%	1.08%	1.27%	43.10%	144.39%	249.71%
Held-to-maturity investments	651,858	353,349	309,816	0.52%	0.21%	0.09%	-45.79%	-12.32%	-52.47%
Deferred tax assets	369,606	430,935	566,817	0.29%	0.25%	0.16%	16.59%	31.53%	53.36%
Restricted bank deposits	320,586	349,231	384,473	0.25%	0.21%	0.11%	8.94%	10.09%	19.93%
Other assets	93,651	90,735	131,233	0.07%	0.05%	0.04%	-3.11%	44.63%	40.13%
Loan and advances to customers	-	934,200	-	-	0.55%	-	-	-	-
Financial assets held under resale agreements	-	-	10,292,634	-	-	2.92%	-	-	-
Financial assets at fair value through profit or loss	-	-	1,527,382	-	-	0.43%	-	-	-
Total Non-current assets	9,800,367	13,077,439	48,996,084	7.75%	7.73%	13.89%	33.44%	274.66%	399.94%
Total Asset	126,482,104	169,123,603	352,622,149	100.00%	100.00%	100.00%	33.71%	108.50%	178.79%

H: Financial Position Analysis of Haitong Securities (H share) (continued)

Borrowings	8,626,314	5,796,395	19,807,574	6.82%	3.43%	5.62%	-32.81%	241.72%	129.62%
Short-term financing bill payables	-	3,000,000	22,926,586	-	1.77%	6.50%	-	-	-
Placements from other financial institutions	2,150,000	1,120,000	14,270,000	1.70%	0.66%	4.05%	-47.91%	1174.11%	563.72%
Accounts payable to brokerage clients	36,956,823	40,429,567	80,766,843	29.22%	23.91%	22.90%	9.40%	99.77%	118.54%
Other payables and accruals	1,904,464	3,295,497	7,697,576	1.51%	1.95%	2.18%	73.04%	133.58%	304.19%
Provisions	3,143	2,740	2,493	0.00%	0.00%	0.00%	-12.82%	-9.01%	-20.68%
Tax liabilities	85,471	395,277	816,775	0.07%	0.23%	0.23%	362.47%	106.63%	855.62%
Financial liabilities at fair value through profit or loss	134,769	6,506,512	15,028,545	0.11%	3.85%	4.26%	4727.90%	130.98%	11051.34%
Financial assets sold under repurchase agreements	16,040,561	26,111,914	59,807,864	12.68%	15.44%	16.96%	62.79%	129.04%	272.85%
Total current liabilities	65,901,545	86,657,902	221,124,256	52.10%	51.24%	62.71%	31.50%	155.17%	235.54%
Deferred tax liabilities	149,963	85,586	758,197	0.12%	0.05%	0.22%	-42.93%	785.89%	405.59%
Bond payable	-	17,939,628	35,775,667	-	10.61%	10.15%	-	99.42%	-
Long-term borrowing	-	-	4,537,684	-	-	1.29%	-	-	-
Long-term payables	-	-	1,941,119	-	-	0.55%	-	-	-
Financial assets sold under repurchase agreements	-	335,329	14,910,000	-	0.20%	4.23%	-	4346.38%	-
Financial liabilities at fair value through profit or loss	-	-	1,008,065	-	-	0.29%	-	-	-
Other payable and accruals	-	-	302,958	-	-	0.09%	-	-	-
Total non-current liabilities	149,963	18,360,543	59,233,690	0.12%	10.86%	16.80%	12143.38%	222.61%	39398.87%
Total liabilities	66,051,508	105,018,445	280,357,946	52.22%	62.10%	79.51%	58.99%	166.96%	324.45%
Share capital	9,584,721	9,584,721	9,584,721	7.58%	5.67%	2.72%	0.00%	0.00%	0.00%
Capital reserve	32,376,205	32,383,071	32,383,596	25.60%	19.15%	9.18%	0.02%	0.00%	0.02%
Investment revaluation reserve	63,963	163,065	407,434	0.05%	0.10%	0.12%	154.94%	149.86%	536.98%
Translation reserve	(250,116)	(413,634)	(361,545)	-0.20%	-0.24%	-0.10%	65.38%	-12.59%	44.55%
General reserves	6,740,034	8,009,216	9,792,774	5.33%	4.74%	2.78%	18.83%	22.27%	45.29%
Retained profits	10,164,876	11,780,552	16,557,451	8.04%	6.97%	4.70%	15.89%	40.55%	62.89%
Equity attributable to owners of the company	58,679,683	61,506,991	68,364,431	46.39%	36.37%	19.39%	4.82%	11.15%	16.50%
Non-controlling interests	1,750,913	2,598,167	3,899,772	1.38%	1.54%	1.11%	48.39%	50.10%	122.73%
Total equity	60,430,596	64,105,158	72,264,203	47.78%	37.90%	20.49%	6.08%	12.73%	19.58%
Total liabilities and total equity	126,482,104	169,123,603	352,622,149	100.00%	100.00%	100.00%	33.71%	108.50%	178.79%

I: General Growth Analysis of Haitong Securities (H share)

General Growth Analysis

Year	2012	2013	2014	g 2013/2012	g 2014/2013	g 2014/2012
Total Operating Revenues	10,743,162	12,802,734	23,666,866	19.17%	84.86%	120.30%
EBIT	4,043,606	5,337,808	10,253,060	32.01%	92.08%	153.56%
Earning Per Share (EPS)	0.33	0.42	0.80	27.27%	90.48%	142.42%
Total Assets	126,482,104	169,123,603	352,622,149	33.71%	108.50%	178.79%
Total Equity (Including Minority interests)	60,430,596	64,105,158	72,264,203	6.08%	12.73%	19.58%
Total Liabilities	66,051,508	105,018,445	280,357,946	58.99%	166.96%	324.45%

J: Revenue Growth Analysis of Haitong Securities (H share)

Revenue Growth Analysis

Years	2012	2013	2014
Revenues	10,743,162	12,802,734	23,666,866
Nominal Growth Rate		19.17%	84.86%
Inflation Rate		2.62%	1.99%
Real Growth Rate		16.55%	82.87%
Exact Real Growth Rate		16.13%	81.25%

K: Profitability Analysis (Return on Assets) of Haitong Securities (H share)

Profitability Analysis (Return on Assets)

Years	2012	2013	2014
RETURN ON ASSETS (ROA)			
EBIT	4,043,606	5,337,808	10,253,060
Total Assets	126,482,104	169,123,603	352,622,149
Return On Assets (ROA)	3.20%	3.16%	2.91%
Breakdown:			
Revenues	10,743,162	12,802,734	23,666,866
Return on Sales = EBIT/ Sales	37.64%	41.69%	43.32%
Total Assets Turnover = Sales/Total Assets	8.49%	7.57%	6.71%
ROA = Return On Assets	3.20%	3.16%	2.91%

L: Profitability Analysis (Return on Net Assets) of Haitong Securities (H share)

Profitability Analysis (Return on Net Assets)			
Years	2012	2013	2014
RETURN ON INVESTED CAPITAL			
Invested Capital (or Net Assets):			
Fixed or Non Current Assets	9,800,367	13,077,439	48,996,084
Operating Current Assets:			
Loans and advance to Customers	11,338,687	26,531,096	64,883,359
Account receivable	1,113,355	1,647,258	4,384,354
Finance lease receivables	-	-	7,399,072
Other receivables and prepayments	1,205,234	1,889,348	2,453,972
Financial assets held under resale agreements	2,234,569	9,036,993	52,873,455
Placements to banks and other financial institutions	-	-	2,000,000
Financial assets at fair value through profit or loss	32,418,247	47,590,047	56,273,055
Deposits with exchanges	3,995,291	3,693,835	5,495,664
Clearing settlement funds	3,050,106	5,751,053	14,818,876
Bank balance and cash	52,000,241	52,586,993	85,703,611
Total Operating Current Assets	107,355,730	148,726,623	296,285,418
Operating Current liabilities:			
Short-term financing bill payables	-	3,000,000	22,926,586
Accounts payable to brokerage clients	36,956,823	40,429,567	80,766,843
Other payables and accruals	1,904,464	3,295,497	7,697,576
Financial liabilities at fair value through profit or loss	134,769	6,506,512	15,028,545
Total Operating Current Liabilities	38,996,056	53,231,576	126,419,550
Net Operating Working Capital Needs or Requirements	68,359,674	95,495,047	169,865,868
Invested Capital (or Net Assets):	78,160,041	108,572,486	218,861,952
Operating Profit (or Profit from Operations) = EBIT	4,043,606	5,337,808	10,253,060
ROIC = Return on Invested Capital (before taxes)	5.17%	4.92%	4.68%
Sales = Operating Revenues	10,743,162	12,802,734	23,666,866
ROS = Return on Sales	37.64%	41.69%	43.32%
Fixed Assets/Sales	91.22%	102.15%	207.02%
Net operating working capital needs/ Sales	6.36	7.46	7.18
Invested capital/Sales	7.28	8.48	9.25
Invested Capital Turnover = Sales / Invested Capital	0.14	0.12	0.11
ROIC = Return on Invested Capital (control)	5.17%	4.92%	4.68%

M: Return on Equity Analysis of Haitong Securities (H share)

Return on Equity Analysis (Spread Model - Total Assets)			
Years	2012	2013	2014
Spread Model with Total Assets and Total Liabilities:			
Operating Profit + Interest Income = EBIT (Earning Before Interest and Tax)	4,043,606	5,337,808	10,253,060
Income Taxes	874,980	1,173,754	2,301,371
EBT	4,109,472	5,454,748	10,420,394
Implied Tax Rate = Taxes/EBT = t	21.29%	21.52%	22.09%
Tax Effect = 1 - t	78.71%	78.48%	77.91%
EBITAT = Earning Before Interest but After Taxes	3,182,650	4,189,217	7,988,645
Total Assets	126,482,104	169,123,603	352,622,149
After Taxes ROA (ROA AT)	2.52%	2.48%	2.27%
Interest Expense	704,404	1,484,370	4,340,189
Total Liabilities (D)	66,051,508	105,018,445	280,357,946
Average Interest Rate on Total Liabilities	1.07%	1.41%	1.55%
After Taxes Average Interest Rate (AIR AT)	0.84%	1.11%	1.21%
Financial Margin or Spread After Taxes (MoS = ROA AT - AIR AT)	1.68%	1.37%	1.06%
Total Equity (including Minority Equity)	60,430,596	64,105,158	72,264,203
Financial Leverage = D/E = Debt/Equity	1.09	1.64	3.88
Financial Leverage Effect (=MoS*D/E)	1.83%	2.24%	4.11%
Total Return on Equity = ROA AT + Financial Leverage Effect	4.35%	4.72%	6.38%
Net Income	3,234,492	4,280,994	8,119,023
ROE = Total Return On Equity	5.35%	6.68%	11.24%

N: Return on Equity Analysis of Haitong Securities (H share)

Return on Equity Analysis (Spread Model - Total Funding)			
Years	2012	2013	2014
Spread Model with Total Funding:			
Total Equity (including Minority Equity)	60,430,596	64,105,158	72,264,203
Medium and Long Term Debt:			
Bond payable	-	17,939,628	35,775,667
Long-term borrowing	-	-	4,537,684
Long-term payables	-	-	1,941,119
Financial assets sold under repurchase agreements	-	335,329	14,910,000
Medium and Long Term Debt	-	18,274,957	57,164,470
Total Operating Current Liabilities	38,996,056	53,231,576	126,419,550
Total Current Liabilities	65,901,545	86,657,902	221,124,256
Short Term Debt = Total Current Liabilities - Total Operating Current	26,905,489	33,426,326	94,704,706
Total Debt = Medium and Long Term Debt + Short Term Debt	26,905,489	51,701,283	151,869,176
Available-for-sale investments	7,427,046	4,951,872	3,990,608
Deposits with exchanges	3,995,291	3,693,835	5,495,664
Clearing settlement funds	3,050,106	5,751,053	14,818,876
Bank balance and cash	52,000,241	52,586,993	85,703,611
Total Cash and Equivalent (interest generating assets)	66,472,684	66,983,753	110,008,759
Net Debt = Total Debt - Total Cash and Equivalent = D	(39,567,195)	(15,282,470)	41,860,417
Total Funding = Total Equity + Net Debt	20,863,401	48,822,688	114,124,620
EBIAT (Excluding Interest Income) = NOPLAT	3,182,650	4,189,217	7,988,645
After Taxes ROA (ROA AT) (Based on Total Funding)	15.25%	8.58%	7.00%
Interest Expense	704,404	1,484,370	4,340,189
Average Interest Rate on Net Debt	-1.78%	-9.71%	10.37%
Tax effect	78.71%	78.48%	77.91%
After Tax Average Interest Rate on Net Debt	-1.40%	-7.62%	8.08%
Financial Margin or Spread = MoS	16.66%	16.20%	-1.08%
Financial Leverage Ratio = D/E	-0.65	-0.24	0.58
Financial Leverage effect	-0.11	-0.04	-0.01
Return On Equity = Total ROE	4.35%	4.72%	6.38%

O: Balance Sheet Analysis (Ratios) (H share)

Balance Sheet Analysis (Ratios)			
Years	2012	2013	2014
Functional Balance Sheet			
Total Equity	60,430,596	64,105,158	72,264,203
Medium and Long Term Debt	-	18,274,957	57,164,470
Permanent Capital = Long Term Capital = Non Current Capital	60,430,596	82,380,115	129,428,673
(Net) Fixed Assets or Non Current Assets	9,800,367	13,077,439	48,996,084
Net Working Capital (NWC)	50,630,229	69,302,676	80,432,589
Loans and advance to Customers	11,338,687	26,531,096	64,883,359
Account receivable	1,113,355	1,647,258	4,384,354
Finance lease receivables	-	-	7,399,072
Other receivables and prepayments	1,205,234	1,889,348	2,453,972
Financial assets held under resale agreements	2,234,569	9,036,993	52,873,455
Placements to banks and other financial institutions	-	-	2,000,000
Financial assets at fair value through profit or loss	32,418,247	47,590,047	56,273,055
Deposits with exchanges	3,995,291	3,693,835	5,495,664
Clearing settlement funds	3,050,106	5,751,053	14,818,876
Bank balance and cash	52,000,241	52,586,993	85,703,611
Total Operating Current Assets	107,355,730	148,726,623	296,285,418
Short-term financing bill payables	-	3,000,000	22,926,586
Accounts payable to brokerage clients	36,956,823	40,429,567	80,766,843
Other payables and accruals	1,904,464	3,295,497	7,697,576
Financial liabilities at fair value through profit or loss	134,769	6,506,512	15,028,545
Total Operating Current Liabilities	38,996,056	53,231,576	126,419,550
Net Operating Working Capital Needs of Requirements	68,359,674	95,495,047	169,865,868
Net Treasury - First Approach Measure	(17,729,445)	(26,192,371)	(89,433,279)

P: Other Ratio of Haitong Securities (H share)

Other Ratios			
Years	2012	2013	2014
Fixed Assets Coverage:			
By Total Equity	6.17	4.90	1.47
By Permanent (or Long Term) Capital	6.17	6.30	2.64
Liquidity:			
Current Assets	116,681,737	156,046,164	303,626,065
Current Liabilities	65,901,545	86,657,902	221,124,256
Current Ratio	1.77	1.80	1.37
Total Cash and Equivalent (interest generating assets)	66,472,684	66,983,753	110,008,759
Quick Ratio or Acid Test	1.01	0.77	0.50
Total Equity (including minority interests)	60430596	64105158	72264203
Total Assets	126482104	169123603	352622149
Total Equity / Total Assets (including minority interests)	47.78%	37.90%	20.49%
Group Equity (Excluding minority interests)	58,679,683	61,506,991	68,364,431
Group Equity / Total Assets (Excluding minority interests)	46.39%	36.37%	19.39%
Interest bearing debt	26,905,489	51,701,283	151,869,176
Interest bearing debt/Total assets	21.27%	30.57%	43.07%
Total Liabilities	66,051,508	105,018,445	280,357,946
Total Liabilities / Total assets	52.22%	62.10%	79.51%
Solvency Ratios			
Total of risk capital reserves	2,730,633	3,049,614	4,527,501
Net Capital	39,007,731	37,849,947	37,110,256
Net capital/total of risk capital reserves	1428.52%	1241.14%	819.66%
Common Equity value	41,960,926	41,967,792	41,968,317
CET1 ratio	15	14	9
Solvency (Total Equity / Total Liabilities)	91.49%	61.04%	25.78%
Coverage Ratios:			
EBIT (including Interest Income)	4,043,606	5,337,808	10,253,060
Interest Expense	704,404	1,484,370	4,340,189
Short Term Debt	26,905,489	33,426,326	94,704,706
TIE = Times Interest Earned = EBIT/Interest Expense	5.74	3.60	2.36
Tax Factor or Tax Effect	0.79	0.78	0.78
Short Term Debt / (1-t)	34,183,839	42,591,086	121,549,151
EBIT (including Interest Income) *(1-t)	3182650	4189217	7988645
Interest Expense after Tax	554424	1164963	3381647

Q: Income Statement of BESI

Income Statement Analysis of BESI

(thousand euros)	12.31.2012	12.31.2013	31.12.2014	2012 in %	2013 in %	2014 in %	g 2013/2012	g 2014/2013	g 2014/2012
Operating Income	261,170	246,525	250,046	100.00%	100.00%	100.00%	-5.61%	1.43%	-4.26%
Financial margin	94,539	82,267	65,945	36.20%	33.37%	26.37%	-12.98%	-19.84%	-30.25%
Dividend income	625	437	97	0.24%	0.18%	0.04%	-30.08%	-77.80%	-84.48%
Fees and commissions income	126,661	126,280	119,336	48.50%	51.22%	47.73%	-0.30%	-5.50%	-5.78%
Fees and commissions expenses	(25,551)	(24,006)	(21,014)	-9.78%	-9.74%	-8.40%	-6.05%	-12.46%	-17.76%
Net gains/(losses) from assets and liabilities at fair value through profit or	55,333	34,755	59,255	21.19%	14.10%	23.70%	-37.19%	70.49%	7.09%
Net gains/(losses) from available-for-sale financial assets	57,080	52,760	75,905	21.86%	21.40%	30.36%	-7.57%	43.87%	32.98%
Net gains/(losses) from foreign exchange revaluation	(37,148)	(15,283)	(32,985)	-14.22%	-6.20%	-13.19%	-58.86%	115.83%	-11.21%
Net gains/(losses) arising from the disposal of other assets	(3,300)	(49)	(6,750)	-1.26%	-0.02%	-2.70%	-98.52%	13675.51%	104.55%
Other operating results	(7,069)	(10,636)	(9,743)	-2.71%	-4.31%	-3.90%	50.46%	-8.40%	37.83%
Operating expenses	222,254	231,473	417,122	85.10%	93.89%	166.82%	4.15%	80.20%	87.68%
Employee costs	111,399	104,880	96,289	42.65%	42.54%	38.51%	-5.85%	-8.19%	-13.56%
Administrative costs	58,876	60,370	57,449	22.54%	24.49%	22.98%	2.54%	-4.84%	-2.42%
Depreciation and amortisation	5,778	6,726	7,221	2.21%	2.73%	2.89%	16.41%	7.36%	24.97%
Provisions net of reversals	8,104	19,411	16,844	3.10%	7.87%	6.74%	139.52%	-13.22%	107.85%
Loan impairment net of reversals and recoveries	32,855	37,875	169,605	12.58%	15.36%	67.83%	15.28%	347.80%	416.22%
Impairment on other financial assets net of reversal and recoveries	4,627	1,801	49,144	1.77%	0.73%	19.65%	-61.08%	2628.71%	962.11%
Impairment on other assets net of reversals and recoveries	615	410	20,570	0.24%	0.17%	8.23%	-33.33%	4917.07%	3244.72%
EBIT	38,916	15,052	(167,076)	14.90%	6.11%	-66.82%	-61.32%	N/A	N/A
Share of profit in associates	97	374	(271)	0.04%	0.15%	-0.11%	285.57%	N/A	N/A
EBT	39,013	15,426	(167,347)	14.94%	6.26%	-66.93%	-60.46%	N/A	N/A
Income Tax	18,471	8,063	(29,716)	7.07%	3.27%	-11.88%	-56.35%	N/A	N/A
Net Profit / (Loss) for the year	20,542	7,363	(137,631)	7.87%	2.99%	-55.04%	-64.16%	N/A	N/A
Attributable to shareholders of the parent company	22,018	7,062	(138,493)	8.43%	2.86%	-55.39%	-67.93%	N/A	N/A
Attributable to non-controlling interests	(1,486)	301	862	-0.57%	0.12%	0.34%	-120.26%	N/A	N/A
Net income	20,542	7,363	(137,631)	7.87%	2.99%	-55.04%	-64.16%	N/A	N/A
Basic Income per Share (in euros)	0.42	0.10	(2.13)	-	-	-	-76.19%	N/A	N/A
Diluted Income per Share (in euros)	0.42	0.10	(2.13)	-	-	-	-76.19%	N/A	N/A

R: Financial Position Analysis of BESI

Balance Sheet Analysis of BESI

(thousand euros)	12.31.2012	12.31.2013	31.12.2014	2012 in %	2013 in %	2014 in %	g 2013/2012	g 2014/2013	g 2014/2012
Cash and deposits at central banks	1,202	4,836	1,524	0.02%	0.08%	0.03%	302.33%	-68.49%	26.79%
Deposits at other credit institutions	40,717	65,493	49,067	0.63%	1.10%	1.10%	60.85%	-25.08%	20.51%
Financial assets held-for-trading	2,439,729	1,604,606	1,468,473	37.64%	26.91%	33.06%	-34.23%	-8.48%	-39.81%
Available-for-sale financial assets	485,917	783,352	554,680	7.50%	13.14%	12.49%	61.21%	-29.19%	14.15%
Loans and advances to banks	243,755	433,623	34,308	3.76%	7.27%	0.77%	77.89%	-92.09%	-85.93%
Loans and advances to customers	2,187,524	1,946,582	1,549,218	33.75%	32.65%	34.88%	-11.01%	-20.41%	-29.18%
Hold-to-maturity investments	107,202	314,329	-	1.65%	5.27%	-	193.21%	-	-
Risk management derivatives	60,022	72,228	25,754	0.93%	1.21%	0.58%	20.34%	-64.34%	-57.09%
Non-current assets held-for-sale	1,159	17,946	3,600	0.02%	0.30%	0.08%	1448.40%	-79.94%	210.61%
Other tangible assets	17,904	19,310	15,493	0.28%	0.32%	0.35%	7.85%	-19.77%	-13.47%
Intangible assets	74,349	73,622	77,396	1.15%	1.23%	1.74%	-0.98%	5.13%	4.10%
Investments in associated companies	51,073	52,124	26,878	0.79%	0.87%	0.61%	2.06%	-48.43%	-47.37%
Current income tax assets	3,323	15,029	5,173	0.05%	0.25%	0.12%	352.27%	-65.58%	55.67%
Deferred income tax assets	53,703	62,178	97,414	0.83%	1.04%	2.19%	15.78%	56.67%	81.39%
Other assets	714,284	496,541	532,441	11.02%	8.33%	11.99%	-30.48%	7.23%	-25.46%
Total Assets	6,481,863	5,961,799	4,441,419	100.00%	100.00%	100.00%	-8.02%	-25.50%	-31.48%
Resources of central banks	151,087	151,907	61,108	2.33%	2.55%	1.38%	0.54%	-59.77%	-59.55%
Financial liabilities held-for-trading	751,715	480,688	621,550	11.60%	8.06%	13.99%	-36.05%	29.30%	-17.32%
Resources of other credit institutions	2,020,686	1,680,584	1,397,284	31.17%	28.19%	31.46%	-16.83%	-16.86%	-30.85%
Resources of customers	967,374	1,054,389	448,912	14.92%	17.69%	10.11%	8.99%	-57.42%	-53.59%
Debt securities issued	1,382,888	1,449,549	1,072,210	21.33%	24.31%	24.14%	4.82%	-26.03%	-22.47%
financial liabilities associated to transferred assets	29,665	22,982	-	0.46%	0.39%	-	-22.53%	-	-
Risk management derivatives	57,031	54,089	33,939	0.88%	0.91%	0.76%	-5.16%	-37.25%	-40.49%
Provisions	22,392	37,371	46,425	0.35%	0.63%	1.05%	66.89%	24.23%	107.33%
Current income tax liabilities	18,135	11,560	17,728	0.28%	0.19%	0.40%	-36.26%	53.36%	-2.24%
Deferred income tax liabilities	25,053	18,911	718	0.39%	0.32%	0.02%	-24.52%	-96.20%	-97.13%
Subordinated liabilities	66,058	55,152	37,096	1.02%	0.93%	0.84%	-16.51%	-32.74%	-43.84%
Other liabilities	283,774	325,122	266,846	4.38%	5.45%	6.01%	14.57%	-17.92%	-5.97%
Total Liabilities	5,775,858	5,342,304	4,003,816	89.11%	89.61%	90.15%	-7.51%	-25.05%	-30.68%
Share capital	326,269	326,269	326,269	5.03%	5.47%	7.35%	0.00%	0.00%	0.00%
Share premium	8,796	8,796	8,796	0.14%	0.15%	0.20%	0.00%	0.00%	0.00%
Other equity instruments	3,731	3,731	3,731	0.06%	0.06%	0.08%	0.00%	0.00%	0.00%
Fair-value reserves	2,968	(3,596)	(11,639)	0.05%	-0.06%	-0.26%	-221.16%	223.67%	-492.15%
Other reserves and retained income	266,681	225,349	200,560	4.11%	3.78%	4.52%	-15.50%	-11.00%	-24.79%
Net profit/(loss) of the year attributable shareholders of the parent company	22,028	7,062	(138,493)	0.34%	0.12%	-3.12%	-67.94%	-2061.10%	-728.71%
Total equity attributable to the shareholders of the parent company	630,473	567,611	389,224	9.73%	9.52%	8.76%	-9.97%	-31.43%	-38.26%
Non-controlling interests	75,532	51,884	48,379	1.17%	0.87%	1.09%	-31.31%	-6.76%	-35.95%
Total Equity	706,005	619,495	437,603	10.89%	10.39%	9.85%	-12.25%	-29.36%	-38.02%
Total Equity and Liabilities	6,481,863	5,961,799	4,441,419	100.00%	100.00%	100.00%	-8.02%	-25.50%	-31.48%

S: General Growth Analysis of BESI

General Growth Analysis

Year	2012	2013	2014	g 2013/2012	g 2014/2013	g 2014/2012
Total Operating Revenues	261,170	246,525	250,046	-5.61%	1.43%	-4.26%
EBIT	38,916	15,052	(167,076)	-61.32%	-1209.99%	-529.32%
Earning Per Share (EPS)	0.42	0.10	(2.13)	-76.19%	-2230.00%	-607.14%
Total Assets	6,481,863	5,961,799	4,441,419	-8.02%	-25.50%	-31.48%
Total Equity (Including Minority interests)	706,005	619,495	437,603	-12.25%	-29.36%	-38.02%
Total Liabilities	5,775,858	5,342,304	4,003,816	-7.51%	-25.05%	-30.68%

T: Revenue Growth Analysis of BESI

Revenue Growth Analysis

Years	2012	2013	2014
Revenues	261,170	246,525	250,046
Nominal Growth Rate		-5.61%	1.43%
Inflation Rate		0.20%	-0.36%
Real Growth Rate		-5.81%	1.79%
Exact Real Growth Rate		-5.80%	1.79%

U: Profitability Analysis (Return on Assets) of BESI

Profitability Analysis (Return on Assets)

Years	2012	2013	2014
RETURN ON ASSETS (ROA)			
EBIT	38,916	15,052	(167,076)
Total Assets	6,481,863	5,961,799	4,441,419
Return On Assets (ROA)	0.60%	0.25%	-3.76%
Breakdown:			
Revenues	261,170	246,525	250,046
Return on Sales = EBIT/ Sales	14.90%	6.11%	-66.82%
Total Assets Turnover = Sales/Total Assets	4.03%	4.14%	5.63%
ROA = Return On Assets	0.60%	0.25%	-3.76%

V: Profitability Analysis (Return on Net Assets) of BESI

Profitability Analysis (Return on Net Assets)			
Years	2012	2013	2014
RETURN ON INVESTED CAPITAL			
Invested Capital (or Net Assets):			
Non-current assets held-for-sale	1,159	17,946	3,600
Other tangible assets	17,904	19,310	15,493
Investments in associated companies	51,073	52,124	26,878
Fixed or Non Current Assets	70,136	89,380	45,971
Operating Current Assets:			
Cash and deposit at the Central Banks	1,202	4,836	1,524
Deposit at other Credit Institutions	40,717	65,493	49,067
Financial Assets Held-for-trading	2,439,729	1,604,606	1,468,473
Available-for-sale financial assets	485,917	783,352	554,680
Loans and advances to banks	243,755	433,623	34,308
Loans and advances to customers	2,187,524	1,946,582	1,549,218
Total Operating Current Assets	5,398,844	4,838,492	3,657,270
Operating Current liabilities:			
Financial liabilities held-for-trading	751,715	480,688	621,550
financial liabilities associated to transferred assets	29,665	22,982	-
Resources of customers	967,374	1,054,389	448,912
Risk management derivatives	57,031	54,089	33,939
Total Operating Current Liabilities	1,805,785	1,612,148	1,104,401
Net Operating Working Capital Needs or Requirements	3,593,059	3,226,344	2,552,869
Invested Capital (or Net Assets):	3,663,195	3,315,724	2,598,840
Operating Profit (or Profit from Operations) = EBIT	38,916	15,052	(167,076)
ROIC = Return on Invested Capital (before taxes)	1.06%	0.45%	-6.43%
Sales = Total Revenues	261,170	246,525	250,046
ROS	14.90%	6.11%	-66.82%
Fixed Assets/Sales	26.85%	36.26%	18.39%
Net operating working capital needs/ Sales	13.76	13.09	10.21
Invested capital/Sales	14	13	10
Invested Capital Turnover	0.07	0.07	0.10
ROIC = Return on Invested Capital (control)	1.06%	0.45%	-6.43%

W: Return on Equity Analysis of BESI

Return on Equity Analysis (Spread Model - Total Assets)			
Years	2012	2013	2014
Spread Model with Total Assets and Total Liabilities:			
Operating Profit + Interest Income = EBIT (Earning Before Interest and Tax)	38,916	15,052	(167,076)
Income Taxes	18,471	8,063	(29,716)
EBT	39,013	15,426	(167,347)
Implied Tax Rate = Taxes/EBT = t	47.35%	52.27%	17.76%
Tax Effect = 1 - t	52.65%	47.73%	82.24%
EBITAT = Earning Before Interest but After Taxes	20,491	7,184	(137,408)
Total Assets	6,481,863	5,961,799	4,441,419
After Taxes ROA (ROA AT)	0.32%	0.12%	-3.09%
Interest Expense	247,643	260,348	255,108
Total Liabilities (D)	5,775,858	5,342,304	4,003,816
Average Interest Rate on Total Liabilities	4.29%	4.87%	6.37%
After Taxes Average Interest Rate (AIR AT)	2.26%	2.33%	5.24%
Financial Margin or Spread After Taxes (MoS = ROA AT - AIR AT)	-1.94%	-2.21%	-8.33%
Total Equity €	706,005	619,495	437,603
Financial Leverage = D/E = Debt/Equity	8.18	8.62	9.15
Financial Leverage Effect (=MoS*D/E)	-15.88%	-19.02%	-76.25%
Total Return on Equity = ROA AT + Financial Leverage Effect	-15.57%	-18.90%	-79.35%
Net Income	20,542	7,363	(137,631)
ROE = Total Return On Equity	2.91%	1.19%	-31.45%

X: Return on Equity Analysis of BESI

Return on Equity Analysis (Spread Model - Total Funding)			
Years	2012	2013	2014
Spread Model with Total Funding:			
Total Equity	706,005	619,495	437,603
Resources of central banks	151,087	151,907	61,108
Resources of other credit institutions	2,020,686	480,688	621,550
Debt securities issued	1,382,888	1,680,584	1,397,284
Provisions	22,392	1,054,389	448,912
Medium and Long Term Debt	3,577,053	3,367,568	2,528,854
Current income tax liabilities	18,135	11,560	17,728
Deferred income tax liabilities	25,053	18,911	718
Subordinated liabilities	66,058	55,152	37,096
Other liabilities	283,774	325,122	266,846
Short Term Debt	393,020	410,745	322,388
Total Debt	3,970,073	3,778,313	2,851,242
Cash and deposits at central banks	1,202	4,836	1,524
Deposits at other credit institutions	40,717	65,493	49,067
Financial assets held-for-trading	2,439,729	1,604,606	1,468,473
Available-for-sale financial assets	485,917	783,352	554,680
Risk management derivatives	60,022	72,228	25,754
Total Cash and Equivalent (interest generating assets)	3,027,587	2,530,515	2,099,498
Net Debt = Total Debt - Total Cash and Equivalent = D	942,486	1,247,798	751,744
Total Funding	1,648,491	1,867,293	1,189,347
EBIAT (Excluding Interest Income) = NOPLAT	20,491	7,184	(137,408)
After Taxes ROA (ROA AT) (Based on Total Funding)	1.24%	0.38%	-11.55%
Net Interest Expense	247,643	260,348	255,108
Average Interest Rate on Net Debt	26.28%	20.86%	33.94%
Tax effect	52.65%	47.73%	82.24%
After Tax Average Interest Rate on Net Debt	13.84%	9.96%	27.91%
Financial margin or Spread	-12.59%	-9.57%	-39.46%
Financial Leverage Ratio = D/E	1.33	2.01	1.72
Financial Leverage effect	-0.17	-0.19	-0.68
Return On Equity = Total ROE	-15.57%	-18.90%	-79.35%

Y: Financial Position Analysis of BESI

Balance Sheet Analysis (Ratios)			
Years	2012	2013	2014
Functional Balance Sheet			
Total Equity	706,005	619,495	437,603
Medium and Long Term Debt	3,577,053	3,367,568	2,528,854
Permanent Capital = Long Term Capital = Non Current Capital	4,283,058	3,987,063	2,966,457
(Net) Fixed Assets or Non Current Assets	70,136	89,380	45,971
Net Working Capital (NWC)	4,212,922	3,897,683	2,920,486
Cash and deposit at the Central Banks	1,202	4,836	1,524
Deposita at other Credit Institutions	40,717	65,493	49,067
Financial Assets Held-for-trading	2,439,729	1,604,606	1,468,473
Available-for-sale financial assets	485,917	783,352	554,680
Loans and advances to banks	243,755	433,623	34,308
Loans and advances to customers	2,187,524	1,946,582	1,549,218
Total Operating current Assets	5,398,844	4,838,492	3,657,270
Financial liabilities held-for-trading	751,715	480,688	621,550
financial liabilities associated to transferred assets	29,665	22,982	-
Resources of customers	967,374	1,054,389	448,912
Risk management derivatives	57,031	54,089	33,939
Total operating Current Liabilities	1,805,785	1,612,148	1,104,401
Net Operating Working Capital Needs of Requirements	3,593,059	3,226,344	2,552,869
Net Treasury - First Approach Measure	619,863	671,339	367,617

Z: Other Ratio Analysis of BESI

Other Ratios			
Years	2012	2013	2014
Fixed Assets Coverage:			
By Total Equity	10.07	6.93	9.52
By Permanent (or Long Term) Capital	61.07	44.61	64.53
Liquidity:			
Current Assets	5,566,068	5,225,049	3,683,024
Current Liabilities	2,198,805	2,022,893	1,426,789
Current Ratio	2.53	2.58	2.58
Total Cash and Equivalent (interest generating assets)	3027587	2530515	2099498
Quick Ratio or Acid Test	1.84	2.06	1.75
Total Equity (including minority interests)	706005	619495	437603
Total Assets	6481863	5961799	4441419
Total Equity / Total Assets (including minority interests)	10.89%	10.39%	9.85%
Group Equity (excluding minority interests)	630,473	567,611	389,224
Group Equity / Total Assets (Excluding minority interests)	9.73%	9.52%	8.76%
Interest bearing debt	3,970,073	3,778,313	2,851,242
Interest bearing debt/Total assets	61.25%	63.38%	64.20%
Total liabilities	5,775,858	5,342,304	4,003,816
Total Liabilities / Total assets	89.11%	89.61%	90.15%
Solvency			
Tier 1 Ratio			
CET 1 Ratio (common equity Tier 1 ratio)			
Solvency (Total Equity / Total Liabilites)	12.22%	11.60%	10.93%
Coverage Ratios:			
EBIT (including Interest Income)	38,916	15,052	(167,076)
Interest Expense	247,643	260,348	255,108
Short Term Debt	393,020	410,745	322,388
TIE = Times Interest Earned = EBIT/Interest Expense	0.16	0.06	-0.65
Tax Factor or Tax Effect	0.53	0.48	0.82
Short Term Debt / (1-t)	746,417	860,540	391,995
EBIT (including Interest Income) *(1-t)	20491	7184	-137408
Interest Expense after Tax	130395	124267	209808

AA: Income Statement Analysis of Haitong Bank S.A.

(thousand euros)	2015(Restatement)	2016	2015 (Restatement) in %	2016 in %	g 2015/2016
Operating Income	134,038	108,870	100%	100%	-19%
Financial margin	44,444	57,110	33%	52%	28%
Dividend income	-	-	-	-	-
Fees and commissions income	94,274	52,684	70%	48%	-44%
Fees and commissions expenses	(11,803)	(7,497)	-9%	-7%	-36%
Net gains/(losses) from assets and liabilities at fair value through profit or loss	74,940	(27,581)	56%	-25%	N/A
Net gains/(losses) from available-for-sale financial assets	3,080	995	2%	1%	-68%
Net gains/(losses) from foreign exchange revaluation	(61,930)	26,365	-46%	24%	N/A
Net gains/(losses) arising from the disposal of other assets	95	10,752	0%	10%	11218%
Other operating results	(9,062)	(3,958)	-7%	-4%	-56%
Operating expenses	245,341	213,599	183%	196%	-13%
Employee costs	80,785	92,955	60%	85%	15%
Administrative costs	53,694	56,569	40%	52%	5%
Depreciation and amortisation	6,610	6,415	5%	6%	-3%
Provisions net of reversals	(22,020)	2,380	-16%	2%	N/A
Loan impairment net of reversals and recoveries	66,414	49,269	50%	45%	-26%
Impairment on other financial assets net of reversal and recoveries	6,081	4,780	5%	4%	-21%
Impairment on other assets net of reversals and recoveries	53,777	1,231	40%	1%	-98%
EBIT	(111,303)	(104,729)	-83%	-96%	-6%
Share of profit in associates	(1,143)	166	-1%	0%	N/A
EBT	(112,446)	(104,563)	-84%	-96%	-7%
Income Tax	(19,906)	(9,771)	-15%	-9%	-51%
Net Profit / (Loss) for the year	(92,540)	(94,792)	-69%	-87%	2%
Attributable to shareholders of the parent company	(98,328)	(96,181)	-73%	-88%	-2%
Attributable to non-controlling interests	5,788	1,389	4%	1%	-76%
Net income	(92,540)	(94,792)	-69%	-87%	2%
Basic Income per Share (in euros)	(1.49)	(1.13)	-	-	-24%
Diluted Income per Share (in euros)	(1.49)	(1.13)	-	-	-24%

AB: Financial Position Analysis of Haitong Bank S.A.

Balance Sheet Analysis of BESI

(thousand euros)	2015(Restatement)	2016	2015 (Restatement) in %	2016 in %	g 2015/2016
Assets					
Cash and deposits at central banks	117,684	37,550	2.87%	0.79%	-68.09%
Deposits at other credit institutions	38,960	104,254	0.95%	2.19%	167.59%
Financial assets held-for-trading	1,346,489	1,494,915	32.80%	31.44%	11.02%
Available-for-sale financial assets	457,198	790,346	11.14%	16.62%	72.87%
Loans and advances to banks	258,795	853,687	6.30%	17.95%	229.87%
Loans and advances to customers	1,035,158	841,095	25.22%	17.69%	-18.75%
Hold-to-maturity investments	-	-	-	-	-
Risk management derivatives	15,236	18,273	0.37%	0.38%	19.93%
Non-current assets held-for-sale	3,600	3,600	0.09%	0.08%	0.00%
Other tangible assets	12,164	11,853	0.30%	0.25%	-2.56%
Intangible assets	26,279	26,013	0.64%	0.55%	-1.01%
Investments in associated companies	10,343	6,591	0.25%	0.14%	-36.28%
Current income tax assets	10,029	11,286	0.24%	0.24%	12.53%
Deferred income tax assets	145,933	145,618	3.56%	3.06%	-0.22%
Other assets	626,915	409,666	15.27%	8.62%	-34.65%
Total Assets	4,104,783	4,754,747	100.00%	100.00%	15.83%
Resources of central banks	61,139	60,000	1.49%	1.26%	-1.86%
Financial liabilities held-for-trading	502,350	1,042,681	12.24%	21.93%	107.56%
Resources of other credit institutions	1,632,522	1,974,169	39.77%	41.52%	20.93%
Resources of customers	567,038	735,708	13.81%	15.47%	29.75%
Debt securities issued	547,266	341,567	13.33%	7.18%	-37.59%
financial liabilities associated to transferred assets	-	-	-	-	-
Risk management derivatives	116,397	32,907	2.84%	0.69%	-71.73%
Provisions	10,810	8,815	0.26%	0.19%	-18.46%
Current income tax liabilities	4,370	4,111	0.11%	0.09%	-5.93%
Deferred income tax liabilities	194	1,628	0.00%	0.03%	739.18%
Subordinated liabilities	215	-	0.01%	-	-
Other liabilities	301,705	202,638	7.35%	4.26%	-32.84%
Total Liabilities	3,744,006	4,404,224	91.21%	92.63%	17.63%

AB: Financial Position Analysis of Haitong Bank S.A. (Continued)

Share capital	426,269	426,269	10.38%	8.97%	0.00%
Share premium	8,796	8,796	0.21%	0.18%	0.00%
Other equity instruments	3,731	83,731	0.09%	1.76%	2144.20%
Fair-value reserves	(11,919)	(2,312)	-0.29%	-0.05%	-80.60%
Other reserves and retained income	(5,453)	(111,455)	-0.13%	-2.34%	1943.92%
Net profit/(loss) of the year attributable shareholders of the parent company	(98,328)	(96,181)	-2.40%	-2.02%	-2.18%
Total equity attributable to the shareholders of the parent company	323,096	308,848	7.87%	6.50%	-4.41%
Non-controlling interests	37,681	41,675	0.92%	0.88%	10.60%
Total Equity	360,777	350,523	8.79%	7.37%	-2.84%
Total Equity and Liabilities	4,104,783	4,754,747	100.00%	100.00%	15.83%

AC: General Growth Analysis of Haitong Bank S.A.**General Growth Analysis**

Year	2015(Restatement)	2016	g 2016/2015
Total Operating Revenues	134,038	108,870	-18.78%
EBIT	(111,303)	(104,729)	-5.91%
Earning Per Share (EPS)	(1.49)	(1.13)	-24.16%
Total Assets	4,104,783	4,754,747	15.83%
Total Equity (Including Minority interests)	360,777	350,523	-2.84%
Total Liabilities	3,744,006	4,404,224	17.63%

AD: Revenue Growth Analysis of Haitong Bank S.A.**Revenue Growth Analysis**

Year	2015(Restatement)	2016
Revenues	134,038	108,870
Nominal Growth Rate		-18.78%
Inflation Rate		0.88%
Real Growth Rate		-19.66%
Exact Real Growth Rate		-19.49%

AE: Profitability Analysis of Haitong Bank S.A.**Profitability Analysis (Return on Assets)**

Years	2015(Restatement)	2016
RETURN ON ASSETS (ROA)		
EBIT	(111,303)	(104,729)
Total Assets	4,104,783	4,754,747
Return On Assets (ROA)	-2.71%	-2.20%
Breakdown:		
Revenues	134,038	108,870
Return on Sales = EBIT/ Sales	-83.04%	-96.20%
Total Assets Turnover = Sales/Total Assets	3.27%	2.29%
ROA = Return On Assets	-2.71%	-2.20%

AF: Profitability Analysis (Return on Net Assets) of Haitong Bank S.A.

Profitability Analysis (Return on Net Assets)		
Years	2015(Restatement)	2016
RETURN ON INVESTED CAPITAL		
Invested Capital (or Net Assets):		
Non-current assets held-for-sale	3,600	3,600
Other tangible assets	12,164	11,853
Investments in associated companies	10,343	6,591
Fixed or Non Current Assets	26,107	22,044
Operating Current Assets:		
Cash and deposit at the Central Banks	117,684	37,550
Deposita at other Credit Institutions	38,960	104,254
Financial Assets Held-for-trading	1,346,489	1,494,915
Available-for-sale financial assets	457,198	790,346
Loans and advances to banks	258,795	853,687
Loans and advances to customers	1,035,158	841,095
Total Operating Current Assets	3,254,284	4,121,847
Operating Current liabilities:		
Financial liabilities held-for-trading	502,350	1,042,681
financial liabilities associated to transferred assets	-	-
Resources of customers	567,038	735,708
Risk management derivatives	116,397	32,907
Total Operating Current Liabilities	1,185,785	1,811,296
Net Operating Working Capital Needs or Requirements	2,068,499	2,310,551
Invested Capital (or Net Assets):	2,094,606	2,332,595
Operating Profit (or Profit from Operations) = EBIT	(111,303)	(104,729)
ROIC = Return on Invested Capital (before taxes)	-5.31%	-4.49%
Sales = Total Revenues	134,038	108,870
ROS	-83.04%	-96.20%
Fixed Assets/Sales	19.48%	20.25%
Net operating working capital needs/ Sales	15.43	21.22
Invested capital/Sales	15.63	21.43
Invested Capital Turnover	0.06	0.05
ROIC = Return on Invested Capital (control)	-5.31%	-4.49%

AG: Return on Equity Analysis of Haitong Bank S.A.

Return on Equity Analysis (Spread Model - Total Assets)		
Years	2015(Restatement)	2016
Spread Model with Total Assets and Total Liabilities:		
Operating Profit + Interest Income = EBIT (Earning Before Interest and Tax)	(111,303)	(104,729)
Income Taxes	(19,906)	(9,771)
EBT	(112,446)	(104,563)
Implied Tax Rate = Taxes/EBT = t	17.70%	9.34%
Tax Effect = 1- t	82.30%	90.66%
EBITAT = Earning Before Interest but After Taxes	(91,599)	(94,942)
Total Assets	4,104,783	4,754,747
After Taxes ROA (ROA AT)	-2.23%	-2.00%
Interest Expense	207,070	214,025
Total Liabilities (D)	3,744,006	4,404,224
Average Interest Rate on Total Liabilities	5.53%	4.86%
After Taxes Average Interest Rate (AIR AT)	4.55%	4.41%
Financial Margin or Spread After Taxes (MoS = ROA AT - AIR AT)	-6.78%	-6.40%
Total Equity €	360,777	350,523
Financial Leverage = D/E = Debt/Equity	10.38	12.56
Financial Leverage Effect (=MoS*D/E)	-70.39%	-80.44%
Total Return on Equity = ROA AT + Financial Leverage Effect	-72.62%	-82.44%
Net Income	(92,540)	(94,792)
ROE = Total Return On Equity	-25.65%	-27.04%

AH: Return on Equity Analysis of Haitong Bank S.A.

Return on Equity Analysis (Spread Model - Total Funding)		
Years	2015(Restatement)	2016
Spread Model with Total Funding:		
Total Equity	360,777	350,523
Resources of central banks	61,139	60,000
Resources of other credit institutions	1,632,522	1,974,169
Debt securities issued	547,266	341,567
Provisions	10,810	8,815
Medium and Long Term Debt	2,251,737	2,384,551
Current income tax liabilities	4,370	4,111
Deferred income tax liabilities	194	1,628
Subordinated liabilities	215	-
Other liabilities	301,705	202,638
Short Term Debt	306,484	208,377
Total Debt	2,558,221	2,592,928
Cash and deposits at central banks	117,684	37,550
Deposits at other credit institutions	38,960	104,254
Financial assets held-for-trading	1,346,489	1,494,915
Available-for-sale financial assets	457,198	790,346
Risk management derivatives	15,236	18,273
Total Cash and Equivalent (interest generating assets)	1,975,567	2,445,338
Net Debt = Total Debt - Total Cash and Equivalent = D	582,654	147,590
Total Funding	943,431	498,113
EBIAT (Excluding Interest Income) = NOPLAT	(91,599)	(94,942)
After Taxes ROA (ROA AT) (Based on Total Funding)	-9.71%	-19.06%
Net Interest Expense	207,070	214,025
Average Interest Rate on Net Debt	35.54%	145.01%
Tax effect	82.30%	90.66%
After Tax Average Interest Rate on Net Debt	29.25%	131.46%
Financial margin or Spread	-38.96%	-150.52%
Financial Leverage Ratio = D/E	1.61	0.42
Financial Leverage effect	-0.63	-0.63
Return On Equity = Total ROE	-72.62%	-82.44%

AI: Balance Sheet Analysis of Haitong Bank S.A.

Balance Sheet Analysis (Ratios)		
Years	2015(Restatement)	2016
Functional Balance Sheet		
Total Equity	360,777	350,523
Medium and Long Term Debt	2,251,737	2,384,551
Permanent Capital = Long Term Capital = Non Current Capital	2,612,514	2,735,074
(Net) Fixed Assets or Non Current Assets	26,107	22,044
Net Working Capital (NWC)	2,586,407	2,713,030
Cash and deposit at the Central Banks	117,684	37,550
Deposita at other Credit Institutions	38,960	104,254
Financial Assets Held-for-trading	1,346,489	1,494,915
Available-for-sale financial assets	457,198	790,346
Loans and advances to banks	258,795	853,687
Loans and advances to customers	1,035,158	841,095
Total Operating current Assets	3,254,284	4,121,847
Financial liabilities held-for-trading	502,350	1,042,681
financial liabilities associated to transferred assets	-	-
Resources of customers	567,038	735,708
Risk management derivatives	116,397	32,907
Total operating Current Liabilities	1,185,785	1,811,296
Net Operating Working Capital Needs of Requirements	2,068,499	2,310,551
Net Treasury - First Approach Measure	517,908	402,479

AJ: Other Ratio of Haitong Bank S.A.

Other Ratios	2015(Restatement)	2016
Years		
Fixed Assets Coverage:		
By Total Equity	13.82	15.90
By Permanent (or Long Term) Capital	100.07	124.07
Liquidity:		
Current Assets	3,269,520	4,140,120
Current Liabilities	1,492,269	2,019,673
Current Ratio	2.19	2.05
Total Cash and Equivalent (interest generating assets)	1975567	2445338
Quick Ratio or Acid Test	1.65	1.69
Total Equity (including minority interests)	360777	350523
Total Assets	4104783	4754747
Total Equity / Total Assets (including minority interests)	8.79%	7.37%
Group Equity (excluding minority interests)	360,777	350,523
Group Equity / Total Assets (Excluding minority interests)	8.79%	7.37%
Interest bearing debt	2,558,221	2,592,928
Interest bearing debt/Total assets	62.32%	54.53%
Total liabilities	3,744,006	4,404,224
Total Liabilities / Total assets	91.21%	92.63%
Solvency		
Total Capital Ratio	10.60%	9.70%
Tier 1 Ratio	10.50%	9.60%
CET 1 Ratio (common equity Tier 1 ratio)	10.50%	7.10%
Solvency (Total Equity / Total Liabilities)	9.64%	7.96%
Coverage Ratios:		
EBIT (including Interest Income)	(111,303)	(104,729)
Interest Expense	207,070	214,025
Short Term Debt	306,484	208,377
TIE = Times Interest Earned = EBIT/Interest Expense	-0.54	-0.49
Tax Factor or Tax Effect	0.82	0.91
Short Term Debt / (1-t)	372,411	229,856
EBIT (including Interest Income) *(1-t)	-91599	-94942
Interest Expense after Tax	170413	194025

AK: Risk-free rate and market return rate

	2014	2015	2016	Average
Risk-Free Rate of US	10.75%	1.28%	0.69%	4.24%
Return of S&P 500	13.52%	1.38%	11.77%	8.89%

Source: Damodaran Website: Historical Returns on Stocks, Bonds and Bills - United States

AL: Required Rate of Return by the Investors

Risk-free Rate of US	4.24%
Country Risk premium of Portugal	2.88%
Risk-free Rate of Portugal	7.12%
Market Return of US	8.89%
Market Risk Premium	4.65%
Beta	0.9
Rate of Return by the investors	11.31%

Note: Country Risk Premium of Portugal is from Risk Premiums for other Markets of Damodaran Website. And the Beta is from Total Beta by Industry Sector of Damodaran Website.

AM: Predicting of Income Statements from Year 2017 to Year 2022

Consolidated Income Statement	History	Project					Continuing
	2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022
Consolidated Banking Income	109,036	129,089	153,374	178,992	209,012	244,208	253,293
Fees and Commission Income	45,187	49,706	54,676	61,730	69,693	78,683	81,610
Growth Rate of Fees and Commission Income	-45.21%	10.00%	10.00%	12.90%	12.90%	12.90%	
Net interest Income	57,110	71,005	88,280	104,886	124,615	148,055	153,563
Growth Rate of Net Interest Income	28.50%	24.33%	24.33%	18.81%	18.81%	18.81%	
Market Result	6,739	8,379	10,417	12,377	14,705	17,471	18,120
Growth Rate of Market Result	12.69%	24.33%	24.33%	18.81%	18.81%	18.81%	
Total Operating Expense	155,939	148,345	151,154	154,221	157,570	160,651	166,627
Staff Costs	92,955	88,307	90,082	91,974	93,997	95,809	99,373
Growth Rate of Staff Costs (Expected Inflation rate)	0.64%	-5.00%	2.01%	2.10%	2.20%	1.93%	
General and Administrative Expenses	56,569	53,741	54,821	55,972	57,203	58,306	60,475
Growth Rate of General and Amortization Expense	5.35%	-5.00%	2.01%	2.10%	2.20%	1.93%	3.72%
Depreciation and Amortisation	6,415	6,297	6,251	6,275	6,369	6,535	6,779
Growth Rate of D&A	-2.95%	-1.84%	-0.73%	0.38%	1.50%	2.61%	3.72%
Net Operating Income (EBIT)	(46,903)	(19,256)	2,219	24,771	51,442	83,558	86,666
Permanent Growth Rate							3.72%
Impairment and Provisions	(57,660)	(35,828)	(24,709)	(18,728)	(15,474)	(13,841)	(13,326)
Growth Rate of Impairment and Provision	-44.69%	-37.86%	-31.03%	-24.21%	-17.38%	-10.55%	-3.72%
Profit before Income Tax	(104,563)	(55,084)	(22,490)	6,043	35,968	69,716	73,340
Income Tax	(9,771)	(7,449)	(3,041)	1,390	8,273	16,035	16,868
Tax Rate	9.34%	13.52%	13.52%	23.00%	23.00%	23.00%	23.00%
Consolidated Net Profit	(94,792)	(47,634)	(19,448)	4,653	27,696	53,682	56,472
Number of Shares (thousand unit)	83,887						
Growth of number of Shares	35.07%						
Earnings per share	(1.13)	(0.57)	(0.23)	0.06	0.33	0.64	0.67

AN: Predicting the Free Cash Flow to Equity from Year 2017 to Year 2018

	History	Project					Continuing
	2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022
Net income	(94,792)	(47,634)	(19,448)	4,653	27,696	53,682	56,472
Financial assets held for trading	1,494,915	1,517,339	1,555,272	1,595,320	1,637,596	1,682,221	1,729,323
Growth Rate of Financial asset held for trading	11.02%	1.50%	2.50%	2.58%	2.65%	2.73%	2.80%
Available for sale financial assets	790,346	802,201	822,256	843,429	865,780	889,373	914,275
Growth rate of available for financial assets	72.87%	1.50%	2.50%	2.58%	2.65%	2.73%	2.80%
Loans and advance to banks	853,687	866,492	888,155	911,025	935,167	960,650	987,548
Growth rate of loans and advance to banks	229.87%	1.50%	2.50%	2.58%	2.65%	2.73%	2.80%
Loans and advance to customers	841,095	853,711	875,054	897,587	921,373	946,480	972,982
Growth rate of loans and advance to customers	-18.75%	1.50%	2.50%	2.58%	2.65%	2.73%	2.80%
Other assets	774,704	786,325	805,983	826,737	848,645	871,771	896,180
Growth rate of other assets	-23.08%	1.50%	2.50%	2.58%	2.65%	2.73%	2.80%
Total assets	4,754,747	4,826,068	4,946,720	5,074,098	5,208,562	5,350,495	5,500,309
Change of Assets	649,964	71,321	120,652	127,378	134,464	141,933	149,814
Financial liabilities held for trading	1,042,681	1,056,757	1,080,534	1,105,576	1,131,944	1,159,705	1,188,929
Growth rate of financial liabilities held for trading	107.56%	1.35%	2.25%	2.32%	2.39%	2.45%	2.52%
Deposits from other banks	1,974,169	2,000,820	2,045,839	2,093,251	2,143,175	2,195,736	2,251,069
Growth rate of deposits from other banks	20.93%	1.35%	2.25%	2.32%	2.39%	2.45%	2.52%
Customers accounts	735,708	745,640	762,417	780,086	798,691	818,279	838,900
Growth rate of customers accounts	29.75%	1.35%	2.25%	2.32%	2.39%	2.45%	2.52%
Debt Securities issued	341,567	346,178	353,967	362,170	370,808	379,902	389,476
Growth rate of debt securities issued	-37.59%	1.35%	2.25%	2.32%	2.39%	2.45%	2.52%
Other liabilities	310,099	314,285	321,357	328,804	336,646	344,902	353,594
Growth rate of other liabilities	-37.33%	1.35%	2.25%	2.32%	2.39%	2.45%	2.52%
Total liabilities	4,404,224	4,463,681	4,564,114	4,669,887	4,781,264	4,898,524	5,021,967
Change of liabilities	660,218	59,457	100,433	105,773	111,377	117,260	123,443
Change of Equity	(10,254)	11,864	20,219	21,605	23,087	24,673	26,371
FCFE	(84,538)	(59,499)	(39,667)	(16,952)	4,609	29,009	30,101

AO: Discounted Cash Flow to the Equity

	Historical	Projected					Continuing
	2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022
thousand euros							
Net income		(47,634)	(19,448)	4,653	27,696	53,682	56,472
Changes in Assets		649,964	71,321	120,652	127,378	134,464	141,933
Changes in Liabilities		660,218	59,457	100,433	105,773	111,377	117,260
Free Cash Flow for Equity		(37,380)	(31,312)	(15,566)	6,091	30,595	31,799
Required rate of return by investors		11.31%	11.31%	11.31%	11.31%	11.31%	11.31%
Cumulative investors' required rate of return		1.11	1.24	1.38	1.53	1.71	1.90
Perpetuity Growth Rate							3.72%
Terminal value							220,479
Present value		(33,584)	(25,275)	(11,288)	3,969	17,909	
SUM=Total Equity Value in 2016	172,209						
The book equity value at the end of 2016	350,523						
The acquired Price in 2014	379,000						
Net asset value in 2014	618,000						

AP: Multiples (Relative Method)

	Haitong S.A.	Bank Banco Comercial Portuguese S.A.	Banco BPI S.A.	Caixa Geral de Depositos S.A.
Price to Book Value	0.41	0.26	0.56	NA
Price to Earnings Ratio (current)	7.35	9.47	5.23	NA
ROE (%)	-27.04%	0.03	0.11	-47.89%
Debt/Equity (unadjusted)	12.56	12.54	12.16	23.09
Beta	0.9	1.9949	1.6848	-
Net earnings of Haitong Bank S.A. in 2016 (thousand euros)	(94,792)			
Book equity value of Haitong Bank S.A. (thousand euros)	350,523			
Estimated equity value of haitong Bank S.A. in 2016 (through PBV) (thousand euros)	144,716			
Estimated equity value of haitong Bank S.A. in 2016 (through PER) (thousand euros)	218,364			