Master thesis Accounting

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JULY 2011

Does the recognition of football players contracts require extra attention?

Accounting, Valuation and Duration of Football player contracts.

A re-examination with European data.

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Abstract

This paper investigates the legitimacy to recognize football player contracts as intangible asset on the balance sheet. This research revealed that these assets do not meet the prescribed IFRS recognition criteria of future economic benefits. There is no direct correlation between investing in football player contracts and one of the three used measurement criteria's for future economic benefits; Sales, operating profit and accounting cash flow. Prior research by Amir and Livne (2005), found weak indications between the recognition of intangibles and future economic benefits by UK professional football clubs. The results of this research are based on the data of fifty European listed and non-listed football clubs. Further is the market reaction on investment in football player contracts examined. This with the expectation that the market would react on possible related future economic benefits. No significant relation between the recognition of football player contracts and the market price is found. However selling contracts will cause a decreasing market price what could implicate the presence of emotional decision making with football shares. The main reason for football clubs to invest in football players contracts is not to gain future economic benefits but to improve their on-field performance. So to demonstrate the triangular relationship between investing in football player contracts, on-field performance and future economic benefits the relation between investing in football player contracts and the on-field performance is tested. Demonstrated is that investing in football player contracts actually contribute to an increased probability of a good on-field performance. Conversely the sales of contracts reduce this likelihood. Last, the impairment policy of football clubs is brought to the attention. Impairment is applied when the carrying amount exceeds the recoverable amount through use or sale. This accounting policy allows football clubs to write down football players that are long-term injured or underperforming. The expectation that in a bad on-field year the impairment is greater than in a good on-field year is not met.

Keywords: Accounting, Intangible assets, Football player contracts, Impairment, market reaction

Preface

This master thesis is the written result of my research conduct to finalize the master study Accountancy at Tilburg University, Netherlands. This thesis is based on the combination of my two passions, football and accounting. The football industry has interested me from childhood. I am a great fan of N.E.C. Nijmegen and I had the possibility to conduct a thesis here for the Accountancy study at the University of applied science Arnhem Nijmegen. This research, into the financial feasibility of a combined youth football academy supported by the KNVB, between the professional football clubs N.E.C. Nijmegen and F.C. Oss, attended me on the special accounting policy for football player contracts. This special policy was the subject of my bachelor thesis at Tilburg University. To follow up on my bachelor thesis, lies in front of you the result of an extensive research based on the recognition of football player contracts.

First of all I would like to express my sincere gratitude to my supervisor, Prof. dr. mr. P.M. van der Zanden RA who have helped me to accomplish this thesis. Especially for the sharing of his wisdom and knowledge and for the helpful comments on my thesis. A second word of thank goes to R. Berkel MSc. for the supervision during the internship at KPMG Arnhem. Further, I would like to thank the organization KPMG for the opportunity of an internship and their assistance in gathering specific data.

Finally, I would like to express my greatest thank to my family, girlfriend and friends, who have supported me during the writing process of this thesis.

Bob Brommer

Nijmegen, July 2011

"Life is like football, we need GOALS"

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1. Introduction and development of the research question

Football is by far the most popular sport in the world. Hundreds of millions around the globe practice it and even more are following it. Over 700 Million people watched Spain winning the World-cup final 2010 from the Netherlands[1]. 'Football is often considered as one of the most important phenomena of the 20th century' (Palacios-Huerta, 2004).

1.1 Financial crisis in football

The UEFA (Union of European Football Associations) reported January 11, 2011 that the European football clubs active in the top divisions (197 clubs) had created a net loss of €1.2 billion in the financial year 2009-2010. This despite of a revenue record of €11.7 billion. More than one out of eight club auditors expressed their doubts about the going concern of the club(UEFA,2011). In the professional football industry is a lack of financial transparency that hides the financial crisis. This is often reflected in delaying the presentation of the financial statement, numerous exceptions in the auditing report and the existence of an outdated administration. Football clubs are organized as association and are in origin not profit maximizers, so they do not have a profit motives. They budget to zero and spend as much as possible on the football team. The financial weakness of clubs is reflected in the imbalance between revenues and costs. Many football clubs have ratios that correspond with bankruptcy firms. (Barajas 2004, Ascari and Gagnepain 2006, Boscá, Liern, Matínez, & Scala 2006). Despite the fact that European clubs are not profit maximizers, their objective is some kind of utility and win maximization. This makes them more aggressive to compete for talented players (Fort and Quirk 2004). Management of these clubs are more willing to sacrifice some financial return to invest in football players (Vrooman 1997).

Barajas and Rodriquez (2008) conclude that we have to be conscious about the limitations derived from the low quality information that Spanish professional football clubs provide. The clubs are under legal restraint and have been inefficient with spending their money on football players. The two determinants that cause most of the net loss are wages and transfer fees (2.2 billion). Football clubs try to prevent transfer free changes of football players between football clubs, especially due to the Bosman ruling.[2] They offer football players long-term contracts and in return for this they receive (extreme) high salaries. If other clubs like to acquire a contracted football player they usually have to pay a transfer fee to redeem the remaining contract. So the Bosman ruling resulted in higher wages and transfer fees. The football industry now experience the disadvantages of this ruling (Feess and Mühlheußer, 2002). Furthermore, due to the freedom of labour other regulations are difficult to introduce, for example salary caps. Such regulations endanger the advantages of historically powerful and wealthy clubs. Besides tightening the regulations, another solution could be replacing fixed salaries for bonus salaries (Solberg & Haugen 2010).

[1] *www.sportbusiness.com/news/178947/fifa-over-700m-viewers-for-world-cup-final*

[2] The Bosman-case is a statement from European court of Justice on 15 December 1995 about the freedom of movement for football players. This judgment had a direct effect on the transfer of football players in the European Union. They could move freely to another club at the end of the term of contract. Source: *http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:12002E039:EN:NOT*

1.2 Intangible assets

Intangible assets have been defined under the International Accounting Standard (IAS) 38 in IFRS by the International accounting standard board (IASB). 'The objective of IAS 38 is to prescribe the accounting treatment for intangible assets that are not specifically dealt in another standard' (IAS 38). This standard is issued in 1998 and has been revised on 31 March 2004. An intangibles asset is 'an identifiable nonmonetary asset without physical substance. An asset is a resource that is controlled by the entity as a result of past events and from which future economic benefits are expected.'(IAS 38) In other words the three critical recognition criteria of an intangible asset are:

- *Identifiability*
- *Control*
- *Future economic benefits*

The football industry is the only sector in which human resource accounting is applied in the financial reporting. More specifically in accounting for transfer fees (Morrow, 1999). The introduction of IAS 38 (1998) prescribe the recognition, if the fair-value can be measured reliably, of paid transfer fees for football player contracts under intangible assets. So the amount paid to acquire a football player from another club in an arm's length transaction must be capitalized (Amir and Livne,2005). Major reason to recognize intangible assets is that the information could be value-relevant (Wyatt 2008). Value-relevance has been defined in the literature as: 'an accounting figure/ratio is value relevant if it has the significantly strong predicted association with the stock price and stock market indicators'(Amir et al., Vishnani & Shah 2008). The question arises, react the stock price of a football club to the announcements about investments (recognitions) in (of) football player contracts? In general they are accounted in the following way: *The costs associated with acquiring players are in general capitalized and amortized over the period of the respective players contract. In the case of a non-cash consideration the transaction is accounted by using a market value for the non-cash consideration*. *Provision is made for any impairment and player registrations are written down for impairment when the carrying amount exceeds the amount recoverable through use or sale.*(UEFA Financial fair play regulations 2010) This recognition policy is prescribed by IFRS for listed clubs and in general non-listed clubs apply the same method.

1.3 Research Questions

This study will focus on intangible assets 'football player contracts' recognized by non-listed and listed European football clubs. Especially on the IFRS recognition criteria about future economic benefits. Prior research by Amir and Livne, 2005 found weak indications between the recognition of intangibles and future economic benefits by UK professional football clubs. The UK football industry is well known as an industry of purchasing football players instead of developing them and sell them. The balance between buying and selling is distorted in the UK. The estimated expenditure on transfer fees for the English premier league in 2010/2011 was 702 million and the revenues on fees were estimated at 358 million.[3] So this study will focus on a more broadly database and will use European football clubs to measure the following hypothesis.

H1 There is a positive relation between investing in football player contracts and future economic benefits of European professional football clubs.

If there exist no relation between future economic benefits and football player contracts, there is no well-grounded reason to recognize these costs. Besides the outcome of hypothesis 1, I expect that the shareholders of listed football clubs asses football player contracts as value relevant. They expect that these contracts contain future economic benefits for the firm. In other words, the market price of European listed football clubs is positively related to the investment in football player contracts. Amir and Livne already found that the amount of transfer fees paid is positively related to the market value of football firms in the UK.

H2 There is a positive relation between investing in (individual) football player contracts and the market value of European listed football firms.

Football clubs main reason to invest in football players contracts is not to gain future economic benefits but to improve their on-field performance. Subsequently they try to gain revenues, through television rights, sponsorships and gate receipts what could be indicated as economic benefits. To demonstrate the triangular relationship between investing in football player contracts, on-field performance and future economic benefits the following hypothesis is added.

H3 There is a positive relation between investing in football player contracts and the on-field performance of European listed football clubs.

[3] *www.transfermarkt.de*

In general football player contracts are capitalized and amortized over the respective duration of the contract. Impairment is applied when the carrying amount exceeds the recoverable amount through use or sale. This accounting policy allows football clubs to write down football players that are long-term injured or underperforming. From the perspective of football clubs this can be assessed as value destroying. So the expectation is that football clubs have a higher impairment when they perform worse on-field.

H4 Impairment of football player contracts is higher when the football club perform weaker on-field.

Most of the intangible assets will be valued and recognized after the acquisition from another company or in combination with a total business acquisition. But in the football industry there is twice a year a transfer window in which player contracts are purchased and sold. These high sales figures provide enough observation numbers to test the relation between the investment in football player contracts and future economic benefits. It is an interesting question to see if football clubs meet the recognition criteria of intangible assets. If not, there is no reason to recognize these costs. Instead of the study from Amir and Livne, I expect to find a stronger relation between football player contracts and future economic benefits. Particularly because the UK football competition is an industry of purchasing football players instead of selling them. The Eredivisie (Netherlands), Scottish Premier League (Scotland) and Danish Superliga (Denmark) are more known as competitions in which football players develop and then sold to the UK or Spain. This research will make a distinction between countries but there will be no overall conclusion given for Europe. Only results for a combination of the six European countries (pooled) will be given. This research may further provide guidelines for governmental bodies like FIFA and UEFA. If points out that there is no relation between future economic benefits and football player contracts, they could consider to address the IFRS to change the accounting policy for the football industry. They could make guidelines for clubs to report additional special purpose information for their shareholders.

The remainder of this paper is organized as follows. The next section discusses the literature about the football industry and intangible assets. Section 3 presents the selected sample consisting of European football clubs. In section 4, I will specify the research method and give the results about the four tested hypothesis. Thereafter the conclusion is given in section 5 and the last section initiates the discussion about different accounting policies for football player contracts.

2. Discussion of the literature

2.1 Football industry

One of the best description about the football industry is given by Szymanski & Smith (1997): *'A set of competing specialist firms within a well-defined market, is little more than a metaphor in most of the economy, but in the area of professional team sports it represents a very precise description'*.

In the following section the ins and outs of the football industry, in literature and reality, are given. The service of professional football clubs consists of one very high and price inelastic product, namely facilitating a football match. Most of the revenues are generated from television rights, sponsorships and gate receipts. Despite the fact that most football clubs are local monopolists, it is almost impossible to increase profits through higher entrance prices. This is not only caused by the (high) elasticity of the product, but also by the attendance of leisure activities. Further are spectators in the stadium an input on the performance of a football team (Szymanski & Smith 1997, Forrest, Simmons & Feehan 2002). What does matter in obtaining more revenues is the market size and population size of the surrounding area. This correlate with the sporting success of the football club (Buraimo, Forrest & Simmons 2007). The trade-off between profit and position in a football league showed in empirical research negative slopes. This gave weak indications that spending on football is not self-financing through higher revenue and performance (Szymanski & Smith1997). However clubs invest most of their revenues on football players. The cause lies in the origin of football clubs. They are not oriented on profit maximization because they are founded as associations. Further the limited market for corporate control do not encourage this profit maximization (Sloane 1971). Clubs are budgeting to zero and capital have to be on the field, to achieve sporting successes, instead of creating equity for the firm or shareholder. Prior literature point out that the football industry fail to set up market corporate control. The corporate governance of football firms are particularly weak. Further do clubs not have clear and transparent procedures to appoint directors. Probably this is the bases of the already discussed financial crisis in the football industry.

FIFA[4] is the governing body of all professional football clubs in the world. To manage all football activities in the different continents and regions of the world, FIFA recognized six confederations. UEFA[5] represents the national football association for Europe. Their responsibility is to set and control the regulations for the European competitions. In 2009 488 clubs in Europe were licensed by the UEFA as professional football club in a top division. Twenty-eight of them (included Turkey) were listed on the stock exchange.

In 2009 UEFA conduct a benchmark about the governance and financial development of all European football clubs. Most remarkable finding is that the total balance sheet value of all European football clubs is 5,5 billion, but the total annual amount spend on wages and transfer fees is 10,5 billion. More than 10% of all European clubs are spending over 100% of their revenue on wages. 37% of all football clubs report a negative net equity loss and 24 % of the total assets contain of football player contracts.

[4] The international Federation of Association Football (FIFA) is the international governing body of association football, futsal and beach football. They are governed by Swiss law, based in Zurich and founded in 1904. Their mission is described as: ; Develop the game, touch the world, build a better future'.

[5] The Union of European Football Association is the controlling body for European association football.

2.2 Intangible assets

The literature about intangible assets can be defined into three broad groups and six more specified categories(Wyatt 2008):

Technology resource	1) Research and Development (R&D) expenditures and related Intellectual property (IP)
Human resources	2) Human capital
Production resources	3) Advertising, brands and related IP
	4) Customer loyalty
	5) Competitive advantage
	6) Goodwill

Football player contracts can be classified under human capital. This category reflects the generated recourses from the investment in employees. The literature about Human capital and the relation with football player contracts will be broadly discussed in section 2.3. The following section discusses the intangible asset in literature and reality.

Investments and expenditures on intangible assets are important to improve firm performance. It increases the capabilities to exploit emerging opportunities and markets and achieving profitability goals (Cohen and Levinthal, 1989). The expenditures on intangibles help to create and distinct value creating activities (Webster, 1999). Meanwhile Penman (2009) argues that we are blinded by the recognition of intangible assets on the balance sheet. The accounting literature is focused on the recognition of intangibles on the balance sheet but they forget the income statement. The income statement could also inform about the value of an asset through representing the earnings from an intangibles asset group. For instance the recognition of an individual football player on the balance sheet. Value creating by this individual asset is quite doubtful because only the total asset group of football player contracts, the football team, could create a cash flow. Indeed one football player could not start in a professional football competition and generate earnings. Second the errors in measuring the book value is magnified in the earnings. Incorrect valuating of player contracts could be reflected in on-field performance, what probably influences sales.

This argument is based on the two original approaches in measuring net income in balance sheet, namely transaction- or balance sheet approach. The difference lies in the fact that the balance sheet approach, also referred to capital maintenance approach, is based on the principle that net income is expressed in the change of capital on the balance sheet . The transaction approach assumes that the balance sheet present unfinished transactions. Especially the recognition of football player contracts is based on the first balance sheet approach. Football players contracts are one of the main assets of a football firm. The purchase of players creates capital while the sale or depreciation result in the opposite.

2.2.1 Development of IAS 38

Until 1977 football players had some restriction in the freedom of movements between clubs. Clubs had an effective monopoly position, because football players could only switch from clubs if both clubs agreed. So in this period football clubs received also a transfer fee after the contract expired. Only since 1977 football players have the freedom of contract. That means that they are free to leave the club if they did not receive a new contract. Clubs still had the power to unilaterally extend the contract. So players had still no full freedom of transferring. This changed in 1995 with the Bosman ruling that ensured the free movement of footballers. Nowadays if contracts expire no fee has to be paid.

Before 1998 (introduction of IAS 38) a wide variety of accounting policies for transfer fees was applied. Rowbottom(2002) investigates the selection of accounting policies for intangible assets in the football industry. The different transfer fees policies were split in two categories, 'recognition policies' and 'expense policies'. In 1995 the majority (84,3%) of the sample, consisting of 102 clubs, choose the expense policy. Especially writing off as 'operating' or 'exceptional' expense. The perception of the capital market expectations influenced the selection of the accounting policy. Some indications demonstrate that they desire to avoid equity depletion.
In 1998 there was the introduction of IAS 38. This required that intangible assets acquired in arms length transaction, hence football player contracts, should be capitalized (Amir & Livne 2005). As already mentioned, the IAS 38 was revised on 31 March 2004. This revision is only developed to improve the quality for the accounting for business combinations. Football player contracts can be categorized under the 'separate acquisition' of an intangible asset. So they have not been influenced by this revision. The measurement of separate acquired assets are based on the purchase price and the directly attributable costs. For football player contracts this is defined as the costs associated with acquiring the football player.

The version of IAS 38 (1998) was based on the assumption that an intangible asset always had a finite useful life. The revised version prescribes amortization over the limited period the asset is expected to generate net cash inflow for the entity. This revision, applied to football player contracts, ensures that the amount recognized on the balance sheet is depreciated over the contract length of the related player. To summarize, recognition of intangible assets is allowed if it meets the following criteria: Measurable and Identifiable. The firm controls the intangible asset and it is expected that the future economic benefits will flow to the entity.

2.2.2 Measurable and Identifiable

An advantage of football player contracts is that it is separable and sold as an individual asset. The value of a football player contract is measured at the costs associated with acquiring the contract of the player. Purchase of a contract is defined in this research as the 'acquisition of a football player'. But to make clear, football clubs purchase the contract to obtain the rights of the football player skills from another party. The recognized costs on the balance sheet includes the transfer fee paid, signing fee and payments to the agent of the football player.

2.2.3 Control

"An entity controls an asset if the entity has the power to obtain the future economic benefits flowing from the underlying resource and to restrict the access of others to those benefits. The capacity of an entity to control the future economic benefits from an intangible asset would normally stem from legal rights that are enforceable in a court of law. In the absence of legal rights, it is more difficult to demonstrate control. However, legal enforceability of a right is not a necessary condition for control because an entity may be able to control the future economic benefits in some other way" (IAS 38)

Particularly the last sentence in the definition of control by IAS 38 is applicable on football player contracts. From a legal perspective it is not possible to control football players, because this could take forms of slavery. The *asset that an entity controls* is the two-sided contract between football player and club. Due to the Bosman ruling football clubs control right over players reduced. But the legal control rights over the future economic benefits from the football player contracts remain. An example of this is the case of the Romanian football player Mutu, who was under contract to the English football club Chelsea. Chelsea claimed 17 million after Mutu had breached the terms of his contract by using cocaine on 29 October 2004. In 2003 Chelsea paid €22,5 million to acquire his contract from Parma. On 7 May 2008 the Federal supreme court of Switzerland obligated Mutu to pay € 17.000.000,- to Chelsea for the breach of his contract.[6] This amount included € 16.500.000,- of unamortized transfer fee and € 360.370,- unamortized signing-fee. Not paying this compensation would result in a ban for professional football.[7] In this case the club tries cover their costs and control the benefits that flow from the contract. Eventually the football player related to the contract was called to account.

The last four words of the definition of control, indicate that firms could enforce control "in some other way". The only *legal enforceability in a court of law* that clubs have are captured in the terms of the contract. Breaching these terms could result in fines and bans from football. These two control methods indicate the control rights that football clubs dispose. Clubs have the possibility to sell and posses all future economic benefits flowing from the contract. A limited form of personal control is reflected in the terms of the contract. In some ways clubs restrict football players in daily life. In contracts for professional Dutch football players a clause has been inserted that they may not participate in indoor or other football activities. Furthermore they may not participate in high-risk activities that can endanger the employee condition. Such as bungee jumping, parachute jumping and skiing. This prohibition applies also the period between football seasons and during holidays. This indicates the restriction for football players in everyday life. But these regulations are comparable with the code of conduct that accountants have to behave professional in daily life. More remarkably is article 9.2 for Dutch contracts: 'states that any dispute between employer and employee that arises as a result of or in connection with his contract shall be subjected, to the exclusion of the ordinary court, to the Arbitration Committee of the KNVB[8], as described in the articles of association and rules of procedure of the KNVB.'(FBO contract). The KNVB is allowed to judge over disputes and in the case of football player Mutu, governing bodies have the possibility to ban such players from football. Clubs can only use fines as disciplinary action in violating the contract. Yet, included in the contract, is that if proven that

[6] *http://www.dailymail.co.uk/sport/football/article-1221954/Adrian-Mutus-17m-Chelsea-compensation-payment-delayed-Swiss-Federal-Court-ruling.html*
[7] Article 22 FIFA Disciplinary codes (2009): "Ban on taking part in any football-related activity:
"A person may be banned from taking part in any kind of football related activity (administrative, sports or any other)."
[8] Royal Netherlands Football Association (KNVB) is governing body of football in the Netherlands and member of the UEFA.

the contract is are conflict with mandatory rules this part will expire. In the case of control this mean that clubs can never include rules contrary to state law. Like rules that deprive freedom of movement for football players.

As already mentioned, control is expressed in the ability to sell the asset or possess all future benefits. To give an idea of future economic benefits you could think of the branding of football players. Football clubs generate revenues by selling shirts, caps and scarves. To this date, football shirts of FC Barcelona number 9 'Johan Cruyff' are still sold and worn. Furthermore famous football players contribute to the brand value of the football club. Take for example world's best football player, 'Lionell Messi'. Using his name will be automatically associated with FC Barcelona. So the brand value 'Messi' just like 'Cruyff' in former times, can be profitable for years without any enforceability. From that perspective, football clubs obtain property rights and control future economic benefits.

There are situations inwhich the use or control of human resource capital could lapse. The legal rights that flow from the intangible assets are no longer present. Take for example the death of a person or from a football club's perspective a long-term injury. In case like this there is a need for a set of social rules for deciding what to do (Tollington & El-Tawy 2010). Overall we can conclude that football clubs have a limited form of control, reflected in the ability to sell or possess all future benefits of the football player contract.

2.2.4 Future economic benefits

"The future economic benefits flowing from an intangible asset may include revenue from the sale of products or services, cost savings, or other benefits resulting from the use of the asset by the entity" (IAS 38)

The recognition criteria 'future economic benefits' could be placed in a different context . Tollington & El-Tawy (2010) used the example of a polluting control asset to reject the point of view that an asset must create future economic benefits otherwise it is not an asset. For example an asset that creates cash flow but pollutes and causes death. In this case the creation of economic benefits is irrelevant compared to the damage. But a pollution control asset that doesn't create any future cash flows is not considered to be an asset, for the simple reason of not generating any future economic benefit. This asset creates future economic benefits that are indirect and difficult to measure. In other words, this is still an asset because they match the recognition criteria: to use it, control it, transfer it etcetera. The IAS 38 hedge against examples like this, with the words 'cost saving'. But it would be more appropriate to assess assets in terms of balance of rights instead of in terms of economic benefits (Tollington & El-Tawy 2010).

Ritter & Wells (2006) found a positive association between future period income and intangible assets. This provides an insight about the informational value of identifiable intangible assets. Suggested is that goodwill will be less likely reflected in future returns than identifiable intangible assets. Also the intangible asset 'research and development' (R&D) have a high possibilities of providing future benefits, reflected in earnings (Ahmed & Falk 2009). Durst (2008) who measured the relevance of selected intangible assets, found that from the investors perspective, assessment of intangibles are high. The relevance of intangibles will increase in the future. From the results that there is a positive relation between future period income and intangible assets can be concluded that these contain future economic benefits. These studies provide insight in the recognition criteria of 'future economic benefits'. Which, hopefully, will be reinforced in this research.

2.3 Human capital

The first questions about accounting for people date back from the 1920's. Paton casts doubt on the credibility of a balance sheet without the presentation of the loyal personnel. In the mid 1990's accounting for people has greatly been improved. The thought behind human capital research is the saying 'our people are our greatest asset', widely attributed by Peters and Waterman. This saying raises the question how to account for this asset and how to value this.[9] Accounting for human capital is the fundament for the recognition of football player contracts.

The Meritum project, (November 1998 –April 2001) funded by the European Union, was created to improve and provide a consistent basis for the reliable measurement of intangible investments. The four objectives of this project were: 1) produce a classification of intangible investments. 2) Analyze management control systems in measuring intangible investments. 3) Measure the relevance of intangibles for the purpose of equity valuation in capital markets and 4) Set up guidelines for the measurement and disclosure of intangibles. The Meritum project designed an unique classification for intangibles. They divided it into three categories; 1) human capital, 2) structural capital and 3) relation capital. A special form of human capital is Intellectual Capital that refers to the skills, knowledge and attitudes of employees (Marr & Moustaghfir 2005). Especially in this category football player contracts can be classified under. This group is defined as, the knowledge that employees take with them when they leave the firm. For football players it is their football skills that make it worthy to invest in these intangibles.
The analyses of human capital allows the financial analyst and traders to recognize the elasticity of listed stocks ahead of time. This creates and provides a more transparent view for all investors. (Royal & O'Donell 2008) Human capital enables to manage intangible resources better(Tim Hoad).[10] Dumay & Tull (2007) argue that there are five more theoretical reasons to measure and report intellectual capital: 1) to help organizations with strategy formulation, 2) To help assess strategy execution, 3) To assist in strategic development, 4) Form a basis for employee compensation, 5) Communicate with shareholders. The first four reasons are based on the internal of the organization. The last argument is based on the fact that reporting intellectual capital could influence the share price. This topic will be dealt with extensively later in this research. These five theoretical reasons are also applicable for the football industry, because the recognition of football player contracts in balance sheets makes the organization better manageable. Clubs can budget the amortized cost of intangible assets for next year.

Intellectual capital is a synonymous for intangibles and can be categorized into three categories: human capital (inventory knowledge of the employees), structural capital (possession of the knowhow by the company, in forms of patents) and relational capital (the association with shareholder of the firm, like company images and customer loyalty) (Ordonez de Pablos, 2004). Prior research points out that there is a reverse relation between the level of intellectual capital disclosure and earnings before tax and interest (EBITDA). Firms with low EBITDA inform investors more about their intellectual capital (Sonnier, Carson & Carson 2007). High tech firms have a higher degree of intellectual capital than traditional sector firms. They depend more on their highly skilled and educated employees just like professional football clubs. The growing gap between market and book value is the

[9] http://www.accountingforpeople.org/index.php?option=com_k2&view=item&layout=item&id=15&Itemid=15
[10] Tim Hoad, Chair of an EU Commission Research Committee and author of its published report: Intellectual Capital to Augment Research, Development and Innovation in SMEs

reason why high tech firms provide higher levels of intellectual capital than traditional sector firms (Sonnier 2008). The financial accounting standards do not require specific reporting about intellectual property. Shareholders have to rely on the voluntary disclosure of Intellectual capital. This might bring about the risk that firms could manipulate their figures by wrongly disclosing intellectual capital and attempt to increase market value (Abeysekera 2008). Furthermore there is a limited correlation between human capital disclosure and management practices. The link between these two could be that disclosure of human capital contributes to the reduction of cost of capital or a lower level of information asymmetry (Garcia-Meca et al. 2005, Ax & Marton 2008).

We can conclude that prior research in the topic of human capital, especially in the area of intellectual capital contributes to the knowledge of investment in football contracts and the related disclosure.

2.4 Market reaction on intangible assets

It has already been mentioned that one of the reasons to recognize intangible assets is the informational value of it. The share price reflects the expectation of the market about firm performance and indicates the value relevance of information (Wyatt 2008). Ritter & Wells (2006) found evidence of a relation between stock prices and identifiable intangible asset disclosure for Australian firms. Hypothesis 2 I will test the value relevance of the recognition for football player contracts. The value relevance would be reflected in an in- or decrease of the market price along with the recognition of football player contracts.

There is a significant positive association between human capital asset and the market value of equity (Rosett, 1997 & 2001). One of the reasons that the share price responds to the disclosure of intellectual capital is that it clarifies the transparency of the capital market. This results in a lower weighed cost of capital and contributes to market capitalization. The transparency helps to create more trustworthiness by the shareholder what support the long term perspective for the share price(van der Meer-Kooistra & Zijlstra 2001). Other related research concludes that the market does not respond immediately to the announcements of intellectual capital. It can be that investors had already expected the announcements, or that the market needs respond time. Good announcements will be adopted stronger by the market than bad announcements (Dumay & Tull 2007).

Normally the earnings announcement are tested on the stock price. Beaver(1986) was a pioneer researching the reaction of earnings announcements reflected in price and volume changes of stocks. He found indications that earnings announcements causes prices and volumes changes. In hypothesis 2 the research method of Beaver, based on price and volume changes will be used. Also in the area of American football has been demonstrated that news announcements causes changes in stock prices. Match performance affect the trading volume, share price and volatility significantly. The reflection of game results on the share price is asymmetric. Which means that losses do and wins do not influence the stock price (Brown & Hartzell 2001). Renneboog and van Brabant (2000) found that soccer victories of English listed football clubs result the next trading day in a positive return of 1%. The abnormal returns respond negatively on draws and defeats, respectively abnormal losses of 0.6% and 1.4%. Analysis with a

time frame of a week showed an abnormal loss of 2.5% for an on-field loss and 1.7% for a draw (Scholtens & Peenstra, 2009).

Football firms corporate governance related news influence, besides match outcome, the stock price significantly. There is evidence that the share price of football clubs react on large investors. Another news announcement that significantly influenced the market was the false rumor of the issuance of bonds by Borussia Dortmund. This was reflected in the share price in subsequent days surrounding the rumor (Stadtmann 2005). Gerard & Lossius (2004) found with the reversed news model that match results and 40% of football clubs financial information can be related to half of the extreme stock price reactions.

Football clubs do not only influence their own shares. The on-field performance of the English national football team show a significant relation with stock market returns of listed firms on the London stock exchange, next trading day(Ashton, Gerrard & Hudson 2003). Also match results from other national teams could influence the investors mood. So strong negative reaction of losses by the national football team on the stock market are proven (Edmans, Garciá & Norli 2007).

Based on the literature we could conclude that match performance and news announcements of football clubs influence the market price. They can be seen as value relevant. The question in Hypothesis 2 tested the market price reaction on the recognition of football player contracts? Amir and Livne found that the investment in football player contracts is positively related with the market price. This research will focus on a more general database, namely European listed football clubs.

2. 5 Transfer fees

Until recently this sport compared with American team sports (Basketball, Ice hockey and Baseball) received less attention from academic economists. This changed recently and over the last 10 years, academic research on professional football increased. This as a result of the combination between the presence of more public information about football players salaries, the complete data-set of worker-employer relations and the change in the restriction of football players mobility due to Bosman ruling in 1995 (Frick, 2007). The following section discusses the results from papers based on transfer fees.

There is no racial factor in the determination of a transfer fee. This means that for black football players equal transfer prices are paid compared to white players (Reilly & Witt 1995, Medcalfe 2008).
In addition to this research Carmichael, Forrest and Simmons (1999) research the different variables that influence transfer fees. Football clubs pay more for experienced players who have the ability to score goals, what is the essence of football. Furthermore the size and status of the current employer affect the transfer fee significantly. Clubs pay more for players coming from other competitions. Even if the club is of similar size and status. At the same time they pay more for transfers during the mid-season transfer window than at the end (Dobson, Gerrard & Howe 2000).

The most significant variable for transfer fees is the contract duration (Huebl & Swieter 2002, Feess et al. 2004). This can be explained by the selection effect. Contract duration is based on the potential of the football

player. Longer contracts will be signed to better players with higher transfer fees. But note that the moral hazard problem can occur because longer contracts can reduce players effort (Frick 2007). The Bosman ruling resulted in a contract length increase of 20%. Football clubs try to prevent that football players leave the firm transfer free (Frick & Lehmann 2001, Frick 2007). Transfer fees will increase on average with 120% for every additional year of the remaining contract duration (Fees, Gerfin & Muehlheusser 2008).

3. Sample description

3.1 Sample selection

TABLE 1

Club	Average turnover	Average Profit (Loss)	Operational cash flow	Average salaries	Average assets	Applicable Annual reports	Number of observations (N)
Aalborg BK	2.207.075	-365.963	114.914	909.810	26.290.195	7	5
Arhus Elite	5.425.474	-1.828.043	-1.272.614	3.874.348	6.159.964	11	9
Brondby IF	20.791.137	697.081	3.063.299	7.758.106	75.605.942	10	8
Kopenhagen FC	29.632.346	4.327.811	5.884.201	7.185.651	142.151.349	7	5
Silkeborg	3.854.569	-391.407	-448.704	2.522.495	12.054.534	11	9
					Denmark		**36**
Arsenal	325.886.334	36.399.813	86.119.734	103.060.450	177.951.336	6	4
Blackburn Rovers	64.224.655	1.835.598	660.338	45.623.680	77.329.606	5	3
Bolton Wanderers	61.376.190	-22.204.363	n.a.	41.381.053	97.720.810	5	3
Chelsea	214.320.808	-57.590.151	-5.507.936	146.327.459	686.987.396	8	4
Everton FC	91.179.445	-3.707.550	8.437.002	50.637.181	64.089.937	5	3
Fulham FC	76.634.982	-12.197.433	n.a.	46.819.050	50.143.378	5	3
Liverpool	182.940.833	-10.225.619	38.627.611	91.554.829	270.301.863	5	3
Manchester City	114.512.779	-92.249.971	n.a.	93.175.789	422.517.213	5	3
Manchester United	221.654.024	37.803.711	n.a.	110.155.600	320.024.896	5	3
Tottenham Hotspur	98.220.913	3.286.264	22.958.455	44.942.934	180.705.100	12	10
					England		**39**
Auxerre	33.750.184	-6.196.999	-4.533.817	29.890.855	37.758.597	4	2
Girondins	73.501.818	4.019.604	-1.966.054	55.338.607	64.338.992	4	2
Lille	44.568.004	1.707.629	-10.377.392	16.260.530	10.086.756	5	3
Montepellier	22.712.357	240.720	-980.539	19.036.703	12.781.137	4	2
Olympique Lyonnais	176.093.500	-3.229.667	-9.372.333	62.280.500	291.448.500	4	2
Olympique de Marseille	89.458.000	7.199.000	27.476.000	48.090.000	113.083.000	3	1
PSG	75.355.744	-13.550.602	-10.492.005	53.681.822	61.810.034	5	3
Sochaux	31.137.200	-4.891.827	-7.724.176	25.910.912	27.003.009	4	2
Stade Rennes	46.971.553	-6.734.146	-2.293.331	36.466.368	46.139.890	4	2
Toulouse	37.016.207	-585.090	1.224.914	27.715.835	38.323.317	5	3
					France		**22**
Bayern Munchen	264.064.341	2.294.515	35.043.000	141.955.627	273.234.014	4	2
Borussia Dortmund	104.721.454	-3.222.481	19.336.000	45.169.000	222.490.970	5	3
Eintracht Frankfurt	68.460.204	572.427	5.224.750	26.606.173	41.813.329	4	2
Hannover 96	51.520.585	1.819.730	n.a.	25.906.427	19.756.843	4	2
Vfl Wolfsburg	101.326.545	622.923	n.a.	53.660.090	75.847.648	4	2
Werder Bremen	119.578.688	4.720.696	15.496.000	56.745.831	61.602.741	4	2
					Germany		**13**
Ajax	67.567.000	-7.098.400	-2.057.600	40.207.400	109.105.000	7	5
AZ	53.353.293	-7.029.566	7.762.413	28.265.502	48.530.542	3	1
Feyenoord	40.219.833	-7.066.667	-4.280.000	25.949.500	35.347.000	8	6
FC Groningen	18.264.187	543.343	678.470	10.800.667	18.424.444	6	4
sc Heerenveen	27.742.259	-635.177	-1.546.268	16.068.800	41.895.741	6	4
NAC Breda	12.494.867	255.349	-137.173	8.739.144	5.524.848	5	3
PSV	68.028.750	-112.000	17.392.625	32.477.875	138.375.125	10	8
Roda JC	10.554.167	-2.004.667	-1.528.667	7.306.333	6.366.000	8	6
FC Twente	30.715.333	2.834.053	7.128.000	18.617.176	73.862.647	5	3
FC Utrecht	17.687.456	-267.632	-1.509.514	10.058.660	16.331.259	6	4
Vitesse	12.875.600	375.800	-506.800	8.004.000	5.301.600	7	5
					The Netherlands		**49**
Aberdeen	11.078.306	-958.883	451.239	5.646.322	18.679.737	5	3
Celtic	79.437.741	3.530.167	10.863.578	38.078.656	98.028.008	7	5
Dundee utd	6.881.086	296.589	616.640	3.821.141	8.382.916	5	3
Glasgow Rangers	62.615.908	-116.033	4.655.652	24.823.867	175.321.508	9	7
Hearts	10.809.118	-9.573.657	-8.004.824	11.852.414	27.149.804	5	3
Hibernian	8.880.468	781.878	-981.341	4.897.117	31.564.830	5	3
Kilmarnock	8.428.053	62.098	506.690	4.184.098	20.426.361	5	3
Motherwell	5.236.954	-117.330	138.041	3.587.790	4.169.611	5	3
					Scotland		**30**
					Total	**291**	**189**

In 2010-2011in a total of 611 top division clubs were granted a license by the UEFA in Europe. Twenty six of them are listed on the local stock exchange. This research will focus in hypothesis 1on listed and non-listed football clubs that are active in the following six European top divisions: Ligue 1 (France), Bundes Liga (Deutschland), Premier League (England), Premier League (Scotland), Danish Superliga (Denmark) and Eredivisie (The Netherlands). The sample consist of 50 football clubs for which I was able to obtain contiguous financial statements for the periods 2000-2001 until 2009-2010. Please note that not all football clubs have a book year that runs from 1 July until 30 June, which is common in this industry. All financial statements are retrieved from company.info, KPMG database or the official website of the football club. The total sample size consists of 189 annual reports. Reference is made to Table 1 for further details on the sample. The clubs are ranked based on sales. The average turnover, profit after tax, operational cash flow, salaries and total assets in the sample period are provided as well. A quick glance shows that over 50% of the football firms book a net loss. Especially, the Netherlands and England deal with these financial problems. Only the clubs in the Bundesliga (Germany) are stable from a profitability perspective.

TABLE 2

Club	League	€	Average turnover	Average Profit (Loss)	Operational cash flow	Average wages	Average assets	Applicable Annual reports	Number of observations (N)
Aalborg Boldspilklub	*Denmark*		2.207.075	-365.963	856.600	909.810	26.290.195	7	5
AGF Kontraktfodbold (Aarhus Elite)	*Denmark*		5.425.474	-1.828.043	-9.486.444	3.874.348	6.159.964	10	8
AIK Football AB	*Sweden*		10.351.573	-653.493	188.589	2.348.344	6.050.097	3	1
Ajax AFC	*Netherlands*		67.567.000	-7.098.400	-2.057.600	40.207.400	109.105.000	7	5
Arsenal	*England*		325.886.334	36.399.813	86.119.734	103.060.450	177.951.336	6	4
AS roma	*Italy*		144.252.750	-5.627.250	-8.015.000	83.666.750	259.986.307	6	4
Borussia Dortmund	*Germany*		104.721.454	-3.222.481	19.336.000	45.169.000	222.490.970	5	3
Brondby IF B	*Denmark*		20.791.137	697.081	3.063.299	7.758.106	75.605.942	10	8
Celtic	*Scotland*		79.437.741	3.530.167	10.863.578	38.078.656	98.028.008	7	5
Chelsea	*England*		134.576.963	-19.198.273	31.116.816	60.193.722	170.651.185	3	1
FC Kopenhagen	*Denmark*		29.632.346	4.327.811	5.884.201	7.185.651	142.151.349	7	5
FC Porto	*Portugal*		58.917.738	3.882.490	936.495	39.630.267	162.883.358	6	4
Glasgow Rangers (F.C.)	*Scotland*		53.655.571	-116.033	4.655.652	24.823.867	175.321.508	9	7
Juventus	*Italy*		219.366.319	-13.365.959	22.964.803	106.699.880	291.902.646	9	7
Lazio Roma	*Italy*		92.314.141	6.396.897	12.913.984	28.453.583	171.983.960	6	4
Millwall	*England*		7.499.125	-6.335.628	-4.857.432	6.635.936	19.817.948	5	3
Olympique Lyonnais	*France*		176.093.500	-14.879.000	-8.770.000	62.280.500	291.448.500	4	2
Preston North End	*England*		9.897.304	-5.902.089	-3.895.437	10.459.797	50.921.344	4	2
Sheffield United	*England*		29.423.503	-1.802.844	-4.767.351	16.919.127	62.117.767	9	7
Silkeborg	*Denmark*		3.854.569	-391.407	-448.704	2.522.495	12.054.534	10	8
Sporting (Lissabon)	*Portugal*		41.156.200	-4.732.200	-3.385.600	20.866.600	125.258.200	7	5
Sporting Lisboa Benfica	*Portugal*		56.691.585	-8.453.220	-4.770.341	31.283.912	198.328.207	6	4
Tottenham Hotspurs	*England*		98.220.913	3.286.264	22.958.455	44.942.934	180.705.100	12	10
Watford	*England*		22.056.249	-2.187.731	-5.582.137	15.370.133	25.531.178	0	0
								158	112
		31-12-2010							
Danish krone		7,4543							
Swedish krona		8,9825							
Pound		0,8569							

In total there are twenty-six European football firms in Europe listed on the local stock exchanges. In order to test the hypotheses two, three and four, twenty-four listed clubs were selected. The selection was based on the available information published on the official website or on the database of KPMG. The financial statements relate to the periods 1999-2000 until 2009-2010. In table two an overview of the selected sample is found. The averages turnover, profit after tax, operational cash flow, salaries and total assets are provided. Clubs listed in the countries Denmark, England and Sweden report in their local currency. For an uniform picture on the sample list the currency is converted to the euro based on the change rate on 31 December 2010. The financial position of listed clubs is shocking. More than 60 % report a net loss over the sample period and almost half of the reports in the sample show negative cash flows. These results were based on a sample of 112 observations.

3.2 Methodology, variable descriptions and results

3.2.1 Future economic benefits

3.2.1.1. Methodology and variable descriptions

In this research the relation between the recognition of football player contracts and future economic benefits is examined. As a result of this it can be argued whether the recognition of these category of intangibles meets the definition criteria 'future economic benefits'. The expectation is that there is a positive relation between investing in football player contracts and future economic benefits for European professional football clubs. To test this relation I will use an extensive research model of Amir and Livne. With this model one can test if current and past asset investments correlate with current benefits. The three accounting-based measurement criteria's for future economic benefits(FEB), used by Amir and Livne are; Sales (SALES), Operating profit(OPROF) and cash flow from operations (ACFO). The average contract length for football player contracts are 2,6 years. I will use just like Amir and Livne, two years lag of investments and receipts to account for the time-effects of the contracts. The model also include the variable COUNTRY, to find any specific country related differences. The association between Future Benefits and investments/receipts in Player contracts is tested in the following two equitation's:

Benefit1 $FEB_t = \propto 0 + \alpha 2 WAGESt + \alpha 3\ TASt + \alpha 4\ TVINVt + \alpha 5\ TVINVt\text{-}1 + \alpha 6\ TVINVt\text{-}2 + \alpha 7\ TVRECt + \alpha 8\ TVRECt\text{-}1 + \alpha 9\ TVRECt\text{-}2 + \alpha 10\ COUNTRY_t + \varepsilon t$

Benefit2 $FEB_t = \propto 0 + \beta 2 WAGESt + \beta 3\ TASt + \beta 4\ NINVt + \beta 5\ NINVt\text{-}1 + \beta 6\ NINVt\text{-}2 + \alpha 7\ COUNTRY_t + \varepsilon t$

The restricted version of equation one(Benefit2) is used to examine the relation between the net investment in football player contracts and future economic benefits. It also serves as a sensitivity check for equation 'Benefit1'. To test these models the data of 188 observations from listed and non-listed football clubs are used (table 1). The total amount invested in football player contracts can be found in the descriptive variable TVINV. The total cash receipts from selling football player contracts are provided in TVREC. In model 2 the net investment in football player contracts (NINV) is tested to deduct TVREC from TVINV. The expectation is that TVINV is positively related and TVREC negatively related to the three FEB measurements. Total assets (TAS) and total wages (WAGES) are included as control variables.

3.2.1.2. Correlation

TABLE 3

Pooled matrix (Denmark, England, France, Germany, The Netherlands and Scotland N166)

Variable	SALES	OPROF	ACFO	WAGES	TAS	TVINV	TVREC	NINV
SALES	1	0.169*	0.213**	0.888**	0.523**	0.592**	0.245**	0.436**
OPROF	0.212**	1	-0.655**	-0.148	0.390**	0.175*	0.000	0.196*
ACFO	0.133	0.653**	1	0.047	0.162*	0.209**	-0.104	0.330**
WAGES	0.683**	-0.356**	-0.261**	1	0.328**	0.522**	0.205**	0.395**
TAS	0.480**	0.262**	0.139	0.125	1	0.597**	0.414	0.285**
TVINV	0.504**	0.025	0.029	0.321**	0.473**	1	0.534**	0.626**
TVREC	0.277**	-0.137	-0.176*	0.306**	0.237**	0.467**	1	-0.325**
NINV	0.230**	0.127	0.127	0.075	0.249**	0.580**	-0.330**	1

All variables are divided by lagged sales ($SALES_{t-1}$)

SALES: Sales / $Sales_{t-1}$

OPROF : Operating profit/ $Sales_{t-1}$

ACFO: Accounting cash flow from operations / $Sales_{t-1}$

WAGES: Current Wages / $Sales_{t-1}$

TAS: Total assets / $Sales_{t-1}$

TVINV: Total value of investment in player contracts / $Sales_{t-1}$

TVREC: Total value of receipts from sales of player contracts / $Sales_{t-1}$

NINV: Net investment in player contracts ($TVINV_t$-$NINV_t$) / $Sales_{t-1}$

** Correlation is significant at the 0.01 level (2-tailed)

* Correlation is significant at the 0.05 level (2-tailed)

First we take a look at the correlation between the independent variables on a two tailed level. The results of the correlation matrices of the separated countries and the pooled matrix (Six countries compared) are shown in respectively appendix A and table 3. The diagonal above presents the Pearson correlation and the diagonal below the Spearman's rho. The difference between these correlations is that the Pearson correlation provides an indication of the correlation between two variables and the Spearman's rho is used to indicate the correlation between the ranked variables. Because the data is not from an ordinal scale, constant variance and linearity, the results are more based on the Pearson correlation. The countries France, the Netherlands, Scotland and Denmark show negative relations between receipts from player contracts and the variable operating profit (OPROF). Significant is that, despite the assertion, SALES is with significance-level 0.01 not negatively but positively correlated (0.245) with receipts from player contracts(TVREC). This will be strengthened by the fact that no countries show a negative correlation with sales. In spite of this, investment in player contracts present for the pooled matrix a significant positive relation with all three economic benefit variables (0.592, 0.175 & 0.209). Especially, the countries France, Germany, the Netherlands & Scotland score high correlations between sales and investments. This confirms the expectation of a positive relation between investment in player contract and future economic benefits. The correlation matrix of England emerge the assumption that the Premier League is not a competition wherein football players develop but in general bought from other competitions. As already discussed in the introduction, the extreme salaries result to large costs for clubs and are one of the causes for the financial crisis in the industry. However, sales is highly correlated with wages and gave the impression that you need to pay high salaries to increase your sales. Good football players get indeed better paid than average players. The strong correlation between the explanatory variables TVINV and TAS (0.473) is explainable by the fact that the recognition of player contracts contribute to a higher total asset, in literature called multicollinearity.

3.2.1.3. Regression

TABLE 4

Pooled	WAGES	TAS	TVINVt	TVINVt-1	TVINVt-2	TVRECt	TVRECt-1	TVRECt-2	NINVt	NINVt-1	NINVt-2	Adj-R^2 N
Sales												
SALES	1,519	0,096	-0,104	0,215	-0,392	0,683	-0,028	0,376				*0,814*
t-statistic	11,680 ***	6,737***	-0,825	1,424	-2,052 **	3,416 ***	-0,143	1,859 *				*188*
SALES	1,689	0,111							-0,225	0,143	-0,431	*0,808*
t-statistic	16,067 ***	8,664 ***							-1,925 *	1,042	-2,869 ***	*188*
Operating profit												
OPROF	-0,320	0,081	-0,028	0,118	-0,394	0,303	-0,127	0,091				*0,372*
t-statistic	-3,911 ***	8,996 ***	-0,359	1,247	-3,281 ***	2,414	-1,035	0,719				*188*
OPROF	-0,334	0,080							-0,103	0,137	-0,250	*0,359*
t-statistic	-5,079 ***	9,938 ***							-1,413	1,607	-2,666 ***	*188*
Operating cash flow												
ACFO	0,114	0,028	0,096	0,140	-0,294	0,239	-0,105	-0,157				*0,161*
t-statistic	1,302	2,894 ***	1,135	1,384	-2,296 **	1,780 *	-0,803	-1,157				*188*
ACFO	0,090	0,025							0,004	0,154	-0,087	*0,126*
t-statistic	1,264	2,929 ***							0,047	1,668 *	-0,861	*188*

** Correlation is significant at the 0.01 level (2-tailed)
* Correlation is significant at the 0.05 level (2-tailed)

The correlation matrix confirms the expectation of a positive relation between investment in football player contracts and future economic benefits. But do not convince a negative relation between the benefits and the sales of contracts. It appears that salaries is strongly related to sales and that total assets is multi-collinear with investment in football player contracts. To confirm these significant findings a regression is performed and the results of the countries are shown in appendix B and the pooled regression in table 4. The regressions are performed based on the two equations shown above. The first equation test investment in player contracts & receipts from sales of player contracts. The second regression is the one with the combined net investment in contracts. The three measurements for economic benefits; Sales (SALES), Operating profit (OPROF) & Operating cash flow (ACFO) are horizontal presented and the independent variables vertical. The pooled sample contains 188 observations (N) over the period 2000-2001 until 2009-2010(table 1).

The regression proves clearly that the expectation of a negative relation between receipts from the sales of contracts is not at issue. Especially current year ($TVREC_t$) for the pooled regression is significant positive related to sales (0,683), operating profit (0,303) and operating cash flow(0,239). Two years of lagged receipts $TVREC_{t-2}$ intensify the conclusion that the expectation of a negative relation between the sales of contracts and FEB cannot be confirmed.

If we specify to countries England, Germany and Scotland show almost no negative numbers for TVREC , $TVREC_{t-1}$ and $TVREC_{t-2}$. This logically implicate that in these countries benefits for football clubs do not decrease but increase after selling football player contracts. In the dependent variables Sales, Operating profit and Operating cash flow is especially the receipts from player trading excluded to avoid noise. The positive correlation therefore is remarkable. Only in the Netherlands and Denmark sales of football player contracts result in a decrease of FEB. These results are only significant at a 0.01 level for current year, what implicate that these numbers are highly correlated. Take, for example, the relation between $TVREC_t$ and Sales (-0,616); With 99% confidence sales for Dutch football clubs will decrease with €616,- for every €1.000,- receipts from player contracts. The result are

highly significant in current and previous year and less significant in lagged two years. So the adverse effect of player trading sustain only for two years. The results for France are comparable to the Netherlands and Denmark but are insignificant, so no conclusion is based on this.

The most important figures from these regressions are the one who present the relation between investment in football player contracts(TVINV) and the three measurements for FEB. Just like the receipts from football player contracts, we see contrary results with investment in player contracts. The pooled regression shows a negative correlation between current investment ($TVINV_t$) and two years lagged investment($TVINV_{t-2}$) with sales(-0,104;-0,392) and operating profit(-0,028;-0,394). Especially England and Scotland strengthen these results but France, Denmark and Germany contradict it. So only the last three mentioned countries meet the expectation that football player contracts contain future economic benefits and meet the IAS 38 recognition criteria. These benefits are mainly reflected in sales; France: 0,537/0,207, Germany: 0,468/0,422/0,970, Denmark: 0,136/1,380. Although operating profit showed also weak indications; France: 0,528/0,306, Germany: 0,226/0,262/0,040, Denmark: 0,165/1,157. Results from the Netherlands and Denmark are not logically and fluctuate strongly between the FEB measures. Based on this and the insignificance of the results no opinion over these countries will be given. Investment in football player contracts, is just like the sales of contracts, highly significant in current and previous year. This implicate that the benefits or disadvantages from the contracts only affect the financial results for two years.

Wages are in general positively correlated to sales and operating cash flow and negative to operating profit. This is plausible because big clubs with high turnovers spend relatively more on wages. These variables confirm the sensitivity of the equations.

3.2.1.4. Conclusion

Most countries show an unexpected positive relation between sales of football player contracts and future economic benefits. Only countries like France, NL and Denmark present weak negative relations between receipts and FEB. Particularly current and previous year are negatively correlated, what indicate that the sales of player contracts only have adverse effects for two years. The countries Germany, Denmark and France show a positive correlation between investing in football player contracts and future economic benefits. However, England, Scotland and the Netherlands showed negative correlations or unexplainable results. Based on this we can conclude that in general there is no direct relation between football player contracts and future economic benefits. The majority of the sample consist of non-listed clubs who are not required to comply with IFRS. However, the UEFA requires clubs to report their financials to the governing body (FIFA/UEFA) based on IFRS, called special purpose report. There is no significant difference between accounting for listed or non-listed clubs. Nevertheless, listed-clubs should feel more responsible for the outcome of these results.

3.2.2 Market reaction

3.2.2.1. Methodology and variable descriptions

We have seen that for most countries investing in football player contracts have no direct associations with future economic benefits. Now we will test the responds of the market on investments in football player contracts; do markets expect that investing in these contracts will lead to a better financial performance? This is fully based on the assumption that the market reflects all available information. A positive relation between investing in football player contracts and the market value (MV) of the European listed football firms (Table 2) is expected based on this assumption. The market reaction on investing in football player contracts is tested in two different equations. The regression is tested on 112 numbers of observations . Both are based on the adjusted model of Ohlsen (2005). Amir and Livne fit this model for football player contracts in the following equitation:

MV1 $MV_t = \theta 1 + \theta 2BVEt + \theta 3NETINCt + \theta 4\ BVPC + \theta 5\ TVINVt + \theta 6\ TVRECt + \varepsilon t$

The dependent variable used in this model is the market value three months after book year. This period is included to ensure that the financial statement have been declared and the market have evaluated the information. The market value is related to the variables of interest; investing in football player contracts (TVINV) and the receipt from football player contracts (TVREC). The market value is also regressed to the variables net income (NETINC) and book value of equity (BVE) as control variables. To control for heteroscedasticity and scale effect all variables are divided by total shares issued. In equitation 2 the net investing in football player contracts (NINV) is included to analyze the sensitivity of equation one.

MV2 $MV_t = \theta 1 + \theta 2BVE_t + \theta 3NETINC_t + \theta 4\ BVPC\ \theta 5\ NINV_t + \varepsilon t$

The second method is implemented to test the market reaction on investing in individual football player contracts . Data contains of 18 purchases and 18 sales of individual football players. The observations cover the periods 2008-2009 and 2009-2010 and contain of stock price and volume changes. These changes are analyzed surrounding the day of the official announcement of the sales or purchase of the football player. So price and volume changes are analyzed on the day that the official website of the club inform about singing a new football player to the club, or the sale of a contract to another club. This test is included to give insight in the market responds of attracting new football players. Is it possible that one football player could influence the decision making of investors? Does the market aspect future economic benefits from this individual player? The data will not be statistically tested, so no conclusions are made on this test. Daily returns, stock prices and trading volumes for the listed football clubs are taken from the internet or the database Datastream.

3.2.2.2. Results

TABLE 5

Market reaction	BVE	NETINC	BVPC	TVINVt	TVRECt	NINV	Adj-R^2 N
MV1	7,279	9,613	-12,599	-0,835	-26,625		*0,464*
t-statistic	4,317 ***	2,786 ***	-3,921 ***	-0,659	-3,488 ***		*112*
MV2	2,696	-1,489	-3,709			1,679	*0,414*
t-statistic	2,701 ***	-1,894 *	-2,030 **			1,590	*112*

* Correlation is significant at the 0,1 level (2-tailed)
** Correlation is significant at the 0,05 level (2-tailed)
***Correlation is significant at the 0,01 level (2-tailed)

In table 5 the results of the market reaction equations MV1 & MV2) are shown. With an adjusted R^2 of 0,464 and 0,414 the models fit and the equations highly explain the market value of football firms. Especially book value of equity(BVE) and net income (NETINC) are explanatory factors in the realization of the market price. The expectation of a positive correlation between investing in football player contracts and the market value is not met. Result of -0,835 implicate that the market is not sensitive for the purchase of new football players. However, it can be stated that the market react negatively on the sales of football player contracts (-26,625). The only explicable solution is that the market values the on-field contribution of a football player higher than the profit derived from the transfer of the football player. Just like the mission of football clubs, the shareholders sporting interest is above financial interest. The total book value of football player contracts is not estimated as added value for the football firm (-12,599). Probably the investment in football player contracts is considered as a risky decision. This is clarified by the negative correlation of TNINV with MV. Recapitulatory, based on the results you can conclude that beforehand shareholders estimate investment in player contracts as risky. But once the on-field values of the investments are proven, the shareholder values them more than the financial benefits. Apparently emotional investment decisions are more involved in the football industry than financial related decisions.

With a small study we analyze the market reaction on individual football player contracts, displayed in appendix C. The closing stock rates of current-, two previous- and three forward- days are given for the club that bought(investment) or sold(receipt) the individual player. Also the 'date of the first transfer announcement' on the official website, 'involved transfer fee' and 'name of the football player' is presented in the tables. In general we can conclude that the market do not respond to investment in individual football player contracts. The only significant peak is for the Celtic football player, Gary Hooper, where on the date of announcement the share price increased with 5,7% (46.52) and next trading day decreased with 4,9% (44.35). The reaction of the market seems to be stronger reflected in the trading volumes of the shares. Significant volume increases are visible by the transfers of Lucas Barrios (Borussia Dortmund), Miralem Sulejmani (Ajax) and Jeremy Menez (AS Roma). But some other transfers showed decreasing volumes, like Demy de Zeeuw (Ajax), Julio Baptista (AS Roma), what could implicate that the market do not have faith in the value of these players. Noted that the changes in trading volume are 1% or smaller, so the conclusion is negligible. Same story for sales of individual football players. The expectation that the market should respond to this, because the financial position of the football clubs will be strength and the on-field performance probably deteriorate, is not met. Short research in the industry concludes that most clubs are controlled

by a single owner or a group of investors that are not emotional or short term investing.[11] This refutes the results from the market value equations (MV1 & MV2) where the involvement of emotional decision making is assumed. With this small test about the market reaction on investment in individual football players, no convincing results are shown. It generates the image that the market is insensitive to attracting and selling football player contracts. The observations are small and not statistically tested so no conclusion is based on these results.

3.2.3 On-field Performance

3.2.3.1. Methodology and variable descriptions

Football clubs main reason to invest in football players contracts, is not to gain future economic benefits but to improve their on-field performance. Subsequent to this they try to gain more revenues what could be indicated as future economic benefits. I expect that there is a positive relation between investing in football player contracts and the on-field performance of European listed football clubs(Table 2). This test will demonstrate the probable existence of a triangular relationship between investing in football player contracts, on-field performance and future economic benefits. The on-field performance of football clubs (PERFORMANCE) is measured by comparing the ranking in the competition of a single year with the average ranking in the period 2000-2001 / 2009-2010. So for every year the listed football clubs are labeled with: 'good'(32N), 'bad'(25N) and 'normal'(54N) performance. Club performance in the European competition (UEFA Europe League or Champions league) and the achievements in the national cup will be taken into account. So assigning the labels is based on the performance in the national competition, national cup and the European competition (Appendix D). The discretion of the writer, with labeling is required, because an uniform ranking system is impossible. Take for example a small club that never qualified for the European competition. They ranked in the national competition eight, below their ranking average of five, but trough a play-off system the qualify for the European competition what is assumed as 'good' performance. Contrary, is it still a good performance if a big club win the national cup for the fourth time in concession? In this case the performance of the club in the European competition becomes more important what an uniform system could not take into account.

Investment in football player contracts(TVINV) and the receipts from the sales of player contracts (TVREC) are applied in the equation similar to hypothesis one, with current(t), lagged one(t-1) and lagged two(t-2) years. In equitation 2 net investments (NINV) is tested on on-field performance to check the sensitivity of equation 1. Wages (WAGES) and total assets (TAS) are included as control variables. The following model is constructed:

Performance1 $$PERFORMANCE_t = \alpha 0 + \alpha_2 WAGES_t + \alpha_3 TAS_t + \alpha_4 TVINV_t + \alpha_5 TVINV_{t-1} + \alpha_6 TVINV_{t-2} + \alpha_7 TVREC_t + \alpha_8 TVREC_{t-1} + \alpha_9 TVREC_{t-2} + \varepsilon_t$$

Performance2 $$PERFORMANCE_t = \beta 0 + \beta_2 WAGES_t + \beta_3 TAS_t + \beta_4 NINV_t + \beta_5 NINV_{t-1} + \beta_6 NINV_{t-2} + \varepsilon_t$$

[11] Boyce, L. (2010). Should I invest in football shares?, *www.thisismoney.co.uk*

3.2.3.2. Results

TABLE 6

Performance	WAGES	TAS	TVINVt	TVINVt-1	TVINVt-2	TVRECt	TVRECt-1	TVRECt-2	NINVt	NINVt-1	NINVt-2	Adj-R^2 N
Good	4,487E-10	1,335E-10	5,162E-09	2,255E-09	-6,921E-09	-1,044E-09	-2,638E-09	8,196E-10				0,006
t-statistic	0,180	0,556	1,887 *	0,737	-2,068 **	-0,308	-0,801					*112*
Good	-6,528E-10	1,197E-10							3,401E-09	1,871E-09	-2,8E-09	0,001
t-statistic	-0,333	0,574							1,462	0,717	-1,146	*112*
Normal	-1,584E-10	-3,973E-11	-4,174E-10	-7,319E-09	4,397E-09	-2,424E-10	-6,329E-11	2,65E-09				*0,011*
t-statistic	-0,058	-0,150	0,139	-2,147 **	1,193	-0,065	-0,017	0,859				*112*
Normal	9,589E-12	-8,905E-11							-4,315E-10	-3,64E-09	5,011E-10	*-0,022*
t-statistic	0,004	-0,383							-0,166	-1,248	0,184	*112*
Bad	-2,903E-10	-9,381E-11	-4,744E-09	5,064E-09	2,524E-09	1,286E-09	2,702E-09	-3,47E-09				*0,016*
t-statistic	-0,127	-0,426	-1,891 *	1,805 *	0,822	0,414	0,895	-1,350				*112*
Bad	6,432E-10	-3,069E-11							-2,969E-09	1,765E-09	2,296E-09	*-0,012*
t-statistic	0,353	-0,159							-1,375	0,728	1,013	*112*

*Correlation is significant at the 0.1 level (2-tailed)
**Correlation is significant at the 0.05 level (2-tailed)

Descriptive statistics, shown in table 6, indicate the correlation between the investment and sales of football player contracts with the on-field performance of a football club. The goodness of fit statistics (Adj-R^2) is between -0,022 and 0,011what implicate that the independent variables in the models are not explanatory. The three dependent performance variables, Good, Normal and Bad, are horizontal presented and the independent variables vertical.

The results assert a very low correlations between the dependent performance variables and the independent TVINV and TVREC variables. Despite this fact, the figures meet the expectation that investment in football player contracts contribute to the on-field performance of a football club. Especially the investments of current year (TVINV) and previous year ($TVINV_{t-1}$) tend to influence the sporting performance of the club. Indeed the sales of football player contracts ensures that the change on a good on-field performance decreases. Idem TVINV the sales (TVREC) of current (-6,912E-09) and previous (-2,683E-09) year are of great importance on the on-field achievements. If we scrutinize the results of the dependent variable 'bad performance', again the expectation of the relation between sales of football player contracts and on-field performance is confirmed. The risk on a bad sporting year becomes higher if clubs sell football player contracts. Vice versa becomes the risk lower if they invest ($TVINV_t$) in football players. Either purchase as the sales of football player contracts in current and previous year correlate negatively to a Normal on-field performance.

Only a balanced relation between investing and sales increases the probability of an ordinary year. Above average investing will lead to greater performance, contrariwise additional sales will magnify the likelihood of bad performance. The control variables WAGES and TAS confirm the absence of a strong correlation between the performance variables. The assertion of a positive relation between investing in football player contracts and on-field performance for European listed football clubs is confirmed, but the correlation is to weak for a strong-supported conclusion.

3.2.4 Impairment

3.2.4.1. Methodology and variable descriptions

Football clubs must apply impairment under IFRS if the 'individual player carrying value exceeds the amount recoverable through use or sale and where the reduction in value is considered permanent'[12]. If an individual players could not live up to the expectation of the recognized value, due to injuries or poor performance, football clubs will apply impairment on the recognized transfer fee. Poor performance or injuries for individual players could be reflected in the performance throughout the football team. So the expectation is that football clubs have a higher impairment when they perform weaker on-field. In other words, years that are ranked with the label 'bad' apply more impairment than years labeled 'good'. The equitation below is tested on the sample of listed football clubs (table 2) to test the relation between the amount of impairment(IMPAIRMENT) and the on-field performance (PERFORMANCE). The dependent variable PERFORMANCE is classified, just like hypothesis 3, in on-field good (PERFG), normal (PERFN) and bad (PERFB) years. Total assets (TAS) and total wages(WAGES) are included in the equitation as control variables. These variables are along with the independent variable IMPAIRMENT scaled to the total book value of football player contracts (BVPC). This to indicate the ratio of the impairment compared to the total value of recognized player contracts. All listed clubs in table 2 that reported impairment are filtered and a total of 35 observation remain.

Impairment $PERFORMANCE_t = \alpha 0 + \alpha_2 WAGES_t + \alpha_3 TAS_t + \alpha 3\ IMPAIRMENTt + \varepsilon_t$

3.2.4.2. Results

TABLE 7

IMPAIRMENT	WAGES	TAS	IMPAIRMENT	Adj-R^2 N
PERFG	-0,165	0,012	0,213	*0,014*
t-statistic	-1,731*	0,799	0,572	*35*
PERFN	0,120	-0,008	-0,098	*-0,029*
t-statistic	1,046	-0,428	-0,218	*35*
PERFB	0,045	-0,004	-0,115	*-0,081*
t-statistic	0,472	-0,285	-0,310	*35*

* Correlation is significant at the 0.1 level (2-tailed)

The expectation that in a poor on-field year the impairment is greater than in a good on-field year is not met. Indeed the weak results are contradictory, when the clubs performs well they are more inclined to apply impairment. Probably, the application of impairment would in general be applied based on an injury or with the termination of a contract (example Mutu). Impairment based on a substandard performance of an individual player will likely rarely occur. Unfortunately all results, except the relation between WAGES and PERFG, are insignificant. Therefore, no conclusion are made based on these results.

[12] Financial statement 2008/2009 Tottenham Hotspur

4. Conclusion

The purpose of this paper is to investigate the triangular between investing in football player contracts, future economic benefits and on-field performance. The question of interest in this triangular is if football clubs meet the recognition criteria of future economic benefits. This prescribed by IFRS for listed clubs and generally accepted for non-listed clubs. Unfortunately, no significant correlation between investing in football player contracts and future economic benefit measurements sales, cash flow from operations and operating profit for the pooled European countries was noted. Specified to individual countries France, Germany and the Netherlands do provide weak indications of a positive relation. However, asserted was that small competitions like Scotland, Denmark and the Netherlands would show these results, considering the fact that these competitions are more focused on developing instead of purchasing talent from other countries, like England. The benefits of the contracts are for a short period, because the indication of a positive relation is only for current and previous year significant. This confirms the average contract length of 2,6 years. Overall, the recognition of football player contracts under intangible assets is not sustained, because it does not meet the recognition criteria future economic benefits.

Assessing the market reaction on football player trading it can be concluded that overall investments nor individual investments can be estimated as relevant value, although sales of football players influence significantly the market price in a negative way. This implies the influence of emotional decision making with football shares. Reporting the sales of football players contracts could result in declining share prices.

From the origin the attention of football clubs is more focused on the on-field performance in lieu of the financial performance. Although trading of football player contracts do not influence the financial position of clubs. The expectation of a changing on-field performance is lived up. Demonstrated is that investing in football player contracts actually contribute to an increased probability of a good on-field performance. On the contrary, sales of contracts reduce this likelihood. However, the correlation is to weak for a strong-supported conclusion. Further research in this area is recommended.

Finally, the hypothesized positive relation between poor on-field performance and impairment of football player contracts showed any significant correlation. Underperformance of football players is one of the few reasons to apply impairment. By the absence of a correlation with on-field performance, this common used argument for impairment is not predominate. Injuries and contract termination are also factors to apply impairment and this is unrelated to the on-field performance of a club.

5. Discussion

The conclusion stressed whether the current accounting policies for football player contracts gave a relevant and reliable opinion about the financial position of football clubs. Add to this the discussed current financial crisis in the football industry. The question raises in to what extent football clubs are financial transparent and if we are dealing here with a normal industry. Particularly football clubs main asset, player contracts, have caused for extreme transactions and requires an individual accounting approach. Football firms are in fact one of the precursors in the recognition of people under intangible assets. Different studies questioned the concerns about the different treatment of intangibles and the recognition of internal developed intangibles. One arguments in favor of alternative frameworks for intangibles is that the financial statement have become less relevant due to the change in economy. The new business is creating value through knowledge based resources. The traditional industrial model who transform raw materials into finished products becoming less important. (Skinner 2008);
Football clubs are strongly related to this issue, because they generate internal intangibles in the form of youth players. The failure to recognize youth players, that sometimes are of great value for the club, could result in difficulties for raising capital. A football club is an association that budget to zero, so they are not organized for generating profits (profit maximization). To raise capital they dependent on the assets recognized on the balance sheet. In the literature alternative accounting frameworks for football player contracts are designed and analyzed to overcome such problems.

Forker argued a more costumed pattern for the amortization of football player contracts. Young players with high potential must have the possibility to develop in the beginning of the contract. The net benefit obtained will be relatively small at the beginning but will probably increase later in his contract. Especially in the middle years the highest benefits will be received, given an amortization pattern of Low-high-low. Another alternative framework for determining the financial value of professional football players is set by Tanura, Clarck and Viney (2005). This framework is based on a performance index. In their research they used the Carling Opta index that analysis the form of Premier League football players (England). Three-hundred actions and outcomes are counted, like shots, passes, tackles and saves, to analyze the form of the individual player. Based on these statistics a pricing formula determines the market value for the football player. This creates the opportunity to capitalize player contracts at fair value instead of historical cost. In the year 2010 526 football transfers[13] occurred in the English football competition (Premier league and Championship clubs). This indicates the existence of an active market and the possibility to measure contracts at fair value.

Concerns of this method are the disproportionate transfer fees paid nowadays and the strong fluctuating intangible assets due to unpredictable performance of football players. In general the intangible assets can be reliably identified and measured, but the question arises if they will appropriate be managed (Matolcsy et al., 2002). Management could be too opportunistic or subjective what might influence the recognition of intangibles (too high). This result in risk losing relevance of intangible assets (Jenkins, 1994). The presence of incentives can influence and motivate management to record (opportunistic) intangible assets (Muller, 1999). But Wyatt (2005) provide evidence

[13] *http://news.bbc.co.uk/sport2/hi/football/8876126.stm*

that limiting the management choice to recognize intangible assets reduce the informational value and quality of the balance sheet. Football clubs could learn from this research to not base management incentives on the level of intangibles.

This kind of research contributes to the understanding of the recognition of human capital and in particular football player contracts. These methods give the opportunity for football firms to raise more capital and gave probably a more relevant and reliable view on the financial position. Further research to alternative accounting frameworks is recommended. However in my opinion this will not be the key to financial stability in the industry. The origin falls more in the management field. Directors of football firms should sense more responsibility for the financial results of their club, because the industry lacks shareholders monitoring. Discretion is required when making investment decisions for football player contracts. As well the FIFA and the UEFA play a major role in monitoring this. At least with UEFA's introduction of the Financial fair play system[14] they put a major step forward.

[14] UEFA's Executive Committee unanimously approved on 27 may 2010 a financial fair play concept. The financial fair play measures are based on a multi-year assessment and include an obligation to balance their books or break even. The principal objectives of the concept are:
• to introduce more discipline and rationality in club football finances;
• to decrease pressure on salaries and transfer fees and limit inflationary effect;
• to encourage clubs to compete with(in) their revenues;
• to encourage long-term investments in the youth sector and infrastructure;
• to protect the long-term viability of European club football;
• to ensure clubs settle their liabilities on a timely basis.
http://www.uefa.com/uefa/footballfirst/protectingthegame/financialfairplay/

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Appendix A Correlation Matrix

Above diagonal Pearson correlation & below diagonal Spearman's rho. Both correlations are 2-tailed

France, N21

Variable	SALES	OPROF	ACFO	WAGES	TAS	TVINV	TVREC	NINV
SALES	1	0.564**	0.732**	0.861**	0.868**	0.704**	0.467*	0.508*
OPROF	0.291	1	0.848**	0.309	0.414	0.282	-0.007	0.401
ACFO	0.184	0.719**	1	0.458*	0.611**	0.555**	0.201	0.570
WAGES	0.781**	-.0.043	-0.035	1	0.577**	0.486*	0.306	0.367
TAS	0.825**	0.223	0.092	0.606**	1	0.772**	0.563**	0.506*
TVINV	0.360	-0.003	-0.033	0.353	0.610**	1	0.698**	0.687**
TVREC	0.244	-0.203	-0.199	0.191	0.254	0.384	1	-0.41
NINV	0.165	0.210	0.382	0.253	0.381	0.638**	-0.282	1

Denmark, N35

Variable	SALES	OPROF	ACFO	WAGES	TAS	TVINV	TVREC	NINV
SALES	1	0.537**	0.007	0.566**	0.623**	0.565**	0.136	0.614**
OPROF	0.246	1	0.674**	-0.192	0.587**	0.449**	0.190	0.388*
ACFO	0.121	0.687**	1	-0.345*	0.209	0.101	0.036	0.096
WAGES	0.436**	-0.571**	-0.457**	1	0.202	0.199	0.070	0.189
TAS	0.518**	0.344*	0.071	0.003	1	0.863**	0.553**	0.517**
TVINV	0.558**	0.295	0.138	0.064	0.723**	1	0.712**	0.510**
TVREC	0.249	0.108	0.156	-0.006	0.251	0.546**	1	-0.240
NINV	0.344	0.142	0.020	0.090	0.502**	0.578**	-0.212	1

England N21

Variable	SALES	OPROF	ACFO	WAGES	TAS	TVINV	TVREC	NINV
SALES	1	0.210	0.657**	0.715**	0.360*	0.130	0.314	0.032
OPROF	0.177	1	0.565**	-0.457**	0.566**	-0.381*	0.192	-0.437**
ACFO	0.275	0.429**	1	0.112	-0.102	0.054	0.178	-0.108
WAGES	0.416**	-0.564**	-0.317	1	0.729**	0.438**	0.174	0.380*
TAS	0.317	-0.294	0.001	0.512**	1	0.622**	0.129	0.577**
TVINV	0.281	-0.159	0.244	0.167	0.412*	1	0.125	0.952**
TVREC	0.225	0.137	0.022	0.137	0.287	0.128	1	-0.185
NINV	0.193	-0.248	0.200	0.084	0.316	0.834**	-0.302	1

The Netherlands (N48)

Variable	SALES	OPROF	ACFO	WAGES	TAS	TVINV	TVREC	NINV
SALES	1	0.055	-0.008	0.955*	0.899**	0.778**	0.180	0.623**
OPROF	0.229	1	0.521**	-0.141	0.119	0.012	-0.171	0.154
ACFO	0.080	0.549**	1	-0.097	0.152	-0.029	-0.237	0.168
WAGES	0.518**	-0.326*	-0.211	1	0.863**	0.710**	0.163	0.570**
TAS	0.404**	0.279	0.291*	0.055	1	0.825**	0.213	0.643**
TVINV	0.553**	0.021	0.092	0.213	0.716**	1	0.411**	0.653**
TVREC	0.276	-0.213	-0.266	0.334*	0.346*	0.403**	1	-0.423**
NINV	0.242	0.209	0.330*	-0.064	0.333*	0.494**	-0.481**	1

Scotland (N29)

Variable	SALES	OPROF	ACFO	WAGES	TAS	TVINV	TVREC	NINV
SALES	1	-0.047	0.267	0.952**	0.879**	0.781**	0.308	0.374*
OPROF	0.348	1	0.577**	-0.290	-0.003	-0.273	-0.244	-0.038
ACFO	0.430*	0.500**	1	0.175	0.032	0.344	-0.636**	0.689**
WAGES	0.697**	-0.113	-0.088	1	0.768**	0.860**	0.278	0.453*
TAS	0.617**	0.232	0.037	0.479**	1	0.526**	0.557**	0.014
TVINV	0.399*	0.020	0.069	0.196	0.568**	1	0.019	0.733**
TVREC	0.269	-0.002	-0.381*	0.492**	0.277	0.437*	1	-0.666**
NINV	0.091	-0.060	0.402*	-0.252	0.103	0.490**	-0.443*	1

Germany (N12)

Variable	SALES	OPROF	ACFO	WAGES	TAS	TVINV	TVREC	NINV
SALES	1	0.195	-0.456	0.969**	0.173	0.732**	0.550	0.630*
OPROF	0.259	1	0.542	0.141	-0.222	0.209	0.713**	-0.005
ACFO	-0.356	0.616*	1	-0.420	-0.180	-0.399	0.032	-0.454
WAGES	0.937**	0.273	-0.238	1	0.136	0.734**	0.535	0.637*
TAS	0.252	-0.077	0.085	0.322	1	0.058	0.96	0.032
TVINV	0.483	0.119	-0.377	0.364	-0.028	1	0.464	0.956**
TVREC	0.629*	0.559	0.320	0.706*	0.259	0.336	1	0.184
NINV	0.336	0.007	-0.491	0.196	-0.140	0.937**	0.042	1

Pooled matrix *(Denmark, England, France, Germany, The Netherlands and Scotland* N166)

Variable	SALES	OPROF	ACFO	WAGES	TAS	TVINV	TVREC	NINV
SALES	1	0.169*	0.213**	0.888**	0.523**	0.592**	0.245**	0.436**
OPROF	0.212**	1	-0.655**	-0.148	0.390**	0.175*	0.000	0.196*
ACFO	0.133	0.653**	1	0.047	0.162*	0.209**	-0.104	0.330**
WAGES	0.683**	-0.356**	-0.261**	1	0.328**	0.522**	0.205**	0.395**
TAS	0.480**	0.262**	0.139	0.125	1	0.597**	0.414	0.285**
TVINV	0.504**	0.025	0.029	0.321**	0.473**	1	0.534**	0.626**
TVREC	0.277**	-0.137	-0.176*	0.306**	0.237**	0.467**	1	-0.325**
NINV	0.230**	0.127	0.127	0.075	0.249**	0.580**	-0.330**	1

All variables are divided by lagged sales (SALES $_{t-1}$)

SALES: Sales / $Sales_{t-1}$

OPROF : Operating profit/ $Sales_{t-1}$

ACFO: Accounting cash flow from operations / $Sales_{t-1}$

WAGES: Current Wages / $Sales_{t-1}$

TAS: Total assets / $Sales_{t-1}$

TVINV: Total value of investment in player contracts / $Sales_{t-1}$

TVREC: Total value of receipts from sales of player contracts / $Sales_{t-1}$

NINV: Net investment in player contracts ($TVINV_t$-$NINV_t$) / $Sales_{t-1}$

** Correlation is significant at the 0.01 level (2-tailed)

* Correlation is significant at the 0.05 level (2-tailed)

Appendix B Regression results Hypothesis 1

Denmark	WAGES	TAS	TVINVt	TVINVt-1	TVINVt-2	TVRECt	TVRECt-1	TVRECt-2	NINVt	NINVt-1	NINVt-2	Adj-R^2 N
Sales												
SALES	2,196	0,118	0,136	1,380	-0,960	0,022	-0,880	-0,539				*0,965*
t-statistic	8,950 ***	4,329 ***	0,398	3,774 ***	-2,169 **	0,115	-5,082 ***	-2,470**				*35*
SALES	1,862	0,100							0,315	0,820	0,345	*0,938*
t-statistic	6,959 ***	5,281 ***							1,402	3,642 ***	1,354	*35*
Operating profit												
OPROF	-0,048	0,088	0,165	1,157	-0,402	-0,119	-0,814	-0,671				*0,882*
t-statistic	-0,230	3,821 ***	0,569	3,764 ***	-1,057	-0,726	-5,572 ***	-3,641 ***				*35*
OPROF	-0,299	0,071							0,339	0,777	0,557	*0,825*
t-statistic	-1,444	4,866 ***							1,956 *	4,468 ***	2,827 ***	*35*
Operating cash flow												
ACFO	0,111	0,013	0,780	-0,033	0,442	-0,008	-0,321	-0,757				*0,523*
t-statistic	0,396	0,428	1,986 *	-0,079	0,869	-0,035	-1,619	-3,023 ***				*35*
ACFO	0,005	0,023							0,201	0,211	0,500	*0,433*
t-statistic	0,020	1,784 *							0,953	0,997	2,085 **	*35*

England	WAGES	TAS	TVINVt	TVINVt-1	TVINVt-2	TVRECt	TVRECt-1	TVRECt-2	NINVt	NINVt-1	NINVt-2	Adj-R^2 N
Sales												
SALES	2,713	-0,272	-0,119	0,080	-0,394	0,907	-0,405	3,295				*0,793*
t-statistic	6,514 ***	-3,792***	-0,553	0,337	-1,138	2,132	-0,766	2,905 ***				*38*
SALES	3,316	-0,315							-0,161	-0,093	-0,391	*0,724*
t-statistic	7,978 ***	-3,858 ***							-0,690	-0,359	-1,111	*38*
Operating profit												
OPROF	0,353	-0,153	0,025	0,015	-0,248	0,483	0,071	0,775				*0,676*
t-statistic	2,005 *	-5,025 ***	0,281	0,152	-1,936 *	2,681 **	0,319	1,615				*38*
OPROF	0,575	-0,168							-0,039	-0,027	-0,245	*0,577*
t-statistic	3,299	-4,919							-0,396	-0,251	-1,660	*38*
Operating cash flow												
ACFO	0,476	-0,123	-0,044	0,276	-0,275	0,355	-0,557	1,860				*0,126*
t-statistic	1,285	-1,921	-0,232	1,303	-0,892	0,936	-1,183	1,844				*38*
ACFO	0,749	-0,143							-0,046	0,192	-0,272	*0,097*
t-statistic	2,297	-2,232							-0,253	0,945	-0,986	

France	WAGES	TAS	TVINVt	TVINVt-1	TVINVt-2	TVRECt	TVRECt-1	TVRECt-2	NINVt	NINVt-1	NINVt-2	Adj-R^2 N
Sales												
SALES	0,967	0,372	0,537	0,207	-0,926	0,013	-0,557	0,706				*0,972*
t-statistic	5,192 ***	4,286 ***	2,301 **	0,803	-3,646 ***	0,073	-1,693	2,440 **				*21*
SALES	0,961	0,383							0,157	0,248	-0,544	*0,966*
t-statistic	5,710 ***	9,133 ***							1,042	1,402	-3,274 ***	*21*
Operating profit												
OPROF	-0,370	-0,004	0,528	0,306	-0,560	-0,084	-0,292	0,076				*-0,07*
t-statistic	-0,145	-0,034	1,638	0,859	-1,569	-0,331	-0,642	0,191				*21*
OPROF	-0,138	-0,003							0,282	0,350	-0,214	*-0,011*
t-statistic	-0,671	-0,065							1,538	1,625	-1,059	
Operating cash flow												
ACFO	-0,123	-0,123	0,828	0,374	-0,541	-0,222	-0,628	0,502				*0,148*
t-statistic	-0,573	-1,237	3,084 ***	1,262	-1,852 *	-1,047	-1,660	1,510				*21*
ACFO	-0,079	-0,059							0,412	0,271	-0,287	*0,087*
t-statistic	-0,433	-1,310							2,535 **	1,417	-1,600	*21*

Germany	WAGES	TAS	TVINVt	TVINVt-1	TVINVt-2	TVRECt	TVRECt-1	TVRECt-2	NINVt	NINVt-1	NINVt-2	Adj-R^2 N
Sales												
SALES	0,542	0,124	0,468	0,422	0,970	0,101	0,816	1,146				*0,999*
t-statistic	1,918	6,701 ***	2,120	3,053 **	3,890 **	0,238	1,532	2,883 **				*12*
SALES	1,669	0,085							-0,109	-0,100	0,451	*0,990*
t-statistic	15,353 ***	2,580 **							-0,711	-0,479	1,366	*12*
Operating profit												
OPROF	-0,585	0,018	0,226	0,262	0,040	0,584	0,454	0,408				*0,084*
t-statistic	-1,381	0,641	0,682	1,267	0,108	0,921	0,570	0,686				*12*
OPROF	0,088	-0,014							-0,76	-0,132	0,048	*-0,423*
t-statistic	1,188	-0,636							-0,730	-0,933	0,214	*12*
Operating cash flow												
ACFO	-0,523	0,040	0,098	-0,125	-0,574	0,060	0,610	2,968				*0,037*
t-statistic	-0,200	0,232	0,048	-0,098	-0,249	0,015	0,124	0,809				*12*
ACFO	0,250	0,024							-0,230	-0,499	-1,239	*0,364*
t-statistic	0,845	0,269							-0,553	-0,880	-1,377	*12*

The Netherlands	WAGES	TAS	TVINVt	TVINVt-1	TVINVt-2	TVRECt	TVRECt-1	TVRECt-2	NINVt	NINVt-1	NINVt-2	Adj-R² N
Sales												
SALES	1,353	0,099	0,771	0,101	-0,102	-0,616	-0,265	0,030				*0,919*
t-statistic	3,749 ***	1,872 *	2,873 ***	0,384	-0,430	-3,146 ***	-1,481	0,176				*48*
SALES	1,231	0,123							0,575	0,176	-0,038	*0,921*
t-statistic	7,958 ***	2,910 ***							3,390 ***	1,110	-0,282	*48*
Operating profit												
OPROF	-0,100	0,173	0,449	-0,112	-0,396	-0,671	-0,355	0,045				*0,534*
t-statistic	-0,306	3,579 ***	1,836 *	-0,468	-1,833 *	-3,764 ***	-2,175 **	0,296				*48*
OPROF	-0,739	0,164							0,501	0,253	-0,048	*0,505*
t-statistic	-5,009 ***	4,067 ***							3,097 ***	1,672	-0,378	*48*
Operating cash flow												
ACFO	0,093	0,154	0,149	0,314	-0,323	-0,507	-0,457	-0,271				*0,532*
t-statistic	0,271	3,057 ***	0,584	1,258	-1,434	-2,724 ***	-2,686 ***	-1,692				*48*
ACFO	-0,570	0,157							0,305	0,385	0,107	*0,497*
t-statistic	-3,681***	3,697 ***							1,799 *	2,423 **	0,791	*48*

Scotland	WAGES	TAS	TVINVt	TVINVt-1	TVINVt-2	TVRECt	TVRECt-1	TVRECt-2	NINVt	NINVt-1	NINVt-2	Adj-R² N
Sales												
SALES	2,595	0,245	-1,482	-1,334	-1,223	0,210	0,168	0,197				*0,956*
t-statistic	9,480 ***	5,464 ***	-2,944 ***	-2,981***	2,735 **	0,048	0,430	0,383				*29*
SALES	2,009	0,152							-0,383	-0,511	-0,753	*0,945*
t-statistic	9,771 ***	4,883 ***							-1,054	-1,427	1,798 *	*29*
Operating profit												
OPROF	0,366	0,010	-0,260	-0,082	-0,124	-0,422	-0,151	0,526				*0,106*
t-statistic	1,389	0,223	-0,535	-0,190	-0,287	-1,001	-0,399	1,061				*29*
OPROF	0,236	0,005							0,019	-0,023	-0,206	*0,032*
t-statistic	1,281	0,184							0,059	-0,070	-0,550	*29*
Operating cash flow												
ACFO	0,755	0,071	-0,610	-0,252	-1,253	-0,998	0,372	0,537				*0,361*
t-statistic	2,695 **	1,483	-1,184	-0,550	-2,738 **	-2,231 **	0,929	1,020				*29*
ACFO	0,386	0,020							0,152	-0,197	0,851	*0,224*
t-statistic	1,858 *	0,631							0,414	-0,545	-2,012 *	*29*

Pooled	WAGES	TAS	TVINVt	TVINVt-1	TVINVt-2	TVRECt	TVRECt-1	TVRECt-2	NINVt	NINVt-1	NINVt-2	Adj-R² N
Sales												
SALES	1,519	0,096	-0,104	0,215	-0,392	0,683	-0,028	0,376				*0,814*
t-statistic	11,680 ***	6,737 ***	-0,825	1,424	-2,052 **	3,416 ***	-0,143	1,859 *				*188*
SALES	1,689	0,111							-0,225	0,143	-0,431	*0,808*
t-statistic	16,067 ***	8,664 ***							-1,925 *	1,042	-2,869 ***	*188*
Operating profit												
OPROF	-0,320	0,081	-0,028	0,118	-0,394	0,303	-0,127	0,091				*0,372*
t-statistic	-3,911 ***	8,996***	-0,359	1,247	-3,281 ***	2,414 **	-1,035	0,719				*188*
OPROF	-0,334	0,080							-0,103	0,137	-0,250	*0,359*
t-statistic	-5,079 ***	9,938 ***							-1,413	1,607	-2,666 ***	*188*
Operating cash flow												
ACFO	0,114	0,028	0,096	0,140	-0,294	0,239	-0,105	-0,157				*0,161*
t-statistic	1,302	2,894 ***	1,135	1,384	-2,296 **	1,780 *	-0,803	-1,157				*188*
ACFO	0,090	0,025							0,004	0,154	-0,087	*0,126*
t-statistic	1,264	2,929 ***							0,047	1,668 *	-0,861	*188*

SALES: Sales current year

OPROF : Operating profit current year

ACFO: Accounting cash flow from operations current year

WAGES: Wages current year

TAS: Total assets current year

TVINV: Total value of investment in player contracts

TVREC: Total value of receipts from sales of player contracts

NINV: Net investment in player contracts ($TVINV_t$-$NINV_t$)

*** Correlation is significant at the level 0.01 level (2-tailed)

** Correlation is significant at the 0.05 level (2-tailed)

* Correlation is significant at the 0.01 level (2-tailed)

Appendix C

Club	Date first official announcement website	Football player	Transfer fee	Investment in football player contracts						Currency
				Closing rate -2	Closing rate -1	Closing rate 0	Closing rate +1	Closing rate +2	Closing rate +3	
Borussia Dortmund	11-6-2010	Robert Lewandowski	€ 4.750.000	0,94	0,94	0,943	0,962	0,962	0,962	
61.425 (million)				45.800	77.300	61.100	75.600	103.100	53.300	€
(BVB.DE)	25-7-2009	Lucas Barrios	€ 4.200.000	0,94	0,93	0,93	0,92	0,94	0,96	
				69.200	50.300	119.200	33.000	90.200	42.900	
Ajax	24-7-2009	Demy de Zeeuw	€ 8.000.000	6,45	6,5	6,35	6,37	6,22	6,21	
18.333 (million)				800	2000	300	700	100	600	€
(AJAX.AS)	9-7-2008	Miralem Sulejmani	€ 16.250.000	7,25	7,5	7,27	7,25	7,25	7,21	
				300	500	1000	300	0	0	
Tottenham Hotspur	27-7-2009	Peter Crouch	€ 10.500.000	73	76,5	76,5	72	75	74,4	
213.859 (million)				5.100	3.100	300	31.200	4.900	16.800	£
(TTNM.L)	2-2-2009	Robbie Keane	€ 16.700.000	81,25	81,5	81,56	81,56	80	81,96	
				900	1200	3300	1100	2700	26100	
AS Roma	14-8-2008	Julio Baptista	€ 11.000.000	0,9	0,9	0,91	1,08	0,94	0,91	
132.523 (million)				772.300	210.600	169.500	781.100	1.624.700	1.012.100	€
(ASR.MI)	27-8-2008	Jeremy Menez	€ 12.000.000	0,92	0,92	0,93	0,93	0,93	0,91	
				259.000	175.500	254.800	200.900	166.100	238.300	
FC Kopenhagen	18-6-2010	Sölvi Ottesen	€ 1.350.000	97,5	97,5	80	80	78	80	
9.875 (million)				7.200	12.800	3.900	7.100	13.200	33.000	DK
(PARKEN.CO)	25-7-2008	Peter Larsson	€ 2.000.000	72,5	74	77,5	80	80	97,5	
				4.500	4.000	14.400	4.900	18.900	3.100	
Olympic Lyonnais	23-8-2010	Yoann Gourcuff	€ 22.000.000	7,63	7,64	7,67	7,79	7,95	7,9	
13.24 (Million)				600	100	200	1800	2100	2000	€
(OLG.PA)	8-7-2009	Lisandro López	€ 24.000.000	8,16	7,95	7,8	7,84	7,85	7,5	
				1.800	3.500	2.000	800	200	1.900	
Benfica Lisboa	22-5-2009	Ramires	€ 7.500.000	1,73	1,778	1,75	1,75	1,75	1,75	
15.000(million)				300	100	700	1.700	100	700	€
(SLBEN.LS)	16-7-2008	Pablo Aimar	€ 6.500.000	2,06	2,04	2,05	2,04	2,04	2,05	
				4.400	14.100	1.400	1.700	200	2.800	
Celtic	26-7-2010	Gary Hooper	€ 2.900.000	44,5	44	46,52	44,35	45,5	46	
89,858(million)				0	25.000	100	300	0	0	£
(CCP.L)	9-7-2009	Marc-Antoinne Fortun	€ 4.400.000	41,5	39,41	40,5	39,37	40,5	41,5	
				110.600	700	0	3.800	0	400	
Galatasaray	2-7-2009	Abdul Kader Keita	€ 7.500.000	108.761	108.761	111.435	115.001	110.544	108.761	
2.778 (million)				771	774	3.564	24.922	4.103	2.298	L
(GSRAY.IS)	21-1-2011	Bogdan Stancu	€ 5.000.000	378	373	370	371	360	354	
				71.226	55.815	150.943	65.026	45.035	42.748	

Club	Date first announcement official website	Football player	Transfer fee	Receipt from sales of football players						Currency
				Closing rate -2	Closing rate -1	Closing rate 0	Closing rate +1	Closing rate +2	Closing rate +3	
Borussia Dortmund	18-7-2009	Alexander Frei	€ 4.250.000	0.88	0.89	0.90	0.91	0.92	0.94	
61.425 (million)				60.700	95.900	116.100	68.000	49.800	69.200	€
(BVB.DE)	18-8-2008	Mladen Petric	€ 7.300.000	1.56	1.60	1.62	1.63	1.65	1.64	
				50.200	49.800	162.100	76.700	29.100	17.900	
Ajax	19-6-2009	Thomas Vermaelen	€ 12.000.000	6.52	6.53	6.40	6.42	6.45	6.47	
18.333 (million)				600	100	0	100	0	1000	€
(AJAX.AS)	3-12-2008	Klaas-jan Huntelaar	€ 27.000.000	5.50	5.48	5.75	5.50	5.50	5.50	
				200	400	1.500	900	500	100	
Tottenham Hotspur	5-8-2009	Darren Bent	€ 11.800.000	73.82	73.82	73.50	74.48	78.00	78.00	
213.859 (million)				13.200	3.600	48.200	21.000	9.400	72.500	£
(TTNM.L)	2-9-2008	Dimitar Berbatov	€ 38.000.000	127	132	137	147	145	145	
				2.100	21.100	44.300	56.500	942.500	36.200	
AS Roma	9-8-2009	Alberto Aquilani	€ 20.000.000	0.89	0.92	0.92	0.91	0.90	0.88	
132.523 (million)				417.200	656.500	1.754.700	396.800	216.700	156.200	€
(ASR.MI)	15-7-2008	Mancini	€ 13.000.000	0.71	0.72	0.69	0.68	0.71	0.80	
				318.700	470.600	540.400	247.300	214.700	299.600	
FC Kopenhagen	18-1-2008	Brede Hangeland	€ 4.700.000	1170	1175	1165	1120	1080	1070	
9.875 (million)				900	300	100	300	2.800	800	DK
(PARKEN.CO)	6-7-2008	Michael Gravgaard	€ 3.900.000	1270	1250	1249	1245	1245	1245	
				200	1.100	100	100	100	0	
Olympic Lyonnais	1-7-2009	Karim Benzema	€ 35.000.000	8.05	8.00	8.50	8.50	8.50	8.16	
13.24 (Million)				600	300	6200	4600	900	1800	€
(OLG.PA)	1-7-2008	Hatem Ben Arfa	€ 12.000.000	19.00	20.20	19.50	19.00	18.89	18.70	
				500	6.600	800	1.000	2.200	400	
Benfica Lisboa	28-6-2010	Ángel Di Maria	€ 33.000.000	2.38	2.38	2.38	2.38	2.35	2.36	
15.000(million)				2.400	100	700	500	400	1.100	€
(SLBEN.LS)	31-1-2011	David Luiz	€ 30.000.000	1.56	1.57	1.56	1.56	1.51	1.52	
				300	2.100	100	900	600	2.100	
Celtic	13-8-2010	Aiden McGeady	€ 12.000.000	45.50	44.50	45.50	44.00	44.00	43.00	
89,858(million)				0	1.800	0	0	0	1.000	£
(CCP.L)	1-2-2010	Scott McDonald	€ 4.300.000	46.00	46.73	46.50	45.00	46.50	45.25	
				0	24.700	0	3.700	0	37.400	
Galatasaray	6-7-2010	Abdul Kader Keita	€ 8.000.000	221.189	223.959	212.171	204.313	221.012	223.959	
2.778 (million)				44.732	38.895	24.703	20.498	23.536	22.820	L
(GSRAY.IS)	11-3-2009	Fernándo Meira	€ 5.800.000	98.697	99.547	104.652	102.10	102.10	102.10	
				329	511	8.329	4.206	680	1.089	

Appendix D Table On-field performance

Club	League	2000/2001	2001/2002	2002/2003	2003/2004	2004/2005	2005/2006	2006/2007	2007/2008	2008/2009	2009/2010
Aalborg Boldspilklub	Denmark	5	4	6	5 NC	4 UC 1R	5	3	1 UC group	7 UC EF	5 UC 1R
Aberdeen	Scotland	7 UC Q	4	6 UC 1R	10	4	7	3	4 UC 3R	4	9 UC 3Q
AGF Kontraktfodbold (Aarhus Elite)	Denmark	8	10	10	8	9	12	2	10	6	11
AIK Football	Sweden	3 UC 1R	5	5 UC 1R	13 UC 1R	1	2	5	5 UC 1R	1	11
Ajax	Netherlands	3 UC 2R	1 NC / UC 2R	2 CL QF	1 CL Group	2 UC 3R	2 NC / CL 2R	2 NC / UC 3R	3 UC 1R	3 UC 4R	2 NC/ UC group
Akademisk Boldklub	Denmark	10	5	9	12	11	12	10	6	3	4
Arsenal	England	2 CL QF	1 NC / CL Group 2	2 NC / CL Group 2	1 CL QF	2 NC / CL EF	4 CL F	4 CL EF	3 CL QF	4 CL SF	3 CL QF
AS roma	Italy	1 UC EF	2 CL Group 2	8 CL Group 2	2 UC EF	8 CL Group	2 UC EF	2 NC/CL QF	2 NC/CL QF	6 CL EF	2 UC 2R
Borussia Dortmund	Germany	3	1 UC F	3 CL Group 2	11 UC 2R	7	7	9	13	6 UC 1R	5
Brondby IF B	Denmark	2 CL 3Q	1 UC 3R	2 NC / UC 1R	2 UC 3R	1 NC	2 UC group	6 UC 1R	8 NC	3 UC 1R	3 UC group
Celtic**	Scotland	2 (2) NC / CL Group	1 (2) UC 3R	2 (1) UC F	1 (1) NC	1 (1) NC / CL Group	1 (2)	1 (1) NC / CL EF	2 (2) CL EF	1 (1) CL Group	1 (1) UC Group
FC Kopenhagen	Denmark	1	2 UC 3R	1 UC 1R	1 NC / UC 2R	2 CL 1R	1 UC 1R	1 CL Group	3 UC Group	1 NC / UC 3R	1 UC 2R
FC Porto	Portugal	2 NC / UC QF	3 CL Group 2	1 NC / UC F	1 CL F	2 CL EF	1 NC / CL Group	1 CL EF	1 CL EF	1 NC / CL QF	3 NC / CL EF
Glasgow Rangers (F.C.) **	Scotland	2 (2) UC 3R	2 (2) NC / CL 1R	1 (1) NC / UC 1R	2 (2) CL Group	3 (1) UC Group	3 (3) CL EF	2 (2) UC EF	1 (2) NC / UC F	2 (1) NC / CL QF	1 (1) CL Group
Juventus	Italy	2 CL group 1	1 CL Group 2	1 CL F	3 CL EF	1 CL QF	20* CL QF	1	3	2 CL EF	7 UC 3R
Lazio Roma	Italy	3 CL Group 2	6 CL Group 1	4 UC HF	6 CL Group	10 UC Group	16	3	12 CL Group	10	12
Millwall	England	1	4	9	10 Finalist NC	10 UC 1R	23	10	17	5	3 Promotion Championship
Olympique Lyonnais	France	2 CL Group 2	1 UC EF	1 UC 3R	1 CL QF	1 CL QF	1 CL QF	1 CL EF	1 NC / CL EF	3 CL EF	2 CL HF
Preston North End	England	4	8	12	15	5 F playoffs	4 SF playoffs	7	15	6	17
Sheffield United	England	10	13	3	9	8	2 (Promotion)	18 (premier league)	9	3 Playoffs	8
Silkeborg	Denmark	3 NC	9 UC 1R	11	1	8	8	12	3	2	8
Sporting (Lissabon)	Portugal	3 CL Group1	1 NC / UC EF	3 UC 1R	3 UC 2R	3 UC F	2 UC 1R	2 NC / CL Group	2 NC / UC QF	2 CL EF	4 UC 3R
Sporting Lisboa Benfica	Portugal	6 UC 1R	4	2	2 NC / CL 1R	1 UC 3R	3 CL QF	3 UC QF	4 UC EF	3 UC Group	1 UC QF
Tottenham Hotspurs	England	12	9	10	14	9	5	5 UC QF	11 UC EF	8 UC 3R	4
Watford	England	9	14	13	16	18	3 (Promotion)	20 (Premier League)	6	13	16

* Juventus was accused of rigging games by selecting favorable referees. The Italian Football Federation punished Juventus by relegate them to Serie B (Second division).
** Scottish Premier League is divided in two rounds: First round all clubs together in a regular competition. Second round, the six highest ranked clubs in championship group, the six lowest ranked clubs in relegation group.

Q : Qualification
R : Round
EF : Eight Final
QF : Quarter Final
SF : Semi Final
F : Final
NC : Winner of National Cup
Red number : Club ranking in a lower division

Most prestigious European Football tournament: Champions League (CL), stages:

Until 2006 1st Round (qualifying), Group 1, Group 2, Quarter Final, Semi Final, Final
After 2006 1st Round (qualifying and playoffs), Group, Eight Final, Quarter Final, Semi Final, Final

Second prestigious European Football Tournament: UEFA CUP/ European League (UC), stages:

Third ranking of the four clubs in group CL = 3th round UC