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ECONOMIC CRISES AND SPORTS MEGA-EVENTS: LEARNING FROM PAST EXAMPLES FOR FUTURE ANALYSES

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C – Statistical analysis; D – Manuscript preparation; E – Manuscript editing;
F – Final approval of manuscrip

ABSTRACT

İntroduction. The Athens Olympic Games of 2004 contributed to the subsequent Greek economic crisis due to irresponsible spending.

The *aim* of our study was to show how the policies and spending of the Greek government for infrastructural and other Olympic related projects links with a pattern of financial irresponsibility that led to the collapse of the Greek economy.

Material and methods. Our methods were to examine governmental policies and financial indicators surrounding sport mega events (SMEs) and specifically the Greek case surrounding the 2004 Olympics.

Results. Our results show that the current analysis of SMEs do not adequately examine financial indicators and realities and that both economic and financial analyses are necessary when determining both costs and return on investment.

Key words: sport mega events, 2004 Olympics, legacy.

Introduction

While visiting Greece in late December 2011, then International Olympic Committee (IOC) president Jacques Rogge was bombarded with questions regarding the link between the Greek debt crisis and the 2004 Athens Olympic Games. In an interview with the Greek newspaper *Kathimerini* his assessment was frank, "You can fairly say that the 2004 Olympic Games played their part" (in fuelling Greece's enormous debt) .... "If you look at the external debt of Greece, there would be up to two or three per cent of that which could be attributed to the Games".

When the IOC announced on 7 September 1997 that Greece won the right to host the 2004 Games, the Greek political left went into fanfare claiming that the Games would be financed by 'debt' which future generations of Greeks would be paying. No-one apart from the far left KKE (Communist party of Greece) took notice of these prophetic words.

The Games were coming home and the Greek people were mesmerized – national sentiment ran high. Coupled with this wave of nationalism it was envisaged that there would be financial benefits for the country.

After the failure to host the centenary Olympic Games in 1996, the Greek Government (PASOK) embarked on a path of debt fuelled spending in attempting to produce an excellent Olympic Games. This was particularly important since then IOC President Juan Antonio Samaranch had genuinely declared the 2000 Sydney Olympic Summer Games as the "best ever" in terms of organization and delivery.

Sports and sporting events have become integral components of a global political economy, which has seen production shift from developed to less developed societies. Therefore it is "hardly surprising […] that the pursuit and sponsorship of major games has become an increasingly popular strategy of governments, corporations and other 'boosters' world-wide, who habitually argue that major developmental, political, and sociocultural benefits will flow from them, easily justifying the costs and risks involved" (Black & van der Westhuizen, 2004: 1195; Nite, Ballouli & Nauright, 2023).

Although Greece is officially part of the Global North, the "Core" and the European Union, it can be viewed in modern times as being on the fringes of OECD nations and thus at least semi-peripheral in a global economic sense.

Like many other nations, Greece attempts to position itself as a desirable destination for tourism and business globally. Greece has an advantage as being one of the "cradles of civilization", yet almost everyone would agree that Greece's "glory days" were in the far distant past.

Thus, the specter of hosting one of the two leading events in terms of global awareness, and one that is indelibly tied to Greek history, was alluring both to most Greeks as well as for the IOC. Despite this "allure", hosting the Olympic Games is a high risk venture where some (most notably Montreal in 1976, and Rio de Janeiro in 2016) have failed to deliver projected economic and social benefits, while others have been successful economically (Los Angeles 1984) or in terms of legacies for the cities and citizens (Barcelona 1992; Sydney 2000; London 2012).

We examine the role played by the 2004 Athens Olympic Games in the Greek debt crisis that shook the global economy during 2011.

Greece's debt crisis puts the spotlight on various countries planning or aspiring to host future international sporting competitions such as the Summer Olympic Games providing an opportunity to examine the potential fall-out from cost overruns, debt financing, and overreaching.

While advocates of the Athens Olympic Games put forward arguments that the Games 'would promote investment opportunities', 'open the country to the world', and 'increase tourism' none of the benefits touted were ever realized. We further highlight that the 2004 Athens Games was a major catalyst for the Greek Financial Crisis as it marked the beginning of the period of irresponsible spending.

The Eueopean Union (EU) and European Monetary Union (EMU)

The PASOK Greek Government was in power from 1996 until March

2004. Kostas Simitis was Prime Minister throughout this period. Two main projects took place under his tenure; Greece's entry into the EU and hosting the 2004 Athens Olympic Games.

Throughout his tenure, there were high levels of public debt, which were anchored around 100 per cent of GDP each year.

While historically debt was usually a response to wage bills, by 2001 it related more to preparing Athens for the 2004 Olympics. This shift from wage debt to public infrastructure debt reflects the influence of EU membership.

A number of points need to be made regarding Greece and the EU; points that are usually overlooked in the current debate.

Since the invasion of Cyrus by Turkey in 1974, Greeks have always feared their neighbours Turkey. In particular in the 1990s there was a period where Greece was in conflict with all its neighbours.

One of the main justifications of Greece's entry into the EU was an argument for enhancing Greece's security. With the break-up of the Soviet Union and wars in Yugoslavia, security concerns were pertinent.

In fact during the 1990s there were disputes not only with Turkey but all bordering countries; Albania over the treatment of the Greek minorities; Former Yugoslavia Republic of Macedonia over the use of the name 'Macedonia' and Bulgaria over territorial issues. EU advocates argued that entry into the EU would mean that Greece's borders were the EU's borders and there was wide support from all political factions that EU membership was a necessity.

In fact, during the 1990s it was only the Greek left, which argued against EU membership.

Greece was also very keen to join the European Union and the European Monetary Union because the EU dangled and teased the Greek Government with easy credit and infrastructure project money.

The EU had their own motives. The benefits for the trading surplus countries such as Germany and France were many. The EU was underpinned by philosophies of 'political liberalism' and 'neoliberal economics'.

The main objective of the Union being that countries, which share the same currency are more dependent on each other in particular trade. This meant that when Greece joined in January 2001, the Greek Government was able to obtain easy credit.

Fiscal responsibilities were put aside and foreign finance in the form of loans was an easy option. In particular the free flowing capital from 2001 prompted bubbles such as housing and the stock exchange.

Regarding the housing bubble, between 1999 and 2006, house prices increased on average by 75%.

During 2011, the Greek debt to GDP ratio ballooned to 160% prompting EU intervention on 24 October 2011 to restructure the debt effectively reducing it to 116% (Deutsche Welle, 2011).

By contrast, the 2010 estimate for the public debt ratio of the United Kingdom was 80%.

While there has been unprecedented criticism of the Greek Government for racking up debt, only recently has there been scrutiny of the role played by the EU and EU banks.

German and French banks lent money to Greece because it created demand for their own exports (Rajan, 2010). EU policies transformed the Greek way of life. In particular the German economy benefited from Greece's entry into the EU.

Germany is a net producer of goods such as (cars, electronics) and runs a large surplus of trade with Greece. Germany needed Greece as a trading partner to sell its goods and as a destination for its banks to make loans. The trade surplus was 5 to 1, that is Greece imported on average at least five times as many goods as the reverse. This one sided trade surplus calculation does not include the export of cheap credit.

Athens was selected to host the 2004 Games on 5 September 1997. Athens lost the bid to host the 1996 Olympics to Atlanta nearly seven years earlier on 18 September 1990.

The 1990 bid was criticized for generally being disorganised and based on sentiment rather than merit. In particular, there were criticisms about infrastructure, pollution and budget.

Unfortunately, the Greeks have a very long and illustrious history which frequently has been a burden.

Ancient Greece became the foundation of much of the modern world's culture. This also included the Olympic Games.

The hosting of the Olympic Games in general was far more important to a Greek, than an Australian or American. The Greeks invented the ancient Olympic Games, hosted the first modern Olympic Games in 1896 and were proud of this.

Successive Greek Governments campaigned for making Olympia the home of all modern Olympic Games, especially after periods of terrorism (1972 Munich Games).

An overwhelming majority of Greeks therefore put extreme pressure on the PASOK government to deliver on the 2004 Games. After the disappointment of not hosting the centenary Olympics in 1996, the Greek psyche was clearly affected and there were numerous post-mortem accounts in the Greek media. Later, when Greece lost the right to host the 1996 centenary Games in a vote that took place in September 1990, the country was in mourning.

Pressure was put on politicians to pull out of the Olympic movement. When Athens won the right to host the 2004, the Greek nation broke out in a wave of nationalist fervour.

The scenes on 9 September 1997 were unprecedented. Sport was able to unite the country like no other institution.

The nation came together and the politicians saw the effect on the people. Similar celebratory scenes also occurred two more times both in 2004 when Greece won the 2004 European Football Championships and when Athens hosted the Olympic Games.

For the Greek Government a mediocre 2004 Olympics was not an option. The timing of Greece's entry into the EMU in 2001 was also not coincidental; progress on the Athens Games was progressing behind schedule and criticism came from both inside and outside the country.

At the Sydney Olympics a rumour surfaced that Sydney had already agreed to host the 2004 Games if Athens was not ready or able to do so.

When the IOC expressed concern over the progress, a new Organizing Committee (ATHOC) was formed in 2000 under Gianna Angelopoulos-

Daskalaki. Organisers of the Games were boxed and pressure came from both within and outside the country to delivery on the Games.

Between 2000 and 2004 the majority ofof the preparations took place. ATHOC were given an open-check book and of course entry into the EU allowed for easier financing than was previously possible. This cheaper and easier way of financing and borrowing had the effect of making the Pasok Government less responsible. Greece's entry into the EU coincided with preparations for the 2004 Athens Olympic Games.

The Athens Games

The Greek Left

When Greece won the right to host the Games, the Greek Left immediately campaigned that Greece would be unable to host viable Games. The Greek Communist party (KKE) maintained that the Pasok Government would rack up debts which would take generations to pay off because there would be extreme borrowing which would create particularly high debt.

The Pasok Government was voted out on 7 March 2004; a few months before the Games were to commence. It had been in power for 19 of the previous 22 years.

New Democracy came into power with 45.4% of the vote; to PASOK's 40.5% while Greek Communist Party (KKE) received 5.9% and the other Greek Left Coalition Synaspismos (a break-away from KKE)received 3.3%. Intotal the left received 10% of the vote and 18 of the 300 parliamentary seats (Kassimeris, 2004).

The main reason why Pasok was voted out was that there were wide reports, and in fact documentation, of corruption. Scandals included the siphoning of EU funds . KKE from 1997 until 2004 were frequently questioning issues surrounding the funding of the Athens Olympics (*Rizospastis,* 5 March 2004).

The Karamanlis New Democracy Party that came into power just before the Games also had no will to reign in debt or for that matter to slash government spending. While the EU had set debt limits for EU countries at 3 per cent, in 2003 Greek national debt jumped to 3.2 per cent and in 2004 it went to 5.3 per cent. By 2009 it jumped to 13.6 per cent.

The cost of hosting the Athens Olympic Games

While hosting the Athens Olympic Games are the responsibility of the IOC, it is the host city and country which is bears the costs incurred.

While the private sector was encouraged to take part in the Athens Olympics, the financial burden basically fell to the public sector. This has been typical of cities which have hosted the Olympics; with the most notable example being Montreal which financed their games with public funds and took over a quarter of a century to pay off its debt.

The real cost of the Athens Olympics is not clear although the official figures state that it cost close to $16 billion; more than quadruple the original budget. Despite the politically charged debate on how much was spent on the Games, the final figure is not known.

A year after the Athens Games it was estimated that the true figure had reached 13 billion euros (The economic dimension of the Games, *Vima,* 19 August 2005; The Games and the Cost", *Investor's World,* 12 August, 2006).

Bergen (2007) calculated the cost overruns for hosting the Olympic Games. Sydney's initial cost was $895 million and ended up $1.1 billion. It is well-documented that most of the spending went into the flurry of last-minute infrastructure building projects.

The Athens Olympics took place in 21 different venues. Prior to hosting the Games the ATHOC claimed to have more than two-thirds of the facilities built although the real picture was different.

Completely new venues built specifically for the Games included a football stadium; beach volleyball, sports pavilion, boxing hall, softball, hockey centre and sailing centre. While all the other pre-existing facilities were completely renovated and included 14 venues.

Financial benefits of the Games

There were several arguments used to justify the Athens Games including the following financial benefits: attracting tourists; encouraging job creation; and encouraging investment in infrastructure. Regarding tourism the 2004 Athens Games did not get the anticipated tourists.

In Athens there was a disruption in tourism and ticket sales were considerably down. Empty stadiums were a common feature of the Games.

Encouraging investment was a theme that the Greek Government was quick to promote.

The most common analysis of Olympic Games is based on Official Reports which use Economic Impact Analysis Studies (EIAS) which can be misleading.

If $1 billion, for example, was used to build a stadium the EIAS would note that this would have a direct impact on the economy of $1 billion dollars.

Therefore mistaking expenditure costs as benefits can be problematic as this money was all loans.

The broadcast rights for the Athens Games amounted to $1,496 million and were watched by 3.9 billion (Moreland, 2008). The broadcast rights would account for 39% of the total revenue for the Games. Sponsorship and licensing came in next with 35%, followed by ticket sales, which accounted for 10%.

Security

Some of the issues surrounding the blow-out in budget were out of the hands of the people involved in the initial Athens bid. The most notable of course was security.

Security issues, as a result of September 11, played a negative role for two main reasons. First, organisers budgeted just over $100 million for security and after the games were completed this amount ended up reaching almost $2 billion.

Second, there is no doubt that fear of terrorism stopped a significant number of tourists coming to Athens for the Games which in part were a contributing factor for low attendances at the Games. The security included tens of thousands of trained personnel and assistance from NATO (Kennelly, 2005).

It can be argued, that many mega sporting events, such as the Olympics, are becoming media events rather than real time and place events and the case of the Sydney and Athens Olympics would support this view.

Post-Athens Olympics Facilities Use

Public investment in sports facilities is justifiable if the net benefits are greater that the cost of alternative uses. For Athens most of the venues, which had very high maintenance and operating costs had very little practical use and have not been utilised post-Olympics.

Many of them are deserted and the most striking example is the Olympic village which, located 10kms from the centre of Athens, lies idle.

Housing more than 10,000 athletes in 2004, it is now reminiscent of a ghost town from a cowboy western movie.

There are also a number of other fields and courses (judo, hockey, table tennis, canoe and kayak) which are also idle. The canoe and kayak course was supposed to be turned into a water theme park. Even though these facilities were officially designed with a post-Olympics plan, it became very clear after the Games, that this plan in reality was never well conceptualised let alone implemented.

While being critical of the above there is no doubt that many of the infrastructure projects had a positive effect for the life of Athenian citizens.

The most notable of course being the Athens Metro subway. These projects also went way over budget and there was a frenzied run of activity, which contributed the unbudgeted costs of infrastructure projects in order to complete them before the Games.

Furthermore, in places outside of Athens, EU infrastructure projects were suspended and 'ergotaxia' (infrastructure gangs of workers) and their equipment suspended EU projects, such as building the Ionian Freeway, in order to assist on Olympic infrastructure projects.

It is not clear if official costs of the 2004 Athens Olympics include EU funds earmarked for other projects, which ultimately went into building Olympic infrastructure projects.

Only recently has the Greek press exposed 'scandals' highlighting the enormous sums of money which went into Greek infrastructure projects which were never used for their assigned purpose. What is clear is that leading up to the Games all available Greek resources went into completing the Games.

Analysis

The Athens Olympic Games ended on 29 August 2004, and it was suppose to leave behind a long and bright legacy. The day after the Games the newspaper *Eleftherotia* concluded "The Games were a wonderful spectacle but the cost was too high".

As this paper has shown the clear link between the Greek Debt Crisis and the staging of the 2004 Athens Olympic Games raises the following important themes: Academic research to demonstrate the positive economic and positive economic growth of Olympic Games has been inconclusive at best; and it seems very difficult to measure the impact of the Olympics as a whole.

There has never been an Olympic Games that has broken even - let alone made a profit. For cities such as Montreal it took more than a quarter of a century to pay off its debt. Although the Greek Government was keen to heavily subsidise the Athens Olympics and promote the economic benefits of hosting the Olympic Games long-term benefits did not materialise.

For a country such as China which is wealthy with an economylarge enough to absorb losses, the situation was very different. For China the economic impact was significant at the regional level although for Greece's economy the negative effect of heavy loans was at the national level.

What made the Athens Olympic Games so different from 2000 Sydney and 2008 Beijing Games was that Greece, while a flourishing democracy, was not as wealthy or large as Australia or China to absorb losses on Games.

Most of the countries which hosted the Games were at the time economic powerhouses (for example 1936 Berlin; 1984 Los Angeles; 1996 Atlanta) and not developing countries such as Greece. In 2012, for example if the London Olympic Games 'blows out financially', the United Kingdom economy is big enough and strong enough to absorb losses. For smaller developing economies, such as Greece, this is not the case.

The Pasok Government claimed that hosting the Games would create jobs and new industries but would also show-case Athens and Greece to the rest of the world as a tourist destination. The same rhetoric came from advocates of the Sydney Olympic Games. It would seem there is very little evidence to support this. As the example of Athens has shown, hosting mega sporting evidence may have the opposite effect (WTTC, 2011). Sydney also had a drop in tourism after the 2004 Olympic Games.

Greece may have gambled and won on producing a wonderful Olympics; although the gamble on subsequent use of Olympic assets was lost. The legacy of Olympics should include viable long-term considerations. By January 2012 many of the Athens Olympic venues were not only idle but in a state of disrepair, despite maintenance costs alone run into millions of dollars.

Resource Allocation and Sporting Events

The existing literature on economic analysis of policies and sporting events is extensive. The review of such literature is beyond the purpose of this manuscript (for a updated review, see Nite et. al, 2023), thus, we will concentrate here on relevant details for the decision-making processes of resource allocations to draw lessons from this case study.

As previously described, the immediate emotional impact on Greek population of winning the hosting privileges for Olympic Games in 2004 was tremendous.

The emotional aspect of such resource allocation escapes the attention of most economists, which is unfortunate since such emotional aspect influences internal and external factors that are directly reflected in the host country's GDP. Since consequences of cultural phenomenon are greater that any economic impact a policy/event, a better fitting scholarly structure of analysis would be the decentralization framework.

The scholars' and policy-makers' increased attention to the concept of decentralization (D) is a well-documented trend in both academic research and international technical assistance. Extensive evidence about benefits and threats of decentralization is well documented (e.g., Morozov, 2016 & 2018).

The relevant elements from the decentralization reform literature are that there are three functions of a government in an economy: (a) Welfare of country's population, (b) Resource allocation to strategic priorities, and (c) Macroeconomic stability (Morozov, 2016).

The overarching conclusion is that these functions can be analyzed orthogonally, however, it should be noted that inter-functional correlations also influence the overall outcome of a decision such as bidding for Olympic Games and subsequently, hosting the event. Given the magnitude of Olympic Games, an appropriate analysis framework with the decentralization theory would be *impact analysis & cost-benefit analysis.*

Generally, nations compete for the right to host a future Olympic Games. Various stakeholders almost religiously argue about potential socio-economic benefits to the host nation that ultimately wins the right to host the Games. These forecasts are used to convince the local population that an event of such magnitude will positively influence the availability of local services (consistent with Welfare function previously mentioned).

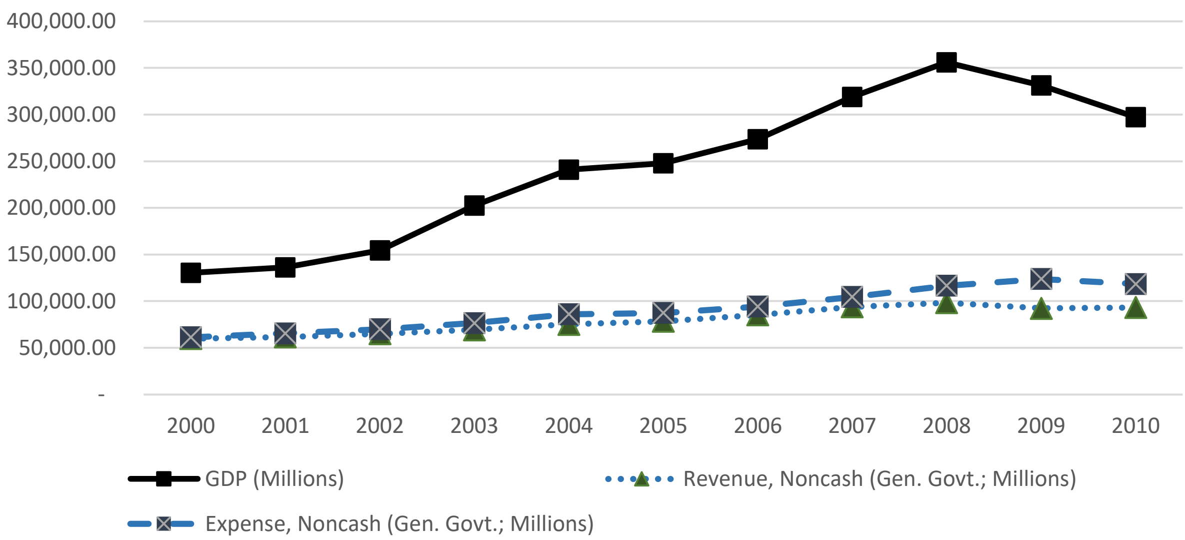
Therefore, hosting such an event is an initiative that not only pays for itself, but also brings long-term benefits to the host country (combination of resource allocation function and macroeconomic stability function within the decentralization framework).

However, even the best designs and plans must withstand the unforgiving tests of the economic reality.

The primary contribution of this article is the review of the pre and post event economic data for the Greek economy between fiscal years 2000 and 2010. The period under analysis covers the euphoria from winning the right to host the Olympic game in 2004 and the period immediately after the Olympics and going into the Great Recession of 2007-2009.

Our descriptive study suggests Greek national economy suffered from overly optimistic forecasts of benefits while underestimating the factual costs of hosting such an event.

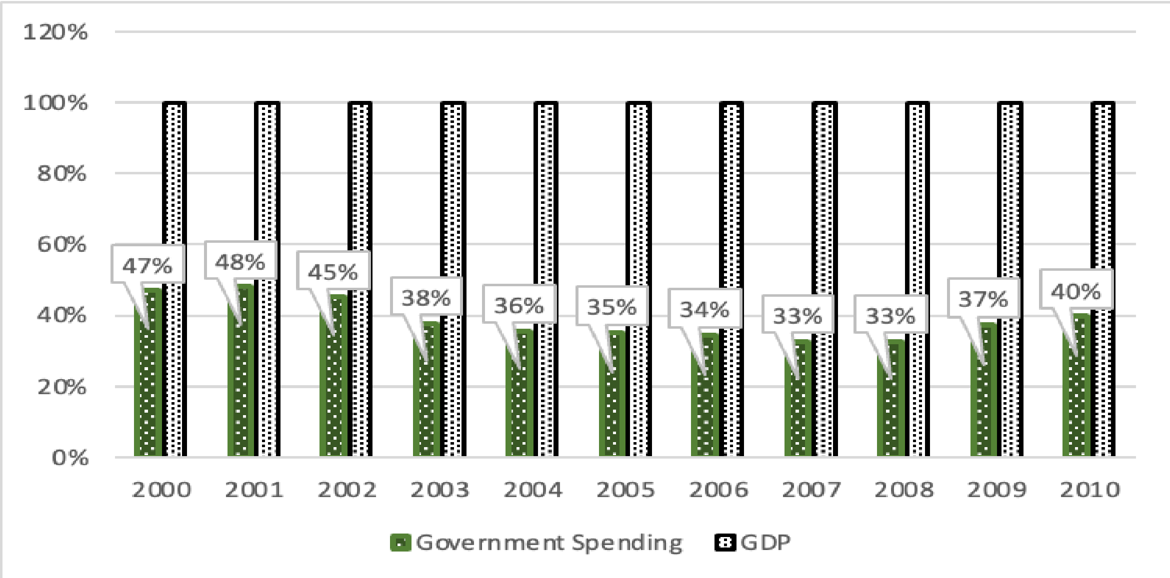
The first point of analysis is the evolution of the Greek GDP during the decade of analysis. It is presented in figure 1 below. The GDP was approximately 130.5 billion € in 2000. GDP totaled 297.5 billion € in 2010, recording a compound annual growth rate of 8.56%. By all means, these are spectacular results.



*Source: Developed by authors based on IMF data http://data.imf.org/

Figure 1. **Greece GDP, Governmental Expenditures and Revenues 2000-2010 (Millions)**

However, since the major burden for financing the megaevent fell on the general government, it is the proportion of government spending within the economy that is important. It is presented in figure 2.

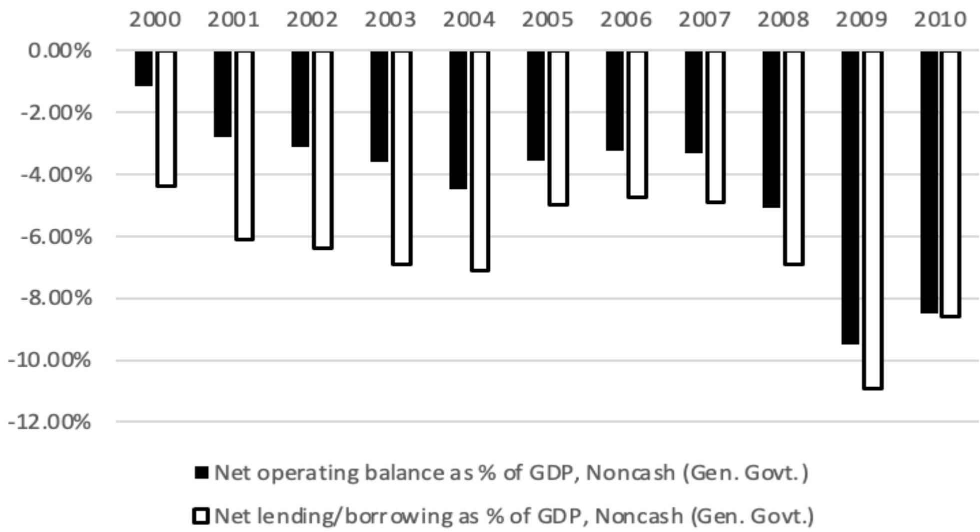


*Source: Developed by authors based on IMF data http://data.imf.org/

Figure 2. **Government Spending as Percentage of GDP**

Several observations are due. First, while the overall GDP was growing (see figure 1), the share of governmental spending in the economy was decreasing. The exhibit presents a concave pattern of the government spending in GDP, with the lowest observed values occurring in between 2004 and 2008. Second, government spending requires analysis through the lenses of sustainability.

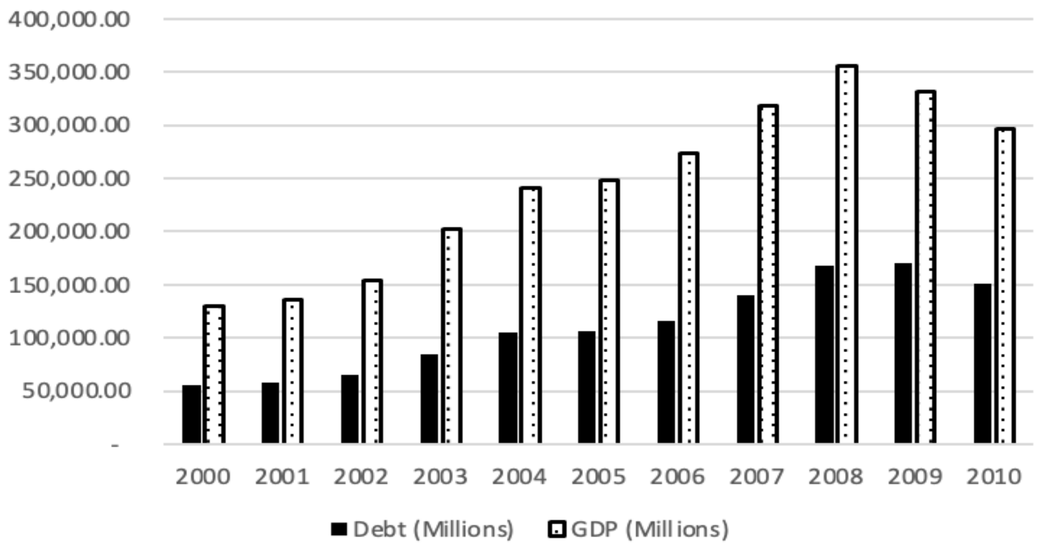
This suggests that spending and revenues need to be presented simultaneously, or an evolution of the balances needs to be analyzed. It is presented in figure 3.



*Source: Developed by authors based on IMF data http://data.imf.org/

Figure 3. **Government Balances as Percentage Point of GDP**

The picture is completed by the exhibit identifying the evolution of public debt (fig. 4).

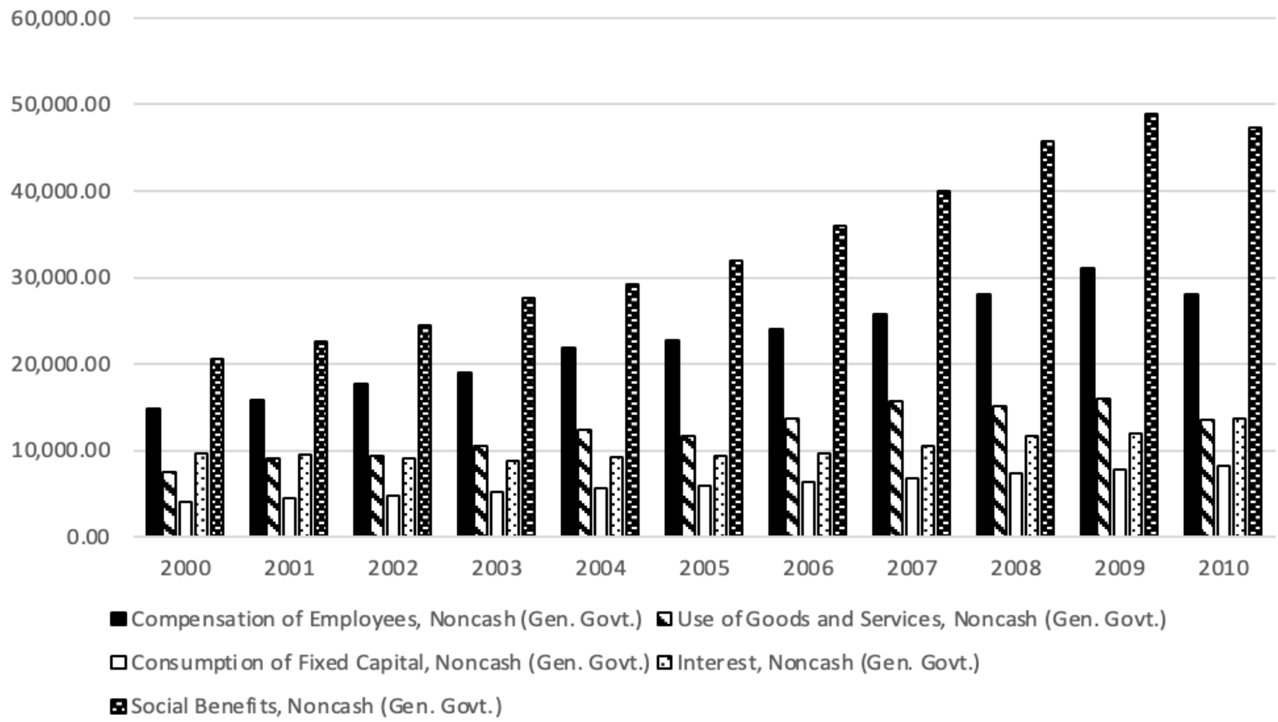


*Source: Developed by authors based on IMF data http://data.imf.org/

Figure 4. **Government Debt & GDP (Millions)**

The net operating balances as percentage points of GDP registered a 32.8% growth between 2000 and 2010. That was twice the growth rate of the borrowing (16.1%).

This suggests that the government was borrowing its way out of the necessity of structural reforms on top of the megaevent they hosted in 2004. Perhaps the most nuanced picture is presented via analysis of spending categories (fig. 5).



*Source: Developed by authors based on IMF data http://data.imf.org/

Figure 5. **Government Spending by Categories (millions) 2000 – 2010**

The most evident growth comes in the category "Social Benefits," which experiences a compound annual growth rate of 8.8% between 2000 and 2010.

On Measuring the Impact of Olympics for the Host's Economy and Some Conclusions

The macroeconomic consequences of hosting the Olympic Games received attention initially after the Los Angeles Games of 1984. The LA mega-event was subject to the Economic Impact Analysis (EIA) after Montreal declared a large financial deficit from hosting the 1976 Games.

It is important to note that the unit of analysis is the mega event itself. The costs and benefits from one Olympic Game cannot be generalized onto potential future sites/hosts.

The most common studies conducted on the Olympics are *ex ante* EIAs and Official Reports that focus on financial analysis. These studies tend to consider the costs and benefits of the organizing committee. *Ex ante* studies are more prevalent than *ex post* studies because they are conducted for purposes of providing an economic rationale for funding.

Forecasting the impact of the Games requires constructing economic models that apply standard macroeconomic theory through an expenditure approach.

Calculating the overall impact requires first estimating direct expenditures attributable to the Games, and then estimating indirect expenditures by using a "multiplier" to account for the successive rounds of spending that takes place as money is circulated throughout the economy. The most common critiques of EIA are:

- Misclassifying Costs as benefits
- Exaggeration of multipliers effects
- Selective inclusion/omission of opportunity costs
- Instrumentation and observer biases.

Therefore, a more conservative approach such as Cost-Benefit Analysis (CBA) is justified. At its essence, CBA is the difference between discounted benefits of a project and its costs.

The net positive difference suggests that benefits outweigh the costs and the project should therefore be pursued. However, CBA is not without problems.

The most obvious problem is somewhat comparable to the EIA. It consists of the fact that benefits tend to be overestimated since these benefits occur at a future moment. This time aspect of the CBA also requires careful analysis and consideration of an appropriate discount rate (aka cost of capital).

At the basic level, these criticisms of CBA and EIA suggest that a better methodology for analysis of the economic impact of megaevent such as Olympic game would be a descriptive case study methodology which was employed by the authors of this study.

Preparation for the Olympic Games in Athens required undertaking a significant number of public projects that were expected to benefit local residents after the event. These projects included a new airport, metropolitan light rail system, and a motorway encircling the city.

As always the case, more expensive a project is, more likely it to have unintended consequences. Not surprisingly, the final cost of the Athens Olympic Games was nearly twice the original budget.

While multiple factors

contributed to the 2008-2009 debt crisis in Greece, opponents of the Games identify the 2004 Athens Olympics as a major contributor. The argument was that the Games marked the start of Greece's irresponsible spending, sending the country into a dangerous spiral downwards.

The accusation of blame drew negative attention to the Games and called into question the economic rationale of host countries. Almost a decade after the conclusion of the Games, more than half of the Olympic sites sat idle, including facilities for table tennis, judo, field hockey, and artificial canoe and kayak courses.

Legal challenges and planning regulations stalled deals to convert several of the Olympic venues into recreation sites. Plans for post-Olympic use of venues were later ignored and/or stalled, including plans to turn the canoe-kayak venue into a water park.

Therefore, we suggest a more complex and detailed finanical analysis is necessary to measure true costs and impacts for a host nation bidding for and then operating major sporting events as with any other governmental or private spending in the economy.

References:

1. Arghyrou M. Monetary Policy Before and After the Euro: Evidence from Greece. *Empirical Economics*, 2009;36:621-43.
2. Black D., van der Westhuizen J. The allure of global games for 'semi-peripheral' polities and spaces: a research agenda. *Third World Quarterly*, 2004;25(7): 1195-1214.
3. Barney R. Selling the five rings: The International Olympic Committee and the rise of Olympic commercialism. *Deutsche Welle Worldwide* (2011, 27 Oct.).
4. EU leaders agree haircut for Greece after marathon summit. Available online: http://www.dw-world.de/dw/article/0,,15491234,00. html (accessed 2 Feb. 2012).
5. Featherstone K., Papadimitriou D. The limits of Europeanisation: Reform capacity and policy conflict in Greece. New York: Palgrave Macmillan, 2008.
6. Featherstone K. Greece and EMU: A Suitable Accommodation? In K. Dyson (ed) The Euro at ten: Europeanization, Power and the Convergence. Oxford: Oxford University Press, 2008.
7. 'Greece facing a decade of Debt as Olympic Bill Soars" *Guardian*, 16 June 2004.
8. Katsimi M., Moutos T. EMU and the Greek Crisis. *European Journal of Political Economy*, 2010;26(4):668-576.
9. Kissoudi P. The Athens Olympics: Post-Olympic Assets and their Exploitation.
10. Morozov B. Decentralization: Operationalization and measurement model. *International Journal of Organization Theory & Behavior*, 2016; Vol. 19 No. 3, pp. 275-307. DOI: 10.1108/IJOTB-19-03-2016-B001
11. Morozov B. Decentralization and Economic Growth: Specification, Measurement, and Direction of Causal Relationship. *International Journal of Public Administration*, 2018;41(9):684-699, DOI: 10.1080/01900692.2017.1 296864
12. Nauright J. Global games: culture,

Political economy and sport in the globalised world of the 21st century. *Third World Quarterly*, 2004;25(7):1325-1336.

13. Nite C., Ballouli K., Nauright J. Illegitimately Pursuing Legitimacy: Critical Conversations of Sport Mega Events Hosting and Bidding. *Sport in Society*, 2023. DOI: 10.1080/17430437.2023.2183120
14. Short J. Globalisation, cities and the summer Olympics. *City*, 2008;*12*(3):321-340.
15. The Athens Olympic Games: A Year After the Games, *Vima*, 19 August 2005.
16. WTTC (2011) World Travel and Tourism Commission. *Greece: Travel and Tourism Economic Impact*. London: WTTC

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