

Application of Income Approach for Valuation of Football Club

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Abstract The chapter treats practical problems related to the valuation of the football clubs. These problems are addressed using existing DCF model as part of income approach. The article describes in detail revenue mix and expenditure pattern of football clubs and the ways to forecast future cash flows. Besides it considers the methods of calculating the discount rate for valuation of FC and risks associated with its activities. Examples of different business models and statistics from European football market are provided.

Keywords Sport economy · Sport finance · Football economy · Valuation of football club · Discount rate for valuation of football club

1 Introduction

Football is one of the most popular sports in the World. The 2013 UEFA Champions League final was aired in more than 200 countries to an estimated global average audience of 150 million and a projected global unique reach of over 360 million viewers [3]. According to Deloitte [2], total revenue of the top football clubs in 2012/2013 reached €5.4 billion, a 8 % increase on the previous season and about 450 % on the season 1996/1997. In 1991/1992 the 22 clubs of the then Football League First Division had collective revenue of £170 m—in 2011/2012 the revenue of the 20 Premier League clubs was almost 14 times greater at over £2.3 billion, while the European football market grew to €19.4 billion [13]. Only brands of 50 football clubs are worth more than €10 billion [1].

Forbes annually evaluate top soccer teams, and in 2014 [8] “Real” Madrid, was worth \$3.4 billion, more than any team in the world. “Barcelona”, ranked second with a \$3.2 valuation, and “Manchester United” third with \$2.8. The top 20 teams were worth an average of \$968 million, an increase of 26 % over 2012.

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Along with development of sports industry as independent economy sector, investments in its certain branches are growing: we see more businessmen investing in football clubs (FC) and consider it not just as a hobby or a social burden, but as a true business, more FC participate in M&A deals, finally, FC are returning to debt and equity capital markets, and long expected IPO of Manchester United became proof of that. Besides in the past few years there has been tremendous progress in football fans' interest for their clubs' finances. In this regard we face a real need for a modern valuation model, which will consider the specifics of the FC as a business.

2 Income Approach: General Description

If we agree, that football could be considered as business, we can use for valuation of FC three standard approaches: income, market and asset. But every economy sector has particular properties, which influence the valuation process. It means that we cannot use the same methods for valuation of oil and transport companies. As well football requires to develop a unique model and to upgrade all three approaches.

Income approach is based on the assumption that the value of the business is equal to the sum of the present values of the expected future benefits of owning this company. In accordance with Discounted Cash Flow (DCF) method, which is used within income approach, investor would not pay for business more than the present value of expected future benefits of owning that company. Similarly owner of the business would not sell his company for price which is lower than the sum of present values of future cash flows. DCF model is most appropriate for investors, who plan to buy not a package of assets (buildings, land plots, equipment, etc.), but primarily a business or stream of future cash flows, which will allow him to return his money and earn a profit.

Transferring all mentioned above to football, we understand, that we can use DCF model only for big and popular FC with positive cash flow or for those, who has a chance to join them in nearest future. For example we can find such clubs in Deloitte Football Monet League ranking (Fig. 1). But generally it is still easier to find clubs with weak business and financial performance.

If we take Russian football, even biggest FC are showing very weak results (Fig. 2). Besides it should be noted, that these 4 clubs are the only ones, who disclose their figures. They provide the statement in accordance with Russian accounting standards (RAS) and do not comment on the structure of revenue and expenses. Huge amounts are accounted as "other income" and it is unclear, what stands behind. But it is commonly known, that most all Russian FC remain afloat due to their shareholders and local authorities. The other problem is hidden transfer costs, which are not fully and properly booked. So we cannot fully rely on these statements and particularly make any conclusions or forecasts. At the same time if we find a positive dynamics in sports track record, strong management team, infrastructure base and support from fans we can try to build up a positive future cash flow. Furthermore any investor needs to see all income items, which he could earn with this particular asset. So,

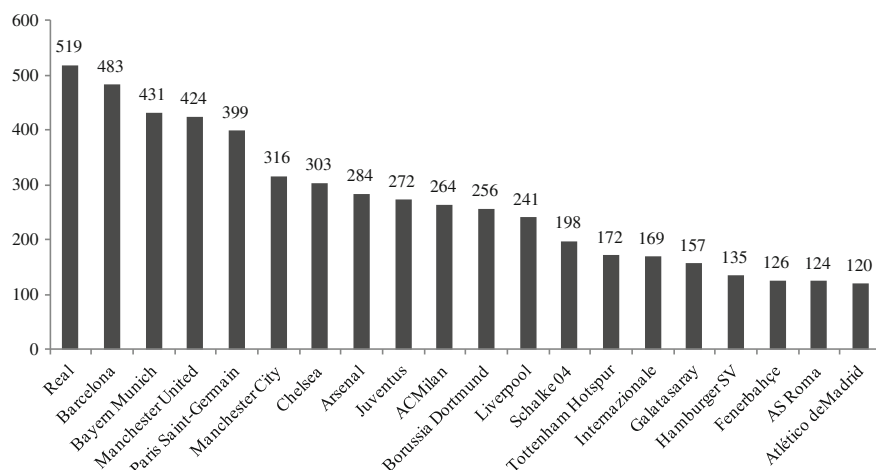


Fig. 1 Europe FC total revenues, season 2012/2013(€m). Deloitte

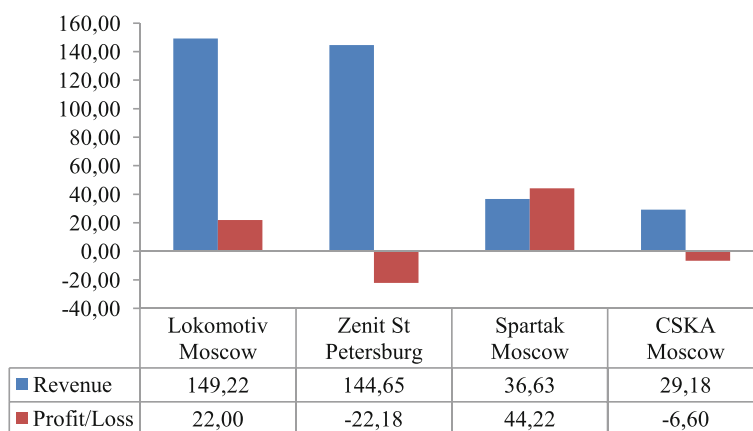


Fig. 2 Financial results of major Russian FC, 2012, m\$. SPARK INTERFAX (1\$ = 31.6 RUR)

negative cash flow does not mean that we should not use income approach. Certainly it's worthless to discount negative figures, but the first thing to do is to analyze the structure of revenues and expenses.

Revenue of FC consists of following items:

1. matchday revenue—selling tickets (including seasonary), food and drinks and merchandise;
2. broadcasting rights;
3. commercial revenue—sponsorship contracts and selling club's trademark products;
4. selling players;
5. participation in Champions League and League Europe;
6. stadium revenues: lease out playing field to other teams; arrange exhibitions, shows, concerts; income from commercial property on/near the stadium (offices, retail, hotel); selling naming rights;
7. media—club's TV-channel, radio station, newspaper, web site;
8. revenues from non-operating business based on FC brand. For example "Real" Madrid in March 2012 announced plans to build the resort off the coast of the United Arab Emirates, which will be located in the sea on an artificial island on the area of 430,000 m². It is planned that this island will become a football theme entertainment center, including a stadium for 10,000 spectators with sea view, two luxury hotels, villas, which will be available to own or rent, yacht marina and team history museum. Even more extraordinary project implements the German club "Schalke", launched the official club cemetery Beckenhausen-Sutum near the "Veltins-Arena" with 1,904 graves—similar to the founding year of the team. Cemetery will be designed like a stadium, interior elements will include "Schalke" emblem, gate and substitutes' bench. According to the newspaper *The Kölner Stadt-Anzeiger*, one plot on the club cemetery will cost 1,250 euros and annual service—125 euros.

Now we describe briefly all these items.

3 Revenue Structure of FC

3.1 Matchday

Much of matchday revenue comes from selling tickets, and the bulk club receives from premium seats, VIP- and sky boxes. In other words, the most affluent fans help the club to earn in foremost. However, sales of all categories of tickets are directly dependent on two factors: the popularity of the team and stadium capacity, which eventually form such an indicator as attendance.

Besides income from ticket sales will depend on sales channels: the stadium ticket office, ticket offices in the city, the club chain stores and internet sites. Another option to increase attendances—a system of discounts and loyalty programs for fans: discounts on attributes and prize draws for season ticket holders, personalized seat in the stadium, preferences for children, etc. Also one of the factors affecting the

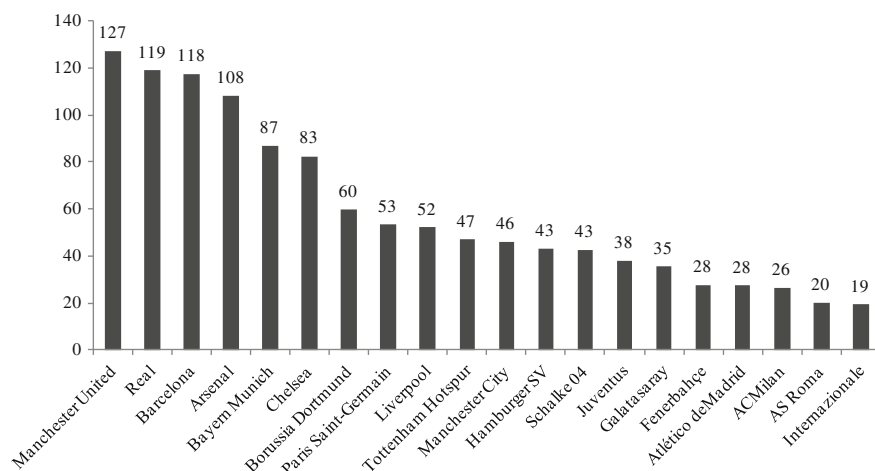


Fig. 3 Matchday revenue, season 2012/2013 (€m). Deloitte

attendance is the age of stadium—usually newly built arena filled much better than old ones.

Further the club needs to decide how many season tickets should be sold and how much—leaved for free sale. This decision will influence not only income from ticket sales. The fact is that the holders of season tickets are not very promising, as buyers of clubs' products. Typically, at the beginning of the season they get a t-shirt, and no longer make any purchases. While buyers of single tickets, in this sense, are more attractive (for example, tourists, who often buy something to remember).

People also use to buy some food and drinks, but these revenues depend on whether the team is playing on its own stadium or rents it, and on the organization of relationships with companies that provide catering services. Most of the clubs receives a percentage of the proceeds from the sale of food and beverages. As for the merchandise, the presence of fan-shop near the arena significantly helps to increase its sales, as well as several of the official points of sale in the city. For example, at the airport in Dortmund you can find even a vending machine with approximately 20 items of products from a range of "Borussia" fan-shop: T-shirts, cups and various souvenirs. Ranking of the leading clubs in Europe in terms of matchday revenue is shown in Fig. 3.

3.2 *Broadcasting Revenues*

In recent years revenues from the sale of television broadcasting rights have a strong upward trend that has affected even the Russian market (see Table 1). The latest contract for the right to broadcast matches of the Russian Premier League till 2015,

Table 1 Revenues from the sale of television broadcasting rights (*The Swiss Ramble*, www.sports.ru)

Country	Term, years	Total Amount (€m) ^a	Amount per year (€m)		Broadcaster
			<i>Local</i>	<i>Abroad</i>	
England	3 (2016)	6,499	1,333	834	SKY, BT
Italy	3 (2015)	3,000	829	171	Sky Italia, RTI
Germany	5 (2017)	2,800	628	72	Sky Deutschland
Spain		655	500	155	Sogecable, Mediapro
France	4 (2017)	2,632	610	32 ^b	Al-Jazeera
Turkey	4 (2014)	1,041	260		Digiturk
Netherlands	12(2025)	1,020	85		Eredivisie Media and Marketing
					(Fox International)
Portugal			48		SportTV
Greece	4 (2015)	168.4	42.1		Nova Sports
Poland	3 (2014)	107.1	35.7		Canal+
Russia	3 (2015)	96	32		NTV+
Romania	3 (2014)	81.9	27.3		RCS-RDS, Romtelecom, Antena 1
Scotland	5 (2017)	100	20		Sky, ESPN
Bulgaria	1 (2012)		4.65		TV7, BNT1

^a Exchange rates 1\$ = 0.8 €, 1£ = 1.25 €^b For 6 years

was signed with “NTV-Plus” company. The contract is amounted to \$120 million. The rights for previous season were bought for \$60 million, while the previous four—for \$92 million, or an average of \$23 million per season.

It should be noted that this source of income is largely determined by the system of selling the rights, which could be collectively or individually. The first one intends that the league, uniting all the clubs, concludes a contract with the broadcaster. The entire amount of this contract is divided between the teams in a specific pattern. For example, in England 50 % of the total amount received for the sale of domestic TV-rights equally distributed between the clubs, 25 %—depending on the number of broadcasted matches of the team and the remaining 25 %—depending on the standings at the end of the season. Money received for the sale of broadcast rights overseas, distributed equally.

When television began to cover the game in 1965, the BBC paid just £5000 for highlights, and the money was shared equally among all 92 clubs in the four divisions of English football. By 1988, after moves by the big clubs to keep more of the league’s income, 50 per cent of the £44 million 4-year deal with ITV was awarded to the First Division clubs, 25 per cent to the Second Division, and 25 per cent to the Third and Fourth. The Premier League’s TV deals have grown hugely: £670 million in

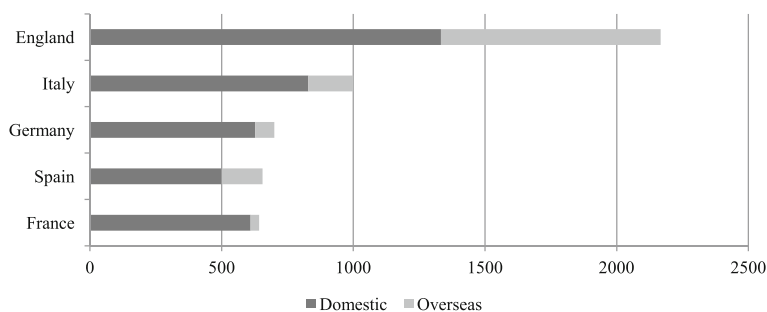


Fig. 4 Structure of broadcasting revenues in “Big Five” countries (€m) (*The Swiss Ramble*)

1997, £1.6 billion in 2001, a dip to £1.1 billion in 2004, £2.4 billion in 2007. The current deal, for 2010–2013, is £3.1 billion, including overseas rights reaping £1.4 billion. In June, in the middle of England’s humdrum performance in the European Championships, the Premier League announced it had secured £3 billion from BSkyB and BT (its first entry into the field) for the right to broadcast live matches in the UK in 2013–2016 [6].

Currently the rights to broadcast English Premier League are most expensive in Europe (see Fig. 4). The lowest placed Premier League club now earns around £40 million from television alone, while clubs in the Championship earn around £2 million.

Thus, under the collective scheme all clubs receive a part from the total broadcast revenue, and given amount depends on the success in the championship. However, the most successful teams still believe that they provide primary television audience, and therefore should receive more than their less popular rivals, who, on the contrary, insist that most of the matches are played with them, and want to have just as much rights to broadcast revenue. These disputes continue permanently, but most European leagues accept collective system. And only in Spain and Portugal, this contradiction is not able to resolve, clubs sell the rights to broadcast their games on their own (for example, “Barcelona” and “Real” only for season 2011/2012 earned €140 million each).

Interesting scheme is incorporated in Italy:

1. 15 % are allocated based on the results of the team for past 5 years;
2. 10 %—based on the performances of clubs since 1946;
3. 5 %—according to the place in last championship;
4. 40 % is divided equally among all teams of Serie A;
5. 30 %—on the basis of such indicators as the population of the commune, represented by the club (5 %) and the number of fans (25 %).

It is assumed that in season 2013/2014 the league will get €17 million more, and in a year—€24 million. The money will be distributed among those teams that will take the first 10 places. Fifteen percentage—to top three teams, 10 %—to fourth and

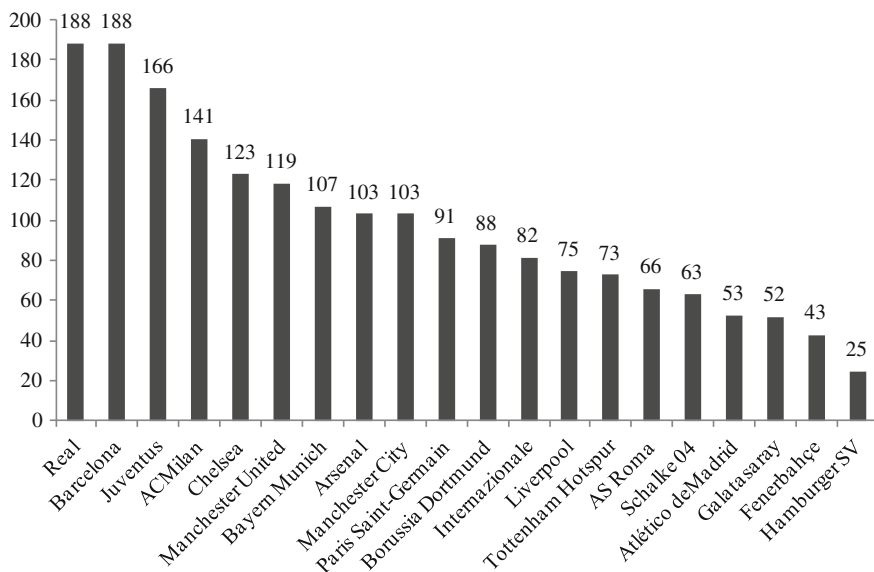


Fig. 5 Broadcast revenue, season 2012/2013 (€m) (*Deloitte*)

fifth place, the rest will get even smaller—up to 5 % to the 10th team. Three clubs that drop out the Serie A will get €30 million.

Ranking of the leading clubs in Europe in terms of revenue from the sale of television broadcasting rights is presented in Fig. 5.

3.3 Sponsorship

FC also entitled to sponsorship contracts in the following areas:

1. provider of equipment (kit supplier);
2. the main sponsor with the right to put its brand-name on T-shirts;
3. partners of the club (sometimes—with the right to put its brand-name on some part of the T-shirt (e.g., sleeves));
4. the right to put a trade name on training kit;
5. sale of stadium naming rights.

Competition for the first item takes place between the major brands of sports equipment: Adidas, Nike, Puma, Umbro. According to Sport + Markt (European Football Kit Supplier Report, 2012), in the “Big Five” countries Adidas, Puma and Nike are on the lead (Fig. 6). In season 2012/2013 of Russian Premier League Adidas was on the lead with five contracts among 16 teams.

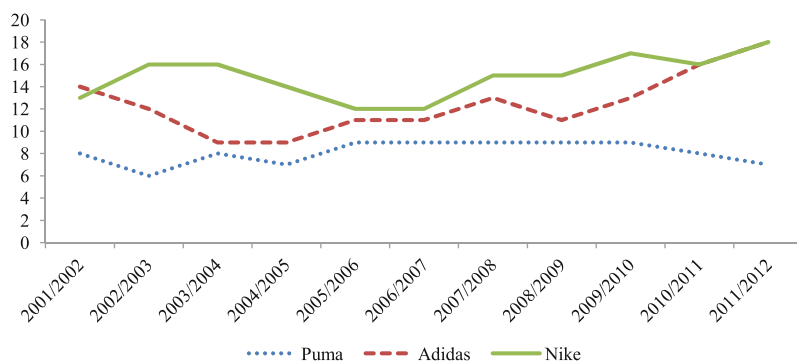


Fig. 6 Number of contracts with manufacturers of sports equipment in the “Big Five” (*Sport+Markt*)

The two significant US brands—Warrior and Under Armour have fuelled an upward trend in annual payments that suppliers are willing to be aligned with such an irresistible platform. We have seen Arsenal, Manchester City and Lazio leave long-term supplier relationships to enter more lucrative shirt deals. Warrior sports entered the market in 2012 with a deal to supply Liverpool’s kits over a 6 year period. Warrior, owned by New Balance, is better known in the US market for providing lacrosse and hockey apparel. Liverpool brokered the deal over a 12 month period, speaking with all the major kits suppliers before settling on the value and exclusivity that the Warrior deal would provide. the deal was worth a reported £300m, a record braking sum.

Under Armour is another US brand just beginning to capture UK market share, using its deal with Tottenham Hotspur as a market entry tool to tap into the football market and continue its rapid revenue rise. The company is particularly well known for its pioneering research and technological innovations and is at the forefront of the current trend for football shirts to be treated on a par with boots as serious pieces of technical apparel [1].

For 50 Football Clubs, covered by Brand Finance, this picture looks as following (Fig. 7).

It should be noted that initially the only thing clubs could expect were a few sets of kit and boots. But now the manufacturers of equipment are competing for the right to become the official supplier of the leading clubs and willing to pay for that huge money. Thus, in 2002, Nike agreed to pay £303 million and give a share of retail sales to Manchester United. Their 13-year agreement comes to an end in 2015. In May 2013 Arsenal reached an agreement with Puma for £30m a year contract over 5 years from the end of 2013/2014. The 5-year, £170 million deal ends the Gunners’ 20 year alliance with Nike. Table 2 gives an overview of recent kit sponsorship deals with European “Big 5” football federations.

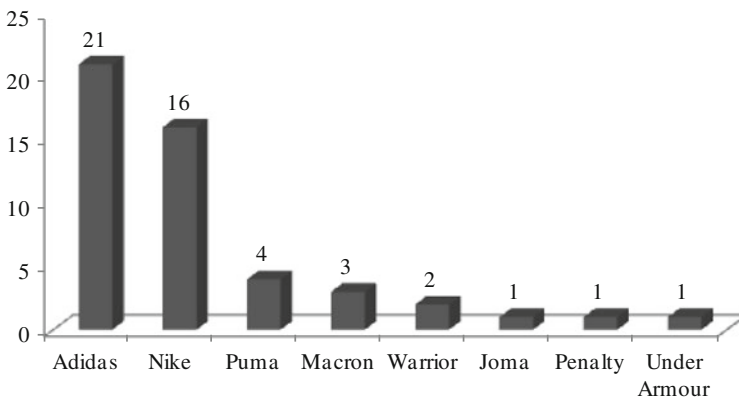
Clubs can also get some serious money for the sale of the right to put a sponsor trade name on the main kit.

Table 2 Value of recent european kit sponsorship deals (*Jefferies*)

Team	Sponsor	Year	Length (years)	Annual value (£m)
France National	Nike	2011	7.5	33.5
England National	Umbro	2010	8	26.7
Spain National	Adidas	2011	7	21
Germany National	Adidas	2008	10	15.7
Italy National	Puma	2012	6	14.5

According to the World Sponsorship Monitor, in 2012 football attracted about \$4.5 bn in global sponsorship—significantly more than any other sport and two-thirds more than in 2011 [5].

Back in 2012 Arsenal extended its annual shirt and stadium sponsorship deal worth £30m annually, while Real Madrid concluded shirt sponsorship contract for €30m per season. Manchester United, meanwhile, signed the largest shirt sponsorship deal in history—a 7 year deal worth \$659m with General Motors. In April 2013, the club also sold the rights to its training ground, training shirts and overseas tours for almost \$30m per season to Aon, the insurance group. Although the contract will come to force only in season 2014/2015, within the next two seasons “General Motors” will pay \$ 18.6 million, and in season 2014/2015 the club will receive \$70 million. Every year the size of sponsorship payments will grow by 2.1 %. Besides we should not forget that among other sponsors of Manchester are such companies as DHL, Chevrolet, Singha, Concha y Toro, Thomas Cook, Hublot, Turkish Airlines, Epson, Honda and Smirnoff. In July 2013 Manchester United announced a 5-year partnership with Aeroflot. The Moscow-based international airline has become the club’s Official Carrier. As to DHL, there were a quite an interesting story. In 2010 the company acquired for £40 million the right to place their logo on the training kit.

**Fig. 7** Number of partnerships with clubs in the Brand Finance Football 50 (*Brand Finance*)

However, after signing an agreement with GM United has bought this contract back from DHL.

Another big contract was signed with “Barcelona”—5 year agreement with Qatar Foundation till the end of season 2015/2016 is worth €170 million. Notably this was the first deal for the Catalan club, which has no commercials on its T-shirts before. On March 2013, Barcelona has confirmed that they will be using the Qatar Airways logo on the front of their shirts, receiving €35.4 million per year.

In Russian practice we can mention a contract between “Rosseti” company and PFC “CSKA”. In the period from 2013 to 2018 club will receive 4.185 billion of rubles or approximately \$26 million per season. In season 2012/2013 “CSKA” had another sponsor—“Aeroflot”. That contract worth €9 million. Besides “Aeroflot” provided the team with the plane Airbus A320, and painted it red and blue colors of the club.

In 2013 FC “Spartak Moscow” has signed a contract with “Otkrytie” Bank. According to the agreement, the new stadium of the club, which will be put into operation in the September of 2014, will be called “Otkrytie Arena”. In 6 years the Bank will pay approximately \$40 million.

As Financial Times wrote [5], sports sponsorship kills 120 birds with one rather expensive stone. Unlike typical forms of marketing, sports sponsorship provides extra benefits, whether tickets to a game or a tour of Manchester United’s training centre. The access sponsorship provides is one of main motives for the sponsors of the Champions League, which costs between £25 m and £30 m per season. For this, sponsors receive advertising surrounding the pitch and the ground as well as “break bumpers”—the short sting from a sponsor before an advert break begins. The rise of on-demand television means that live sport is one of the few times that advertisers can guarantee eyeballs. Sponsors such as Heineken also get about 1,200 tickets each to dish out to clients, staff and competition winners. About a third of the 86,000 tickets to Champion League final 2013 were dished out to sponsors and guests of UEFA, European football’s governing body.

The largest transactions between football clubs, sponsors and manufacturers of equipment are shown in Fig. 8.

3.4 Merchandising

Merchandising revenue depends on the following factors:

- popularity of club and number of fans (including overseas);
- sports results;
- registered rights to identifications (brands, logos);
- sales network (including the opportunity to purchase products via the Internet);
- product range;
- pricing policy;
- title sponsor.

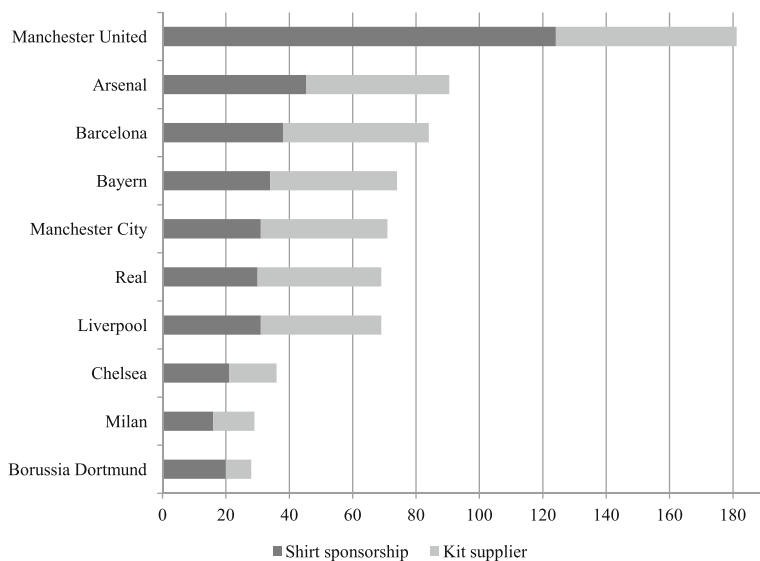


Fig. 8 The largest transactions with sponsors and manufacturers of equipment (\$m) (*Brand Finance, The Swiss Ramble, Jefferies, Financial Times*)

The first two factors are closely related, but even for the popular team winning the principal match in major tournament can boost sales, and vice versa. Registered rights to branded products in the first place should help the club fight against counterfeiting, which is especially important for the Russian clubs. Product range and sales channels could be considered as accessory factors and can stimulate the growth of revenue only for those teams that have a strong base of loyal fans. Finally, the pricing depends on the region where the team plays, and income levels. However, in terms of a kit sale the price is determined by the manufacturers. For example, according to Sport + Markt (European Football Kit Supplier Report, 2012), the average price of a playing shirt replica in the “Big Five” is €65 (see Fig. 9).

Merchandising revenue could be affected by the title sponsor of the team. And sometimes this effect could be negative. For example, after signing in August 2012 sponsorship contract with “Wiesenhof” company, specializing in poultry and meat processing, sales of Bremen “Werder” shirts decreased dramatically. Team fans explained this by animal abuse, incriminated to the company. Ranking of the leading clubs in Europe in terms of commercial revenue, which include revenues from sponsors and merchandising, is presented in Fig. 10.

So, we briefly reviewed the main revenue items of Football Club. However, as in any other business, in football there are also some additional opportunities to earn money.

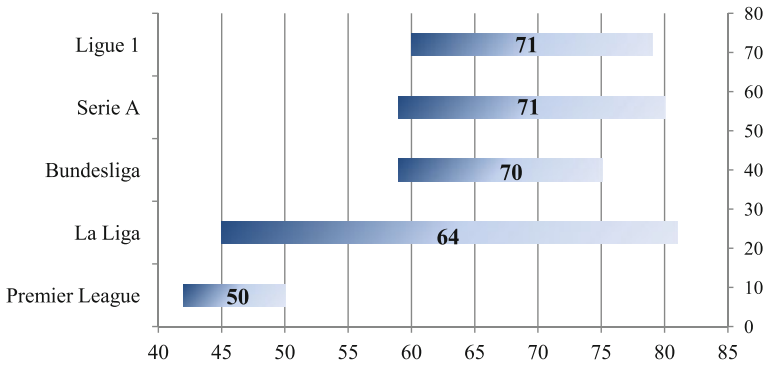


Fig. 9 The average price of a playing shirt replica in “Big Five” countries, € (*Sport+Markt*)

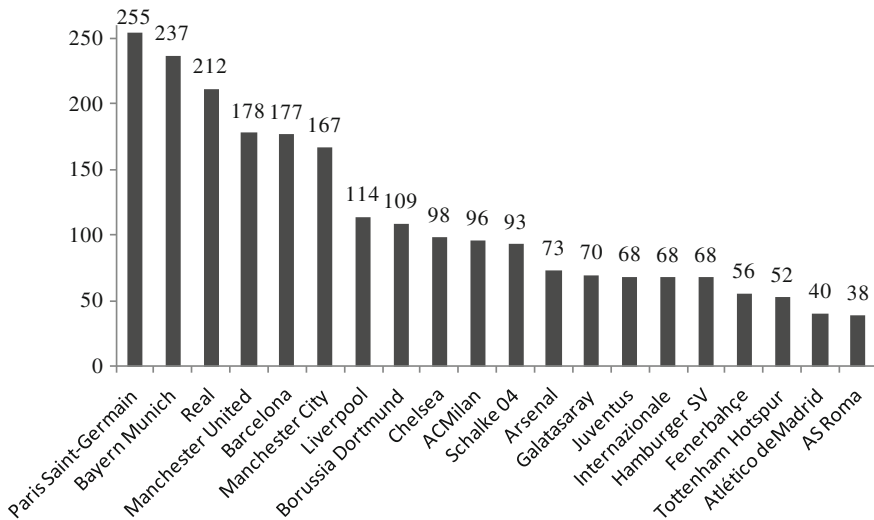


Fig. 10 Commercial revenue, season 2012/2013 (€m) (*Deloitte*)

3.5 Stadium Revenues

One of such opportunities could be afforded by the own stadium. For example, according to Sport + Markt research (International Stadia operations survey, 2011), on average following events are held on the European football stadium every year: 26 games, 2–3 concerts, 2–5 competitions in other sports, and about 14 other events (exhibitions, congresses and etc.). At the same time “sports” activity brings the stadium only 64 % of revenue. 40 % stadiums in Europe have restaurants and bars, 25 %—fitness center, 25 %—the museum of the club, which plays at the stadium, 30 % rent office space, 10 % assign some place for entertainment. It’s interesting, that 12 % of stadiums have a chapel (among them Camp Nou in Barcelona).

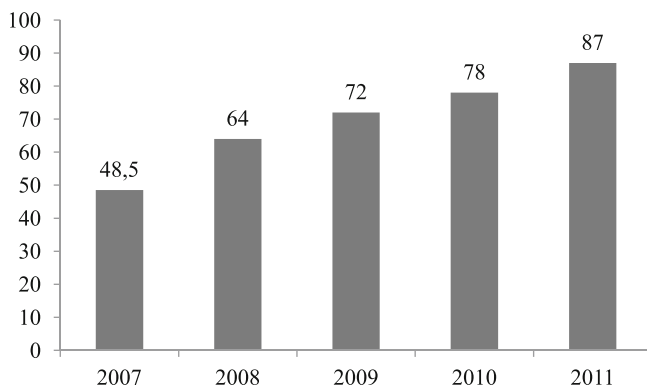


Fig. 11 Revenue of European stadiums from selling naming rights (€m) (*Sport+Markt*)

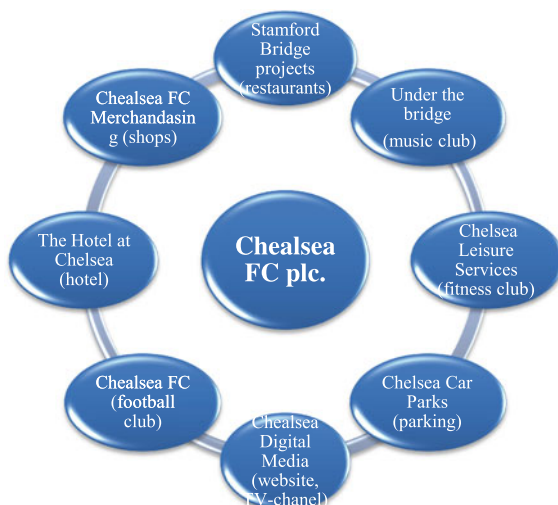
One more source of income for clubs having their own stadium—title sponsorship of arenas. According to another study of Sport + Markt (“Naming Rights Report 2011”), in 2011 European stadiums were to receive for selling naming rights approximately €87 million (see Fig. 11).

However, the opportunity to earn on selling the title of the stadium depends on the team that plays there, and more particularly—on its popularity and sport results. We also should keep in mind special attention of Union of European Football Associations: UEFA simply banned the use of trade names in its official documents. Therefore, in the Premier League, “Arsenal” plays on “Emirates Stadium”, and in the Champions League—on “Arsenal Stadium”. Nevertheless, the experience of London club should be recognized as most successful—“Arsenal” earned £100 million over 10 years, and the name “Emirates Stadium” firmly rooted in European football.

In general, contracts for selling naming rights are made at the stage of building the stadium. This is largely due to very complicated negotiations with fans, who often oppose the commercialization of stadium’s name. This primarily concerns reconstruction projects when it comes to changing the name of the arena. In this sense, the example of “Newcastle” could be very illustrative. For years the club tried to sell rights to rename home arena “St James’ Park”, each time bumping into fierce opposition to fans. In late 2011, the stadium finally becomes a name “Sports Direct Arena”. However, in autumn 2012, the new title sponsor of the “Newcastle” “Wonga” company announced recovery of old name. Therefore, the company decided to win the confidence of fans. In 2005 fans of “Borussia” Dortmund were protesting against renaming “Westfalenstadion” in favor of the insurance company “Signal Iduna” (15 years for € 20 million). Agreement was found only after one of the streets near the arena renamed in honor of the old stadium.

If the club fails to sell the name of “entire” stadium, it is possible to offer potential sponsors some alternatives. Thus, there were examples when the stadium arranged an auction to sell the right to place a name or a brand on the scoreboard of the arena and its official website for one day (FleetCenter). There have also been attempts to

Fig. 12 Chelsea FC group of companies (*sports results*)



sell the rights to the name of the individual stands of the stadium (Giants and Jets football stadium, The Cleveland Browns stadium).

Each stadium can earn substantial share of income on advertising. Determinative in this case will be the effect, which can provide the stadium for the advertiser. In other words the football audience should be interesting for a company, which plans to place advertising on the stadium. In addition the legal restrictions to advertise individual products should be considered. The most striking example of such restrictions—a ban on beer advertising in Russian stadiums, which could have boosted stadiums revenues.

To finish with revenues that could be generated by the stadium, we must underline that the construction of the arena requires huge investments, which, in turn, decrease the total income of the club, especially if the construction was funded with borrowed money. As for these costs, we can assume that the average cost of building a one seat on modern European stadium costs approximately €3900 [9].

3.6 Additional Sources of Income

Clubs can also earn outside stadium: open branded restaurants, clubs, fitness centers etc. As an example we can hold up the structure of Chelsea FC (see Fig. 12).

Finally, club can earn serious money participating in the Euro cups. Distribution of UEFA Prize Money and figures for seasons 2012/2013 and 2011/2012 are presented in Table 3 and on Figs. 13 and 14.

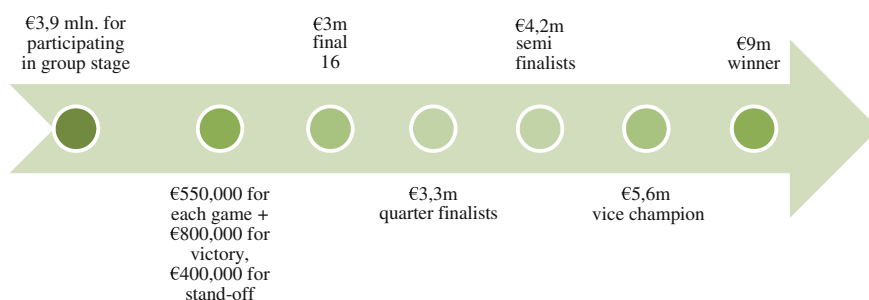
In addition to these fixed sums, the clubs receive a share of the television money from the TV (market) pool, which is allocated according to a number of variables.

Table 3 Champions league bonuses in season 2011/2012 (*The Swiss Ramble*)

€ millions	Champions league		Europa league	
	2011/2012	2012/2013	2011/2012	2012/2013
Participation bonus	3.9	8.6	0.64	1.3
Match bonus:				
Each team	0.55		0.06	
Each win	0.8	1	0.14	0.2
Each draw	0.4	0.5	0.07	0.1
Group qualification				
Win group				0.4
Runners-up				0.2
Min for participation ^a	7.2	8.6	1	1.3
Max for participation ^b	12	14.6	1.84	2.5
Last 32			0.2	0.2
Last 16	3	3.5	0.3	0.35
Quarter-finalist	3.3	3.9	0.4	0.45
Semi-finalist	4.2	4.9	0.7	1
Finalist	5.6	6.5	2	2.5
Winner	9	10.5	3	5
Total for winner (min)	26.7	31.4	5.6	8.7
Total for winner (max)	31.5	37.4	6.44	9.9

^a If the team loses all six matches of group stage

^b If the team wins all six matches of group stage

**Fig. 13** Champions league bonuses in season 2011/2012 (*The Swiss Ramble*)

First, the total amount available in the pool depends on the size/value of a country's TV market, so the amount allocated to teams in England is more than that given to, say, Spain, as English television generates more revenue. Clubs can also potentially do better if fewer representatives from their country reach the group stage, as the available money is divided between fewer clubs.

In the case of the English clubs in the Champions League, the allocation works as follows:

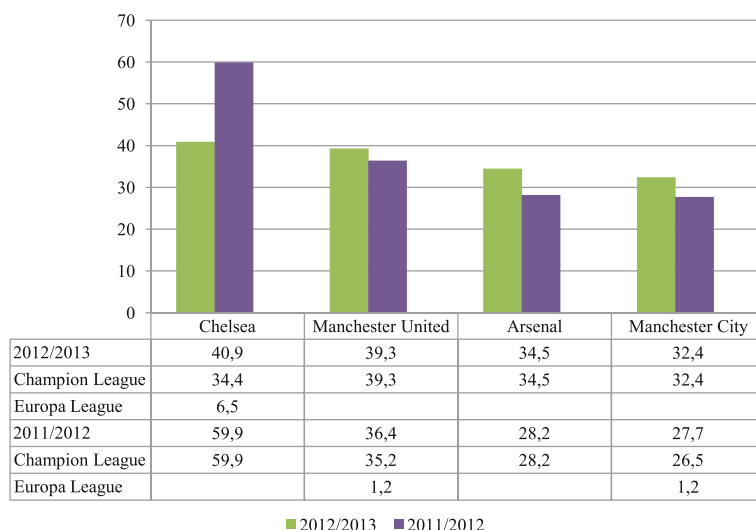


Fig. 14 UEFA prize money—2012/2013 versus 2011/2012 (*The Swiss Ramble*)

1. half depends on the position that the club finished in the previous season's Premier League with the team finishing first receiving 40 %, the team finishing second 30 %, third 20 % and fourth 10 %;
2. half depends on the progress in the current season's Champions League, which is based on the number of games played, starting from the group stages [11].

3.7 Fans, as Major Source of Income

Ending up with the revenue items, it is worth noting that the main asset of any football club is its fans, and even money from sponsors and advertisers is largely dependent on the number of fans (prospective customers). Respectively, for the projection of future earnings analyst must know at least the approximate number of fans who will visit home games, buy t-shirts, coffee etc. But how to obtain this figure?

Any sociological research tends to seriously overestimate these numbers by controversial assumptions and extrapolations. In addition, results of studies commissioned through the request of individual clubs and, respectively, paid by them, are pretty questionable. For example, according to the survey of research firm "Nielsen", conducted in 2011, the most popular club in Russia was "Zenit" St Petersburg, which paid for the work. After interviewing 19 000 people in 38 major cities in Russia "Nielsen" found that "Zenith" is supported by 12.6 million people, Moscow "Spartak"—8.2 million, "CSKA"—6.7 million, "Rubin" Kazan—2.3 million, Moscow clubs "Dynamo" and "Lokomotiv"—1.8 million each.

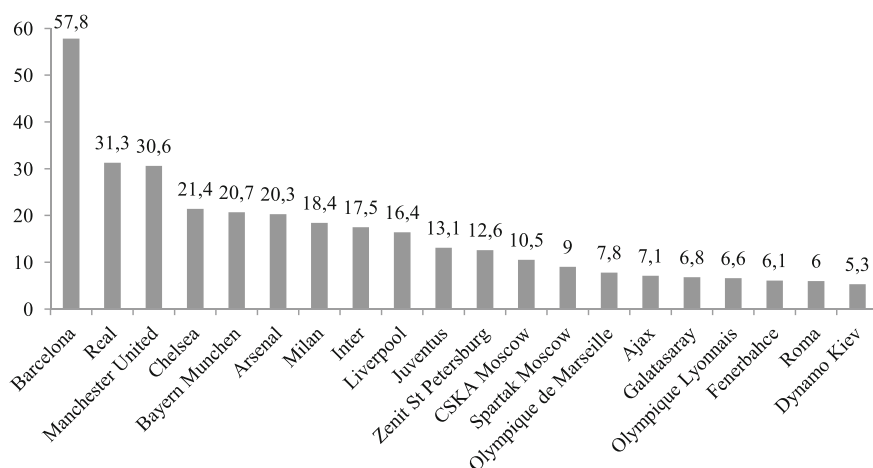


Fig. 15 Most popular football clubs in Europe, number of fans, millions (*Sport+Markt*)

In 2010 Sport + Markt surveyed 10 900 fans in age from 16 to 69 years old and published result shown in Fig. 15. But all these figures hardly could be trusted, and much less we can use it in projections of future revenue items.

The most accurate results can give a formal membership in fan club. For example, there are 226 000 people registered in a fan club of Portugal “Benfica”, and in addition to Portugal, they live in the 70 countries of the world. Moreover, adult fans are paying for membership € 12 per month for themselves and € 3 for their children, which should be considered as additional income for the club. Another example of fair counting of fans could be data of “Manchester United” association of fans—MUST (Muncheater United Supporters Trust). On their website we can find the counter of registered members, which showed in September 2013 more than 195 000 people. Finally we can use number of members in official groups of football club in social networks.

Now when we have considered all possible sources of revenue of football club, we can switch to its expenses.

4 Structure of Expenses

4.1 Players and Coaches

Even for people who do not consider themselves football fans, it is not a secret that the main cost item for any club is players. According to calculations of FIFA [13], the total turnover in the transfer market for the season 2011/2012 was about € 2.6 billion. Most of all, € 106 million, spent the French “Paris St. Germain”, who

continued to actively buy players in 2012: € 70 million for Zlatan Ibrahimović and Thiago Silva. The owner of “Chelsea” Roman Abramovich has spent € 102 million and beat its main rival Sheikh Mansour and his “Manchester City”. Dan King from The Sun calculated that Abramovich has already spent on “Chelsea” over £2 billion.

According to CIES Football Observatory Annual Review 2013 [4], Lionel Messi would largely break the 94-million euro transfer fee record¹ (see Table 4). Estimated on the basis of an exclusive econometric model, his value is between 217 and 252 million euro. Player transfer value calculator could be found here: <http://www.football-observatory.com/transfer-value>. By the way, Lionel is not only the most expensive big-5 league player, but also the most decisive one for the 2012/2013 season based on the performances for five key indicators: shooting, chance creation, take on, distribution and recovery. With an estimated value between 102 and 118 million, Cristiano Ronaldo would also break his own record. At club level Barcelona holds the greatest assets from a player economic value perspective: 658 million euro. This figure is three times higher than that spent on signing the players used during 2012/2013 season. This reflects the extraordinary ability of the Catalan side to train, launch and add value to home-grown players. The second club in terms of players’ economic value is Real Madrid: 500 million euro. In 2012/2013, money spent in transfer fees to sign first team players was highly correlated to club results in all the leagues. All the champions were the biggest (Paris St. Germain and Bayern Munich), second biggest (Barcelona and Juventus) or third biggest (Manchester United) spenders in their respective league. This confirms the strong influence of money on success.

Along with the cost of players their salaries also continue to grow. Forbes [12] has been tracking the earnings of athletes since 1990 when boxer Mike Tyson ranked No. 1 with a total income of \$28.6 million. Iron Mike’s haul would rank No. 25 on Forbes’ 2013 version of the world’s highest-paid athletes. Athletes are richer than ever thanks to skyrocketing television revenues and a two decade stadium building boom.

Coaches do not lag behind their players: in 2012 Jose Mourinho received € 14.8 million a year and was followed by Carlo Ancelotti with annual salary of 13.5 million; in the third place was former coach of “Barcelona” Josep Guardiola, who has earned over the year 2011 € 9.5 million.

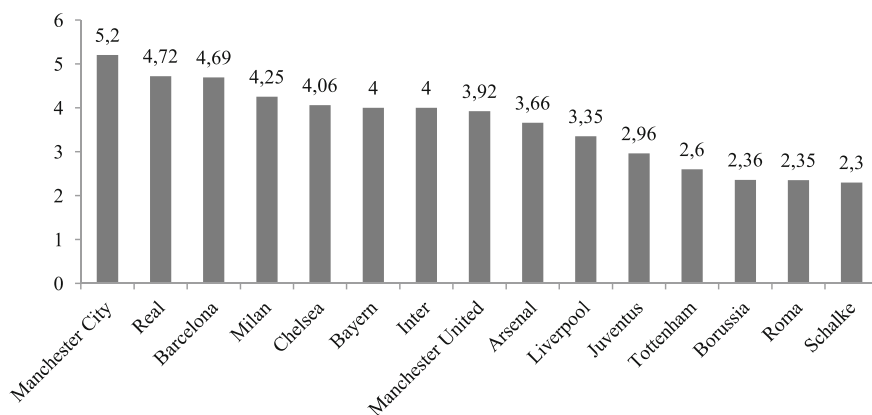
According to Sportingintelligence’s Global Sports Salaries Survey (GSSS) for 2013, compiled in association with ESPN The Magazine [10], “Manchester City” are the best paid team in global sport. The average first-team pay at City, who have been transformed as a footballing force under the ownership of Sheikh Mansour, has been calculated at £5.2 m per year, or £100 764 per week. The most generous football clubs are presented on Fig. 16.

In terms of the cost of salaries it is interesting to calculate whether the club has enough revenue to cover the payroll. For example, “Manchester City” “salary to revenue” figure is 114 (see Fig. 17), which suggests that in fact the club does not have enough income and expenses are covered by shareholders.

¹ At the time of writing this the transfer of Gareth Bale from Tottenham Hotspur to Real Madrid in exchange for approximately € 100 million is yet to be confirmed.

Table 4 Most expensive transfers (<http://www.transfermarkt.de>)

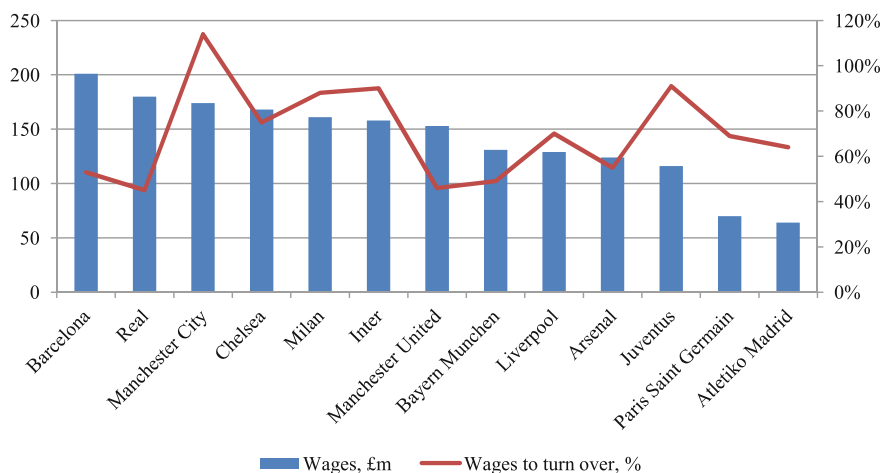
Player	Buyer	Seller	Price, m
Cristiano Ronaldo	Real	Manchester United	94
Gareth Bale	Real	Tottenham Hotspur	91
Zinedine Zidane	Real	Juventus	73.5
Zlatan Ibrahimovic	Barcelona	Inter	69.5
Kaka	Real	Milan	65
Falcao	Monaco	Atletico Madrid	60
Luis Figo	Real	Barcelona	60
Fernando Torres	Chelsea	Liverpool	58.5
Neymar	Barcelona	Santos	57
Hulk	Zenit	Porto	55
Hernan Crespo	Lazio	Parma	55
Gianluigi Buffon	Juventus	Parma	54.2
Gaizka Mendieta	Lazio	Valencia	48
Falcao	Atletiko Madrid	Porto	47
Andrey Shewchenko	Chelsea	Milan	46

**Fig. 16** Football clubs with highest average salary billions, million £ per player per year (*Sporting-intelligence's Global Sports Salaries Survey (GSSS) for 2013*)

However, we should bear in mind that expensive players can in turn increase revenue of the club in several ways. The first and most obvious—is a successful game helping win the match. This forms the economic effect. The second source of income, which is associated directly to the player is—selling T-shirts with player's name, which is especially relevant for such stars as David Beckham or Leo Mesi. Finally, the purchase of popular player can be used to enter the markets of the regions that these players represent. For example, buying Platini allowed “Juventus”

Table 5 The world's highest-paid athletes 2013 (<http://www.forbes.com/athletes/list/>)

Rank	Name	Sport/club	Income, m\$
1	Tiger Woods	Golf	78.1
2	Roger Federer	Tennis	71.5
3	Kobe Bryant	Basketball	61.9
8	David Beckham	Los Angeles Galaxy, PSG	47.2
9	Cristiano Ronaldo	Real	44
10	Lionel Messi	Barcelona	41.3
61	Wayen Rooney	Manchester United	21.1
63	Sergio Aguero	Manchester City	20.9
64	Didier Drogba	Shanghai Ahenhua, Galatasaray	20.8
67	Yaya Toure	Manchester City	20.7
68	Neymar	Santos, Barcelona	20.5
72	Fernando Torres	Chelsea	20
76	Zlatan Ibragimovich	PSG	19.7
79	Kaka	Real	19.3
85	Karlos Tevez	Manchester City	18.2
93	Steven Gerrard	Liverpool	17.2
100	Samuel Eto'o	Anji	16.4

**Fig. 17** Wages in leading European clubs, 2010/2011 (*The Swiss Ramble*)

to increase sales in France, Torres drew the attention of the Spanish fans to English Premier League and the Japanese Honda stimulated interest of his countrymen to the Russian championship. However, “Real” is the most successful in this regard. Stars from across the continent are playing for this club, and thus secure the support

(including financial) in many countries of the world. Sometimes it's not enough to buy only one player to win new markets, and to achieve the desired results the club deliberately makes appropriate emphasis in the transfer policy. But, of course, the main purpose of each acquisition is to strengthen the team, and only secondarily—selling T-shirts with player's name.

As for access to international markets, here's another interesting example: in October 2012 “Real” in collaboration with the club “Guangzhou Evergrande” opened in China the biggest football academy in the world. All this ultimately aimed at increasing the number of fans globally and, as a consequence, the growth of income. We also need to take into account the proceeds from the immediate operation of the facilities.

4.2 Operating Expenses

Let's go back to expenses. Football clubs, like any other company, incur operating expenses, which are formed by office rent, salaries of administrative staff, payments for different consulting services (sport and finance, including insurance), support of the second team and youth academy, security costs, which also may include monetary sanctions for the illegal behavior of fans, the cost for flights and accommodation, rental of stadiums and training centers.

As for youth academy, then, for example, the Portuguese “Benfica” invested in its construction € 19.8 million and annually spends € 4 million. But if somebody signs a contract with one of its students—Nelson Oliveira, he had to pay a compensation of € 30 million. This means that only one deal could cover all the costs of the Academy for several years. Besides football school brings the club revenues, not related to the sale of players: several teams of the Academy (there are different teams for particular age) have its own sponsor. Finally Academy signed an agreement with the general title sponsor, who bought the right to give the Academy its name. Now it's officially called the Academy Saixa, named after Caixa Geral De Depositadas—a major bank in Portugal. This is good example of effective and thoughtful expenses beginning sooner or later to generate income.

Another type of costs that are not relevant for all clubs, but the proportion of which could be quite substantial—service debt. For example, if we look at the cost structure of “Manchester United” for 2009–2012, interest on loans and bonds, on average, amounted to 44 %, and 33 % of funds the club allocated to pay the debt (see Fig. 18).

So, we reviewed the typical income and expenses structure of football club. Table 6 shows the revenue structure of the largest football clubs in Europe for season 2010/2011.

Few years ago, some experts using revenue structure as a base, distinguished several management models: “German”—with most part of the revenue from commercial activities, “Italian”—with an emphasis on income from broadcasting, etc. However, currently this approach is hardly applicable. This is primarily due to the fact

that the revenue structure of each club is individual and can change annually. After all, football club revenue is heavily dependent on sport results—in one season the team can win the domestic championship and succeed in international tournaments, and in next one—show weaker results. At the same time the club's achievements affect all sources of income: wins give a boost to merchandise, attract new fans to the stadiums and television screens, force sponsors to be more generous. In other words, there is a kind of chain reaction, allowing the club, in one case—to increase revenue, in the other—to achieve more modest results or even incur losses. Moreover, we must remember that at the relevant rating were included only the largest representatives of national championships, and consolidated results for the league may look different. Therefore, any conclusions can be made only on the analysis of specific club or league for a few years.

The only clear trend of recent years—the growing importance of income from sale of broadcasting rights, but it does not provide any stability to the structure of income. First, the new contracts are more expensive than the previous ones. Second, the pattern of distribution of these revenues between clubs will always be controversial, which, sooner or later, will be reflected in figures.

4.3 Applying Income Approach

As we remember, Income approach is based on the assumption that the value of the business is equal to the sum of the present values of the expected future benefits of owning the company. So, the main purpose is properly identify and forecast future cash flows, generated by the FC.

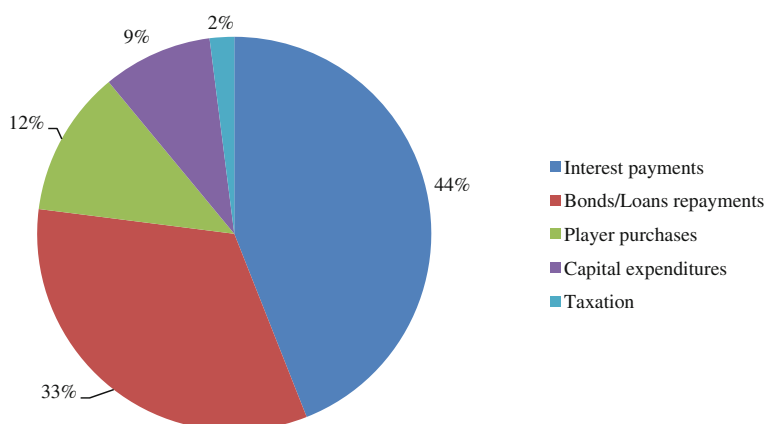


Fig. 18 Manchester United—use of funds, 2009–2012 (*The Swiss Ramble*)

Table 6 Add caption

	Rebenuue	Matchday		Broadcasting		Commercial	
	€ m	€ m	%	€ m	%	€ m	%
Real	518.9	119.0	23	188.3	36	211.6	41
Barcelona	482.6	117.6	24	188.2	39	176.8	37
Bayern Munich	431.2	87.1	20	107	25	237.1	55
Manchester United	423.8	127.3	30	118.6	28	177.9	42
Paris Saint-Germain	398.8	53.2	13	90.9	23	254.7	64
Manchester City	316.2	46.2	15	103.1	33	166.9	53
Chelsea	303.4	82.5	27	123	41	97.9	32
Arsenal	284.3	108.3	38	103.2	36	72.8	26
Juventus	272.4	38	14	166	61	68.4	25
ACMilan	263.5	26.4	10	140.9	53	96.2	37
Borussia Dortmund	256.2	59.6	23	87.6	34	109	43
Liverpool	240.6	52.1	22	74.5	31	114	47
Schalke 04	198.2	42.5	21	62.9	32	92.8	47
Tottenham Hotspur	172.0	46.9	27	72.7	42	52.4	30
Internazionale	168.8	19.4	11	81.5	48	67.9	40
Galatasaray	157.0	35.4	23	51.9	33	69.7	44
Hamburger SV	135.4	43.2	32	24.7	18	67.5	50
Fenerbahçe	126.4	27.7	22	43	34	55.7	44
AS Roma	124.4	20.1	16	66	53	38.3	31
Atlético deMadrid United	120.0	27.5	23	52.5	44	40	33
Total	5394						
Min		19.4		24.7		38.3	
Max		127.3		188.3		254.7	
Average		59	22	97.325	37	113.38	41

However, a properly structured income and expenses are not enough. The main difficulty in applying the income approach lies in their forecasting. For these purposes we can use:

- retrospective reporting;
- business plan and strategy development;
- forecast for the industry, competitor analysis;
- interviews with the shareholders and the management (including the media).

But as we mentioned above, any forecasts are very hard to do, when we speak about football, because final results are highly dependent on sport achievements, which are difficult to predict even for the giants of world football. However, this should not be a cause for denial of the application of the income approach. Let's formulate the following principles of forecasting.

1. Projection period of 3 years.
2. Applying the retrospective performance only in a case of stable development and clear trend, confirmed by forward-looking statements by the representatives of the club.
3. Analyzing independent research to prove all assumptions, which were made (for example, reports of Deloitte; The Swiss Ramble; Soccernomics Agency; The andersred blog; Forbes; UEFA; IB, covering football industry).
4. Consider regional expansion of the club (in terms of merchandising and media rights), and plans for expansion/renovation/construction of the stadium.
5. “Pessimistic” revenue projections and “optimistic” approach to forecasting costs.
6. Considering UEFA Club Licensing System and Financial Fair Play Regulations.
7. Verification of the results from the point of view of common sense (sometimes resulting values, despite the apparent logic, do not seem realistic because of certain circumstances).

After forecasting we can move to the next step and calculate free cash flow. Usually the calculations are carried out for invested capital or free cash flow to firm (FCFF—because it’s “free” to pay out to the club’s investors):

$$\text{FCFF} = \text{EBIT} \times (1 - \text{Tax}) + \text{Amortization \& Depreciation} \\ - \text{Net capital investments} \mp \text{Change in working capital}$$

Earnings before interest and tax (EBIT) or operating profit we can find in P&L. But football clubs are very close businesses, and independent analyst can find statement of only several FC (for example those, whose shares are available at exchanges and who are obliged to publish financial reports). If we do not have such an opportunity, we can calculate each item of income and expenditure in accordance with their basic structure discussed above. For example, we can calculate income from ticket sales taking the schedule of all games of the year (regular championship, Cup, Champions or Europe League, etc.), the average attendance at matches and ticket price ranges. Besides, as an information base, we can use interviews with shareholders and managers of the club, the opinions of experts. Of course, this method of calculation would have a high degree of uncertainty, but in the absence of reliable information such an approach could be relevant.

As for depreciation and capital expenditures, there are some specifics associated with the football players. The fact is that the club cannot buy the player himself, but only rights for him or conclude a contract for a fixed term. This contract is recognized in financial statement as intangible asset. In other words the costs associated with the acquisition of players’ registrations are capitalized as intangible assets at the fair value. During the term of the contract player works for the club, being its asset, and the main goal of this asset—achieve sports results and win trophies. So the price paid for the player is amortized equally during the term of the contract, and value of a player on the balance of the club gradually declines. Costs associated with the acquisition of players’ registrations include transfer fees, League levy fees, agents’ fees and other directly attributable costs. These costs are amortized over the period covered by the

player's contract. If player extends the contract, remaining depreciation or the value on the balance sheet is divided equally for the period of the new agreement. If the club sells the player, the profit is calculated not as money received from the buyer, but like this revenue minus the book value of a player. These rules lead to the fact that all clubs' transfer costs are accounted in non-cash expenses—as total annual depreciation. Therefore, even after large purchases, the club will not suffer a loss. We should note that the player, who joined the club from its own academy, is worth nothing on the balance sheet, and the club could earn 100 % profit. In this case, when the club publishes its balance sheet, it appears that students of the Academy as assets are not recognized at all.

Next component of Free cash flow is Net working capital. In accounting this item is calculated as difference between current assets and current liabilities. However, in business valuation the real Working Capital Requirement is taken on the basis of revenue: with income growth, grows the working capital. The amount of working capital is calculated in two steps:

1. We calculate Working Capital Requirement by comparing the working capital ratio of the subject to those of the guideline companies or by comparison to industry norms. In fact we can calculate the percentage of working capital in Revenue for our football club (for previous periods) and do the same for several public teams. As a result we will have a certain percentage (for example, 15 %) of revenue which form the working capital.
2. Knowing actual working capital we can calculate Working Capital Requirement or Excess. If actual working capital is less than required we will have Working Capital Requirement with “minus” in free cash flow, otherwise—Excess of working capital with “plus” in free cash flow.

Income approach deals with future cash flows. So after we calculate all items of FCFF, it should be discounted to the present moment of time. But firstly we need to have discount rate. The discount rate takes into account the time value of money (the idea that money available now is worth more than the same amount of money available in the future because it could be earning interest) and the risk or uncertainty of the anticipated future cash flows (which might be less than expected). In general, discount rate—is the rate of return that a buyer or investor expects to receive from an investment with a comparable level of risk. On the other hand discount rate could be considered as the alternative cost of capital.

Method of calculating the discount rate depends on the type of capital used in building up the cash flow. If we calculate the cash flow for equity (FCFE) we use Capital Assets Pricing Model—CAPM), and for all invested capital (equity + debt) or FCFF—WACC method (Weighted Average Cost of Capital). These methods are well known and their application does not cause any problems. However, the features of calculating the discount rate are largely determined by the company's industry. Sport clubs, as separate businesses, also have some special characteristics and demand a certain methodology of calculating the discount rate, which should reflect the level of risk specific to a particular team.

Table 7 β coefficients for major European public clubs

	Borussia	Juventus	Olympique	Ajax	Porto
β_L	0.678	0.157	0.268	-0.086	-0.388
β_U	0.418	0.084	0.207	-0.05	-0.224

CAPM model looks as follows:

$$E(R_i) = R_f + \beta(E(R_m) - R_f)$$

$E(R_i)$ is the expected return on the capital asset

R_f is the risk-free rate of interest such as interest arising from government bonds

$E(R_m)$ is the expected return of the market

$E(R_m) - R_f$ is known as the market premium

β (the beta) is a measure of the volatility, or systematic risk, of a security in comparison to the market as a whole. Beta is calculated using regression analysis. A beta of 1 indicates that the security's price will move with the market. A beta of less than 1, means that the security will be less volatile than the market. A beta of greater than 1 indicates that the security's price will be more volatile than the market. For example, if a stock's beta is 1.2, it's theoretically 20 % more volatile than the market. Beta coefficient is calculated as covariance of a stock's return with market returns divided by variance of market return.

So we can calculate betas for public football clubs (for example, Ajax, Roma, Juventus, Lazio, Besiktas, Fenerbahce, Galatasaray, Borussia Dortmund, Celtic, Porto, Benfica, Sporting, Millwall, Manchester United, Olympique Lyonnais). Results of such calculations are presented in Table 7. The other way is to use publicly available data from Bloomberg or Reuters. Besides we can find betas in Aswath Damodaran' research: <http://aswathdamodaran.blogspot.ru/2014/06/ballmers-bid-for-clippers-investment.html>

To incorporate in discount rate all possible risks we can add to the CAPM model specific risk premium for football clubs calculated using point-based system. Each risk factor is assessed by different simple question with "yes", "no" and "no data" answers. Answer "yes" corresponds to the 0 % value of risk, "No"—the maximum value of 5 %, "No Data"—the average value of 2.5 %. All risks are classified under the following headings: management, history, infrastructure and image, finance, sports achievements, team squad.

A significant drawback of this method is subjectivity in determining risk premiums. However, we can minimize this disadvantage by involving a larger number of risk factors. Another limitation for this method is a lack of information regarding the clubs. Moreover, with each answer "No Data" level of risk will be equal to the average amount, which does not reflect the real situation. However, despite all these limitations, this method can give much more real results than the traditional "expert" valuation without any grounds.

Table 8 Questionary for determination of specific risk premium for Manchester United

Risk factors	Answers	Risk management (%)
Specialized education and experience in football	Yes	0
Head coach has experience with top-teams	Yes	0
Club has a development plan in certain areas: transfer policy, marketing, relationship with fans, media, global development, merchandising	Yes	0
Well-defined structure of the club	Yes	0
System of rewards and penalties, and real practice of its implementation	Yes	0
Non-involvement of shareholders to the team's management	No	5
<i>Sum:</i>		5
<i>Number of factors:</i>		6
<i>Final risk:</i>		0.83
History & infrastructure & image		
The club was founded more than 20 years ago	Yes	0
The club has its own stadium	Yes	0
The club has its own training ground	Yes	0
The club has second team	Yes	0
The club has youth academy	Yes	0
The club has representative offices in other countries	Yes	0
The club sells its branded products in other countries	Yes	0
The club has more than 500 000 fans (according to several independent sociological researches, official fan-club data, social networks)	Yes	0
Additional businesses in the club's structure: TV-channel, restaurants, etc.)	Yes	0
More than 100 items of products manufactured under license agreements	Yes	0
Official fan club with more than 100 000 members	Yes	0
Fans support shareholders and management of the club	No	5
For the last three seasons the average attendance was above 80 %	Yes	0
For the last three seasons the club sells season tickets for more than 50 % seats of home stadium (or has correspond number of requests)	Yes	0
The club is regularly mentioned in media without any negative	N/A	2.50
<i>Sum:</i>		7.50
<i>Number of factors:</i>		15
<i>Final risk:</i>		0.50

(Continued)

Table 8 (Continued)

Risk factors	Answers	Risk management (%)
Finance		
Availability of ongoing financial support from shareholders	No	5
Large world companies with good reputation among sponsors	Yes	0
Debt to Equity ratio <1	No	5
Budget of the club is among the five largest in the respective league	Yes	0
The last 3 years the club finished with a net profit	No	5
Diversified income structure of the club with the share of each source not exceeding 40 %	Yes	0
The club regularly publishes annual reports, which reflect the financial position with a high degree of confidence	No	5
The club meets financial fair play requirements	Yes	0
Wage to revenue ratio < 70 %	Yes	0
<i>Sum:</i>		<i>20</i>
<i>Number of factors:</i>		<i>9</i>
<i>Final risk:</i>		<i>2.22</i>
Sports achievements		
Over the last 5 years the club at least once won a championship and the National Cup	Yes	0
Over the last 5 years the club at least once participated in Champions League or Europe League	Yes	0
Over the last 5 years the club at least once played in final of Champions League or Europe League	Yes	0
Over the last 5 years second team at least once won a championship	Yes	0
Over the last 5 years the club won some other trophies	Yes	0
<i>Sum:</i>		<i>0</i>
<i>Number of factors:</i>		<i>5</i>
<i>Final risk:</i>		<i>0</i>
Team squad		
The club regularly buys and sells players at the international level	Yes	0
During the last 5 years, the number of players from club's academy in the first team does not fall below 20 % (approximately)	Yes	0
Over the past 5 years, the average age of the players if main team does not exceed 27 years	Yes	0

(Continued)

Table 8 (Continued)

Risk factors	Answers	Risk management (%)
Every season (over the past 5) the club buys at least 1 player who stable plays for the main team for several seasons	No	5
Every season (over the past 5) no more than 2 players were injured for more than 6 months	Yes	0
The presence of players that played for their National teams on last World and Euro Cups (last 8 years)	Yes	0
The presence of well-known players with high popularity and charisma	Yes	0
No Third Party Player Ownership (TPPO) agreements with players	Yes	0
<i>Sum:</i>		5
<i>Number of factors:</i>		8
<i>Final risk:</i>		0.63
Specific risk premium for MU		4.18

Questionary for determination of specific risk premium for Manchester United is presented in Table 8. Please note, that this questionnaire could be used for any football club of any league with some improvements due to the country specifics

That is it for CAPM model and free cash flow to equity. If we calculate the cash flow to invested capital the other model should be used—WACC:

$$WACC = R_e W_e + R_d W_d (1 - t)$$

W_e —market value of the club's equity;
 R_e —cost of equity (calculated with CAPM model);
 W_d —market value of the club's debt;
 R_d —cost of debt;
 t —corporate tax rate.

Exactly this model we can use to calculate the discount rate for our FCFF. The total equity value of FC may be obtained by the following formula:

$$V = \sum DCF + V_{term} - D \pm WC$$

$\sum DCF$ —the sum of discounted future cash flows;
 V_{term} —terminal value calculated with Gordon model;
 D —long-term debt;
 WC —actual working capital.

5 Conclusion

We have considered a general model of the income approach, but in practice it is not always applicable.

First, most football clubs have historically been unprofitable and were financed by private investors or municipal authorities. Knowing that DCF requires sustained and predictable profitability, it could be very hard to use DCF method for evaluation of FC. Conceptually, we cannot use income approach for valuation of companies with negative cash flow. Given that we usually calculate the future cash flow on the base of historical data, there is a risk to receive negative FCFF. In this case the value of business will be negative as well. So the main problem encountered when applying a DCF method to value football clubs is consistent profitability. Traditionally, most clubs are loss making entities. And even for those that are profitable, it is extremely difficult to forecast financial results going forward given the unpredictable nature of the game [7].

Another limitation in the application of the income approach is attributable to the heavy dependence of any football club on sports results, which makes its finance performance highly volatile and seriously difficult to predict, even in the medium term. This problem becomes especially noticeable for terminal value. After all, it is assumed that after the end of the projection period revenues will stabilize and grow with a stable rate to perpetuity. Honestly speaking this assumption is hardly applicable for any business and absolutely unreal for football.

Finally, football has always been one of the most isolated areas, not only in Russia but also in Europe. Even the clubs, whose shares are offered on the stock exchange, and regularly publish audited statements, are able to hide unwanted information and thereby distort the true picture. As a result, the analyst is forced to use the information from open sources, not confirmed by the club and make a large number of assumptions that does not add any accuracy.

Another problem comes from the calculation of discount rate: we must take into account all risks specific to the football club, and assign each of them a specific percentage. Final value of business will be largely determined by the discount rate, and every hundredth matters.

But despite all mentioned limitations any investor needs to understand, what kind of cash flow the business generates at the current moment and what he can expect in the future. Therefore we should not reject the income approach. Market and asset approaches will level these restrictions using the evidence of the market and the value of assets, respectively.

Within market approach we will use the available information (for example revenue, earnings and fan base multiplies) of other FC and data from M&A market.

Finally in the case of any company valuation, it is important to review all of the assets and liabilities of that organization. This is no exception when it comes to football club valuation. The main assets of a club (typically a stadium, training ground and player registrations) need to be weighed up versus the liabilities (normally trade

creditors and debt). A club's net assets figure (total assets less total liabilities) could be considered as value of the club.

In detail these approaches will be considered in a separate article.

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