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## **Economic potential of the UEFA EURO 2012**

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## **Executive Summary:**

Ukraine currently prepares for co-hosting the UEFA EURO 2012. In April 2010, the Cabinet of Ministers adopted a programme which determines an overall investment volume of more than UAH 110 bn (almost USD 14 bn) or about 12% of annual GDP in 2009. With such ambitious expenditure plans it is unclear whether Ukraine will be able to eventually benefit from the championship rather than only wasting a significant part of its wealth for a prestigious yet unprofitable project.

The present paper addresses this question. We divide proposed investments into general infrastructure investments and event-specific ones. For general infrastructure investments we argue that plans are well set to generate sustainable benefits for Ukraine's economy. However, given significant legal uncertainties with respect to Public Private Partnerships in general and the operation of toll roads in particular, we stress that attracting the private investments is very difficult.

With respect to event specific expenditures, we conduct a cost-benefit analysis which reveals a positive net impact of co-hosting the championship. However, given the size of required investments there remains a significant risk. Most effectively, it can be addressed through strong involvement of private capital. Hence, we argue that efforts must be focused on removing investment barriers.

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## **1 Introduction**

Together with Poland, Ukraine has been appointed to co-host the prestigious UEFA EURO 2012 of the Union of European Football Associations (UEFA) in 2012. Ever since, expectations are growing high not only with respect to the performance of Ukraine's national team but also with regard to the possible economic benefits that such an event can bring to Ukraine. However, the evaluation of Ukraine's and Poland's bid proposal has stressed that a significant part of the infrastructure required for hosting such an event still needs to be constructed. As this will call for large scale investments there is obviously not only a potential for economic benefits but also for significant losses.

In April, the Cabinet of Ministers adopted a programme on preparation of the championship<sup>1</sup> which includes overall investments of more than UAH 110 bn or about 12% of Ukraine's annual GDP (in 2009). Against this background the purpose of this paper is to discuss international experiences and trends in hosting mega sporting events (section 2), assessing the government programme against the lessons learnt from other events (section 3), estimate the overall economic impact of the UEFA EURO 2012 championship on Ukraine (section 4) and provide final recommendations on how to proceed further (section 5).

## **2 Economic effects of mega sporting events**

Ever since the city of Los Angeles reported a USD 200 m profit from the 1984 Olympic Summer Games, hosting mega sporting events has been perceived not only as prestigious but also as profitable. Consequently, all subsequent games have attracted an increasing number of bidders. For football championships the development is similar. Given the strong increase of applications, the Fédération Internationale de Football Association (FIFA) has started to host the FIFA World Cup also outside its traditional regions of Europe and South America. Following the USA in 1994, Japan and South Korea were the first Asian countries to host the world cup in 2002 and the last tournament in 2010 took place in South Africa.

While awarding mega sporting events to less developed countries demonstrates a strong commitment of support, it also bears significant risks to the host country. Most importantly, the need for high-quality infrastructure and sporting facilities typically requires much larger investments for less developed countries than for developed ones. For example, traditional host countries with well developed general and sporting infrastructure typically have to invest less than USD 1 bn for hosting mega sporting events such as the Olympic summer games, the FIFA World Cup or the UEFA Euro (Table 1; Sydney 2000 was the only exemption with total investments of USD 2.5 bn). On the contrary, new host countries with less developed general and sporting infrastructure need far greater investments, typically above USD 5 bn (Table 1).

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<sup>1</sup> State Purpose Programme adopted by the Decree of the CMU No. 357, April 14, 2010.

**Table 1**Planned costs and expected benefits from hosting a mega sporting event<sup>2</sup>

Event	Year	Host	Planned costs	Expected benefits
Traditional host countries with well developed general and sporting infrastructure				
Olympic Summer Games	1996	Atlanta	USD 600 m	USD 5.1 bn
	2000	Sydney	USD 2.5 bn	USD 6.5 bn
FIFA World Cup	1994	USA	USD 30 m	USD 4 bn
	1998	France	USD 500 m	
	2006	Germany		USD 3.4-10.5 bn
UEFA Euro	2008	Austria/Switzerland	EUR 133 m (federal government)	EUR 641 m
			EUR 113.8 m (public authorities)	EUR 174 m
New host countries with less developed general and sporting infrastructure				
Olympic Summer Games	1992	Barcelona	USD 9.4 bn	
	2004	Athens	USD 7 bn	
	2008	Beijing	USD 20 bn	
FIFA World Cup	2002	Japan/South Korea	USD 6.5 bn	USD 24.8 bn (Japan)
				USD 8.9 bn (South Korea)
	2010	South Africa		USD 6 bn
UEFA Euro	2004	Portugal	USD 4.4 bn	
			USD 26.4 bn	
	2008	Poland/Ukraine	USD 14.0 bn	

Given such large expenditures, why do most countries, including those with less developed infrastructure, compete so intensively for the privilege of hosting such an event? Besides immaterial gains in prestige and international awareness creation (*'putting the country on the map'*) almost every host country expects to realize significant economic gains. Typically, expectations as produced by various studies significantly vary (Table 1). However, all those expected benefits as given in Table 1 were estimated prior to the event (*ex-ante* assessment). Afterwards, the available *ex-post* assessments of economic effects as measured in surveys and statistical data produce a rather different picture with positive as well as negative examples:

One of the most positive examples are the 1992 Olympic summer games in Barcelona, which contributed significantly to urban regeneration and attractiveness of the city. Key factors to this success were:<sup>3</sup>

- A focus on construction of general infrastructure (transport, sewage systems, etc.) which would serve the city rather than the event itself (the share of such infrastructure was above 60% in total expenditures);
- The regional decentralization, where only 35% of expenditures were spent in the city itself;
- A clear focus on private investors to ensure that market perspectives rather than administrative procedures decided over financing issues.

The second positive case is the 2000 games in Sydney which succeeded in generating the expected additional incomes of about USD 6.5 bn.

<sup>2</sup> For overviews on expected costs and benefits of mega sporting events see Matheson, V. and R.A. Baade (2003). *Mega Sporting Events in Developing Nations: Playing the Way to Prosperity?* South African Journal of Economics, Vol. 72:5, December 2004, pp. 1084-1095; and H. Bohlman (2006). *Predicting the Economic Impact of the 2010 FIFA World Cup on South Africa*. University of Pretoria, Working Paper 2006-11.

<sup>3</sup> A detailed *ex-post* assessment of the Barcelona games can be found in F. Brunet i Cid (2005). *The Economic Impact of the Barcelona Olympic Games, 1986-2004*. in: Miquel de Moragas i Miquel Botella (eds.) (2002). *Barcelona: l'herència dels Jocs. 1992-2002*. Barcelona: Centre d'Estudis Olímpics UAB, Planeta, Ajuntament de Barcelona.

In contrast, there are also cases where final results remained behind the optimistic expectations:

The 1994 FIFA World Cup in the US, for example, caused net income losses of about USD 4 bn to the population of the host cities, rather than benefits.<sup>4</sup>

Expectations of South Korea have also not been met. In particular, the newly built and very modern stadia now host professional football teams which attract on average about 3,300 spectators per game. Hence, a significant amount of public funds has been spent without generating sustainable benefits.

In most cases, mega sporting events have induced positive effects but economic results typically remained below the initially expected levels. For example, conservative estimates suggests that the 2006 World Cup in Germany did succeed in generating net benefits, but also stress that those benefits were even below the lower end of what was initially expected (USD 2.2 bn or EUR 1.6 bn). Overall, these effects were found to have no significant impact on the overall economy.<sup>5</sup>

To explain this striking difference between fancy expectations and reality several factors seem to be important:

First, the definitions of benefits as well as the methodologies to measure them are rather different. Typically, the assessments are based on so-called multiplier analysis which looks at direct and indirect effects that the event-specific expenditures like construction and tourist expenditures are causing. Few studies use more advanced simulation models.<sup>6</sup> Several studies also suffer from methodological shortcomings such as inappropriate consideration of the timing of costs and benefits (such as e.g. present values) and often use rather stylized parameters.

Economic impacts are typically assessed on a gross basis although net impacts might be much smaller. For example:

- Expenditures of event tourists are typically understood as overall benefit without considering that the concentration of tourists in few host cities can lead to lower tourist expenditures elsewhere.<sup>7</sup> Similarly, the mass character of the event not only attracts additional foreign visitors, but it also crowds out many regular foreign tourists. For example, no significant change in the number of annual tourist was observed in France in 1998, Portugal in 2004, or Greece in 2004.<sup>8</sup> Similarly, South Korea accounted in 2002 for significantly more visitors from Europe, but only at the expense of equally less tourists from Japan.<sup>9</sup> As a result, the overall number of foreign guests at the country level can be significantly lower and net additional tourist expenditures be significantly reduced.
- Labor shortages in host cities might stimulate influxes of temporary workers. In this way, significant parts of overall economic benefits can be taken out of the region.
- The impact of capital investments is typically assessed without that opportunity costs of capital are considered. Instead, available funds could have been spent elsewhere to generate certain benefits.

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<sup>4</sup> V.A. Matheson (2006) *Mega-Events: The effect of the world's biggest sporting events on local, regional, and national economies*. College of the Holy Cross, Department of Economics, Faculty Research Series, Paper No. 06-10.

<sup>5</sup> Brenke, K. and G.G. Wagner (2007). *Ökonomische Wirkungen der Fußball WM in Deutschland zum Teil überschätzt*. DIW Wochenbericht Nr. 29/2007.

<sup>6</sup> For an exemption see e.g. J.R. Madden (2006). *Economic and Fiscal Impacts of Mega Sporting Events: A General Equilibrium Assessment*. Public Finance and Management. V.6 no.3, pp.346-394.

<sup>7</sup> For example, hotel occupation rates in Sydney were at full capacity during the 2000 Olympics while unusually low occupation rates were observed in other States of Australia (Arthur Andersen Hospitality and Leisure Services: *The Sydney Olympic Performance Survey: The Sydney Olympic Games on the Australian Hotel Industry*, Mimeograph, November 2000, pp.1-7.).

<sup>8</sup> See Brenke, K. and G.G. Wagner (2006). *Fußball-Weltmeisterschaft in Deutschland: Ein wichtiges sportliches und kulturelles Ereignis – aber ohne nennenswerte gesamtwirtschaftliche Auswirkungen*. DIW Wochenbericht Nr. 20/2006.

<sup>9</sup> For overviews on the costs and benefits of mega sporting events see Matheson, V. and R.A. Baade (2003). *Mega Sporting Events in Developing Nations: Playing the Way to Prosperity?* South African Journal of Economics, Vol. 72:5, December 2004, pp. 1084-1095.

- Finally, many event-related assignments might require expertise and experiences that only foreign firms can provide (e.g. in stadia construction). In this case, also economic benefits will go to entities outside the country.

Finally, several other problems include the possibility for sufficient after-event usage of sport facilities, or high ticket prices which might result in low stadia occupation, as it was the case in Japan and Korea.

Against this background, several factors imply a strong potential for Ukraine to benefit from co-hosting the UEFA EURO 2012 championship:

- First, Ukraine possesses a sufficiently strong professional football league with regular participations in European Cup competitions, which is strong enough to ensure sufficient utilization of newly-build sport facilities.
- Second, given the sharp contrast between the country's tourist potential and its utilization, a significant stimulus can be expected while crowding out effects can be neglected.<sup>10</sup>
- Third, labor supply at sufficient skill levels is still sufficiently available. Hence, championship related expenditures are likely to benefit local people.

However, in particular the poor quality of existing transport infrastructure as well as the lack of high-quality sporting facilities will require significant investments and thus, impose strong risks. Following the example of Barcelona, infrastructure investments should be split into event-specific and general investments, where the latter comprises all projects that will serve the overall country rather than only the event. Then, the following factors will be key for success:

- ⇒ Overall expenditures should be clearly focused on financing general infrastructure;
- ⇒ For all necessary infrastructure investments most funds should be raised from private investors;
- ⇒ Construction and operation of event-specific infrastructure should be planned with as little public contributions as possible since it bears the highest risk of being abundant after the event.

### **3 Current state of preparations**

#### **3.1 The government programme on preparation and conduction of the EURO2012 in Ukraine**

In April 2010, the Cabinet of Ministers adopted the last version of the State Programme on *Preparation and Conducting of the UEFA EURO 2012*. The objective is to ensure sufficient conditions for preparing and hosting the championship. In particular:

All sports venues should be available for use and meet all requirements of the UEFA.

A sufficient number of qualified experts should be hired for preparing the country for this high level event.

A safety and security concept for the host country, the stadia and each other official site should be developed and implemented.

Visitors in 2012 should not experience any lack of comfort with respect to accommodation, transport, communication and the satisfaction of basic needs.

To achieve these goals, the State Programme foresees a range of measures which includes provisions from other related programmes as well as new, event-specific ones.

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<sup>10</sup> From 2003 to 2009, the total number of foreign tourists in Ukraine has even declined from 590,641 to 282,287 (State Statistics Committee of Ukraine). On the contrary, Switzerland expected between 800,000 and 1,030,000 event tourists to visit the country for the UEFA EURO 2008 championship (Rütter et al. (2004). *Economic Impact of the UEFA EURO 2008 in Switzerland*. Study on behalf of the UEFA and the Swiss Football Association). Since Switzerland also co-hosts the championship together with Austria, the number appears to be a good estimate for the number of event tourists to come to Ukraine four years later.

The Cabinet of Ministers expects that the implementation of those measures will make Ukraine a successful championship host, create state-of-the-art transport and telecommunication infrastructure, boost SME development, increase living standards and service quality, and attract significant investments and employment growth.

Although the expenditure figures as proposed in the programme are still not final, they already allow for some general conclusions with respect to the intended financing structure. Altogether, the programme foresees three different sources of financing, the central budget, government support, local budgets and private investors and is planned to be executed during the period from 2008-2012 (see Table 2). Total expenditures are allocated across five main categories as shown in Figure 1

**Table 2**

Financing sources for the UEFA EURO 2012, UAH m

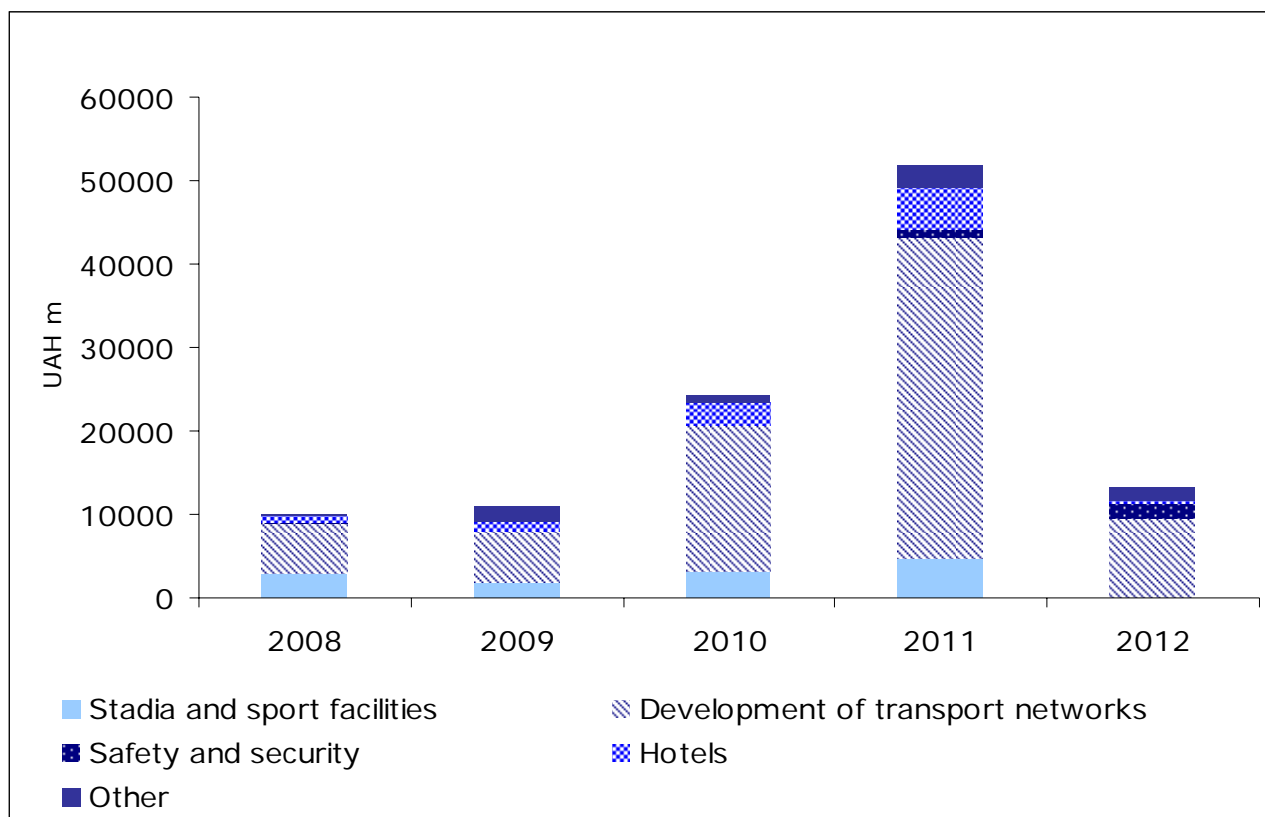
Source	2008	2009	2010	2011	2012	Total
Central budget	3083.46	3110.914	10890.272	28970.2329	9817.559	55872.4379
Local budgets	505.01	573.85	604.068	2703.37	885.46	5271.758
Private investors	6442.794	7221.2	12916.187	20130.515	2586.04	49296.736
Total	10031.264	10905.964	24410.527	51804.1179	13289.059	110440.9319

*Source: State Programme for Preparing and Conducting the UEFA EURO 2012 (June 6, 2011)*

Overall, the government programme foresees expenditures of more than UAH 110 bn (almost USD 14 bn) or about 12% of annual GDP (2009). Compared to the cost estimates of other mega sporting events discussed above, this figure is rather high. However, about UAH 84 bn (76% of total expenditures) are foreseen to be spent for general infrastructure improvements (Figure 1) with focus on transport networks. Obviously, such investments will – if realised – significantly strengthen the long-term growth potential of Ukraine's economy. Thus, related costs cannot simply be compared against the benefits that the UEFA EURO 2012 might generate. Rather, as suggested above the discussion and evaluation of foreseen expenditures will be done within two categories, general and event-specific investments.

**Figure 1**

Investment structure for the UEFA EURO 2012



Source: State Programme for Preparing and Conducting the UEFA EURO 2012, own calculations

### 3.2. Expenditures for general infrastructure investments

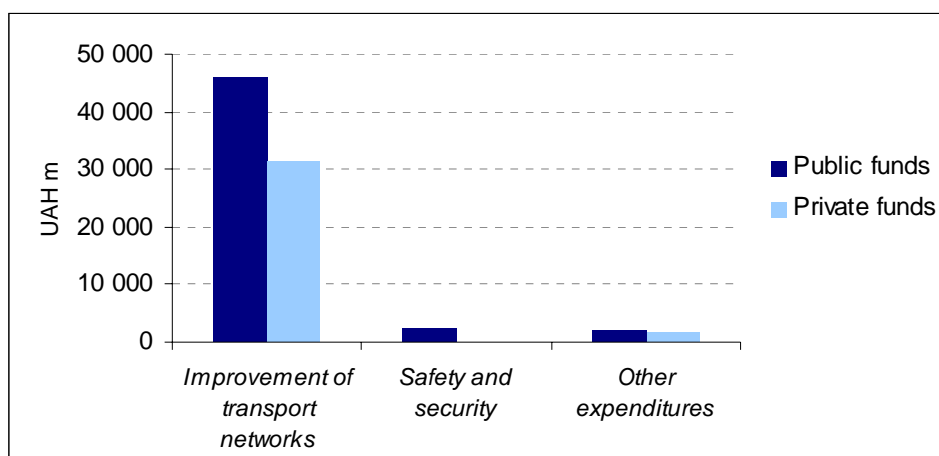
As Figure 2 shows the proposed structure of general expenditures clearly focuses on improving transportation infrastructure with a total volume of almost UAH 78 bn. According to the UEFA requirements, the championship needs to be supported by a modern, well developed high-quality transportation infrastructure that links each host city. However, most of the existing infrastructure is in a poor state and desperately requires investments. Thus, the programme foresees investment expenditures of:

- Almost UAH 33 bn (43%) for construction and rehabilitation of roads and highways;
- Almost UAH 19 bn (24%) for construction and rehabilitation of railway infrastructure;
- About UAH 16 bn (21%) for construction and rehabilitation of airports; and
- About UAH 9 bn (12%) for maintenance and upgrade of urban transport in hosting cities.



**Figure 2**

Structure of general infrastructure investments



Source: State Programme for Preparing and Conducting the UEFA EURO 2012 (June 6, 2011), own calculations

For construction and rehabilitation of roads about 73% of total funds are supposed to be spent from the budget while the rest should stem from private investors. For airports 75% should be spent from the budget. For railway infrastructure investments, 88% is supposed to be spent by the state-owned railway company Ukrzaliznitza<sup>11</sup>. For rehabilitation of host-city infrastructure, 76% of overall investment is planned to be financed by public sources.

All the proposed host cities in Ukraine are important regional centres. Hence, investments in high-quality connections between them and a sufficient inner-city infrastructure will strongly benefit the overall economy. Moreover, the need to ensure high-quality connections with the respective Polish host cities will improve infrastructure connections between the EU and Ukraine, which in turn will benefit the country and its economy. Thus, the proposed plan could mark a milestone in Ukraine's economic development which could reach far beyond the UEFA EURO championship.

Against this background, the planned amount of investments in transport infrastructure seems to be reasonable. However, the intended financing structure with focus on public investments is not an effective way for ensuring the highest-possible degree of efficiency. Also, the overall plan remains to be very ambitious and, unfortunately, private investments as proposed in the programme can be limited by the same reasons that have so far prevented large-scale infrastructure investments in Ukraine. In particular, this includes the following legal problems:

Until today, Ukraine lacks a sound legal and institutional background for Public-Private Partnerships (PPPs) which specifies legal rights and duties of both sides, including possibilities for revenue generation (e.g. principles of price calculations and price regulation), guarantees for private partners as well as fines and compensation schemes in case of breach of contract.

The current legal possibilities for operating toll roads are rather vague. While in 2009 respective law was improved (a concessionaire was allowed not only to build, but also to rehabilitate and operate existing roads as well as to operate byroad infrastructure and to get payments from the state for "operating readiness of a road"), results are still suspended.

All airports in Ukraine are still 100% state or municipally owned. And despite the fact that there are some examples of concession (e.g., in Kharkiv or Ivano-Frankivsk), the terms on which private investors could be attracted and public partners could be committed to stick to existing contracts are rather intricate.

<sup>11</sup> This is not counted as public investment since Ukrzaliznitza does not receives its funding from the general budget.

In addition to investments in transportation infrastructure, the general expenditures shown in Figure 2 include two more items. Safety and security measures, focusing on security and safety infrastructure for emergency cases and medical treatment (UAH 2.9 bn) as well as reconstruction of cultural and historic infrastructure and equipment of cross-border points (UAH 1.6 bn) are supposed to be funded mostly at the budget's expenses. While maintenance of electricity distribution grid (UAH 2.1 bn) is to be financed mostly by private funds, which appears to be reasonable, because the latter should not be financed by public budgets but by the grid operators (Oblenergos) themselves and the related costs be included in the fees for network usage.

### 3.3 Expenditures for event-specific investments

The costs directly connected to the UEFA EURO 2012 can be distinguished into four different categories as shown in Figure 3. The two most significant components are:

- *Construction of hotels* (UAH 10 bn or USD 1.3 bn); and
- *Construction of sport facilities* (UAH 13 bn or USD 1.6 bn).

For hotels, the lion share (95%) is expected to come from private investors. While for stadia, 68% is supposed to come from public sources, which again can lead to lower efficiency and drawing off of public funds from alternative and possibly more needed public goods.

Expenses for *safety and security* are divided into expenses for strengthening security during the championship and protecting against possible terrorist attacks (UAH 491 m). This item is supposed to be financed by public funds. The foreseen expenditures for security measures seems to be excessive if compared to previous championships<sup>12</sup>. Though, given level of current security infrastructure it may appear to be realistic.

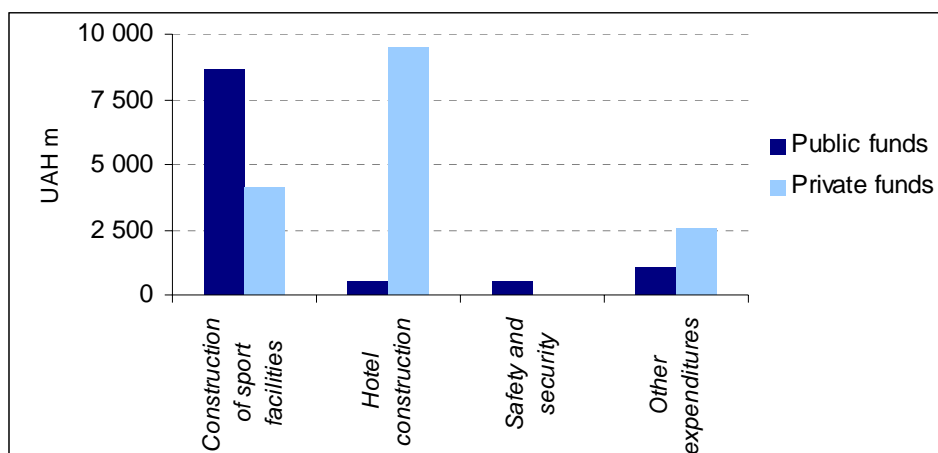
The final component (*other expenditures*) mainly includes investments in telecommunications and broadcasting infrastructure (UAH 3 bn or USD 379 m), which is 79% financed from private sources. In fact, the only item that clearly justifies public expenditures comprises measures to ensure the protection of UEFA's intellectual property rights (UAH 4.98 m). Finally, some other smaller items appear to be either displaced (strengthening the level of Ukraine's national football team, UAH 58.67 m out of which UAH 58.6 m funded by public budgets) or overestimated (training and foreign language education for service staff, UAH 122 m out of which UAH 107 m funded by public budgets).

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<sup>12</sup> E.g. the reported expenditures for Portugal 2004 accounted for EUR 40 m. The figure foreseen for Ukraine is about EUR 43 m, but will cover only the "Ukrainian half" of the championship. In contrast, Switzerland has been heavily criticised for offering only EUR 6.4 m (CHF 10.5 m) for security expenses in 2008.

**Figure 3**

Structure of event-specific expenditures



Source: State Programme for Preparing and Conducting the UEFA EURO 2012 (June 6, 2011), own calculations

#### 4 Economic Impact Assessment

To better judge the economic importance of co-hosting the championship for Ukraine this section presents a brief assessment of costs and benefits. As we have shown above, a significant part of foreseen expenditures is planned for financing general infrastructure investments which should be executed independently from the football championship because they can be expected to generate sustainable long-term benefits to Ukraine's economy. Hence, the following impact assessment will focus exclusively on assessing costs and benefits of the event-specific expenditures which are directly linked to Ukraine's role as co-host of the UEFA EURO 2012 championship. Specifically, event-specific costs are taken from the government programme (Figure 3) and hence, are differentiated into construction of sport facilities and hotels, investments in safety and security measures and other expenditures.

To estimate benefits we assume that additional value added is generated by three different effects:

*Direct effects* measure the gross value added from the respective expenditures or turnover.

*Indirect effects* measure the gross value added from producing the total intermediate demand which is associated with the respective expenditures or turnover.

*Induced effects (or multiplier effects)* measure the gross value added which is generated after the income from direct and indirect effects will in turn be spent.

For example, if a construction firm builds a sporting facility (e.g. a stadium) it directly generates income (gross value added, that is salaries for employees, profits and taxes) which constitutes the *direct effect*. The firm also buys construction materials and other intermediate goods. These are produced by other firms and the respective income that these firms are generating is the *indirect effect*. Finally, the incomes from direct and indirect effects are – to some extent – also consumed in the domestic economy and thus, induce additional demand. In turn, this additional demand will be met by additional supply. The additional income (gross value added) generated in this way is considered to be the *induced effect*.

Using this framework, we estimate event-specific benefits as gross value added that Ukrainian businesses are expected to generate from the following expenditures and turnover:

- Construction expenditures for Sport facilities and hotels;
- Safety and security expenditures;

- Other investment expenditures;
- Additional tourism expenditures;
- Ukraine's share in the UEFA EURO 2012 operational Budget;
- Additional media/advertisement turnover; and
- Additional telecommunications turnover.

For the first three points, expenditures directly relate to the costs as given in the government program. For additional tourism expenditures, Ukraine's share in the operational budget as well as additional turnover in media and telecommunications we use the values estimated for Switzerland as championship co-host in 2008.<sup>13</sup>

Based on the government program we can also determine the sequencing of investment expenditures between 2008 and 2012. As for benefits, we assume the following:

- Construction expenditures induce their corresponding benefits in the year of spending;
- A fraction of estimated additional tourism expenditures will already be realized in the years before the championship, as well as in the years thereafter;
- A fraction of spending from the UEFA EURO 2012 operational Budget as well as some part of expected additional media & advertisement and telecommunications turnover will also be realized in the years before the championship;
- By assumptions, the last benefits considered in our estimations accrue in 2015, three years after the championship.<sup>14</sup>

Table 3 gives an overview on estimated costs and benefits from 2008 to 2015. For comparison over different years, all figures are given in present values of 2007<sup>15</sup>, discounted by an average interest rate of 15% (as of 2007).

As it can be seen, construction costs for hotels and sport facilities will be the most significant drivers for both, costs and benefits over the next four years until 2011. Overall, present values of expected annual costs and annual benefits range between UAH 0.1 and 6 bn. Since 2012 the net impact of all event preparations becomes positive, as the present value of accumulated net costs/benefits (last row of Table 3) shows.

In 2012, expected costs fall below UAH 660 m as construction on sporting facilities and hotels will be almost completed while additional tourist expenses, spending from the UEFA EURO 2012 operational budget as well as media and telecommunications turnover during the championship drive up expected benefits. The accumulated value of the overall event turns positive and increases to almost UAH 2 bn.

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<sup>13</sup> Rütter et al. (2004). Economic Impact of the UEFA EURO 2008 in Switzerland. Study on behalf of the UEFA and the Swiss Football Association.

<sup>14</sup> The assumptions on the sequencing of additional benefits over different years are taken from the impact assessment of the UEFA EURO 2008 on Switzerland.

<sup>15</sup> 2007 is taken as a starting point for the whole project. To simplify calculations, present values are also referred to it.

**Table 3**

Expected Costs and Benefits for Ukraine from co-hosting the UEFA EURO 2012 championship, UAH m

	2008	2009	2010	2011	2012	2013	2014	2015
Total Costs	-3401	-3414	-4364	-6005	-654	0	0	0
- Sports facilities	-2601	-1375	-2103	-2688	-21	0	0	0
- Hotels	-724	-823	-1847	-2863	-159	0	0	0
- Safety and security	-64	-17	-4	-1	-193	0	0	0
- Other investments	-12	-1199	-411	-454	-280	0	0	0
Total Benefits	3060	3581	4250	5870	2782	199	130	113
- Construction of Sport facilities and hotels	2924	1933	3473	4881	159	0	0	0
- Safety and security	120	33	7	1	364	0	0	0
- Other investments	16	1615	553	611	377	0	0	0
- Tourism expenditure	0	0	76	66	1143	199	130	113
- UEFA EURO 2012 operational Budget	0	0	116	253	572	0	0	0
- Additional media & advertisement turnover	0	0	24	52	118	0	0	0
- Additional telecommunications turnover	0	0	0	6	49	0	0	0
Net Costs/Benefits (Cumulative)	-340	-174	-288	-423	1705	1904	2033	2146
Return on Investments	10%							

*Source: own calculations*

Overall, the impact assessment demonstrates that co-hosting the UEFA EURO 2012 can be economically beneficial for Ukraine. However, the figures in Table 3 show that with a present value of expected net benefits of UAH 2 bn (about 0.2% of Ukraine's GDP) the UEFA EURO 2012 is unlikely to have a significant impact on the overall economy. Nevertheless, generating these benefits requires expected expenses of about UAH 18 bn<sup>16</sup> which implies a Return on Investments of only 10%. Hence, the overall project is a fairly risky one so that special care should be given to a timely execution of proposed expenditures because any delay typically leads to an over proportional increase in expenditures.

## 5 Summary and Recommendations

Hosting mega sporting events has become very popular and an increasing number of countries compete for being selected. However, with the expansion of those events beyond the traditional host countries, the need to invest in necessary infrastructure increases as well. Thus, countries with low-developed infrastructure are particularly exposed to economic risks. To diminish such concerns, sporting events are often supported by *ex-ante* economic impact assessments which typically identify significant benefits. However, from an *ex-post* perspective the impact of mega sporting events is often less obvious. In fact, while such events can indeed induce significant benefits many have also lead to disappointing outcomes. It thus depends on the quality of organization and planning to decide upon success and failure. In particular for countries with less-developed infrastructures, the following factors are crucial for success:

- ⇒ Overall expenditures should focus on financing general infrastructure;
- ⇒ All necessary infrastructure investments funds should be predominantly financed by private investors;
- ⇒ Event-specific infrastructure should be planned with as little public contributions as possible since it bears the highest risk of being abundant after the event.

In Ukraine, the Cabinet of Ministers has already adopted a programme which determines overall investments of nearly UAH 110 bn (almost USD 14 bn or about 12% of annual GDP). Notwithstanding this large figure, the overall programme appears to be reasonable, except for structure of financing sources:

- ⇒ With more than UAH 84 bn almost 76% of the overall investment volume are planned for general infrastructure improvements;
- ⇒ For investments in event-specific infrastructure, 60% are supposed to be financed by private investors. At the same time, the share of private sector in investments into general infrastructure is only 40%.

Notwithstanding this positive assessment, co-hosting the championship will not be without economic risks. As our impact assessment reveals the present value of net benefits amounts to only UAH 2 bn which is insignificant at the economy-wide level and small as compared to overall costs. To avoid potential problems, policy makers should have concentrated on attracting private investments instead of increasing share of the budget. As a result, private investments were delayed due to persistent legal uncertainty, and lower efficiency is expected. In this way, the risk of co-hosting the championship is shifted to the state and increases in line with the delays. Accordingly, a significant part of the positive overall assessment is lost.

To support Ukrainian policy makers we recommend the following:

First, proper execution of the programme requires:

- The regular monitoring of implementation and in particular investment execution; and
- Targeted efforts towards removing the causes for delayed investments such as legal uncertainty (including expertise as well as political commitment).

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<sup>16</sup> Present value of all expected expenditures as given in Table 3.

Second, the well-known barriers which have so-far prevented large-scale infrastructure investments in Ukraine need to be resolved. This includes:

- PPPs require a sound legal and institutional background which specifies rights and duties of both sides. As a first step, the current law on PPPs should be checked against the needs of investors and amendments are to be adopted by parliament as soon as possible.
- In particular, legal possibilities for operating toll roads must be precisely specified. Again, this requires adopting appropriate legislation which suits the needs of private investors with respect to toll setting, risk sharing, compensation schemes in case of breach of contract etc.

Finally, the programme itself needs to be further improvement at two particular points:

- For general infrastructure investments, costs should have been financed by private funds; and
- For event-specific investments, construction of sport facilities should have been predominantly funded by private rather than by public means. Also, some smaller items appear to be either displaced either displaced (strengthening the level of Ukraine's national football team, UAH 58.67 m out of which UAH 58.6 m funded by public budgets) or overestimated (training and foreign language education for service staff, UAH 122 m out of which UAH 107 m funded by public budgets).

## Appendix 1 Estimation of direct, indirect and induced effects

Item	Costs (UAH m)	Parameter	Source: <sup>17</sup>
<b>Stadia and hotel construction</b>			
Expenditure for stadia construction (UAH m)	12752		Total from government programme
Expenditure for hotel construction (UAH m)	10058		Total from government programme
Share of UA firms in stadia construction	7013	55%	Assumption
Share of UA firms in hotel construction	7543	75%	Assumption
Total for UA firms	14557		
<b>Direct Impact (Value added)</b>	<b>5733</b>	<b>39%</b>	<b>share for construction activities</b>
Intermediate demand (Ukrainian firms)	8824	61%	share for construction activities
thereof domestically produced	6629	75%	share for construction activities
<b>Indirect Impact (Value Added)</b>	<b>2417</b>	<b>36%</b>	<b>economy-wide VA share</b>
<b>Induced effect (VA)</b>	<b>11908</b>	<b>1.46</b>	<b>economy-wide multiplier<sup>18</sup></b>

<sup>17</sup> All parameters for Ukraine have been calculated based on Ukraine's National Accounts statistics for 2004.

<sup>18</sup> The economy-wide multiplier for Ukraine has been calculated from the consumption share in final income, the tax quota on final income, as well as the import quota. For details on multiplier specifications see e.g. Armstrong, H. and J. Taylor (2000). *Regional Economics and Policy*. Oxford, UK.



Safety and security investments			
Expected expenditure (UAH m)	491		Total from government programme
Direct Impact (Value added)	329	67%	share for public administration
Intermediate demand	163	33%	share for public administration
thereof domestically produced	133	82%	share for public administration
Indirect Impact (Value Added)	48	36%	economy-wide VA share
Induced effect (VA)	551	1.46	economy-wide multiplier
Other investments			
Expected expenditure (UAH m)	3581		Total from government programme
Direct Impact (Value added)	1305	36%	economy-wide share
Intermediate demand	2275	64%	economy-wide share
thereof domestically produced	1796	79%	economy-wide share
Indirect Impact (Value Added)	655	36%	economy-wide VA share
Induced effect (VA)	2864	1.46	economy-wide multiplier
UEFA EURO 2012 operational Budget			
Total budget (UAH m)	1750		Budget for EURO 2008: CHF 376 m (50% taken)
budget spent in Ukraine (UAH m)	1313		25% outsourced abroad
Direct Impact (Value added)	479	36%	economy-wide VA share
Intermediate demand	834	64%	economy-wide share
thereof domestically produced	658	79%	economy-wide share
Indirect Impact (Value Added)	240	36%	economy-wide VA share
Induced effect (VA)	1050	1.46	economy-wide multiplier

Tourism expenditure			
Tourist spending (total)	1532		Expected total tourist spending for Switzerland in 2008 (CHF 164.6 m)
Direct Impact (Value added)	654	43%	VA share for hotels and restaurants
Intermediate demand	879	57%	share for hotels and restaurants
thereof domestically produced	769	87%	share for hotels and restaurants
Indirect Impact (Value Added)	280	36%	economy-wide VA share
Induced effect (VA)	1365	1.46	economy-wide multiplier
Additional media/advertisement turnover			
Additional revenue due to EURO 2012	196		CHF 21.1 m revenue for Switzerland 2008
Direct Impact (Value added)	129	66%	VA share for information activities
Intermediate demand	68	34%	share for information activities
thereof domestically produced	53	78%	share for information activities
Indirect Impact (Value Added)	19	36%	economy-wide VA share
Induced effect (VA)	216	1.46	economy-wide multiplier
Additional telecommunications turnover			
Additional revenue due to EURO 2012	60		CHF 6.4 m revenue for Switzerland 2008
Direct Impact (Value added)	37	62%	VA share for telecommunications
Intermediate demand	22	38%	share for telecommunications
thereof domestically produced	20	88%	share for telecommunications
Indirect Impact (Value Added)	7	36%	economy-wide VA share
Induced effect (VA)	65	1.46	economy-wide multiplier

## Appendix 2 Comparison of the State Programmes for Preparing and Conducting the UEFA EURO 2012 (2007 vs 2010)

If assessing different state plans to prepare for the UEFA EURO 2012, it could be said that expenditures reduction (see Table 2.1) is a positive sign both in UAH and USD terms. Such mega events are not aimed at wasting a substantial part of the country's wealth on them, but do exist for the public to benefit from them.

**Table 2.1**

Total amounts of investments for the UEFA EURO 2012, UAH m

	UAH m			USD m		
	2007	2010	Growth, %	2007	2010	Growth, %
2008	18062	10031	-44%	3612	1254	-65%
2009	22910	10906	-52%	4582	1363	-70%
2010	28419	24411	-14%	5684	3051	-46%
2011	29120	51804	78%	5824	6476	11%
2012	27233	13289	-51%	5447	1661	-70%
Total	125744	110441	-12%	25149	13805	-45%

*Source: State Programmes for Preparing and Conducting the UEFA EURO 2012 (No. 1295, October 31, 2007 and No. 357, April 14, 2010), own calculations*

However, a disturbing sign is substantial increase of the expenditures funded from the state budget (see Table 2.2). While general infrastructure became 164% expensive for the state, event-specific facilities consumed public funds by 149% more than it was planned in 2007. Such developments can be in no case positively assessed. The event would be more beneficial and efficient if the state spends as less as it is possible. Meantime, in Ukraine the opposite situation is observed. Given total expenditures on the event-specific infrastructure remain the same, it can be argued that the main burden of the preparations for the UEFA EURO 2012 is laid on the state's coffer.

**Table 2.2**

Financing sources for the UEFA EURO 2012, UAH m

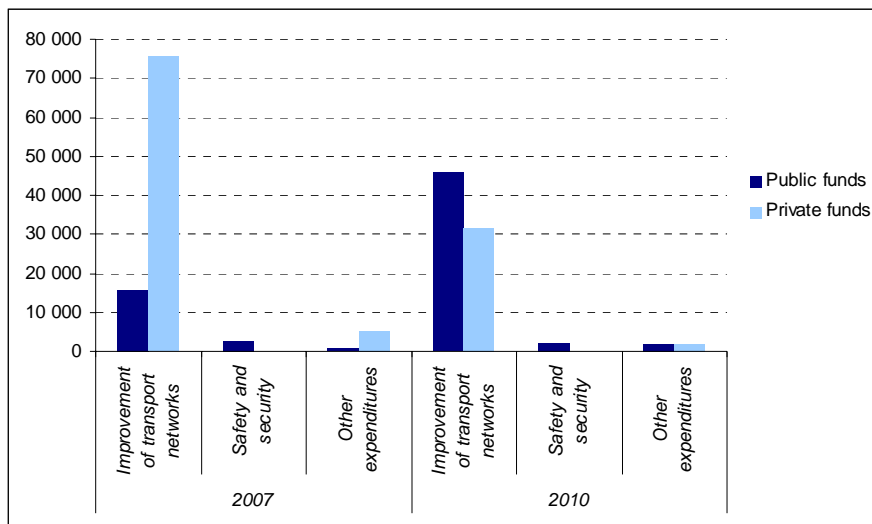
	General expenditures			Event-specific expenditures		
	2007	2010	Growth, %	2007	2010	Growth, %
Public funds	19121	50415	164%	4303	10729	149%
Private funds	80449	33145	-59%	22625	16152	-29%
Total	99570	83560	-16%	26928	26881	0%

*Source: State Programmes for Preparing and Conducting the UEFA EURO 2012 (No. 1295, October 31, 2007 and No. 357, April 14, 2010), own calculations*

Against the background of reduction of the expenditures on general infrastructure, private participation in investments has also been fewer as it was expected. This means that the government has completely failed in its efforts to attract private sector into general infrastructure maintenance and construction. Therefore, investment climate and conditions for PPP have not changed.

**Figure 2.1**

Structure of general infrastructure investments, UAH m

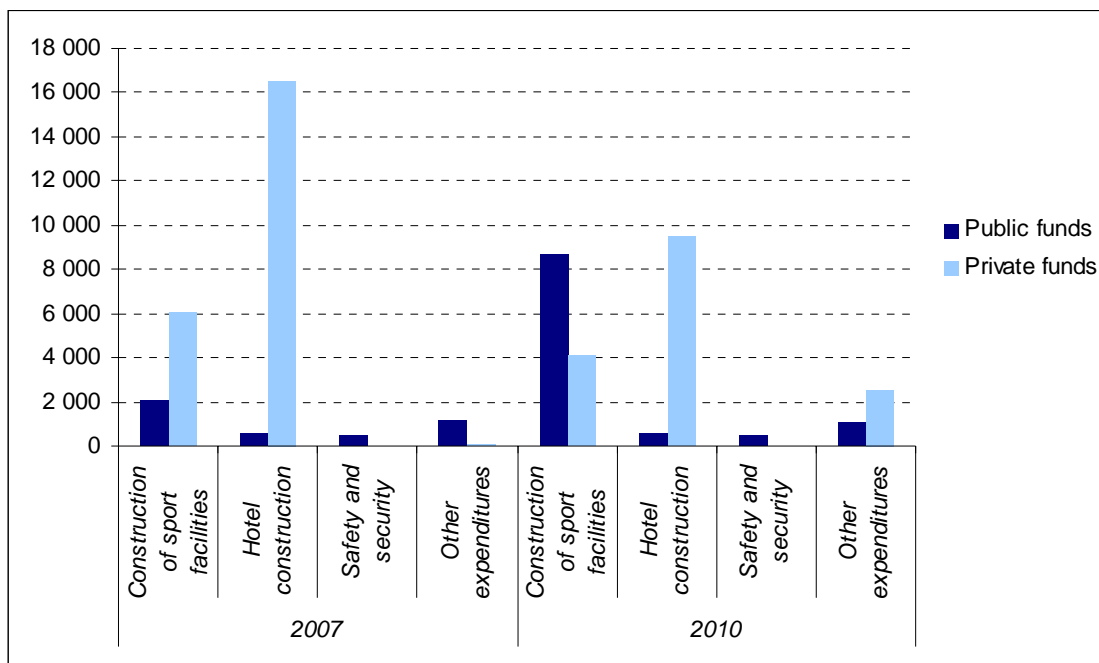


Source: State Programmes for Preparing and Conducting the UEFA EURO 2012 (No. 1295, October 31, 2007 and No. 357, April 14, 2010), own calculations

The same trends can be featured in event-specific infrastructure development. Private sector's participation is noticeable only in hotels sector. Positive sign is increased share of private sector in development of ICT for the championship. Unfortunately, the state has not succeeded in attracting private sector in development of stadia in Kyiv and Lviv. The share of private sector in stadia construction has not changed since stadia in Donetsk and Kharkiv were developed.

**Figure 2.2**

Structure of event-specific expenditures, UAH m



Source: State Programmes for Preparing and Conducting the UEFA EURO 2012 (No. 1295, October 31, 2007 and No. 357, April 14, 2010), own calculations

However, total net effect from co-hosting the UEFA EURO 2012 remained positive (see Table 2.3), though its increase is attributed mainly to re-estimated benefits based on comparison with Switzerland<sup>19</sup> and more benefits driven by increased expenditures on stadia.

**Table 2.3**

Expected Costs and Benefits, UAH m	2007	2010
Total costs (discounted)	-18197	-17838
Total benefits (discounted)	18981	19543
Net Costs/Benefits (Cumulative)	986	2146
Return on Investments	4%	10%

*Source: own calculations*

<sup>19</sup> For detailed comparison see GAG/IER Policy Paper W12 "Ukraine and the UEFA EURO 2012. How to secure its economic potential"// [http://www.ier.com.ua/en/publications/consultancy\\_work/archive\\_2007/?pid=1825](http://www.ier.com.ua/en/publications/consultancy_work/archive_2007/?pid=1825)