Study on the Contribution of Sport to Economic Growth and Employment in the EU

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1 Executive Summary

The Study on the Contribution of Sport to Economic Growth and Employment in the European Union was carried out in 2011-2012, based on data collection in all 27 EU Member States focussing on sport as an economic activity. The methodology utilised a specific adaptation of the National Accounts of the Member States, using these accounts to make a Multiregional Input-Output Table: Sport (MRIOT:S) which is based on 27 national Input-Output Tables: Sport. This means that the chosen approach is consistent with the National Accounts on the one hand and intra-EU trade on the other.

National Accounts are the main reference point for economic policy making on the national macro level and are normally maintained by the statistical office of a country. A satellite account is an extension of the standard national account system. A *Sport Satellite Account (SSA)* – being the core of an Input-Output Table: Sport – filters the National Accounts for sport-relevant activities to extract all sport-related figures while maintaining the structure of the National Accounts. The instrument of SSAs permits all sport-related economic activities to show up explicitly, rather than keeping them concealed, in deeply disaggregated (low-level) classifications of the National Accounts.[1]

Hence one of the results of the study is an Input-Output Table: Sport for each Member State. Most of these Input-Output Tables: Sport are proxy tables and should therefore be used with caution. They were designed for EU-wide analysis and cannot replace Input-Output Tables: Sport produced at national level. Noticeably, such national SSAs and Input-Output Tables: Sport, of direct relevance for this study, have already been developed in several EU Member States based on the statistical definition of sport agreed by the EU Working Group on Sport and Economics in 2007 ("Vilnius Definition of sport"). To further improve the data quality, all Member States are strongly encouraged to produce a fully-fledged national Input-Output Table: Sport. Once this is done by a country, it should then replace the remaining proxy Input-Output Table: Sport in the MRIOT:S.

The importance of such a fully-fledged national Input-Output Table: Sport, however, surpasses the mere use within the MRIOT:S. The latter was designed and created in such a way that it serves EU-wide policy analyses while the national results are secondary. A country that has a fully-fledged national Input-Output Table: Sport, in contrast, can evaluate national policies in much more detail. Distinctive features can be incorporated quickly which are not so easily reflected in the EU-wide MRIOT:S with its need for a common standard. The already existing fully-fledged national Input-Output Table: Sport can serve as examples as they are in widespread and intense use by the respective policy makers.

Two central goals of this study are to establish a consistent data base to serve as a reference point for subsequent analyses, and to generate a comprehensive estimate of the magnitude of sport-related value added and employment in Europe. As such, the work will

[1] The name *Sport Satellite Account* is derived from the tabular presentation of the account (i.e. as a matrix). In this format, the sport-related rows and columns wrap around the non-sport part, circling around it like a satellite.

contribute to EU policy and its strategic goals in the Europe 2020 context. It was found that sport overall is labour-intensive. Growing the sport-related economy thus leads to a more than proportional growth of employment. In addition, a number of promising sectors were identified which are currently comparatively small while showing strong connections to the rest of the economy. Their below-average size indicates growth potential while at the same time they send out strong impulses to many other sectors.

The main study findings can be summarised as follows:

Sport's share in total gross value added

The Vilnius Definition of sport distinguishes between a statistical, a narrow and a broad definition of sport as follows:

- Statistical Definition: comprised of NACE 92.6 Rev. 1.1 ("Sporting activities", the only part of the sport sector having its own NACE category).
- Narrow Definition: all activities which are inputs to sport (i.e. all goods and services which are necessary for doing sport) plus the Statistical Definition.
- Broad Definition: all activities which require sport as an input (i.e. all goods and services which are related to a sport activity but without being necessary for doing sport) plus the Narrow Definition.

The results of the study show that the share of sport-related gross value added of total EU gross value added is 1.13% for the narrow definition and 1.76% for the broad definition of sport. The share of what is generally known as the organised sport sector (sport clubs, public sport venues, sport event organisers) is reflected in the statistical definition. The share of gross value added according to the statistical definition is 0.28%. Therefore the real share of sport in terms of production and income is about six times as high as reported in official statistics.

In 2005, sport-related gross value added (direct effects) amounted to 112.18 bn Euro according to the narrow definition and 173.86 bn Euro with respect to the broad definition. For the statistical definition of sport it was 28.16 bn Euro.

The direct effects of sport, combined with its multiplier (indirect and induced) effects, added up to 2.98% (294.36 bn Euro) of overall gross value added in the EU.

The highest sport-related value added was found in the sector *Recreational, cultural and sporting services*, followed by *Education services* (second), and *Hotel and restaurant services* (third).

The average gross value added of the statistical definition shows a broad division between high income Western European Member States and lower income Eastern states. In absolute terms, the gross value added per capita in the Eastern Member States is around 5 Euro to 10 Euro per capita for this part of the sport industry, while in the higher income

states, this amount is around 50 Euro to 100 Euro per capita. Of course it could be expected that richer countries spend more on sport than poorer countries, but this is true not only in an absolute sense but also in a relative sense: the share of gross value added of sport is lower in low income EU Member States compared to high income states. On a cross-section basis, the national income elasticity of sports is 1.14, which means that if national income rises by 1%, the gross value added related to sport rises by 1.14%.

From an analysis of specific sectors that are important in enhancing the size of the sport industry, three sectors stand out:

- Tourism
- Fitness and the media
- Education

- *Tourism:* for some countries, a substantial contribution to the sport industry share is made by the hotel and restaurant sector. This is especially true for Austria, Germany, Italy, and Sweden, which are important destinations for active sports holidays. In Germany and Sweden a large part is probably generated by domestic tourism, but for the other countries international tourism is a major source of income. As these countries have a specific supply advantage and the elasticity of income for sports consumption is above 1, their sports economic base is likely to be strengthened when European economies grow.

- *Fitness and the media*: in some North-Western European countries a large part of the total demand for sport activities is satisfied by commercial sports suppliers such as fitness clubs. This is true in Sweden and the Netherlands. Another demand-related issue is the strength of professional football and the role of the media in the UK, where pay television for football matches has grown into a significant economic activity.

- *Education*: in almost all countries sport education is an important part of the total sport economy. However, there are a few exceptional countries. These are Denmark, Estonia and Latvia which have exceptionally high shares of sport education in sport-related gross value added. These Member States seem to attach a high value to sport in an educational context.

Employment effects

For the EU as a whole, the contribution of sport-related employment to total employment is 2.12%. In absolute terms this is equal to 4.46 m employees. This is above the sport-related share in gross value added (1.76%), which indicates that sport is labour-intensive.

The largest number of sport-related jobs can be found in Germany, which has 1.15 m sport-related jobs or nearly 27% of all sport-related jobs in the EU. The runner-up is the UK, with more than 610,000, followed by France with more than 410,000 jobs in sport.

Sectoral interrelatedness

Multipliers are measures of the degree to which the sectors in an economy are interrelated. Sectoral multipliers measure the impact in total economic activity generated by a one-unit change in one sector. The value of a sectoral multiplier is determined by the links on the one hand and the leakages on the other hand within an economic system. Sectors with strong relations to the rest of the domestic economy and few imports report high multipliers. If an impulse to a sector is hardly transferred to other branches or leaves the country (imports of intermediate goods), the multiplier barely exceeds its minimum value of 1. The study shows that smaller Member States have significantly lower mean sectoral multipliers than larger Member States.

The highest multipliers are found in the construction branch and in sectors related to tourism (hotels, air transport). Education has a relatively low multiplier as it requires only a few intermediate goods compared to its wages, but it is an important sector in the whole network of value creation in sports, especially in the Nordic and Baltic countries.

Sectoral growth potentials

The study analyses several sectors for their growth potential and differences between countries are discussed. A general pattern of sport production can be observed in the sense that sport services are predominantly produced for the domestic market while sportswear is predominantly imported. For sports durables internal EU specialisation can be found.

There are three sectors that play a special role in almost all countries: food products and beverages; construction; and supporting and auxiliary transport services including travel agency services. These sectors have strong linkages to the rest of the economy and are therefore strategically important.

The most important policy implications to be drawn from the outcomes of this study are listed hereafter.

Policy Implication 1: Sport is an important economic sector

The study shows that sport is an important economic sector in the EU, with a share in the national economies which is comparable to agriculture, forestry and fishing combined. Moreover, its share is expected to rise in the future.

Policy Implication 2: Sport represents a labour-intensive growth industry

Sport is a relatively labour-intensive industry. This means that the expected growth in the sport industry is likely to lead to additional employment, with sport's share of total employment being higher than its share of value added. The sport sector can thus contribute to fulfilling the Europe 2020 goals.

Policy Implication 3: Sport can foster convergence across EU Member States

Sport has the economic characteristics of a luxury good, with an income elasticity above 1. This implies that sport production and services will grow faster in lower income countries than in higher income countries. It thus contributes to the economic convergence of Member States and can help reduce economic imbalances.

Policy Implications 4: Sport has growth-enhancing specialisation advantages

Sport products and services can be found in many other sectors, e.g. in tourism, insurance, legal consultancy, and many more. This means that sport can help specific niche sectors to develop, depending on the characteristics of sport demand and supply in a specific country. Examples of such specialisation patterns can be observed in the UK (professional sports and betting), in Austria (tourism) and in Northern Europe (education). Further study and identification of these patterns may help to enhance the sector's contribution to the Europe 2020 Strategy.

Annex: Key indicators per Member State

As explained above, the figures in this table should be seen as proxies produced for the sake of EU-wide analysis unless stated otherwise. While they represent a first set of indicative figures produced for all EU Member States according to a single methodology, they should be used with caution. Figures for Austria, Cyprus, Poland and the UK reflect those countries' Sport Satellite Accounts, not necessarily based on 2005 as the other values do.

Table 1: Sport related gross value added and employment. All values correspond to the Broad Definition and contain direct effects only

	Value added in million Euro	Employment in heads
Austria [2]	10,730	242,968
Belgium	3,043	71,416
Bulgaria	223	55,843
Cyprus [3]	310	7,600
Czech Republic	1,062	89,119
Denmark	3,719	69,287
Estonia	162	15,686
Finland	2,654	74,209
France	21,607	416,537
Germany	46,677	1,146,234
Greece	2,518	70,878
Hungary	778	55,577
Ireland	2,377	40,532
Italy	15,599	329,860
Latvia	136	17,077
Lithuania	161	16,178
Luxembourg	697	19,331
Malta	93	3,070
Netherlands	5,828	141,896
Poland [4]	5,300	225,500
Portugal	1,534	72,101
Romania	790	161,248
Slovakia	472	49,910
Slovenia	521	28,576
Spain	10,407	336,177
Sweden	2,360	73,266
UK [4]	39,860	632,400

Source: SportsEconAustria, Sport Industry Research Centre at Sheffield Hallam University, Statistical Service of the Republic of Cyprus, Meerwaarde Sport en Economie, Ministry of Sport and Tourism of the Republic of Poland.

[2] According to the national Input-Output-Table Sport of 2005.
[3] According to the national Input-Output-Table Sport of 2004. Data of 2005 were used in the calculations.
[4] According to the national Input-Output-Table Sport of 2006. Data of 2005 were used in the calculations.

2 Introduction

This study assesses the macroeconomic importance of sport in the EU-27, in particular its growth and employment potential, thereby making a contribution to assess the sector's role with respect to the Europe 2020 strategy.

The European Commission has formulated the *Europe 2020* strategy to meet future challenges. It is the "EU's growth strategy for the coming decade".[5] Part of this strategy is to identify specific economic risks and opportunities within the EU. As a result of the Lisbon Treaty "The Union shall have competence to carry out actions to support, coordinate or supplement the actions of the Member States. The areas of such action shall, at European level, be: […] (e) education, vocational training, youth and sport"[6]. To illustrate the role of sport with regard to "Europe 2020", knowledge about the specific characteristics of sport economics and its impact on Europe's economy is necessary. Although there is some data available on this, the Commission's 2007 White Paper on Sport noted the lack of comprehensive and comparable EU-wide information in order to develop evidence-based policies.

From its inception in 2006, the EU Working Group "Sport & Economics" has developed a harmonised definition of sport ("the Vilnius Definition of sport") and a common methodology to measure the economic importance of sport (the "Sport Satellite Account" – SSA). A complete picture of the economic importance of sport for the EU as a whole through the aggregation of 27 national sport satellite accounts can only be expected in the longer term, since this approach is a complex and time-consuming task and therefore faces national budgetary and human resource constraints.

Meanwhile, a macro-economic approach was developed alongside national efforts to implement sport satellite accounts to get methodologically sound data based on the Vilnius Definition of sport. This can enhance the overview of the total EU sport economy and overcome the partial scope of national satellite accounts. It can also stimulate methodological discussion among Member States, which help to raise the quality and the comparability of national estimates of SSAs. For these reasons, this study was undertaken.

The study focused on the following research questions:

- What is the economic importance of sport in terms of gross value added?
- What is the economic importance of sport in terms of employment?
- What similarities and differences can be observed between Member States for these variables and how can these be explained?
- What are national strengths and weaknesses?
- Where are the growth potentials?

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[5] Source: http://ec.europa.eu/europe2020/index_en.htm, found on 5 March 2012.
[6] Treaty of Lisbon, Article 2 E.

Noticeably, four members of the EU Working Group "Sport & Economics" and the Expert Group "Sport Statistics" – Austria, Cyprus, Poland and the United Kingdom – have already finished their work on national SSAs which formed a valuable basis for this study.

The report is divided into four large parts:

- The **introductory chapters**:
  - Input-Output Analysis in general as well as Satellite Accounts are discussed in Chapter 3.
  - The economic definition of sport is explained in Chapter 4
- Descriptions of **background theory and practical implementation** of the model and the surrounding calculations:
  - At first, Multiregional Input-Output Analysis is discussed (Chapter 5), with the focus on how to connect stand-alone regional Input-Output Tables.
  - The different data sources are described in Chapter 6.
  - Several topics worth mentioning are covered in Chapter 7.
- **Interpretation of the results**: EU-wide analyses of the sport-related economy are discussed first, such as
  - employment (Chapter 8),
  - strengths and weaknesses (Chapter 9),
  - growth potentials (Chapter 10),
  - key sectors (Chapter 11), and
  - the range of products (Chapter 12).

  This is followed by the description of macroeconomic effects on
  - the European Union in total (Chapter 13) as well as on
  - all single Member States (Chapter 14).
- An annex containing **national data** sheets forms the end of the report.

3 Developing Sport Satellite Account Systems in Europe

3.1 Satellite systems in the National Accounts

For several economic and societal questions or problems it is necessary to modify the clarity and presentation of the existing statistical data in order to enable better data analysis and facilitate further calculations.

Specialized tables (more detailed Input-Output Tables) have been developed to cover certain areas of the economy. These extensions of the national accounts thematically "*orbit*" around the basic tables – that is why they are called "*satellite* systems" or "*satellite* accounts".

Haslinger[7] provides a general definition of a satellite account system: "A Satellite Account System is a consistent system of monetary and non-monetary measurement categories made at regular intervals. These should verify conditions and procedures – correlated with important societal requests – in detail."

Stahmer[8] introduces a different definition by stating that satellite systems are specific data systems, which are designed to answer specific economic questions but have a close connection to the national accounts and hence enable detailed economic analysis.

A "sport satellite account system" includes all economic effects (gross domestic production, value-added and employment) due to any sport-related activity generated by the various economic sectors and shows them consistent with the terms of the national accounts.

Accordingly a "sport satellite account system" provides all the economic effects linked to sport-related activities (which are not included in a proper and detailed form in the national accounts) in a consistent form.

A complete economic analysis of sport also includes the sport-related indirect and induced effects caused by the direct sport-related activities. These indirect effects can be sub-divided into:

- Multiplier effects, which were generated by the demand for intermediate inputs of the sport-related sectors, for example showers for swimming pools or leather for saddles,

- changes in the capital stock by investments into the sport sectors, for example special cutting machinery to produce sporting boat hulls, and

- income effects, that arise because sport-related earnings enable higher consumer expenditures by those working in the sport industry.

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[7] Haslinger (1988), S. 66
[8] Stahmer (1991) S. 45

These indirect economic effects again lead to multiplier effects and higher earnings. The process thus repeats itself. To quantify the total economic impact of sport it is necessary to sum up the direct effects and the multiplier effects.

Due to the complete compatibility of the satellite account with the national accounts, a comparison of important macroeconomic aggregates of the sport sector (e.g. gross value-added, employment) with macroeconomic aggregates of other economic sectors is made possible.

3.2 An Input-Output Table: Sport

To establish a sports satellite account in the EU-27 countries and to use them in order to analyse the effects of sport on national economies, it is useful to combine them with the particular national Input-Output Tables, leading to an "Input-Output Table: Sport".

Input-Output analysis is one of the most known and used tools of economic analysis. Input-Output models are systems of linear equations, where each of them describes a different product allocation of the economy. An Input-Output Table describes the structure of the economy, and the various relations between the different sectors of an economy, and helps to quantify the multiplier effects for the national economy.

Implementation of a sport satellite account and combination with the national Input-Output Table results in a methodological tool that shows the sport-related activities and their various links with the economy. Hence a sport satellite account is a means to answer important (sport-related) economic questions within European society in a scientific way.

3.3 Analysis of the Economic Effects of Sport

On the basis of the Input-Output Table: Sport, the sport-related impact on the national economy can be determined. These further calculations result in sport-related gross National Product and sport-related employment – as well as the direct and indirect sport-related effects (multiplier effects) on the value-added, the purchasing power and the labour market.

3.3.1 Calculation of the Value-Added Effects of Sport

The value-added of a sector is the difference between total production and the inputs needed to generate this production. To quantify these direct value-added effects, information on income and expenditure in sport, as well as investment, is necessary. By subtracting the payments for the inputs from the expenditures, the direct value-added effect is obtained. By applying the appropriate multipliers, the direct and indirect value-added effects are obtained.

3.3.2 Calculation of the Purchasing Power Effects of Sports

For the quantification of the direct effects on purchasing power, the expenditures for investments and material expenditures as well as effective net incomes are needed. The effective net income is derived according to the following scheme:

Table 2: Calculation Scheme for Effective Income

	Staff costs
-	Expenditures (taxes, insurance)
	Total net income
-	Savings
-	Spending abroad
	Effective net income

Source: SpEA, 2006.

From total staff costs, all expenditures which do not reach the employee (e.g. income tax) are subtracted to give total net income. Savings are also subtracted from the total. Finally all spending abroad is subtracted to give effective net income.

3.3.3 Calculation of the Employment Effects of Sport

Three different methods can be used in order to calculate the direct employment effects:

- Method 1 uses the average personnel expenditure per year and per person to calculate the effects.

- Method 2 uses a common “employment structure” of the sector proportional to the value-added.

- Method 3 is based on labour productivity. The marginal labour productivity is defined as the ratio of the change of productivity to the change of labour input (either number of employees or working hours). The marginal labour productivity indicates the change of productivity per additional employee. The inverse ratio, the so-called work-coefficient, is a measure for the number of persons employed in the production process.

For an extensive evaluation of the employment effects, further factors have to be considered. For example, the occupation structure is an important issue. The occupation elasticity is usually larger for workers than for employees, so that an expansion of the construction activities will lead to a significant increase in the number of workers. A significant increase in the number of employees is however not to be expected. Another important factor is the extent of capacity utilization in the appropriate sectors. The full employment effect is only realised at 100 per cent capacity utilization and an appropriate increase in the capacities due to the projected extra demand. Beyond that, the tendency exists to compensate a non-permanent demand by overtime and extra shifts rather than by an additional employment of workers.

3.3.4 Calculation of Multiplier Effects

For each final expenditure multiplier effects are assumed, since each business needs unfinished-goods as well as raw materials and supplies of other sectors for the production of

its products and/or services. Multipliers show how much of the production of other sectors is needed to produce a certain good. For example, production of a sports car requires seats, which come from a different sector. These seats again need textiles, thus affecting a third sector and so on. The size of the multipliers primarily depends on the structure of the "economic linkage" of the source sector to the remaining sectors. That means it depends on how much is received from and delivered to all sectors directly as well as indirectly. The more the sectors are interlinked, the higher are the multipliers, usually ranging from 1.0 to a little more than 2.0. Applying multipliers on the direct effects generates the indirect effects. If for example a football stadium costs 30 m Euro (direct effect) and construction sector reports a multiplier of 1.8, the indirect effect will be (1.8 - 1.0) x 30, that is 24 m Euro.

It has to be considered that national businesses as well as foreign countries are involved in the supply chain, but primary effects for a country depend only on import-adjusted values.

4 Definition of Sport in the Economic Sense

The sport economy as a whole is not a separate statistically measured sector, but is part of various other industries and economic sectors. National statistical offices measure sport explicitly only by the category “operation of sports facilities” in NACE 92.6 where NACE stands for “*Nomenclature statistique des activités économiques dans la Communauté européenne*” and is a classification of industries according to their economic activity. Other categories such as the production of sport articles, sport retail, and sport tourism are ignored in the statistical definition.

From an economic point of view, sport is an activity which has repercussions in many different areas of the economy. In Table 3 some important categories are listed as examples.

Table 3: Overview of some sport-related activities and products with economic impact

Consumer Expenditure		
Goods and Services Conditional on Doing Sport		
Veterinarian	Dietary Supplements	Sport Bets
Health Services	Hotels, Restaurants (sport tourism)	TV Broadcasts
Doing Sport (According to the Statistical Definition)		
Stadiums	Swimming Pools	Professional sports
Goods and Services Necessary to Do Sport		
Racing Horses	Sport Shoes and Clothes	Sport Weapons
School Education	Sport Cars, Motorbikes	Fitness Centres
Watches, Clocks	Sailing Equipment	Dancing Schools

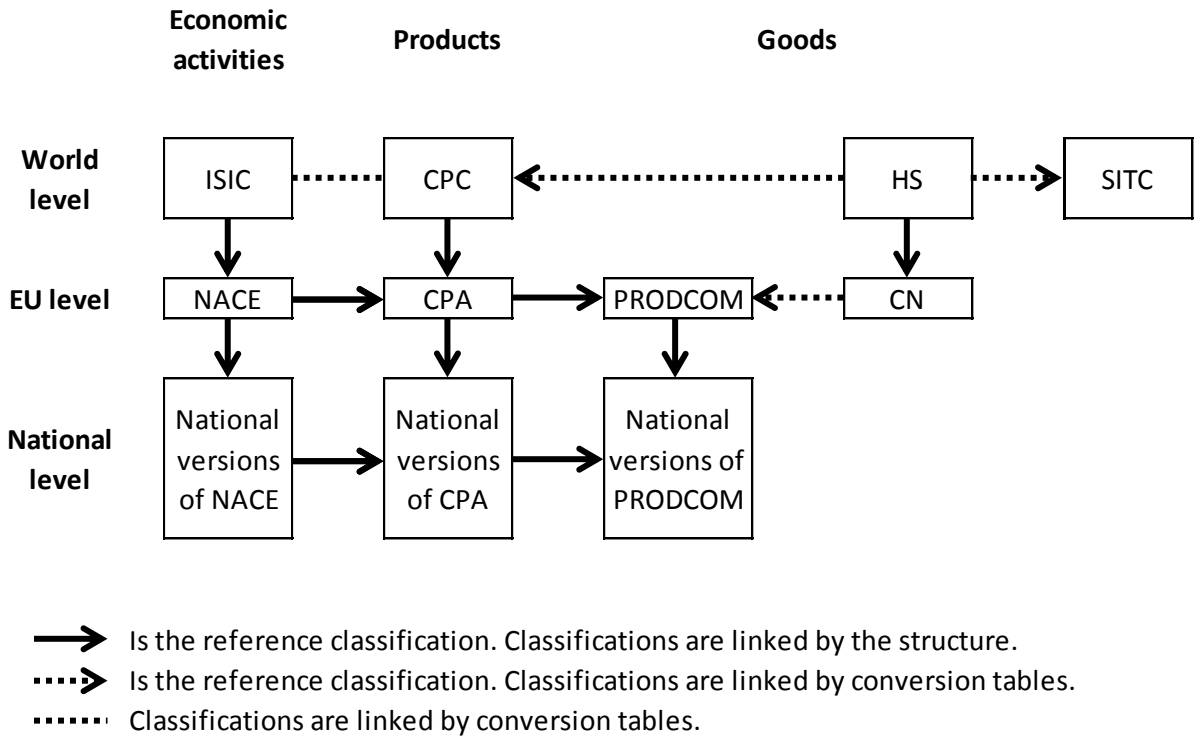
Source: "Sport Satellite Accounts – A European Project: New Results" leaflet published by the European Commission (April 2011).

The question arises as to how the economic importance of these sport-related activities can be measured. For this purpose the EU Working Group "Sport & Economics" developed and agreed upon the Vilnius Definition of sport.

The Vilnius Definition of sport relates sport activities to specific industries, as they are registered within the framework of the national accounts.[9]

For most of our purposes the NACE categories are still too broad, because NACE refers to specific companies (or production units); a better targeted measure is products instead of production units called CPA. CPA is the abbreviation for "*Classification of Products by Activity*" and is a classification of products. NACE and CPA are part of an international classification system of industries and products. The relationship of these classifications is clarified below. [10]

Table 4: Scheme of Classifications



Source: replicated from circa.europa.eu: NACE revision 2.

The sport sector as such is not a NACE category, but NACE category 92.6 "Sporting Activities" refers to a small part of the sport sector. This category includes sport facilities such as stadiums, swimming pools, sport clubs and professional sport organisations. The EU Working Group "Sport & Economics" has labelled this category "the statistical definition of sport". In Table 3 this is labelled 'Doing Sport'. This can be considered to be the sport sector from a traditional point of view. For example, in this statistical definition neither fitness centres nor sport education are included.

[9] The following text is derived from Meerwaarde Sports and Economics/Spea (2008).

[10] The meaning of the other abbreviations fall outside the scope of this report, see: http://circa.europa.eu/irc/dsis/nacecpacon/info/data/en/2007%20introduction.htm

Limiting sport to this NACE category is therefore quite arbitrary from an economic point of view. Another, conceptually better, definition of the economic sport sector enlarges the statistical definition of sport by all industries which produce goods that are necessary to perform sport. Besides sport facilities, this classification includes, for example, manufacturing of sport shoes and tennis rackets. The latter definition is referred to as the "narrow definition of sport". This definition is depicted in the lower part of Table 3.

In addition, the so-called "broad definition of sport" includes not only the statistical definition and the narrow definition, but also those industries for which sport is an important input for their production processes, e.g. television broadcasting or hotels accommodating guests doing sport (sailors, skiers, hikers, etc.), as depicted in the upper part of Table 3.

Besides a list of all products which are considered to be sport-related, the Vilnius Definition of sport includes several rules, which guide the classification and interpretation of sport products.

Table 5: Vilnius Definition Set of Rules

1	Goods and services which are part of the statistical and narrow definitions of sport are also part of the broader definition of sport. The broader definition of sport will be the focus of the EU Working Group "Sport & Economics".
2	Multipurpose infrastructure and multipurpose durable goods which are not part of the statistical definition of sport (NACE 92.6) will be excluded, e.g. roads, cars, TV sets, play stations. Dedicated infrastructure (e.g. NACE 45.23.21/45.23.22) will be included.
3	To avoid double counting and to ensure comprehensiveness, correspondence will be established between the manufacturing sections and the trade/retailing sections (categories 51-52) of the table. Sections 51 and 52 are only relevant in terms of trade margins.
4	Data will be collected on the basis of a common agreement on which NACE and CPA categories to include. However, to take account of the country-specific sport landscape, additional CPA categories may exceptionally be included over and above the basic list agreed in the EU Working Group "Sport & Economics".
5	In general, only final expenditure (incl. capital expenditure) will be taken into account, and not intermediate expenditure. Reference will be made to intermediate demand only if it constitutes sizeable input for professional sport. In a similar way, industrial services, where they are not sport-specific, will not be considered.

Source: Vilnius Definition of sport.

The Vilnius Definition of sport is thus an overview of all product groups which are included in the sport satellite account. It is not so much a definition of sport itself but a classification of relevant product groups.

5 Set up of a Multiregional Input-Output Table: Sport

The basic approach to calculating EU-wide economic effects of sport is to first enlarge the national Input-Output Tables (IOT) by sport-related sectors. For this, all sport-content will be extracted from the original sectors and form additional sectors. For example, sector 01, agriculture, will be divided into “non-sport 01” (wheat, apples…) and “sport-related 01” (racing horses, football lawn…). The sum of these new sectors must equal the original sector 01. Figure 1 and Figure 2 visualise this enlargement process.

These enlarged national IOTs will be called Input-Output Tables: Sport (IOTs:S). As these 27 IOTs:S are connected by intra-EU foreign trade, they can be linked together in a Multiregional Input-Output Table: Sport (MRIOT:S) as depicted in Figure 7.

Calculating the links between the regions is a complex economic task for which several methods were proposed. The three most important ones are:

- The Interregional Input-Output Model (IRIO) by Isard (Isard (1953));
- the Multiregional Input-Output Model (MRIO) by Chenery and Moses (Moses,1955);
- the Balanced Regional Model by Leontief (Leontief,1963).

The major advantage of Isard’s model is that it is able to cover the whole variety of effects of each sector and each region. This benefit however leads to the big disadvantage of the model: the enormous effort of data collection. The number of input-output flows is determined by $(m \times n)^2$ with "m" being the number of regions and "n" the number of sectors. Even in a small model with five regions and ten sectors, 2,500 data have to be determined. For Europe an interregional Input-Output model would (as a minimum) cover 27 regions and 17 sectors, that is $(27 \times 17)^2$ or more than 210,000 data. As intended the study should not be based on sectors but on the more detailed categories so that the amount of data necessarily increases to $(27 \times 59)^2$ or more than 2,500,000 data. With the sport-relevant extensions (sport satellite account) of the national Input-Output Tables the interregional Input-Output Model would grow to a $(27 \times 94)^2$ matrix or around 6,400,000 data.

For this reason efforts have been made to develop multiregional models with less complexity, like the one developed by Chenery and Moses. The MRIO, which has been steadily improved and refined in the last 15 years, covers in its most detailed version for the United States 51 regions and 79 sectors. Formally the MRIO resembles the model of Isard, but with regard to the content it differs in that it implies a stability hypothesis. The table itself is set up in two steps: as a first step the intraregional tables are created (one table for each region), in a second step the import and export flows are collected.

The model is extendable to any number of regions and the big advantage is that the complexity of the table stays much lower than in Isard’s model. The amount of data necessary to fill the table is determined by $n \times m^2 + m \times n^2$ (n intermediate goods matrices being m x m large plus import/export data for all m goods between the n x n countries). Thus the example above (27 regions and 94 subsections) requires a little more than 300,000 data. That is less than 5% of the data necessary in Isard’s model. Because of this simplification it

was decided to use the MRIO model of Chenery and Moses in the context of this study. However it is not meant to be used for country comparison.

The structure of the Leontief model corresponds to the Isard model but the interpretation is completely different and is more complicated, using different definitions of markets. Because empirical tests showed that this model is only useable for a limited number of regions and sectors and should not be used for longer periods (not longer than 3 or 5 years) it is not applicable for this study and therefore will not be discussed in more detail.

5.1 National Input-Output Tables

The starting point for calculating the MRIOT:S is the collection of the 27 national IOTs which serve as a basis for the 27 IOTs:S. Four of them were already available (Austria, Cyprus, Poland, and UK) and after adapting they could be used in this study. For the remaining 23 countries, proxy-IOTs:S had to be computed. Technically speaking, these proxy-IOTs:S are perfectly comparable to the four fully-fledged IOTs:S. The difference is in the economic research performed to calculate them. National researchers focusing on their country alone are supposed to have more time and better connections to key national data experts which are particularly important for this type work. In contrast to this, computing proxy-IOTs:S is comparable to running a remote analysis of a country's economy. The result is good enough for running EU-wide analyses, but should not be used on a single country basis. It is therefore recommended that whenever a fully-fledged national IOT:S is finished by the country's experts, it should replace the proxy-IOT:S in the MRIOT:S.

Almost all EU-27 countries have an Input-Output Table or at least supply and use tables (see below for the conversion process). The national IOTs correspond to Figure 1. The rows correspond to the use of goods. Therefore one can read off the first row how much of Good 1 is used to produce Good 1, Good 2, and Good 3. This is the "intermediated use" of the good, as it is used within the supply chains of the economy. Consumption of final goods are reported the upper right quadrant. The table shows how much of Good 1 (and the other goods below) is consumed by private households, the state, and how much is invested (or put in stock etc.). The last possible use is exports. The sum of intermediate use, consumption and exports equals total demand of a good. This is reported in the far right-hand column.

Figure 1: Basic Input-Output Table for the EU-27

		Output Intermed. Goods				Consumption					
		Good 1	Good 2	Good 3		Private Consumption	Public Consumption	Investments		Exports	Total Demand
	Good 1										
	Good 2										
	Good 3										
Total											
Taxes less subsidies											
Total Interm. Consumpt.											
	Cons. fixed Cap.										
	Taxes										
	Wages										
	Profits										
Gross Value Added											
Production Value											
Imports											
Total Supply											

Source: SpEA, 2012.

The columns in the left part of the IOT refer to the production of the goods. Thus in the upper part of the first column one can see how much of each good is necessary to produce Good 1. After taxes are added and subsidies subtracted, total intermediate consumption can be read off the table. These were the inputs to production. To transform these inputs into output, capital is required. Gross value added (GVA) is the sum of all capital costs (machinery, wages, profits, plus taxes). The sum of gross value added plus total intermediate consumption equals domestic production ("production value", PV) of Good 1. To find out how much of each good is supplied and thus available in a country, add imports to domestic production.

As each good which is produced has to be used in one way or another the entries in total demand (right-most column) must be equal to those in total supply (lowest row).

For example, the Austrian Input-Output Table for 2005 shows that goods and services of CPA 01, "Products of agriculture, hunting and related services", worth 6.395 bn Euro were supplied and demanded. On the supply side,

- domestic inputs worth 2.754 bn Euro were used (column-wise sum of the intermediate goods matrix),
- 58 bn Euro taxes less subsidies were paid,
- a gross value added of 1.927 bn Euro was achieved, and
- further goods and services worth 1.657 bn Euro were imported.
- The sum of the above values equals 6.395 bn Euro

Demand is split as follows:

- 4.171 bn Euro were used as inputs,
- private consumption equalled 1.430 bn Euro,
- other consumption (including public) 332 bn Euro, and
- goods worth 462 bn Euro were exported.
- The sum of these items also equals 6.395 bn Euro

In the next step, these IOTs have to be transformed into IOTs:S by splitting those sectors which contain sport-related data into two parts. Therefore these sectors have to be identified. Figure 2 shows the scheme of such an IOT:S. The shaded parts are sport-related, with the dark shape of the intermediate goods matrix surrounding the non-sport part. Some see it as “circling around” the non-sport part, thus calling it the “satellite account”.

According to the Vilnius Definition of sport the national Input-Output Tables are going to be extended by the 35 sport-specific subsections. Therefore each good with sport-related content is going to be split into a sport-related part (e.g. “15 S“ with “S“ being the sport reference) and into a non-sport-related part (subsection total minus sport-related part). The goods with sport-related content are: 01, 15, 17, 18, 19, 22, 23, 24, 25, 28, 29, 33, 34, 35, 36, 45, 50, 51, 52, 55, 60, 61, 62, 63, 64, 65, 66, 71, 73, 74, 75, 80, 85, 92, and 93. Some CPA categories (e.g. CPA 02) do not contain sport and are left untouched. Thus there are in principle three different types of categories: those which contain sport-related elements in the original IOT, but appear in the IOT:S without these sport-related elements; those which never contained sport-related elements; and the purely sport-related categories.

This IOT:S looks as follows (shadowed part of the table refers to the sport satellite account):

Figure 2: Extended Input-Output Table for the EU-27

		Output Intermed. Goods						Consumption				Exports	Total Demand
		Good 1 N	Good 2 N	Good 3	Good 1 S	Good 2 S		Private Consumption	Public Consumption	Investments			
	Good 1 N												
	Good 2 N												
	Good 3												
	Good 1 S												
	Good 2 S												
Total													
Taxes less subsidies													
Total Interm. Consumpt.													
	Cons. fixed Cap.												
	Taxes												
	Wages												
	Profits												
Gross Value Added													
Production Value													
Imports													
Total Supply													

Source: SpEA, 2011.

Table 6 shows the availability of Input-Output Tables at Eurostat for the purpose of the study in the third column-triplet. As can be seen, most of the 27 EU Member States report Input-Output Tables as well as import tables for the year 2005. Therefore this year was chosen as the basis for our calculations. However, there are a few missing countries and Latvia has Input-Output Tables for 1998 only. These earlier data can be updated using economic data of 2005. Adjustment took place through growth of gross production and gross value added by leaving technical coefficients constant, which is a valid approach as these coefficients' stability is empirically grounded and a centre piece of Leontief's theory. Technology changes occur much slower than changes in demand, thus the structure of the intermediate goods matrix remains stable even over a time span of ten or more years. It is therefore possible to update the last available Input-Output Table into a 2005 Input-Output Table.

Table 6: Availability of Input-Output and Supply and Use Tables

Country	Use table			Supply table			**Input-Output table**			Table Imports		
	2005	2006	2007	2005	2006	2007	2005	2006	2007	2005	2006	2007
Austria	√	√	√	√	√	√	√			√		
Belgium	√	√	√	√	√	√	√			√		
Bulgaria	√			√								
Cyprus	√	√	√	√	√	√						
Czech Republic	√	√	√	√	√	√	√		√	√		
Denmark	√	√	√	√	√	√	√	√	√	√	√	√
Estonia	√	√	√	√	√	√	√			√		
Finland	√	√	√	√	√	√	√	√	√	√	√	√
France	√	√	√	√	√	√	√	√	√	√	√	√
Germany	√	√	√	√	√	√	√	√	√	√	√	√
Greece	√	√	√	√	√	√	√			√		
Hungary	√	√	√	√	√	√	√			√		
Ireland	√	√	√	√	√	√	√			√		
Italy	√	√	√	√	√	√	√			√		
Latvia			√			√	1998			1998		
Lithuania	√	√	√	√	√	√	√			√		
Luxembourg	√	√	√	√	√	√	√	√	√			
Malta	2000/2001			2000/2001								
Netherlands	√	√	√	√	√	√	√	√	√	√	√	√
Poland	√	√	√	√	√	√	√			√		
Portugal	√	√		√	√		√			√		
Romania	√	√	√	√	√	√	√	√		√	√	
Slovakia	√	√	√	√	√	√	√			√		
Slovenia	√	√	√	√	√	√	√			√		
Spain	√	√	√	√	√	√	√			√		
Sweden	√	√	√	√	√	√	√			√		
United Kingdom	√	√	√	√	√	√	√			√		

Source: Eurostat,
http://epp.eurostat.ec.europa.eu/portal/page/portal/esa95_supply_use_input_tables/data/workbooks .
Retrieved: March 2012.

For Bulgaria, Cyprus, and Malta no Input-Output Tables are reported for any year. Although database updates are frequent: between February 2011 and March 2012 several Input-Output Tables for 2005 were added. However, the Input-Output Tables for Malta (see section 5.1.2), Cyprus, and Bulgaria had to be estimated for the purpose of the study.[11] These estimated Input-Output Tables meet all methodological requirements of official ones. However, national statistical institutions can collect more data, e.g. by interviewing companies about their production technologies, and apply extensive plausibility checks with their national experts, therefore differences certainly can occur if official IOTs are available for comparison in the future.

[11] Contacting the national statistic institutions resulted in additional useful information, but no IOTs were sent.

Therefore estimated tables are used as substitutes only when no official national Input-Output Table is available.

The IOTs of Denmark, the Netherlands, and Finland turned out to be a special problem as they were only available as NACE x NACE tables. No CPA x CPA table could be obtained. Since these were otherwise perfectly properly calculated IOTs, they were kept as they were, since attempting to translate them to CPA x CPA tables (see chapter 5.1.1 below) would probably destroy more information than it would create. Replacing them in future versions will enhance the model's precision for these countries.

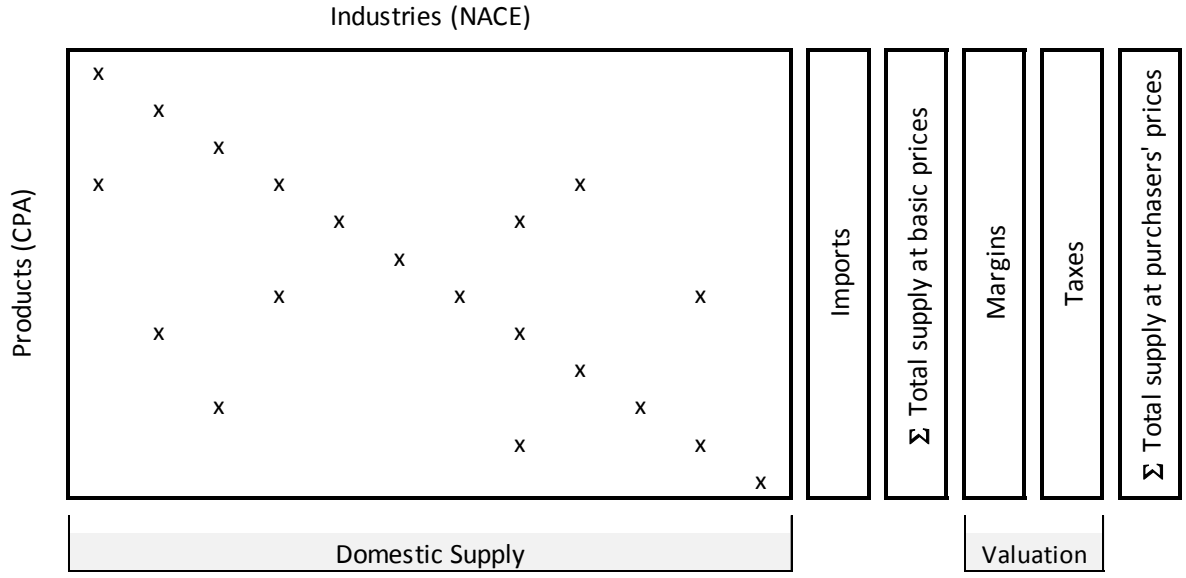
5.1.1 Calculation of Input-Output Tables

As a few countries only reported supply and use tables (SUT) for 2005, the corresponding Input-Output tables had to be derived from them. This section deals with this conversion.

5.1.1.1 Supply and Use Tables

Several of the following depictions and descriptions closely follow those in UK Office for National Statistics (2002), Statistik Austria (2010), and Eurostat (2008).

Figure 3: Schematic Supply Table



Source: SpEA, 2011.

Supply Tables show the origin of goods and services in an economy. Figure 3 shows a scheme of such a table which is composed of two separate parts. The matrix of domestic supply can be found on the left side. It has product categories (e.g. CPA) in its rows and industry categories (e.g. NACE) in its columns. In a row, call it *i*, one can thus read off all industries which produce product *i*. For example, real estate services are CPA 70. They are mainly supplied by real estate agents (industry NACE 70). However, there are also construction companies (NACE 45) which sell the flats, offices, or swimming pools they constructed. Product 70 is therefore produced by industry 70 and industry 45. Thus there can be several entries in each row.

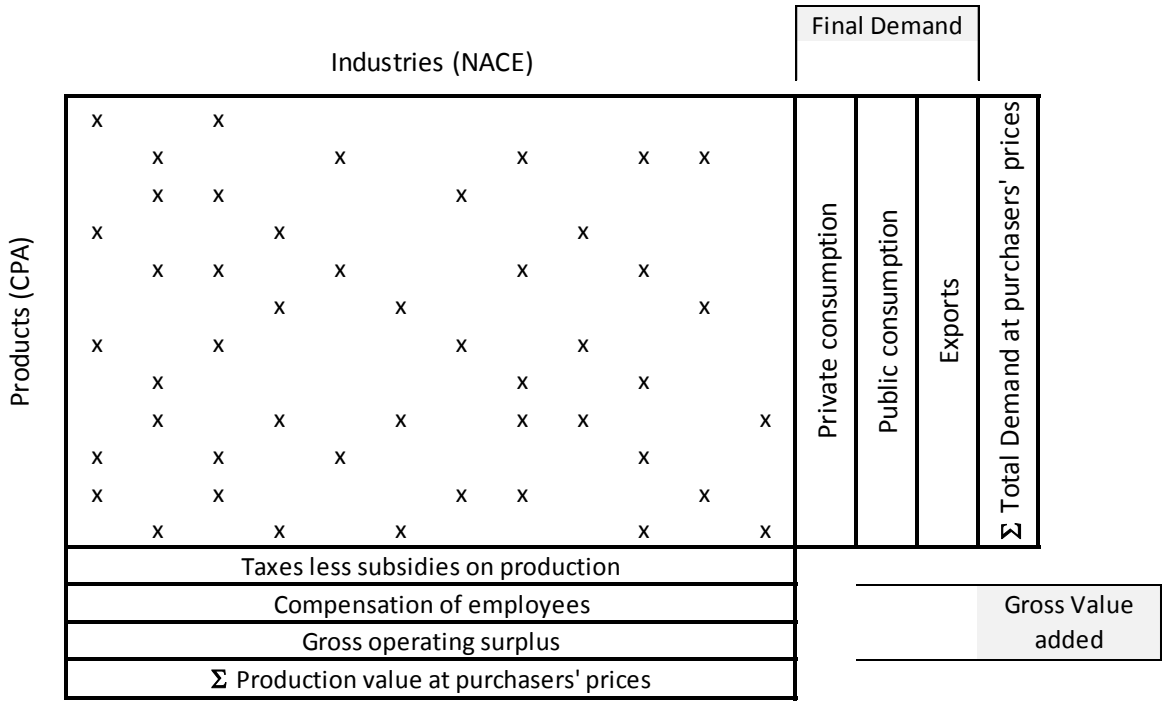
On the other hand, column *j* shows the goods and services produced by industry *j*. Using the construction company in NACE 45 again, we see that it not only constructs swimming pools but also sells them. Industry NACE 45 therefore produces goods of CPA 45 and CPA 70. Therefore there can also be several entries in each column.

As there exists a close relationship between products and industries (construction companies mainly construct buildings, selling them is only a side-business), the biggest values are usually found in the diagonal. For Example, CPA 01 refers to "Products of agriculture, hunting and related services" which are mainly produced in NACE 01 "Agriculture, hunting and related service activities". These are called "characteristic goods", as it is an industry's major effort to produce them. However, there are many industries producing secondary or by-products. One can imagine a farmer (NACE 01) who not only harvests grapes (CPA 01), but also transforms them into wine (CPA 15), or a construction company (NACE 45) selling its own buildings (CPA 70, real estate services). These are non-characteristic goods and services and are depicted as the off-diagonal entries.

In addition to domestic supply of goods and services, imports are available too. The value of each imported type of good is reported in a column-vector to the right of the Domestic Supply or Make Matrix.

The sum (along row *i*) of domestic production and imports equals the total supply of product *i* at basic prices. These are the prices which arise to the producer. To know the purchasers' prices, one has to add margins and taxes.

Figure 4: Schematic Use Table



Source: SpEA, 2011.

Use Tables, as depicted in Figure 4, again can be read row- and column-wise. Row *i* reports the different usages of product *i*. If it is used for producing another good or service (an input being transformed into another output), it is called an “intermediate good”. This “Use Matrix” in the upper left corner of the Use Table again has products in rows and industries in its columns. High values appear in the main diagonal, but inter-industry relations usually are very pronounced leading to numerous large off-diagonal values too. For example, the 2005 UK Use Table reports products of CPA 01 worth 2.5 bn Euro flowing into NACE 01. However, goods and services of CPA 01 worth 12.9 bn Euro are used in NACE 15 (Manufacture of food products and beverages) as inputs.

On the right hand side the values of goods and services which are not used in the domestic production process are displayed. These are in principal private consumption, public consumption, and exports. These three categories (plus a number of others) are called “Final Demand”. The sum of intermediate demand and final demand equals total demand for a good, which is reported at purchasers’ prices.

Columns of Use Tables reveal the costs of inputs being used in an industry when producing according to the Supply Table (thus including non-characteristic goods and services). Intermediate goods and services needed in industry *j* are shown in the *j*-th column of the Use Matrix. Taxes less subsidies can be interpreted as costs of public administration, providing all the services of a modern state (roads, a legal framework, social security, education etc.). Compensation of employees (wages), gross operating surplus (i.e. profits), and consumption of fixed capital (depreciation) are three very important accounts as they specify the return on capital. Their sum is known as “gross value added”, which is a key economic indicator.

These four different usage-types of resources in an industry (inputs, taxes less subsidies, compensation of employees, and operating surplus) sum up to the production value at purchasers’ prices, the last row of the Use Table.

A number of identities hold within the system of Supply and Use Tables. The most obvious apart from those already depicted in the figures, is that for each type of goods and services the sum of production value plus imports must equal intermediate demand plus final demand: all goods and services which are brought into an economy (by production or imports) have to be used in some way.

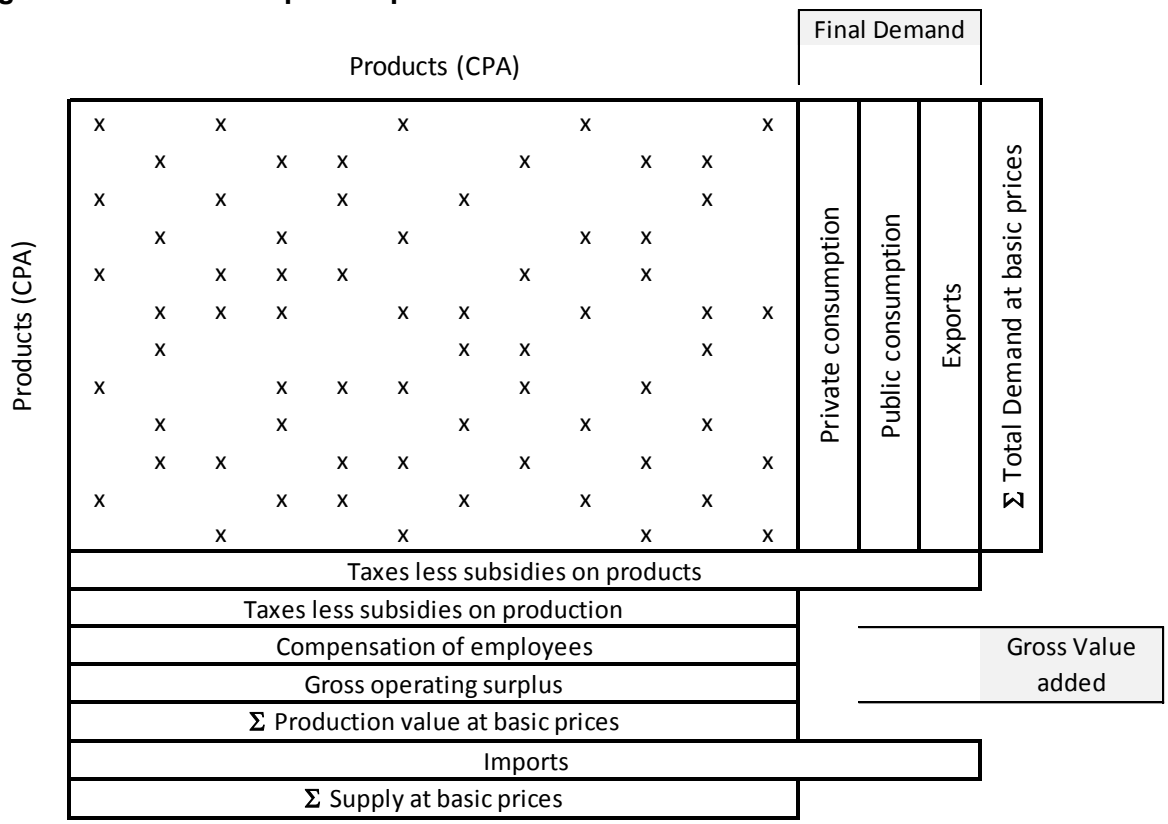
GDP can be derived from Supply and Use Tables in three different ways:

- By origin: production at basic prices minus intermediate demand equals value added at basic prices. This plus taxes less subsidies equals GDP.
- By use: compensation of employees plus operating surplus plus taxes less subsidies equals GDP.
- By distribution: final demand plus public demand plus exports minus imports equals GDP.

5.1.1.2 Calculation of Input-Output Tables in Theory

At first glance, Supply Tables look very much like Input-Output Tables. There is however a substantial difference: the Use Matrix has products in rows while it has industries in columns. This is why it is called “asymmetric”. Input-Output Tables, as shown in Figure 5, have products in both dimensions and are thus called “symmetric”. As a consequence industries and their sectors no longer show up. In the columns of the Use Table one can see what an industry requires. In the columns of the Input-Output Table, however, one can see what a good requires to be produced. As an instance, the Use Table shows what the construction company in NACE 45 needs to build *and sell* a swimming pool. Product CPA 45 in the Input-Output Table reports what is needed to build the swimming pool. The service of selling it is moved to CPA 70, real estate services. The Input-Output Table thus shows the inputs necessary to produce a good, no matter by what industry it is produced.

Figure 5: Schematic Input-Output Table



Source: SpEA, 2011.

Input-Output Tables are mainly constructed for analytical purposes. As there is just one single table rather than two some information is lost, e.g. the origin (in terms of economic sectors) of goods and services. Total production of a good or service, characteristic and non-characteristic, is combined and cannot be differentiated any more. This allows replacing industries in the columns by products. One can imagine this as a Supply Table having its entries exclusively in the diagonal from the upper left to the lower right. But then there is no need for such a Supply Matrix as all other cells are zero and all information can be stored in the Use-Matrix which is now called Input-Output Matrix.

5.1.1.3 Conversion of SUTs to IOTs

To convert Supply and Use Tables into an Input-Output Table all off-diagonal entries in the Supply Table into have to be moved to its row diagonal element. Non-characteristic production is thus removed from its original industry and added to the one industry where it is the principal output. Total supply of the good thus remains unchanged, but it is produced by only one industry.

As output is moved, its inputs have to be moved accordingly. This happens in the Use Table and requires a technology assumption. For instance, one could imagine the construction of a barn (CPA 45) by a farmer (NACE 01). He would use the inputs necessary (wood, nails, labour, etc.) to erect this building. The barn is moved from column 01 to column 45 in the Supply Table and its inputs accordingly in the Use Table. However, the exact inputs are not known, only that some construction is moved from 01 to 45. Which input and how much of it should be moved? Depending on the underlying assumption, there are two principal answers:

- Product technology: it is assumed that a product requires the same inputs no matter by which industry it is produced. The appropriately sized destination industry's input mix is subtracted from the source industry and added to the destination industry. Although this seems very intuitive for many products, negative values can occur. For example, if the construction industry uses a lot of concrete, while farmers use wood for their barns, more concrete would be subtracted from the farming industry than it actually uses.
- Industry technology: it is assumed that an industry uses the same inputs for all its outputs. This is particularly useful for side-products of a production process. In addition, no negative values can occur, as only a share of what is used in the source industry is removed from it and added to the destination industry. For example, in 1995, if 1.4% of NACE 01, agriculture and hunting, in the UK were CPA 45, construction works, then 1.4% of all inputs of agriculture and hunting would be removed and added to column 45.

Table 7: Moving production under the assumption of product technology

Original

Supply

	Ind A	Ind B	Ind C	Total
Prod A	10		5	15
Prod B		8		8
Prod C			5	5
Total	10	8	10	28

Use

	Ind A	Ind B	Ind C	Total
Prod A	2	2	6	10
Prod B	4	4		8
Prod C			2	2
Value added	4	2	2	8
Total	10	8	10	28

Adjustments

Supply

	Ind A	Ind B	Ind C	Total
Prod A	+5		-5	0
Prod B				0
Prod C				0
Total	+5	0	-5	0

Use

	Ind A	Ind B	Ind C	Total
Prod A	+1		-1	0
Prod B	+2		-2	0
Prod C				0
Value added	+2		-2	0
Total	+5	0	-5	0

Results

Supply

	Ind A	Ind B	Ind C	Total
Prod A	15			15
Prod B		8		8
Prod C			5	5
Total	15	8	5	28

Use

	Ind A	Ind B	Ind C	Total
Prod A	3	2	5	10
Prod B	6	4	-2	8
Prod C			2	2
Value added	6	2		8
Total	15	8	5	28

Source: reproduced from UK Office for National Statistics (2002), page 14.

Table 8: Moving production under the assumption of industry technology

Original

Supply

	Ind A	Ind B	Ind C	Total
Prod A	10		5	15
Prod B		8		8
Prod C			5	5
Total	10	8	10	28

Use

	Ind A	Ind B	Ind C	Total
Prod A	2	2	6	10
Prod B	4	4		8
Prod C			2	2
Value added	4	2	2	8
Total	10	8	10	28

Adjustments

Supply

	Ind A	Ind B	Ind C	Total
Prod A	+5		-5	0
Prod B				0
Prod C				0
Total	+5	0	-5	0

Use

	Ind A	Ind B	Ind C	Total
Prod A	+3		-3	0
Prod B				0
Prod C	+1		-1	0
Value added	+1		-1	0
Total	+5	0	-5	0

Results

Supply

	Ind A	Ind B	Ind C	Total
Prod A	15			15
Prod B		8		8
Prod C			5	5
Total	15	8	5	28

Use

	Ind A	Ind B	Ind C	Total
Prod A	5	2	3	10
Prod B	4	4		8
Prod C	1		1	2
Value added	5	2	1	8
Total	15	8	5	28

Source: reproduced from UK Office for National Statistics (2002), page 15.

Table 7 and Table 8 show examples how such movements are done. When using product technology, a vector of '+/-(1 2 0 2)' is moved within the Use Table, which corresponds to the input structure of industry A, '(2 4 0 4)'. Thus a negative value appears in the resulting Use Table.

This problem does not occur when industry technology is applied. The shifted inputs are given by '+/-(3 0 1 1)', which is a fraction of industry C's inputs '(6 0 2 2)'. This is why negative values cannot appear as long as some positive production remains in the source industry.

In reality, the following hybrid algorithm[12] is used: an expert studies each moved product in detail and decides which of the above technology assumptions to use. This method can still result in negative entries and requires a lot of technical expert knowledge. Due to this, such transformations cannot be traced by a third party unless the decision for each entry is recorded and made available. However, it is the most appropriate way of treating this problem and widely used by national statistics offices.

The problem of negative values still remains for such entries, however, where product technology is appropriate. Statistik Austria (2010) and Eurostat (2008) suggest the Almon-Algorithm which was introduced in Almon (2000): "*a slight adjustment in the product-technology assumption leads to an algorithm that is certain to avoid negative flows yet keeps close to the spirit of the product-technology idea*". Statistik Austria (2010) advises to be careful with entries being calculated as zero, as real zeroes hardly ever occur in an Input-Output Table. In most cases, these entries are strictly positive in the Use Table. They only became negative and thus subject to the Almon-Algorithm in the process of moving production. Another useful reminder by Statistik Austria (2010) is that it is only a mathematical procedure meant to solve the remaining problems after careful inspection and manual movements.

As a last step, RAS has to balance the matrix, as the column-wise sums are altered by the Almon-Algorithm.

5.1.2 The Input-Output Table of Malta

Malta was the first country for which an Input-Output Table had to be calculated from Supply and Use Tables. Although the procedure in general followed the steps described in section 5.1.1, several specific issues arose. One example is that Supply and Use Tables were only available for 2000, 2001, and 2004. The latter was used to estimate an Input-Output Table for this year, which was then updated to 2005.

[12] Mix of the tow above methods.

Table 9: Stylised Supply and Use Tables of Malta

SUPPLY

		Industry										
		Other	Forestry	Coal	Uranium	Ores	Wholesale	R&D	Total Supply at basic prices	Import	Valuation	Total Supply at purch.s' prices
Product	Other	X	0	0	0	0	X	0	X	X	X	X
	Foreste	0	0	0	0	0	0	0	0	X	X	X
	Coal	0	0	0	0	0	0	0	0	X	0	X
	Uraniur	0	0	0	0	0	0	0	0	0	0	0
	Ores	0	0	0	0	0	0	0	0	0	0	0
	Wholes	X	0	0	0	0	X	0	X	Y	-X	Y
	Total	X	0	0	0	0	X	0	X	X	X	X

USE

		Industry									
		Other	Forestry	Coal	Uranium	Ores	Wholesale	R&D	Total	Final use	Total Supply at purch.s' prices
Product	Other	X	0	0	0	0	X	0	X	X	X
	Foreste	X	0	0	0	0	0	0	X	X	X
	Coal	X	0	0	0	0	0	0	X	X	X
	Uraniur	0	0	0	0	0	0	0	0	0	0
	Ores	0	0	0	0	0	0	0	0	0	0
	Wholes	0	0	0	0	0	0	0	0	Y	Y
	Value added	X	0	0	0	0	X	0	X		
	Total	X	0	0	0	0	X	0	X		

Source: Eurostat,
http://epp.eurostat.ec.europa.eu/portal/page/portal/esa95_supply_use_input_tables/data/workbooks . Retrieved: February 2012.

A stylised overview of Malta's Supply and Use Tables is given in Table 9 showing some of the details. Normal industries and products are subsumed as "Other" in the first rows and columns.

1. 'Forestry and logging' does not exist as an industry (Supply and Use, column) nor are such products produced by another industry (Supply, row). There is some import; therefore supply is positive and used as inputs (Use Matrix, row) as well as final demand.

2. The same holds true for mining for coal, lignite, and peat as well as for metal ores.

3. Uranium and Thorium ores are neither supplied nor demanded.

4. Wholesale exists as a specific industry (Supply and Use, column) with the service being supplied by other industries (Supply, “Other” column) and imports (Supply, third column from the right with value “Y”) too. However, valuation is exactly as high in negative terms as the service is supplied by domestic industries (Supply, Valuation of wholesale), leading to total supply (Supply, rightmost column) equalling the imports. In the Use table one can read that these imports are used for exports only (Use, second column from the right with value “Y”) with no domestic use.

Most sectors were treated by moving production in a straight forward way using the product technology assumption.

Taxes less subsidies also show up in final demand. Those taxes, which are paid by the final consumer, such as taxes on tobacco, are included. National statistical organisations calculate these from consumption surveys, but such information is not available in the context of the study. Hence the average share of the UK and Austria is used once more, which are, again, quite similar (27.6% and 24.1% of the taxes remain in intermediate production respectively).

The vectors below and to the right of the intermediate goods matrix of the Input-Output Table were calculated including the row- and column-wise sums of the matrix. The Almon algorithm was applied to get rid of negative entries and RAS balanced the matrix.

Updating from 2004 to 2005 was done using Malta ONS (2011), reporting GDP values from 2004 to 2010, including several details like gross value added of industries down to a level of 30 categories (AA to PP).

Similar procedures were applied to Cyprus. In this case, the provisional Supply and Use Table are reported by Eurostat and were used to calculate an Input-Output Table.

5.2 Collection of National Sports Data

In order to proceed, sport satellite account data (data for the extension of the original Input-Output Table) had to be collected for every EU Member State.

The most efficient way was a top-down approach starting with international databases and ending with national expert knowledge. First of all, existing data was analysed. Our study uses data sources on a European level (e.g. Eurostat, see Chapter 6), on a national level (e.g. national statistic offices) or from other sources, such as supra-national organisations (e.g. European Observatoire of Sport and Employment Secretariat (EOSE)[13] or the Federation of the European Sporting Goods Industry (FESI)) or already existing studies. These data sources provide a wide range of standardised high-quality data.

[13] E.g. Data collection from the EOSE led and EU funded VOCASPORT project (2004), EOSE Fact Sheets and sectoral studies on the sport labour market undertaken by EOSE at EU level.

Although all these data were collected, there were still gaps in the tables. National data sources were used in such cases (see below). For those nations and categories where these secondary data for sport-related subsections were not available or not detailed enough estimates were used (from expert interviews or other studies). High correlations (e.g. between Production value/Value added and the employees) and other economic stylised facts (e.g. financial intermediation services are one category and proportionally require auxiliary services which form another category) were utilised also.

Searching for secondary national data is a very time-consuming task where fully-fledged national IOTs:S have a big advantage as they can concentrate on just one country. However, such searches had to be performed as there are data gaps which cannot be closed otherwise. During this process it once again turned out that there are key persons in several countries who can easily provide a wide range of data. Such expert input can bring a proxy-IOT:S very close to a fully-fledged one. In the context of this study, Italy and France are examples where national experts provided particularly valuable data.

Specific data on sport-related national production and consumption were available for Austria, Cyprus, France, Germany, Greece, Italy, Ireland, the Netherlands, and the UK. These countries represented 77.6% of the EU's total GDP. Aggregates of private and public spending were reported for Slovenia.

For all remaining countries we used production data from Eurostat as well as health, education, and public administration from international data bases. Private consumption numbers of sports articles were made available by FESI. Remaining gaps were either filled by calculating the remaining fourth value in the equation production + imports = consumption + exports (foreign trade see chapter 5.3) or by assuming similar ratios in similar countries.

5.3 Imports and Exports

The next step was the collection of data for imports and exports within the EU-27. Because each export from one region is an import to another region, imports were not collected directly. Exports have the additional advantage of being counted as fob (free on board) while imports are cif (cost, insurance, freight). Thus export values reflect the real volume much closer, since imports are increased by an unknown amount of freight and insurance costs.

5.4 Enlarging national Input-Output Tables

There are several algorithms for the problem of filling in matrix-values when only row and column sums are available. Probably the best known is the RAS, simply named after its three most important variables R (row wise sum), A (the matrix), and S (the column-wise sum), method which iteratively updates row and column contents in a proportional way with the remaining differences converging towards zero.

The TRAS algorithm ("Three-stage RAS") is a valuable extension, allowing fixed cell entries. If one knows the value for some reason – e.g. from primary data or because a subsection having no sport content must remain unchanged – this method only changes the cells around

the fixed ones. Minimizing errors over both dimensions while respecting fixed values is an optimal combination of properties.

Instead of iteratively switching between row and column adjustments, the MODOP-algorithm ("Modell der doppelten Proportionalität" or "Model of double proportionality") updates them in a parallel fashion. However, the method seems to be prone to estimation errors[14].

Table 10: Adjustment Algorithms

ADJUSTMENT ALGORITHM			
Method	**Necessary Data**	**Brief Description**	**Source**
RAS	Basis IOT	Bi-proportional adjustment of cell contents through row- and column sums	Stone, Bates, Bacharach (1963)
	Current boundary values of the IOT		
TRAS	Basis IOT	RAS-Algorithm taking known partial matrices into account	Gilchrist, St. Louis (1999)
	Current boundary values of the IOT		
	Partial Matrices		
MODOP	Basis IOT	Bi-proportional, simultaneous adjustment of cell contents through row- and column sums	Stäglin (1972)
	Current boundary values of the IOT		
PKK	Basis IOT	Row-wise proportional adjustment of cell element of the matrix	Matusewski, Pitts, Sawyer (1963)
	Current boundary values of the IOT		
SKK	Basis IOT	Bi-proportional update of cells using weights	Ehret (1970)
	Current boundary values of the IOT		
	Sectoral growth rates		
MVR	Basis IOT	Experts create tables which are then weighted to minimise differences	Gerking (1976)
	Current boundary values of the IOT		
KQM	Basis IOT	Minimisation of differences by Lagrange-method	Jaksch, Conrad (1971)
	Current boundary values of the IOT		

Source: SpEA, 2011.

The basic assumption of the PKK method ("Proportionale Koeffizientenkorrektur" or "Proportional Correction of Coefficients") is that substitution of inputs is constant over sectors. Thus it works in a row-wise fashion, ignoring column sums. Another correction would

[14] see Koch, Spehl, Osterbach, Benson (1999): „Evaluierung regionalwirtschaftlicher Wirkungsanalysen Anhang II: Gutachten und externe Evaluierung", page 199, Taurus.

be necessary to reduce the differences in the column sums to zero, making this algorithm unsuitable for the needs of this study.

SKK ("Streuende Koeffizienten" or "Varying Coefficients") is an extension of PKK able to work on both dimensions by applying weights. As it needs sectoral growth rates and shows substantial errors when tested with real data it cannot be used for this study too.

Applying weighted expert opinion is used by the MVR algorithm ("Minimum Variance Reconciliation"). The sheer number of cells to fill is a prohibitive obstacle as well as subjective opinion.

An interesting approach is KQM ("Kleinstquadratemethode" or "Least Squares") which minimises the error by a least squares method assuming normally distributed "shocks" pushing the empirically found values away from the underlying values. Although this sounds very promising first, it has the disadvantage of leaving behind a residual error which is not explained.

For the computations in this model, TRAS was used. This allowed shipments between those CPA divisions which are not marked as sport-related to be kept fixed.

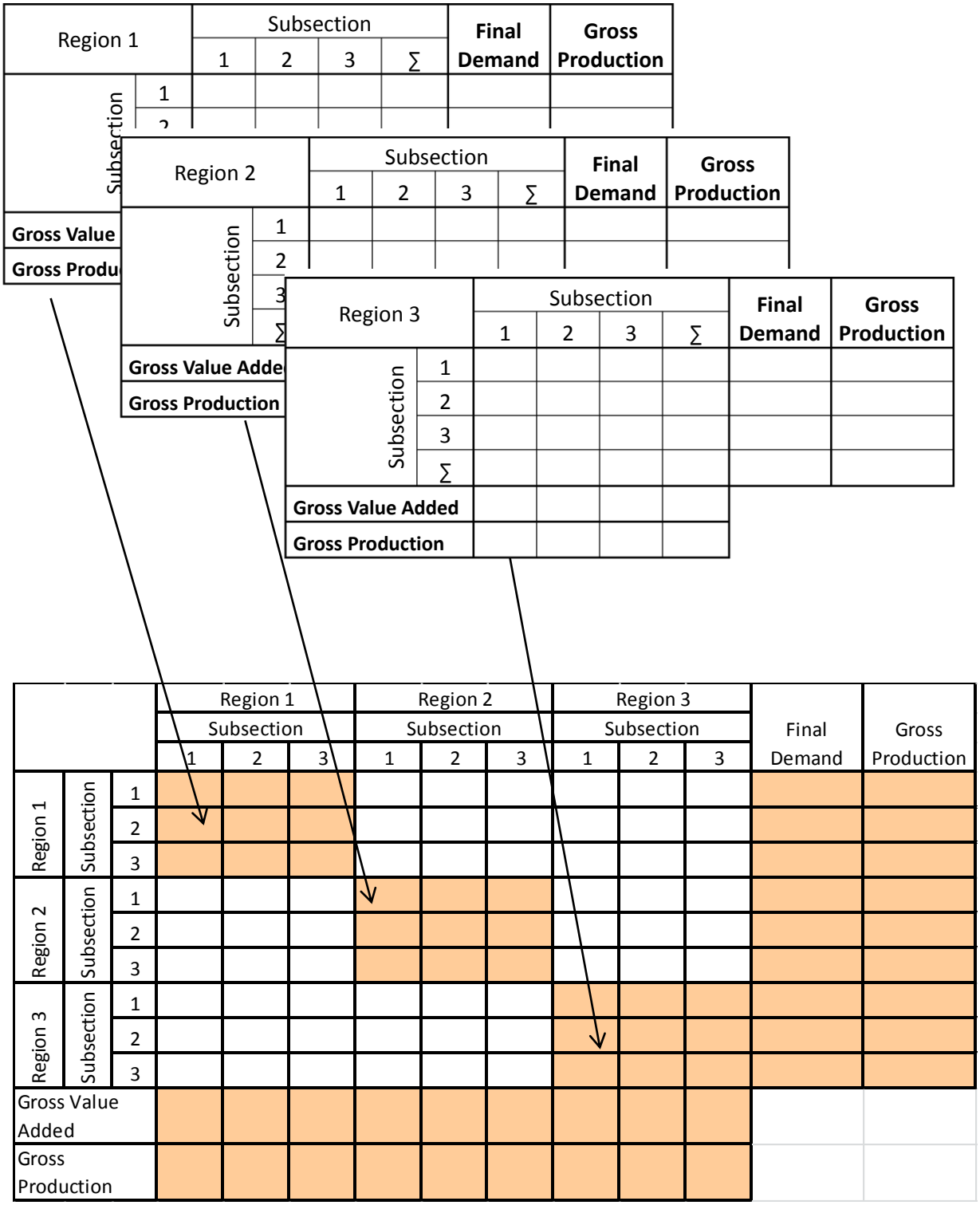
Experimenting showed that using proper starting values is crucial for getting plausible results. Using a constant (e.g. 1.00) in all unknown cells leads to rows and columns with very similar entries in each respective cell reporting around $1/94^{th}$ of the sum. It can be assumed that the required inputs of a sport-related building is the same as that of a non-sport building, so the original values of the aggregated CPA-divisions were chosen as starting values. TRAS was run until the sum of all absolute deviations in all the rows and columns was less than 100,000 Euro. This proved to be a rather lengthy task, requiring several thousand iterations, while other IOTs:S converged well below the threshold within 500 iterations. This procedure worked in almost all countries. However, the intermediate goods matrix of Luxembourg did not enhance beyond a certain point. From there on, RAS was used to finalise the last entries with all cells being allowed to change. Typical deviations from the values reported in the national IOT are smaller than 10,000 Euro.

The 27 national (proxy) Input-Output Tables: Sport were thus completed. From this step onwards, sport and non-sport categories are on a par with each other. Whether a category had no sport-related component, did contain sports but had the sport-related component subtracted, or was a sports-only category is irrelevant. They are treated in the same manner. In the next step, they were combined into one large Multiregional Input-Output Table: Sport.

5.5 Multiregional Input-Output Table according to Chenery and Moses

With the 27 expanded and harmonised national Input-Output Tables the Multiregional Input-Output Table can be set up. It is a 27-regions and 94-sectors (59 standard CPA divisions + 34 CPA divisions with sport content) model. Below a very simplified version (for a 3 region and 3 sector model, no discrimination between sport and non-sport) is presented.

Figure 6: Set up of a Multiregional Input-Output Table



Source: SpEA, 2011.

The shadowed parts of this Multiregional Input-Output Model are the domestic national Input-Output Tables; white cells represent the imports (column-wise) and exports (row-wise) between the regions for each subsection. In principle, domestic IOTs can be used to fill the

orange cells. However, the Chenery and Moses procedure calculates all values of the intermediate goods matrix, so it is easier to use these results.

In principal, all data in each cell of the intermediate goods matrix could be gathered from primary, secondary, or tertiary data sources. This corresponds to the main idea of Isard's model. However, the number of data required increases quadratically with the number of sectors and regions (see Figure 6). Doubling the number of regions increases the search effort four times. Although data bases today are better than ever, searching all $(94 \times 27)^2 = 2535^2 = 6441444$ export-values within the EU is an unfeasible task.

Chenery and Moses thus came up with the idea of using less data while imposing restrictions or assumptions to calculate the rest. What is needed apart from the standard IOTs are data on exports of good G from sector S1 in region R1 to region R2. It is not necessary to know the sector in the receiving region. For example, it is enough to know that Belgium exports non-sport textiles worth 34.98 m Euro to the Czech Republic. It is not necessary to know how that will be used.

The first restriction is that "*[i]t is assumed that the amount of each good absorbed by every industry in a region is strictly proportional to its output*" (Moses (1955), p. 805). This is very similar to the standard assumption of the Leontief production function, stating that there is a linear relation between inputs and outputs: if one wants to double the output, the inputs have to be doubled too.

The second restriction characterises Chenery and Moses type models and states "*that each region purchases its requirements of every good according to a fixed regional supply pattern*" (Moses (1955), p. 807) and that the "*model applies to all economic units in the area, an import pattern which is an average for the region as a whole*" (Moses (1955), p. 810). That implies that one and the same import structure is used for all sectors of a region. For example, if sector S1 in region R1 imports good G1 in the ratio 90 : 6 : 4 from regions R1 (itself), R2, and R3, then all other sectors of region R1 will do so too.

The third restriction is that not only production patterns remain constant as in the first restriction, but also trading patterns. If one observes that 10% of the necessary inputs of a certain product are imported from a specific region, it is assumed that this is also true in future. This too is consistent with the standard ideas of Input-Output Analysis.

These restrictions deserve closer inspection. Stability of input ratios while output is varied bases on the idea that every company or every production process can be copied. Although there are certainly limitations in the form of human capital, space for factories, or availability of natural resources, this assumption is rather mild within the usual scope of prognoses of I/O analyses.

Stability of trading patterns has a deeper theoretical background. At first sight there is no reason why Swedish timber should be different from Polish timber. Thus one could easily replace one type of timber by the other. But the existing and observable trading structures emerged for good reasons. As Moses pointed out: "*In an immediate sense, trading patterns*

reflect regional cost-price relationships and regional capacities for production and distribution. …These are patterns which would automatically be achieved under conditions of pure competition. They are optimal in the sense that they involve lowest possible over-all expenditure on production and distribution for satisfying final demand," (Moses (1955), p. 810 and 811). Thus it does make sense to use exactly this mix of goods and services from different regions which can be observed and it seems reasonable to assume that this mix is stable over some time. This is even more justified as prices do not vary frequently. Usually prices are determined at most every three months, wages once a year. Reactions to such changes are again delayed by several months. The stability of production prices, transport costs, and wages are three requirements for the validity of Chenery and Moses models (Moses (1955), p. 811).

Three further necessities derived from the three original restrictions are "*(1) There is excess capacity in the transport network between every pair of regions. (2) Each industry in each region has excess capacity. (3) There is a pool of unemployed labor in each region*" (Moses (1955), p. 811). While single companies can often be found at 100% of their capacity, a whole sector usually has some free capacity. The assumption of free transport paths is also very mild. The existence of a substantial number of unemployed is a fact, but whether they can be hired for expanding production in a specialised sector seems questionable.

Chenery and Moses go one step further and claim that if a special import mix for a good or service is optimal for one sector, it is also the case for all other sectors. "*Their interpretation is that all producers in each region consider the imports from a specific region as homogenous and thus all producers import from a specific region in proportion to their total needs rather than importing in different proportion from different regions"* (Hartwick (1970). Although this assumption sounds rather strong, given that there are 94 different goods and services used in the model, each product is described adequately.

Using these restrictions one is able to reduce data requirements from millions of data, where many are not even available (e.g. there is no sector-to-sector foreign trade data) to manageable amount of thousands of data which can be stored in accessible data bases.

5.6 Finalisation of the Multiregional Input-Output Table

The result of the Chenery–Moses procedure is a matrix similar to the one in Figure 6. The orange entries correspond to the domestic IOT, with the white parts of the intermediate goods matrix above of each region being a disaggregated intra-model (from within the EU in this case) imported IOT. The white entries to the left and right of each region are the region's intra-model exports.

Extra-regional foreign trade is left untouched by the algorithm. From a numerical point of view, it is irrelevant whether a good is consumed by private households or exported to a region outside of the model: in both cases the value is "taken out of the economy". The same holds true for extra-model imports and value added. Both numbers "appear" in the domestic economy. Thus for the sake of proper calculation, extra-EU foreign trade was added to the

final demand and value added during the purely numerical procedure. Afterwards the values were separated again according to their ratios previous to the calculations.[15]

What is not shown in the figure, but was of course computed, was intra-model foreign trade of final demand. The Chenery–Moses procedure allows for calculating the share of domestic consumption in total consumption. Thus each good or service used by anyone can be statistically traced back to its origin.

The final result is not just a Multiregional Input-Output Table according to Chenery - Moses. It is a Multiregional Input-Output Table: Sport. The difference is that it is a MRIOT assembled from IOTs expanded to IOTs:S. Figure 7 shows the basic structure of this model. There are, in this example, three national IOTs which were transformed into IOTs:S, containing the dark green sport part (in the real model this part consists of 34 rows and columns, not just of one). Therefore in contrast to Figure 6 sport-relevant goods and services can be identified in Figure 7. The national IOTs:S are dis-assembled into

- the intermediate goods matrix,
- the demand quadrant, and
- the supply quadrant.

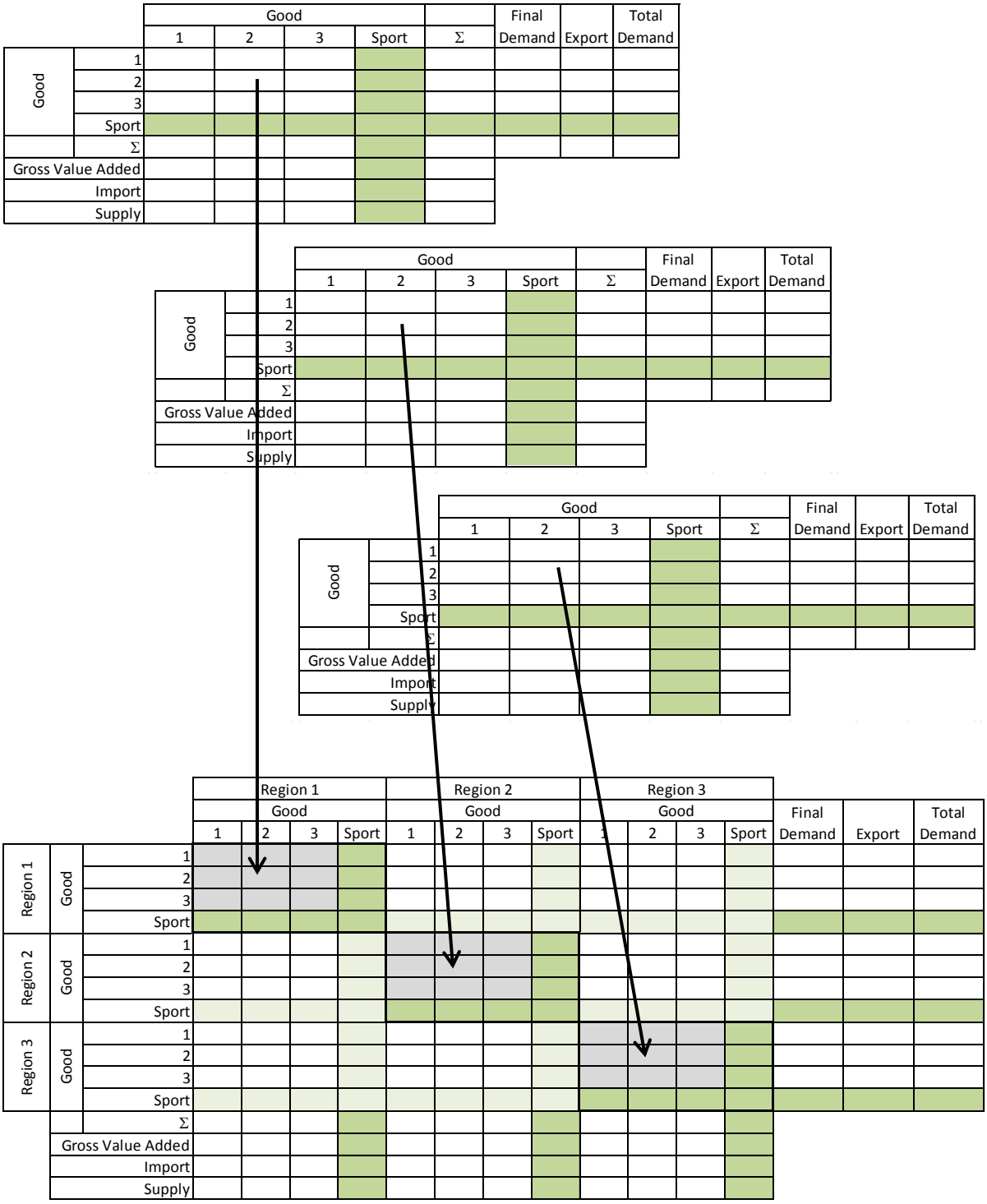
The domestic intermediate goods matrices including the sport parts form the dark shaded parts along the main diagonal in the MRIOT:S. The demand quadrant moves to the right of the MRIOT:S and, in principal, remains as it was in the national IOT:S. The lower quadrant including value added, imports, and total supply is put into the lower part of the MRIOT:S, also without major changes.

The imported IOTs:S can thus be calculated by summing the pale sub-matrices above and below each regional domestic intermediate goods matrix. The same holds true for the exports of each good or service which can be found to the left and to the right of the dark sub-matrices. In fact, even final demand is computed in the same way by the Chenery-Moses procedure. This information does not affect the study analyses and would only make the graph much bigger by splitting final demand.

Computing sport-related value added for all regions in the model is done by summing the values in the green cells of the last but two rows. Final sport-related demand is reported in the green cells of the corresponding column in the demand quadrant.

[15] The same actually took place for all numbers within final demand, like, public demand, NPISH-demand, changes of inventories, gross capital formation and so on as well as within the different numbers in value added.

Figure 7: Set up of a Multiregional Input-Output Table: Sport



Source: SpEA, 2012.

To compute sectoral multipliers, the Leontief Inverse had to be calculated. This is the inverse of the identity matrix minus the normalised intermediate goods matrix of the MRIOT:S. Marking of the sectors as non-sport, and sport according to the broad, narrow, or statistical definition paved the way for further calculations.

6 European and International Data Sources

There are many data sources which might be useful for building the EU-SSA. To keep track of these different sources and the parts for which they were used, the project group is working on a meta-database, i.e. a database which describes which data sources were used during the project, their characteristics and the areas to which they were applied.

As discussed before, when reliable data on a European level for specific countries are available, these sources should be preferred to national (secondary) data sources.

There a several data sources which might be considered to be useful for specific parts of the SSAs. These sources are listed in Table 11.

Table 11: Different European Data Bases

EU SILC	Statistics of Income and Living Conditions
EU AES	Cultural participation
EU EHIS	Physical activity
EU TUS	Time Use Survey
ISES	Sports & Events Study

Source: Own research at the data bases themselves.

6.1 Production

Sport-related goods and services can either be imported or produced domestically. Domestic production is preferable in economic terms since this creates more value added, and therefore more employment, wages, profits and earnings, as well as taxes and other contributions.

However, as there is no NACE-entry apart from 92.6 which is directly sport-designated, self-categorisation of companies as producers of sports goods and services is very rare. Reliable data on sport-related production therefore is not always available.

This problem is solved as Eurostat publishes production data ranging from CPA 13 to CPA 36 on the Prodcom 8-digit level. As the first six digits of Prodcom correspond to CPA, this data base provides extremely detailed information. These data are then matched with the Vilnius Definition of sport to identify the Prodcom entries with sport content. To calculate the volume of sport production the sport-related share of each entry has to be calculated. These shares were calculated in such a way that they fit with the values of those IOTs:S where production is known.

The absolute volume of a country's sport-related production in one sector was thus calculated as (*production value of that sector*) x (*sport-related share of that sector*). The production value is well known from the national IOT. The first of the two multiplicative factors

is thus accurately measured for each country, capturing the biggest part of variations in sport-related production. The second factor is constant for all countries estimated in this way. Since this share is derived from countries where this value is well known, the differences to reality can be assumed to be white noise: there is no systematic error. However, fully-fledged national IOTs:S can paint a clearer picture of a country by replacing the average on the right hand side of the multiplication. For EU-wide calculations, average values are sufficient.

6.2 Sport-related Public Administration and Social Security, CPA 75

The Eurostat database on national accounts contains gross value added in the sector of public administration, defence and compulsory social security for the Member States in 2005. The Eurostat database on government statistics comprises government expenditure by function (COFOG) for the Member States in 2005 accounting for social security expenditures. The share of social security expenditures in total government expenditures was used to estimate gross value added in social security.

On the basis of the European Union Labour Force Survey, LFS, (see European Communities (2003)) the percentage of professional athletes of all employees in each member state was calculated in order to estimate sport-related gross value added in social security. The COFOG database of Eurostat was also used to estimate the sport-related share of public administration.

6.3 Sport-related Education, CPA 80

Sport as part of the education system typically spans from the first year of school towards university studies. Thus most states offer approximately 20 years of sport-related education to some persons. It is therefore not surprising that this activity is economically important in many countries and an important part of this study.

Gross value added in education for the Member States in 2005 is available from the Eurostat database on national accounts. Using the online UNESCO/OECD/EUROSTAT (UOE) database on education statistics, which is compiled on the basis of national administrative sources (OECD (2007)) together with UNESCO Statistics (UNESCO (2009)) the shares of primary, secondary and tertiary education (according to ISCD 97) in total expenditure for each country were computed. These shares were used to differentiate total gross value added and hence estimated gross value added in the NACE Categories 80.1 (Elementary Schools), 80.2 (Secondary Education) and 80.3 (Higher Education).

Data on physical education in elementary schools in the Member States of the European Union were reported in a study of Brettschneider et al. (2004) (see p. 141 et seq.) and used to estimate sport-related gross value added in elementary schools in each country. The estimations for gross value added in secondary education per country were based on the OECD “Teaching and Learning International Survey” (TALIS) (see OECD (2010)), collected from 4,000 schools in 23 countries from March to May 2008. It contains data on teacher’s subjects, including physical education, and teacher’s working hours. By assessing the share of physical education in all subjects taught, the sport-related share of value added in secondary education was estimated.

Assuming that sport teacher training in higher education represents nearly all sport-related expenditure in this sector, the share of sport teachers of all teachers for each country was estimated on the basis of the TALIS. The OECD online statistics on education contain graduates by field of education in tertiary education for OECD countries. These shares were used to estimate the share of graduates in sport of all graduates on a country basis. Estimation of sport-related gross value added in higher education was performed by assigning the sport graduates' share.

6.4 Sport-Related Health, CPA 85

Sport-related gross value added in the health sector is divided into four subsectors: hospital activities caused by injuries during sport activities, outpatient care caused by injuries during sport activities, hospital activities as medical care for professional athletes, and outpatient activities as medical care for professional athletes.

The Eurostat database on national accounts contains gross value added in the health sector for the Member States in 2005. Data on health expenditure, differentiated by supplier and country, are available for 2005 in OECD Health Statistics. Shares of inpatient and outpatient care in expenditure were estimated on this basis and transferred to gross value added in the health sector. The Eurostat database on health statistics contains data on hospital discharges by causes following ICD10. The Injury Database (IDB) (see Bauer (2009)) of the European Union, a representative survey compiled from hospitals of the Member States, contains detailed data on injuries (e.g. on the activity during which the injury occurred), accounting also for sport, and on the treatment in the hospital, whether admitted, treated as an outpatient or sent to a practitioner. Combining these data sources, the share of inpatient care after sport injuries in gross value added of the health sector was estimated.[16]

The Eurostat database on health statistics contains data on outpatient care by diagnoses (ISHMT), accounting also for injuries. In conjunction with the IDB, the share of sport-related injuries in outpatient care could be estimated and hence the sport-related gross value added in outpatient care could be estimated.

On the basis of the European Union Labour Force Survey (European Communities (2003)) the percentage of professional athletes in of all employees in each member state was calculated and used to estimate the share of gross value added in inpatient and outpatient care for professional athletes for each country.

6.5 The European Market for Sport Articles

As the retail market for sport articles is a substantial element of the sport economy, an overview is given in this section.

Table 11 exhibits the data on purchases of sport articles per capita and in total for all EU Member States provided by FESI. Numbers vary widely, but were described by FESI as

[16] Average costs for treatment of injuries in hospitals were estimated to be around 75% of total average costs for treatment of all causes on the bases of German health data, see www.gbe-bund.de.

trustworthy, turned out to fit well into the national IOTs:S, and harmonised with most of the other data sources.

The largest markets are UK, France, Italy, Germany, and Spain. These five markets together represent almost 73% of EU-total purchases. The largest per-capita purchases are observed in Luxembourg, Malta, Austria, Sweden, and Ireland. As there are many people working in Luxembourg who do not have a residence there, many purchases in Luxembourg originate from consumers of neighbouring countries. Austria is also special since many skiing tourists buy their equipment, at least the skis, at their holiday destination and take them back home. So there are also many purchases registered in Austria made by non-residents.

Table 12: Purchases of sport articles incl. VAT

	Purchases per capita per year in €	Market volume of sports articles per year in million €
Austria	199	1649
Belgium	137	1441
Bulgaria	12	95
Cyprus	35	28
Czech Republic	66	677
Denmark	146	789
Estonia	32	41
Finland	134	709
France	143	8709
Germany	86 (205)	7129 (16638)
Greece	111	1235
Hungary	30	307
Ireland	166	696
Italy	130	7638
Latvia	23	52
Lithuania	26	89
Luxembourg	307	154
Malta	206	82
Netherland	157	2557
Poland	18	682
Portugal	62	653
Romania	14	292
Slovakia	30	161
Slovenia	102	203
Spain	121	5313
Sweden	166	1492
UK	149	9000

Source: FESI, 2012.

German data seem implausible. The value of 86 Euro per person per year is rather low and conflicts with other studies. Meyer and Ahlert (2000) reported sport article purchases of 14.7 billion Euro for the year 1998 and recently published results of the sport-consumption survey (Preuß and Alfs (2012)) report expenditures of 19 billion Euro per year for 2009 to 2011. Consequently, the value of 16.6 billion Euro or 205 Euro per person per year was used in calculations for Germany in 2005.

6.6 Import and Export Data

This section discusses the importance of international trade in sport in the EU economies and the problems negotiated in defining its size. Both trade in sports goods and services has been estimated. Although it is possible to consider separately national trade data, a decision was taken early on to investigate all trade primarily through UN data. This guarantees a consistency in the presentation and definition. There are two UN datasets under consideration, one for commodities and one for services.

The steps we used are as follows:

1. Construction of a matrix for international trade data.

2. Data collection on commodity trade.

3. Data collection on service trade.

4. Modelling sport related commodity trade.

5. Modelling sport related service trade.

The definitions of exports and imports, as reported by the UN are not equivalent to each other. Imports are generally reported on the Cost, Insurance and Freight (CIF) basis, while exports are reported on the Free on Board basis (FOB). Thus export values represent the good's price only (plus transport to the ship/truck) while import values include substantial additional costs. To negotiate this problem, we collected export figures, which correspond to the National Accounts, and then we applied the Chenery/Moses procedure to distribute imports within each country. There is the theoretical drawback that countries have a bigger incentive for registering imported goods as they might be subject to customs duty while exports might leave the country unnoticed. This, however, is unlikely to be a problem for the EU.

The UN international commodity trade data are included within the 'UN Comtrade' database. The dataset contains annual bilateral merchandise trade (imports/exports) for all available countries for up to 5 digit SITC (Standard International Trade Classification), and up to 6 digit HS (Harmonised Commodity Description and Coding Systems) and BEC (Broad Economic Categories).

The SITC system classifies the production of materials, the processing stage, uses of products, the importance of goods in world trade, and technological changes. The aggregate categories of commodities examined are: food, drinks and tobacco (sections 0, 1), energy products (section 3), raw materials (sections: 2, 4), chemicals (section 5), machinery and transport equipment (section 7) and other manufactured goods (section 8). The eighth category includes both sports footwear and sporting goods. Although many categories are explicitly identified, in some cases further breakdown of information is required to arrive to the sport-related part.

Quantities are available when reported by the home country, and can be converted into UN standard units. The UN Statistical Office does not supply data directly; all data downloads are done on line by users. In the case of commodities, there is sufficient data availability. Because of its direct connection with NACE ("Nomenclature générale des Activités économiques dans les Communautés Européennes" - Statistical classification of economic activities in the European Communities) categories, the SITC system is used. All trade up to five digit SITC is available and consistent with the National Accounts. The way to derive the NACE codes is as follows:

For the purpose of the study, the SITC rev.3 classification was translated into ISIC (International Standard Industrial Classification) rev 3 classification. Then the latter is transformed into NACE rev 1.1, which is equivalent to the National Accounts and the data used in the Satellite Account.

SITC→ ISIC → NACE

NACE based statistical classifications are comparable at European and world level. The use of NACE is mandatory within the European Statistical system. NACE is derived from ISIC, in the sense that it is more detailed than ISIC. NACE and ISIC have exactly the same items at the highest levels, whilst NACE is more detailed at lower levels. In this way there is an alignment of NACE with the international standards. In terms of the format of reporting of data, following the Eurostat Input-Output Tables convention, we use the two digit level. However, the UN data occasionally report trade distribution in much greater detail. For example, in the case of sport goods, Table 13 below shows the UN data detail in this category.

Finally, the exports we considered can be divided into exports of domestic goods and exports of foreign goods. The latter is generally referred to as re-exports and implies exporting goods in the same state as previously imported. This most often happens in relationship to the country of origin for reasons such as: an exported good might be defective, the importer might have defaulted on payments or cancelled the order, the authorities might have imposed an import barrier, and finally demand or prices in the country of origin might have made it worthwhile to bring the goods back. We have collected more data than required for the reporting stage, so that modelling of sport-related trade can be meaningful and accurate.

Based on what we have collected we know that in the case of commodities the sport element can be meaningfully identified.

Table 13: UN definition of Sports Goods

894.71	Fishing rods, fish-hooks and other line tackle; fish landing nets, butterfly nets and similar nets; decoy 'birds' (other than those of heading 896.5 or 898.29) and similar hunting or shooting requisites, n.e.s.
894.72	Ice skates and roller skates (including skating boots with skates attached)
894.73	Snow-skis and other snow-ski equipment
894.74	Water-skis, surf-boards, sailboards and other water sport equipment
894.75	Golf equipment
894.76	Tennis, badminton or similar rackets, whether or not strung
894.77	Gloves, mittens and mitts, specially designed for use in sports
894.78	Articles and equipment for general physical exercise, gymnastics or athletics
894.79	Sports goods, n.e.s.

Source: SIRC, UN.

In the case of international trade in services the 'UN Servicetrade' dataset was used. One issue was the compatibility of the satellite accounts of individual states with the international data generated through this exercise. It was expected that equivalent figures would be generated through both processes. However, unlike the UN Comtrade dataset, the UN Servicetrade does not have a one to one correspondence to the National Accounts categories. In other words in the case of services we do not have an alignment of NACE with the international standards. However, this situation is under review as the UN endeavours to bridge this gap. An international alignment of NACE in services will improve the existing statistics. Hence, on the outset, as it stands the exercise becomes much more complex. Additionally, some information of international service trade is not reported to the UN, and it has to be derived or modelled using directly the National Accounts or other sources. The classification used by UN is the Extended Balance of Payments Services Classification (EBOPS 2002). There is no way to navigate with certainty from the EBOPS classification to the NACE one (as we go from SITC to NACE in the case of commodities). However comparing the EBOPS classification directly to the National Input Output tables can bring much insight about the distribution of trade in sports services. Hence, our methodology is based on a ‘triangulation’ of EBOPS, NACE and the National Input-Output Accounts. The methodology must be revised when the UN produces a system of linking EBOPS to NACE.

Table 14 illustrates the international trade in one of the examined categories: ski and ski equipment. A similar matrix is constructed for each category in the Account. For the sake of simplicity we restrict our attention to this category and left out most countries in the illustration. In total we get a 27 by 27 matrix (for the 27 EU countries). By reading

horizontally, we see the exports of Austria (AT) to the rest EU countries. Hence, Austria exports 3.04 m Euro and 3.54 Euro worth of skiing goods to Belgium (BE) and Bulgaria (BG) correspondingly. In the same manner, reading vertically we can identify the imports. Thus the Czech Republic imports 18.99 m Euro and 0.15 m Euro worth of skiing goods from Austria (AT) and Belgium (BE) correspondingly. Finally, by adding up horizontally and vertically, we find the total exports and imports for each country within the European international trade. The total of imports and the total of exports are obviously the same within the EU. In the trade of snow skis in the EU, the most important relationship is between Austria and Germany, the former exporting 81 m Euro of goods to the latter, accounting for 11% of intra-EU exports. In terms of total world exports, the most important exporters are Austria and France accounting for 396 m Euro and 296 m Euro of snow ski exports. However, although a big proportion of the Austrian exports (61%) stays within the EU, France's trade is more evenly divided with only 51% going towards EU countries. The total exports of all the EU countries equal 1160 m Euro. From this, 740 m Euro, or 64% of the total is directed towards other EU countries, with the remaining 36% going towards non-EU destinations.

Table 14: Foreign trade in ski and ski equipment in m Euro. D stands for domestic. Red bars indicate hidden countries

	AT	BE	BG	CY	CZ	DK	UK	EU	Rest	Total	% EU
AT	D	3.04	3.54	0.02	18.99	1.24	3.48	241.55	154.68	396.24	61%
BE	0.58	D	0.00	0.00	0.15	0.10	0.16	5.47	1.04	6.51	84%
BG	5.21	0.00	D	0.00	0.15	0.00	0.02	7.20	1.05	8.25	87%
CY	0.00	0.00	0.00	D	0.00	0.00	0.00	0.00	0.00	0.00	0%
CZ	35.61	0.04	0.00	0.00	D	0.05	0.07	70.11	6.26	76.37	92%
DK	0.02	0.00	0.00	0.00	0.00	D	0.00	0.12	0.70	0.81	14%
UK	0.00	0.28	0.01	0.03	0.01	0.27	D	2.15	1.85	4.00	54%
IMPORTS	100.75	11.00	4.54	0.06	35.65	4.93	11.67				
TOTALS								740.27	419.28	1,159.56	64%

Source: SIRC, UN.

Finally, Table 15 summarises the percentages of worldwide exports directed towards intra-European trade. It is apparent that there is very high export integration within the EU. Overall 64% of snow skis, 71% of sport equipment and 66% of overall sport commodities exports occur within the EU; in other words, two thirds of the Member States' sport exports are intra-EU-exports.

Table 15: Shares of exports staying within the EU

	snow ski	sport equipment (36.4)	sport commodities
AT	61%	65%	64%
BE	84%	97%	92%
BG	87%	81%	89%
CY	0%	88%	38%
CZ	92%	90%	86%
DK	14%	75%	71%
EE	100%	35%	64%
FI	62%	59%	58%
FR	51%	62%	66%
GE	66%	70%	67%
GR	82%	51%	48%
HU	93%	72%	82%
IE	18%	49%	79%
IT	68%	65%	56%
LA	90%	38%	64%
LT	94%	62%	79%
LU	89%	99%	86%
MT	0%	22%	93%
NL	57%	85%	64%
PL	65%	72%	81%
PT	0%	76%	87%
RO	100%	96%	96%
SK	84%	83%	93%
SL	65%	61%	57%
ES	90%	83%	52%
SE	15%	50%	55%
UK	54%	75%	56%
TOTAL	64%	71%	66%

Source: SIRC, UN.

6.7 Additional Service and Goods Data

In addition to UN-service data, OECD service data (OECD (2012a)) was used. This turned out to be useful as for some reason these two data sets are not equally loaded with information. As an example, exports of CPA 45, Construction, was not reported in UN data, but is available in the OECD data base. To stay as consistent as possible, UN data was used preferably.

Foreign Trade of goods is not reported in the UN data base. Therefore we used the OECD Structural Analysis Statistics (STAN) data base (OECD (2012b)). Thus foreign trade of all CPA divisions from 01 to 95 were covered for both sport relevant and total numbers.

6.8 Further Calculations

Export data is used in the model since they are valued as *fob* (free on board) while imports are *cif* (cost of insurance and freight). Thus export values represent the good's price only (plus transport to the ship/truck) while import values include substantial additional costs. There is the theoretical drawback to this in that countries have an incentive to register imported goods as they might be subject to customs duty while exports might leave the country unnoticed. This objection, however, is unjustified for the EU.

Exports of goods originate from OECD STAN (OECD (2012b)) and are generally complete and fully available for all 27 EU countries. There is a problem, however, as several CPA divisions are aggregated. These are 15 and 16, 17 to 19, 21 and 22, and 36 and 37. The easiest and most intuitive solution was the distribution of these aggregated values according to the ratios of the respective divisions in the IOT. For example, Germany exports CPA 15, Food and Beverages, worth 24.5 billion Euro and CPA 16, Tobacco Products, worth 1.7 billion Euro to other EU-members. Therefore all aggregated exports of CPA 15 and 16 to other EU-members were disaggregated using shares of 24.5/26.2 = 93.5% for 15 and the remaining 6.5% to 16.

Another characteristic of the STAN database is that there is no entry for Belgium, but only Belgium plus Luxembourg and Luxembourg alone. This issue was solved by simply subtracting the values for Luxembourg from the combined totals for Belgium and Luxembourg.

The biggest problem of obtaining data for foreign trade in services was its incompleteness. If neither UN nor OECD data were provided, they had to be approximated. Depending to the type of service, different strategies were followed here:

- Total IOT-exports of CPA 63: Supporting and auxiliary transport services: travel agency services, was distributed according to the mean of CPA 55, 60, 61, and 62, being hotels and restaurants, land, water, and air traffic.
- For CPA 67: Services auxiliary to financial intermediation: the total exports reported in the national IOT were distributed in the same way as CPA 65, *Financial intermediation services* as they should be closely related.
- For CPA 90: Sewage and refuse disposal services: the available data of other countries showed that they are almost exclusively distributed to large neighbouring countries.
- For exports of CPA 92: Recreational, cultural and sporting services: these were distributed according to the exports of CPA 55, Hotel and restaurant services.
- For exports of CPA 95: Other Services: these were distributed according to the mean of all services.
- In some cases an assumption was made that the unknown export structure of a country, A, is the same as that of another country, B. If such a closely related country existed, it was often the case that most of country B's exports actually go to country A. For instance, there were no data available for the structure of UK's export of CPA 50, Trade, maintenance and repair services of motor vehicles and motorcycles. Data for Ireland showed that around 50% of its CPA 50 exports go to the UK.

After this stage, two export tables between all EU-members on CPA-2 digit basis were available: one containing all goods and services, one just the sport-related ones. The sport-related values were then subtracted from the values in the corresponding original categories to avoid double counting. For example, France exports 6452 m Euro of CPA 01: Products of agriculture, to EU members. Out of these, 48 m Euro are sport-related. Thus 6404 m Euro remain in the non-sport part of CPA 01, while 48 m Euro are reported as sport-related exports of CPA 01. Linking these two tables together created the complete foreign-trade matrix with separate sport and non-sport entries.

This matrix had to be adjusted to the values in the national IOTs for two reasons:

1. The IOT reports different imports/exports to/from EU members to the numbers in the above derived foreign-trade matrix.
2. The IOT reports aggregated imports/exports only, with no reference to intra-EU foreign trade. France, for example, reports imports from within the EU plus all imports, but in the case of exports, only the total numbers are given.

The values reported in the IOT were changed as little as possible as such changes can have far-reaching consequences.

7 Remarkable Matters

7.1 Prior Publications

A leaflet (EU-Commission (2011)) with results on the four already available national IOTs:S was published. The results reported there were partly different to those in the MRIOT:S. There are several explanations for this.

- The MRIOT:S uses a common methodology for 27 Member States. This includes the UN data base as unique source for foreign trade data. Otherwise the 3 dimensional data cube for foreign trade (27 sending countries by 27 receiving countries by 94 goods) would be impossible to handle. Therefore in the equation Import + Production = Export + Consumption features two variables which are different in the MRIOT:S compared to the national IOTs:S. Production and consumption data thus had to be adapted in some occasions.
- Cyprus reported for 2004, Poland and the UK for 2006 in the above publication while the MRIOT:S is based on 2005. Some of the differences originate from these deviations.
- The main difference between the UK-figures in the leaflet in this study is that sport-related trade was not used in the former.
- The biggest variations are reported for Austria. The specific issue here was that until 2011 there were several definitions of a “sport tourist” used in Austria. To interpret the institutions’ calculations properly, one always had to bear in mind the relevant definition. In autumn 2011 it was decided to harmonise all definitions and use just a single one. Although this new definition is close to the one used in the previous calculations here, there is an important difference. This can be best illustrated with an example. If a German family decides to go on a skiing holiday in Austria, under the new definition only the members of the family that ski will count as sport-related. If only one parent skis while the other one takes care of two young children, there is only one sport-related tourist out of a family of four that will count as sport-related. Economically it would still make sense to integrate the three other guests too as they would not be in Austria without the skiing person, but the responsible institutions decided against it. Thus there are two versions of Austria’s 2005 sport-related economy with the one used for the MRIOT:S using the more restrictive definition. This will also be used in future calculations.

7.2 German Data

For the EU-wide MRIOT:S of this study the four complete national IOTs:S of Austria, Cyprus, Poland, and the UK were available and could be used. In all other cases it makes use of proxy IOTs:S, which approximate national IOTs:S as closely as possible. These proxy IOTs:S serve one purpose only: the calculation of the MRIOT:S. They are not meant to substitute fully-fledged national IOTs:S in their function as stand-alone tools for single countries. It is also planned that future national IOTs:S will replace these approximations to improve the quality of the MRIOT:S.

In this respect data on the German sport economy deserve special attention. Even though there are relatively recent data available (see e.g. Meyer, B. / Ahlert (2000) or Weber,

Schnieder, Kortlüke, and Horak (1995)) it was decided to conduct a survey on consumer expenditure on sport. This will be used to calculate a German IOT:S in the near future.

Since some aggregated national results were already published (Preuß and Alfs (2012)), these data were used for calculating the German proxy-IOT:S for this study. Therefore the survey data is the basis for the proxy. Without that survey data there would be no German IOT:S as the proxy cannot serve this purpose.

However the survey data had to be adapted to the needs of the MRIOT:S. The three most important issues were:

- The MRIOT:S is based on the year 2005 while the survey took place from 2009 to 2011.
- The published survey data are highly aggregated.
- Sport-related tourism ("Fahrten (ohne Urlaub)" and "Sportreisen" meaning "Trips (no vacation)" and "Sport-related travel") was too high to fit into the German IOT.

After dealing with these matters the dataset proved to be very useful.

7.3 Input-Output Table: Sport of France

A short summary of the calculation of the French IOT:S will be provided here, as this case is rather different from most other countries. France provides very detailed official information about the economics of sport in Le Haut Commissaire à la Jeunesse, Ministère de la Santé et des Sports (2009). This data, however, requires some additional work as it was not prepared in such a way that it would readily fit into an IOT:S.

Table 16: Sport related expenditures in France in 2005

Private households	15.2 bn Euro
Public households	12.1 bn Euro
Companies, media rights	1.4 bn Euro

Source: Le Haut Commissaire à la Jeunesse, Ministère de la Santé et des Sports (2009, page 2.

Sponsorship, as always, had to be excluded as this money is spent by sport clubs again and would thus be double counted. Expenditures of private households are reported in more detail, but still rather aggregated.

Table 17: Expenditures of French private households in 2005 in more detail

Clothes and shoes	3.8 bn Euro
Consumer goods	2.2 bn Euro
Other goods	2.8 bn Euro
Services	6.4 bn Euro

Source: Le Haut Commissaire à la Jeunesse, Ministère de la Santé et des Sports (2009, page 2).

Employment figures in heads are reported in item 6 of the publication. NACE 2.0 codes are given below the table in the publication and could be converted back to NACE 1.1 used in this study (see Table 18). The statistical definition of sport is outstanding as there are more persons employed than in all other categories together. Retail trade, the second largest category, also employs more persons than all smaller categories together.

Speaking in terms of the three principal sectors, production appears only as NACE 35 and 36 while services comprise the rest of the table. Therefore nearly 90% of sport-related employment in France is generated in services (see section 9 for a country comparison). This imbalance can be explained in a number of ways. One possibility is that the vast majority of sport-related goods are imported and only the services are provided in France. Although sport-related imports are reported to be higher (see below), the difference is not large enough to explain the distribution in employment. Another explanation relates to the fact that employment is measured in heads, not full-time equivalents. Part-time employment in trade is common. Sport clubs account for 74,296 employees in NACE 92.6. It can be assumed that there many part-time jobs, thus leading to many more heads employed than full-time equivalents. However, the discrepancy between production and services is too large to be explained by this alone. It is possible that many French products are not counted as sport-related officially, i.e. the official French definition of sport is narrower in the production sectors than in services. To clarify these issues, a fully-fledged national IOT:S is recommended.

These employment data were then used to estimate sport-related gross value added and production value by applying the ratio of the original (sport plus non-sport) sectors.

Table 18: Employees in heads, estimated gross value added, and estimated production value in the French sport industry 2005

NACE 1.1	Employees in heads	Gross value added, bn €	Production value, bn €
35 Prod. of other transport equipment	12,058	0.767	4.403
36 Prod. of furniture; other manufactured goods n.e.c.	7,032	0,270	0.803
52 Retail trade services	50,234	1,817	2.974
71 Renting services of machinery and equipment	1,502	0,216	0.415
92.6 Statistical Definition of Sport	91,773	6,344	12.902
93 Other services	9,650	0,317	0.447

Source: Employees: Le Haut Commissaire à la Jeunesse, Ministère de la Santé et des Sports (2009), page 4. Gross value added and production value: SpEA 2012, own calculations

A summary of foreign trade as reported in item 4 of the French publication transformed into NACE 1.1 is given in Table 19. NACE categories unfortunately are not exactly the same as for employment. This, however, shows that there is sport-related production in other categories than in 35 and 36 – otherwise all exports of category 18, 19, and 29 must have been imported first. There is demand for clothes and shoes amounting to 3.8 bn Euro (see Table 17) which cannot be covered by imports. Thus there has to be a considerable sport-related production in categories 18 and 19 which does not show up in the data of Table 18.

Table 19: Foreign trade of sport-related goods in France in 2005

NACE 1.1	Exports	Imports
18 Wearing apparel; furs	138.5	260.5
19 Leather and leather products	213.1	480.6
29 Machinery and equipment n.e.c.	53.9	88.1
35 Prod. of other transport equipment	1519.9	1221.4
36 Prod. of furniture; other manufactured goods n.e.c.	246.2	232.7
Others	584.1	894.9
Total	2755.7	3178.2

Source: Employees: Le Haut Commissaire à la Jeunesse, Ministère de la Santé et des Sports (2009), page 3.

All other data in the above tables were treated similarly:

- Values were entered in the appropriate cells of the IOT:S,
- Differences were calculated:
    - import + production = export + consumption (+ capital formation)
    - total supply = total use

  - total intermediate consumption + gross value added = production value
  - production Value + import = total supply
  - intermediate consumption + export + consumption (+ capital formation) = total use
- Missing values were calculated by suitable methods (e.g. ratios of gross value added to production value in original categories were applied etc.).

Thus values for categories 18 (Wearing apparel; furs), 19 (Leather and leather products), 29 (Machinery and equipment n.e.c.), 35 (Prod. of other transport equipment), 36 (Prod. of furniture; other manufactured goods n.e.c.), 52 (Retail trade services), 64 (Media Rights), 71 (Renting services of machinery and equipment), 92.6 (Statistical Definition of Sport), and 93 (Other services) could be calculated such that they fulfil all requirements of an Input-Output Table. For 75 (Public Administration), 80 (Education), and Health (85), international data bases (see section 6) were used. The remaining services plus category 45, Construction, were approximated by the according shares of the UK-economy.

The result was an IOT:S of France with all publicly available data inserted. Although some more production-side values could be calculated during the process, the vast majority of gross value added and production value remain in the services leading to the results in the strength-weakness analysis in section 9. A fully-fledged IOT:S is required to overcome these issues.

7.4 Issues related to Input-Output Tables

Although the availability and standardisation of national IOTs has improved substantially even during the lifetime of this project, there are some problems which should be mentioned.

One of them was the already noted NACE x NACE IOTs of Denmark, the Netherlands, and Finland. Even though they are useful in many cases, they are not a perfect match with the standard CPA x CPA IOTs of the remaining EU-members.

Exports of services are sometimes not reported: most remarkably this is the case for France's in CPA 55, Hotels and restaurant services. These services report a total use of more than 76 bn Euro, but there are no exports listed in the French IOT. This could arise from the interpretation that the service was provided in France and thus it is not considered an export. In most other countries however (e.g. in Germany), it is considered to be one, if it is demanded by a foreign guest. Also in the UN-foreign trade data base (see chapter 5.3) every country's CPA 55 reports exports to almost all other countries. So there was the dilemma of which data to use. As an IOT is a tightly woven web, changes in one entry can affect many others, in the worst case leading to a chain reaction rearranging the whole IOT. Thus the IOTs were retained as they were whenever possible.

Reporting of CPA 75, Public administration: In Spain and Romania CPA 75 is exclusively demanded by the government. There is no intermediate or private demand of any kind reported. In most other countries however, one can find positive entries in these categories, often reaching several billion Euro, or up to 6% of total consumption. In Austria, the Czech Republic, Finland, and Italy the share of private consumption in total consumption is clearly

less than 1%. It seems as if there can be a margin of discretion what can be reported as privately demanded public administration.

This situation is not so harsh but still observable in the case of CPA 80, Education, and CPA 85, Health, where the share of private consumption in total consumption can vary between 4% and 36% and 8% to 53% respectively. It is questionable whether these differences can be explained by differences in the public systems alone.

Inappropriate negative entries in the IOT are frequently reported. For example, Romania's CPA 60, Land transport, lists imports of -252 m Euro.

The IOT of Luxembourg contains some confidential data. They were estimated by using information from Belgium.

The sum of intermediate goods plus taxes less subsidies does not equal total intermediary consumption in many of Lithuania's CPA categories from 64 to 92.

No values are reported for CPA categories 90 to 95 in Romania.

Finnish land and water-transport (CPA 60 and 61) report negative values.

Private consumption of basic metals (CPA 27) and exports of insurances (CPA 66) are negative in Denmark.

7.5 International Trade Data

In the case of International Trade data, the greatest difficulty so far was the creation of a matrix that can process the UN data content. This difficulty has been negotiated. The most challenging task in the immediate future remains the collection of appropriate detail in service data, so that a sport element can be derived.

Although all countries have problems reporting service-related foreign trade data, Spain, Sweden, and the UK have to be mentioned as particularly problematic in the UN data. Improvement of foreign-trade data availability for these three countries would increase the quality of the model as one could rely on one data source only without having to merge UN with OECD service data.

8 Employment

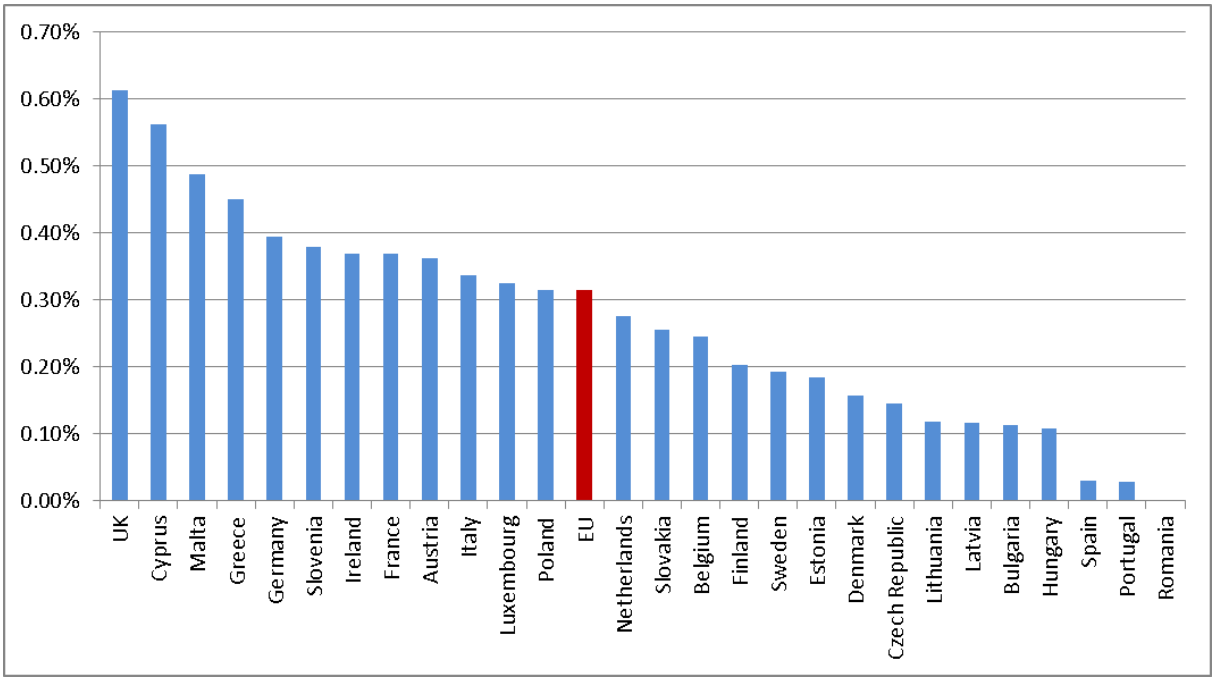
Employment effects were computed in heads since data of full-time equivalents are incomplete. Basic data came from Eurostat Structural Business Statistics (retrieved in March 2012) where NACE activities 10 to 74 are covered. The separation between sport and non-sport was done by “structure transfer” a standard method used by the national statistical offices. This simply means that the ratio of value added to employment of a classification is used for its sub-classifications too. Thus we assumed that the value added per employee within one 2-digit category is the same for sport and for non-sport goods; whether a building is sport- related or not does not make a difference for value added. As the correlation coefficient was found to take on values clearly above 90% for the sub-sets in the SBS, this method seems to be very appropriate for the sport- and non-sport sub-sets too. Employment of the remaining goods and services was calculated as the difference between total employment (from Eurostat, Labour Force Survey) minus the aggregated SBS-employment (of NACE 10 to 74) split according to value added. It is however possible that SBS and LFS employment data differ since. For the case of Austria, Statistics Austria is only required to include companies with a yearly turnover of more than 10,000 Euro in their SBS. Whether this rule is valid for other EU-countries could not be clarified.

Employment data for Poland and the UK were delivered by the research teams who calculated the respective national Sport Satellite Accounts. This data is likely to be modelled according to the special characteristics of those countries.

In this chapter, nationwide aggregate sport-related employment is discussed. For sectoral data see chapter 14 and the Annex.

The definition of 92.6 (in the Vilnius Definition known as “Statistical Definition of Sport”) contains everything named in the CPA classification of national accounting as “Sport”.

Figure 8: Statistical Definition: share of national employment, in % of heads

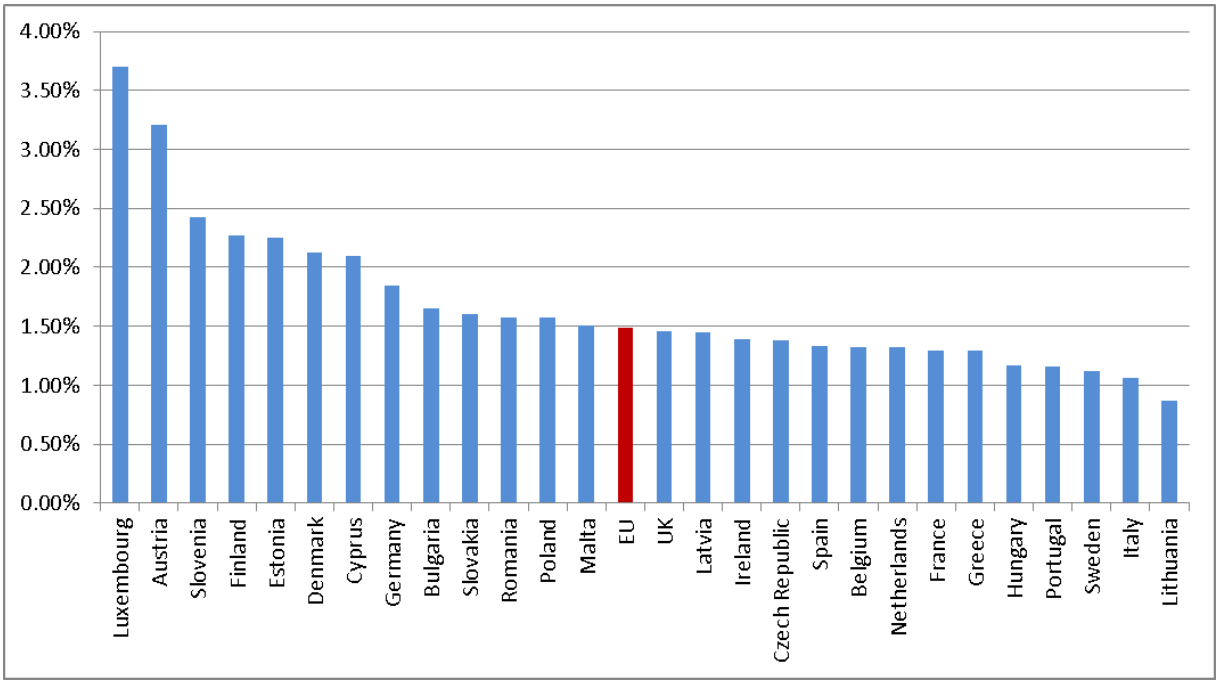


Source: SpEA, 2012.

According to this categorisation UK, Cyprus, and Malta achieve the highest values within the EU-27 (see Figure 8). Greece, Germany, Slovenia, Ireland, France, Austria, Italy, Luxembourg, and Poland are also above the EU average of 0.31%. It seems notable that these are mainly countries with high GDP or classical holiday destinations. The Nordic countries as well as many eastern countries are found below the average together with a few others. However, data is not always perfectly comparable. More national SSAs would certainly bring clarity here.

The Narrow Definition of Sport comprises everything of 92.6 (Statistical Definition of Sport) plus all goods and services that are needed to do sport, thus all inputs to sport. Values therefore must be higher (see Figure 9). The shares of national employment within this definition are more evenly distributed. There is a group of small countries, Luxembourg (3.70%), Austria (3.21%) and Slovenia (2.43%) which rank first, being a result of sport tourism and other sport-related services. Employment in the narrow definition is also in well above the average in Finland, Estonia, and Cyprus. Most other countries achieve an employment share near the EU mean value of 1.49%. Whether Greece, Sweden, and Italy really drop so far back compared to the Statistical Definition of Sport discussed in the above paragraph can only be answered when national IOTs:S are available for them.

Figure 9: Narrow Definition: share of national employment, in % of heads



Source: SpEA, 2012.

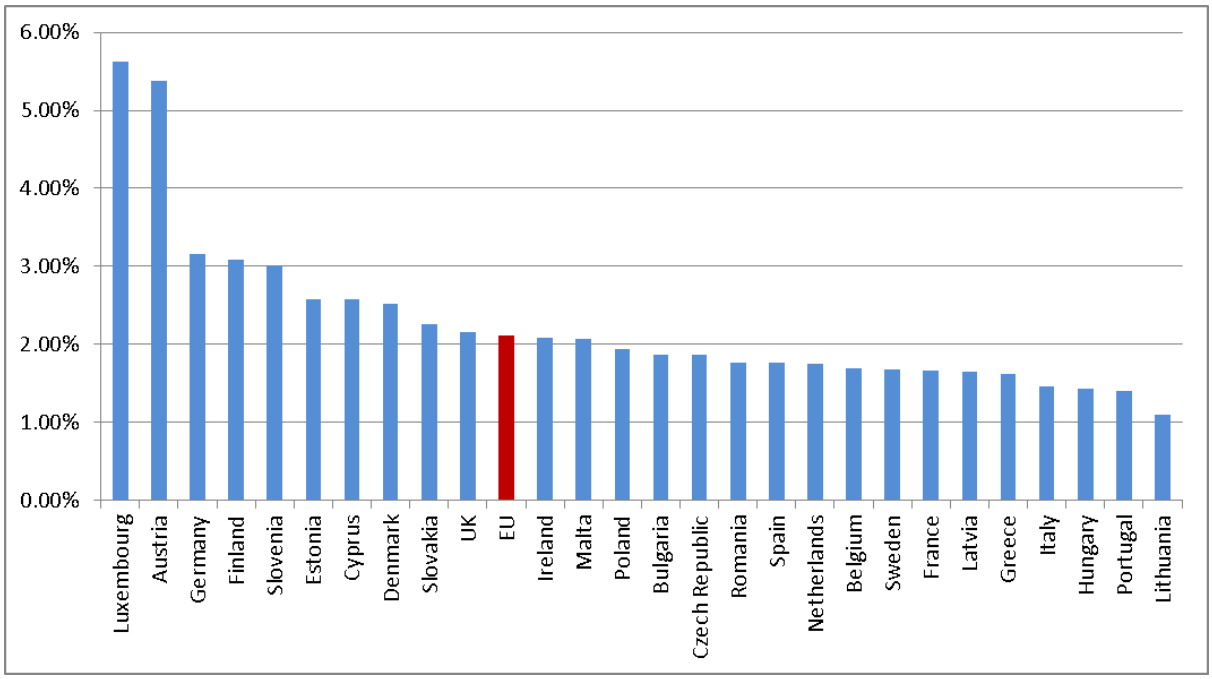
The Broad Definition of Sport includes the Narrow Definition of Sport and in addition all goods and services that need sport as an input. This includes the hotel industry, sports medicine, sport journalism, and so on. Its employment effect is shown in Figure 10.

Luxembourg's result (5.63%) has to be interpreted with care. As a centre for financial services, there are many consumers from Belgium, France, and Germany who work and buy goods and services there but live abroad. So there is a substantial effect from foreign residents which is then assigned to residents of Luxembourg only. A national IOT:S would certainly shed some new light on that topic.

The other outstanding result, Austria (5.38%), is caused by its exposure to winter tourism and the related employment in hotels and restaurants which are only part of the broad definition. The importance of winter tourism for Austria (of which a large part is sport-related) is reflected in the fact that in the winter months of 2005 (November, December, January, February, and March) 9.1% of all overnight stays in the EU were reported by hotels in Austria (Eurostat Tourist data base). Only much larger countries like Spain, Germany, the UK and Italy show higher numbers. While Austria produces these 9.1% of overnight stays in winter, it represents only a share of1.8% of employees in the EU (Eurostat, Labour Force Survey). Therefore winter tourism contributes disproportionally high to Austrian employment in hotels and restaurant services compared to the rest of the EU.

Germany, Finland and Slovenia have sport-related employment according to the broad definition representing more than 3% of total employment. Estonia, Cyprus, Denmark, Slovakia, UK, Ireland, and Malta have values slightly higher than the EU average of 2.12%. Most other countries reach values just below the EU average.

Figure 10: Broad Definition: Share of national employment, in % of heads



Source: SpEA, 2012.

Positions of EU countries do not change substantially when looking at the Narrow or the Broad Definition of Sport as indicated by a correlation coefficient of 0.93 between the ranks of the countries in each definition. In the Statistical Definition, though, several countries are in a partially quite different position (correlation coefficient between the broad and the narrow definition is only 0.31). UK, Malta, and Greece, for instance, change from having the highest sport-related percentages on the narrow definition to positions close to the EU average on the broad definition.

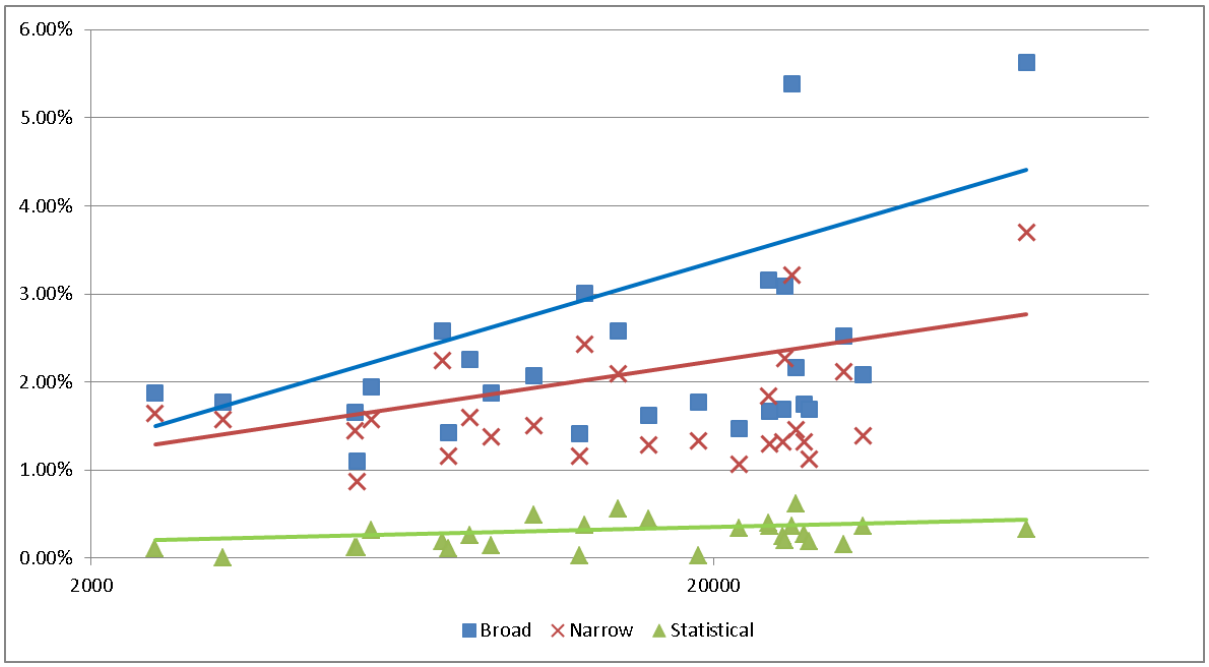
The scatter-plot shows the employment effects of the three categories (Statistical, Narrow and Broad Definition of Sport). The x-axis illustrates the (log of the) GDP per person of the EU countries while the y-axis indicates the share of employment in sport. Hence a 1% increase of GDP per capita in a country is expected to increase the share of sport-related employees by a 0.0061 per cent in the broad definition.[17] That is, if a country's GDP per capita is twice that of another country the increase equals 100%. The expected difference in share of employment in sport is thus 100 x 0.0061 = 0.61 per cent. However, Luxembourg and Austria, having more than 5% of employment shares, pull the regression line upward. A detailed regression analysis would be necessary to deal with these outliers[18], but that would be out of the scope of the study.

The same regression results hold true for the narrow and the statistical definition with values of 0.0027 and 0.0009 per cent per 1% increase in GDP.

[17] Due to this triangular shape of the point-clouds, the variance of y is not constant along x. Thus p-values cannot be interpreted meaningfully and were accordingly not computed. Although the regression line has no explanatory power, it still serves as the best description of the point cloud according to the method of least squares.

[18] "Outliers" here means that the data points are very different from the rest. It does not indicate wrong measurements!

Figure 11: Employment shares in sport and GDP per capita



Source: SpEA, 2012.

9 Strength/Weakness Analysis in a Country Comparison

Strength and Weakness Analysis is an instrument originating in business economics which helps an organisation to identify both internal strengths and weaknesses that it faces in the competition with others. An organisation as the unit of analysis can be replaced by a country for our purposes. Results and findings on the grounds of economic studies are brought into a structured and communicable form. Strength and Weakness Analysis is thus a form of expression of results gained with any appropriate methods and is not a method of analysis by itself. In outlining the strengths and weaknesses, approaches for developing strategies can be found (see Fischer, Pfeffel (2010), p. 92 et seq.).

Strength and Weakness Analysis therefore is a situation assessment of internal factors that provides insight into a country's resources and capabilities within its competitive environment. In a broader concept, the analysis of strengths, weaknesses, opportunities and threats (SWOT Analysis) information is grouped into two main categories: internal factors and external factors. The external factors are the opportunities and threats presented by the external environment. These may include global macroeconomic matters, technological change, and socio-cultural changes. Analysing these external factors goes beyond the scope of this study.

The internal factors can be viewed as strengths and weaknesses depending upon their impact on the country's objectives. What may represent strengths with respect to one objective may be a weakness for another. Strengths describe the positive attributes, tangible and intangible, which are internal to the country and add value or offer the country a competitive advantage. These are all within the country's control. What does it do well, what resources does it have? What advantages does it have over its competition?

Weaknesses are factors that are within the country's control that detract from its ability to obtain or maintain a competitive edge. Weaknesses can include limited resources, lack of access to skills or technology, inferior service offerings, or poor location. These are factors that are under the country's control, but, for a variety of reasons, are in need of improvement to effectively accomplish an objective (see Chelst, Canbolat (2012), p. 520 et seq.).

Strength and Weakness Analysis can be applied in the form of comparing countries that compete with each other in a market, as the Member States of the European Union. A ranking in certain areas illustrates relative strengths and weaknesses of a country compared to the other countries considered.

The concept applied below for the Strength and Weakness Analysis of the sports market of the EU Member States is a relative one in a twofold sense. First, strengths and weaknesses are attributes out of a ranking of the Member States. Second, the factors considered are the share of sport-related products in the value added of a product category of the single country. The ranking position of a country therefore does not reflect economic strength, not even in a per capita sense. A relatively less rich country has the same chances to get a high rank as a relatively rich country, as long as the share of sport-related products in a product category is

relatively large nationally. Strength and weakness thus means strength and weakness of sport in a product market compared to other countries of the European Union. This is an adequate concept for looking at the impact of sport on the economy within the country's capabilities. The absolute size of a product market inside a country or within the single market is not considered in this context as the economic importance of sport in a product-differentiated national market is examined.

9.1 Relative Strength and Weakness in the Goods and Services Sectors

In what follows, low numbers mean a high ranking ranging from 1 to 27. The countries of the European Union were ranked according to their share of sport-related production in the corresponding product markets. A ranking of one, for example in sports nutrition, means that the share of sports nutrition in the sector of production of foods and beverages of this country is higher than in any of the other countries. A ranking of 27 means, that a country has the lowest share of sports nutrition in the sector of production of foods and beverages, both in terms of gross value added.

In a first assessment, the rankings in the single product markets were averaged for each country over the two groups, goods and services. Trade, research and development, public administration, education and health services are not considered within the two groups.[19]

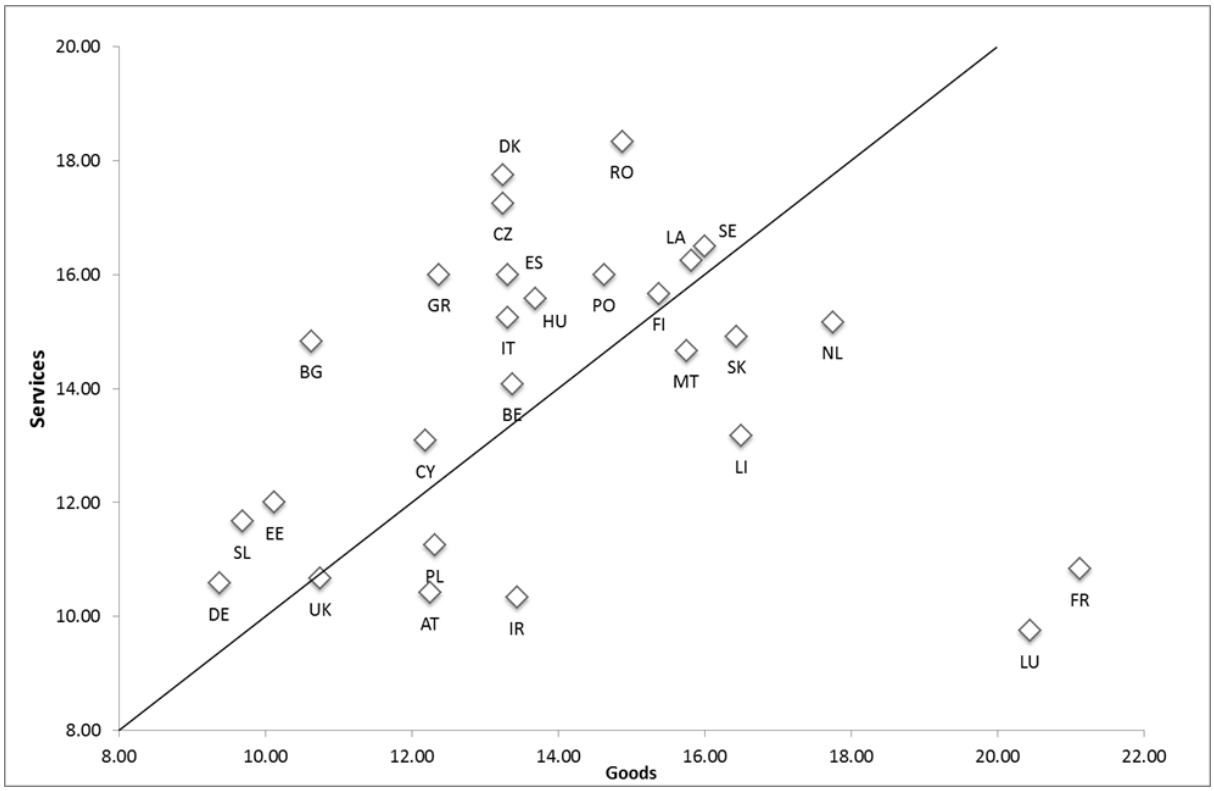
Germany has a very strong position in both the goods and services sectors. With slightly greater relative strength in the goods sectors, Germany has high rankings for example for its sports nutrition market and its manufacture of sport suits (outwear, ski suits, gloves, etc.). High rankings in the service sectors come from sport tourism and sports insurance sectors.

The United Kingdom, Ireland, Austria and Poland have a high ranking in the services sectors and, except for the United Kingdom, are somewhat lower ranked in the goods sectors. The four countries have above average rankings in most of the good sectors, middle rankings for example in the sports nutrition and sport suits sectors and some low rankings in the manufacture of transport equipment, such as sailboats. All three countries have relative strengths in the service sectors.

Figure 12 shows averages of the rankings in the respective sectors, so that extreme values do not appear, as a country with a value of 27 would have the worst ranking in all goods or service sectors. Being close to the 45 degree line means an equal relative strength/weakness of the goods and service sectors. Being left/above of the 45 degree line means a higher ranking in the goods sectors than in the service sectors and vice versa.

[19] The goods sector includes CPA categories 1, 15, 17-19, 22-25, 28, 29, 33-36, and 45; the services sector includes CPA categories 55, 60-66, 71, 74, 92, and 93.

Figure 12: Ranking in the goods vs. the service sector of the EU Member States



Source: SpEA, 2012.

Slovenia and Estonia compare to Germany in the goods sectors but have a slightly lower ranking in the services sectors. For both countries, nearly all rankings in the manufacturing industry are above average. High rankings come for example from manufacture of sporting equipment (e.g. sporting boats and surfboards). In the service sectors, both countries have a number of good rankings.

Above average in both, the goods in the service sectors are the rankings for Cyprus and Belgium. Printing of sport periodicals is a relative strength too. Also, Cypriot sporting services, the core of sport-related economic activity, have a relative good ranking.

The group of countries with a medium range of rankings, equally in the services and goods sectors, consists of Finland, Sweden and Latvia. Finland and Sweden have strength in sport tourism in terms of spending of sport tourists on hotels and restaurants. Latvia has relatively good rankings throughout the service sector. Another, closely related, group, but with better rankings in the service sectors, is formed by Lithuania, the Netherlands, Malta and the Slovak Republic.

On the other side of the 45°-line, there are those mid-range countries, which perform (slightly) better when it comes to the production of sport-related goods.

Below the line, where countries with good service-performance are placed, a majority of small countries, with the exception of the UK and Poland, can be found. It seems that for these small countries it is easier to provide sport-related services. If one assumes that the production of goods provides substantial economies of scale, large, economically powerful countries are certainly more favoured in producing goods. A second cause is that it is hard to transport most services and none of them can be stored. So one has to produce them regionally, no matter how small the economy is. Thus there is always a certain amount of services produced per inhabitant (e.g. sport education), while production of goods is often left to larger economies. Services thus have a heavier weight in smaller regions.

France and Luxembourg have an extreme position in this figure, as they have a very strong position in the services sectors, comparable to Germany, but below average rankings in the goods sectors. The reason for Luxembourg is its small size which leads to an absence of production facilities. In the case of France, data availability is very much focused on services (e.g. more than one half of the reported employees are listed in the various sport services of the Statistical Definition of sport and more than half of the rest is listed in retail trade services.) More details are given in section 7.3. Both countries underline the necessity of fully-fledged national IOTs:S as only they can deal with such kinds of problems properly.

9.2 Conclusion of Strengths and Weaknesses

In order to set up a Strength and Weakness Analysis of the sport-related shares of the product markets of the European countries, they were ranked according to their relative shares of sport products in each sector, measured in terms of gross value added.

There are countries with a relative strength in both goods and services, above all Germany, followed by the United Kingdom, Ireland, Poland and Austria, which are slightly better ranked in the service sectors, and Slovenia and Estonia, which are slightly better ranked in the goods sectors. Cyprus and Belgium have a balanced ranking when the goods and service sectors are compared. Lithuania has its strength in the service sectors, whereas Bulgaria has very good rankings on average in the goods sector, but average rankings in the service sectors. The other countries have average rankings in both, the goods and the service sectors. Sweden, Finland, Latvia, the Slovak Republic, Malta and the Netherlands have better rankings in the service sectors than in the goods sectors and the other countries are relatively stronger in the goods sectors.

It is noteworthy that almost all countries which perform better with sport-related services are rather small. There are at least two plausible explanations: firstly, it is much easier to transport and store goods than services, so the latter have to be produced locally, no matter how small an economy is. Secondly, production of goods yields substantial economies of scale, favouring large countries.

10 Analysis of Growth Potentials

Sport represents a large and fast-growing sector of the economy and makes an important contribution to growth and jobs, with value added and employment effects exceeding average growth rates (see White Paper on Sport (2007), p. 10). A Sport Satellite Account constitutes an important database to analyse the contribution of sport to economic and productivity growth and the growth rates of the sport-relevant parts of the sectors themselves. As growth and growth rates are dynamic approaches, this kind of analysis has to be based on Sport Satellite Accounts in two different points in time in order to determine the relative change in sport-related and overall output.

At the current state of setting up the first Sport Satellite Account for the European Union, these calculations are not achievable. Alternatively the output multipliers that capture the direct and indirect effects of an increase in final demand of the sport-related product markets can be used as an indicator for the growth potentials of sport as they measure the economic impact in terms of output growth, where output constitutes final demand and intermediate consumption.

We will focus on relatively small (compared to other) sport-related business sectors that also have a relatively high national multiplier effect. As they are small, their own growth potential will in general be higher than in fully developed sport-related areas. The relatively high multiplier effect additionally indicates a large share of the rest of the economy to benefit from this growth through a considerable interdependence with other sectors of the economy. Sectors that show a significantly lower share of sport-related services or production compared to the European average will also be considered if the corresponding multiplier is relatively high, as this indicates growth potential too.

10.1 Common Growth Potentials

10.1.1 Sports Nutrition

Sports Nutrition markets, for example protein-based bars, powders and beverages, exhibit high growth rates worldwide. As shown in Table 20, Germany has a considerable sports nutrition share in the foods and beverages markets, accounting for more than 1 % of German food production. For the other EU Member States, however, the share of sports nutrition in food production is much smaller. The indirect effects on the domestic industries are at the same time relatively high. The multipliers are 2.0 or even larger for Finland, France, Hungary, Italy, Poland and Spain. They are above 1.5 for almost all other countries. Since France does not report production of sport-related food and beverages, its multiplier is neither shown in the table nor used to calculate the average multiplier. As a market exhibiting high growth rates itself, the sports nutrition market may represent an important growth potential in European countries.

Table 20: Sports Nutrition, Gross Value Added and Multipliers

CPA 15: Sport related Food and Beverages			
Country	Gross Value Added		Domestic Multipliers
	Market Prices, Mio €	% of total Sector	
AT	14.6	0.33%	1.65
BE	5.4	0.09%	1.63
BG	0.5	0.08%	1.96
CY	1.2	0.42%	1.91
CZ	2.0	0.09%	1.96
DK	1.9	0.05%	1.80
EE	0.4	0.19%	1.63
FI	3.0	0.13%	2.08
FR	25.6	0.00%	
DE	326.6	1.02%	1.84
GR	15.3	0.34%	1.79
HU	0.8	0.05%	2.13
IR	16.4	0.39%	1.78
IT	1.8	0.01%	2.00
LA	0.3	0.04%	1.83
LI	0.3	0.05%	1.76
LU	0.7	0.12%	1.33
MT	0.6	0.65%	1.44
NL	2.3	0.02%	1.85
PL	14.9	0.24%	2.26
PO	0.5	0.02%	1.85
RO	1.1	0.02%	1.84
SK	0.7	0.08%	1.74
SL	0.5	0.11%	1.74
ES	1.6	0.01%	2.21
SE	7.0	0.19%	1.73
UK	147.7	0.51%	1.72
EU	593.6	0.30% *	1.83 **

* GVA-weighted EU-wide average

** Unweighted average, excluding France.

Source: SpEA, 2012.

10.1.2 Sports Insurance

There are a number of sport insurances already existing on the insurance market, for example winter sports insurance, risk sports insurance, or infrastructure insurance for sport events. Together with pension funding services for professional athletes, this insurance branch may further expand, as can be seen in Table 21. While sports insurance and pension funding has a share of 1% and higher in Austria, Cyprus, Finland, Germany, Ireland and Malta, this share is much lower in most of the other countries. Given the high risks

embedded in many sport activities, insurance companies could seek new growth potential in insuring sport risks.

Table 21: Sports Insurance and Pension Funding, Gross Value Added and Multipliers

CPA 66: Sport related Insurance and Pension Funding Services			
Country	Gross Value Added		Domestic Multipliers
	Market Prices, Mio €	% of total Sector	
AT	34.6	1.16%	1.66
BE	4.8	0.17%	1.83
BG	0.6	0.57%	1.89
CY	2.8	3.17%	1.62
CZ	0.9	0.33%	2.22
DK	4.1	0.18%	1.57
EE	0.3	0.79%	1.72
FI	7.7	1.37%	1.71
FR	88.2	0.26%	1.86
DE	239.2	2.10%	2.23
GR	1.9	0.25%	1.47
HU	3.1	0.63%	1.85
IR	97.4	2.78%	1.73
IT	4.0	0.05%	1.91
LA	0.1	0.25%	1.75
LI	0.0	0.00%	
LU	3.0	0.49%	2.07
MT	1.8	3.38%	1.38
NL	8.1	0.08%	1.60
PL	5.5	0.26%	1.66
PO	8.7	0.63%	1.49
RO	0.5	0.22%	1.59
SK	1.1	0.23%	1.55
SL	1.3	0.56%	1.79
ES	40.2	0.78%	1.86
SE	24.4	0.91%	1.37
UK	45.3	0.26%	2.11
EU	629.5	0.68% *	1.75 **

* GVA-weighted EU-wide average

** Unweighted average, excluding Lithuania.

Source: SpEA, 2012.

The indirect effects on domestic industries of an increased demand in sports insurance is expected to be high too, as indicated by domestic multipliers around 2.0 for countries such

as the Czech Republic, Germany, Luxembourg and the UK and above 1.5 for most other countries.

10.1.3 Economic and Legal Consultancy

Activities such as legal advice, finance and accounting, consultancy and public relations have still very low shares for sports people, sport clubs or professional athletes, except in the United Kingdom.

Although a lot of the activities, of for example sport clubs, are at a semi-professional or voluntary level and are not supported by consulting activities, the overall trend on increased need for economic and legal consultancy[20] could also affect sport-related businesses. Potential growth in this sector related to sport would have an important economic impact on output of other products, as can be seen in Table 22. Domestic multipliers are below the multipliers discussed in the previous two sections on average, but are still around or above 1.5 for most countries and are around 1.8 to 1.9 for Bulgaria, the Czech Republic and Portugal.

[20] The average annual growth rate of gross value added of legal and economic consultancy (M69 and M70, Nace Rev.2) was three times higher than the average annual growth rate of gross value added of all Nace activities. See Eurostat, National Accounts by 64 categories.

Table 22: Economic and Legal Consultancy for Sport Clubs and Professional Athletes

CPA 74: Legal, Financing, Accounting, Services, PR activities for Sport Clubs and professional Athletes			
Country	Gross Value Added		Domestic Multipliers
	Market Prices, Mio €	% of total Sector	
AT	24.8	0.16%	1.62
BE	68.8	0.24%	1.72
BG	1.4	0.23%	1.85
CY	7.8	1.27%	1.22
CZ	1.2	0.02%	1.89
DK	6.1	0.05%	1.54
EE	1.6	0.28%	1.49
FI	2.8	0.04%	1.49
FR	6.5	0.82%	1.67
DE	41.8	0.02%	1.48
GR	1.2	0.03%	1.65
HU	4.8	0.08%	1.52
IR	216.2	2.43%	1.27
IT	5.8	0.01%	1.73
LA	0.6	0.13%	1.48
LI	1.4	0.21%	1.53
LU	4.0	0.19%	1.20
MT	2.5	0.87%	1.46
NL	8.2	0.02%	1.55
PL	190.4	1.49%	1.74
PO	1.0	0.01%	1.76
RO	3.6	0.83%	1.55
SK	2.1	0.09%	1.58
SL	2.3	0.13%	1.55
ES	0.0	0.00%	
SE	0.0	0.00%	
UK	1406.2	0.83%	1.59
EU	2013.1	0.25% *	1.56 **

* GVA-weighted EU-wide average

** Unweighted average, excluding Spain and Sweden.

Source: SpEA, 2012.

10.2 Country Growth Potentials

In the discussion of growth potentials for selected sport-related products in the Member States of the European Union we focused on industries that add to the previously considered sectors in which sport-related products have a relatively small share in the corresponding

sector, while indirect effects of an increased demand on the rest of the economy, as indicated by the domestic multiplier, are relatively high.

The formal criterion for selecting sport-related products for potential economic growth was that the products were chosen by the ranking of their domestic multiplier effects. First of all they had to show a large difference between domestic and EU values in their share of gross value added in their respective sector of the economy. Secondly, they also had to represent relatively small markets. Sectors heavily depending on other sectors – such as land transport, air transport or post and telecommunication services depending on growth of sport tourism – were not chosen.

Common trends of the countries of the European Union can be found in the sports nutrition market, which could face high growth rates for the majority of the countries, as the share of gross value added of the production of sports nutrition is relatively small. The multiplier effects on the intermediate consumption of other sectors of the national economies are at the same time rather high. A similar constellation exists for insurance of sport activities and sport events which indicates growth potentials of this sector as small shares in gross value added contrast with the high risks in sport so that it could get more attractive to demand sport insurances. The domestic multiplier effects in this sector are also relatively high with indirect effects on the economies therefore considerable. The sectors legal advice, finance and accounting, consultancy and public relations also have very low shares for sports amateurs, sports clubs or professional athletes, which could indicate above average growth rates, with indirect effects on the national economies comparably high.

Sport tourism, measured as the share of spending of sport tourists for hotels and restaurants in total spending on hotels and restaurants bears potential growth for most of the Mediterranean countries, as well as the Czech Republic, Denmark, Hungary, Latvia and Lithuania. At the same time the respective domestic multipliers indicate considerable indirect effects. A gap between the EU average and national shares in gross value added can also be found in the activities of travel agencies in Austria, Belgium, Finland, France, Ireland, Latvia, the Netherlands and Spain. Again, this sector has relatively high domestic multiplier effects. As its absolute size is likely to be highly correlated with sport tourism, its ability to grow as a single service is limited.

The majority of EU countries have relatively low shares of sport media in the media sector, while increased demand for sport periodicals would induce sizeable intermediate consumption in the rest of the economy, as indicated by domestic multipliers.

11 Identification of Key Sectors

Following the theory of growth poles several sectors in an economy can play a key role as drivers of regional growth. In this sector-oriented explanation of regional growth so-called key sectors are responsible for uneven spatial development.

A key sector is mainly characterised as causing more stimuli to related sectors than it receives from them. Growth stimuli are caused by backward (demand of inputs from other industries) and forward (supply of inputs to other industries) connections with other sectors.

To identify key sectors different approaches have been developed. One of these approaches comes from Rasmussen (see Hewings and Jensen (1986), Hübler (1979), or Miller and Blair (1985)) who relates the production stimuli of one sector (to all the other sectors) to the national average of production stimuli.

The results for the sport-related categories of the EU-27 are shown in Table 23. The green-shaded fields, especially the dark ones, indicate key sectors in each country, i.e., CPA-categories which spread more stimuli than they receive.

The table shows that there are three categories that play a vital role in many countries. These are CPA categories 15 (Food products and beverages), 45 (Construction work), and CPA 63 (Supporting and auxiliary transport services; travel agency services). This means that those three categories have large forward and backward linkages and are therefore strategically important to the countries.

The Rasmussen Index also shows that key sectors are also quite concentrated in CPA 50 to 66 (trade, hotels and restaurant services, transport sectors, financial intermediation and insurance) in many countries. CPA 22 (Printed matter and recorded media) is also a key product for 25 countries, although often not very much above the average. For all the other categories national characteristics in the production chain and import linkages are responsible as to whether a category plays a key role or not.

Table 23: Rasmussen indices of the EU-27 countries

		AT	BE	BG	CY	CZ	DK	EE	FI	FR	DE	GR	HU	IE	IT
1	Products of agriculture, hunting and related services	1.04	0.95	1.04	**1.31**	0.96	0.69	1.05	1.19	0.66	1.00	1.03	1.19	1.20	0.86
15	Food products and beverages	1.14	1.11	1.18	**1.40**	1.17	1.24	1.10	**1.31**	0.66	1.18	1.28	**1.40**	1.23	1.13
17	Textiles	0.87	0.98	1.03	0.74	0.87	0.87	0.90	0.83	0.66	0.88	0.96	0.85	0.82	1.11
18	Wearing apparel; furs	0.76	0.81	1.02	0.79	0.73	0.77	0.94	0.74	1.18	0.80	0.99	0.93	0.73	1.11
19	Leather and leather products	0.87	0.74	0.89	0.73	0.71	0.73	0.77	0.77	1.00	0.76	0.88	0.87	0.71	1.17
22	Printed matter and recorded media	1.11	1.13	1.10	1.05	1.05	1.18	1.16	1.20	0.66	1.11	1.09	1.18	1.18	1.15
23	Coke, refined petroleum products and nuclear fuels	0.94	1.02	0.99	0.73	1.03	0.98	0.75	1.02	0.66	1.04	1.23	1.08	0.94	1.07
24	Chemicals, chemical products and man-made fibres	0.87	0.95	0.90	1.01	0.82	0.96	0.80	0.91	0.66	0.99	0.88	0.93	1.09	0.97
25	Rubber and plastic products	0.92	0.89	0.94	1.01	0.88	0.94	0.85	0.97	0.66	1.02	0.98	0.92	0.88	1.10
28	Fabricated metal products, except machinery and equipment	0.99	1.02	1.03	0.79	0.98	1.00	0.94	1.09	0.66	1.07	1.20	0.93	0.89	1.14
29	Machinery and equipment n.e.c.	0.96	0.87	0.86	0.86	0.86	0.96	0.78	1.06	0.85	1.07	0.84	0.89	0.81	1.12
33	Medical, precision and optical instruments, watches and clocks	0.84	0.79	0.85	0.75	0.79	0.91	0.84	0.92	0.66	0.93	0.77	0.82	0.96	0.93
34	Motor vehicles, trailers and semi-trailers	0.91	0.84	0.61	0.73	0.97	0.75	0.73	0.74	0.66	1.19	0.74	0.87	0.75	0.94
35	Other transport equipment	0.89	0.87	0.97	0.88	0.86	0.89	1.03	1.05	1.23	0.94	0.88	0.97	0.74	1.10
36	Furniture; other manufactured goods n.e.c.	0.97	0.81	1.02	0.74	0.92	1.00	1.11	1.03	1.13	0.99	0.95	0.94	0.69	1.17
45	Construction work	1.13	**1.42**	1.29	1.14	**1.37**	1.21	1.16	1.23	0.66	1.14	1.19	1.15	1.29	1.15
50	Trade, maintenance and repair services of motor vehicles and motorcycles; retail sale of automotive fuel	1.07	1.16	1.03	1.01	1.10	1.04	1.03	1.06	0.66	0.92	0.97	1.13	0.95	1.14
51	Wholesale trade and commission trade services, except of motor vehicles and motorcycles	1.07	1.15	1.25	0.73	1.05	1.13	1.11	1.12	0.66	1.04	1.03	1.19	0.78	1.08
52	Retail trade services, except of motor vehicles and motorcycles; repair services of personal and household goods	1.07	1.13	0.90	**2.77**	1.00	1.03	1.10	1.04	1.05	1.04	0.98	1.09	0.98	1.08
55	Hotel and restaurant services	0.99	1.07	1.03	1.01	1.06	1.15	1.14	1.13	1.19	1.03	1.09	1.27	1.16	1.04
60	Land transport; transport via pipeline services	1.08	1.13	1.23	0.97	1.06	1.13	1.20	1.03	1.09	1.07	1.17	1.03	0.99	1.08
61	Water transport services	0.76	**1.44**	1.09	0.73	0.95	1.26	1.30	1.03	**1.42**	1.18	1.11	0.91	1.21	1.29
62	Air transport services	1.23	1.22	1.20	1.20	1.02	1.22	**1.33**	1.14	1.10	1.27	1.00	1.10	1.08	1.09
63	Supporting and auxiliary transport services; travel agency services	1.28	1.20	1.25	0.94	1.25	0.84	**1.41**	1.16	1.13	1.17	0.87	0.99	**1.42**	1.15
64	Post and telecommunication services	1.18	1.05	0.96	0.88	1.02	1.17	1.17	1.22	1.15	1.11	0.86	0.96	1.16	0.99
65	Financial intermediation services, except insurance and pension funding services	1.07	1.04	0.82	1.09	1.11	1.01	1.01	0.92	1.18	1.05	0.93	1.04	1.02	0.89
66	Insurance and pension funding services, except compulsory social security services	1.14	1.24	1.14	1.19	**1.33**	1.08	1.16	1.08	1.22	**1.43**	1.05	1.21	1.19	1.08
71	Renting services of machinery and equipment without operator and of personal and household goods	0.95	1.09	0.83	0.94	1.07	1.28	0.98	0.97	1.16	0.80	1.10	0.80	0.97	1.07
73	Research and development services	1.05	0.97	0.83	0.73	0.75	1.03	0.94	0.77	1.22	1.01	1.13	0.92	0.80	0.99
74	Other business services	1.11	1.17	1.12	0.90	1.13	1.06	1.00	0.94	1.10	0.95	1.18	0.99	0.87	0.98
75	Public administration and defence services; compulsory social security services	0.96	0.87	0.96	0.89	0.95	0.97	1.00	1.00	0.94	0.90	0.96	0.85	1.04	0.57
80	Education services	0.82	0.76	0.81	0.81	0.82	0.91	0.92	0.88	0.84	0.82	0.81	0.84	0.91	0.57
85	Health and social work services	0.95	0.98	0.98	0.95	0.88	0.92	0.93	0.89	0.89	0.88	0.95	0.93	1.01	0.85
92	Recreational, cultural and sporting services	1.04	1.17	1.11	1.01	1.12	1.12	1.10	1.07	1.17	0.99	1.12	1.19	0.97	1.04
93	Other services	0.97	1.10	0.90	0.92	0.91	0.82	1.05	1.03	0.97	0.64	0.91	0.96	1.07	0.89

		LA	LI	LU	MT	NL	PL	PO	RO	SK	SL	ES	SE	UK
1	Products of agriculture, hunting and related services	**1.46**	1.13	0.97	1.00	1.06	1.13	1.00	1.14	1.10	1.03	0.99	1.11	1.04
15	Food products and beverages	1.28	1.25	1.03	1.01	1.28	**1.43**	1.19	1.22	1.15	1.18	**1.34**	1.16	1.09
17	Textiles	0.99	0.93	1.04	0.76	0.89	0.86	1.00	0.82	0.81	1.01	1.02	0.85	0.89
18	Wearing apparel; furs	1.07	1.01	0.77	0.84	0.73	0.98	1.08	0.94	0.88	1.00	0.91	0.73	0.76
19	Leather and leather products	0.86	0.87	0.77	0.70	0.74	0.88	1.00	0.88	0.95	0.91	1.02	0.76	0.71
22	Printed matter and recorded media	1.11	1.10	0.77	1.06	1.12	1.19	1.06	1.09	1.13	1.22	1.12	**1.31**	1.09
23	Coke, refined petroleum products and nuclear fuels	0.74	0.71	0.77	0.71	1.09	1.15	1.09	1.25	1.09	0.69	1.07	0.95	1.07
24	Chemicals, chemical products and man-made fibres	0.80	1.15	0.82	0.81	1.00	0.92	0.89	0.97	0.89	0.89	0.96	0.94	0.97
25	Rubber and plastic products	0.80	0.99	0.97	0.90	0.96	1.02	0.96	0.90	0.96	1.00	1.05	0.96	1.03
28	Fabricated metal products, except machinery and equipment	0.96	0.88	0.77	0.94	1.03	1.03	1.02	0.98	0.94	1.00	1.14	1.09	1.02
29	Machinery and equipment n.e.c.	0.81	0.78	1.00	0.77	0.96	0.91	0.85	0.86	0.91	0.95	0.92	1.07	0.96
33	Medical, precision and optical instruments, watches and clocks	0.77	0.85	1.07	0.92	0.79	0.86	0.78	0.82	0.80	0.84	0.78	0.98	0.87
34	Motor vehicles, trailers and semi-trailers	0.72	0.73	0.77	0.70	0.84	1.01	0.79	0.90	0.96	0.86	0.94	1.15	0.95
35	Other transport equipment	0.99	0.93	0.77	0.91	0.99	1.00	0.93	1.05	1.03	0.97	0.96	1.02	0.96
36	Furniture; other manufactured goods n.e.c.	1.01	1.07	0.78	0.86	0.88	1.17	1.05	1.03	1.02	0.97	1.05	1.02	0.93
45	Construction work	1.19	1.16	1.18	1.15	0.69	1.24	**1.34**	1.17	**1.34**	**1.36**	**1.40**	1.13	**1.31**
50	Trade, maintenance and repair services of motor vehicles and motorcycles; retail sale of automotive fuel	1.06	0.96	1.09	1.06	1.12	0.94	0.99	1.25	1.09	1.10	1.09	1.08	1.07
51	Wholesale trade and commission trade services, except of motor vehicles and motorcycles	1.23	1.03	1.17	0.70	1.05	1.14	1.11	0.95	1.10	1.15	1.02	0.67	1.19
52	Retail trade services, except of motor vehicles and motorcycles; repair services of personal and household goods	1.15	0.94	1.18	1.05	1.07	1.01	1.06	1.02	1.04	1.01	0.95	0.67	1.03
55	Hotel and restaurant services	1.18	1.12	1.26	1.20	1.05	1.16	1.11	1.11	0.91	1.08	1.03	1.19	1.04
60	Land transport; transport via pipeline services	1.06	0.98	1.01	0.98	1.04	1.12	1.11	1.09	1.08	1.08	1.10	1.09	1.14
61	Water transport services	1.12	0.92	0.93	0.70	1.23	0.63	1.28	0.99	0.76	0.97	1.27	1.17	1.05
62	Air transport services	1.07	**1.32**	1.19	1.29	1.26	1.13	1.20	1.01	1.07	1.08	1.05	1.15	0.99
63	Supporting and auxiliary transport services; travel agency services	1.21	1.02	0.92	1.03	1.14	**1.35**	1.02	1.11	**1.32**	1.24	1.22	**1.31**	**1.31**
64	Post and telecommunication services	0.98	1.02	0.97	1.12	1.11	0.63	1.10	0.90	1.02	1.14	1.09	1.25	1.01
65	Financial intermediation services, except insurance and pension funding services	0.95	1.05	**1.54**	**1.72**	0.99	0.99	0.92	0.76	0.92	0.96	0.80	0.94	0.94
66	Insurance and pension funding services, except compulsory social security services	1.22	0.71	**1.60**	0.97	1.10	0.63	0.96	1.06	1.03	1.21	1.13	0.92	**1.34**
71	Renting services of machinery and equipment without operator and of personal and household goods	0.95	1.00	0.92	1.18	1.04	0.98	1.00	1.20	1.13	1.02	1.02	1.06	1.04
73	Research and development services	0.92	1.15	1.00	0.70	0.90	0.97	0.87	1.22	0.95	0.93	0.92	1.07	0.97
74	Other business services	1.03	1.08	0.93	1.02	1.07	1.10	1.13	1.03	1.04	1.04	0.61	0.67	1.01
75	Public administration and defence services; compulsory social security services	1.02	1.06	1.02	1.01	1.08	0.85	0.85	0.89	0.97	0.98	0.87	1.07	1.05
80	Education services	0.93	0.93	0.87	0.81	0.89	0.80	0.76	0.92	0.85	0.84	0.73	0.97	0.89
85	Health and social work services	0.98	1.08	0.97	0.87	0.91	0.91	0.96	1.04	0.98	0.92	0.88	0.90	1.04
92	Recreational, cultural and sporting services	1.02	1.13	1.06	1.25	1.27	1.07	1.06	0.66	1.18	1.05	0.99	1.20	1.03
93	Other services	1.13	1.25	1.01	0.98	1.13	0.86	0.94	0.66	0.87	0.94	0.99	1.00	1.09

Source: SpEA, 2012.

12 Range of products

In terms of economic stability and independency of a country special attention has to be placed on the range of products offered in the country: the smaller the range of products offered the more susceptible to risk and dependence on imports the country will be.

One method to quantify the range of products is to consider the number of zeroes in the intermediate goods matrix of each country. The lower the number of zeroes, the more autonomous and the more independent the country is.

Taking into account all 94 categories of the European MRIOT Sport (sport-relevant and not sport-relevant categories) for the EU-27 countries the number of zeroes ranges from 1439 (United Kingdom) to 4859 (Romania), which corresponds to an amount of 16% to 55%. Therefore Romania has to import lots of its intermediate goods necessary in the production chain while the UK presents itself as the most autonomous country inside the EU.

Looking only at the sport-relevant parts of the table increases the dependency on imports for all countries except the UK where 510 cells or 16% (of the 94 x 35 sport-related matrix) show a value of zero. The most dependent country is again Romania with 2233 zeroes in its sport-related intermediate matrix which corresponds to an amount of 68%.

Table 24 shows the number of zeroes for each country in absolute and relative terms for the whole economy (94 sectors) as well as only the sport-relevant part of the economy (35 sectors). Grey fields indicate countries that are above the EU-27-average (31.3% for all categories and 39.4% for the sport-relevant categories) which can be interpreted as an above-average dependency or below-average autonomy.

Table 24: Product range of the EU-27 countries

	All Goods		Sport Goods	
	Zeros	Share	Zeros	Share
Austria	1910	0.22	809	0.25
Belgium	2320	0.26	969	0.29
Bulgaria	2738	0.31	1678	0.51
Cyprus	4789	0.54	1920	0.58
Czech Republic	2653	0.30	1193	0.36
Denmark	1892	0.21	1104	0.34
Estonia	2602	0.29	1290	0.39
Finland	1856	0.21	1006	0.31
France	3606	0.41	1860	0.57
Germany	2830	0.32	1170	0.36
Greece	2845	0.32	1301	0.40
Hungary	1636	0.19	847	0.26
Ireland	2376	0.27	1130	0.34
Italy	1881	0.21	957	0.29
Latvia	2697	0.31	1368	0.42
Lithuania	3140	0.36	1476	0.45
Luxembourg	4310	0.49	1893	0.58
Malta	2007	0.23	1156	0.35
Netherlands	2756	0.31	1218	0.37
Poland	1855	0.21	837	0.25
Portugal	2606	0.29	1107	0.34
Romania	4859	0.55	2233	0.68
Slovakia	4675	0.53	2186	0.66
Slovenia	2716	0.31	1224	0.37
Spain	2431	0.28	1049	0.32
Sweden	3311	0.37	1461	0.44
UK	1439	0.16	510	0.16

Source: SpEA, 2012.

13 Macroeconomic Effects of Sport - European Union

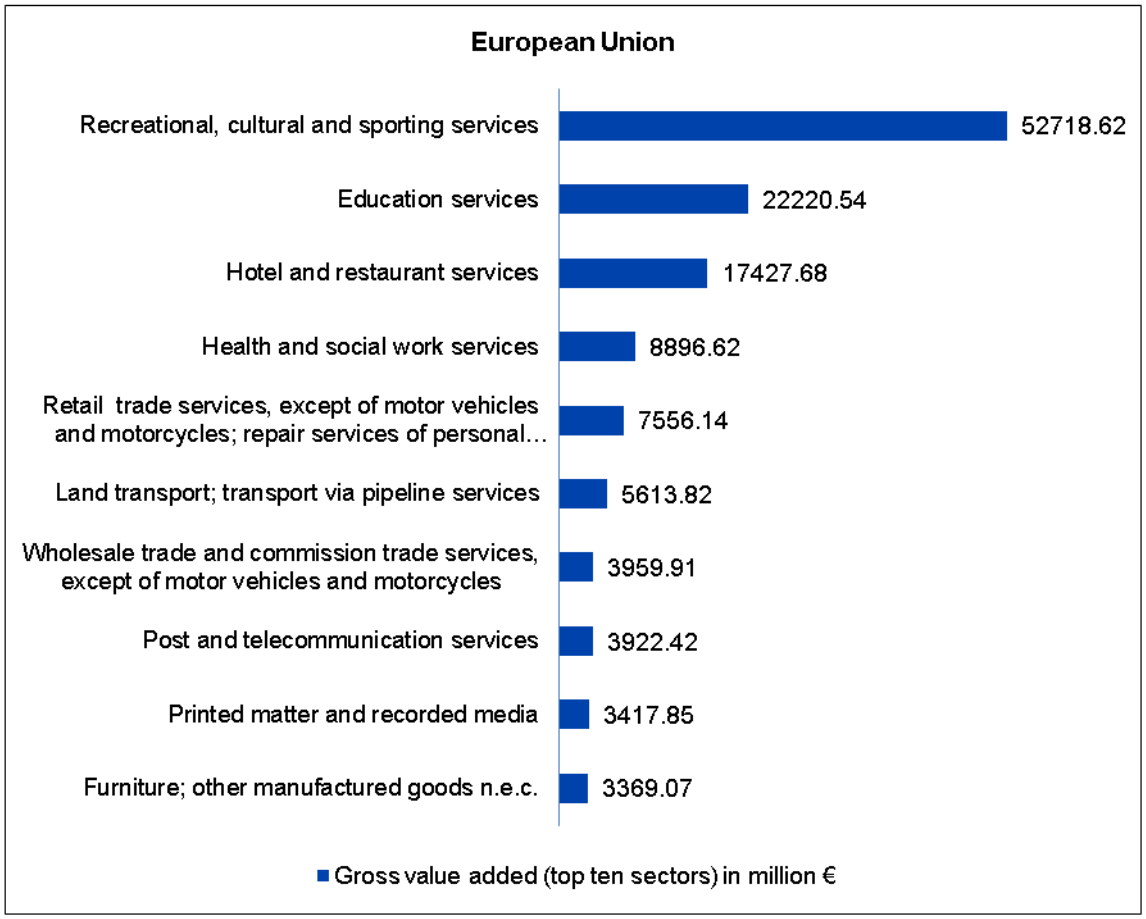
13.1 Gross value added

The share of sport-related value added for the European Union is 1.13% for the narrow definition and 1.76% for the broad definition of sport. The share of what is generally known as the organised sports sector (sports clubs, public sports venues, sports event organizers) is reflected in the statistical definition. The share of value added according to the statistical definition is 0.28%. Therefore the real share of sport in terms of production and income is about six times as high as reported in the official statistics.

Sport-related value added (direct effects) amounts to 112.18 bn Euro according to the narrow definition and 173.86 bn Euro with respect to the broad definition. For the statistical definition of sport it is 28.16 bn Euro.

The direct effects of sport, combined with its multiplier (indirect and induced) effects, add up to 2.98% (294.36 bn Euro) of overall gross value added in the European Union.

Figure 13: European Union - gross value added at market prices, broad definition



Source: SpEA, 2012.

Figure 13 above highlights the top ten value added sectors in the European Union according to the broad definition of sport. The highest sport-related value added is in the sector *Recreational, cultural and sporting services*, followed by *Education services* second, and *Hotel and restaurant services* ranking third.

The share of sport in European value added is comparable to the share of agriculture, forestry, and fishing combined and almost two and a half times as large as mining and quarrying, and represents at least more than one fifth of financial service activities, including insurance and pension funds. Every sixtieth Euro generated and earned in the European Union is sport-related.

Table 25: Sport-related GVA of the EU-27 countries, in million Euro and shares in EU GVA

	Statistical	Narrow	Broad
Direct	28,160	112,179	173,855
Direct + Indirect	48,774	186,206	294,359
Direct	0.28%	1.13%	1.76%
Direct + Indirect	0.49%	1.88%	2.98%
Multiplier	1.73	1.66	1.69

Source: SpEA, 2012.

Table 25 summarises the GVA effects. Multipliers in this case refer to the indirect GVA-effects. For example, for each Euro GVA generated directly by increasing sport-related production in the narrow definition, another 66 Cent of GVA is indirectly generated by the supply chain.

13.2 Employment

The share of sport-related employment for the European Union is 1.49% for the narrow definition and 2.12% for the broad definition of sport. The share of what is generally known as the organised sports sector is reflected in the statistical definition. The employment rate according to the statistical definition is 0.31%.

Sport-related employment (direct effects) amounts to 3,138,350 persons according to the narrow definition and 4,460,888 persons with respect to the broad definition. For the statistical definition sport-related employment is 659,770.

Summing direct and indirect effects, sport leads to an employment of 5,085,137 persons (2.42% of EU employment) in the narrow definition. For the broad definition, values of 7,378,671 persons (3.51%) can be reported, while it is 1,154,389 persons (0.55%) for the statistical definition of sport.

Table 26: Sport-related employment of the EU-27 countries, in persons and shares in EU employment

	Statistical	Narrow	Broad
Direct	659,770	3,138,350	4,460,888
Direct + Indirect	1,154,389	5,085,137	7,378,671
Direct	0.31%	1.49%	2.12%
Direct + Indirect	0.55%	2.42%	3.51%
Multiplier	1.75	1.62	1.65

Source: SpEA, 2012.

Table 26 reports the employment effects. As for GVA, the definition of sport is very important. The multipliers are interpreted in a similar fashion too. For example, if sport-related production is increased such that employment in the directly producing companies in the narrow definition increases by 100 persons, another 62 persons will be employed in the respective supply chain.

The shares sport-related employment (direct: 0.31%, 1.49%, and 2.12%) exceed those of sport-related GVA (direct: 0.28%, 1.13%, and 1.76%). Sport-related business is thus more employment intensive than average businesses as more employees are required to generate the same amount of GVA. Growth in the sport-related economy thus leads to above average employment growth.

13.3 Sector-specific multipliers

Multipliers describe the inter-connectedness of a sector with the rest of the economy. If the multiplier equals 1.0 the sector is not connected to any other sector. The larger the value of the multiplier, the more the rest of the economy benefits from an expansion of the sector.

For this project, two types of sector specific multipliers were calculated:

1. a national sector specific multiplier
2. an EU wide sector specific multiplier

The first multiplier takes the economic effects from a national point of view into account. The effects of an economic stimulus are taken into account as long as they influence the national economy. Effects on other EU Member States are ignored.

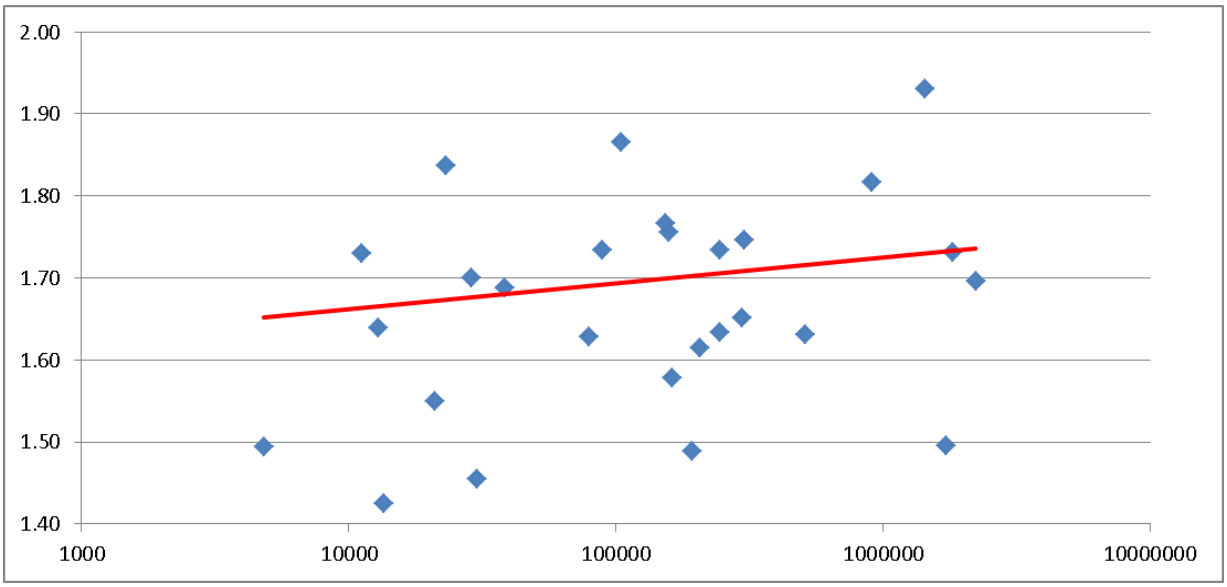
The second multiplier takes EU wide effects into account. Economic effects spilling over to other EU Member States are thus reflected in the second multiplier. Parts of these effects are beneficial to the country of origin of the initial stimulus. Regarding the European Union as a single entity this second multiplier is the one of real importance.

The highest sport-related multiplier in the European Union (see Figure 15) can be found in the sector *Construction work*, followed by *Food products and beverages* and *Water transport services*.

Education services, *Medical, precision and optical instruments, watches, clocks*, and *Leather and leather products* have the lowest sport-related multipliers.

Figure 14 shows each country's GDP (scaled in logs) against its average sectoral multiplier. We observe that on average smaller countries have lower sectoral multipliers, especially if the data point in the lower right (depicting France) would be "thought away". The slope (including France) is significant at 90% confidence level, so the probability that GDP does not affect the multipliers is around 10%. No weights were applied on the averages of sectoral multipliers. Small sectors thus count as much as large ones.

Figure 14: GDP (scaled in logs) against average sectoral multipliers



Source: SpEA, 2012.

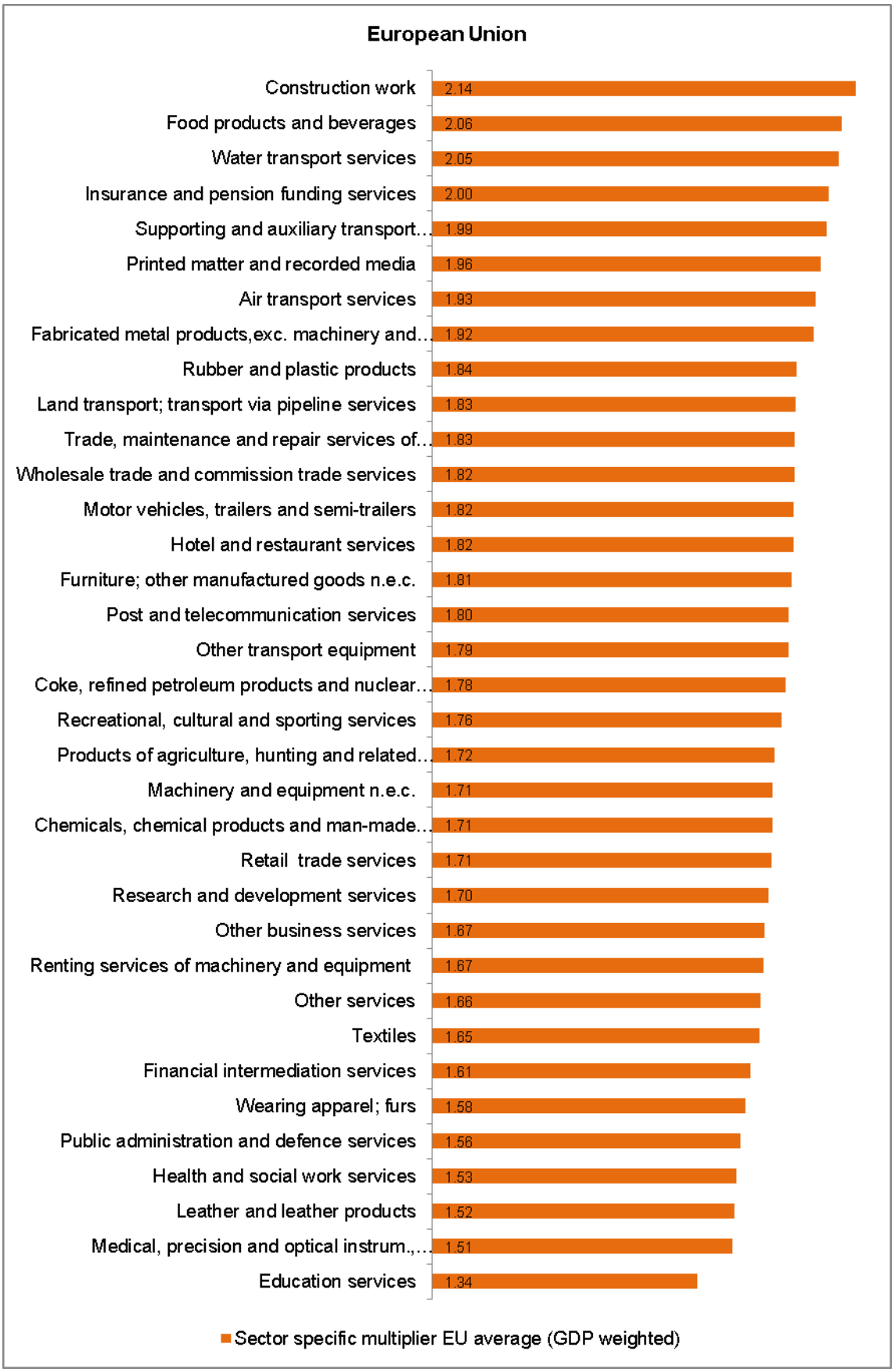
National data sheets in section 0 report the national and the EU wide multipliers for each sport-related sector of each country. The difference between these two multipliers tells us something about the additional effects within the EU, which are ignored when sports demand is considered from a national perspective only If the national multiplier is relatively low compared to the EU wide multiplier the effects of an initial economic stimulus in the EU wide context is considerably higher than in the national context. This is especially the case for products where there is a relatively high trade pattern within the EU, or in other words, where intra EU specialization has taken place.

From the tables in the appendix we learn that the intra EU specialization for sport services is relatively low. This is reflected in the relatively low difference between the national and the EU wide multipliers for categories 64-93 (so including the 'traditional sport sector'). On the other hand the difference between the two multipliers is relatively high for the sectors

fabricated metals and motor vehicles and trailers. These are sectors where sports durables are produced. So this may lead to the hypothesis that sports services are predominantly produced for the domestic market, that sportswear is predominantly imported, while for sport durables there is some internal EU specialization.

Education, which is an important sector in the whole network of value creation in sport, especially in the Nordic and Baltic states, has a relatively low multiplier as it requires only few intermediate goods compared to the GVA-dominated production value. The highest multipliers are found in construction, and in the sectors related to tourism (hotel, air transport). Nevertheless it is important to note that the multiplier merely indicates the impact per Euro of change, not the total amount of impact that takes place. For instance, education is one of the most important sectors for economic growth in the long run. Those sectors with high multipliers are therefore not necessarily those which have the greatest long-term economic impact on a country.

Figure 15: European Union - sector-specific multipliers and EU-averages



Source: SpEA, 2012.

14 Macroeconomic Effects of Sport - National Results

On the following pages, a closer look at the most important sport-related economic results of each country is given. Note that multipliers having a value of 1.0 identify goods and services which are not reported to be produced in this country.

Sector multipliers show how much an economy's production has to increase if the sector's production is increased by 1 unit. In the following sections, EU-wide multipliers are reported. If thus a value of 1.75 is given for a sector, increasing this sector's production by 1 unit increases the EU-wide production (of any product) by another 0.75 units to supply the production with the necessary intermediate goods.

In addition, the EU-wide average of all these multipliers is stated. If thus an EU-average of 1.60 can be found for the same sector, it is more interconnected with the rest of the economy than the same sector in the other 26 Member States on average.

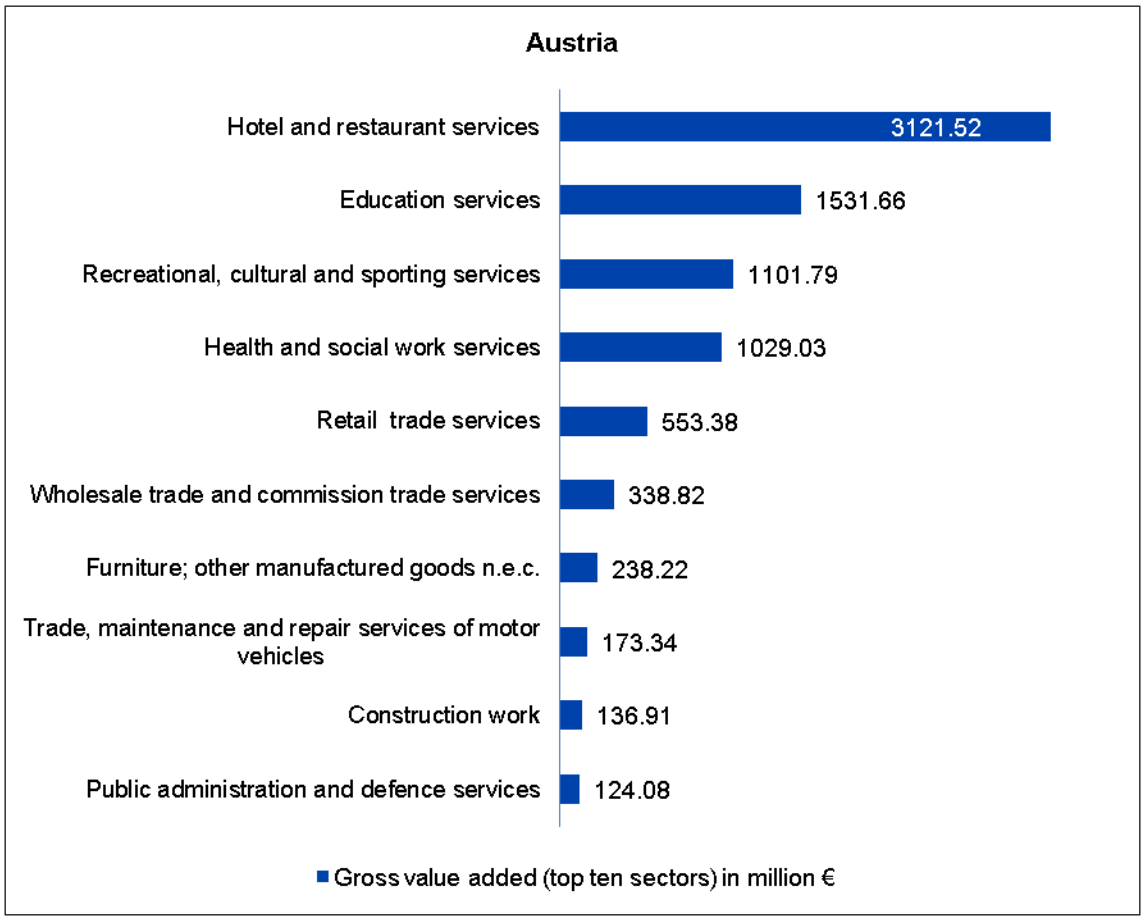
14.1 Austria

14.1.1 Gross value added

The share of sport-related value added for Austria is 2.12% for the narrow definition and 4.03% for the broad definition of sport. This is above the EU average (1.13% narrow definition and 1.76% broad definition). The share of what is generally known as the organised sports sector (sports clubs, public sports venues, sports event organizers) is reflected in the statistical definition. The share of value added according to the statistical definition is 0.25%.

Sport-related value added (direct effects) amounts to 4.65 bn Euro according to the narrow definition and 8.84 bn Euro with respect to the broad definition. For the statistical definition of sport it is 0.55 bn Euro.

Figure 16: Austria - gross value added at market prices, broad definition



Source: SpEA, 2012.

Figure 16 above highlights the Austrian top ten value added sectors according to the broad definition of sport. The highest sport-related value added is in the sector *Hotel and restaurant services*, followed by *Education services* second, and *Recreational, cultural and sporting services* third.

14.1.2 Employment

The share of sport-related employment for Austria is 3.21% for the narrow definition and 5.38% for the broad definition of sport. This is above the EU average (1.49% narrow definition and 2.12% broad definition). The share of what is generally known as the organised sports sector is reflected in the statistical definition. The employment rate according to the statistical definition is 0.36%.

Sport-related employment (direct effects) amounts to 122,833 persons according to the narrow definition and 205,863 persons with respect to the broad definition. For the statistical definition sport-related employment is 13,850.

14.1.3 Sector-specific multipliers

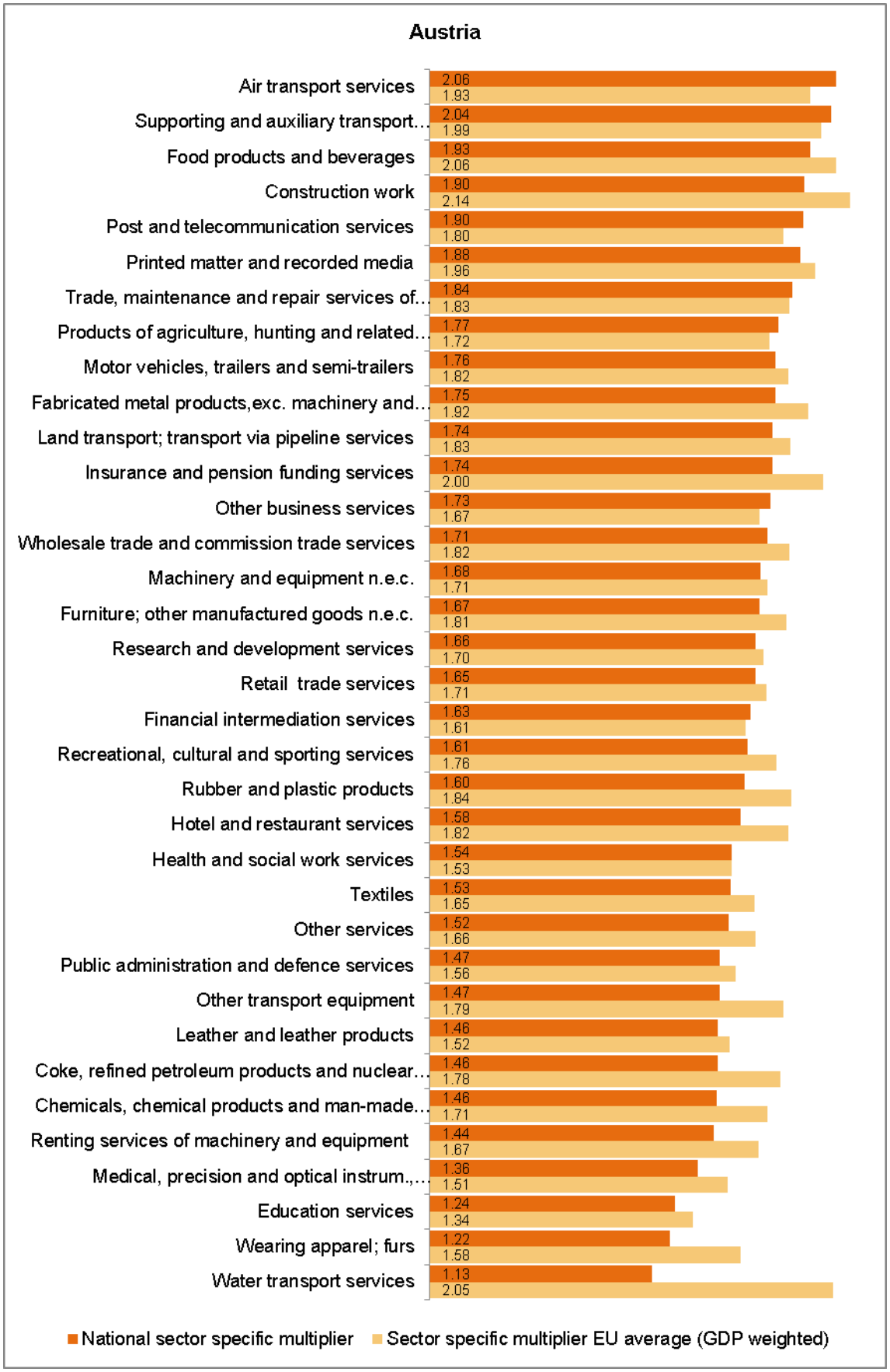
Multipliers describe the inter-connectedness of a sector with the rest of the economy. If the multiplier equals 1.0 the sector is not connected to any other sector. The higher the multiplier, the more the rest of the economy benefits from an expansion of the sector.

The highest sport-related multiplier in Austria can be found in the sector *Air transport services*, followed by *Supporting and auxiliary transport services and travel agencies*. The sector *Food products and beverages* is ranked third.

Water transport services, *Wearing apparel, furs* and *Education services* have the lowest sport-related multipliers.

Figure 17 shows the size of these multipliers for Austria and compares them with the average value of the EU. The biggest negative difference between Austria and the EU average is in *Water transport services* where the Austrian value is 1.13 and EU average is 2.05 (a negative difference of 0.92). The biggest positive difference between Austria and the EU average is *Air transport services* where the Austrian value is 2.06 and the EU average 1.93 (a positive difference of 0.13).

Figure 17: Austria - sector-specific multipliers and EU-averages



Source: SpEA, 2012.

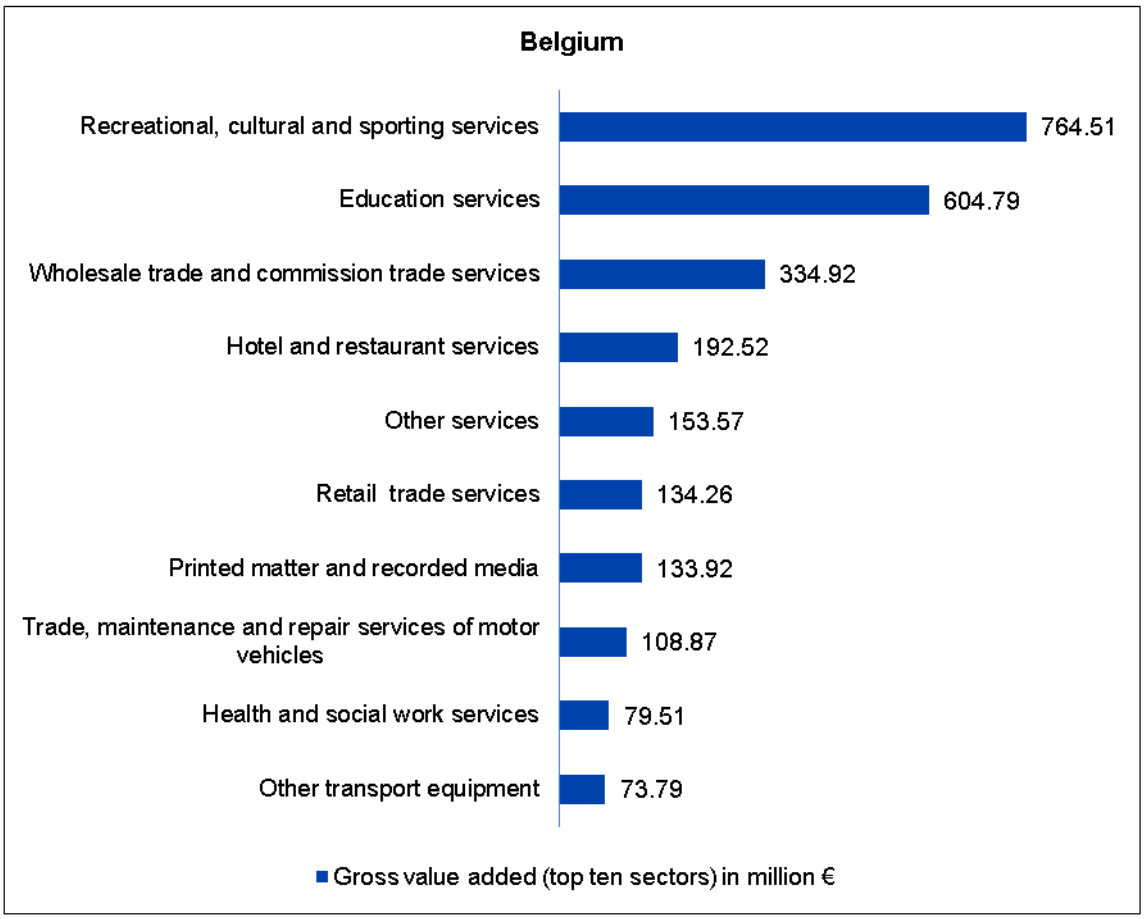
14.2 Belgium

14.2.1 Gross value added

The share of sport-related value added for Belgium is 0.84% for the narrow definition and 1.13% for the broad definition of sport. This is below the EU average (1.13% narrow definition and 1.76% broad definition). The share of what is generally known as the organised sports sector (sports clubs, public sports venues, sports event organizers) is reflected in the statistical definition. The share of value added according to the statistical definition is 0.14%.

Sport-related value added (direct effects) amounts to 2.27 bn Euro according to the narrow definition and 3.04 bn Euro with respect to the broad definition. For the statistical definition of sport it is 0.38 bn Euro.

Figure 18: Belgium - gross value added at market prices, broad definition



Source: SpEA, 2012.

Figure 18 above highlights the Belgian top ten value added sectors according to the broad definition of sport. The highest sport-related value added is in the sector *Recreational, cultural and sporting services*, followed by *Education services* second, and W*holesale trade and commission trade services* third.

14.2.2 Employment

The share of sport-related employment for Belgium is 1.33% for the narrow definition and 1.69% for the broad definition of sport. This is below the EU average (1.49% narrow definition and 2.12% broad definition). The share of what is generally known as the organised sports sector is reflected in the statistical definition. The employment rate according to the statistical definition is 0.24%.

Sport-related employment (direct effects) amounts to 56,153 persons according to the narrow definition and 71,416 persons with respect to the broad definition. For the statistical definition sport-related employment is 10,336.

14.2.3 Sector-specific multipliers

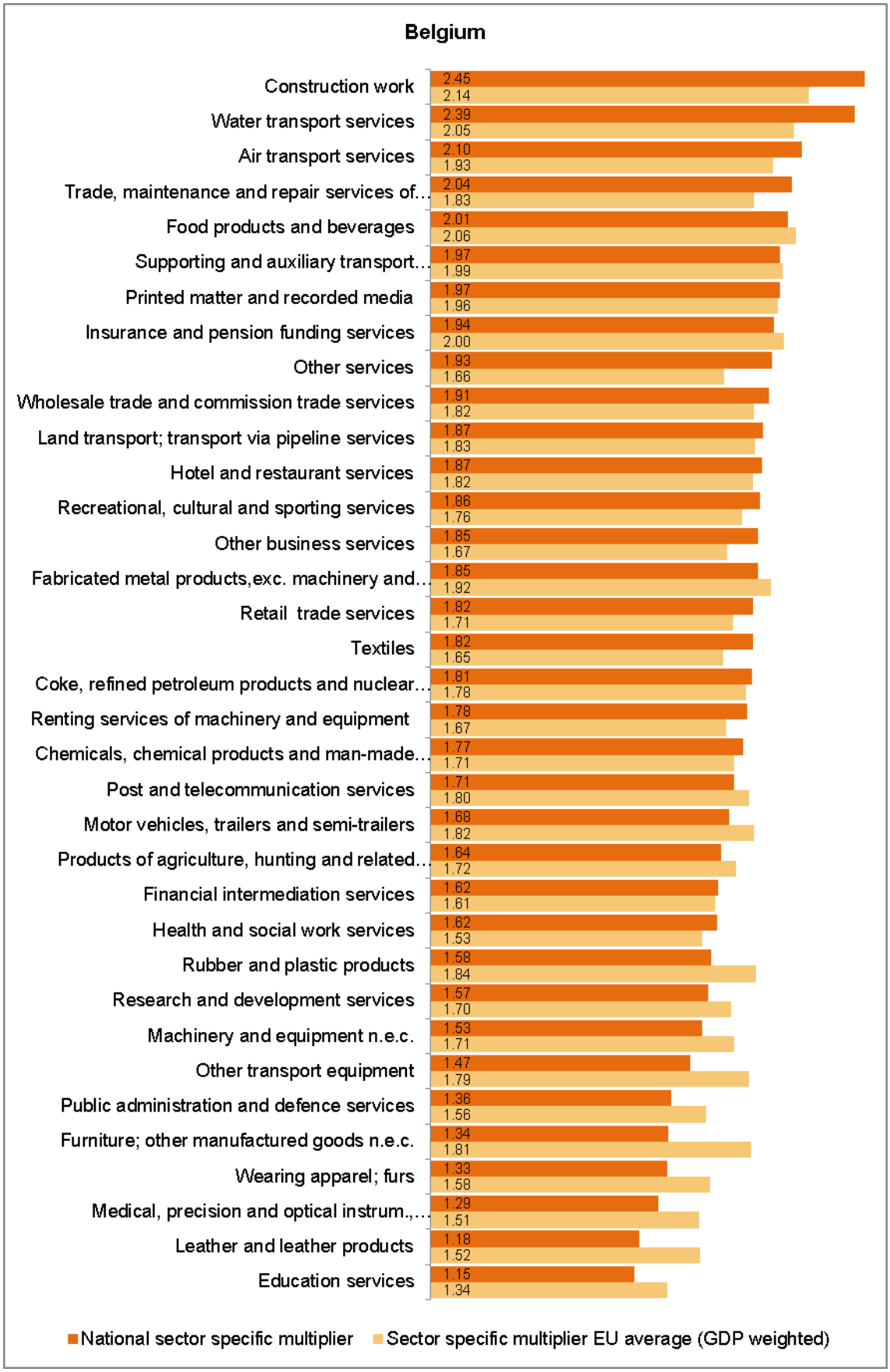
Multipliers describe the inter-connectedness of a sector with the rest of the economy. If the multiplier equals 1.0 the sector is not connected to any other sector. The higher the multiplier, the more the rest of the economy benefits from an expansion of the sector.

The highest sport-related multiplier in Belgium can be found in the sector *Construction work*, followed by *Water transport services*. The sector *Air transport services* is ranked third.

Education services, *Leather and leather products* and *Medical, precision and optical instruments, watches, clocks* have the lowest sport-related multipliers.

Figure 19 shows the size of these multipliers for Belgium and compares them with the average value of the EU. The biggest negative difference between Belgium and the EU average is in *Furniture; other manufactured goods n.e.c.* where the Belgian value is 1.34 and EU average is 1.81 (a negative difference of 0.47). The biggest positive difference between Belgium and the EU average is *Water transport services* where the Belgian value is 2.39 and the EU average is 2.05 (a positive difference of 0.34).

Figure 19: Belgium - sector-specific multipliers and EU-averages



Source: SpEA, 2012.

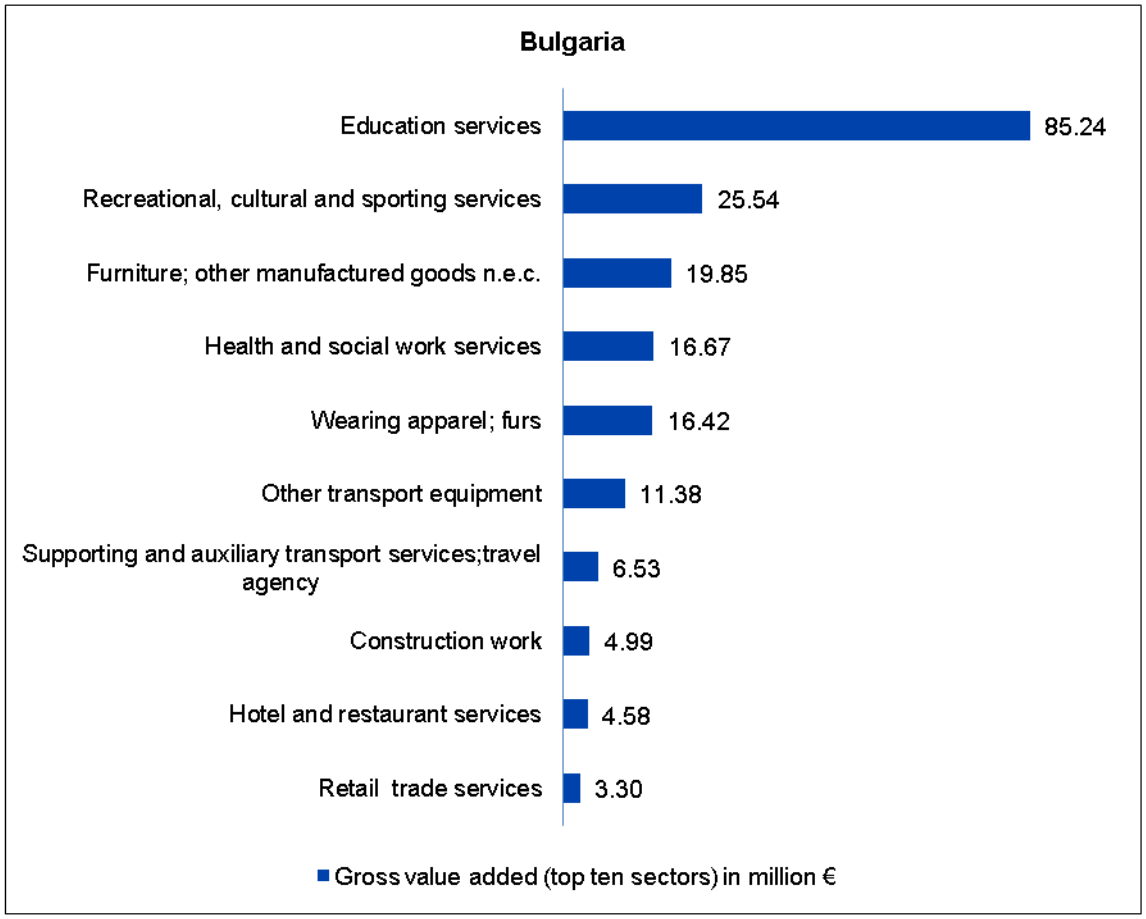
14.3 Bulgaria

14.3.1 Gross value added

The share of sport-related value added for Bulgaria is 0.93% for the narrow definition and 1.13% for the broad definition of sport. This is below the EU average (1.13% narrow definition and 1.76% broad definition). The share of what is generally known as the organised sports sector (sports clubs, public sports venues, sports event organizers) is reflected in the statistical definition. The share of value added according to the statistical definition is 0.06%.

Sport-related value added (direct effects) amounts to 0.18 bn Euro according to the narrow definition and 0.22 bn Euro with respect to the broad definition. For the statistical definition of sport it is 0.01 bn Euro.

Figure 20: Bulgaria - gross value added at market prices, broad definition



Source: SpEA, 2012.

Figure 20 above highlights the Bulgarian top ten value added sectors according to the broad definition of sport. The highest sport-related value added is in the sector *Education services*, followed by *Recreational, cultural and sporting services* second, and *Furniture; other manufactured goods n.e.c.* third.

14.3.2 Employment

The share of sport-related employment for Bulgaria is 1.65% for the narrow definition and 1.87% for the broad definition of sport. This is above the EU average for the narrow definition (1.49%) respectively below the EU average for the broad definition (2.12%). The share of what is generally known as the organised sports sector is reflected in the statistical definition. The employment rate according to the statistical definition is 0.11%.

Sport-related employment (direct effects) amounts to 49,168 persons according to the narrow definition and 55,843 persons with respect to the broad definition. For the statistical definition sport-related employment is 3,344.

14.3.3 Sector-specific multipliers

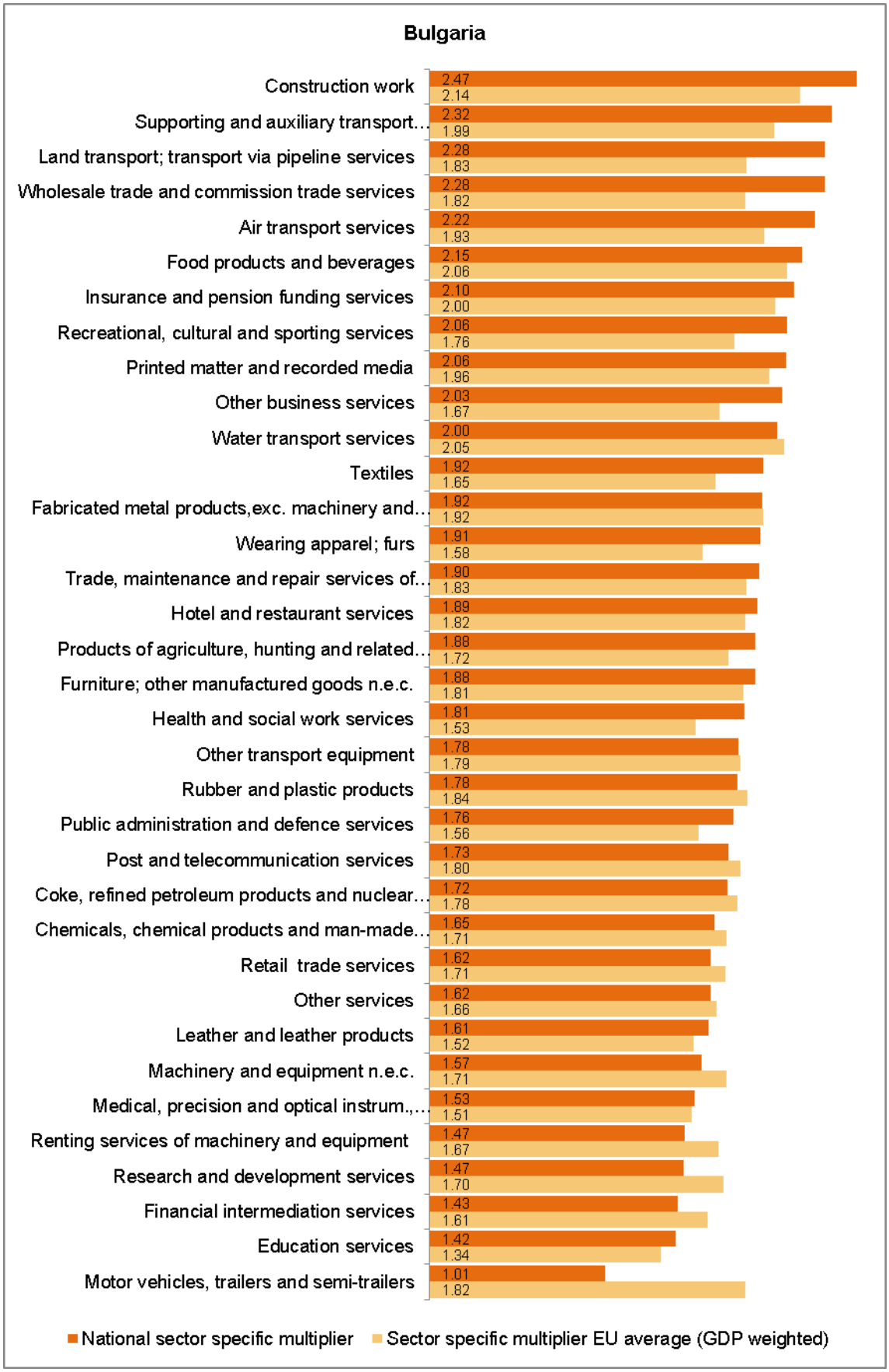
Multipliers describe the inter-connectedness of a sector with the rest of the economy. If the multiplier equals 1.0 the sector is not connected to any other sector. The higher the multiplier, the more the rest of the economy benefits from an expansion of the sector.

The highest sport-related multiplier in Bulgaria can be found in the sector *Construction work*, followed by *Supporting and auxiliary transport services; travel agency*. The sector *Land transport; transport via pipeline services* is ranked third.

Motor vehicles, trailers and semi-trailers, *Education services* and *Financial intermediation services* have the lowest sport-related multipliers.

Figure 21 shows the size of these multipliers for Bulgaria and compares them with the average value of the EU. The biggest negative difference between Bulgaria and the EU average is in *Motor vehicles, trailers and semi-trailers* where the Bulgarian value is 1.01 and EU average is 1.82 (a negative difference of 0.81). The biggest positive difference between Bulgaria and the EU average is *Wholesale trade and commission trade services* where the Bulgarian value is 2.28 and the EU average is 1.82 (a positive difference of 0.46).

Figure 21: Bulgaria - sector-specific multipliers and EU-averages



Source: SpEA, 2012.

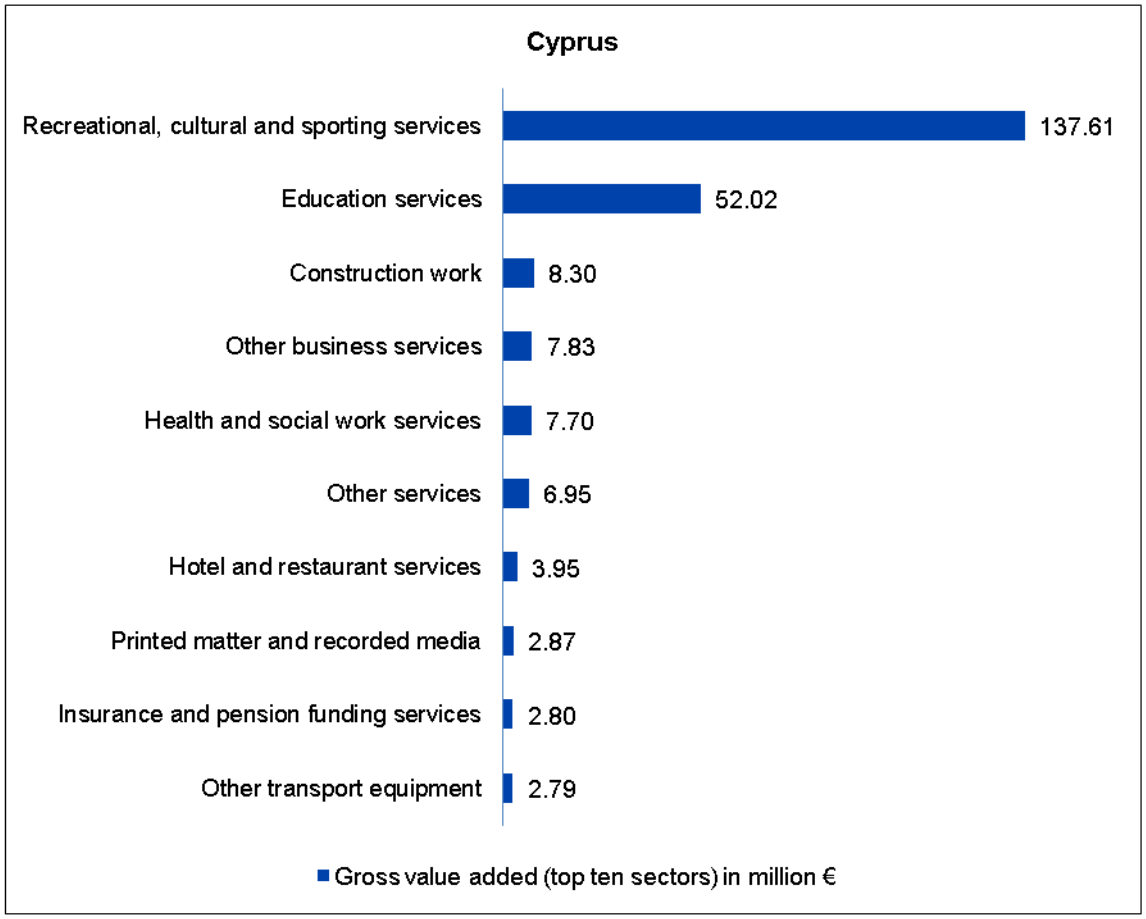
14.4 Cyprus

14.4.1 Gross value added

The share of sport-related value added for Cyprus is 1.79% for the narrow definition and 2.34% for the broad definition of sport. This is above the EU average for the narrow definition (1.07%) respectively equals the EU average for the broad definition (1.63%). The share of what is generally known as the organised sports sector (sports clubs, public sports venues, sports event organizers) is reflected in the statistical definition. The share of value added according to the statistical definition is 0.65%.

Sport-related value added (direct effects) amounts to 0.19 bn Euro according to the narrow definition and 0.25 bn Euro with respect to the broad definition. For the statistical definition of sport it is 0.07 bn Euro.

Figure 22: Cyprus - gross value added at market prices, broad definition



Source: SpEA, 2012.

Figure 22 above highlights the Cyprian top ten value added sectors according to the broad definition of sport. The highest sport-related value added is in the sector *Recreational, cultural and sporting services*, followed by *Education services* second, and *Construction work* third.

14.4.2 Employment

The share of sport-related employment for Cyprus is 2.09% for the narrow definition and 2.57% for the broad definition of sport. This is below the EU average for the narrow definition (1.49%) respectively above the EU average for the broad definition (2.12%). The share of what is generally known as the organised sports sector is reflected in the statistical definition. The employment rate according to the statistical definition is 0.56%.

Sport-related employment (direct effects) amounts to 6.356 persons according to the narrow definition and 7.822 persons with respect to the broad definition. For the statistical definition sport-related employment is 1,706.

14.4.3 Sector-specific multipliers

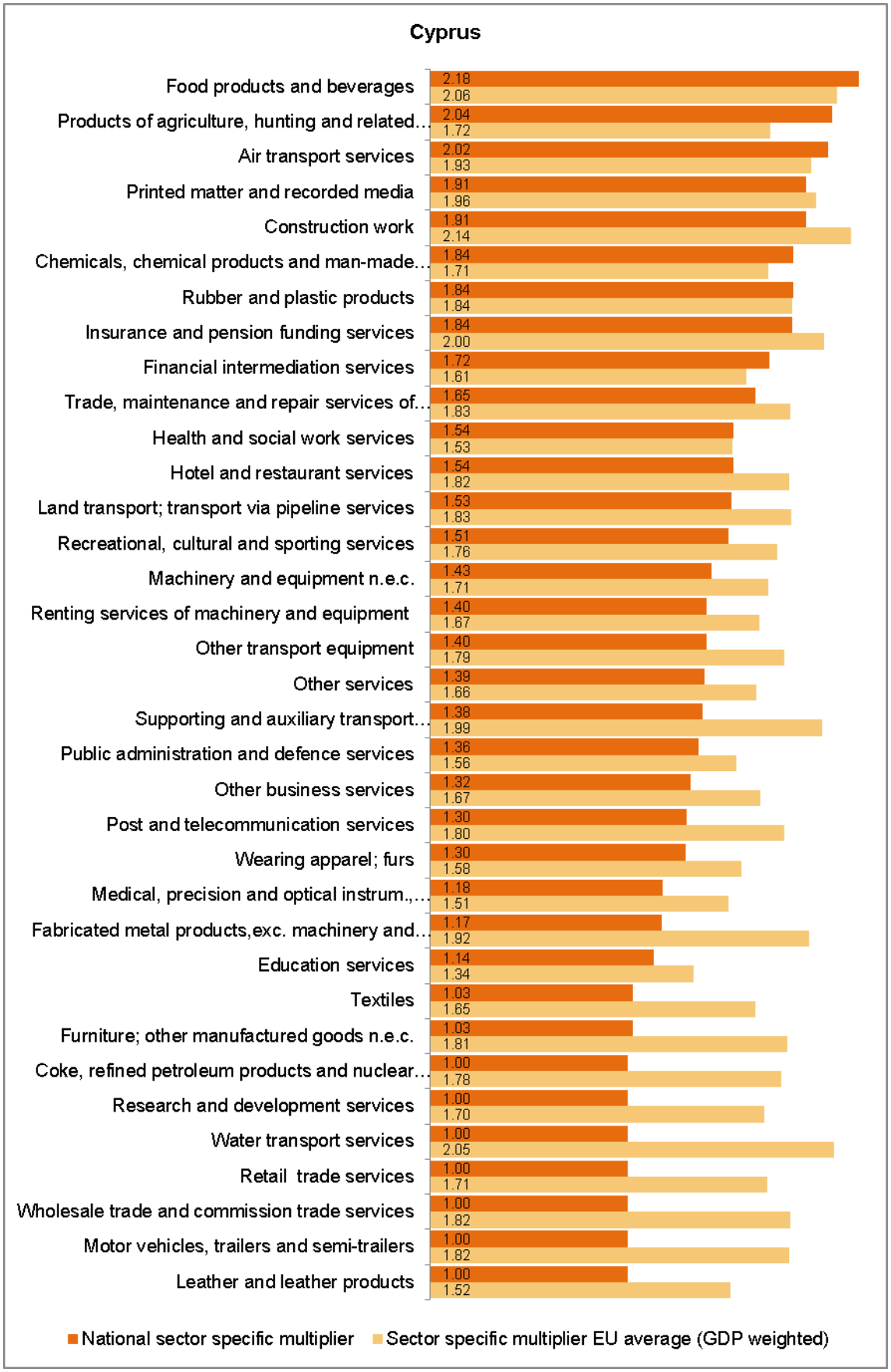
Multipliers describe the inter-connectedness of a sector with the rest of the economy. If the multiplier equals 1.0 the sector is not connected to any other sector. The higher the multiplier, the more the rest of the economy benefits from an expansion of the sector.

The highest sport-related multiplier in Cyprus can be found in the sector *Food products and beverages*, followed by *Products of agriculture, hunting and related services*. The sector *Air transport services* is ranked third.

Leather and leather products, Motor vehicles, trailers and semi-trailers and Wholesale trade and commission trade services, Water transport services, Research and development service, as well as *Coke and refined petroleum* are not produced. *Furniture and other manufactured goods n.e.c, Textiles*, and *Education services* have the lowest sport-related multipliers.

Figure 23 shows the size of these multipliers for Cyprus and compares them with the average value of the EU. The biggest negative difference between produced goods in Cyprus and the EU average is in *Furniture; other manufactured goods n.e.c.* where the Cyprian value is 1.03 and EU average is 1.81 (a negative difference of 0.78). The biggest positive difference between Cyprus and the EU average is *Products of agriculture, hunting and related services* where the Cyprian value is 2.04 and the EU average is 1.72 (a positive difference of 0.32).

Figure 23: Cyprus - sector-specific multipliers and EU-averages



Source: SpEA, 2012.

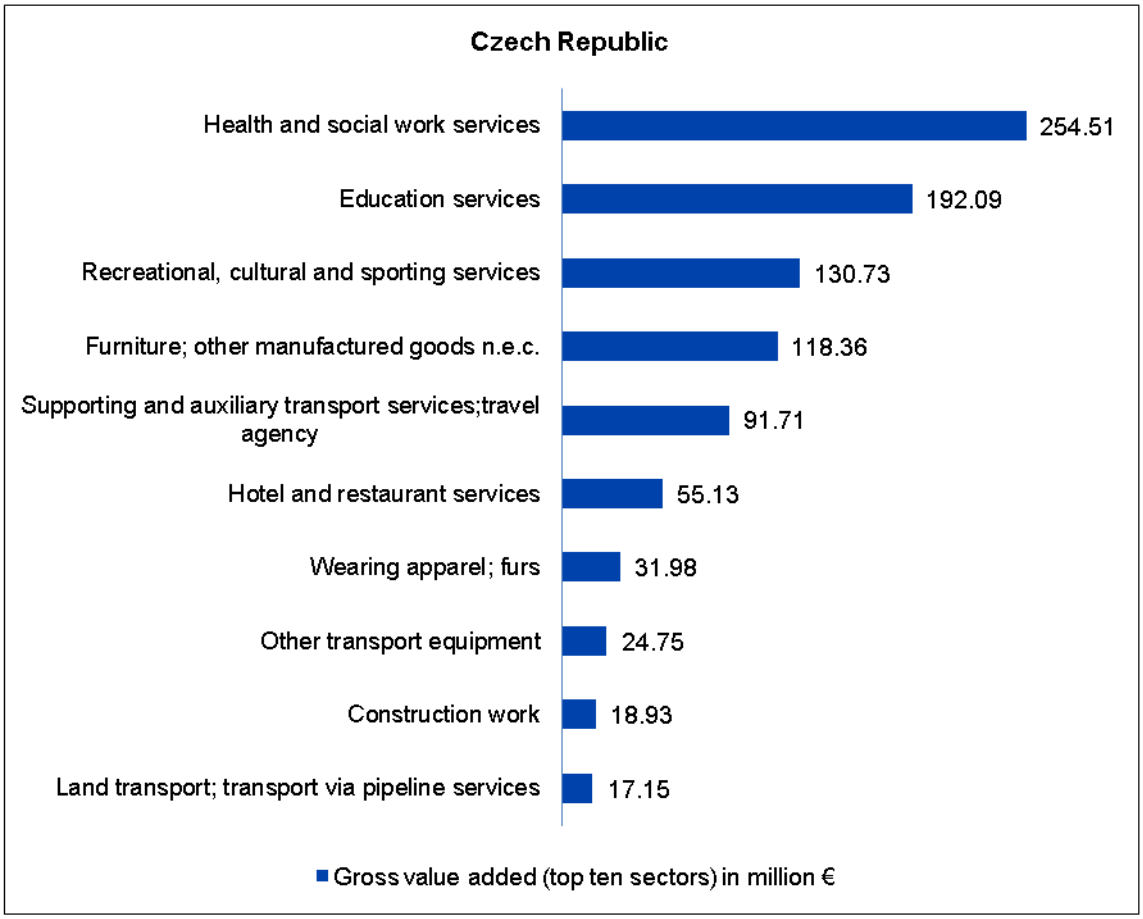
14.5 Czech Republic

14.5.1 Gross value added

The share of sport-related value added for the Czech Republic is 0.80% for the narrow definition and 1.18% for the broad definition of sport. This is below the EU average (1.13% narrow definition and 1.76% broad definition). The share of what is generally known as the organised sports sector (sports clubs, public sports venues, sports event organizers) is reflected in the statistical definition. The share of value added according to the statistical definition is 0.07%.

Sport-related value added (direct effects) amounts to 0.71 bn Euro according to the narrow definition and 1.06 bn Euro with respect to the broad definition. For the statistical definition of sport it is 0.07 bn Euro.

Figure 24: Czech Republic - gross value added at market prices, broad definition



Source: SpEA, 2012.

Figure 24 above highlights the Czech top ten value added sectors according to the broad definition of sport. The highest sport-related value added is in the sector *Health and social work services*, followed by *Education services* second, and *Recreational, cultural and sporting services* third.

14.5.2 Employment

The share of sport-related employment for the Czech Republic is 1.38% for the narrow definition and 1.87% for the broad definition of sport. This is below the EU average (1.49% narrow definition and 2.12% broad definition). The share of what is generally known as the organised sports sector is reflected in the statistical definition. The employment rate according to the statistical definition is 0.15%.

Sport-related employment (direct effects) amounts to 65,769 persons according to the narrow definition and 89,119 persons with respect to the broad definition. For the statistical definition sport-related employment is 6,949.

14.5.3 Sector-specific multipliers

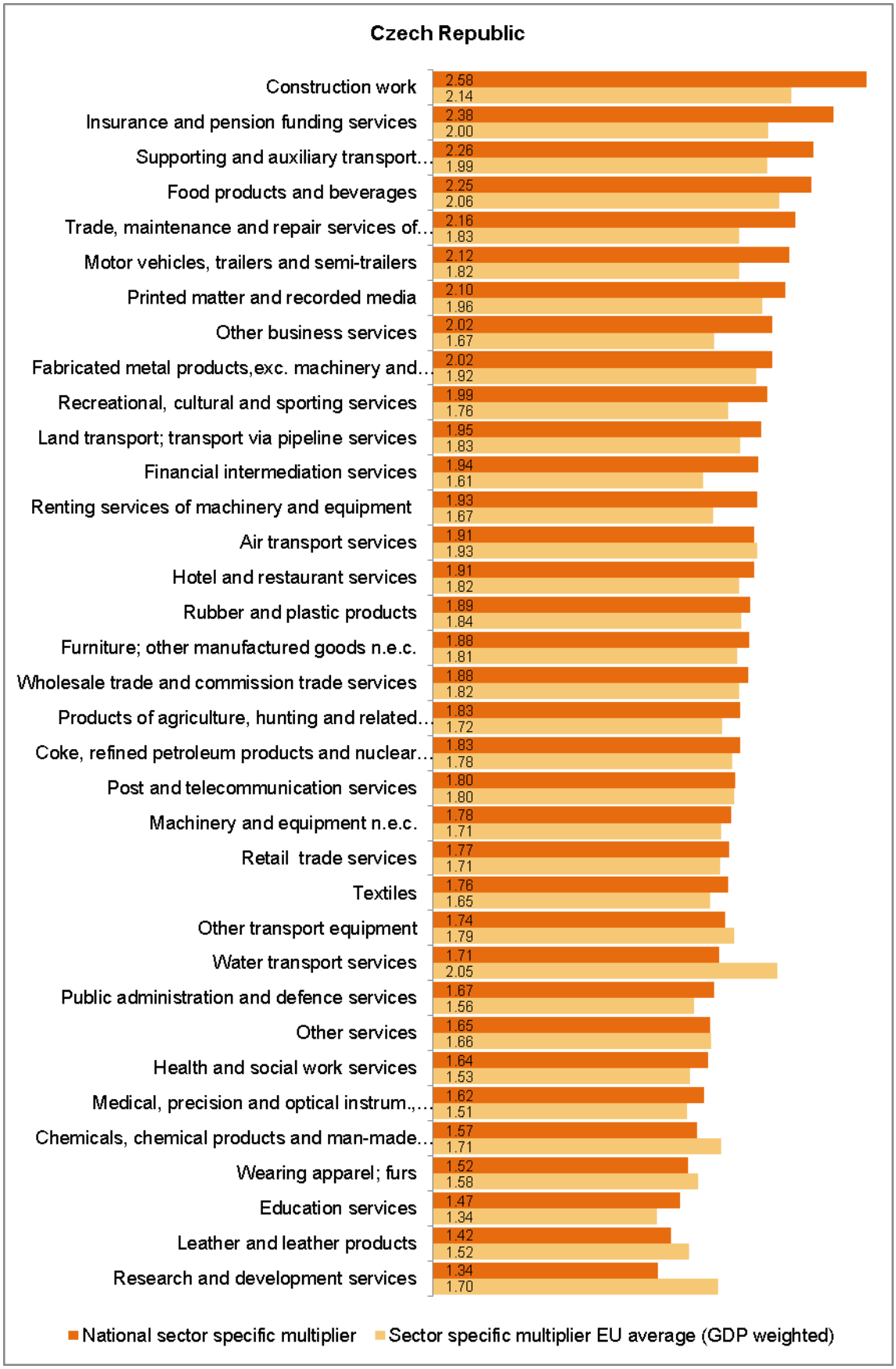
Multipliers describe the inter-connectedness of a sector with the rest of the economy. If the multiplier equals 1.0 the sector is not connected to any other sector. The higher the multiplier, the more the rest of the economy benefits from an expansion of the sector.

The highest sport-related multiplier in the Czech Republic can be found in the sector *Construction work*, followed by *Insurance and pension funding services*. The sector *Supporting and auxiliary transport services; travel agency* is ranked third.

Research and development services, Leather and leather products and *Education services* have the lowest sport-related multipliers.

Figure 25 shows the size of these multipliers for the Czech Republic and compares them with the average value of the EU. The biggest negative difference between the Czech Republic and the EU average is in *Research and development services* where the Czech value is 1.34 and EU average is 1.70 (a negative difference of 0.36). The biggest positive difference between the Czech Republic and the EU average is *Construction work* where the Czech value is 2.58 and the EU average is 2.14 (a positive difference of 0.44).

Figure 25: Czech Republic - sector-specific multipliers and EU-averages



Source: SpEA, 2012.

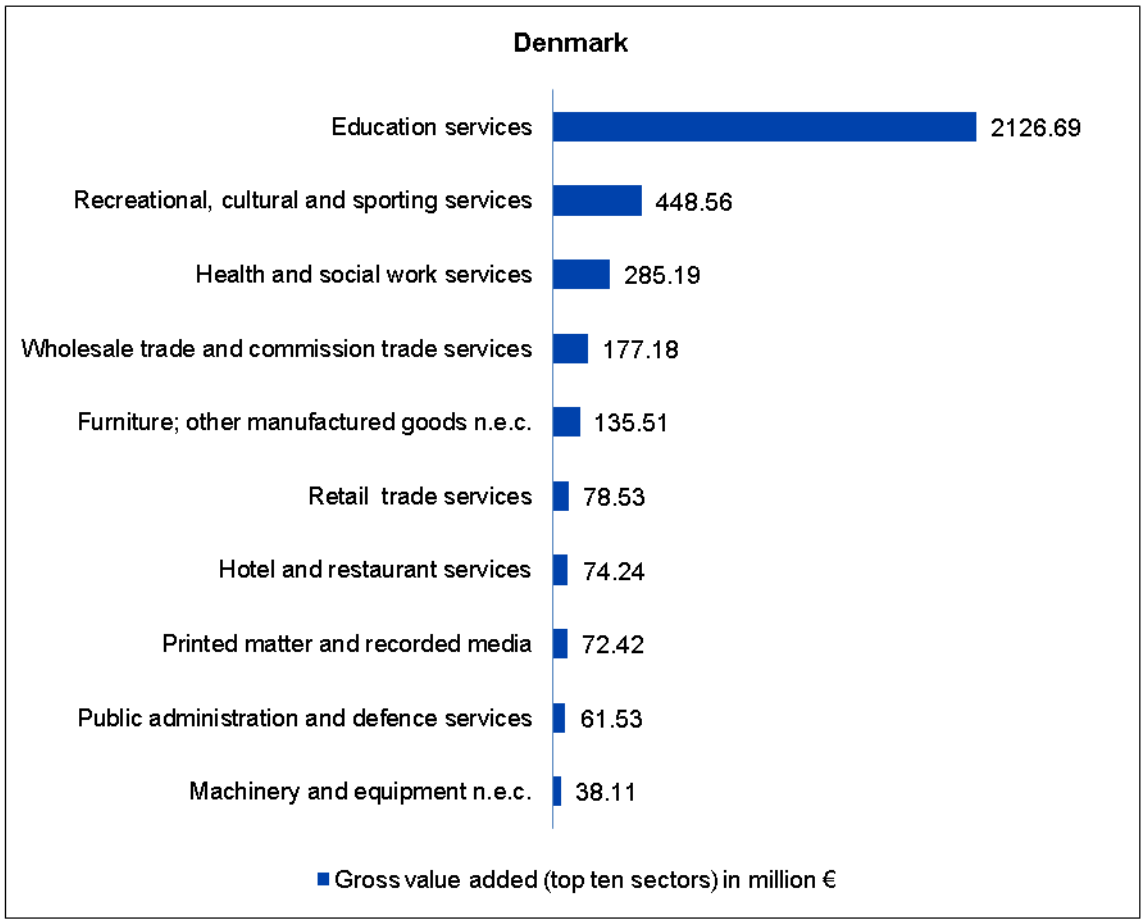
14.6 Denmark

14.6.1 Gross value added

The share of sport-related value added for Denmark is 1.82% for the narrow definition and 2.12% for the broad definition of sport. This is above the EU average (1.13% narrow definition and 1.76% broad definition). The share of what is generally known as the organised sports sector (sports clubs, public sports venues, sports event organizers) is reflected in the statistical definition. The share of value added according to the statistical definition is 0.13%.

Sport-related value added (direct effects) amounts to 3.20 bn Euro according to the narrow definition and 3.72 bn Euro with respect to the broad definition. For the statistical definition of sport it is 0.22 bn Euro.

Figure 26: Denmark - gross value added at market prices, broad definition



Source: SpEA, 2012.

Figure 26 above highlights the Danish top ten value added sectors according to the broad definition of sport. The highest sport-related value added is in the sector *Education services*, followed by *Recreational, cultural and sporting services* second, and *Health and social work services* third.

14.6.2 Employment

The share of sport-related employment for Denmark is 2.12% for the narrow definition and 2.52% for the broad definition of sport. This is above the EU average (1.49% narrow definition and 2.12% broad definition). The share of what is generally known as the organised sports sector is reflected in the statistical definition. The employment rate according to the statistical definition is 0.16%.

Sport-related employment (direct effects) amounts to 58,362 persons according to the narrow definition and 69,287 persons with respect to the broad definition. For the statistical definition sport-related employment is 4,330.

14.6.3 Sector-specific multipliers

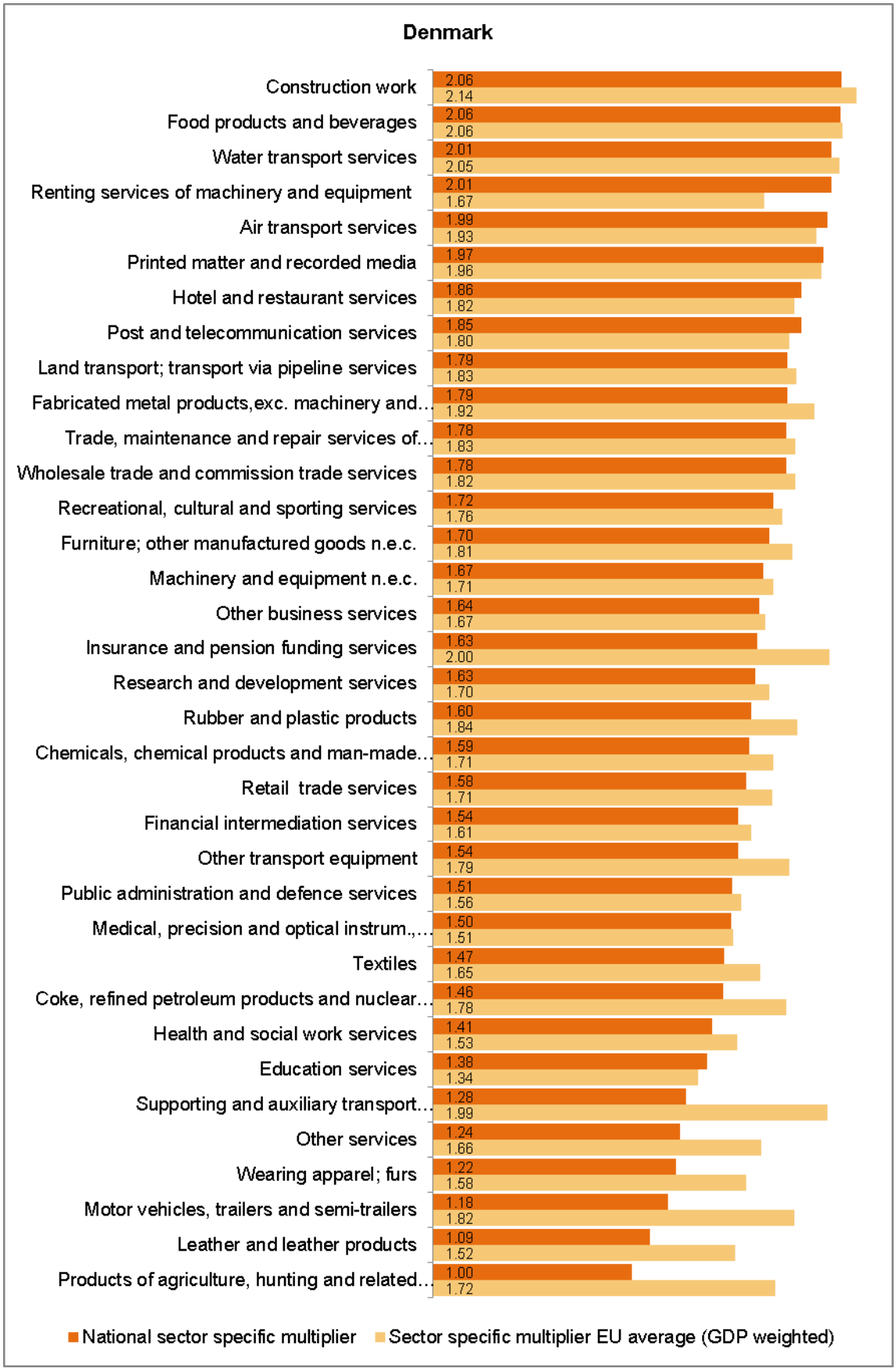
Multipliers describe the inter-connectedness of a sector with the rest of the economy. If the multiplier equals 1.0 the sector is not connected to any other sector. The higher the multiplier, the more the rest of the economy benefits from an expansion of the sector.

The highest sport-related multiplier in Denmark can be found in the sector *Construction work*, followed by *Food products and beverages*. The sector *Water transport services* is ranked third.

Leather and leather products, Motor vehicles, trailers and semi-trailers, and *Wearing apparel; furs* report the lowest sport-related multipliers of produced goods.

Figure 27 shows the size of these multipliers for Denmark and compares them with the average value of the EU. The biggest negative difference between produced goods in Denmark and the EU average is in *Supporting and auxiliary transport services; travel agency* where the Danish value is 1.28 and EU average is 1.99 (a negative difference of 0.72). The biggest positive difference between Denmark and the EU average is *Renting services of machinery and equipment* where the Danish value is 2.01 and the EU average is 1.67 (a positive difference of 0.34).

Figure 27: Denmark - sector-specific multipliers and EU-averages



Source: SpEA, 2012.

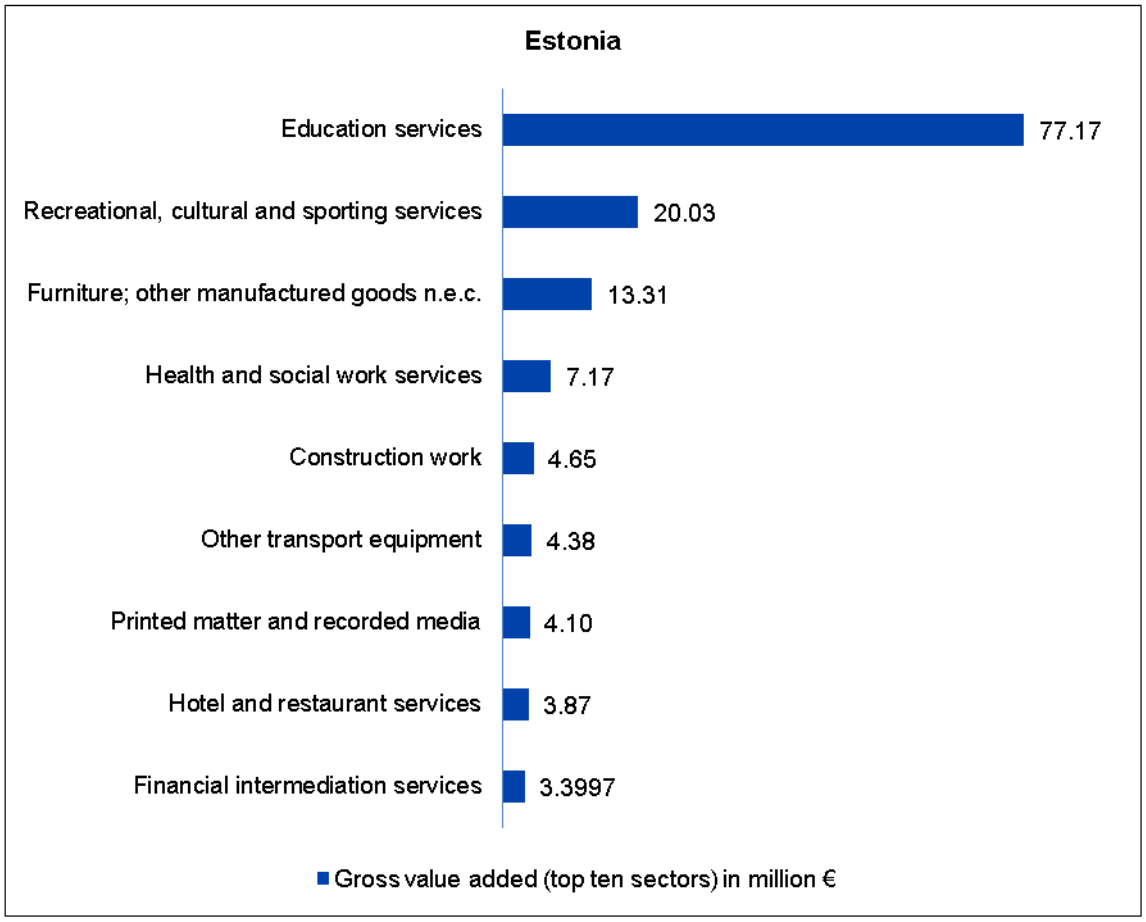
14.7 Estonia

14.7.1 Gross value added

The share of sport-related value added for Estonia is 1.35% for the narrow definition and 1.64% for the broad definition of sport. This is above the EU average (1.13% narrow definition and 1.76% broad definition). The share of what is generally known as the organised sports sector (sports clubs, public sports venues, sports event organizers) is reflected in the statistical definition. The share of value added according to the statistical definition is 0.1%.

Sport-related value added (direct effects) amounts to 0.13 bn Euro according to the narrow definition and 0.16 bn Euro with respect to the broad definition. For the statistical definition of sport it is 0.01 bn Euro.

Figure 28: Estonia - gross value added at market prices, broad definition



Source: SpEA, 2012.

Figure 28 above highlights the Estonian top ten value added sectors according to the broad definition of sport. The highest sport-related value added is in the sector *Education services*, followed by *Recreational, cultural and sporting services* second, and *Furniture, other manufactured goods n.e.c.* third.

14.7.2 Employment

The share of sport-related employment for Estonia is 2.25% for the narrow definition and 2.58% for the broad definition of sport. This is above the EU average (1.49% narrow definition and 2.12% broad definition). The share of what is generally known as the organised sports sector is reflected in the statistical definition. The employment rate according to the statistical definition is 0.18%.

Sport-related employment (direct effects) amounts to 13,662 persons according to the narrow definition and 15,686 persons with respect to the broad definition. For the statistical definition sport-related employment is 1,121.

14.7.3 Sector-specific multipliers

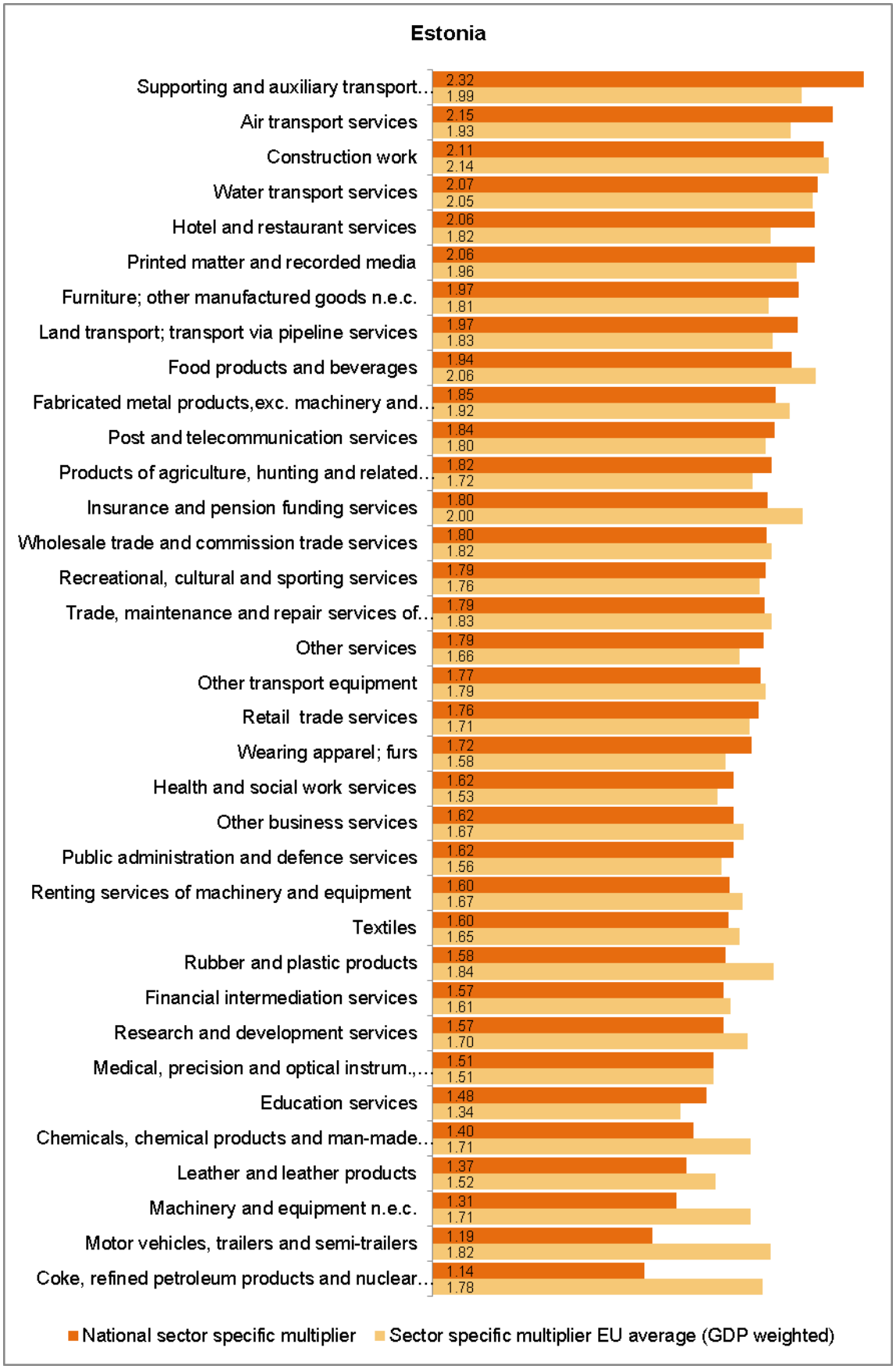
Multipliers describe the inter-connectedness of a sector with the rest of the economy. If the multiplier equals 1.0 the sector is not connected to any other sector. The higher the multiplier, the more the rest of the economy benefits from an expansion of the sector.

The highest sport-related multiplier in Estonia can be found in the sector *Supporting and auxiliary transport services; travel agency,* followed by *Air transport services*. The sector *Construction work* is ranked third.

Coke, refined petroleum products and nuclear fuels, *Motor vehicles, trailers and semi-trailers* and *Machinery and equipment n.e.c.* have the lowest sport-related multipliers.

Figure 29 shows the size of these multipliers for Estonia and compares them with the average value of the EU. The biggest negative difference between Estonia and the EU average is in *Motor vehicles, trailers and semi-trailers* where the Estonian value is 1.19 and EU average is 1.82 (a negative difference of 0.63). The biggest positive difference between Estonia and the EU average is *Supporting and auxiliary transport services; travel agency* where the Estonian value is 2.32 and the EU average is 1.99 (a positive difference of 0.33).

Figure 29: Estonia - sector-specific multipliers and EU-averages



Source: SpEA, 2012.

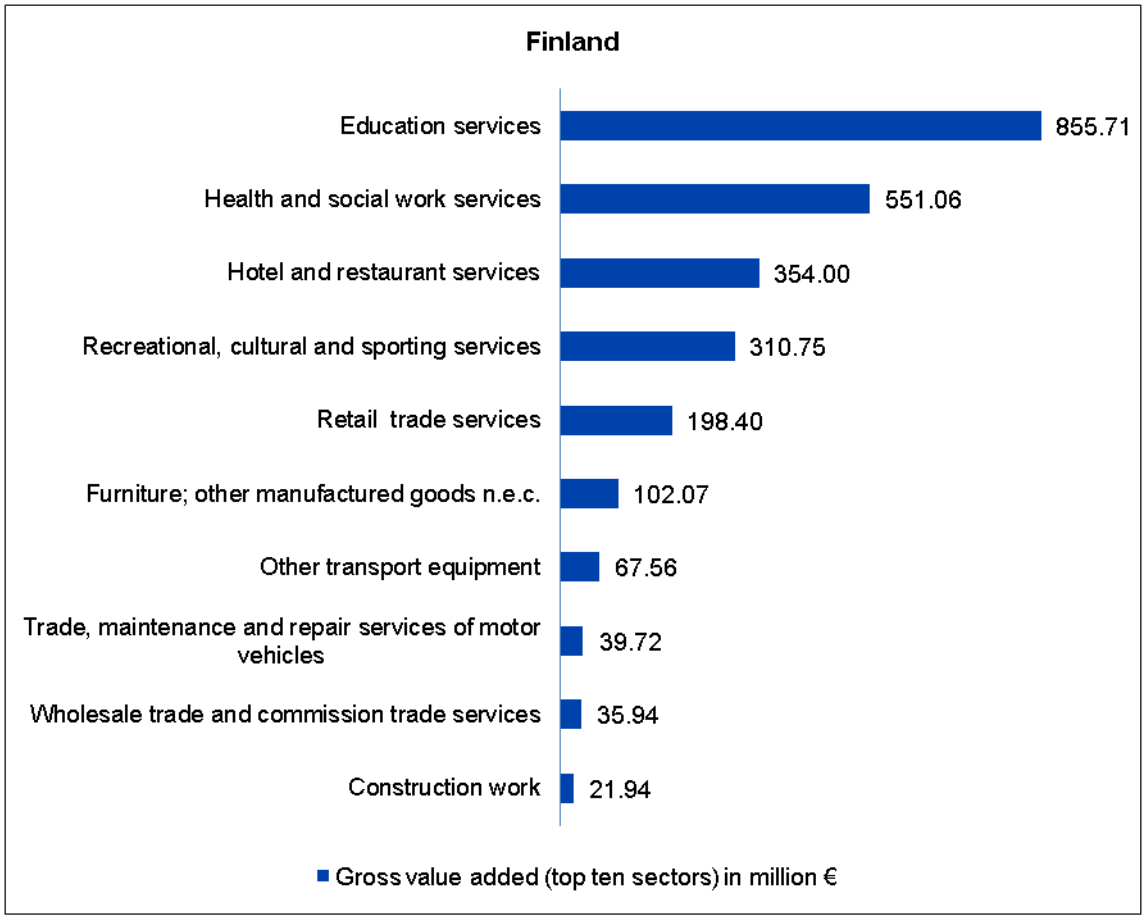
14.8 Finland

14.8.1 Gross value added

The share of sport-related value added for Finland is 1.39% for the narrow definition and 1.94% for the broad definition of sport. This is above the EU average (1.13% narrow definition and 1.76% broad definition). The share of what is generally known as the organised sports sector (sports clubs, public sports venues, sports event organizers) is reflected in the statistical definition. The share of value added according to the statistical definition is 0.11%.

Sport-related value added (direct effects) amounts to 1.9 bn Euro according to the narrow definition and 2.65 bn Euro with respect to the broad definition. For the statistical definition of sport it is 0.16 bn Euro.

Figure 30: Finland - gross value added at market prices, broad definition



Source: SpEA, 2012.

Figure 30 above highlights the Finnish top ten value added sectors according to the broad definition of sport. The highest sport-related value added is in the sector *Education services*, followed by *Health and social work services* second, and *Hotel and restaurant services* third.

14.8.2 Employment

The share of sport-related employment for Finland is 2.27% for the narrow definition and 3.09% for the broad definition of sport. This is above the EU average (1.49% narrow definition and 2.12% broad definition). The share of what is generally known as the organised sports sector is reflected in the statistical definition. The employment rate according to the statistical definition is 0.2%.

Sport-related employment (direct effects) amounts to 54,501 persons according to the narrow definition and 74,209 persons with respect to the broad definition. For the statistical definition sport-related employment is 4,856.

14.8.3 Sector-specific multipliers

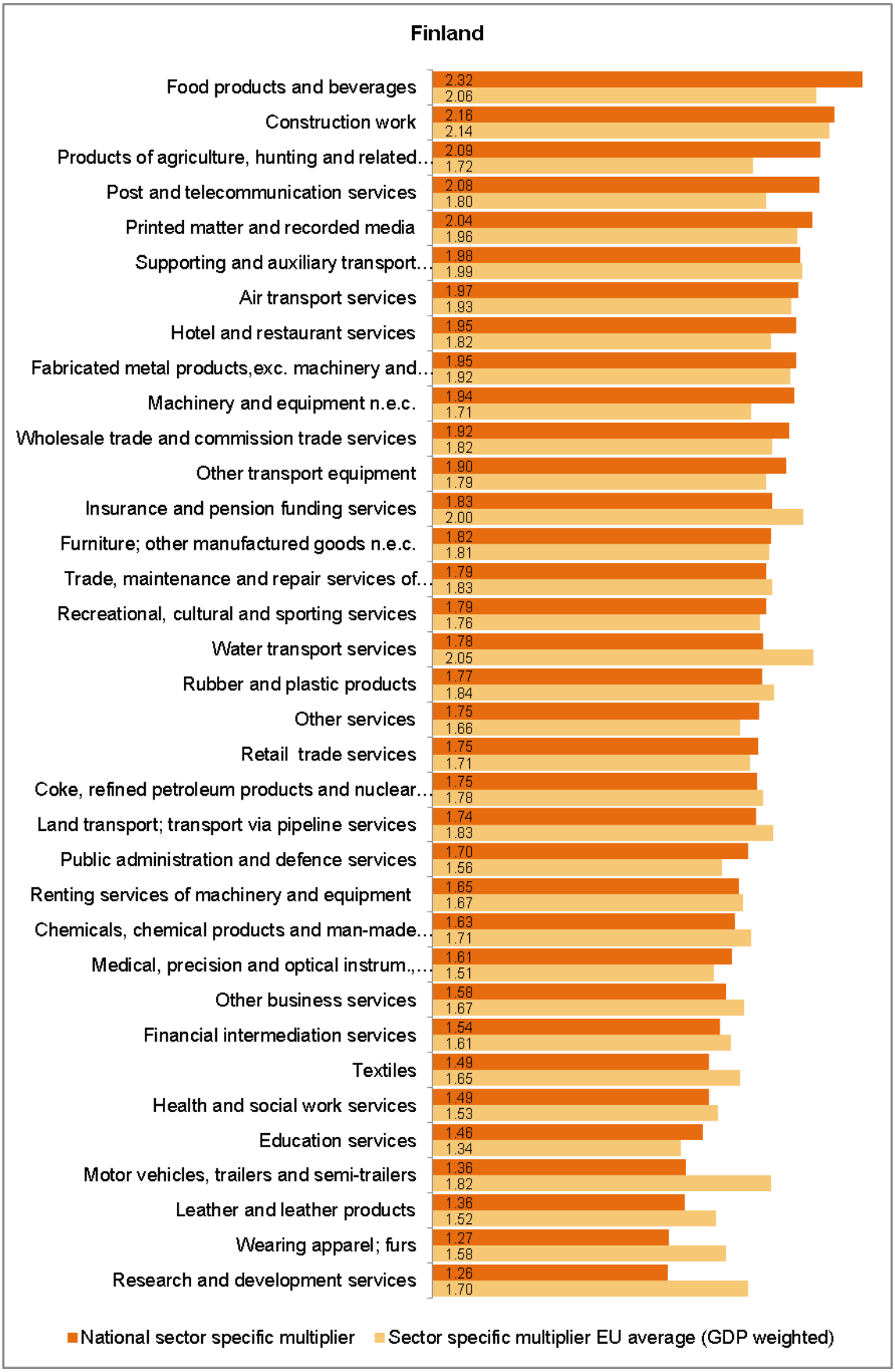
Multipliers describe the inter-connectedness of a sector with the rest of the economy. If the multiplier equals 1.0 the sector is not connected to any other sector. The higher the multiplier, the more the rest of the economy benefits from an expansion of the sector.

The highest sport-related multiplier in Finland can be found in the sector *Food products and beverages*, followed by *Construction work*. The sector *Products of agriculture, hunting and related services* is ranked third.

Research and development services, *Wearing apparel; furs* and *Leather and leather products* have the lowest sport-related multipliers.

Figure 31 shows the size of these multipliers for Finland and compares them with the average value of the EU. The biggest negative difference between Finland and the EU average is in *Motor vehicles, trailers and semi-trailers* where the Finnish value is 1.36 and EU average is 1.82 (a negative difference of 0.46). The biggest positive difference between Finland and the EU average is *Products of agriculture, hunting and related services* where the Finnish value is 2.09 and the EU average is 1.72 (a positive difference of 0.37).

Figure 31: Finland - sector-specific multipliers and EU-averages



Source: SpEA, 2012.

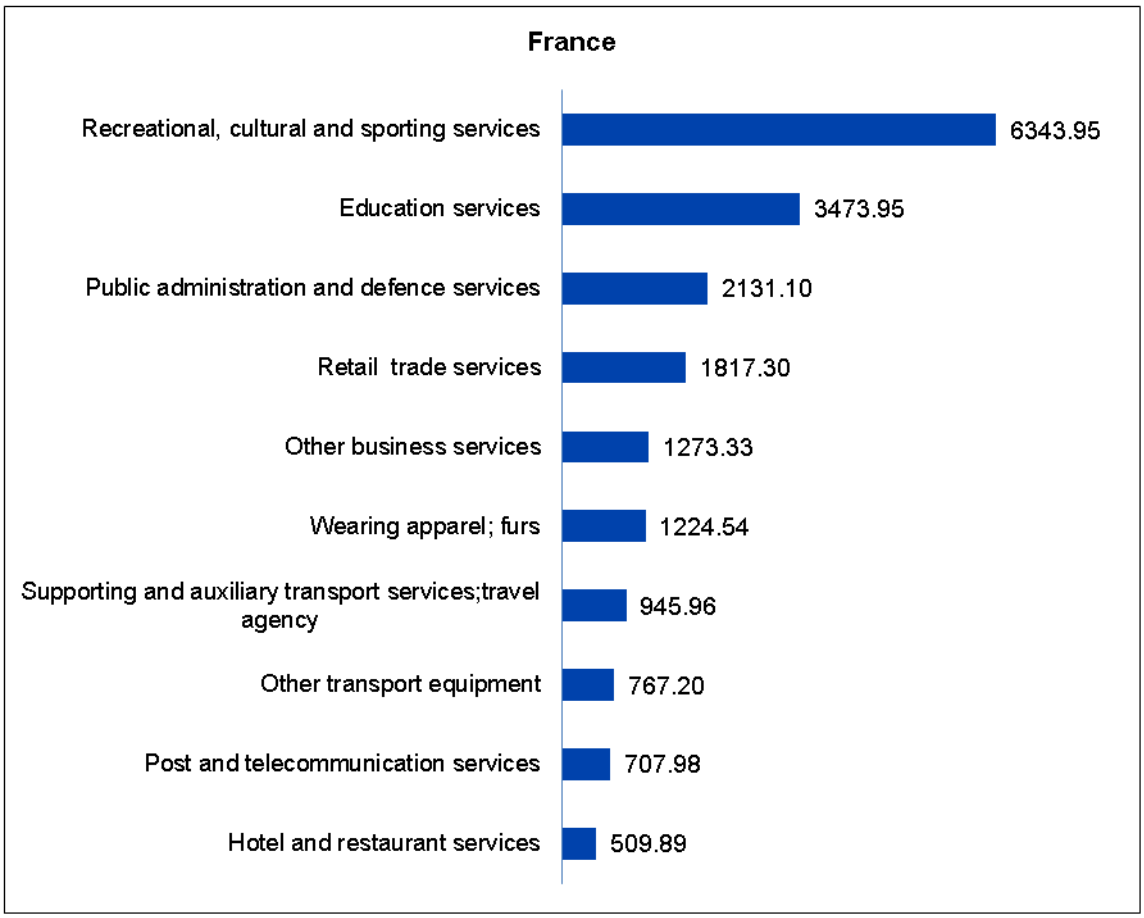
14.9 France

14.9.1 Gross value added

The share of sport-related value added for France is 0.95% for the narrow definition and 1.40% for the broad definition of sport. This is below the EU average (1.13% narrow definition and 1.76% broad definition). The share of what is generally known as the organised sports sector (sports clubs, public sports venues, sports event organizers) is reflected in the statistical definition. The share of value added according to the statistical definition is 0.20%.

Sport-related value added (direct effects) amounts to 14.71 bn Euro according to the narrow definition and 21.61 bn Euro with respect to the broad definition. For the statistical definition of sport it is 3.17 bn Euro.

Figure 32: France - gross value added at market prices, broad definition



Source: SpEA, 2012.

Figure 32 above highlights the French top ten value added sectors according to the broad definition of sport. The highest sport-related value added is in the sector *Recreational, cultural and sporting services* second, followed by *Education services* and *Public administration* third.

14.9.2 Employment

The share of sport-related employment for France is 1.30% for the narrow definition and 1.67% for the broad definition of sport. This is below the EU average (1.49% narrow definition and 2.12% broad definition). The share of what is generally known as the organised sports sector is reflected in the statistical definition. The employment rate according to the statistical definition is 0.37%.

Sport-related employment (direct effects) amounts to 323,381 persons according to the narrow definition and 416,537 persons with respect to the broad definition. For the statistical definition sport-related employment is 91,773.

14.9.3 Sector-specific multipliers

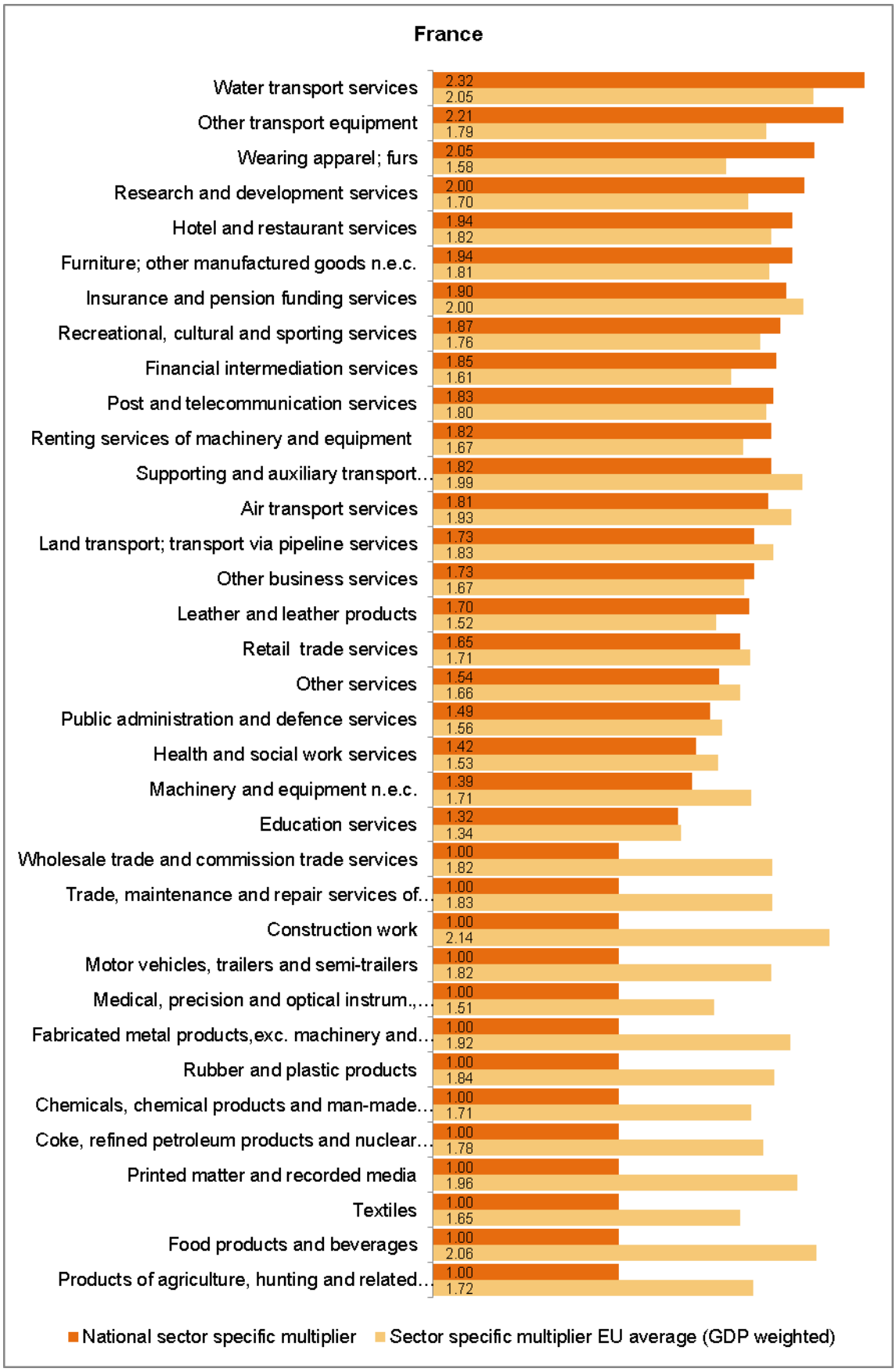
Multipliers describe the inter-connectedness of a sector with the rest of the economy. If the multiplier equals 1.0 the sector is not connected to any other sector. The higher the multiplier, the more the rest of the economy benefits from an expansion of the sector.

The highest sport-related multiplier in France can be found in the sector *Water transport services*, followed by *Other transport services*. The sector *Wearing apparel; furs* is ranked third.

For many sport-related goods, no production is reported. *Education services, Machinery and equipment n.e.c.,* and *Health and social work services* report the lowest sport-related multipliers of produced goods.

Figure 33 shows the size of these multipliers for France and compares them with the average value of the EU. The biggest negative difference between France and the EU average of produced goods is in *Machinery and equipment n.e.c.* where the French value is 1.39 and EU average is 1.71 (a negative difference of 0.32). The biggest positive difference between France and the EU average is *Wearing apparel; furs* where the French value is 2.05 and the EU average is 1.58 (a positive difference of 0.48).

Figure 33: France - sector-specific multipliers and EU-averages



Source: SpEA, 2012.

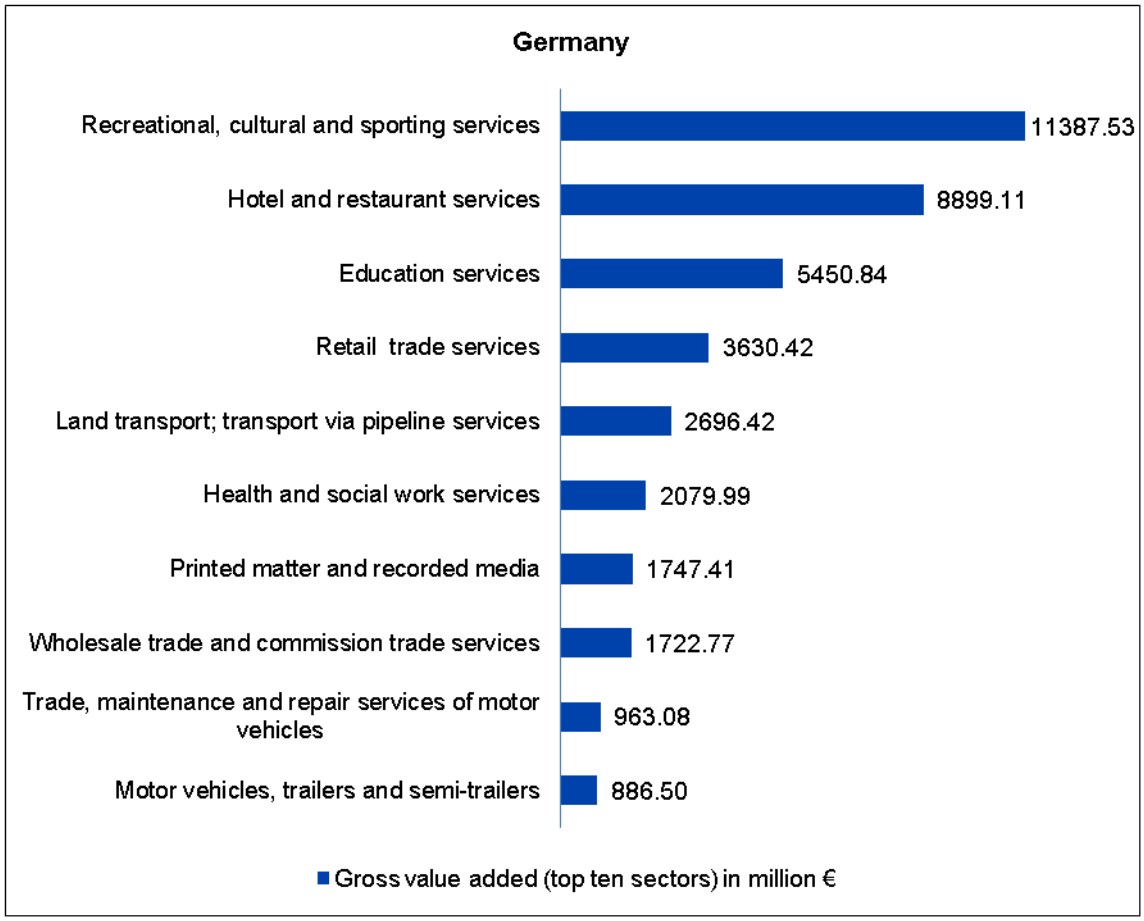
14.10 Germany

14.10.1Gross value added

The share of sport-related value added for Germany is 1.34% for the narrow definition and 2.31% for the broad definition of sport. This is above the EU average (1.13% narrow definition and 1.76% broad definition). The share of what is generally known as the organised sports sector (sports clubs, public sports venues, sports event organizers) is reflected in the statistical definition. The share of value added according to the statistical definition is 0.28%.

Sport-related value added (direct effects) amounts to 27.11 bn Euro according to the narrow definition and 46.68 bn Euro with respect to the broad definition. For the statistical definition of sport it is 5.69 bn Euro.

Figure 34: Germany - gross value added at market prices, broad definition



Source: SpEA, 2012.

Figure 34 above highlights the German top ten value added sectors according to the broad definition of sport. The highest sport-related value added is in the sector *Recreational, cultural and sporting services*, followed by *Hotel and restaurant services* second, and *Education services* third.

14.10.2Employment

The share of sport-related employment for Germany is 1.84% for the narrow definition and 3.15% for the broad definition of sport. This is above the EU average (1.49% narrow definition and 2.12% broad definition). The share of what is generally known as the organised sports sector is reflected in the statistical definition. The employment rate according to the statistical definition is 0.39%.

Sport-related employment (direct effects) amounts to 669,892 persons according to the narrow definition and 1,146,234 persons with respect to the broad definition. For the statistical definition sport-related employment is 143,267.

14.10.3Sector-specific multipliers

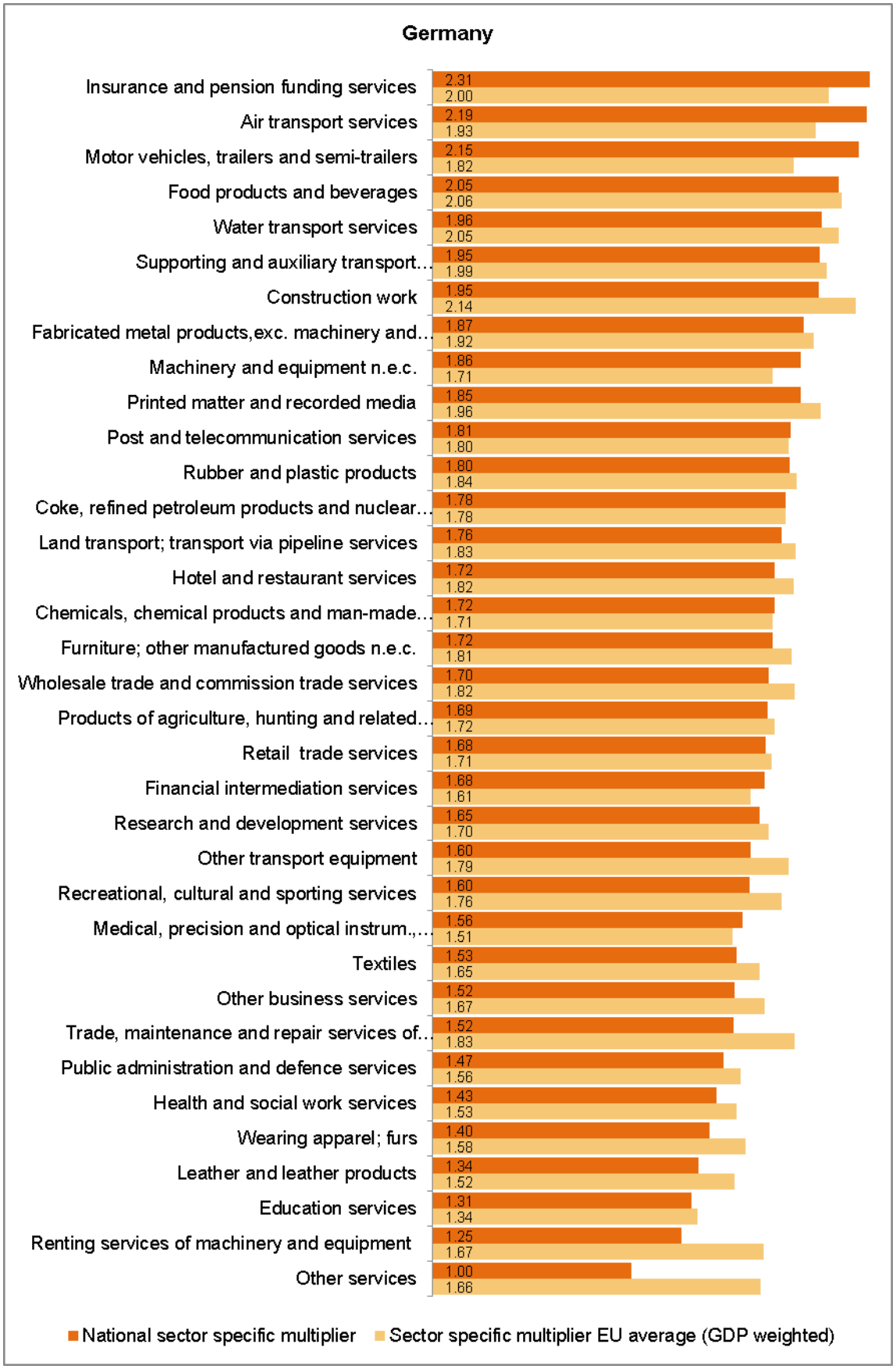
Multipliers describe the inter-connectedness of a sector with the rest of the economy. If the multiplier equals 1.0 the sector is not connected to any other sector. The higher the multiplier, the more the rest of the economy benefits from an expansion of the sector.

The highest sport-related multiplier in Germany can be found in the sector *Insurance and pension funding services*, followed by *Air transport services*. The sector *Motor vehicles, trailers and semi-trailers* is ranked third.

Renting services of machinery and equipment, *Education services,* and *Leather and leather products* are either not produced or have the lowest sport-related multipliers.

Figure 35 shows the size of these multipliers for Germany and compares them with the average value of the EU. The biggest negative difference between Germany and the EU average is in *Renting services of machinery and equipment* where the German value is 1.25 and EU average is 1.67 (a negative difference of 0.42). The biggest positive difference between Germany and the EU average is *Motor vehicles, trailers and semi-trailers* where the German value is 2.15 and the EU average is 1.82 (a positive difference of 0.33).

Figure 35: Germany - sector-specific multipliers and EU-averages



Source: SpEA, 2012.

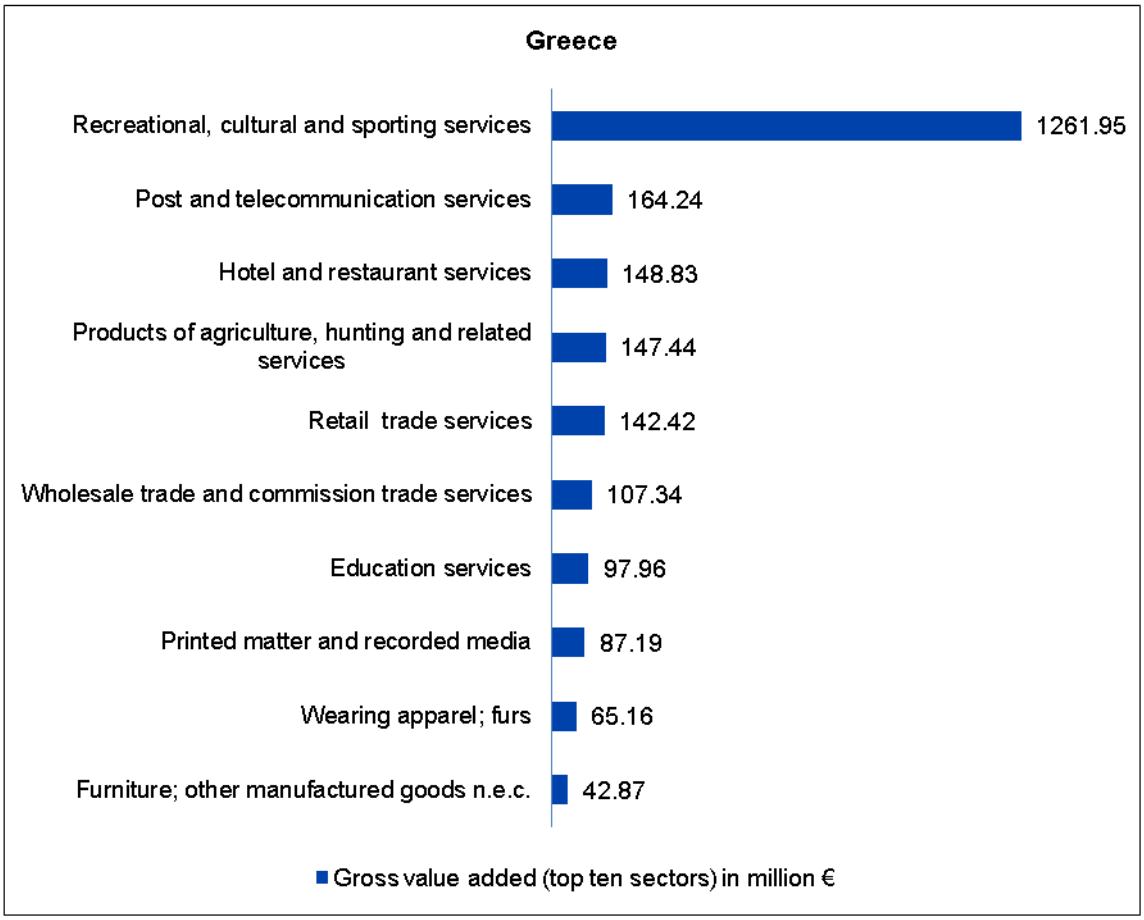
14.11 Greece

14.11.1Gross value added

The share of sport-related value added for Greece is 1% for the narrow definition and 1.44% for the broad definition of sport. This is below the EU average (1.13% narrow definition and 1.76% broad definition). The share of what is generally known as the organised sports sector (sports clubs, public sports venues, sports event organizers) is reflected in the statistical definition. The share of value added according to the statistical definition is 0.36%.

Sport-related value added (direct effects) amounts to 1.74 bn Euro according to the narrow definition and 2.52 bn Euro with respect to the broad definition. For the statistical definition of sport it is 0.63 bn Euro.

Figure 36: Greece - gross value added at market prices, broad definition



Source: SpEA, 2012.

Figure 36 above highlights the Greek top ten value added sectors according to the broad definition of sport. The highest sport-related value added is in the sector *Recreational, cultural and sporting services*, followed by *Post and telecommunication services* second, and *Hotel and restaurant services* third.

14.11.2Employment

The share of sport-related employment for Greece is 1.29% for the narrow definition and 1.63% for the broad definition of sport. This is below the EU average (1.49% narrow definition and 2.12% broad definition). The share of what is generally known as the organised sports sector is reflected in the statistical definition. The employment rate according to the statistical definition is 0.45%.

Sport-related employment (direct effects) amounts to 56,226 persons according to the narrow definition and 70,878 persons with respect to the broad definition. For the statistical definition sport-related employment is 19,594.

14.11.3Sector-specific multipliers

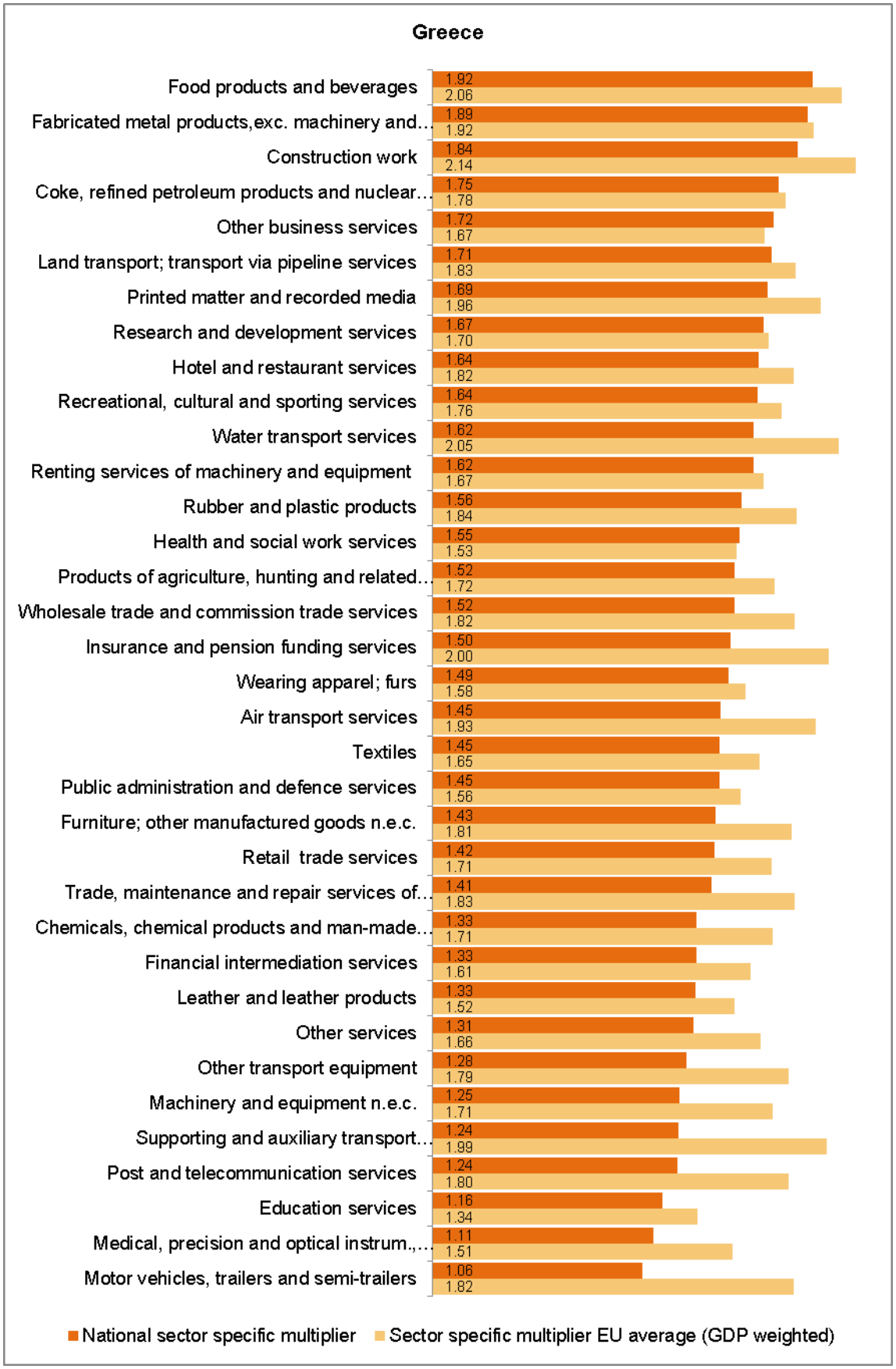
Multipliers describe the inter-connectedness of a sector with the rest of the economy. If the multiplier equals 1.0 the sector is not connected to any other sector. The higher the multiplier, the more the rest of the economy benefits from an expansion of the sector.

The highest sport-related multiplier in Greece can be found in the sector *Food products and beverages*, followed by *Fabricated metal products, exc. machinery and equipment*. The sector *Construction work* is ranked third.

Motor vehicles, trailers and semi-trailers, *Medical, precision and optical instruments, watches, clocks* and *Education services* have the lowest sport-related multipliers.

Figure 37 shows the size of these multipliers for Greece and compares them with the average value of the EU. The biggest negative difference between Greece and the EU average is in *Motor vehicles, trailers and semi-trailers* where the Greek value is 1.06 and EU average is 1.82 (a negative difference of 0.76). The biggest positive difference between Greece and the EU average is *Other business services* where the Greek value is 1.72 and the EU average is 1.67 (a positive difference of 0.05).

Figure 37: Greece - sector-specific multipliers and EU-averages



Source: SpEA, 2012.

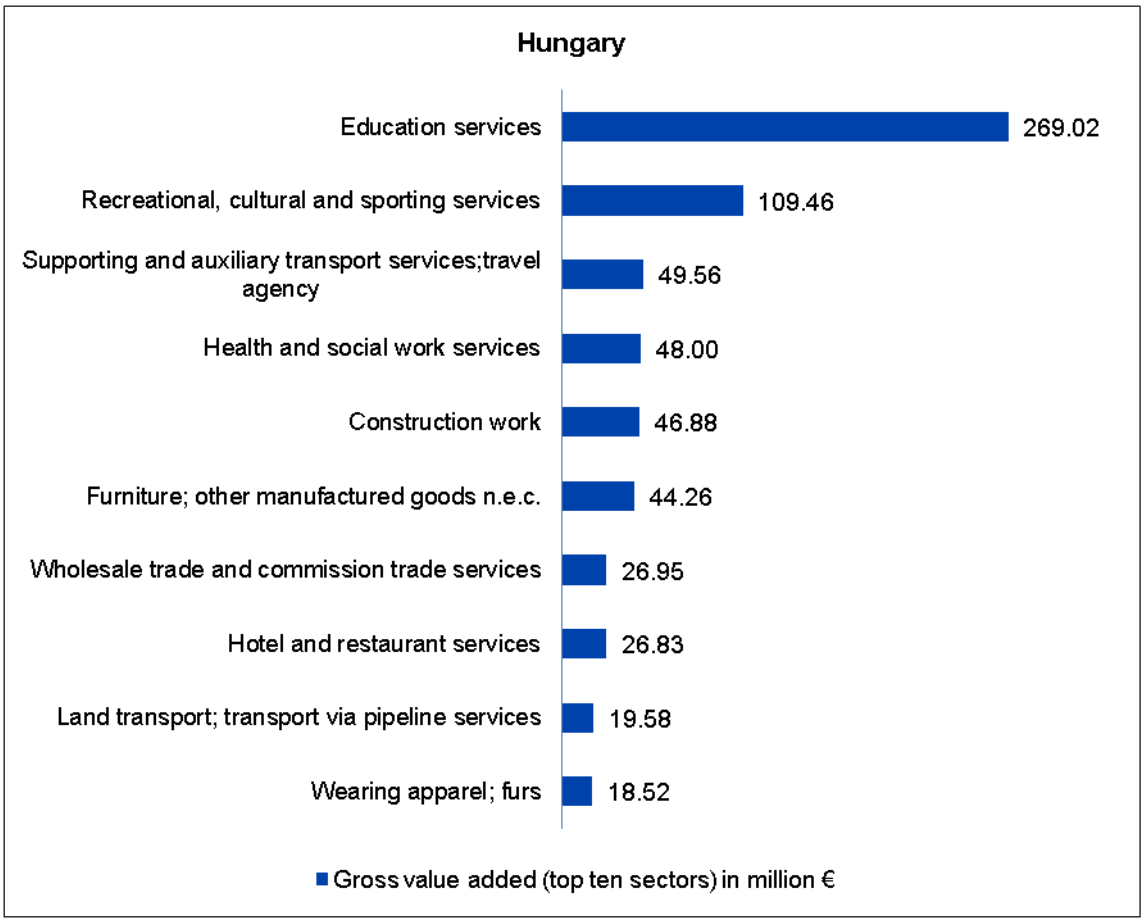
14.12 Hungary

14.12.1Gross value added

The share of sport-related value added for Hungary is 0.79% for the narrow definition and 1.02% for the broad definition of sport. This is below the EU average (1.13% narrow definition and 1.76% broad definition). The share of what is generally known as the organised sports sector (sports clubs, public sports venues, sports event organizers) is reflected in the statistical definition. The share of value added according to the statistical definition is 0.07%.

Sport-related value added (direct effects) amounts to 0.6 bn Euro according to the narrow definition and 0.78 bn Euro with respect to the broad definition. For the statistical definition of sport it is 0.05 bn Euro.

Figure 38: Hungary - gross value added at market prices, broad definition



Source: SpEA, 2012.

Figure 38 above highlights the Hungarian top ten value added sectors according to the broad definition of sport. The highest sport-related value added is in the sector *Education services*, followed by *Recreational, cultural and sporting services* second, and *Supporting and auxiliary transport services; travel agency* third.

14.12.2Employment

The share of sport-related employment for Hungary is 1.16% for the narrow definition and 1.43% for the broad definition of sport. This is below the EU average (1.49% narrow definition and 2.12% broad definition). The share of what is generally known as the organised sports sector is reflected in the statistical definition. The employment rate according to the statistical definition is 0.11%.

Sport-related employment (direct effects) amounts to 45,409 persons according to the narrow definition and 55,577 persons with respect to the broad definition. For the statistical definition sport-related employment is 4,205.

14.12.3Sector-specific multipliers

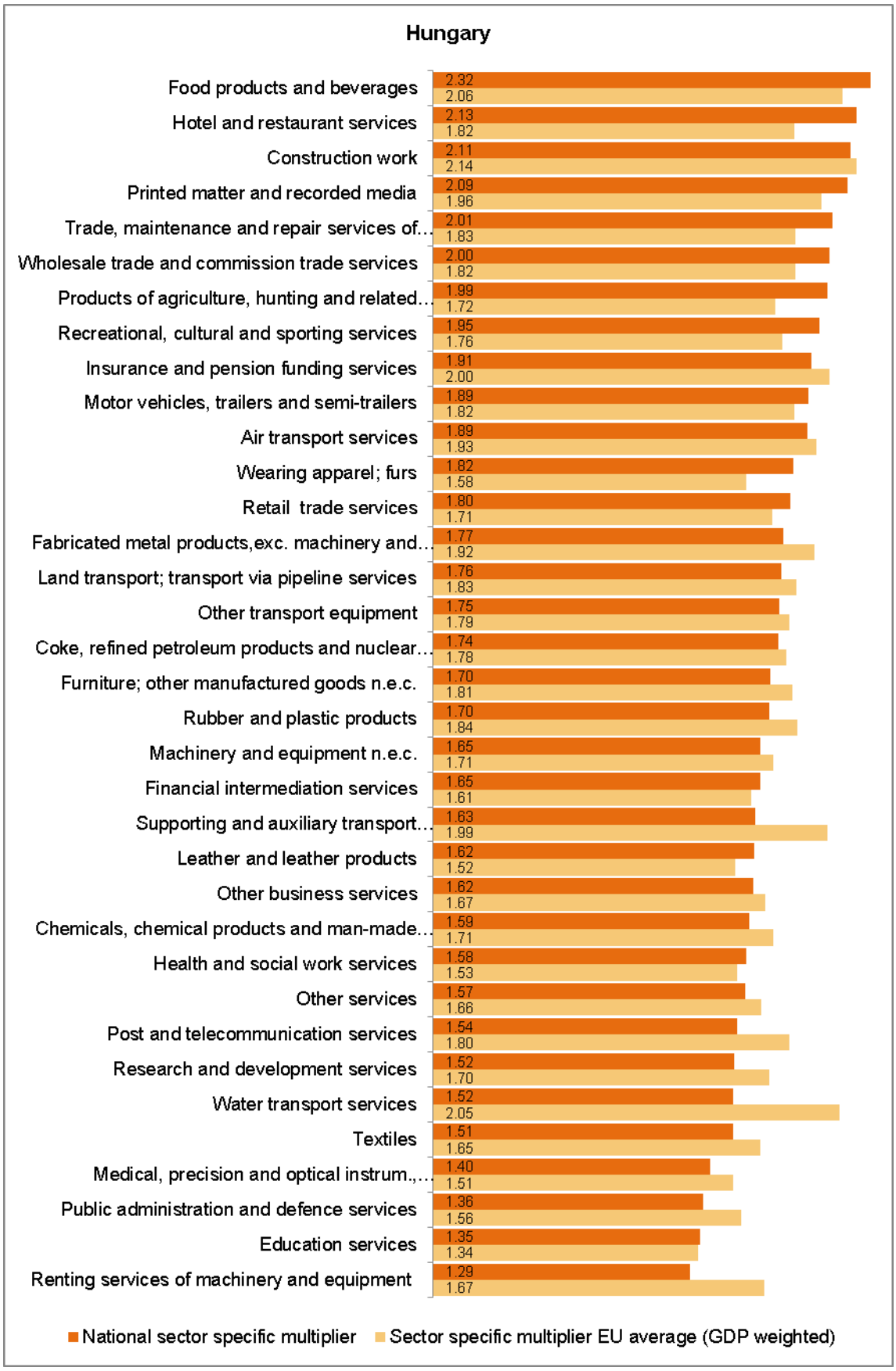
Multipliers describe the inter-connectedness of a sector with the rest of the economy. If the multiplier equals 1.0 the sector is not connected to any other sector. The higher the multiplier, the more the rest of the economy benefits from an expansion of the sector.

The highest sport-related multiplier in Hungary can be found in the sector *Food products and beverages*, followed by *Hotel and restaurant services*. The sector *Construction work* is ranked third.

Renting services of machinery and equipment, *Education services* and *Public administration and defence services* have the lowest sport-related multipliers.

Figure 39 shows the size of these multipliers for Hungary and compares them with the average value of the EU. The biggest negative difference between Hungary and the EU average is in *Water transport services* where the Hungarian value is 1.52 and EU average is 2.05 (a negative difference of 0.53). The biggest positive difference between Hungary and the EU average is *Hotel and restaurant services* where the Hungarian value is 2.13 and the EU average is 1.82 (a positive difference of 0.31).

Figure 39: Hungary - sector-specific multipliers and EU-averages



Source: SpEA, 2012.

14.13 Ireland

14.13.1Gross value added

The share of sport-related value added for Ireland is 0.96% for the narrow definition and 1.66% for the broad definition of sport. This is below the EU average for the narrow definition (1.07%) respectively above the EU average for the broad definition (1.63%). The share of what is generally known as the organised sports sector (sports clubs, public sports venues, sports event organizers) is reflected in the statistical definition. The share of value added according to the statistical definition is 0.3%.

Sport-related value added (direct effects) amounts to 1.37 bn Euro according to the narrow definition and 2.38 bn Euro with respect to the broad definition. For the statistical definition of sport it is 0.44 bn Euro.

Figure 40: Ireland - gross value added at market prices, broad definition

Source: SpEA, 2012.

Figure 40 above highlights the Irish top ten value added sectors according to the broad definition of sport. The highest sport-related value added is in the sector *Recreational, cultural and sporting services*, followed by *Production of agriculture, hunting and related services* second, and *Financial intermediation services* third.

14.13.2Employment

The share of sport-related employment for Ireland is 1.39% for the narrow definition and 2.08% for the broad definition of sport. This is below the EU average for the narrow definition (1.49%) respectively above the EU average for the broad definition (2.12%). The share of what is generally known as the organised sports sector is reflected in the statistical definition. The employment rate according to the statistical definition is 0.37%.

Sport-related employment (direct effects) amounts to 26,995 persons according to the narrow definition and 40,532 persons with respect to the broad definition. For the statistical definition sport-related employment is 7,161.

14.13.3Sector-specific multipliers

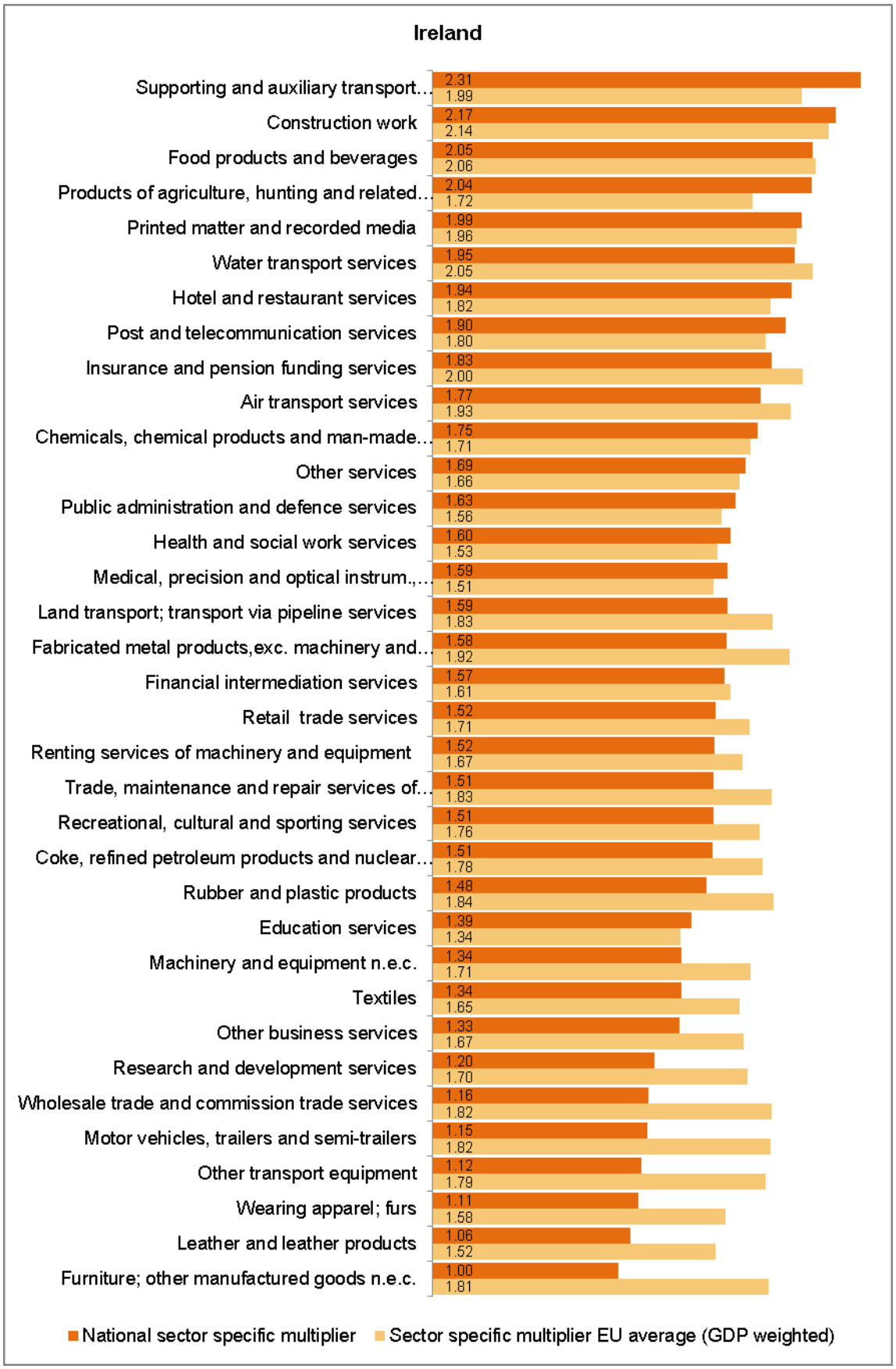
Multipliers describe the inter-connectedness of a sector with the rest of the economy. If the multiplier equals 1.0 the sector is not connected to any other sector. The higher the multiplier, the more the rest of the economy benefits from an expansion of the sector.

The highest sport-related multiplier in Ireland can be found in the sector *Supporting and auxiliary transport services; travel agency*, followed by *Construction work*. The sector *Food products and beverages* is ranked third.

Leather and leather products, Wearing apparel; furs, and *Other transport equipment* report the lowest sport-related multipliers of produced goods.

Figure 41 shows the size of these multipliers for Ireland and compares them with the average value of the EU. The biggest negative difference between produced goods in Ireland and the EU average is in *Other transport equipment* where the Irish value is 1.12 and EU average is 1.79 (a negative difference of 0.67). The biggest positive difference between Ireland and the EU average is *Supporting and auxiliary transport services; travel agency* where the Irish value is 2.31 and the EU average is 1.99 (a positive difference of 0.32).

Figure 41: Ireland - sector-specific multipliers and EU-averages



Source: SpEA, 2012.

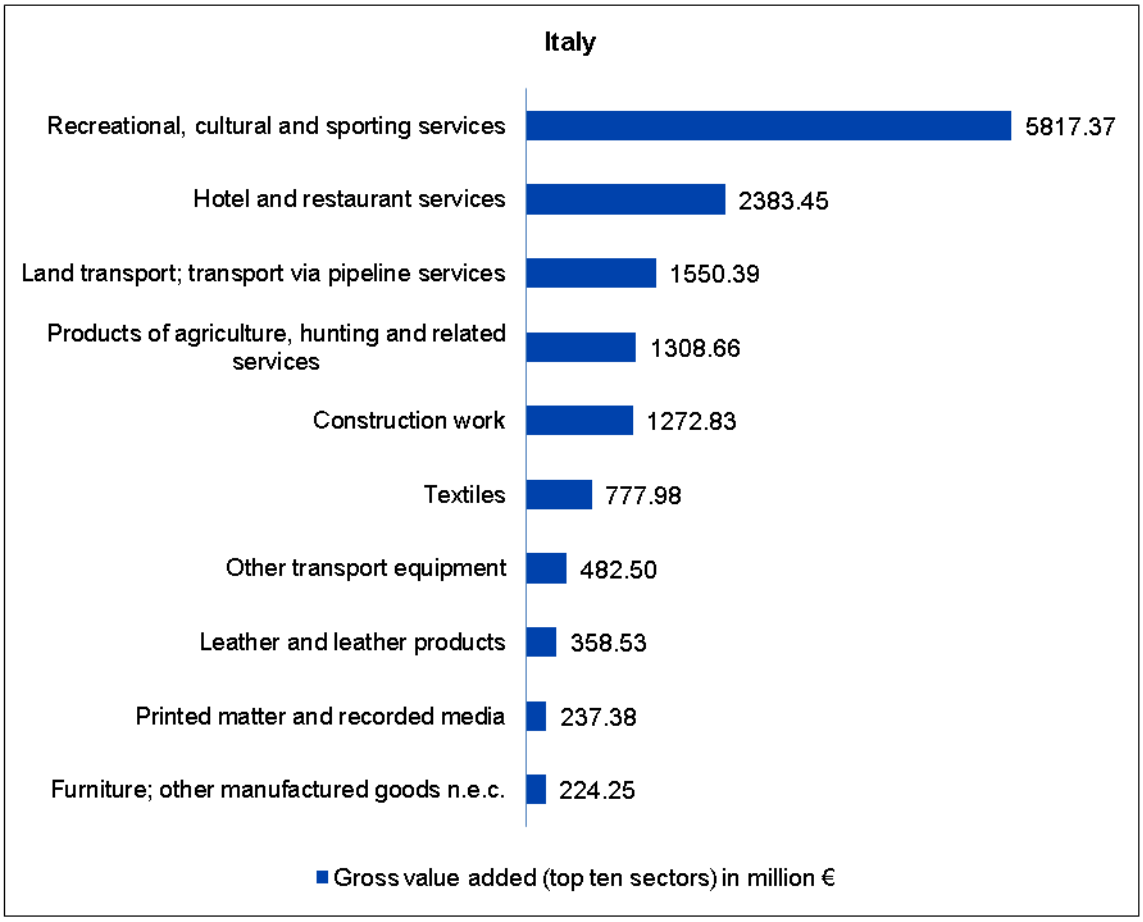
14.14 Italy

14.14.1Gross value added

The share of sport-related value added for Italy is 0.76% for the narrow definition and 1.21% for the broad definition of sport. This is below the EU average (1.13% narrow definition and 1.76% broad definition). The share of what is generally known as the organised sports sector (sports clubs, public sports venues, sports event organizers) is reflected in the statistical definition. The share of value added according to the statistical definition is 0.23%.

Sport-related value added (direct effects) amounts to 9.75 bn Euro according to the narrow definition and 15.6 bn Euro with respect to the broad definition. For the statistical definition of sport it is 2.91 bn Euro.

Figure 42: Italy - gross value added at market prices, broad definition



Source: SpEA, 2012.

Figure 42 above highlights the Italian top ten value added sectors according to the broad definition of sport. The highest sport-related value added is in the sector *Recreational, cultural and sporting services*, followed by *Hotel and restaurant services* second, and *Land transport; transport via pipeline services* third.

14.14.2Employment

The share of sport-related employment for Italy is 1.07% for the narrow definition and 1.47% for the broad definition of sport. This is below the EU average (1.49% narrow definition and 2.12% broad definition). The share of what is generally known as the organised sports sector is reflected in the statistical definition. The employment rate according to the statistical definition is 0.34%.

Sport-related employment (direct effects) amounts to 239,881 persons according to the narrow definition and 329,860 persons with respect to the broad definition. For the statistical definition sport-related employment is 75,641.

14.14.3Sector-specific multipliers

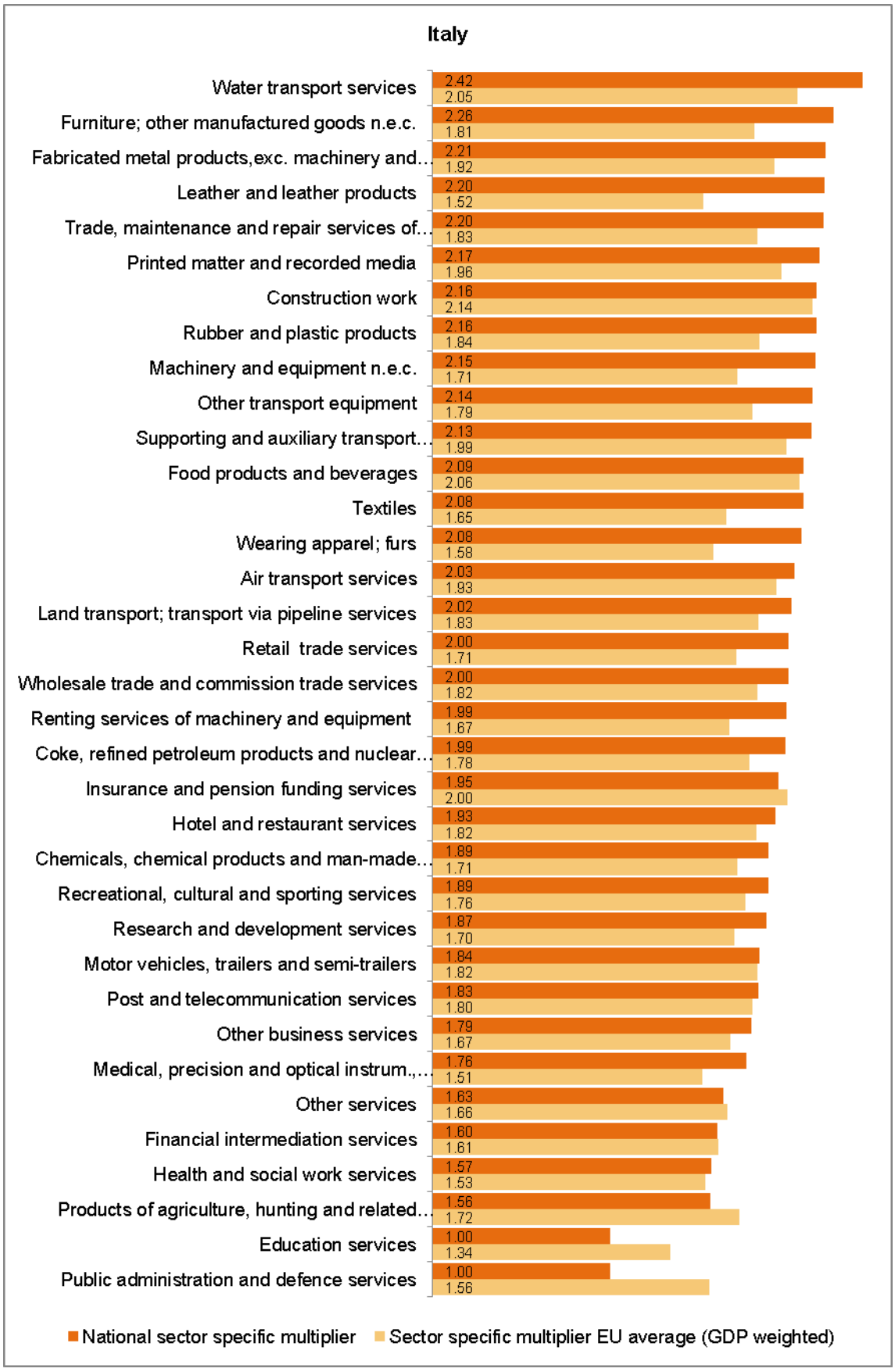
Multipliers describe the inter-connectedness of a sector with the rest of the economy. If the multiplier equals 1.0 the sector is not connected to any other sector. The higher the multiplier, the more the rest of the economy benefits from an expansion of the sector.

The highest sport-related multiplier in Italy can be found in the sector *Water transport services*, followed by *Furniture; other manufactured goods n.e.c.*. The sector *Fabricated metal products, exc. machinery and equipment* is ranked third.

Products of agriculture, hunting and related, Health and social work services, and *Financial intermediation services* report the lowest sport-related multipliers of produced goods.

Figure 43 shows the size of these multipliers for Italy and compares them with the average value of the EU. The biggest negative difference between produced goods in Italy and the EU average is in *Products of agriculture, hunting and related services* where the Italian value is 1.56 and EU average is 1.72 (a negative difference of 0.16). The biggest positive difference between Italy and the EU average is *Leather and leather products* where the Italian value is 2.20 and the EU average is 1.52 (a positive difference of 0.68).

Figure 43: Italy - sector-specific multipliers and EU-averages



Source: SpEA, 2012.

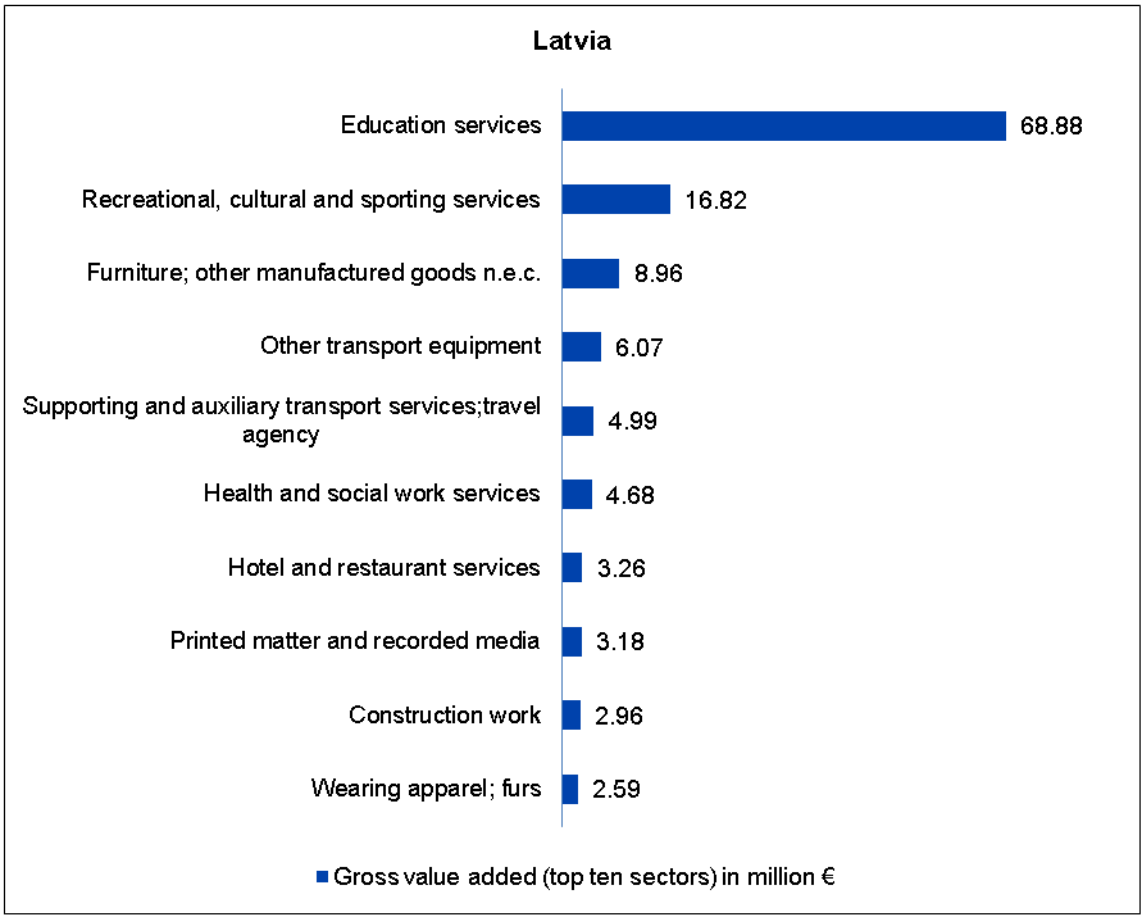
14.15 Latvia

14.15.1Gross value added

The share of sport-related value added for Latvia is 0.91% for the narrow definition and 1.11% for the broad definition of sport. This is below the EU average (1.13% narrow definition and 1.76% broad definition). The share of what is generally known as the organised sports sector (sports clubs, public sports venues, sports event organizers) is reflected in the statistical definition. The share of value added according to the statistical definition is 0.07%.

Sport-related value added (direct effects) amounts to 0.11 bn Euro according to the narrow definition and 0.14 bn Euro with respect to the broad definition. For the statistical definition of sport it is 0.01 bn Euro.

Figure 44: Latvia - gross value added at market prices, broad definition



Source: SpEA, 2012.

Figure 44 above highlights the Latvian top ten value added sectors according to the broad definition of sport. The highest sport-related value added is in the sector *Education services*, followed by *Recreational, cultural and sporting services* second, and *Furniture, other manufactured goods n.e.c.* third.

14.15.2Employment

The share of sport-related employment for Latvia is 1.44% for the narrow definition and 1.65% for the broad definition of sport. This is below the EU average (1.49% narrow definition and 2.12% broad definition). The share of what is generally known as the organised sports sector is reflected in the statistical definition. The employment rate according to the statistical definition is 0.12%.

Sport-related employment (direct effects) amounts to 14,933 persons according to the narrow definition and 17,077 persons with respect to the broad definition. For the statistical definition sport-related employment is 1,204.

14.15.3Sector-specific multipliers

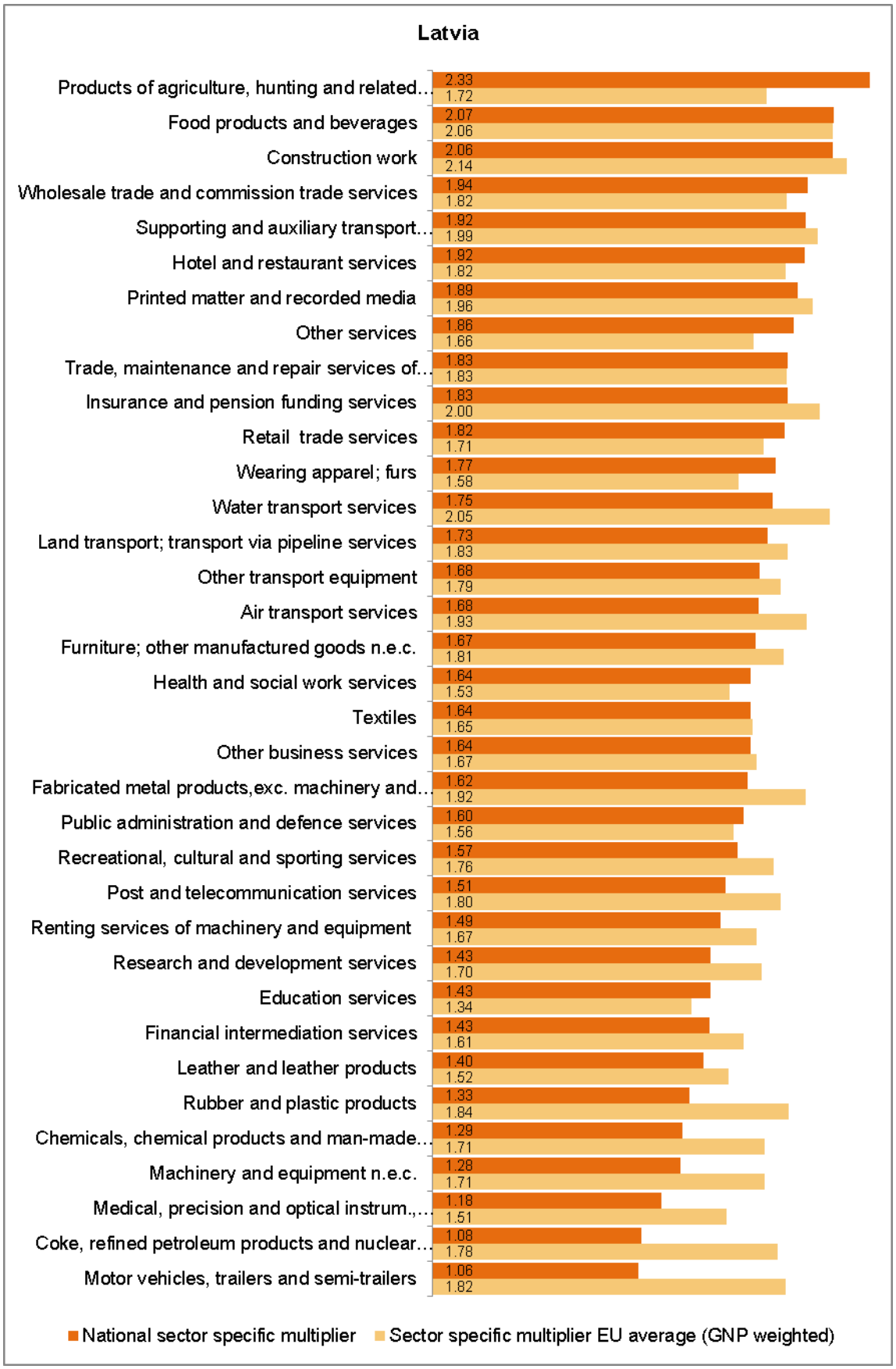
Multipliers describe the inter-connectedness of a sector with the rest of the economy. If the multiplier equals 1.0 the sector is not connected to any other sector. The higher the multiplier, the more the rest of the economy benefits from an expansion of the sector.

The highest sport-related multiplier in Latvia can be found in the sector *Products of agriculture, hunting and related services*, followed by *Construction work*. The sector *Food products and beverages* is ranked third.

Motor vehicles, trailers and semi-trailers, *Coke, refined petroleum products and nuclear fuels* and *Medical, precision and optical instruments, watches, clocks* have the lowest sport-related multipliers.

Figure 45 shows the size of these multipliers for Latvia and compares them with the average value of the EU. The biggest negative difference between Latvia and the EU average is in *Motor vehicles, trailers and semi-trailers* where the Latvian value is 1.06 and EU average is 1.82 (a negative difference of 0.76). The biggest positive difference between Latvia and the EU average is *Products of agriculture, hunting and related services* where the Latvian value is 2.33 and the EU average is 1.72 (a positive difference of 0.59).

Figure 45: Latvia - sector-specific multipliers and EU-averages



Source: SpEA, 2012.

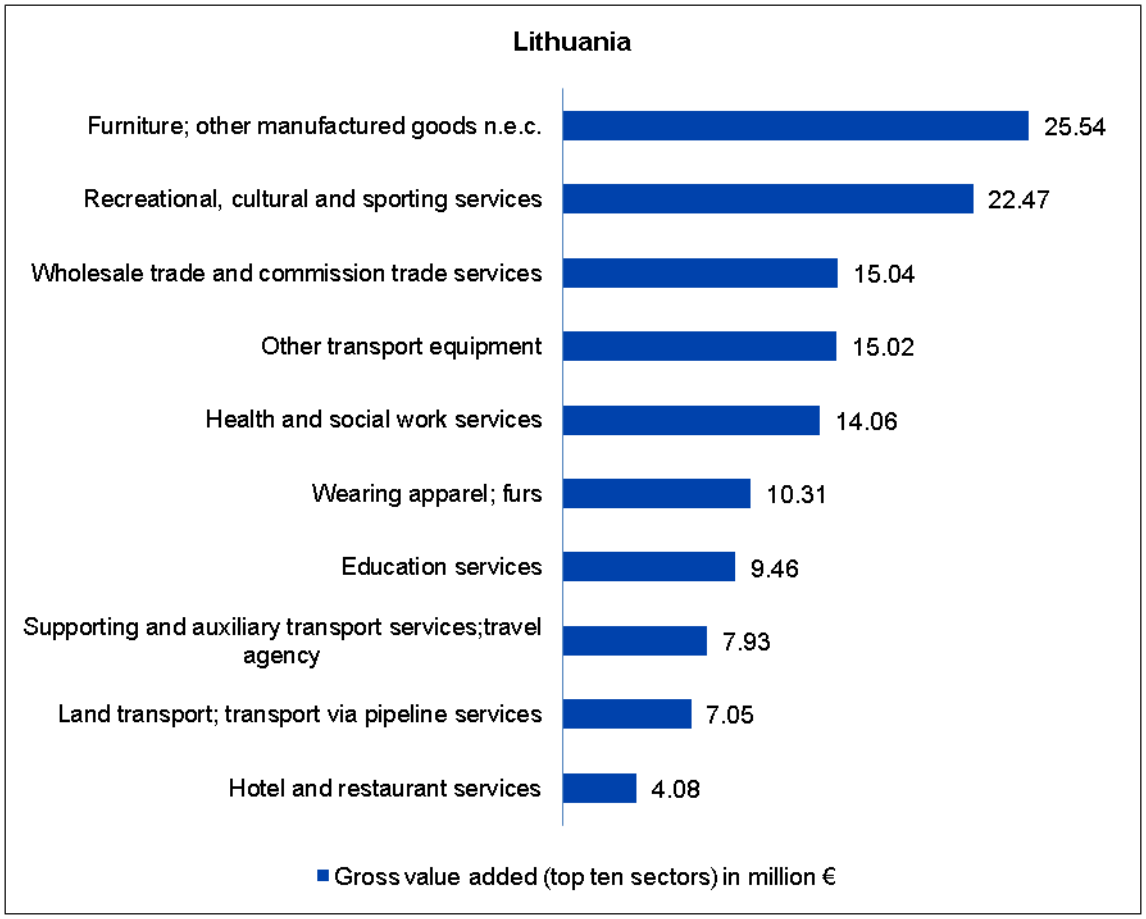
14.16 Lithuania

14.16.1Gross value added

The share of sport-related value added for Lithuania is 0.65% for the narrow definition and 0.88% for the broad definition of sport. This is below the EU average (1.13% narrow definition and 1.76% broad definition). The share of what is generally known as the organised sports sector (sports clubs, public sports venues, sports event organizers) is reflected in the statistical definition. The share of value added according to the statistical definition is 0.06%.

Sport-related value added (direct effects) amounts to 0.12 bn Euro according to the narrow definition and 0.16 bn Euro with respect to the broad definition. For the statistical definition of sport it is 0.01 bn Euro.

Figure 46: Lithuania - gross value added at market prices, broad definition



Source: SpEA, 2012.

Figure 46 above highlights the Lithuanian top ten value added sectors according to the broad definition of sport. The highest sport-related value added is in the sector *Furniture; other manufactured goods n.e.c. followed by Recreational, cultural and sporting services* second and *Wholesale trade and commission trade services* third.

14.16.2Employment

The share of sport-related employment for Lithuania is 0.87% for the narrow definition and 1.10% for the broad definition of sport. This is below the EU average (1.49% narrow definition and 2.12% broad definition). The share of what is generally known as the organised sports sector is reflected in the statistical definition. The employment rate according to the statistical definition is 0.12%.

Sport-related employment (direct effects) amounts to 12,762 persons according to the narrow definition and 16,178 persons with respect to the broad definition. For the statistical definition sport-related employment is 1,740.

14.16.3Sector-specific multipliers

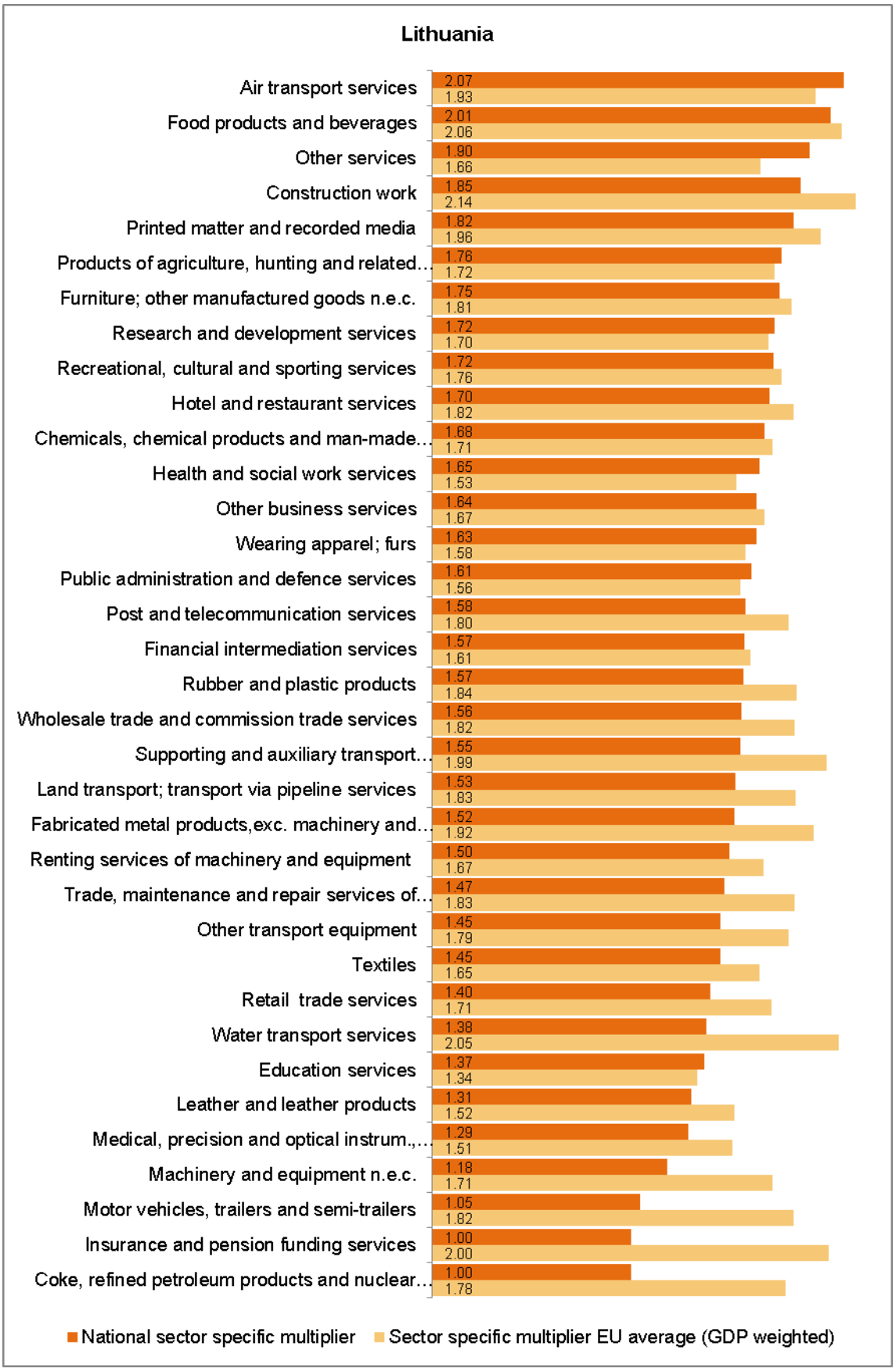
Multipliers describe the inter-connectedness of a sector with the rest of the economy. If the multiplier equals 1.0 the sector is not connected to any other sector. The higher the multiplier, the more the rest of the economy benefits from an expansion of the sector.

The highest sport-related multiplier in Lithuania can be found in the sector *Air transport services*, followed by *Food products and beverages*. The sector *Other services* is ranked third.

Motor vehicles, trailers and semi-trailers, Machinery and equipment n.e.c., and *Medical, precision and optical instruments, watches, clocks* are either not produced or have the lowest sport-related multipliers.

Figure 47 shows the size of these multipliers for Lithuania and compares them with the average value of the EU. The biggest negative difference between produced goods in Lithuania and the EU average is in *Motor vehicles, trailers and semi-trailers* where the Lithuanian value is 1.05 and EU average is 1.82 (a negative difference of 0.77). The biggest positive difference between Lithuania and the EU average is *Other services* where the Lithuanian value is 1.90 and the EU average is 1.66 (a positive difference of 0.24).

Figure 47: Lithuania - sector-specific multipliers and EU-averages



Source: SpEA, 2012.

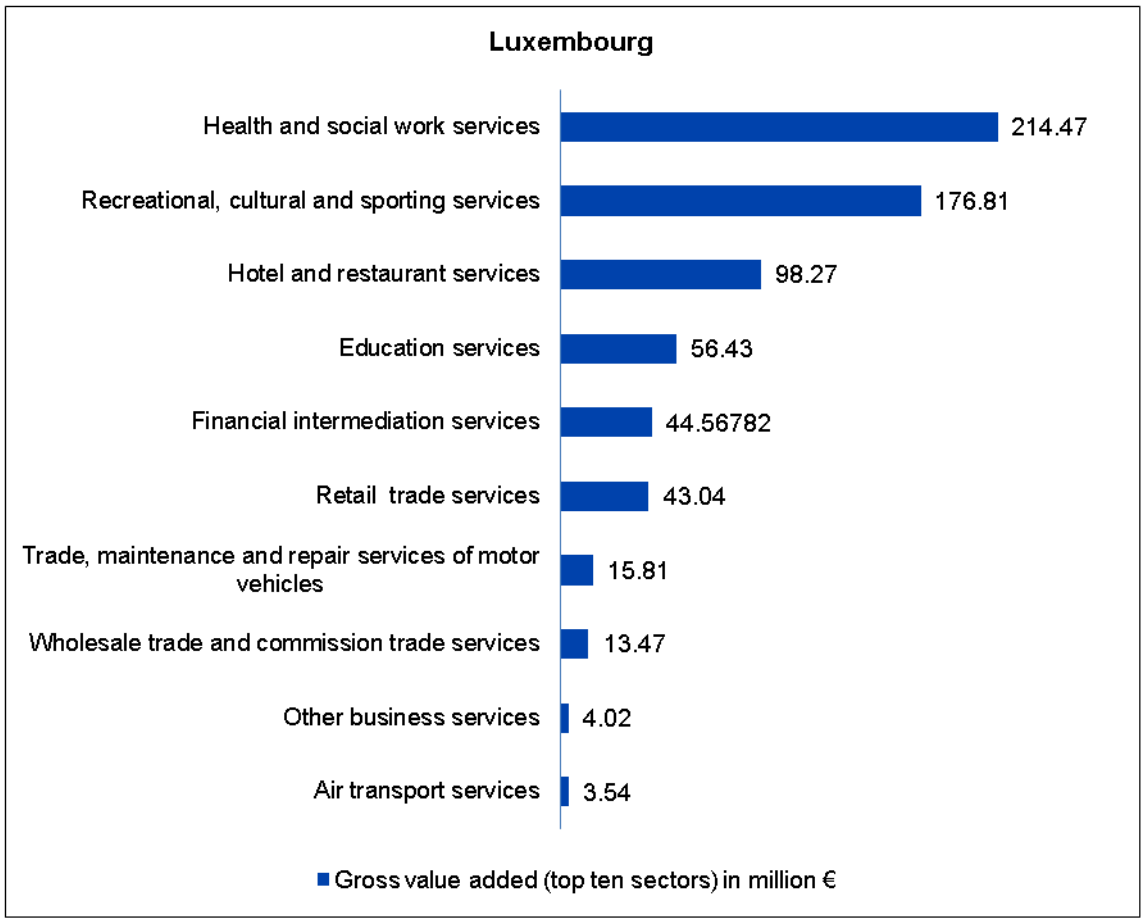
14.17 Luxemburg

14.17.1Gross value added

The share of sport-related value added for Luxembourg is 1.32% for the narrow definition and 2.37% for the broad definition of sport. This is above the EU average (1.13% narrow definition and 1.76% broad definition). The share of what is generally known as the organised sports sector (sports clubs, public sports venues, sports event organizers) is reflected in the statistical definition. The share of value added according to the statistical definition is 0.3%.

Sport-related value added (direct effects) amounts to 0.39 bn Euro according to the narrow definition and 0.7 bn Euro with respect to the broad definition. For the statistical definition of sport it is 0.09 bn Euro.

Figure 48: Luxembourg - gross value added at market prices, broad definition



Source: SpEA, 2012.

Figure 48 above highlights the Luxembourgian top ten value added sectors according to the broad definition of sport. The highest sport-related value added is in the sector *Health and social work services*, followed by *Recreational, cultural and sporting services* second, and *Hotel and restaurant services* third.

14.17.2Employment

The share of sport-related employment for Luxembourg is 3.7% for the narrow definition and 5.63% for the broad definition of sport. This is above the EU average (1.49% narrow definition and 2.12% broad definition). The share of what is generally known as the organised sports sector is reflected in the statistical definition. The employment rate according to the statistical definition is 0.32%.

Sport-related employment (direct effects) amounts to 12,708 persons according to the narrow definition and 19,331 persons with respect to the broad definition. For the statistical definition sport-related employment is 1,113.

14.17.3Sector-specific multipliers

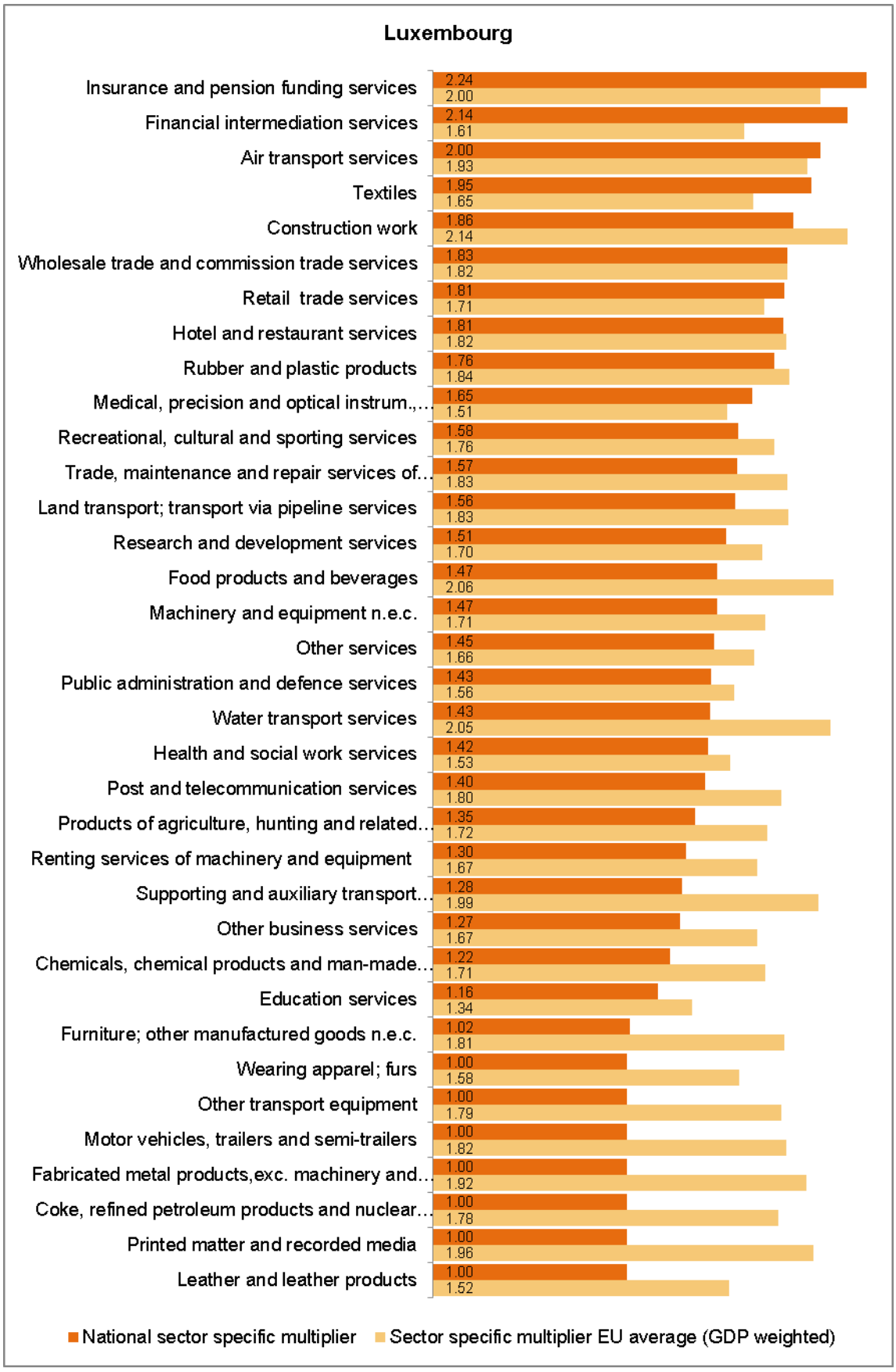
Multipliers describe the inter-connectedness of a sector with the rest of the economy. If the multiplier equals 1.0 the sector is not connected to any other sector. The higher the multiplier, the more the rest of the economy benefits from an expansion of the sector.

The highest sport-related multiplier in Luxembourg can be found in the sector *Insurance and pension funding services*, followed by *Financial intermediation services*. The sector *Air transport services* is ranked third.

The lowest sport-related multipliers of produced goods are reported in *Furniture; other manufactured goods n.e.c.*, *Education services*, and *Chemicals, chemical products and man-made fibres*.

Figure 49 shows the size of these multipliers for Luxembourg and compares them with the average value of the EU. The biggest negative difference between Luxembourg and the EU average is in *Furniture; other manufactured goods n.e.c.* where the Luxembourgian value is 1.02 and EU average is 1.81 (a negative difference of 0.79). The biggest positive difference between Luxembourg and the EU average is *Insurance and pension funding services* where the Luxembourgian value is 2.24 and the EU average is 2.00 (a positive difference of 0.24).

Figure 49: Luxembourg - sector-specific multipliers and EU-averages



Source: SpEA, 2012.

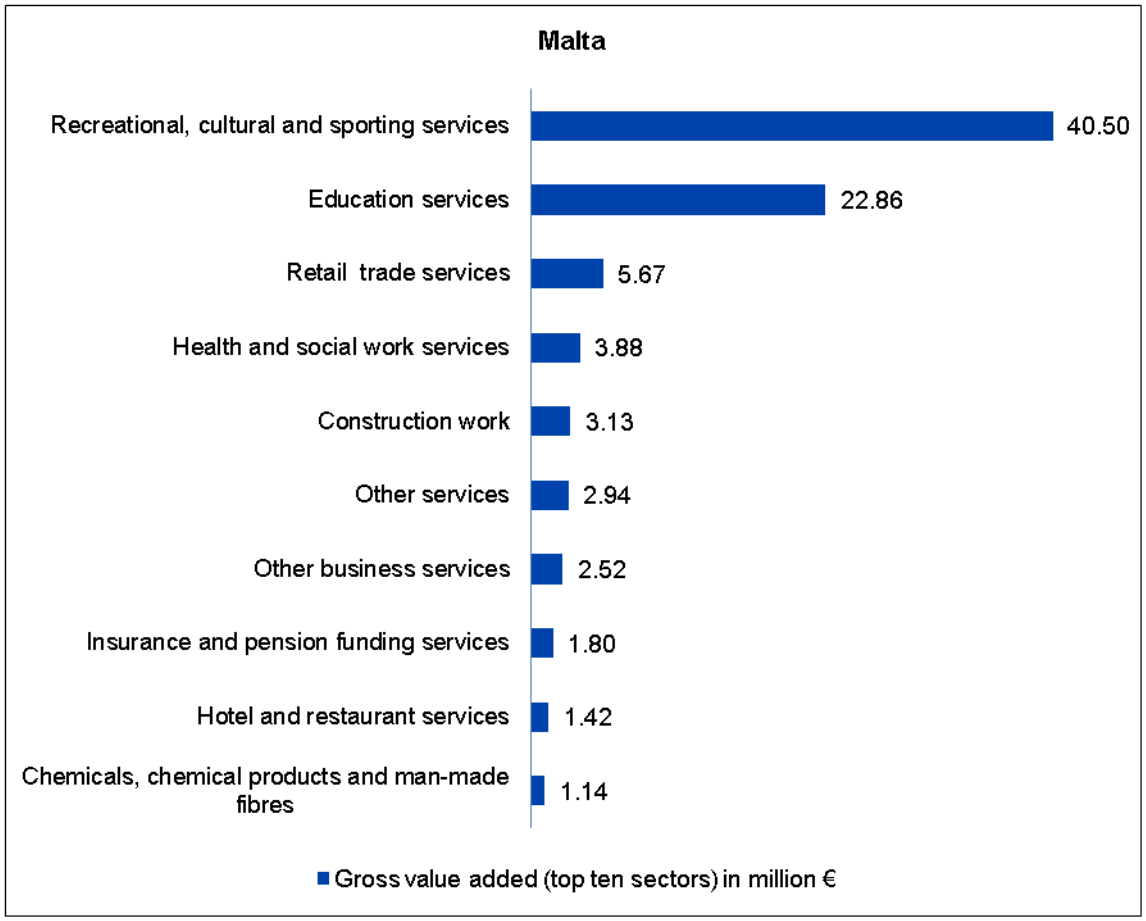
14.18 Malta

14.18.1Gross value added

The share of sport-related value added for Malta is 1.75% for the narrow definition and 2.24% for the broad definition of sport. This is above the EU average (1.13% narrow definition and 1.76% broad definition). The share of what is generally known as the organised sports sector (sports clubs, public sports venues, sports event organizers) is reflected in the statistical definition. The share of value added according to the statistical definition is 0.49%.

Sport-related value added (direct effects) amounts to 0.07 bn Euro according to the narrow definition and 0.09 bn Euro with respect to the broad definition. For the statistical definition of sport it is 0.02 bn Euro.

Figure 50: Malta - gross value added at market prices, broad definition



Source: SpEA, 2012.

Figure 50 above highlights the top ten value added sectors in Malta according to the broad definition of sport. The highest sport-related value added is in the sector *Recreational, cultural and sporting services*, followed by *Education services* second, and *Retail trade services* third.

14.18.2Employment

The share of sport-related employment for Malta is 1.51% for the narrow definition and 2.07% for the broad definition of sport. This is above the EU average (1.49% narrow definition and 2.12% broad definition). The share of what is generally known as the organised sports sector is reflected in the statistical definition. The employment rate according to the statistical definition is 0.49%.

Sport-related employment (direct effects) amounts to 2,235 persons according to the narrow definition and 3,070 persons with respect to the broad definition. For the statistical definition sport-related employment is 723.

14.18.3Sector-specific multipliers

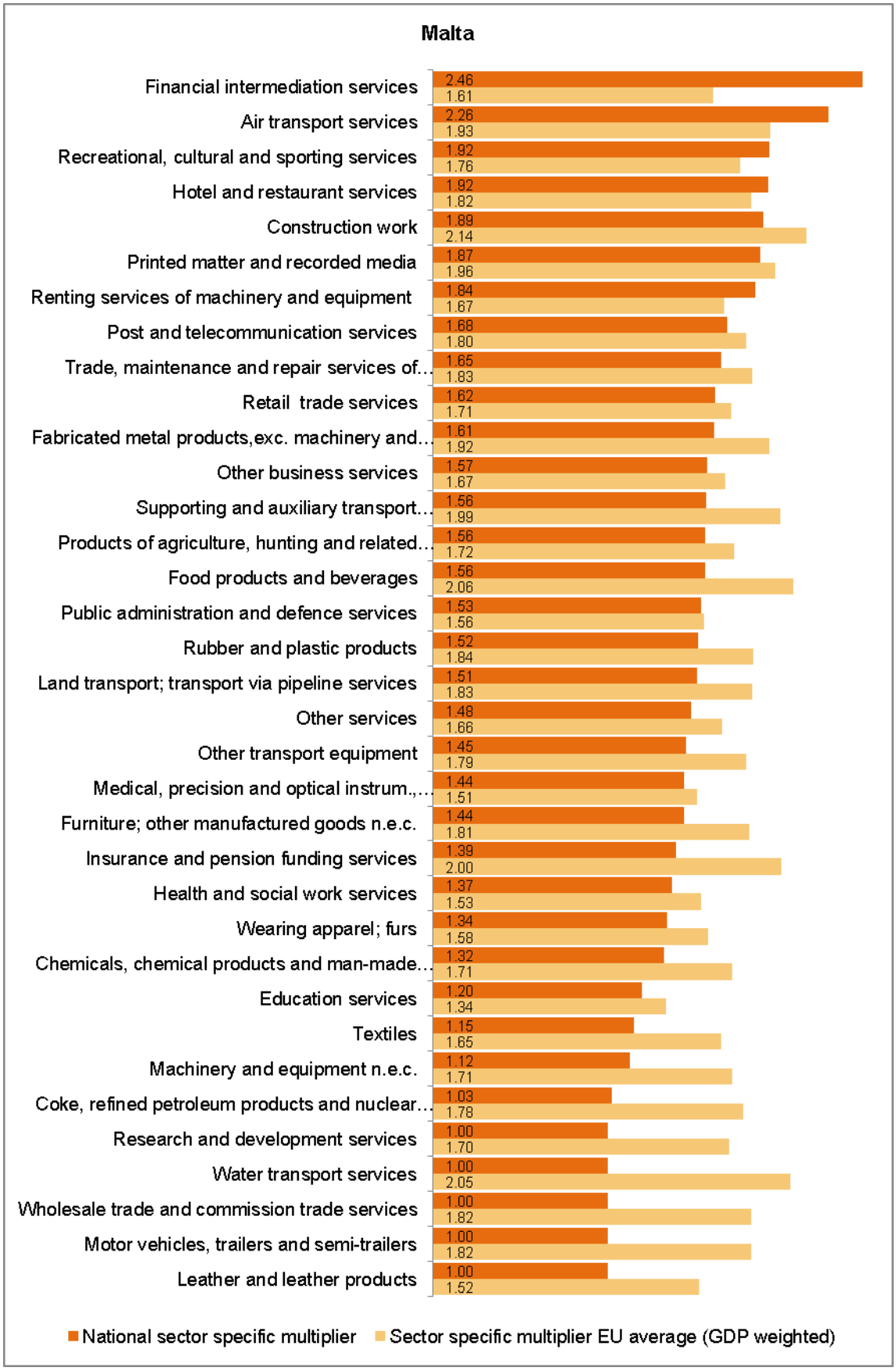
Multipliers describe the inter-connectedness of a sector with the rest of the economy. If the multiplier equals 1.0 the sector is not connected to any other sector. The higher the multiplier, the more the rest of the economy benefits from an expansion of the sector.

The highest sport-related multiplier in Malta can be found in the sector *Financial intermediation services,* followed by *Air transport services*. The sector *Recreational, cultural and sporting services* is ranked third.

The lowest sport-related multipliers of produced goods are reported in *Coke, refined petroleum products and nuclear fuels*, *Machinery and equipment n.e.c.*, and *Textiles*.

Figure 51 shows the size of these multipliers for Malta and compares them with the average value of the EU. The biggest negative difference between Malta and the EU average is in *Coke, refined petroleum products and nuclear fuels* where the Maltese value is 1.03 and EU average is 1.78 (a negative difference of 0.75). The biggest positive difference between Malta and the EU average is *Financial intermediation services* where the Maltese value is 2.46 and the EU average is 1.61 (a positive difference of 0.85).

Figure 51: Malta - sector-specific multipliers and EU-averages



Source: SpEA, 2012.

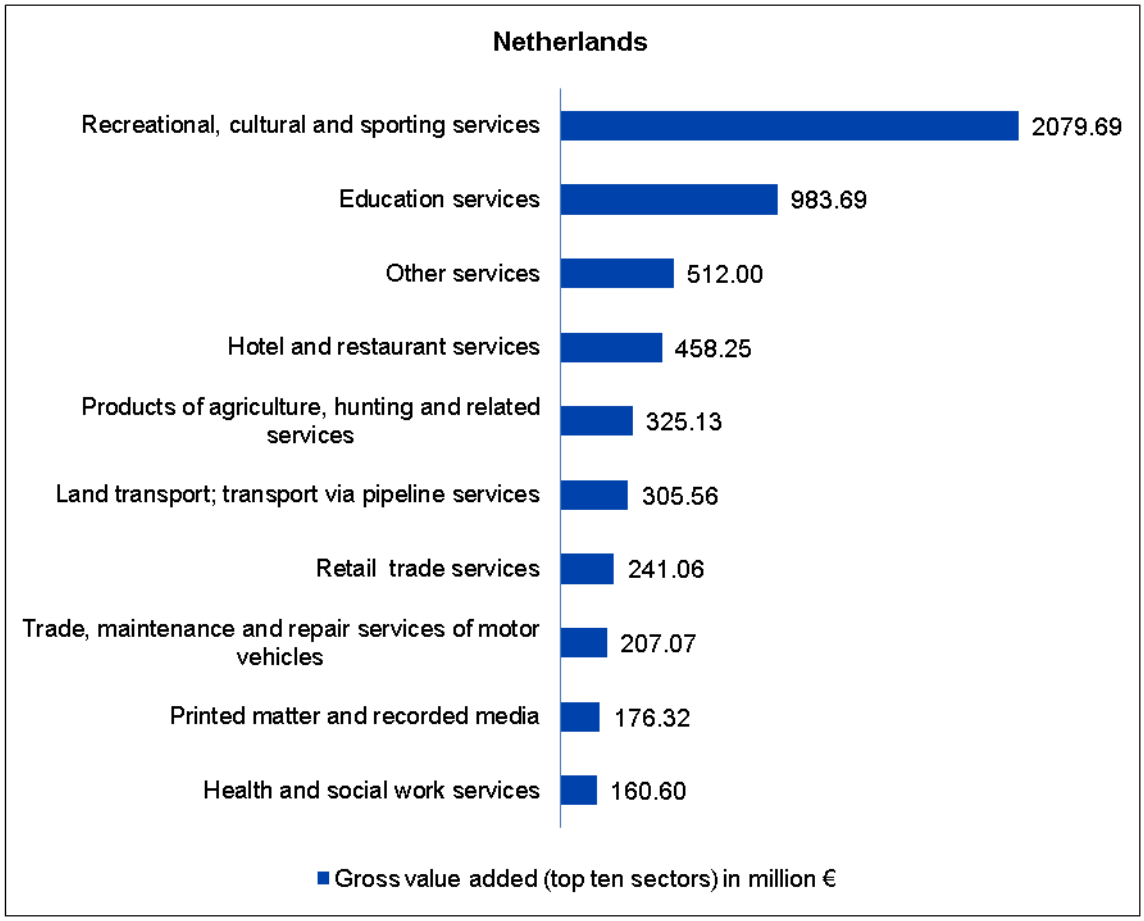
14.19 The Netherlands

14.19.1Gross value added

The share of sport-related value added for the Netherlands is 0.93% for the narrow definition and 1.28% for the broad definition of sport. This is below the EU average (1.13% narrow definition and 1.76% broad definition). The share of what is generally known as the organised sports sector (sports clubs, public sports venues, sports event organizers) is reflected in the statistical definition. The share of value added according to the statistical definition is 0.23%.

Sport-related value added (direct effects) amounts to 4.25 bn Euro according to the narrow definition and 5.83 bn Euro with respect to the broad definition. For the statistical definition of sport it is 1.04 bn Euro.

Figure 52: Netherlands - gross value added at market prices, broad definition



Source: SpEA, 2012.

Figure 52 above highlights the Dutch top ten value added sectors according to the broad definition of sport. The highest sport-related value added is in the sector *Recreational, cultural and sporting services*, followed by *Education services* second, and *Other services* third.

14.19.2Employment

The share of sport-related employment for the Netherlands is 1.32% for the narrow definition and 1.75% for the broad definition of sport. This is below the EU average (1.49% narrow definition and 2.12% broad definition). The share of what is generally known as the organised sports sector is reflected in the statistical definition. The employment rate according to the statistical definition is 0.27%.

Sport-related employment (direct effects) amounts to 107,024 persons according to the narrow definition and 141,896 persons with respect to the broad definition. For the statistical definition sport-related employment is 22,243.

14.19.3Sector-specific multipliers

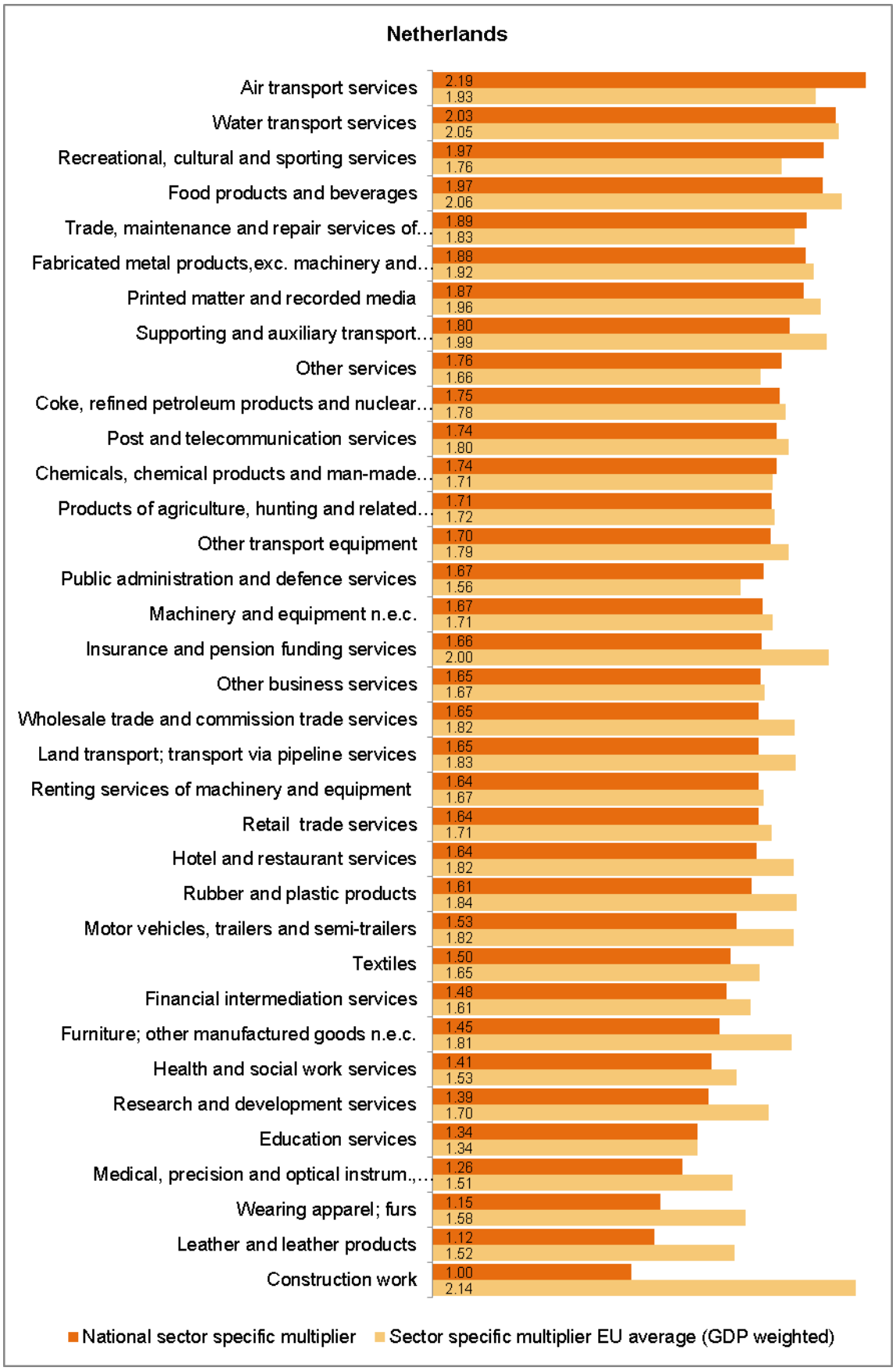
Multipliers describe the inter-connectedness of a sector with the rest of the economy. If the multiplier equals 1.0 the sector is not connected to any other sector. The higher the multiplier, the more the rest of the economy benefits from an expansion of the sector.

The highest sport-related multiplier in the Netherlands can be found in the sector *Air transport services*, followed by *Water transport services*. The sector *Recreational, cultural and sporting services* is ranked third.

Leather and leather products, *Wearing apparel; furs,* and *Medical, precision and optical instrum., watches, clocks* have the lowest sport-related multipliers of produced goods.

Figure 53 shows the size of these multipliers for the Netherlands and compares them with the average value of the EU. The biggest negative difference between the Netherlands and the EU average is in *Wearing apparel; furs* where the Dutch value is 1.15 and EU average is 1.58 (a negative difference of 0.43). The biggest positive difference between the Netherlands and the EU average is *Air transport services* where the Dutch value is 2.19 and the EU average is 1.93 (a positive difference of 0.26).

Figure 53: Netherlands - sector-specific multipliers and EU-averages



Source: SpEA, 2012.

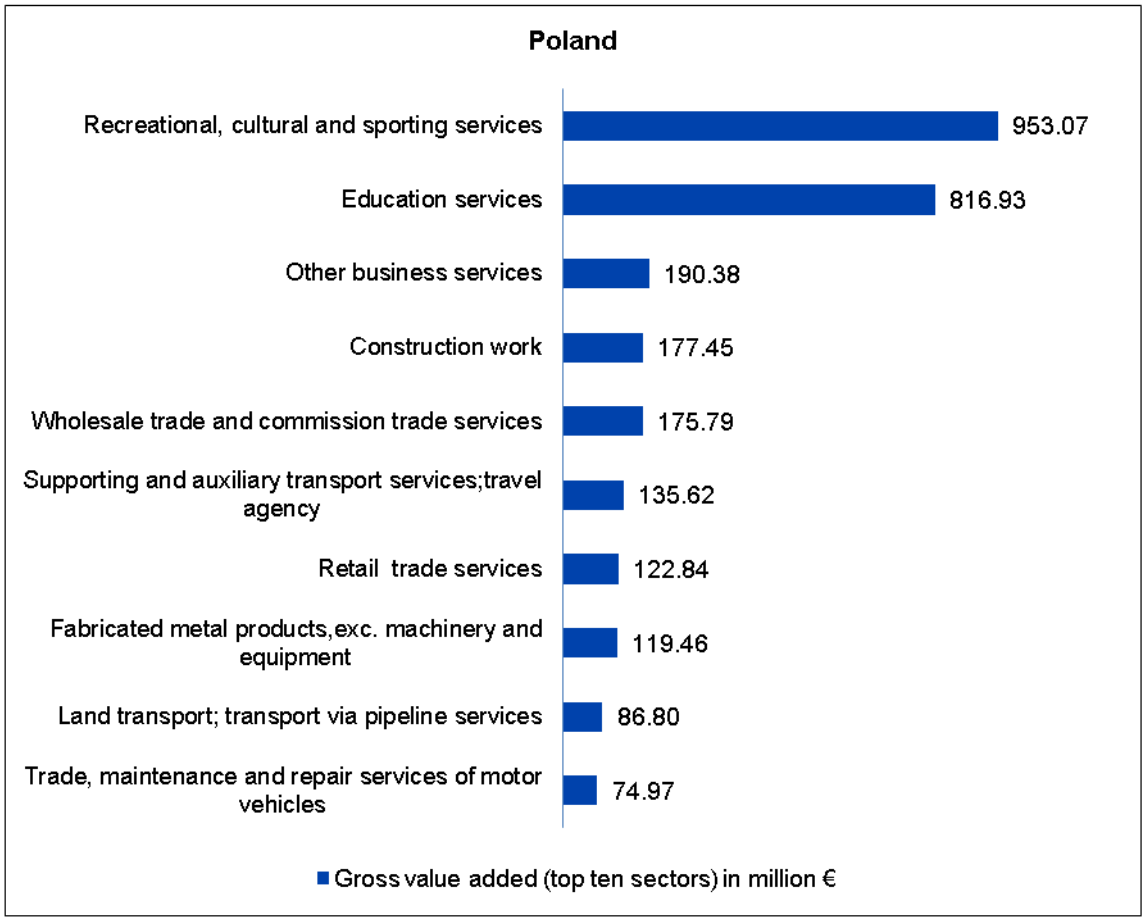
14.20 Poland

14.20.1Gross value added

The share of sport-related value added for Poland is 1.17% for the narrow definition and 1.56% for the broad definition of sport. This is above the EU average for the narrow definition (1.07%) respectively below the EU average for the broad definition (1.63%). The share of what is generally known as the organised sports sector (sports clubs, public sports venues, sports event organizers) is reflected in the statistical definition. The share of value added according to the statistical definition is 0.22%.

Sport-related value added (direct effects) amounts to 2.53 bn Euro according to the narrow definition and 3.36 bn Euro with respect to the broad definition. For the statistical definition of sport it is 0.48 bn Euro.

Figure 54: Poland - gross value added at market prices, broad definition



Source: SpEA, 2012.

Figure 54 above highlights the Polish top ten value added sectors according to the broad definition of sport. The highest sport-related value added is in the sector *Recreational, cultural and sporting services,* followed by *Education services* second, and *Other business services* third.

14.20.2Employment

The share of sport-related employment for Poland is 1.57% for the narrow definition and 1.94% for the broad definition of sport. This is above the EU average (1.49% narrow definition and 2.12% broad definition). The share of what is generally known as the organised sports sector is reflected in the statistical definition. The employment rate according to the statistical definition is 0.32%.

Sport-related employment (direct effects) amounts to 221,652 persons according to the narrow definition and 274,423 persons with respect to the broad definition. For the statistical definition sport-related employment is 44,461.

14.20.3Sector-specific multipliers

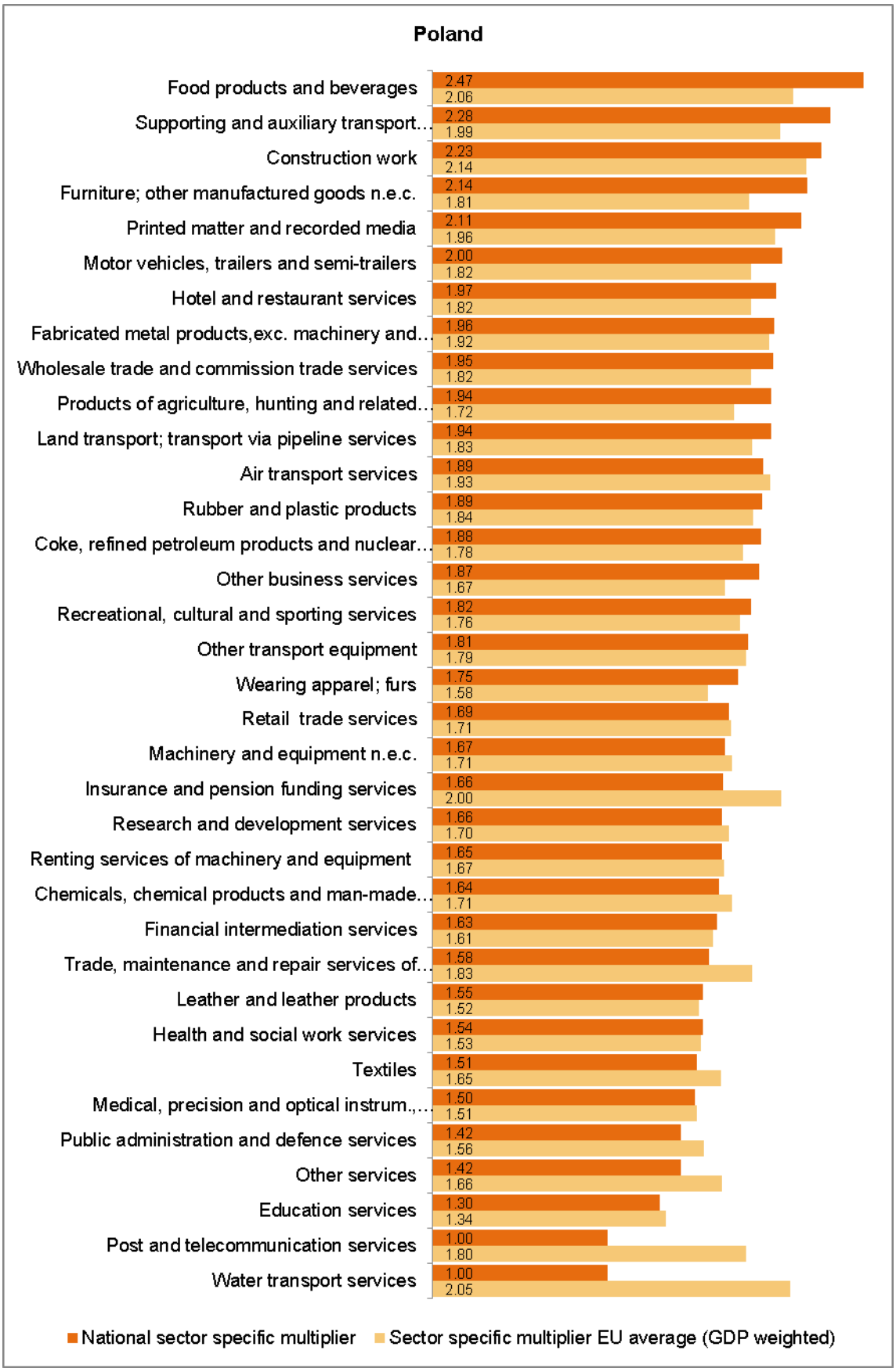
Multipliers describe the inter-connectedness of a sector with the rest of the economy. If the multiplier equals 1.0 the sector is not connected to any other sector. The higher the multiplier, the more the rest of the economy benefits from an expansion of the sector.

The highest sport-related multiplier in Poland can be found in the sector *Food products and beverages,* followed by *Supporting and auxiliary transport services; travel agency*. The sector *Construction work* is ranked third.

Education services, *Other services,* and *Public administration and defence services* have the lowest sport-related multipliers of produced goods.

Figure 55 shows the size of these multipliers for Poland and compares them with the average value of the EU. The biggest negative difference between Poland and the EU average is in *Insurance and pension funding services* where the Polish value is 1.66 and EU average is 2.00 (a negative difference of 0.36). The biggest positive difference between Poland and the EU average is *Food products and beverages* where the Polish value is 2.47 and the EU average is 2.06 (a positive difference of 0.41).

Figure 55: Poland - sector-specific multipliers and EU-averages



Source: SpEA, 2012.

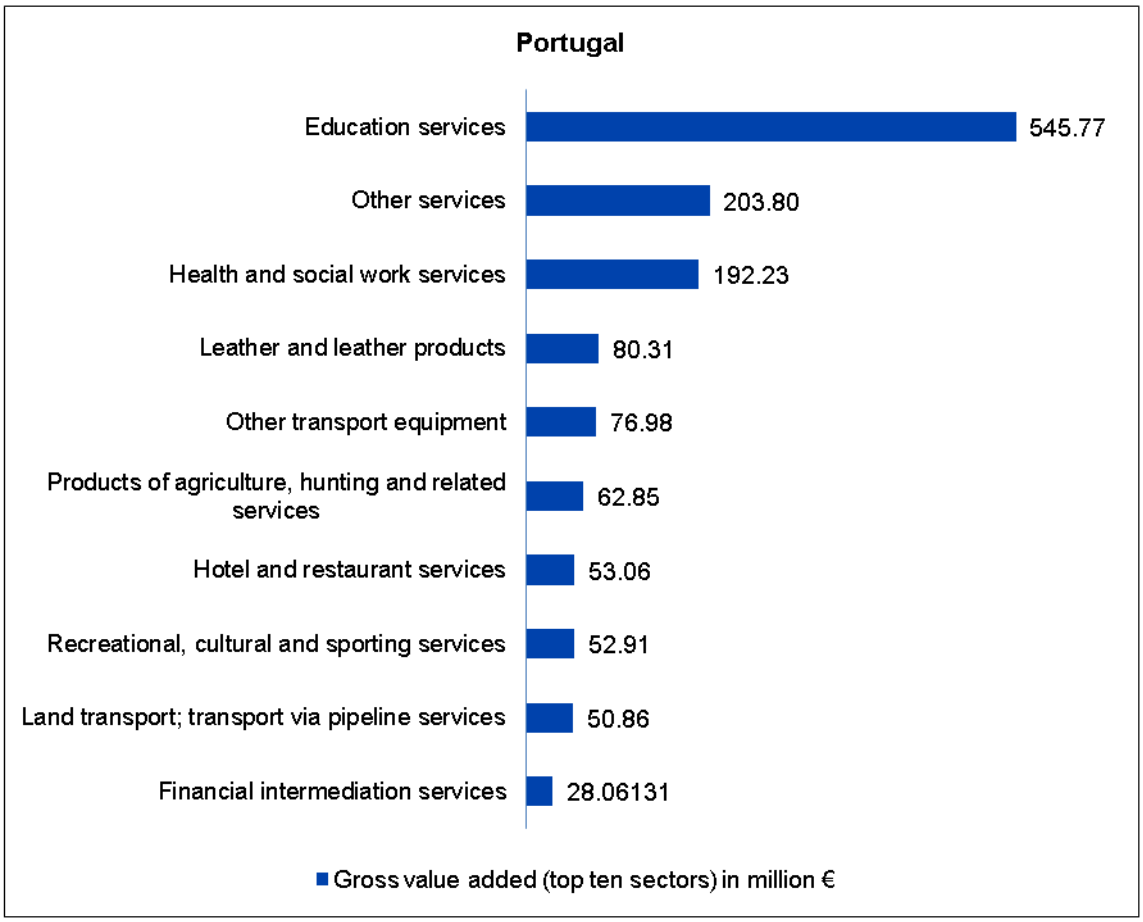
14.21 Portugal

14.21.1Gross value added

The share of sport-related value added for Portugal is 0.96% for the narrow definition and 1.19% for the broad definition of sport. This is below the EU average (1.13% narrow definition and 1.76% broad definition). The share of what is generally known as the organised sports sector (sports clubs, public sports venues, sports event organizers) is reflected in the statistical definition. The share of value added according to the statistical definition is 0.02%.

Sport-related value added (direct effects) amounts to 1.23 bn Euro according to the narrow definition and 1.53 bn Euro with respect to the broad definition. For the statistical definition of sport it is 0.03 bn Euro.

Figure 56: Portugal - gross value added at market prices, broad definition



Source: SpEA, 2012.

Figure 56 above highlights the Portuguese top ten value added sectors according to the broad definition of sport. The highest sport-related value added is in the sector *Education services*, followed by *Other services* second, and *Health and social work services* third.

14.21.2Employment

The share of sport-related employment for Portugal is 1.15% for the narrow definition and 1.41% for the broad definition of sport. This is below the EU average (1.49% narrow definition and 2.12% broad definition). The share of what is generally known as the organised sports sector is reflected in the statistical definition. The employment rate according to the statistical definition is 0.03%.

Sport-related employment (direct effects) amounts to 59,086 persons according to the narrow definition and 72,101 persons with respect to the broad definition. For the statistical definition sport-related employment is 1,452.

14.21.3Sector-specific multipliers

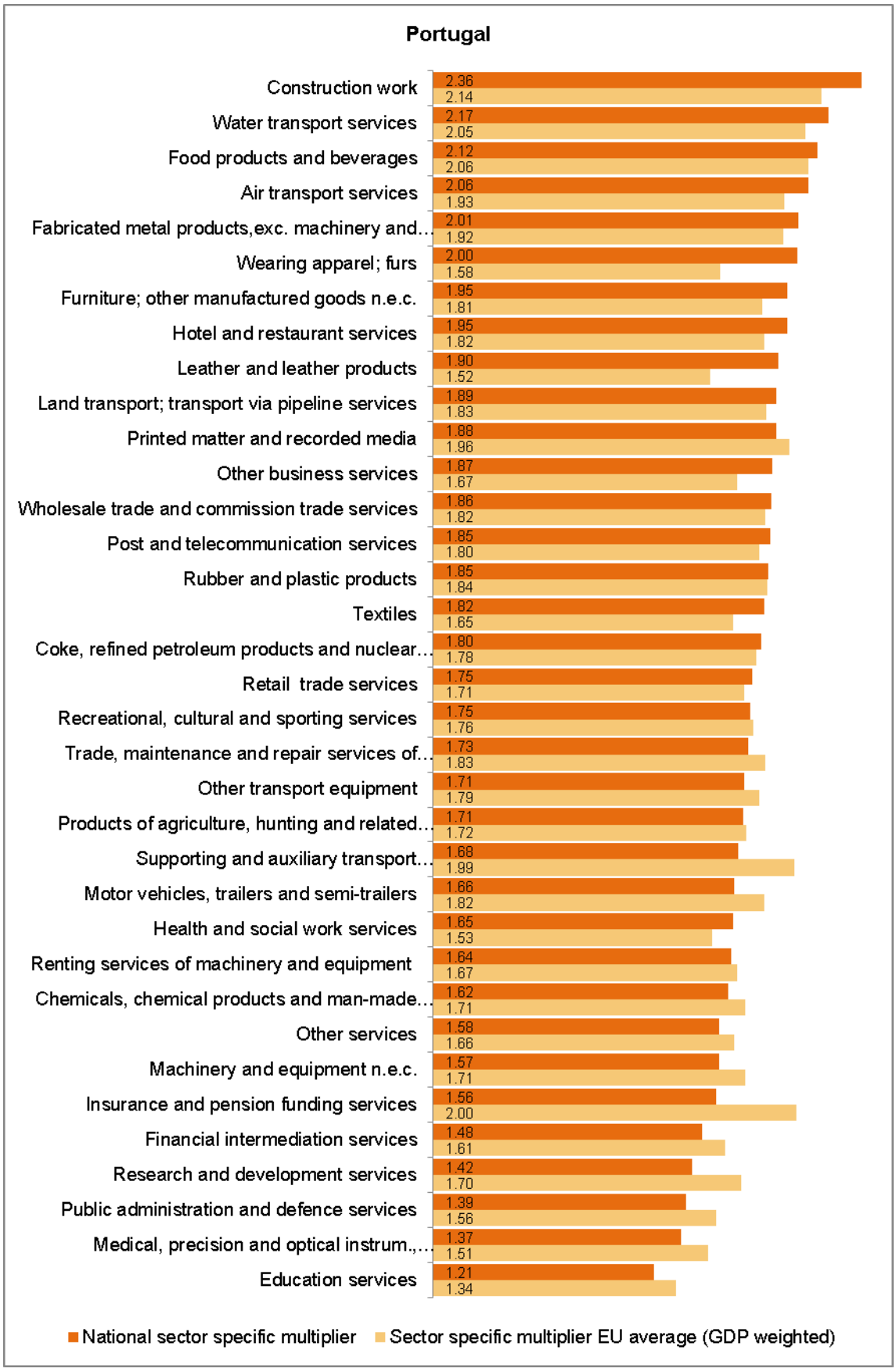
Multipliers describe the inter-connectedness of a sector with the rest of the economy. If the multiplier equals 1.0 the sector is not connected to any other sector. The higher the multiplier, the more the rest of the economy benefits from an expansion of the sector.

The highest sport-related multiplier in Portugal can be found in the sector *Construction work*, followed by *Water transport services*. The sector *Food products and beverages* is ranked third.

Education services, *Medical, precision and optical instruments, watches, clocks* and *Public administration and defence services* have the lowest sport-related multipliers.

Figure 57 shows the size of these multipliers for Portugal and compares them with the average value of the EU. The biggest negative difference between Portugal and the EU average is in *Insurance and pension funding services* where the Portuguese value is 1.56 and EU average is 2.00 (a negative difference of 0.44). The biggest positive difference between Portugal and the EU average is *Wearing apparel; furs* where the Portuguese value is 2.00 and the EU average is 1.58 (a positive difference of 0.42).

Figure 57: Portugal - sector-specific multipliers and EU-averages



Source: SpEA, 2012.

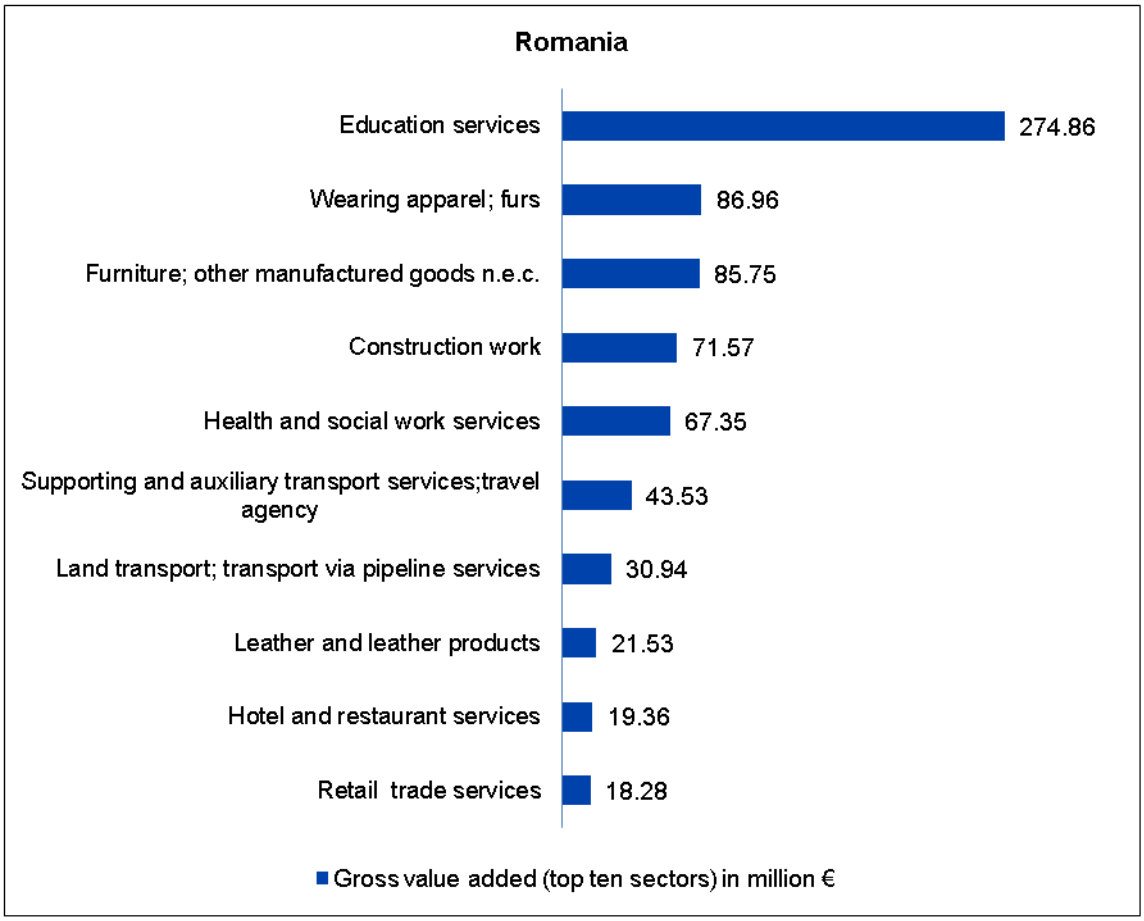
14.22 Romania

14.22.1Gross value added

The share of sport-related value added for Romania is 0.91% for the narrow definition and 1.12% for the broad definition of sport. This is below the EU average (1.13% narrow definition and 1.76% broad definition). The share of what is generally known as the organised sports sector (sports clubs, public sports venues, sports event organizers) is reflected in the statistical definition. The share of value added according to the statistical definition is 0%.

Sport-related value added (direct effects) amounts to 0.64 bn Euro according to the narrow definition and 0.79 bn Euro with respect to the broad definition. For the statistical definition of sport it is 0 bn Euro.

Figure 58: Romania - gross value added at market prices, broad definition



Source: SpEA, 2012.

Figure 58 above highlights the Romanian top ten value added sectors according to the broad definition of sport. The highest sport-related value added is in the sector *Education services*, followed by *Wearing apparel; furs* second, and *Furniture; other manufactured goods n.e.c.* third.

14.22.2Employment

The share of sport-related employment for Romania is 1.57% for the narrow definition and 1.77% for the broad definition of sport. This is above the EU average for the narrow definition (1.49%) respectively below the EU average for the broad definition (2.12%). The share of what is generally known as the organised sports sector is reflected in the statistical definition. The employment rate according to the statistical definition is 0%.

Sport-related employment (direct effects) amounts to 142,935 persons according to the narrow definition and 161,248 persons with respect to the broad definition. For the statistical definition sport-related employment is 0.

14.22.3Sector-specific multipliers

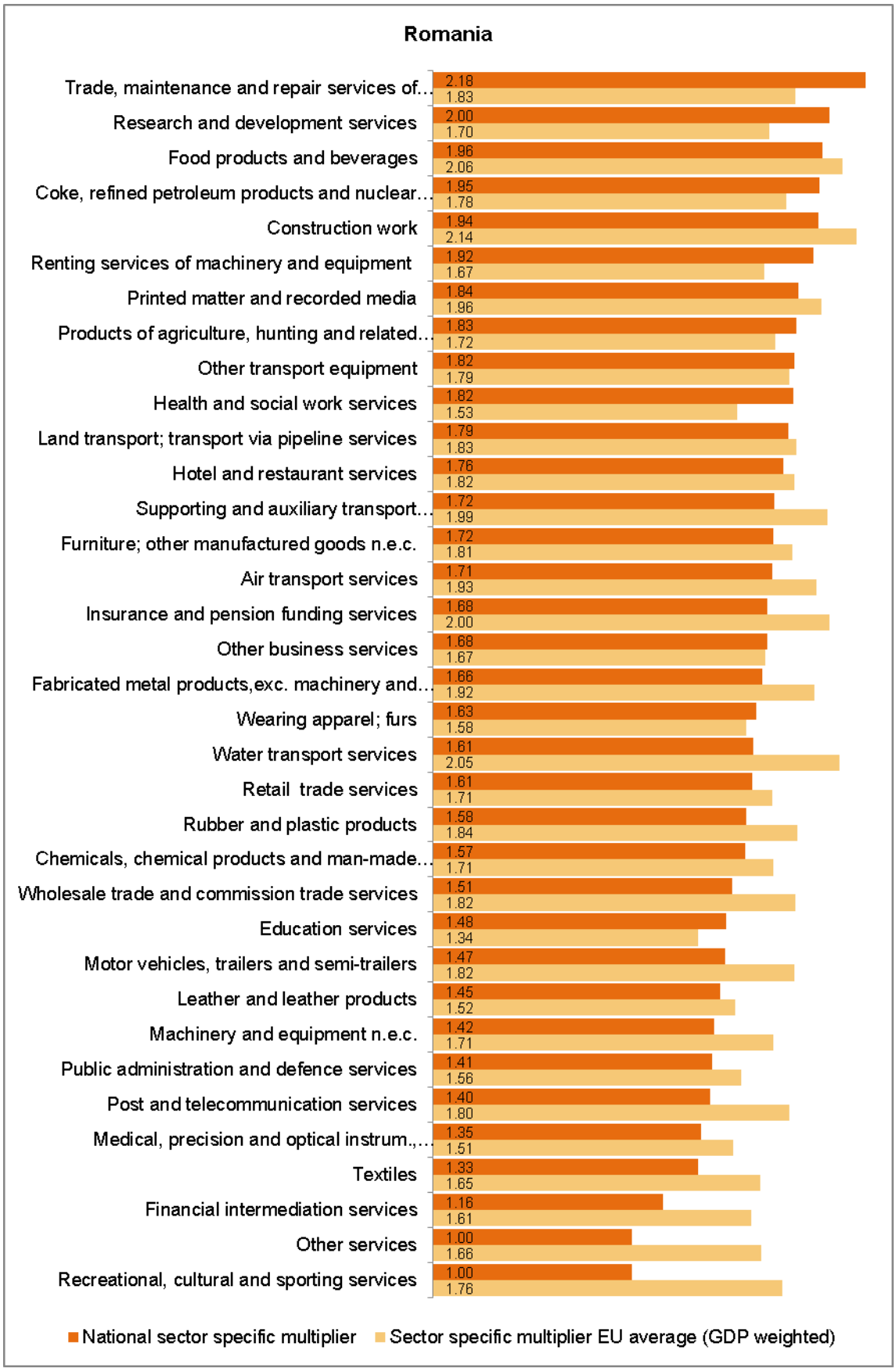
Multipliers describe the inter-connectedness of a sector with the rest of the economy. If the multiplier equals 1.0 the sector is not connected to any other sector. The higher the multiplier, the more the rest of the economy benefits from an expansion of the sector.

The highest sport-related multiplier in Romania can be found in the sector *Trade, maintenance and repair services of motor vehicles*, followed by *Research and development services*. The sector *Food products and beverages* is ranked third.

Financial intermediation services, *Textiles*, and *Medical, precision and optical instruments, watches, clocks* have the lowest sport-related multipliers of produced goods.

Figure 59 shows the size of these multipliers for Romania and compares them with the average value of the EU. The biggest negative difference of produced goods between Romania and the EU average is in *Financial intermediation services* where the Romanian value is 1.16 and EU average is 1.61 (a negative difference of 0.45). The biggest positive difference between Romania and the EU average is *Trade, maintenance and repair services of motor vehicles* where the Romanian value is 2.18 and the EU average is 1.83 (a positive difference of 0.35).

Figure 59: Romania - sector-specific multipliers and EU-averages



Source: SpEA, 2012.

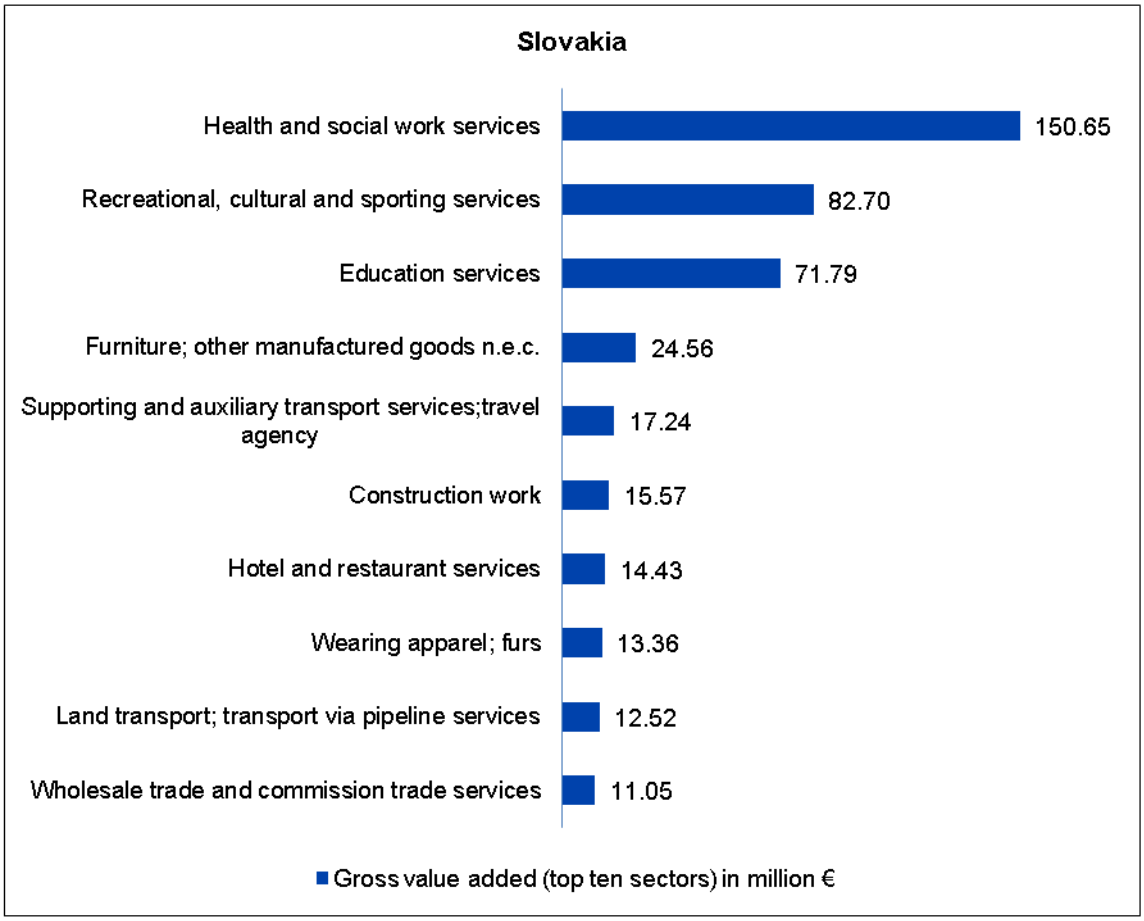
14.23 Slovakia

14.23.1Gross value added

The share of sport-related value added for Slovakia is 0.73% for the narrow definition and 1.08% for the broad definition of sport. This is below the EU average (1.13% narrow definition and 1.76% broad definition). The share of what is generally known as the organised sports sector (sports clubs, public sports venues, sports event organizers) is reflected in the statistical definition. The share of value added according to the statistical definition is 0.09%.

Sport-related value added (direct effects) amounts to 0.32 bn Euro according to the narrow definition and 0.47 bn Euro with respect to the broad definition. For the statistical definition of sport it is 0.04 bn Euro.

Figure 60: Slovakia - gross value added at market prices, broad definition



Source: SpEA, 2012.

Figure 60 above highlights the Slovakian top ten value added sectors according to the broad definition of sport. The highest sport-related value added is in the sector *Health and social work services*, followed by *Recreational, cultural and sporting services* second, and *Education services* third.

14.23.2Employment

The share of sport-related employment for Slovakia is 1.6% for the narrow definition and 2.25% for the broad definition of sport. This is above the EU average (1.49% narrow definition and 2.12% broad definition). The share of what is generally known as the organised sports sector is reflected in the statistical definition. The employment rate according to the statistical definition is 0.25%.

Sport-related employment (direct effects) amounts to 35,444 persons according to the narrow definition and 49,910 persons with respect to the broad definition. For the statistical definition sport-related employment is 5,643.

14.23.3Sector-specific multipliers

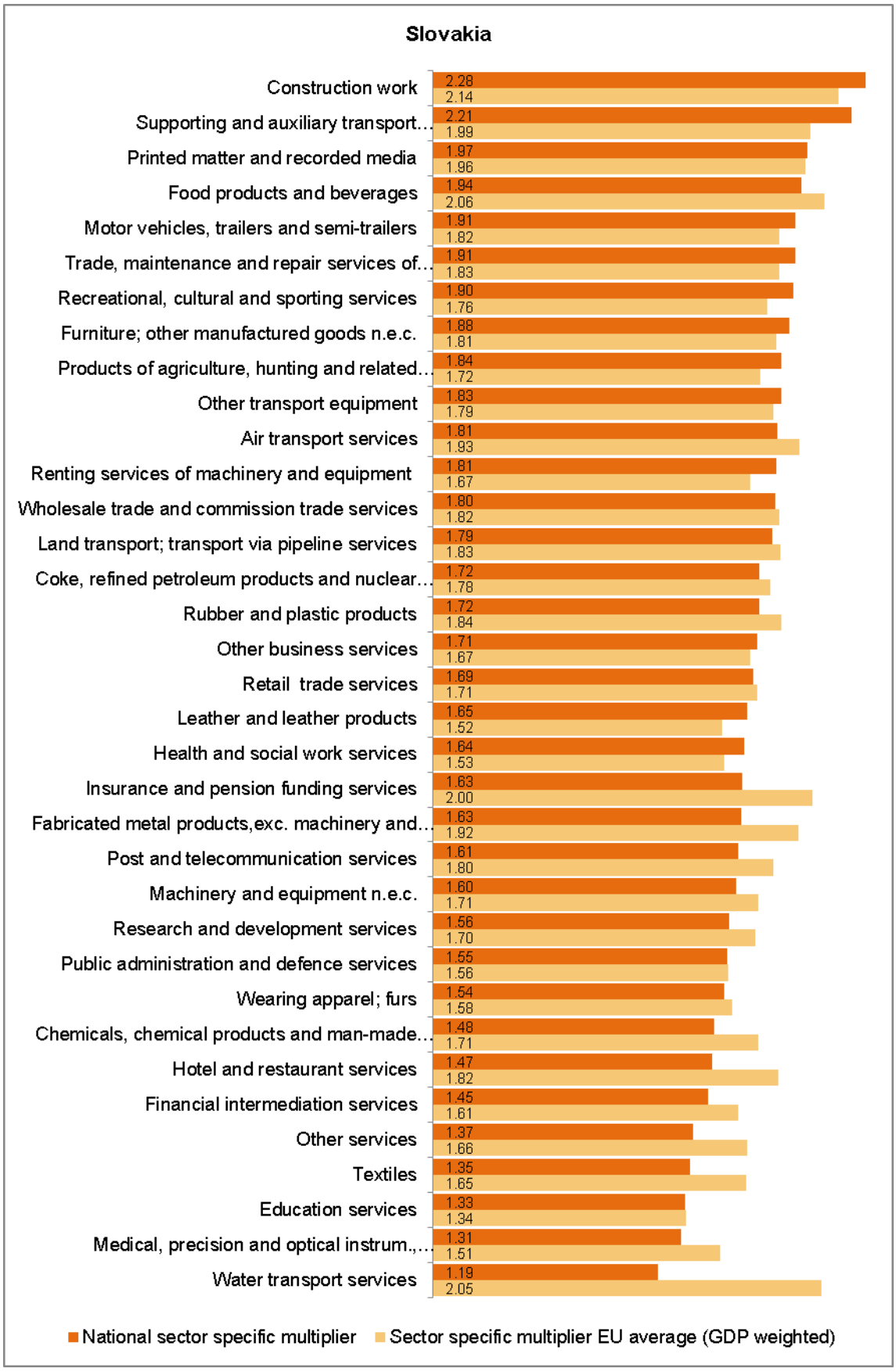
Multipliers describe the inter-connectedness of a sector with the rest of the economy. If the multiplier equals 1.0 the sector is not connected to any other sector. The higher the multiplier, the more the rest of the economy benefits from an expansion of the sector.

The highest sport-related multiplier in Slovakia can be found in the sector *Construction work*, followed by *Supporting and auxiliary transport services; travel agency*. The sector *Printed matter and recorded media* is ranked third.

Water transport services, *Medical, precision and optical instruments, watches, clocks* and *Education services* have the lowest sport-related multipliers.

Figure 61 shows the size of these multipliers for Slovakia and compares them with the average value of the EU. The biggest negative difference between Slovakia and the EU average is in *Water transport services* where the Slovakian value is 1.19 and EU average is 2.05 (a negative difference of 0.86). The biggest positive difference between Slovakia and the EU average is *Supporting and auxiliary transport services; travel agency* where the Slovakian value is 2.21 and the EU average is 1.99 (a positive difference of 0.22).

Figure 61: Slovakia - sector-specific multipliers and EU-averages



Source: SpEA, 2012.

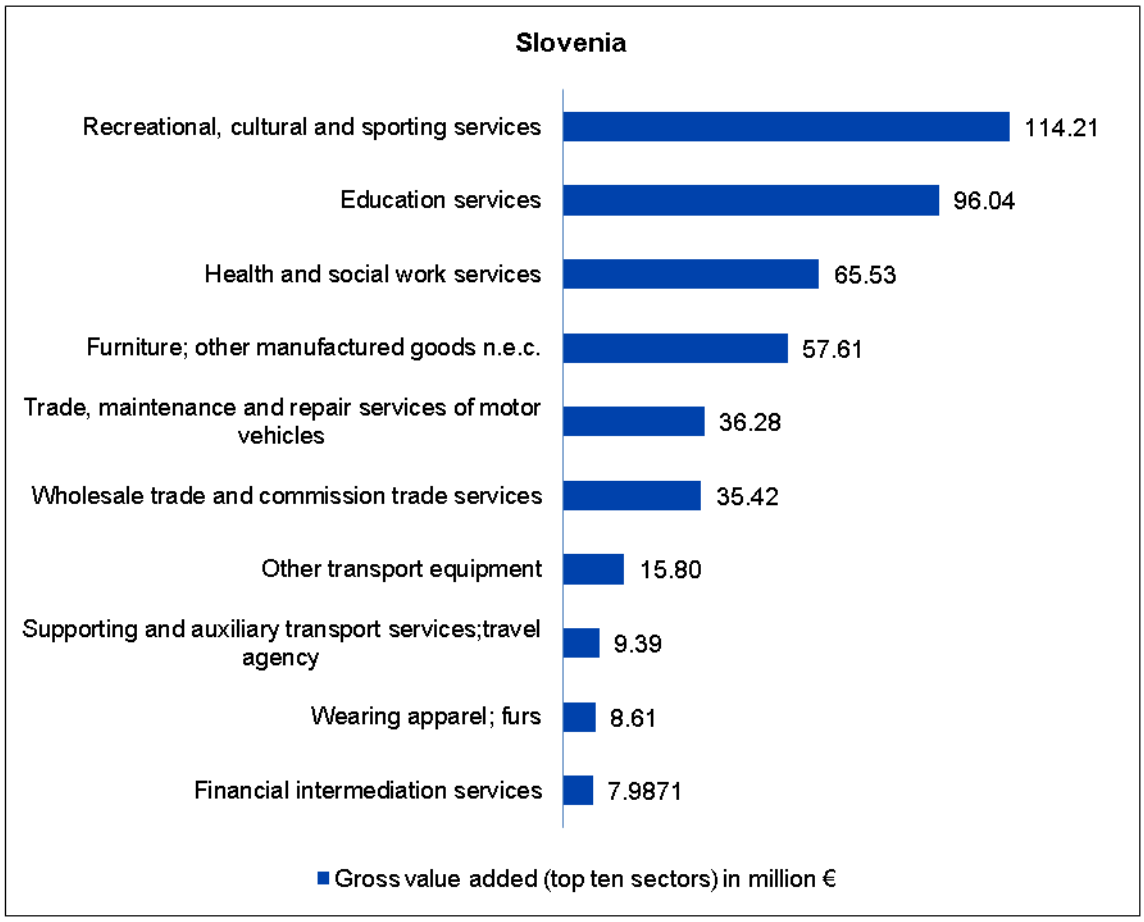
14.24 Slovenia

14.24.1Gross value added

The share of sport-related value added for Slovenia is 1.66% for the narrow definition and 2.1% for the broad definition of sport. This is above the EU average (1.13% narrow definition and 1.76% broad definition). The share of what is generally known as the organised sports sector (sports clubs, public sports venues, sports event organizers) is reflected in the statistical definition. The share of value added according to the statistical definition is 0.23%.

Sport-related value added (direct effects) amounts to 0.41 bn Euro according to the narrow definition and 0.52 bn Euro with respect to the broad definition. For the statistical definition of sport it is 0.06 bn Euro.

Figure 62: Slovenia - gross value added at market prices, broad definition



Source: SpEA, 2012.

Figure 62 above highlights the Slovenian top ten value added sectors according to the broad definition of sport. The highest sport-related value added is in the sector *Recreational, cultural and sporting services*, followed by *Education services* second, and *Health and social work services* third.

14.24.2Employment

The share of sport-related employment for Slovenia is 2.43% for the narrow definition and 3.01% for the broad definition of sport. This is above the EU average (1.49% narrow definition and 2.12% broad definition). The share of what is generally known as the organised sports sector is reflected in the statistical definition. The employment rate according to the statistical definition is 0.38%.

Sport-related employment (direct effects) amounts to 23,011 persons according to the narrow definition and 28,576 persons with respect to the broad definition. For the statistical definition sport-related employment is 3,600.

14.24.3Sector-specific multipliers

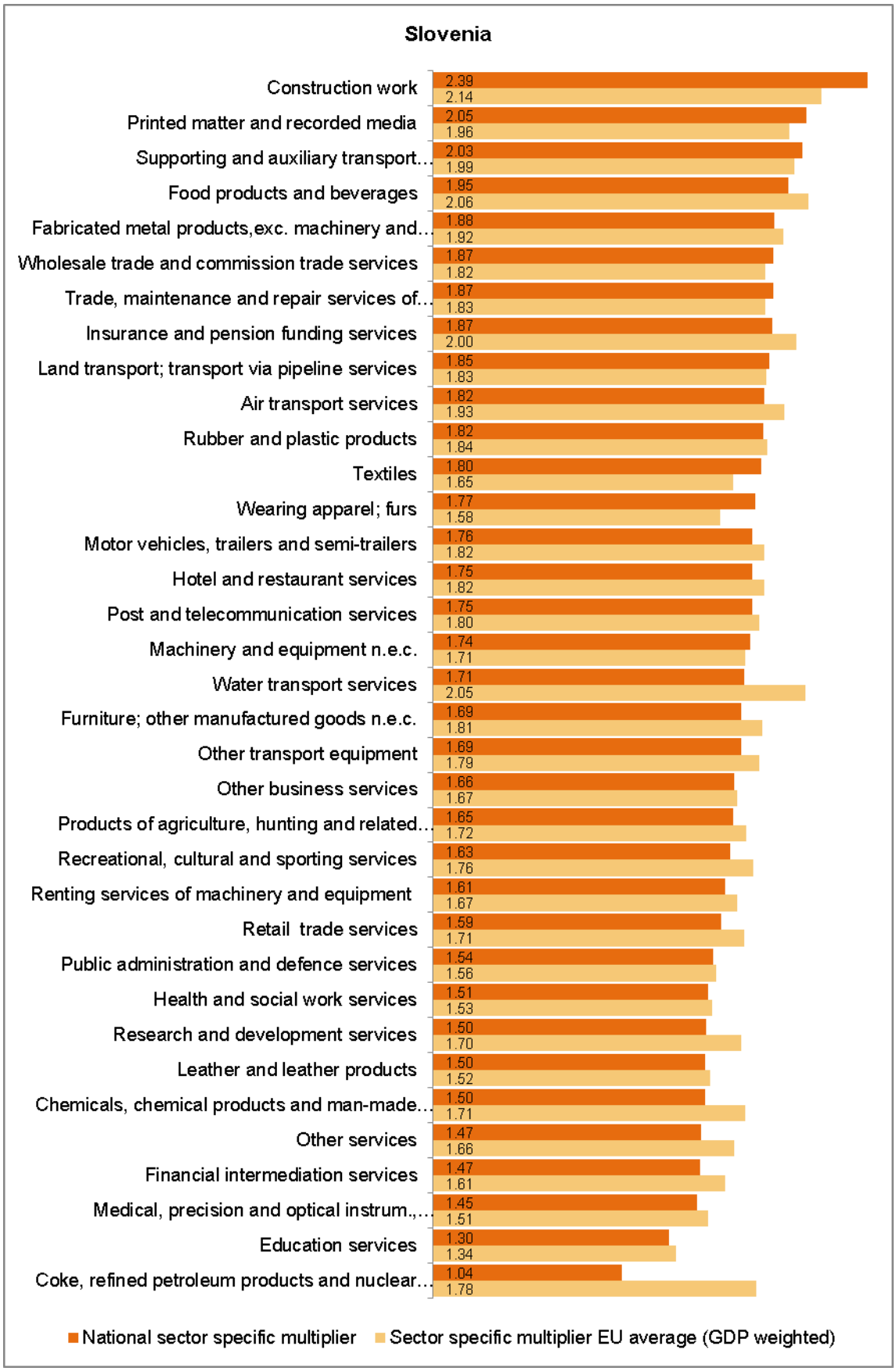
Multipliers describe the inter-connectedness of a sector with the rest of the economy. If the multiplier equals 1.0 the sector is not connected to any other sector. The higher the multiplier, the more the rest of the economy benefits from an expansion of the sector.

The highest sport-related multiplier in Slovenia can be found in the sector *Construction work*, followed by *Printed matter and recorded media*. The sector *Supporting and auxiliary transport services; travel agency* is ranked third.

Coke, refined petroleum products and nuclear fuels, *Education services* and *Medical, precision and optical instrum., watches, clocks* have the lowest sport-related multipliers.

Figure 63 shows the size of these multipliers for Slovenia and compares them with the average value of the EU. The biggest negative difference between Slovenia and the EU average is in *Coke, refined petroleum products and nuclear fuels* where the Slovenian value is 1.04 and EU average is 1.78 (a negative difference of 0.74). The biggest positive difference between Slovenia and the EU average is *Construction work* where the Slovenian value is 2.39 and the EU average is 2.14 (a positive difference of 0.25).

Figure 63: Slovenia - sector-specific multipliers and EU-averages



Source: SpEA, 2012.

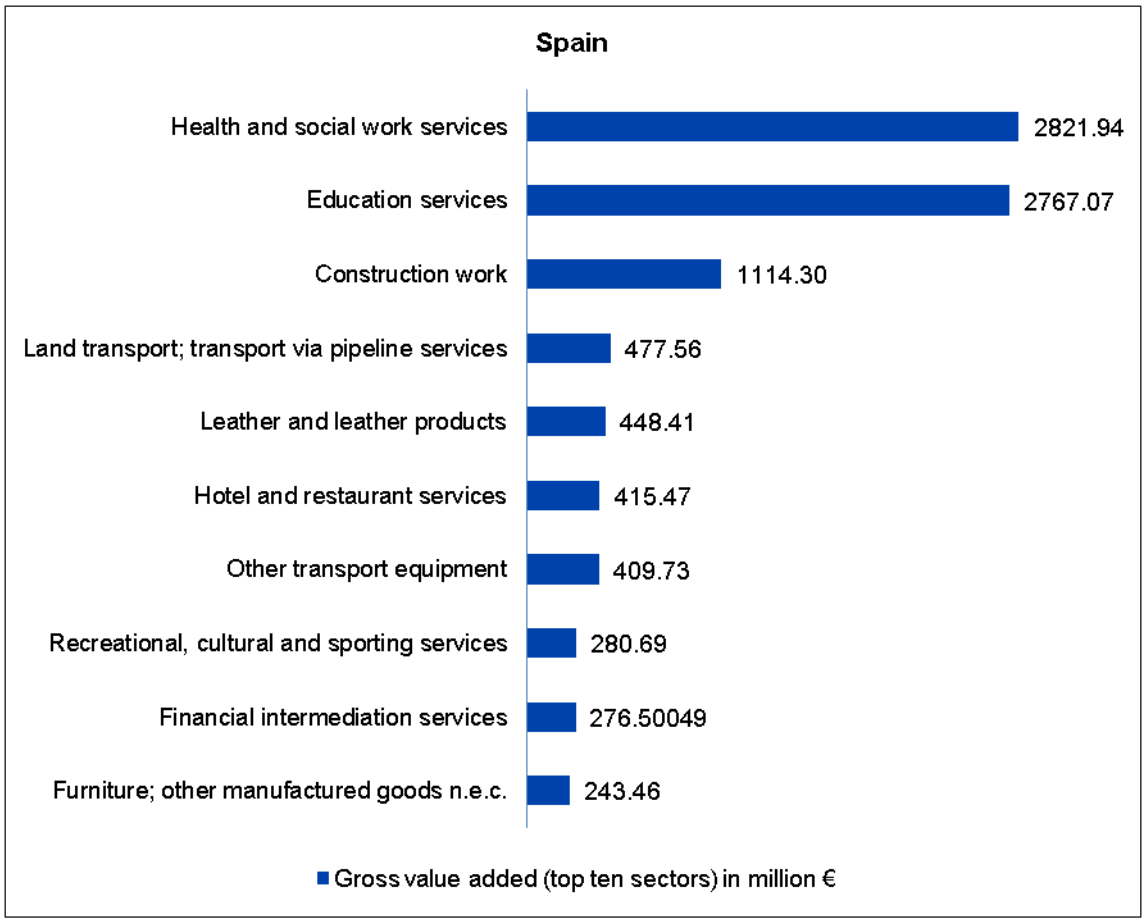
14.25 Spain

14.25.1Gross value added

The share of sport-related value added for Spain is 0.9% for the narrow definition and 1.28% for the broad definition of sport. This is below the EU average (1.13% narrow definition and 1.76% broad definition). The share of what is generally known as the organised sports sector (sports clubs, public sports venues, sports event organizers) is reflected in the statistical definition. The share of value added according to the statistical definition is 0.02%.

Sport-related value added (direct effects) amounts to 7.33 bn Euro according to the narrow definition and 10.41 bn Euro with respect to the broad definition. For the statistical definition of sport it is 0.14 bn Euro.

Figure 64: Spain - gross value added at market prices, broad definition



Source: SpEA, 2012.

Figure 64 above highlights the Spanish top ten value added sectors according to the broad definition of sport. The highest sport-related value added is in the sector *Health and social work services*, followed by *Education services* second, and *Construction work* third.

14.25.2Employment

The share of sport-related employment for Spain is 1.33% for the narrow definition and 1.77% for the broad definition of sport. This is below the EU average (1.49% narrow definition and 2.12% broad definition). The share of what is generally known as the organised sports sector is reflected in the statistical definition. The employment rate according to the statistical definition is 0.03%.

Sport-related employment (direct effects) amounts to 252,183 persons according to the narrow definition and 336,177 persons with respect to the broad definition. For the statistical definition sport-related employment is 5,774.

14.25.3Sector-specific multipliers

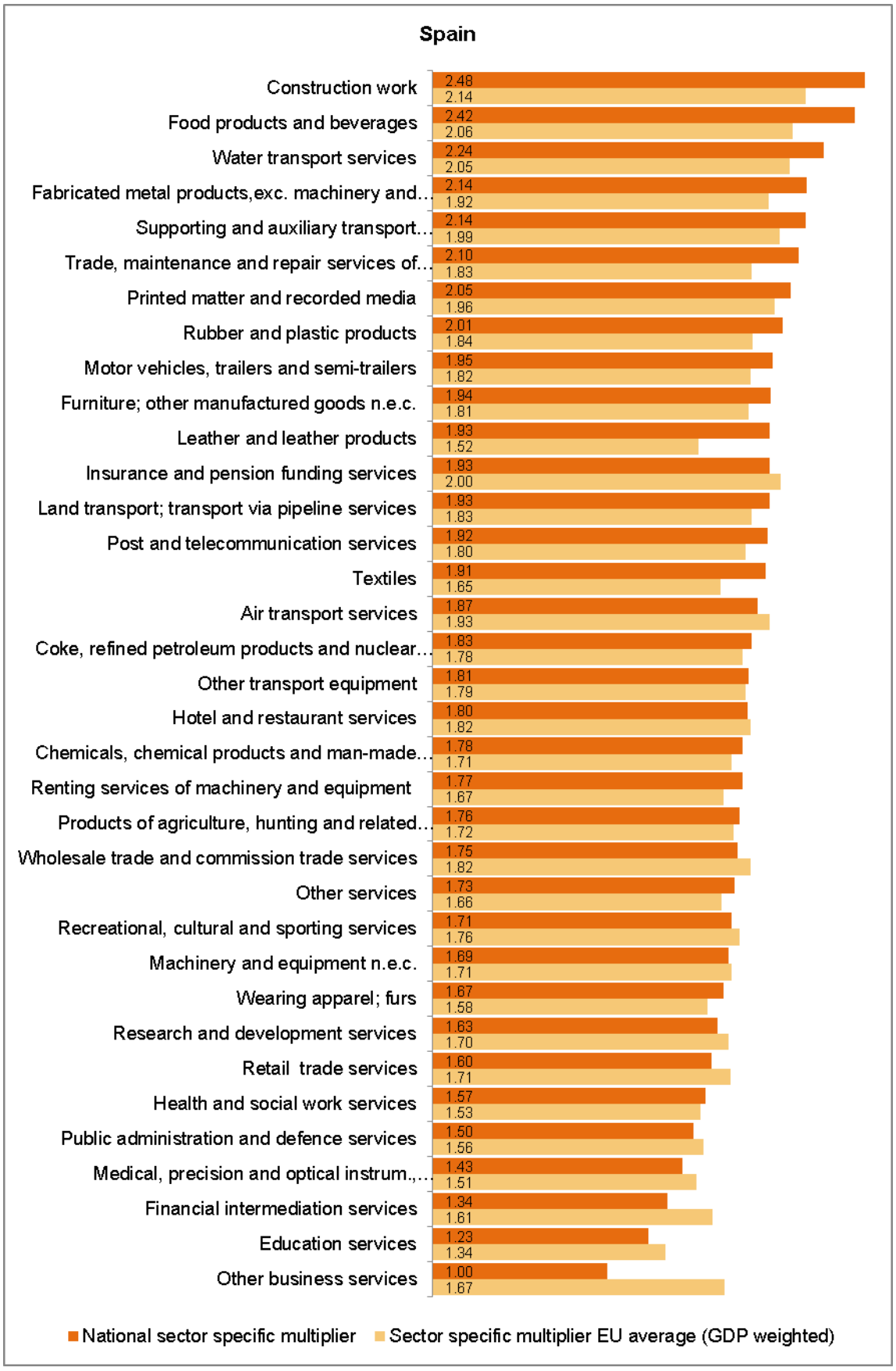
Multipliers describe the inter-connectedness of a sector with the rest of the economy. If the multiplier equals 1.0 the sector is not connected to any other sector. The higher the multiplier, the more the rest of the economy benefits from an expansion of the sector.

The highest sport-related multiplier in Spain can be found in the sector *Construction work*, followed by *Food products and beverages*. The sector *Water transport services* is ranked third.

Education services, *Financial intermediation services,* and *Medical, precision and optical instruments, watches, clocks* are have the lowest sport-related multipliers of produced goods.

Figure 65 shows the size of these multipliers for Spain and compares them with the average value of the EU. The biggest negative difference between Spain and the EU average is in *Financial intermediation services* where the Spanish value is 1.34 and EU average is 1.61 (a negative difference of 0.27). The biggest positive difference between Spain and the EU average is *Leather and leather products* where the Spanish value is 1.93 and the EU average is 1.52 (a positive difference of 0.41).

Figure 65: Spain - sector-specific multipliers and EU-averages



Source: SpEA, 2012.

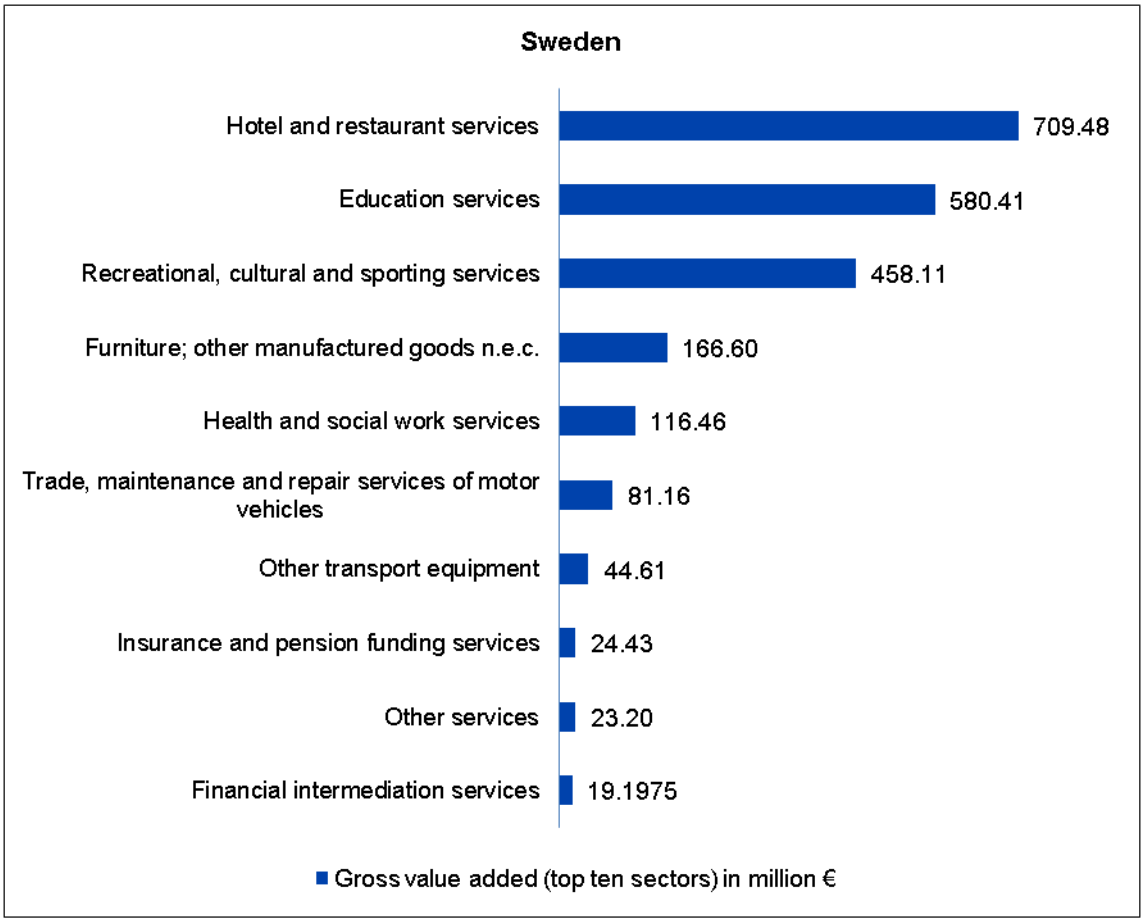
14.26 Sweden

14.26.1Gross value added

The share of sport-related value added for Sweden is 0.54% for the narrow definition and 0.92% for the broad definition of sport. This is below the EU average (1.13% narrow definition and 1.76% broad definition). The share of what is generally known as the organised sports sector (sports clubs, public sports venues, sports event organizers) is reflected in the statistical definition. The share of value added according to the statistical definition is 0.09%.

Sport-related value added (direct effects) amounts to 1.39 bn Euro according to the narrow definition and 2.36 bn Euro with respect to the broad definition. For the statistical definition of sport it is 0.23 bn Euro.

Figure 66: Sweden - gross value added at market prices, broad definition



Source: SpEA, 2012.

Figure 66 above highlights the Swedish top ten value added sectors according to the broad definition of sport. The highest sport-related value added is in the sector *Hotel and restaurant services*, followed by *Education services* second, and *Recreational, cultural and sporting services* third.

14.26.2Employment

The share of sport-related employment for Sweden is 1.12% for the narrow definition and 1.69% for the broad definition of sport. This is below the EU average (1.49% narrow definition and 2.12% broad definition). The share of what is generally known as the organised sports sector is reflected in the statistical definition. The employment rate according to the statistical definition is 0.19%.

Sport-related employment (direct effects) amounts to 48,717 persons according to the narrow definition and 73,266 persons with respect to the broad definition. For the statistical definition sport-related employment is 8,358.

14.26.3Sector-specific multipliers

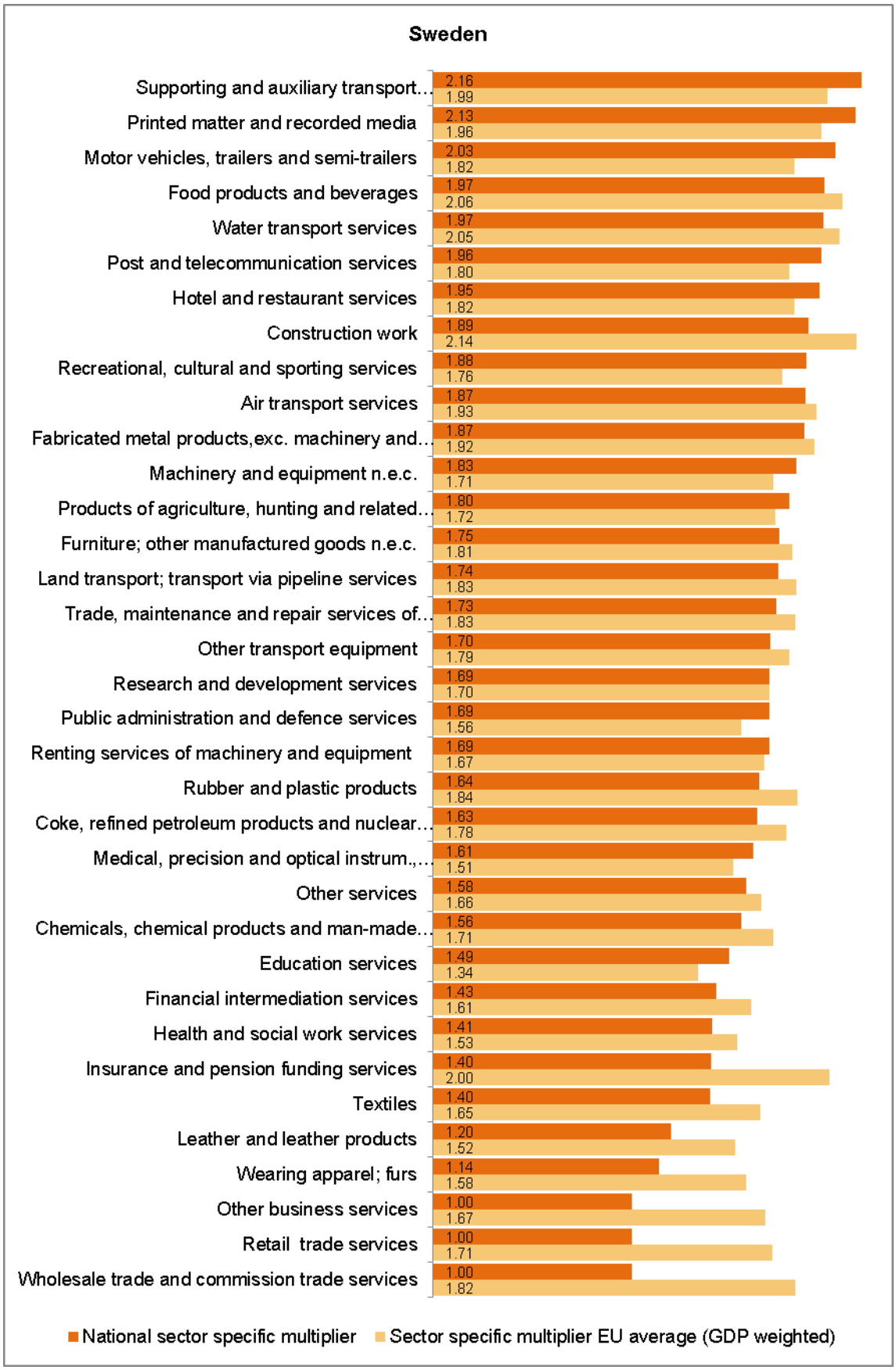
Multipliers describe the inter-connectedness of a sector with the rest of the economy. If the multiplier equals 1.0 the sector is not connected to any other sector. The higher the multiplier, the more the rest of the economy benefits from an expansion of the sector.

The highest sport-related multiplier in Sweden can be found in the sector *Supporting and auxiliary transport services; travel agency*, followed by *Printed matter and recorded media*. The sector *Motor vehicles, trailers and semi-trailers* is ranked third.

Wearing apparel; furs, *Leather and leather products*, and *Textiles* report the smallest multipliers of produced sport-related goods.

Figure 67 shows the size of these multipliers for Sweden and compares them with the average value of the EU. The biggest negative difference between Sweden and the EU average is in *Insurance and pension funding services* where the Swedish value is 1.40 and EU average is 2.00 (a negative difference of 0.60). The biggest positive difference between Sweden and the EU average is *Motor vehicles, trailers and semi-trailers* where the Swedish value is 2.03 and the EU average is 1.82 (a positive difference of 0.21).

Figure 67: Sweden - sector-specific multipliers and EU-averages



Source: SpEA, 2012.

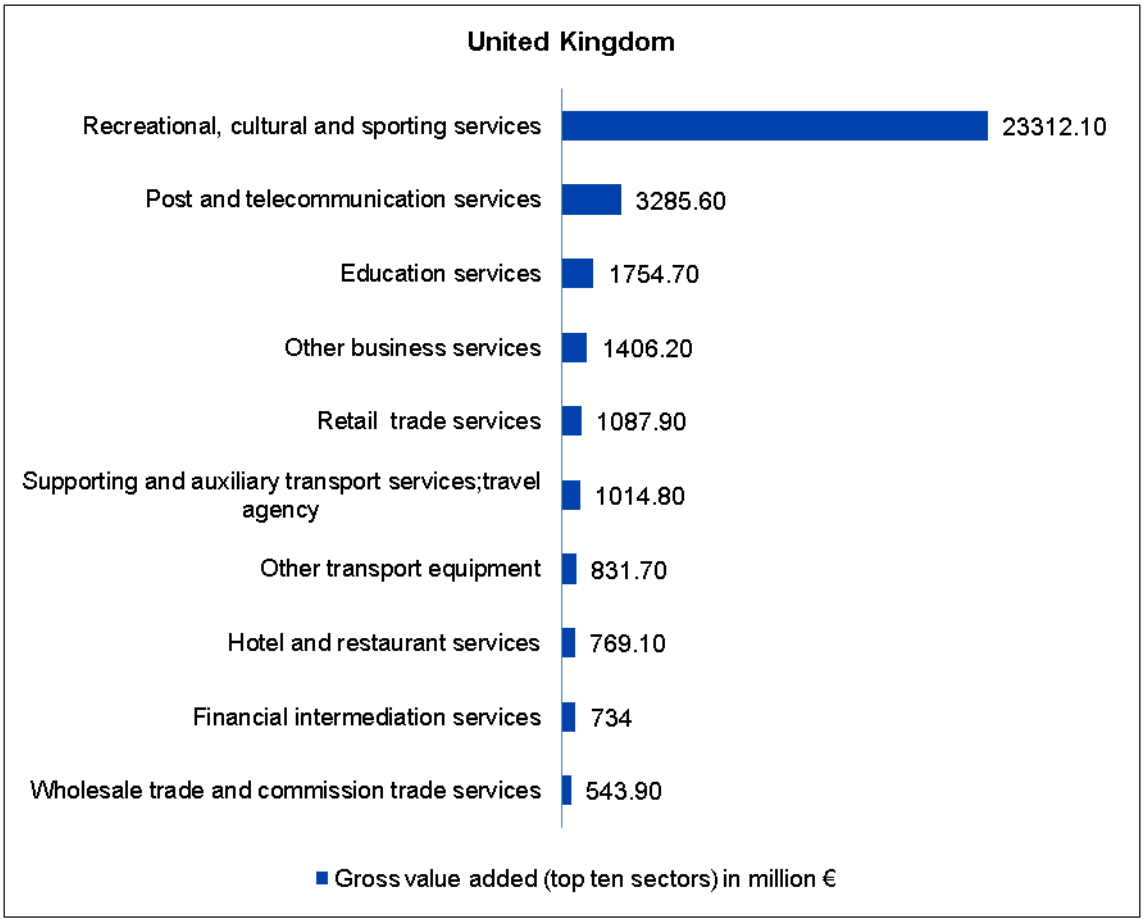
14.27 United Kingdom

14.27.1Gross value added

The share of sport-related value added for the United Kingdom is 1.52% for the narrow definition and 2.33% for the broad definition of sport. This is above the EU average (1.13% narrow definition and 1.76% broad definition). The share of what is generally known as the organised sports sector (sports clubs, public sports venues, sports event organizers) is reflected in the statistical definition. The share of value added according to the statistical definition is 0.71%.

Sport-related value added (direct effects) amounts to 24.84 bn Euro according to the narrow definition and 37.99 bn Euro with respect to the broad definition. For the statistical definition of sport it is 11.66 bn Euro.

Figure 68: United Kingdom - gross value added at market prices, broad definition



Source: SpEA, 2012.

Figure 68 above highlights the top ten value added sectors in the United Kingdom according to the broad definition of sport. The highest sport-related value added is in the sector *Recreational, cultural and sporting services*, followed by *Post and telecommunication services* second, and *Education services* third.

14.27.2Employment

The share of sport-related employment for the United Kingdom is 1.46% for the narrow definition and 2.16% for the broad definition of sport. This is below the EU average for the narrow definition (1.49%) respectively above the EU average for the broad definition (2.12%). The share of what is generally known as the organised sports sector is reflected in the statistical definition. The employment rate according to the statistical definition is 0.61%.

Sport-related employment (direct effects) amounts to 417,072 persons according to the narrow definition and 618,770 persons with respect to the broad definition. For the statistical definition sport-related employment is 175,325.

14.27.3Sector-specific multipliers

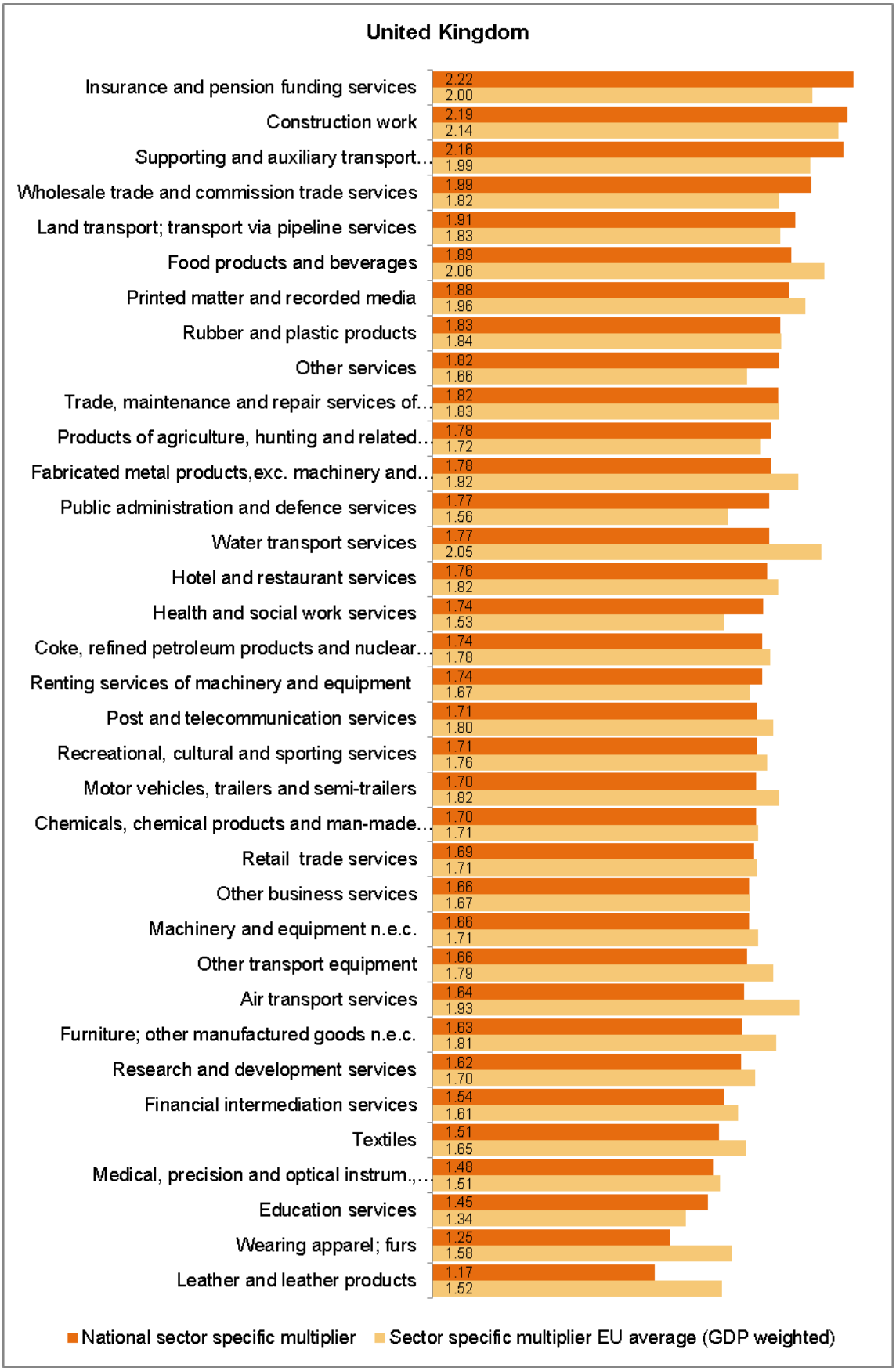
Multipliers describe the inter-connectedness of a sector with the rest of the economy. If the multiplier equals 1.0 the sector is not connected to any other sector. The higher the multiplier, the more the rest of the economy benefits from an expansion of the sector.

The highest sport-related multiplier in the United Kingdom can be found in the sector *Insurance and pension funding services*, followed by *Construction work*. The sector *Supporting and auxiliary transport services; travel agency* is ranked third.

Leather and leather products, *Wearing apparel; furs* and *Education services* have the lowest sport-related multipliers.

Figure 69 shows the size of these multipliers for the United Kingdom and compares them with the average value of the EU. The biggest negative difference between the United Kingdom and the EU average is in *Leather and leather products* where the national value is 1.17 and EU average is 1.52 (a negative difference of 0.35). The biggest positive difference between the United Kingdom and the EU average is *Insurance and pension funding services* where the national value is 2.22 and the EU average is 2.00 (a positive difference of 0.20).

Figure 69: United Kingdom - sector-specific multipliers and EU-averages



Source: SpEA, 2012.

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http://epp.eurostat.ec.europa.eu/

Source-OECD: OECD
2, rue André Pascal
75775 Paris 16
http:// *www.sourceoecd.org/*

Annex: National Data Sheets

The following tables give an overview of each of the 27 Member States. The most basic national results are given. Sport-related GVA and employment data are stated in absolute terms as well as in relation to the nation's total values. For each sport-related sector the GVA is reported in absolute terms and as the share of the sector's total GVA. For example, Austria's sector 1, Products of agriculture, reports 2.35 million Euro GVA which is 0.12% of sector 1's total value. Thus 1,924.26 million Euros are the remaining 98.88% non-sport agriculture GVA.

Sector multipliers show how much an economy's production has to increase if the sector's production is increased by 1 unit. Austria's sport-related sector 1, Products of agriculture, has a domestic multiplier of 1.51. If this sector's production is therefore increased by 1 unit (e.g. 100,000 Euro), Austria's total production value has to increase by 1.51 units to supply sector 1 with the necessary intermediate goods and services.

Some intermediate goods, however, are imported rather than produced domestically. It is likely that at least some of these imports originate from another EU Member State. If this is the case, increasing the production of Austria's sport-related sector 1 also increases the production in other Member States. In the example, these are 0.26 units as the EU-wide increase of production equals 1.77 units.

The difference between the domestic and the EU-wide multipliers can thus be interpreted as the contribution of domestic production of one sector to the production of the other EU-member states through the sector's supply chain.

National Data Sheet

Austria

ECONOMIC IMPACT OF SPORT (according to the Vilnius Definition)

GROSS VALUE ADDED

	Direct Effects	% of total
Statistical Definition	0.55 bn €	0.25 %
Narrow Definition	4.65 bn €	2.12 %
Broad Definition	8.84 bn €	4.03 %

EMPLOYMENT

	Direct Effects	% of total
Statistical Definition	13,850	0.36 %
Narrow Definition	122,833	3.21 %
Broad Definition	205,863	5.38 %

DETAILED INFORMATION on SECTORAL LEVEL

CPA	Description	GROSS VALUE ADDED (Market Prices, Mio. €)		Sector-specific Multiplier	
		Sport-related	% of total	domestic	EU-wide
1	Products of agriculture, hunting and related services	2.35	0.12%	1.51	1.77
15	Food products and beverages	14.56	0.33%	1.65	1.93
17	Textiles	16.13	2.37%	1.27	1.53
18	Wearing apparel; furs	38.46	13.07%	1.11	1.22
19	Leather and leather products	21.82	10.20%	1.27	1.46
22	Printed matter and recorded media	35.87	1.79%	1.62	1.88
23	Coke, refined petroleum products and nuclear fuels	2.87	2.00%	1.37	1.46
24	Chemicals, chemical products and man-made fibres	12.27	0.47%	1.27	1.46
25	Rubber and plastic products	0.38	0.02%	1.34	1.60
28	Fabricated metal products,exc. machinery and equipmen	11.58	0.32%	1.45	1.75
29	Machinery and equipment n.e.c.	0.77	0.01%	1.39	1.68
33	Medical, precision and optical instrum., watches, clocks	18.87	1.58%	1.23	1.36
34	Motor vehicles, trailers and semi-trailers	3.44	0.12%	1.33	1.76
35	Other transport equipment	24.50	2.84%	1.29	1.47
36	Furniture; other manufactured goods n.e.c.	238.22	12.26%	1.41	1.67
45	Construction work	136.91	0.87%	1.64	1.90
50	Trade, maintenance and repair services of motor vehicles	173.34	4.75%	1.55	1.84
51	Wholesale trade and commission trade services	338.82	2.21%	1.55	1.71
52	Retail trade services	553.38	5.68%	1.55	1.65
55	Hotel and restaurant services	3121.52	29.69%	1.44	1.58
60	Land transport; transport via pipeline services	13.41	0.24%	1.56	1.74
61	Water transport services	0.14	0.50%	1.10	1.13
62	Air transport services	12.65	2.05%	1.79	2.06
63	Supporting and auxiliary transport services;travel agency	7.65	0.28%	1.86	2.04
64	Post and telecommunication services	8.00	0.18%	1.71	1.90
65	Financial intermediation services	31.60	0.43%	1.56	1.63
66	Insurance and pension funding services	34.56	1.16%	1.66	1.74
71	Renting services of machinery and equipment	101.56	2.68%	1.38	1.44
73	Research and development services	15.90	2.00%	1.52	1.66
74	Other business services	24.79	0.16%	1.62	1.73
75	Public administration and defence services	124.08	1.01%	1.39	1.47
80	Education services	1531.66	13.25%	1.19	1.24
85	Health and social work services	1029.03	8.20%	1.38	1.54
92	Recreational, cultural and sporting services	1101.79	30.32%	1.52	1.61
93	Other services	35.15	2.07%	1.41	1.52

National Data Sheet

Belgium

ECONOMIC IMPACT OF SPORT (according to the Vilnius Definition)

GROSS VALUE ADDED

	Direct Effects	% of total
Statistical Definition	0.38 bn €	0.14 %
Narrow Definition	2.27 bn €	0.84 %
Broad Definition	3.04 bn €	1.13 %

EMPLOYMENT

	Direct Effects	% of total
Statistical Definition	10,336	0.24 %
Narrow Definition	56,153	1.33 %
Broad Definition	71,416	1.69 %

DETAILED INFORMATION on SECTORAL LEVEL

CPA	Description	GROSS VALUE ADDED (Market Prices, Mio. €)		Sector-specific Multiplier	
		Sport-related	% of total	domestic	EU-wide
1	Products of agriculture, hunting and related services	73.15	3.56%	1.40	1.64
15	Food products and beverages	5.43	0.09%	1.63	2.01
17	Textiles	16.27	1.16%	1.44	1.82
18	Wearing apparel; furs	59.60	19.48%	1.19	1.34
19	Leather and leather products	1.53	2.30%	1.09	1.18
22	Printed matter and recorded media	133.92	5.88%	1.67	1.97
23	Coke, refined petroleum products and nuclear fuels	6.72	0.56%	1.50	1.81
24	Chemicals, chemical products and man-made fibres	21.55	0.24%	1.40	1.77
25	Rubber and plastic products	13.58	0.72%	1.30	1.58
28	Fabricated metal products,exc. machinery and equipmen	1.00	0.03%	1.50	1.85
29	Machinery and equipment n.e.c.	1.62	0.05%	1.28	1.53
33	Medical, precision and optical instrum., watches, clocks	2.90	0.45%	1.17	1.29
34	Motor vehicles, trailers and semi-trailers	12.12	0.45%	1.24	1.68
35	Other transport equipment	73.79	11.66%	1.28	1.47
36	Furniture; other manufactured goods n.e.c.	29.48	3.15%	1.20	1.34
45	Construction work	0.29	0.00%	2.09	2.45
50	Trade, maintenance and repair services of motor vehicles	108.87	2.67%	1.71	2.04
51	Wholesale trade and commission trade services	334.92	1.46%	1.70	1.91
52	Retail trade services	134.26	1.38%	1.66	1.82
55	Hotel and restaurant services	192.52	4.32%	1.58	1.87
60	Land transport; transport via pipeline services	56.71	0.95%	1.66	1.87
61	Water transport services	4.00	0.48%	2.12	2.39
62	Air transport services	8.85	1.87%	1.80	2.10
63	Supporting and auxiliary transport services;travel agency	17.38	0.21%	1.76	1.97
64	Post and telecommunication services	0.54	0.01%	1.55	1.71
65	Financial intermediation services	28.03	0.44%	1.54	1.62
66	Insurance and pension funding services	4.84	0.17%	1.83	1.94
71	Renting services of machinery and equipment	4.67	0.17%	1.61	1.78
73	Research and development services	7.94	0.43%	1.43	1.57
74	Other business services	68.84	0.24%	1.72	1.85
75	Public administration and defence services	15.16	0.08%	1.28	1.36
80	Education services	604.79	3.63%	1.12	1.15
85	Health and social work services	79.51	0.42%	1.44	1.62
92	Recreational, cultural and sporting services	764.51	21.29%	1.72	1.86
93	Other services	153.57	14.09%	1.62	1.93

National Data Sheet

Bulgaria

ECONOMIC IMPACT OF SPORT (according to the Vilnius Definition)

GROSS VALUE ADDED

	Direct Effects	% of total
Statistical Definition	0.01 bn €	0.06 %
Narrow Definition	0.18 bn €	0.93 %
Broad Definition	0.22 bn €	1.13 %

EMPLOYMENT

	Direct Effects	% of total
Statistical Definition	3,344	0.11 %
Narrow Definition	49,168	1.65 %
Broad Definition	55,843	1.87 %

DETAILED INFORMATION on SECTORAL LEVEL

CPA	Description	GROSS VALUE ADDED (Market Prices, Mio. €)		Sector-specific Multiplier	
		Sport-related	% of total	domestic	EU-wide
1	Products of agriculture, hunting and related services	2.51	0.15%	1.72	1.88
15	Food products and beverages	0.47	0.08%	1.96	2.15
17	Textiles	1.07	0.76%	1.70	1.92
18	Wearing apparel; furs	16.42	4.97%	1.69	1.91
19	Leather and leather products	3.23	7.98%	1.48	1.61
22	Printed matter and recorded media	2.83	2.45%	1.81	2.06
23	Coke, refined petroleum products and nuclear fuels	0.33	0.14%	1.64	1.72
24	Chemicals, chemical products and man-made fibres	0.84	0.30%	1.49	1.65
25	Rubber and plastic products	0.83	1.05%	1.55	1.78
28	Fabricated metal products,exc. machinery and equipmen	1.96	1.13%	1.70	1.92
29	Machinery and equipment n.e.c.	0.28	0.08%	1.43	1.57
33	Medical, precision and optical instrum., watches, clocks	0.40	0.88%	1.41	1.53
34	Motor vehicles, trailers and semi-trailers	0.49	2.23%	1.01	1.01
35	Other transport equipment	11.38	20.46%	1.61	1.78
36	Furniture; other manufactured goods n.e.c.	19.85	17.35%	1.68	1.88
45	Construction work	4.99	0.46%	2.13	2.47
50	Trade, maintenance and repair services of motor vehicles	0.48	0.14%	1.70	1.90
51	Wholesale trade and commission trade services	1.02	0.13%	2.08	2.28
52	Retail trade services	3.30	0.32%	1.49	1.62
55	Hotel and restaurant services	4.58	1.01%	1.71	1.89
60	Land transport; transport via pipeline services	2.60	0.39%	2.04	2.28
61	Water transport services	1.12	1.34%	1.80	2.00
62	Air transport services	0.12	0.44%	1.98	2.22
63	Supporting and auxiliary transport services;travel agency	6.53	1.89%	2.06	2.32
64	Post and telecommunication services	0.54	0.06%	1.59	1.73
65	Financial intermediation services	2.23	0.21%	1.35	1.43
66	Insurance and pension funding services	0.60	0.57%	1.89	2.10
71	Renting services of machinery and equipment	0.55	1.01%	1.37	1.47
73	Research and development services	0.70	1.39%	1.37	1.47
74	Other business services	1.41	0.23%	1.85	2.03
75	Public administration and defence services	1.12	0.09%	1.59	1.76
80	Education services	85.24	9.95%	1.34	1.42
85	Health and social work services	16.67	2.48%	1.62	1.81
92	Recreational, cultural and sporting services	25.54	9.96%	1.84	2.06
93	Other services	0.58	1.13%	1.48	1.62

National Data Sheet

Cyprus

ECONOMIC IMPACT OF SPORT (according to the Vilnius Definition)

GROSS VALUE ADDED

	Direct Effects	% of total
Statistical Definition	0.07 bn €	0.65 %
Narrow Definition	0.19 bn €	1.79 %
Broad Definition	0.25 bn €	2.34 %

EMPLOYMENT

	Direct Effects	% of total
Statistical Definition	1,706	0.56 %
Narrow Definition	6,356	2.09 %
Broad Definition	7,822	2.57 %

DETAILED INFORMATION on SECTORAL LEVEL

CPA	Description	GROSS VALUE ADDED (Market Prices, Mio. €)		Sector-specific Multiplier	
		Sport-related	% of total	domestic	EU-wide
1	Products of agriculture, hunting and related services	0.75	0.22%	1.78	2.04
15	Food products and beverages	1.17	0.42%	1.91	2.18
17	Textiles	0.03	0.21%	1.01	1.03
18	Wearing apparel; furs	0.91	10.21%	1.08	1.30
19	Leather and leather products	0.00	0.00%	1.00	1.00
22	Printed matter and recorded media	2.87	4.47%	1.43	1.91
23	Coke, refined petroleum products and nuclear fuels	0.14	4.59%	1.00	1.00
24	Chemicals, chemical products and man-made fibres	2.34	3.85%	1.38	1.84
25	Rubber and plastic products	0.28	0.79%	1.38	1.84
28	Fabricated metal products,exc. machinery and equipmen	0.03	0.07%	1.08	1.17
29	Machinery and equipment n.e.c.	0.35	2.49%	1.17	1.43
33	Medical, precision and optical instrum., watches, clocks	-0.01	0.09%	1.03	1.18
34	Motor vehicles, trailers and semi-trailers	0.00	0.00%	1.00	1.00
35	Other transport equipment	2.79	62.76%	1.20	1.40
36	Furniture; other manufactured goods n.e.c.	0.06	0.26%	1.01	1.03
45	Construction work	8.30	0.85%	1.55	1.91
50	Trade, maintenance and repair services of motor vehicles	0.79	0.36%	1.38	1.65
51	Wholesale trade and commission trade services	0.00	0.00%	1.00	1.00
52	Retail trade services	0.00	0.00%	1.00	1.00
55	Hotel and restaurant services	3.95	0.51%	1.37	1.54
60	Land transport; transport via pipeline services	0.77	0.68%	1.32	1.53
61	Water transport services	0.00	0.00%	1.00	1.00
62	Air transport services	0.79	0.55%	1.63	2.02
63	Supporting and auxiliary transport services;travel agency	0.70	0.18%	1.28	1.38
64	Post and telecommunication services	2.33	0.54%	1.20	1.30
65	Financial intermediation services	1.06	0.52%	1.49	1.72
66	Insurance and pension funding services	2.80	3.17%	1.62	1.84
71	Renting services of machinery and equipment	0.38	0.68%	1.29	1.40
73	Research and development services	0.00	0.00%	1.00	1.00
74	Other business services	7.83	1.27%	1.22	1.32
75	Public administration and defence services	1.03	0.08%	1.22	1.36
80	Education services	52.02	7.07%	1.10	1.14
85	Health and social work services	7.70	1.57%	1.29	1.54
92	Recreational, cultural and sporting services	137.61	47.92%	1.38	1.51
93	Other services	6.95	5.31%	1.25	1.39

National Data Sheet

Czech Republic

ECONOMIC IMPACT OF SPORT (according to the Vilnius Definition)

GROSS VALUE ADDED

	Direct Effects	% of total
Statistical Definition	0.07 bn €	0.07 %
Narrow Definition	0.71 bn €	0.80 %
Broad Definition	1.06 bn €	1.18 %

EMPLOYMENT

	Direct Effects	% of total
Statistical Definition	6,949	0.15 %
Narrow Definition	65,769	1.38 %
Broad Definition	89,119	1.87 %

DETAILED INFORMATION on SECTORAL LEVEL

CPA	Description	GROSS VALUE ADDED (Market Prices, Mio. €)		Sector-specific Multiplier	
		Sport-related	% of total	domestic	EU-wide
1	Products of agriculture, hunting and related services	3.05	0.16%	1.60	1.83
15	Food products and beverages	2.03	0.09%	1.96	2.25
17	Textiles	5.59	0.92%	1.46	1.76
18	Wearing apparel; furs	31.98	11.52%	1.21	1.52
19	Leather and leather products	4.09	5.24%	1.19	1.42
22	Printed matter and recorded media	5.10	0.67%	1.75	2.10
23	Coke, refined petroleum products and nuclear fuels	1.04	0.50%	1.72	1.83
24	Chemicals, chemical products and man-made fibres	8.25	0.67%	1.36	1.57
25	Rubber and plastic products	12.23	0.82%	1.47	1.89
28	Fabricated metal products,exc. machinery and equipmen	15.35	0.61%	1.63	2.02
29	Machinery and equipment n.e.c.	1.35	0.06%	1.43	1.78
33	Medical, precision and optical instrum., watches, clocks	2.32	0.48%	1.32	1.62
34	Motor vehicles, trailers and semi-trailers	0.56	0.02%	1.61	2.12
35	Other transport equipment	24.75	8.37%	1.43	1.74
36	Furniture; other manufactured goods n.e.c.	118.36	13.36%	1.53	1.88
45	Construction work	18.93	0.32%	2.29	2.58
50	Trade, maintenance and repair services of motor vehicles	16.04	1.12%	1.84	2.16
51	Wholesale trade and commission trade services	11.59	0.18%	1.75	1.88
52	Retail trade services	14.75	0.39%	1.67	1.77
55	Hotel and restaurant services	55.13	2.98%	1.76	1.91
60	Land transport; transport via pipeline services	17.15	0.51%	1.76	1.95
61	Water transport services	0.02	0.35%	1.58	1.71
62	Air transport services	1.01	0.61%	1.69	1.91
63	Supporting and auxiliary transport services;travel agency	91.71	3.10%	2.09	2.26
64	Post and telecommunication services	0.27	0.01%	1.70	1.80
65	Financial intermediation services	5.87	0.28%	1.84	1.94
66	Insurance and pension funding services	0.85	0.33%	2.22	2.38
71	Renting services of machinery and equipment	3.17	0.78%	1.78	1.93
73	Research and development services	1.04	0.32%	1.25	1.34
74	Other business services	1.24	0.02%	1.89	2.02
75	Public administration and defence services	9.64	0.19%	1.58	1.67
80	Education services	192.09	4.97%	1.37	1.47
85	Health and social work services	254.51	7.16%	1.46	1.64
92	Recreational, cultural and sporting services	130.73	8.61%	1.87	1.99
93	Other services	0.62	0.12%	1.52	1.65

National Data Sheet

Denmark

ECONOMIC IMPACT OF SPORT (according to the Vilnius Definition)

GROSS VALUE ADDED

	Direct Effects	% of total
Statistical Definition	0.22 bn €	0.13 %
Narrow Definition	3.20 bn €	1.82 %
Broad Definition	3.72 bn €	2.12 %

EMPLOYMENT

	Direct Effects	% of total
Statistical Definition	4,330	0.16 %
Narrow Definition	58,362	2.12 %
Broad Definition	69,287	2.52 %

DETAILED INFORMATION on SECTORAL LEVEL

CPA	Description	GROSS VALUE ADDED (Market Prices, Mio. €)		Sector-specific Multiplier	
		Sport-related	% of total	domestic	EU-wide
1	Products of agriculture, hunting and related services	0.00	0.00%	1.00	1.00
15	Food products and beverages	1.89	0.05%	1.80	2.06
17	Textiles	5.94	1.80%	1.26	1.47
18	Wearing apparel; furs	13.58	18.20%	1.13	1.22
19	Leather and leather products	2.25	12.63%	1.06	1.09
22	Printed matter and recorded media	72.42	3.89%	1.71	1.97
23	Coke, refined petroleum products and nuclear fuels	0.01	0.02%	1.42	1.46
24	Chemicals, chemical products and man-made fibres	5.17	0.15%	1.40	1.59
25	Rubber and plastic products	14.33	1.13%	1.37	1.60
28	Fabricated metal products,exc. machinery and equipmen	0.81	0.04%	1.45	1.79
29	Machinery and equipment n.e.c.	38.11	1.08%	1.40	1.67
33	Medical, precision and optical instrum., watches, clocks	4.07	0.31%	1.33	1.50
34	Motor vehicles, trailers and semi-trailers	19.68	5.55%	1.09	1.18
35	Other transport equipment	26.25	7.78%	1.29	1.54
36	Furniture; other manufactured goods n.e.c.	135.51	9.89%	1.45	1.70
45	Construction work	2.28	0.02%	1.75	2.06
50	Trade, maintenance and repair services of motor vehicles	32.36	1.21%	1.52	1.78
51	Wholesale trade and commission trade services	177.18	1.49%	1.64	1.78
52	Retail trade services	78.53	1.21%	1.49	1.58
55	Hotel and restaurant services	74.24	2.93%	1.67	1.86
60	Land transport; transport via pipeline services	17.94	0.43%	1.64	1.79
61	Water transport services	8.02	0.20%	1.83	2.01
62	Air transport services	2.27	1.01%	1.78	1.99
63	Supporting and auxiliary transport services;travel agency	2.31	0.09%	1.22	1.28
64	Post and telecommunication services	31.57	0.79%	1.70	1.85
65	Financial intermediation services	11.99	0.18%	1.47	1.54
66	Insurance and pension funding services	4.07	0.18%	1.57	1.63
71	Renting services of machinery and equipment	0.99	0.13%	1.86	2.01
73	Research and development services	0.90	0.16%	1.50	1.63
74	Other business services	6.10	0.05%	1.54	1.64
75	Public administration and defence services	61.53	0.56%	1.41	1.51
80	Education services	2126.69	21.51%	1.33	1.38
85	Health and social work services	285.19	1.51%	1.33	1.41
92	Recreational, cultural and sporting services	448.56	13.28%	1.62	1.72
93	Other services	5.81	0.69%	1.19	1.24

National Data Sheet

Estonia

ECONOMIC IMPACT OF SPORT (according to the Vilnius Definition)

GROSS VALUE ADDED

	Direct Effects	% of total
Statistical Definition	0.01 bn €	0.10 %
Narrow Definition	0.13 bn €	1.35 %
Broad Definition	0.16 bn €	1.64 %

EMPLOYMENT

	Direct Effects	% of total
Statistical Definition	1,121	0.18 %
Narrow Definition	13,662	2.25 %
Broad Definition	15,686	2.58 %

DETAILED INFORMATION on SECTORAL LEVEL

CPA	Description	GROSS VALUE ADDED (Market Prices, Mio. €)		Sector-specific Multiplier	
		Sport-related	% of total	domestic	EU-wide
1	Products of agriculture, hunting and related services	1.25	0.61%	1.55	1.83
15	Food products and beverages	0.39	0.19%	1.63	1.94
17	Textiles	1.17	1.42%	1.33	1.60
18	Wearing apparel; furs	2.82	4.16%	1.39	1.72
19	Leather and leather products	0.77	7.61%	1.14	1.37
22	Printed matter and recorded media	4.10	4.20%	1.71	2.06
23	Coke, refined petroleum products and nuclear fuels	0.36	1.34%	1.11	1.14
24	Chemicals, chemical products and man-made fibres	0.23	0.32%	1.18	1.40
25	Rubber and plastic products	0.47	0.78%	1.25	1.58
28	Fabricated metal products,exc. machinery and equipmen	0.64	0.60%	1.38	1.85
29	Machinery and equipment n.e.c.	0.33	0.34%	1.15	1.31
33	Medical, precision and optical instrum., watches, clocks	0.12	0.46%	1.25	1.51
34	Motor vehicles, trailers and semi-trailers	0.03	0.08%	1.08	1.19
35	Other transport equipment	4.38	12.80%	1.52	1.77
36	Furniture; other manufactured goods n.e.c.	13.31	11.42%	1.65	1.97
45	Construction work	4.65	0.68%	1.72	2.11
50	Trade, maintenance and repair services of motor vehicles	0.52	0.24%	1.52	1.79
51	Wholesale trade and commission trade services	2.19	0.26%	1.64	1.80
52	Retail trade services	1.63	0.38%	1.63	1.76
55	Hotel and restaurant services	3.87	2.18%	1.69	2.06
60	Land transport; transport via pipeline services	2.13	0.56%	1.78	1.97
61	Water transport services	0.64	1.64%	1.92	2.07
62	Air transport services	0.34	1.45%	1.98	2.15
63	Supporting and auxiliary transport services;travel agency	2.12	0.57%	2.09	2.32
64	Post and telecommunication services	0.09	0.03%	1.73	1.84
65	Financial intermediation services	3.40	1.57%	1.49	1.57
66	Insurance and pension funding services	0.33	0.79%	1.72	1.80
71	Renting services of machinery and equipment	1.37	0.91%	1.45	1.60
73	Research and development services	0.31	0.79%	1.40	1.57
74	Other business services	1.62	0.28%	1.49	1.62
75	Public administration and defence services	1.79	0.35%	1.48	1.62
80	Education services	77.17	17.32%	1.36	1.48
85	Health and social work services	7.17	2.43%	1.37	1.62
92	Recreational, cultural and sporting services	20.03	10.09%	1.62	1.79
93	Other services	0.05	0.11%	1.55	1.79

National Data Sheet

Finland

ECONOMIC IMPACT OF SPORT (according to the Vilnius Definition)

GROSS VALUE ADDED

	Direct Effects	% of total
Statistical Definition	0.16 bn €	0.11 %
Narrow Definition	1.90 bn €	1.39 %
Broad Definition	2.65 bn €	1.94 %

EMPLOYMENT

	Direct Effects	% of total
Statistical Definition	4,856	0.20 %
Narrow Definition	54,501	2.27 %
Broad Definition	74,209	3.09 %

DETAILED INFORMATION on SECTORAL LEVEL

CPA	Description	GROSS VALUE ADDED (Market Prices, Mio. €)		Sector-specific Multiplier	
		Sport-related	% of total	domestic	EU-wide
1	Products of agriculture, hunting and related services	0.36	0.02%	1.89	2.09
15	Food products and beverages	3.00	0.13%	2.08	2.32
17	Textiles	3.29	1.20%	1.32	1.49
18	Wearing apparel; furs	21.64	12.44%	1.18	1.27
19	Leather and leather products	5.63	7.04%	1.23	1.36
22	Printed matter and recorded media	7.61	0.40%	1.91	2.04
23	Coke, refined petroleum products and nuclear fuels	2.57	0.37%	1.62	1.75
24	Chemicals, chemical products and man-made fibres	0.93	0.05%	1.45	1.63
25	Rubber and plastic products	3.05	0.29%	1.54	1.77
28	Fabricated metal products,exc. machinery and equipmen	2.40	0.10%	1.73	1.95
29	Machinery and equipment n.e.c.	0.93	0.02%	1.69	1.94
33	Medical, precision and optical instrum., watches, clocks	1.28	0.16%	1.46	1.61
34	Motor vehicles, trailers and semi-trailers	1.83	0.51%	1.17	1.36
35	Other transport equipment	67.56	9.72%	1.67	1.90
36	Furniture; other manufactured goods n.e.c.	102.07	15.97%	1.64	1.82
45	Construction work	21.94	0.24%	1.96	2.16
50	Trade, maintenance and repair services of motor vehicles	39.72	1.51%	1.69	1.79
51	Wholesale trade and commission trade services	35.94	0.55%	1.78	1.92
52	Retail trade services	198.40	3.98%	1.65	1.75
55	Hotel and restaurant services	354.00	15.59%	1.80	1.95
60	Land transport; transport via pipeline services	2.10	0.05%	1.64	1.74
61	Water transport services	2.05	0.23%	1.64	1.78
62	Air transport services	4.54	0.61%	1.82	1.97
63	Supporting and auxiliary transport services;travel agency	8.93	0.28%	1.85	1.98
64	Post and telecommunication services	1.13	0.04%	1.94	2.08
65	Financial intermediation services	4.92	0.20%	1.46	1.54
66	Insurance and pension funding services	7.68	1.37%	1.71	1.83
71	Renting services of machinery and equipment	5.93	1.24%	1.54	1.65
73	Research and development services	2.37	0.32%	1.22	1.26
74	Other business services	2.82	0.04%	1.49	1.58
75	Public administration and defence services	8.13	0.12%	1.59	1.70
80	Education services	855.71	12.67%	1.40	1.46
85	Health and social work services	551.06	4.64%	1.41	1.49
92	Recreational, cultural and sporting services	310.75	12.80%	1.71	1.79
93	Other services	11.36	1.98%	1.64	1.75

National Data Sheet

France

ECONOMIC IMPACT OF SPORT (according to the Vilnius Definition)

GROSS VALUE ADDED

	Direct Effects	% of total
Statistical Definition	3.17 bn €	0.20 %
Narrow Definition	14.71 bn €	0.95 %
Broad Definition	21.61 bn €	1.40 %

EMPLOYMENT

	Direct Effects	% of total
Statistical Definition	91,773	0.37 %
Narrow Definition	323,381	1.30 %
Broad Definition	416,537	1.67 %

DETAILED INFORMATION on SECTORAL LEVEL

CPA	Description	GROSS VALUE ADDED (Market Prices, Mio. €)		Sector-specific Multiplier	
		Sport-related	% of total	domestic	EU-wide
1	Products of agriculture, hunting and related services	0.00	0.00%	1.00	1.00
15	Food products and beverages	0.00	0.00%	1.00	1.00
17	Textiles	0.00	0.00%	1.00	1.00
18	Wearing apparel; furs	1224.54	37.36%	1.79	2.05
19	Leather and leather products	349.49	28.69%	1.53	1.70
22	Printed matter and recorded media	0.00	0.00%	1.00	1.00
23	Coke, refined petroleum products and nuclear fuels	0.00	0.00%	1.00	1.00
24	Chemicals, chemical products and man-made fibres	0.00	0.00%	1.00	1.00
25	Rubber and plastic products	0.00	0.00%	1.00	1.00
28	Fabricated metal products,exc. machinery and equipmen	0.00	0.00%	1.00	1.00
29	Machinery and equipment n.e.c.	13.47	0.07%	1.30	1.39
33	Medical, precision and optical instrum., watches, clocks	0.00	0.00%	1.00	1.00
34	Motor vehicles, trailers and semi-trailers	0.00	0.00%	1.00	1.00
35	Other transport equipment	767.20	8.69%	1.87	2.21
36	Furniture; other manufactured goods n.e.c.	269.98	4.27%	1.72	1.94
45	Construction work	0.00	0.00%	1.00	1.00
50	Trade, maintenance and repair services of motor vehicles	0.00	0.00%	1.00	1.00
51	Wholesale trade and commission trade services	0.00	0.00%	1.00	1.00
52	Retail trade services	1817.30	2.74%	1.59	1.65
55	Hotel and restaurant services	509.89	1.35%	1.81	1.94
60	Land transport; transport via pipeline services	163.31	0.47%	1.65	1.73
61	Water transport services	13.37	0.62%	2.17	2.32
62	Air transport services	49.37	0.83%	1.67	1.81
63	Supporting and auxiliary transport services;travel agency	945.96	3.91%	1.72	1.82
64	Post and telecommunication services	707.98	2.16%	1.74	1.83
65	Financial intermediation services	447.01	1.01%	1.79	1.85
66	Insurance and pension funding services	47.65	0.26%	1.86	1.90
71	Renting services of machinery and equipment	215.94	1.73%	1.77	1.82
73	Research and development services	71.23	0.53%	1.85	2.00
74	Other business services	1273.33	0.82%	1.67	1.73
75	Public administration and defence services	2131.10	2.00%	1.43	1.49
80	Education services	3473.95	4.20%	1.28	1.32
85	Health and social work services	454.12	0.35%	1.36	1.42
92	Recreational, cultural and sporting services	6343.95	21.09%	1.78	1.87
93	Other services	316.81	3.46%	1.48	1.54

National Data Sheet

Germany

ECONOMIC IMPACT OF SPORT (according to the Vilnius Definition)

GROSS VALUE ADDED

	Direct Effects	% of total
Statistical Definition	5.69 bn €	0.28 %
Narrow Definition	27.11 bn €	1.34 %
Broad Definition	46.68 bn €	2.31 %

EMPLOYMENT

	Direct Effects	% of total
Statistical Definition	143,267	0.39 %
Narrow Definition	669,892	1.84 %
Broad Definition	1,146,234	3.15 %

DETAILED INFORMATION on SECTORAL LEVEL

CPA	Description	GROSS VALUE ADDED (Market Prices, Mio. €)		Sector-specific Multiplier	
		Sport-related	% of total	domestic	EU-wide
1	Products of agriculture, hunting and related services	12.20	0.08%	1.56	1.69
15	Food products and beverages	326.57	1.02%	1.84	2.05
17	Textiles	55.86	1.22%	1.37	1.53
18	Wearing apparel; furs	718.20	31.93%	1.25	1.40
19	Leather and leather products	220.62	26.39%	1.19	1.34
22	Printed matter and recorded media	1747.41	8.23%	1.74	1.85
23	Coke, refined petroleum products and nuclear fuels	27.83	0.59%	1.63	1.78
24	Chemicals, chemical products and man-made fibres	868.32	2.23%	1.55	1.72
25	Rubber and plastic products	633.52	3.03%	1.59	1.80
28	Fabricated metal products,exc. machinery and equipmen	872.46	2.18%	1.68	1.87
29	Machinery and equipment n.e.c.	705.28	1.03%	1.67	1.86
33	Medical, precision and optical instrum., watches, clocks	44.82	0.21%	1.45	1.56
34	Motor vehicles, trailers and semi-trailers	886.50	1.59%	1.85	2.15
35	Other transport equipment	223.26	2.29%	1.46	1.60
36	Furniture; other manufactured goods n.e.c.	395.55	3.76%	1.55	1.72
45	Construction work	43.43	0.05%	1.78	1.95
50	Trade, maintenance and repair services of motor vehicles	963.08	2.30%	1.44	1.52
51	Wholesale trade and commission trade services	1722.77	1.77%	1.62	1.70
52	Retail trade services	3630.42	4.24%	1.62	1.68
55	Hotel and restaurant services	8899.11	26.38%	1.61	1.72
60	Land transport; transport via pipeline services	2696.42	9.05%	1.66	1.76
61	Water transport services	372.10	5.69%	1.84	1.96
62	Air transport services	457.57	8.64%	1.97	2.19
63	Supporting and auxiliary transport services;travel agency	551.96	1.69%	1.83	1.95
64	Post and telecommunication services	23.57	0.06%	1.73	1.81
65	Financial intermediation services	83.03	0.12%	1.63	1.68
66	Insurance and pension funding services	239.15	2.10%	2.23	2.31
71	Renting services of machinery and equipment	203.66	0.47%	1.25	1.25
73	Research and development services	7.42	0.08%	1.58	1.65
74	Other business services	41.84	0.02%	1.48	1.52
75	Public administration and defence services	85.14	0.07%	1.41	1.47
80	Education services	5450.84	5.89%	1.28	1.31
85	Health and social work services	2079.99	1.42%	1.37	1.43
92	Recreational, cultural and sporting services	11387.53	30.33%	1.55	1.60
93	Other services	0.00	0.00%	1.00	1.00

National Data Sheet

Greece

ECONOMIC IMPACT OF SPORT (according to the Vilnius Definition)

GROSS VALUE ADDED

	Direct Effects	% of total
Statistical Definition	0.63 bn €	0.36 %
Narrow Definition	1.74 bn €	1.00 %
Broad Definition	2.52 bn €	1.44 %

EMPLOYMENT

	Direct Effects	% of total
Statistical Definition	19,594	0.45 %
Narrow Definition	56,226	1.29 %
Broad Definition	70,878	1.63 %

DETAILED INFORMATION on SECTORAL LEVEL

CPA	Description	GROSS VALUE ADDED (Market Prices, Mio. €)		Sector-specific Multiplier	
		Sport-related	% of total	domestic	EU-wide
1	Products of agriculture, hunting and related services	147.44	1.99%	1.45	1.52
15	Food products and beverages	15.32	0.34%	1.79	1.92
17	Textiles	41.21	6.05%	1.35	1.45
18	Wearing apparel; furs	65.16	6.75%	1.39	1.49
19	Leather and leather products	12.35	7.02%	1.23	1.33
22	Printed matter and recorded media	87.19	9.11%	1.52	1.69
23	Coke, refined petroleum products and nuclear fuels	7.75	0.76%	1.72	1.75
24	Chemicals, chemical products and man-made fibres	6.69	0.64%	1.23	1.33
25	Rubber and plastic products	0.24	0.04%	1.38	1.56
28	Fabricated metal products,exc. machinery and equipmen	0.11	0.01%	1.68	1.89
29	Machinery and equipment n.e.c.	0.74	0.11%	1.18	1.25
33	Medical, precision and optical instrum., watches, clocks	0.62	0.40%	1.08	1.11
34	Motor vehicles, trailers and semi-trailers	0.33	0.31%	1.04	1.06
35	Other transport equipment	29.13	5.09%	1.24	1.28
36	Furniture; other manufactured goods n.e.c.	42.87	7.35%	1.33	1.43
45	Construction work	20.45	0.18%	1.67	1.84
50	Trade, maintenance and repair services of motor vehicles	8.91	0.21%	1.36	1.41
51	Wholesale trade and commission trade services	107.34	0.78%	1.44	1.52
52	Retail trade services	142.42	1.26%	1.37	1.42
55	Hotel and restaurant services	148.83	1.24%	1.52	1.64
60	Land transport; transport via pipeline services	4.61	0.22%	1.64	1.71
61	Water transport services	17.03	0.23%	1.56	1.62
62	Air transport services	6.18	0.90%	1.41	1.45
63	Supporting and auxiliary transport services;travel agency	8.10	0.43%	1.21	1.24
64	Post and telecommunication services	164.24	3.68%	1.21	1.24
65	Financial intermediation services	36.85	0.51%	1.30	1.33
66	Insurance and pension funding services	1.91	0.25%	1.47	1.50
71	Renting services of machinery and equipment	1.76	0.41%	1.55	1.62
73	Research and development services	0.91	0.42%	1.59	1.67
74	Other business services	1.17	0.03%	1.65	1.72
75	Public administration and defence services	9.96	0.07%	1.35	1.45
80	Education services	97.96	0.97%	1.13	1.16
85	Health and social work services	3.96	0.06%	1.34	1.55
92	Recreational, cultural and sporting services	1261.95	47.71%	1.57	1.64
93	Other services	16.54	0.59%	1.28	1.31

National Data Sheet

Hungary

ECONOMIC IMPACT OF SPORT (according to the Vilnius Definition)

GROSS VALUE ADDED

	Direct Effects	% of total
Statistical Definition	0.05 bn €	0.07 %
Narrow Definition	0.60 bn €	0.79 %
Broad Definition	0.78 bn €	1.02 %

EMPLOYMENT

	Direct Effects	% of total
Statistical Definition	4,205	0.11 %
Narrow Definition	45,409	1.16 %
Broad Definition	55,577	1.43 %

DETAILED INFORMATION on SECTORAL LEVEL

CPA	Description	GROSS VALUE ADDED (Market Prices, Mio. €)		Sector-specific Multiplier	
		Sport-related	% of total	domestic	EU-wide
1	Products of agriculture, hunting and related services	17.47	0.61%	1.82	1.99
15	Food products and beverages	0.85	0.05%	2.13	2.32
17	Textiles	1.02	0.54%	1.30	1.52
18	Wearing apparel; furs	18.52	7.57%	1.43	1.82
19	Leather and leather products	4.53	4.10%	1.33	1.62
22	Printed matter and recorded media	15.03	2.66%	1.80	2.09
23	Coke, refined petroleum products and nuclear fuels	3.98	0.52%	1.64	1.74
24	Chemicals, chemical products and man-made fibres	7.24	0.46%	1.42	1.59
25	Rubber and plastic products	4.00	0.60%	1.41	1.70
28	Fabricated metal products,exc. machinery and equipmen	5.70	0.64%	1.42	1.77
29	Machinery and equipment n.e.c.	0.27	0.02%	1.36	1.65
33	Medical, precision and optical instrum., watches, clocks	0.74	0.18%	1.25	1.40
34	Motor vehicles, trailers and semi-trailers	6.46	0.36%	1.32	1.89
35	Other transport equipment	16.87	10.74%	1.48	1.75
36	Furniture; other manufactured goods n.e.c.	44.26	13.29%	1.43	1.70
45	Construction work	46.88	1.18%	1.75	2.11
50	Trade, maintenance and repair services of motor vehicles	3.17	0.31%	1.73	2.01
51	Wholesale trade and commission trade services	26.95	0.78%	1.82	2.00
52	Retail trade services	6.82	0.21%	1.67	1.80
55	Hotel and restaurant services	26.83	2.16%	1.93	2.13
60	Land transport; transport via pipeline services	19.58	0.85%	1.58	1.76
61	Water transport services	0.04	0.28%	1.39	1.52
62	Air transport services	0.34	0.86%	1.69	1.89
63	Supporting and auxiliary transport services;travel agency	49.56	5.08%	1.51	1.63
64	Post and telecommunication services	0.32	0.01%	1.46	1.54
65	Financial intermediation services	1.13	0.05%	1.59	1.65
66	Insurance and pension funding services	3.05	0.63%	1.85	1.91
71	Renting services of machinery and equipment	6.24	0.90%	1.22	1.29
73	Research and development services	1.69	0.46%	1.40	1.52
74	Other business services	4.83	0.08%	1.52	1.62
75	Public administration and defence services	4.54	0.07%	1.30	1.36
80	Education services	269.02	6.23%	1.29	1.35
85	Health and social work services	48.00	1.33%	1.43	1.58
92	Recreational, cultural and sporting services	109.46	8.92%	1.82	1.95
93	Other services	2.52	0.17%	1.47	1.57

National Data Sheet

Ireland

ECONOMIC IMPACT OF SPORT (according to the Vilnius Definition)

GROSS VALUE ADDED

	Direct Effects	% of total
Statistical Definition	0.44 bn €	0.30 %
Narrow Definition	1.37 bn €	0.96 %
Broad Definition	2.38 bn €	1.66 %

EMPLOYMENT

	Direct Effects	% of total
Statistical Definition	7,161	0.37 %
Narrow Definition	26,995	1.39 %
Broad Definition	40,532	2.08 %

DETAILED INFORMATION on SECTORAL LEVEL

CPA	Description	GROSS VALUE ADDED (Market Prices, Mio. €)		Sector-specific Multiplier	
		Sport-related	% of total	domestic	EU-wide
1	Products of agriculture, hunting and related services	245.14	10.18%	1.75	2.04
15	Food products and beverages	16.38	0.39%	1.78	2.05
17	Textiles	6.50	4.05%	1.19	1.34
18	Wearing apparel; furs	7.39	10.36%	1.06	1.11
19	Leather and leather products	4.82	49.50%	1.04	1.06
22	Printed matter and recorded media	39.99	1.17%	1.71	1.99
23	Coke, refined petroleum products and nuclear fuels	5.19	1.08%	1.37	1.51
24	Chemicals, chemical products and man-made fibres	32.42	0.29%	1.58	1.75
25	Rubber and plastic products	0.24	0.04%	1.28	1.48
28	Fabricated metal products,exc. machinery and equipmen	0.07	0.01%	1.29	1.58
29	Machinery and equipment n.e.c.	0.90	0.10%	1.17	1.34
33	Medical, precision and optical instrum., watches, clocks	11.34	0.46%	1.40	1.59
34	Motor vehicles, trailers and semi-trailers	0.60	0.33%	1.09	1.15
35	Other transport equipment	6.57	2.70%	1.07	1.12
36	Furniture; other manufactured goods n.e.c.	0.00	0.00%	1.00	1.00
45	Construction work	14.20	0.10%	1.87	2.17
50	Trade, maintenance and repair services of motor vehicles	3.15	0.21%	1.38	1.51
51	Wholesale trade and commission trade services	68.22	0.60%	1.13	1.16
52	Retail trade services	75.24	1.38%	1.43	1.52
55	Hotel and restaurant services	43.43	1.30%	1.69	1.94
60	Land transport; transport via pipeline services	4.51	0.20%	1.44	1.59
61	Water transport services	0.16	0.10%	1.76	1.95
62	Air transport services	9.62	1.03%	1.57	1.77
63	Supporting and auxiliary transport services;travel agency	6.67	0.52%	2.06	2.31
64	Post and telecommunication services	28.42	0.99%	1.69	1.90
65	Financial intermediation services	233.44	2.96%	1.48	1.57
66	Insurance and pension funding services	97.39	2.78%	1.73	1.83
71	Renting services of machinery and equipment	78.28	2.17%	1.42	1.52
73	Research and development services	4.02	1.06%	1.16	1.20
74	Other business services	216.24	2.43%	1.27	1.33
75	Public administration and defence services	174.49	2.80%	1.52	1.63
80	Education services	59.96	1.02%	1.32	1.39
85	Health and social work services	5.81	0.06%	1.47	1.60
92	Recreational, cultural and sporting services	870.37	49.28%	1.42	1.51
93	Other services	5.57	0.89%	1.56	1.69

National Data Sheet

Italy

ECONOMIC IMPACT OF SPORT (according to the Vilnius Definition)

GROSS VALUE ADDED

	Direct Effects	% of total
Statistical Definition	2.91 bn €	0.23 %
Narrow Definition	9.75 bn €	0.76 %
Broad Definition	15.60 bn €	1.21 %

EMPLOYMENT

	Direct Effects	% of total
Statistical Definition	75,641	0.34 %
Narrow Definition	239,881	1.07 %
Broad Definition	329,860	1.47 %

DETAILED INFORMATION on SECTORAL LEVEL

CPA	Description	GROSS VALUE ADDED (Market Prices, Mio. €)		Sector-specific Multiplier	
		Sport-related	% of total	domestic	EU-wide
1	Products of agriculture, hunting and related services	1308.66	5.00%	1.52	1.56
15	Food products and beverages	1.75	0.01%	2.00	2.09
17	Textiles	777.98	6.96%	1.96	2.08
18	Wearing apparel; furs	96.94	0.89%	1.96	2.08
19	Leather and leather products	358.53	4.76%	2.07	2.20
22	Printed matter and recorded media	237.38	2.31%	2.04	2.17
23	Coke, refined petroleum products and nuclear fuels	3.46	0.07%	1.89	1.99
24	Chemicals, chemical products and man-made fibres	17.75	0.11%	1.71	1.89
25	Rubber and plastic products	41.63	0.43%	1.95	2.16
28	Fabricated metal products,exc. machinery and equipmen	42.60	0.16%	2.02	2.21
29	Machinery and equipment n.e.c.	52.55	0.15%	1.98	2.15
33	Medical, precision and optical instrum., watches, clocks	66.11	1.12%	1.64	1.76
34	Motor vehicles, trailers and semi-trailers	162.38	2.14%	1.67	1.84
35	Other transport equipment	482.50	11.78%	1.95	2.14
36	Furniture; other manufactured goods n.e.c.	224.25	1.82%	2.07	2.26
45	Construction work	1272.83	1.70%	2.04	2.16
50	Trade, maintenance and repair services of motor vehicles	14.43	0.06%	2.02	2.20
51	Wholesale trade and commission trade services	93.55	0.15%	1.91	2.00
52	Retail trade services	25.74	0.05%	1.91	2.00
55	Hotel and restaurant services	2383.45	5.08%	1.83	1.93
60	Land transport; transport via pipeline services	1550.39	3.59%	1.91	2.02
61	Water transport services	43.96	2.89%	2.28	2.42
62	Air transport services	90.55	5.41%	1.93	2.03
63	Supporting and auxiliary transport services;travel agency	195.69	1.02%	2.04	2.13
64	Post and telecommunication services	2.67	0.01%	1.76	1.83
65	Financial intermediation services	15.34	0.04%	1.57	1.60
66	Insurance and pension funding services	3.96	0.05%	1.91	1.95
71	Renting services of machinery and equipment	10.11	0.08%	1.88	1.99
73	Research and development services	2.07	0.02%	1.75	1.87
74	Other business services	5.77	0.01%	1.73	1.79
75	Public administration and defence services	0.00	0.00%	1.00	1.00
80	Education services	0.00	0.00%	1.00	1.00
85	Health and social work services	195.16	0.26%	1.50	1.57
92	Recreational, cultural and sporting services	5817.37	36.13%	1.83	1.89
93	Other services	1.26	0.01%	1.57	1.63

National Data Sheet

Latvia

ECONOMIC IMPACT OF SPORT (according to the Vilnius Definition)

GROSS VALUE ADDED

	Direct Effects	% of total
Statistical Definition	0.01 bn €	0.07 %
Narrow Definition	0.11 bn €	0.91 %
Broad Definition	0.14 bn €	1.11 %

EMPLOYMENT

	Direct Effects	% of total
Statistical Definition	1,204	0.12 %
Narrow Definition	14,933	1.44 %
Broad Definition	17,077	1.65 %

DETAILED INFORMATION on SECTORAL LEVEL

CPA	Description	GROSS VALUE ADDED (Market Prices, Mio. €)		Sector-specific Multiplier	
		Sport-related	% of total	domestic	EU-wide
1	Products of agriculture, hunting and related services	0.26	0.07%	2.10	2.33
15	Food products and beverages	0.28	0.04%	1.83	2.07
17	Textiles	0.66	0.47%	1.42	1.64
18	Wearing apparel; furs	2.59	1.86%	1.53	1.77
19	Leather and leather products	0.08	0.80%	1.24	1.40
22	Printed matter and recorded media	3.18	2.29%	1.59	1.89
23	Coke, refined petroleum products and nuclear fuels	0.02	0.37%	1.06	1.08
24	Chemicals, chemical products and man-made fibres	0.21	0.28%	1.15	1.29
25	Rubber and plastic products	0.25	0.93%	1.15	1.33
28	Fabricated metal products,exc. machinery and equipmen	0.88	1.02%	1.38	1.62
29	Machinery and equipment n.e.c.	0.03	0.04%	1.16	1.28
33	Medical, precision and optical instrum., watches, clocks	0.06	0.37%	1.11	1.18
34	Motor vehicles, trailers and semi-trailers	0.01	0.31%	1.03	1.06
35	Other transport equipment	6.07	8.47%	1.42	1.68
36	Furniture; other manufactured goods n.e.c.	8.96	12.58%	1.45	1.67
45	Construction work	2.96	0.36%	1.70	2.06
50	Trade, maintenance and repair services of motor vehicles	0.92	0.39%	1.53	1.83
51	Wholesale trade and commission trade services	1.35	0.14%	1.76	1.94
52	Retail trade services	1.07	0.13%	1.65	1.82
55	Hotel and restaurant services	3.26	2.16%	1.69	1.92
60	Land transport; transport via pipeline services	2.34	0.37%	1.53	1.73
61	Water transport services	0.53	1.14%	1.61	1.75
62	Air transport services	0.53	1.43%	1.54	1.68
63	Supporting and auxiliary transport services;travel agency	4.99	0.64%	1.74	1.92
64	Post and telecommunication services	0.06	0.01%	1.41	1.51
65	Financial intermediation services	1.77	0.32%	1.36	1.43
66	Insurance and pension funding services	0.13	0.25%	1.75	1.83
71	Renting services of machinery and equipment	0.32	0.68%	1.37	1.49
73	Research and development services	0.13	0.40%	1.32	1.43
74	Other business services	0.56	0.13%	1.48	1.64
75	Public administration and defence services	0.57	0.07%	1.47	1.60
80	Education services	68.88	10.40%	1.33	1.43
85	Health and social work services	4.68	1.09%	1.41	1.64
92	Recreational, cultural and sporting services	16.82	5.95%	1.47	1.57
93	Other services	0.22	0.28%	1.62	1.86

National Data Sheet

Lithuania

ECONOMIC IMPACT OF SPORT (according to the Vilnius Definition)

GROSS VALUE ADDED

	Direct Effects	% of total
Statistical Definition	0.01 bn €	0.06 %
Narrow Definition	0.12 bn €	0.65 %
Broad Definition	0.16 bn €	0.88 %

EMPLOYMENT

	Direct Effects	% of total
Statistical Definition	1,740	0.12 %
Narrow Definition	12,762	0.87 %
Broad Definition	16,178	1.10 %

DETAILED INFORMATION on SECTORAL LEVEL

CPA	Description	GROSS VALUE ADDED (Market Prices, Mio. €)		Sector-specific Multiplier	
		Sport-related	% of total	domestic	EU-wide
1	Products of agriculture, hunting and related services	2.55	0.30%	1.59	1.76
15	Food products and beverages	0.26	0.05%	1.76	2.01
17	Textiles	1.01	0.76%	1.31	1.45
18	Wearing apparel; furs	10.31	4.52%	1.43	1.63
19	Leather and leather products	0.06	0.58%	1.22	1.31
22	Printed matter and recorded media	0.68	0.55%	1.55	1.82
23	Coke, refined petroleum products and nuclear fuels	0.00	0.00%	1.00	1.00
24	Chemicals, chemical products and man-made fibres	1.65	0.21%	1.62	1.68
25	Rubber and plastic products	1.35	0.71%	1.39	1.57
28	Fabricated metal products,exc. machinery and equipmen	2.65	1.89%	1.24	1.52
29	Machinery and equipment n.e.c.	0.04	0.04%	1.10	1.18
33	Medical, precision and optical instrum., watches, clocks	0.13	0.35%	1.19	1.29
34	Motor vehicles, trailers and semi-trailers	0.04	0.16%	1.03	1.05
35	Other transport equipment	15.02	11.97%	1.30	1.45
36	Furniture; other manufactured goods n.e.c.	25.54	9.01%	1.51	1.75
45	Construction work	3.93	0.29%	1.64	1.85
50	Trade, maintenance and repair services of motor vehicles	2.04	0.39%	1.35	1.47
51	Wholesale trade and commission trade services	15.04	0.91%	1.45	1.56
52	Retail trade services	2.97	0.18%	1.32	1.40
55	Hotel and restaurant services	4.08	1.52%	1.57	1.70
60	Land transport; transport via pipeline services	7.05	0.56%	1.38	1.53
61	Water transport services	0.56	0.59%	1.29	1.38
62	Air transport services	0.84	2.40%	1.86	2.07
63	Supporting and auxiliary transport services;travel agency	7.93	1.54%	1.43	1.55
64	Post and telecommunication services	0.61	0.13%	1.43	1.58
65	Financial intermediation services	3.14	0.98%	1.48	1.57
66	Insurance and pension funding services	0.00	0.00%	1.00	1.00
71	Renting services of machinery and equipment	0.95	1.11%	1.41	1.50
73	Research and development services	0.27	3.25%	1.62	1.72
74	Other business services	1.43	0.21%	1.53	1.64
75	Public administration and defence services	1.82	0.19%	1.49	1.61
80	Education services	9.46	1.02%	1.31	1.37
85	Health and social work services	14.06	2.50%	1.52	1.65
92	Recreational, cultural and sporting services	22.47	10.61%	1.58	1.72
93	Other services	0.87	0.66%	1.75	1.90

National Data Sheet

Luxembourg

ECONOMIC IMPACT OF SPORT (according to the Vilnius Definition)

GROSS VALUE ADDED

	Direct Effects	% of total
Statistical Definition	0.09 bn €	0.30 %
Narrow Definition	0.39 bn €	1.32 %
Broad Definition	0.70 bn €	2.37 %

EMPLOYMENT

	Direct Effects	% of total
Statistical Definition	1,113	0.32 %
Narrow Definition	12,708	3.70 %
Broad Definition	19,331	5.63 %

DETAILED INFORMATION on SECTORAL LEVEL

CPA	Description	GROSS VALUE ADDED (Market Prices, Mio. €)		Sector-specific Multiplier	
		Sport-related	% of total	domestic	EU-wide
1	Products of agriculture, hunting and related services	0.11	0.13%	1.26	1.35
15	Food products and beverages	0.70	0.12%	1.33	1.47
17	Textiles	1.64	1.06%	1.34	1.95
18	Wearing apparel; furs	0.00	0.00%	1.00	1.00
19	Leather and leather products	0.00	0.00%	1.00	1.00
22	Printed matter and recorded media	0.00	0.00%	1.00	1.00
23	Coke, refined petroleum products and nuclear fuels	0.00	0.00%	1.00	1.00
24	Chemicals, chemical products and man-made fibres	0.19	0.27%	1.06	1.22
25	Rubber and plastic products	1.08	0.44%	1.25	1.76
28	Fabricated metal products,exc. machinery and equipmen	0.00	0.00%	1.00	1.00
29	Machinery and equipment n.e.c.	0.06	0.03%	1.30	1.47
33	Medical, precision and optical instrum., watches, clocks	0.59	0.55%	1.38	1.65
34	Motor vehicles, trailers and semi-trailers	0.00	0.00%	1.00	1.00
35	Other transport equipment	0.00	0.00%	1.00	1.00
36	Furniture; other manufactured goods n.e.c.	0.72	6.06%	1.01	1.02
45	Construction work	2.60	0.16%	1.53	1.86
50	Trade, maintenance and repair services of motor vehicles	15.81	4.49%	1.41	1.57
51	Wholesale trade and commission trade services	13.47	1.16%	1.51	1.83
52	Retail trade services	43.04	5.92%	1.52	1.81
55	Hotel and restaurant services	98.27	20.35%	1.63	1.81
60	Land transport; transport via pipeline services	1.58	0.23%	1.31	1.56
61	Water transport services	0.31	4.53%	1.21	1.43
62	Air transport services	3.54	1.13%	1.54	2.00
63	Supporting and auxiliary transport services;travel agency	2.19	0.77%	1.19	1.28
64	Post and telecommunication services	0.78	0.08%	1.25	1.40
65	Financial intermediation services	44.57	0.85%	1.99	2.14
66	Insurance and pension funding services	3.00	0.49%	2.07	2.24
71	Renting services of machinery and equipment	3.34	0.90%	1.18	1.30
73	Research and development services	1.16	0.67%	1.29	1.51
74	Other business services	4.02	0.19%	1.20	1.27
75	Public administration and defence services	3.14	0.23%	1.32	1.43
80	Education services	56.43	5.66%	1.12	1.16
85	Health and social work services	214.47	17.26%	1.25	1.42
92	Recreational, cultural and sporting services	176.81	65.13%	1.36	1.58
93	Other services	3.08	3.21%	1.31	1.45

National Data Sheet

Malta

ECONOMIC IMPACT OF SPORT (according to the Vilnius Definition)

GROSS VALUE ADDED

	Direct Effects	% of total
Statistical Definition	0.02 bn €	0.49 %
Narrow Definition	0.07 bn €	1.75 %
Broad Definition	0.09 bn €	2.24 %

EMPLOYMENT

	Direct Effects	% of total
Statistical Definition	723	0.49 %
Narrow Definition	2,235	1.51 %
Broad Definition	3,070	2.07 %

DETAILED INFORMATION on SECTORAL LEVEL

CPA	Description	GROSS VALUE ADDED (Market Prices, Mio. €)		Sector-specific Multiplier	
		Sport-related	% of total	domestic	EU-wide
1	Products of agriculture, hunting and related services	0.36	0.42%	1.43	1.56
15	Food products and beverages	0.57	0.65%	1.44	1.56
17	Textiles	0.01	0.09%	1.08	1.15
18	Wearing apparel; furs	0.81	2.17%	1.19	1.34
19	Leather and leather products	0.00	0.00%	1.00	1.00
22	Printed matter and recorded media	1.10	2.18%	1.51	1.87
23	Coke, refined petroleum products and nuclear fuels	0.02	1.08%	1.02	1.03
24	Chemicals, chemical products and man-made fibres	1.14	2.26%	1.15	1.32
25	Rubber and plastic products	0.12	0.30%	1.28	1.52
28	Fabricated metal products,exc. machinery and equipmen	0.02	0.10%	1.34	1.61
29	Machinery and equipment n.e.c.	0.26	1.79%	1.09	1.12
33	Medical, precision and optical instrum., watches, clocks	0.00	0.00%	1.32	1.44
34	Motor vehicles, trailers and semi-trailers	0.00	0.00%	1.00	1.00
35	Other transport equipment	0.80	2.85%	1.29	1.45
36	Furniture; other manufactured goods n.e.c.	0.06	0.07%	1.22	1.44
45	Construction work	3.13	1.79%	1.65	1.89
50	Trade, maintenance and repair services of motor vehicles	0.38	0.30%	1.52	1.65
51	Wholesale trade and commission trade services	0.00	0.00%	1.00	1.00
52	Retail trade services	5.67	2.85%	1.49	1.62
55	Hotel and restaurant services	1.42	0.62%	1.71	1.92
60	Land transport; transport via pipeline services	0.41	0.76%	1.40	1.51
61	Water transport services	0.00	0.00%	1.00	1.00
62	Air transport services	0.25	0.36%	1.84	2.26
63	Supporting and auxiliary transport services;travel agency	0.23	0.19%	1.48	1.56
64	Post and telecommunication services	0.76	0.57%	1.59	1.68
65	Financial intermediation services	0.37	0.27%	2.45	2.46
66	Insurance and pension funding services	1.80	3.38%	1.38	1.39
71	Renting services of machinery and equipment	0.10	0.15%	1.68	1.84
73	Research and development services	0.00	0.00%	1.00	1.00
74	Other business services	2.52	0.87%	1.46	1.57
75	Public administration and defence services	0.42	0.14%	1.45	1.53
80	Education services	22.86	8.82%	1.15	1.20
85	Health and social work services	3.88	1.54%	1.24	1.37
92	Recreational, cultural and sporting services	40.50	26.89%	1.78	1.92
93	Other services	2.94	7.53%	1.39	1.48

National Data Sheet

Netherlands

ECONOMIC IMPACT OF SPORT (according to the Vilnius Definition)

GROSS VALUE ADDED

	Direct Effects	% of total
Statistical Definition	1.04 bn €	0.23 %
Narrow Definition	4.25 bn €	0.93 %
Broad Definition	5.83 bn €	1.28 %

EMPLOYMENT

	Direct Effects	% of total
Statistical Definition	22,243	0.27 %
Narrow Definition	107,024	1.32 %
Broad Definition	141,896	1.75 %

DETAILED INFORMATION on SECTORAL LEVEL

CPA	Description	GROSS VALUE ADDED (Market Prices, Mio. €)		Sector-specific Multiplier	
		Sport-related	% of total	domestic	EU-wide
1	Products of agriculture, hunting and related services	325.13	3.50%	1.54	1.71
15	Food products and beverages	2.26	0.02%	1.85	1.97
17	Textiles	5.28	0.66%	1.28	1.50
18	Wearing apparel; furs	13.80	8.36%	1.06	1.15
19	Leather and leather products	8.04	6.04%	1.07	1.12
22	Printed matter and recorded media	176.32	3.08%	1.62	1.87
23	Coke, refined petroleum products and nuclear fuels	4.36	0.12%	1.58	1.75
24	Chemicals, chemical products and man-made fibres	10.06	0.10%	1.45	1.74
25	Rubber and plastic products	15.50	0.80%	1.38	1.61
28	Fabricated metal products,exc. machinery and equipmen	1.00	0.02%	1.49	1.88
29	Machinery and equipment n.e.c.	0.07	0.00%	1.38	1.67
33	Medical, precision and optical instrum., watches, clocks	8.18	0.46%	1.15	1.26
34	Motor vehicles, trailers and semi-trailers	8.86	0.47%	1.22	1.53
35	Other transport equipment	32.94	2.16%	1.43	1.70
36	Furniture; other manufactured goods n.e.c.	132.53	2.96%	1.28	1.45
45	Construction work	0.00	0.00%	1.00	1.00
50	Trade, maintenance and repair services of motor vehicles	207.07	2.83%	1.62	1.89
51	Wholesale trade and commission trade services	14.70	0.04%	1.52	1.65
52	Retail trade services	241.06	1.49%	1.55	1.64
55	Hotel and restaurant services	458.25	5.41%	1.52	1.64
60	Land transport; transport via pipeline services	305.56	3.06%	1.50	1.65
61	Water transport services	12.68	0.64%	1.79	2.03
62	Air transport services	18.10	0.96%	1.83	2.19
63	Supporting and auxiliary transport services;travel agency	27.88	0.40%	1.65	1.80
64	Post and telecommunication services	0.51	0.00%	1.61	1.74
65	Financial intermediation services	21.26	0.11%	1.43	1.48
66	Insurance and pension funding services	8.15	0.08%	1.60	1.66
71	Renting services of machinery and equipment	5.59	0.13%	1.51	1.64
73	Research and development services	3.65	0.18%	1.31	1.39
74	Other business services	8.24	0.02%	1.55	1.65
75	Public administration and defence services	14.70	0.05%	1.56	1.67
80	Education services	983.69	4.92%	1.28	1.34
85	Health and social work services	160.60	0.40%	1.32	1.41
92	Recreational, cultural and sporting services	2079.69	33.05%	1.84	1.97
93	Other services	512.00	14.46%	1.63	1.76

National Data Sheet

Poland

ECONOMIC IMPACT OF SPORT (according to the Vilnius Definition)

GROSS VALUE ADDED

	Direct Effects	% of total
Statistical Definition	0.48 bn €	0.22 %
Narrow Definition	2.53 bn €	1.17 %
Broad Definition	3.36 bn €	1.56 %

EMPLOYMENT

	Direct Effects	% of total
Statistical Definition	44,461	0.32 %
Narrow Definition	221,652	1.57 %
Broad Definition	274,423	1.94 %

DETAILED INFORMATION on SECTORAL LEVEL

CPA	Description	GROSS VALUE ADDED (Market Prices, Mio. €)		Sector-specific Multiplier	
		Sport-related	% of total	domestic	EU-wide
1	Products of agriculture, hunting and related services	15.49	0.17%	1.78	1.94
15	Food products and beverages	14.89	0.24%	2.26	2.47
17	Textiles	8.55	1.08%	1.36	1.51
18	Wearing apparel; furs	46.41	4.39%	1.55	1.75
19	Leather and leather products	3.16	1.20%	1.39	1.55
22	Printed matter and recorded media	42.16	2.13%	1.89	2.11
23	Coke, refined petroleum products and nuclear fuels	9.67	1.56%	1.82	1.88
24	Chemicals, chemical products and man-made fibres	25.55	1.09%	1.46	1.64
25	Rubber and plastic products	18.20	0.74%	1.61	1.89
28	Fabricated metal products,exc. machinery and equipmen	119.46	3.24%	1.63	1.96
29	Machinery and equipment n.e.c.	10.12	0.30%	1.44	1.67
33	Medical, precision and optical instrum., watches, clocks	1.07	0.14%	1.36	1.50
34	Motor vehicles, trailers and semi-trailers	4.18	0.16%	1.60	2.00
35	Other transport equipment	70.72	8.51%	1.58	1.81
36	Furniture; other manufactured goods n.e.c.	61.92	3.04%	1.85	2.14
45	Construction work	177.45	1.30%	1.97	2.23
50	Trade, maintenance and repair services of motor vehicles	74.97	0.91%	1.48	1.58
51	Wholesale trade and commission trade services	175.79	1.32%	1.81	1.95
52	Retail trade services	122.84	0.70%	1.59	1.69
55	Hotel and restaurant services	51.23	1.81%	1.83	1.97
60	Land transport; transport via pipeline services	86.80	1.14%	1.77	1.94
61	Water transport services	0.00	0.00%	1.00	1.00
62	Air transport services	5.92	2.46%	1.78	1.89
63	Supporting and auxiliary transport services;travel agency	135.62	6.15%	2.13	2.28
64	Post and telecommunication services	0.00	0.00%	1.00	1.00
65	Financial intermediation services	50.16	1.06%	1.57	1.63
66	Insurance and pension funding services	5.47	0.26%	1.59	1.66
71	Renting services of machinery and equipment	15.51	0.90%	1.54	1.65
73	Research and development services	8.18	0.88%	1.53	1.66
74	Other business services	190.38	1.49%	1.74	1.87
75	Public administration and defence services	21.53	0.16%	1.35	1.42
80	Education services	816.93	7.00%	1.27	1.30
85	Health and social work services	5.05	0.06%	1.44	1.54
92	Recreational, cultural and sporting services	953.07	32.74%	1.68	1.82
93	Other services	12.58	0.89%	1.36	1.42

National Data Sheet

Portugal

ECONOMIC IMPACT OF SPORT (according to the Vilnius Definition)

GROSS VALUE ADDED

	Direct Effects	% of total
Statistical Definition	0.03 bn €	0.02 %
Narrow Definition	1.23 bn €	0.96 %
Broad Definition	1.53 bn €	1.19 %

EMPLOYMENT

	Direct Effects	% of total
Statistical Definition	1,452	0.03 %
Narrow Definition	59,086	1.15 %
Broad Definition	72,101	1.41 %

DETAILED INFORMATION on SECTORAL LEVEL

CPA	Description	GROSS VALUE ADDED (Market Prices, Mio. €)		Sector-specific Multiplier	
		Sport-related	% of total	domestic	EU-wide
1	Products of agriculture, hunting and related services	62.85	2.57%	1.57	1.71
15	Food products and beverages	0.48	0.02%	1.85	2.12
17	Textiles	12.56	0.86%	1.56	1.82
18	Wearing apparel; furs	15.88	1.28%	1.69	2.00
19	Leather and leather products	80.31	10.70%	1.56	1.90
22	Printed matter and recorded media	20.04	1.64%	1.65	1.89
23	Coke, refined petroleum products and nuclear fuels	0.19	0.29%	1.71	1.80
24	Chemicals, chemical products and man-made fibres	0.50	0.04%	1.39	1.62
25	Rubber and plastic products	7.64	1.10%	1.50	1.85
28	Fabricated metal products,exc. machinery and equipmen	11.58	0.82%	1.60	2.01
29	Machinery and equipment n.e.c.	1.66	0.16%	1.32	1.57
33	Medical, precision and optical instrum., watches, clocks	13.73	6.85%	1.22	1.37
34	Motor vehicles, trailers and semi-trailers	0.47	0.07%	1.24	1.66
35	Other transport equipment	76.98	19.95%	1.45	1.71
36	Furniture; other manufactured goods n.e.c.	20.43	2.36%	1.64	1.95
45	Construction work	3.22	0.04%	2.09	2.36
50	Trade, maintenance and repair services of motor vehicles	1.17	0.03%	1.54	1.73
51	Wholesale trade and commission trade services	17.37	0.26%	1.73	1.86
52	Retail trade services	8.59	0.16%	1.66	1.75
55	Hotel and restaurant services	53.06	0.95%	1.74	1.95
60	Land transport; transport via pipeline services	50.86	2.50%	1.74	1.89
61	Water transport services	1.58	1.21%	2.00	2.17
62	Air transport services	2.64	0.64%	1.87	2.06
63	Supporting and auxiliary transport services;travel agency	3.50	0.17%	1.59	1.68
64	Post and telecommunication services	1.50	0.04%	1.71	1.85
65	Financial intermediation services	28.06	0.50%	1.43	1.48
66	Insurance and pension funding services	8.67	0.63%	1.49	1.56
71	Renting services of machinery and equipment	3.45	0.40%	1.55	1.64
73	Research and development services	1.44	0.31%	1.36	1.42
74	Other business services	0.97	0.01%	1.76	1.87
75	Public administration and defence services	27.74	0.27%	1.33	1.39
80	Education services	545.77	5.96%	1.18	1.21
85	Health and social work services	192.23	2.25%	1.50	1.65
92	Recreational, cultural and sporting services	52.91	2.95%	1.65	1.75
93	Other services	203.80	30.49%	1.46	1.58

National Data Sheet

Romania

ECONOMIC IMPACT OF SPORT (according to the Vilnius Definition)

GROSS VALUE ADDED

	Direct Effects	% of total
Statistical Definition	0.00 bn €	0.00 %
Narrow Definition	0.64 bn €	0.91 %
Broad Definition	0.79 bn €	1.12 %

EMPLOYMENT

	Direct Effects	% of total
Statistical Definition	0	0.00 %
Narrow Definition	142,935	1.57 %
Broad Definition	161,248	1.77 %

DETAILED INFORMATION on SECTORAL LEVEL

CPA	Description	GROSS VALUE ADDED (Market Prices, Mio. €)		Sector-specific Multiplier	
		Sport-related	% of total	domestic	EU-wide
1	Products of agriculture, hunting and related services	4.37	0.07%	1.71	1.83
15	Food products and beverages	1.14	0.02%	1.84	1.96
17	Textiles	1.29	0.25%	1.23	1.33
18	Wearing apparel; furs	86.96	9.49%	1.41	1.63
19	Leather and leather products	21.53	5.98%	1.33	1.45
22	Printed matter and recorded media	4.14	0.92%	1.65	1.84
23	Coke, refined petroleum products and nuclear fuels	2.54	0.26%	1.87	1.95
24	Chemicals, chemical products and man-made fibres	1.58	0.23%	1.45	1.57
25	Rubber and plastic products	6.46	1.18%	1.36	1.58
28	Fabricated metal products,exc. machinery and equipmen	7.71	0.88%	1.47	1.66
29	Machinery and equipment n.e.c.	0.19	0.02%	1.29	1.42
33	Medical, precision and optical instrum., watches, clocks	1.51	1.11%	1.23	1.35
34	Motor vehicles, trailers and semi-trailers	3.60	0.28%	1.35	1.47
35	Other transport equipment	16.73	4.40%	1.59	1.82
36	Furniture; other manufactured goods n.e.c.	85.75	10.70%	1.56	1.72
45	Construction work	71.57	1.37%	1.76	1.94
50	Trade, maintenance and repair services of motor vehicles	0.33	0.14%	1.89	2.18
51	Wholesale trade and commission trade services	9.63	0.22%	1.42	1.51
52	Retail trade services	18.28	0.58%	1.53	1.61
55	Hotel and restaurant services	19.36	1.38%	1.67	1.76
60	Land transport; transport via pipeline services	30.94	0.71%	1.64	1.79
61	Water transport services	0.58	1.01%	1.49	1.61
62	Air transport services	1.15	0.84%	1.52	1.71
63	Supporting and auxiliary transport services;travel agency	43.53	3.54%	1.66	1.72
64	Post and telecommunication services	0.19	0.01%	1.35	1.40
65	Financial intermediation services	0.06	0.01%	1.15	1.16
66	Insurance and pension funding services	0.53	0.22%	1.59	1.68
71	Renting services of machinery and equipment	0.37	0.02%	1.80	1.92
73	Research and development services	0.69	0.42%	1.83	2.00
74	Other business services	3.55	0.83%	1.55	1.68
75	Public administration and defence services	1.52	0.04%	1.33	1.41
80	Education services	274.86	10.21%	1.38	1.48
85	Health and social work services	67.35	3.17%	1.56	1.82
92	Recreational, cultural and sporting services	0.00	0.00%	1.00	1.00
93	Other services	0.00	0.00%	1.00	1.00

National Data Sheet

Slowakia

ECONOMIC IMPACT OF SPORT (according to the Vilnius Definition)

GROSS VALUE ADDED

	Direct Effects	% of total
Statistical Definition	0.04 bn €	0.09 %
Narrow Definition	0.32 bn €	0.73 %
Broad Definition	0.47 bn €	1.08 %

EMPLOYMENT

	Direct Effects	% of total
Statistical Definition	5,643	0.25 %
Narrow Definition	35,444	1.60 %
Broad Definition	49,910	2.25 %

DETAILED INFORMATION on SECTORAL LEVEL

CPA	Description	GROSS VALUE ADDED (Market Prices, Mio. €)		Sector-specific Multiplier	
		Sport-related	% of total	domestic	EU-wide
1	Products of agriculture, hunting and related services	0.83	0.07%	1.66	1.84
15	Food products and beverages	0.72	0.08%	1.74	1.94
17	Textiles	1.44	0.79%	1.22	1.35
18	Wearing apparel; furs	13.36	4.92%	1.32	1.54
19	Leather and leather products	4.07	2.60%	1.44	1.65
22	Printed matter and recorded media	2.51	0.91%	1.70	1.97
23	Coke, refined petroleum products and nuclear fuels	1.01	0.20%	1.64	1.72
24	Chemicals, chemical products and man-made fibres	2.26	0.42%	1.34	1.48
25	Rubber and plastic products	2.74	0.65%	1.44	1.72
28	Fabricated metal products,exc. machinery and equipmen	5.35	0.52%	1.42	1.63
29	Machinery and equipment n.e.c.	0.28	0.03%	1.38	1.60
33	Medical, precision and optical instrum., watches, clocks	0.39	0.17%	1.20	1.31
34	Motor vehicles, trailers and semi-trailers	5.03	0.65%	1.45	1.91
35	Other transport equipment	5.59	5.55%	1.56	1.83
36	Furniture; other manufactured goods n.e.c.	24.56	7.26%	1.54	1.88
45	Construction work	15.57	0.46%	2.02	2.28
50	Trade, maintenance and repair services of motor vehicles	2.69	0.57%	1.64	1.91
51	Wholesale trade and commission trade services	11.05	0.41%	1.66	1.80
52	Retail trade services	10.65	0.52%	1.58	1.69
55	Hotel and restaurant services	14.43	2.27%	1.37	1.47
60	Land transport; transport via pipeline services	12.52	0.57%	1.63	1.79
61	Water transport services	0.52	2.82%	1.15	1.19
62	Air transport services	-0.03	0.32%	1.61	1.81
63	Supporting and auxiliary transport services;travel agency	17.24	3.70%	2.00	2.21
64	Post and telecommunication services	0.59	0.04%	1.53	1.61
65	Financial intermediation services	1.33	0.09%	1.39	1.45
66	Insurance and pension funding services	1.06	0.23%	1.55	1.63
71	Renting services of machinery and equipment	2.88	0.91%	1.70	1.81
73	Research and development services	0.27	0.30%	1.44	1.56
74	Other business services	2.05	0.09%	1.58	1.71
75	Public administration and defence services	3.31	0.11%	1.46	1.55
80	Education services	71.79	4.73%	1.28	1.33
85	Health and social work services	150.65	11.82%	1.48	1.64
92	Recreational, cultural and sporting services	82.70	13.41%	1.78	1.90
93	Other services	0.76	0.25%	1.31	1.37

National Data Sheet

Slovenia

ECONOMIC IMPACT OF SPORT (according to the Vilnius Definition)

GROSS VALUE ADDED

	Direct Effects	% of total
Statistical Definition	0.06 bn €	0.23 %
Narrow Definition	0.41 bn €	1.66 %
Broad Definition	0.52 bn €	2.10 %

EMPLOYMENT

	Direct Effects	% of total
Statistical Definition	3,600	0.38 %
Narrow Definition	23,011	2.43 %
Broad Definition	28,576	3.01 %

DETAILED INFORMATION on SECTORAL LEVEL

CPA	Description	GROSS VALUE ADDED (Market Prices, Mio. €)		Sector-specific Multiplier	
		Sport-related	% of total	domestic	EU-wide
1	Products of agriculture, hunting and related services	3.94	0.71%	1.53	1.65
15	Food products and beverages	0.52	0.11%	1.74	1.95
17	Textiles	1.35	0.86%	1.50	1.81
18	Wearing apparel; furs	8.61	8.41%	1.47	1.77
19	Leather and leather products	1.27	2.62%	1.34	1.50
22	Printed matter and recorded media	7.86	3.71%	1.81	2.05
23	Coke, refined petroleum products and nuclear fuels	-0.01	0.64%	1.03	1.04
24	Chemicals, chemical products and man-made fibres	5.64	0.77%	1.32	1.50
25	Rubber and plastic products	5.37	1.75%	1.49	1.82
28	Fabricated metal products,exc. machinery and equipmen	5.58	0.92%	1.49	1.88
29	Machinery and equipment n.e.c.	0.44	0.06%	1.41	1.74
33	Medical, precision and optical instrum., watches, clocks	0.80	0.64%	1.24	1.45
34	Motor vehicles, trailers and semi-trailers	0.12	0.05%	1.28	1.76
35	Other transport equipment	15.80	28.25%	1.44	1.69
36	Furniture; other manufactured goods n.e.c.	57.61	16.18%	1.44	1.69
45	Construction work	7.63	0.49%	2.02	2.39
50	Trade, maintenance and repair services of motor vehicles	36.28	7.01%	1.63	1.87
51	Wholesale trade and commission trade services	35.42	2.60%	1.71	1.87
52	Retail trade services	6.33	0.48%	1.50	1.59
55	Hotel and restaurant services	7.46	1.20%	1.60	1.75
60	Land transport; transport via pipeline services	7.84	1.06%	1.60	1.85
61	Water transport services	0.41	0.69%	1.43	1.71
62	Air transport services	0.26	0.68%	1.60	1.82
63	Supporting and auxiliary transport services;travel agency	9.39	3.46%	1.83	2.03
64	Post and telecommunication services	0.52	0.08%	1.69	1.75
65	Financial intermediation services	7.99	1.07%	1.42	1.47
66	Insurance and pension funding services	1.27	0.56%	1.79	1.87
71	Renting services of machinery and equipment	2.34	3.11%	1.51	1.61
73	Research and development services	0.63	0.39%	1.38	1.50
74	Other business services	2.28	0.13%	1.55	1.66
75	Public administration and defence services	3.19	0.22%	1.44	1.54
80	Education services	96.04	7.03%	1.24	1.30
85	Health and social work services	65.53	5.29%	1.36	1.51
92	Recreational, cultural and sporting services	114.21	21.95%	1.56	1.63
93	Other services	0.69	0.38%	1.39	1.47

National Data Sheet

Spain

ECONOMIC IMPACT OF SPORT (according to the Vilnius Definition)

GROSS VALUE ADDED

	Direct Effects	% of total
Statistical Definition	0.14 bn €	0.02 %
Narrow Definition	7.33 bn €	0.90 %
Broad Definition	10.41 bn €	1.28 %

EMPLOYMENT

	Direct Effects	% of total
Statistical Definition	5,774	0.03 %
Narrow Definition	252,183	1.33 %
Broad Definition	336,177	1.77 %

DETAILED INFORMATION on SECTORAL LEVEL

CPA	Description	GROSS VALUE ADDED (Market Prices, Mio. €)		Sector-specific Multiplier	
		Sport-related	% of total	domestic	EU-wide
1	Products of agriculture, hunting and related services	31.94	0.15%	1.63	1.76
15	Food products and beverages	1.64	0.01%	2.21	2.42
17	Textiles	16.40	0.65%	1.69	1.91
18	Wearing apparel; furs	28.64	1.26%	1.50	1.67
19	Leather and leather products	448.41	30.46%	1.68	1.94
22	Printed matter and recorded media	198.41	2.73%	1.85	2.05
23	Coke, refined petroleum products and nuclear fuels	17.69	0.46%	1.76	1.83
24	Chemicals, chemical products and man-made fibres	10.60	0.10%	1.58	1.78
25	Rubber and plastic products	12.28	0.25%	1.74	2.01
28	Fabricated metal products,exc. machinery and equipmen	114.44	0.90%	1.88	2.14
29	Machinery and equipment n.e.c.	16.42	0.18%	1.52	1.70
33	Medical, precision and optical instrum., watches, clocks	142.55	11.63%	1.29	1.43
34	Motor vehicles, trailers and semi-trailers	36.50	0.38%	1.55	1.95
35	Other transport equipment	409.73	14.44%	1.57	1.81
36	Furniture; other manufactured goods n.e.c.	243.46	4.46%	1.73	1.94
45	Construction work	1114.30	1.22%	2.31	2.48
50	Trade, maintenance and repair services of motor vehicles	2.02	0.02%	1.79	2.10
51	Wholesale trade and commission trade services	25.76	0.06%	1.68	1.75
52	Retail trade services	90.48	0.24%	1.56	1.60
55	Hotel and restaurant services	415.47	0.70%	1.69	1.80
60	Land transport; transport via pipeline services	477.56	2.51%	1.80	1.93
61	Water transport services	17.96	1.96%	2.08	2.24
62	Air transport services	2.06	0.08%	1.74	1.87
63	Supporting and auxiliary transport services;travel agency	18.06	0.13%	2.00	2.14
64	Post and telecommunication services	9.34	0.05%	1.79	1.92
65	Financial intermediation services	276.50	1.10%	1.31	1.34
66	Insurance and pension funding services	40.25	0.78%	1.86	1.93
71	Renting services of machinery and equipment	20.41	0.39%	1.67	1.77
73	Research and development services	6.89	0.22%	1.52	1.63
74	Other business services	0.00	0.00%	1.00	1.00
75	Public administration and defence services	91.43	0.21%	1.43	1.50
80	Education services	2767.07	7.12%	1.21	1.23
85	Health and social work services	2821.94	6.33%	1.45	1.57
92	Recreational, cultural and sporting services	280.69	1.32%	1.63	1.71
93	Other services	199.82	4.33%	1.62	1.73

National Data Sheet

Sweden

ECONOMIC IMPACT OF SPORT (according to the Vilnius Definition)

GROSS VALUE ADDED

	Direct Effects	% of total
Statistical Definition	0.23 bn €	0.09 %
Narrow Definition	1.39 bn €	0.54 %
Broad Definition	2.36 bn €	0.92 %

EMPLOYMENT

	Direct Effects	% of total
Statistical Definition	8,358	0.19 %
Narrow Definition	48,717	1.12 %
Broad Definition	73,266	1.69 %

DETAILED INFORMATION on SECTORAL LEVEL

CPA	Description	GROSS VALUE ADDED (Market Prices, Mio. €)		Sector-specific Multiplier	
		Sport-related	% of total	domestic	EU-wide
1	Products of agriculture, hunting and related services	1.28	0.10%	1.65	1.80
15	Food products and beverages	7.02	0.19%	1.73	1.97
17	Textiles	5.70	1.70%	1.27	1.40
18	Wearing apparel; furs	16.80	18.21%	1.09	1.14
19	Leather and leather products	6.60	10.90%	1.13	1.20
22	Printed matter and recorded media	8.03	0.31%	1.95	2.13
23	Coke, refined petroleum products and nuclear fuels	3.33	0.78%	1.42	1.63
24	Chemicals, chemical products and man-made fibres	9.98	0.19%	1.40	1.56
25	Rubber and plastic products	1.75	0.13%	1.42	1.64
28	Fabricated metal products,exc. machinery and equipmen	1.63	0.04%	1.63	1.87
29	Machinery and equipment n.e.c.	0.32	0.01%	1.60	1.83
33	Medical, precision and optical instrum., watches, clocks	5.13	0.26%	1.46	1.61
34	Motor vehicles, trailers and semi-trailers	1.17	0.03%	1.71	2.03
35	Other transport equipment	44.61	3.31%	1.52	1.70
36	Furniture; other manufactured goods n.e.c.	166.60	15.93%	1.51	1.75
45	Construction work	10.34	0.09%	1.69	1.89
50	Trade, maintenance and repair services of motor vehicles	81.16	0.28%	1.61	1.73
51	Wholesale trade and commission trade services	0.00	0.00%	1.00	1.00
52	Retail trade services	0.00	0.00%	1.00	1.00
55	Hotel and restaurant services	709.48	17.36%	1.77	1.95
60	Land transport; transport via pipeline services	5.47	0.08%	1.62	1.74
61	Water transport services	2.84	0.29%	1.73	1.97
62	Air transport services	4.84	0.92%	1.72	1.87
63	Supporting and auxiliary transport services;travel agency	11.79	0.20%	1.95	2.16
64	Post and telecommunication services	2.05	0.04%	1.85	1.96
65	Financial intermediation services	19.20	0.25%	1.39	1.43
66	Insurance and pension funding services	24.43	0.91%	1.37	1.40
71	Renting services of machinery and equipment	13.65	0.50%	1.58	1.69
73	Research and development services	3.07	0.01%	1.60	1.69
74	Other business services	0.00	0.00%	1.00	1.00
75	Public administration and defence services	13.44	0.13%	1.60	1.69
80	Education services	580.41	4.05%	1.44	1.49
85	Health and social work services	116.46	0.42%	1.34	1.41
92	Recreational, cultural and sporting services	458.11	11.13%	1.79	1.88
93	Other services	23.20	1.66%	1.49	1.58

National Data Sheet

United Kingdom

ECONOMIC IMPACT OF SPORT (according to the Vilnius Definition)

GROSS VALUE ADDED

	Direct Effects	% of total
Statistical Definition	11.66 bn €	0.71 %
Narrow Definition	24.84 bn €	1.52 %
Broad Definition	37.99 bn €	2.33 %

EMPLOYMENT

	Direct Effects	% of total
Statistical Definition	175,325	0.61 %
Narrow Definition	417,072	1.46 %
Broad Definition	618,770	2.16 %

DETAILED INFORMATION on SECTORAL LEVEL

CPA	Description	GROSS VALUE ADDED (Market Prices, Mio. €)		Sector-specific Multiplier	
		Sport-related	% of total	domestic	EU-wide
1	Products of agriculture, hunting and related services	406.50	4.41%	1.64	1.78
15	Food products and beverages	147.70	0.51%	1.72	1.89
17	Textiles	166.70	4.59%	1.40	1.51
18	Wearing apparel; furs	152.10	8.65%	1.19	1.25
19	Leather and leather products	13.20	2.38%	1.12	1.17
22	Printed matter and recorded media	514.70	2.98%	1.71	1.88
23	Coke, refined petroleum products and nuclear fuels	48.30	1.42%	1.68	1.74
24	Chemicals, chemical products and man-made fibres	74.60	0.35%	1.53	1.70
25	Rubber and plastic products	30.80	0.29%	1.63	1.83
28	Fabricated metal products,exc. machinery and equipmen	7.50	0.04%	1.61	1.78
29	Machinery and equipment n.e.c.	35.10	0.20%	1.51	1.66
33	Medical, precision and optical instrum., watches, clocks	47.20	0.64%	1.37	1.48
34	Motor vehicles, trailers and semi-trailers	58.50	0.48%	1.50	1.70
35	Other transport equipment	831.70	8.65%	1.51	1.66
36	Furniture; other manufactured goods n.e.c.	459.10	5.42%	1.47	1.63
45	Construction work	235.00	0.23%	2.06	2.19
50	Trade, maintenance and repair services of motor vehicles	90.70	0.25%	1.68	1.82
51	Wholesale trade and commission trade services	543.90	0.77%	1.87	1.99
52	Retail trade services	1087.90	1.31%	1.62	1.69
55	Hotel and restaurant services	769.10	1.34%	1.64	1.76
60	Land transport; transport via pipeline services	152.10	0.47%	1.80	1.91
61	Water transport services	34.50	0.62%	1.66	1.77
62	Air transport services	71.90	0.83%	1.56	1.64
63	Supporting and auxiliary transport services;travel agency	1014.80	3.91%	2.06	2.16
64	Post and telecommunication services	3285.60	7.95%	1.59	1.71
65	Financial intermediation services	734.00	1.01%	1.48	1.54
66	Insurance and pension funding services	45.30	0.26%	2.11	2.22
71	Renting services of machinery and equipment	146.10	0.70%	1.63	1.74
73	Research and development services	43.00	0.58%	1.53	1.62
74	Other business services	1406.20	0.83%	1.59	1.66
75	Public administration and defence services	47.20	0.05%	1.66	1.77
80	Education services	1754.70	1.82%	1.40	1.45
85	Health and social work services	103.80	0.09%	1.63	1.74
92	Recreational, cultural and sporting services	23312.10	58.74%	1.62	1.71
93	Other services	121.90	1.32%	1.72	1.82