Student ID's: 100379318, 100389458, 100386759, 100415936, 100387850, 100362154

What were the impacts of the multiplier during the 2012 Olympics on London?

The multiplier is a key concept of all economies, allowing economic growth to benefit economies further. The multiplier effect is defined as how an injection in the circular flow of income creates a proportionately larger increase in aggregate demand. Zooming into a local view, maximising this and all its components can really propel a local economy forward. We focus on the city of London and the impact of the 2012 Olympics. Evaluating through the benefits and drawbacks of maximising the local multiplier effect, encompassing both the theoretically assumed effects and the realistic effects that were seen, we'll reach a balanced verdict on the impacts of the Local Multiplier Effect.

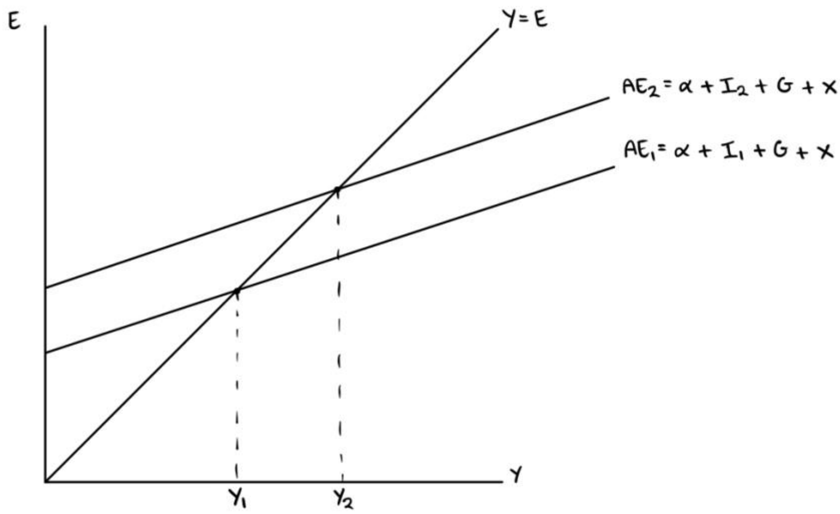
Positive impacts of the multiplier effect:

$$Y^* = \frac{1}{(1-c)}[\alpha + I + G + X]$$

From a theoretical standpoint, heightened domestic investment and foreign direct investment increases demand for the GBP, causing it to appreciate against its competitors' currencies. As such, imports could become cheaper to domestic consumers, signalling an increase in the marginal propensity to import. Increased money demand brings a greater flow of income into the economy and a higher marginal propensity to consume. Domestic consumers may have more disposable income, increasing aggregate demand as well. From the time that the games were given to the UK, investors were attracted to the possible profits of owning assets in London due to the anticipated increased growth rate of national income and consumption. This could lead to an increased demand for capital goods and labour to increase capacity. Investors wanting to benefit from the positive outlook of growth for the UK economy would be incentivised to shift over to London, pushing forth what is known as the accelerator effect.

The increased development would improve infrastructure, making the area more attractive to even more investors and consumers, continuing the cycle. Government expenditure (G) increases to finance its own investment into building new facilities for example, and greater employment raises output. The inflow of tourists and investors would raise exports and despite elevated imports, the overall net effect would be an increase in exports, benefiting the economy. These components all influence and grow from each other, enhancing the local multiplier effect.

Investment-led multipliers could mean that firms have greater capital to invest in development projects; this could include investment in new brick-and-mortar stores. New stores could benefit locals as they need employment for construction and business operations. This helps increase local disposable incomes which helps to increase aggregate demand and decrease unemployment, this causes a shift upwards in AE to AE_2, which creates a higher equilibrium income from output Y1 to Y2.



Keynesian Cross Model showing the increase of national income from an increase in government

Going further with this benefit, an increase in income will create greater tax revenue (t) which can allow for greater government expenditure without negatively affecting the national debt. The effectiveness of this theory depends on how high the tax rate is, as they are positively correlated. Looking back at aftermath of hosting the Olympics in 2012, London significantly benefitted economically. The construction, maintenance and running of the London Stadium (now known as West Ham's home stadium) 'led to more than 31,000 jobs being created' as stated on GOV.UK (2013) [F]. This increased productivity and national output as the economy moved close to full employment and capacity. The new workers received wages, which boosted income and increased domestic consumption, which is a component of AD, and so we see an outward shift of the AD curve displaying short-term economic growth.

Furthermore, Stratford was considered a majorly deprived area in London prior to 2012, as commented by Sampson (2011) '...the Games would be a force for regeneration and [they] would transform one of the poorest and most deprived areas of London' [J]. Therefore, the International Olympic Committee agreed this would be a great opportunity for redevelopment. The crime rate initially decreased, and Stratford was perceived more positively (Faggio, 2019) [E].

Since the Olympics ended, the facilities are available to the public, including swimming pools, a BMX pump track, and the velodrome – attracting tourists to Stratford, who spent money (which wasn't previously in the UK's circular flow) on food, memorabilia, transport and other services, causing an export-led multiplier, further increasing AD and economic growth. The locals benefitted too, including schools who hired pools for swimming lessons.

The redevelopment led to a disproportionately high rise in Stratford house values compared to the rest of London between 2005 and 2015 (Bloomfield, 2016) [C]. This benefitted current property owners as they're able to charge a higher fee for their properties. Also, it may lead to a positive wealth effect, which is when consumers spend more when their assets rise in value, contributing to a larger multiplier effect and benefits local businesses as their products are being bought more, increasing profits. Additionally, 2,818 affordable homes were built and there were vast improvements to local transport links benefitting the public (Study Rocket, 2019) [I].

Negative impacts of multiplier:

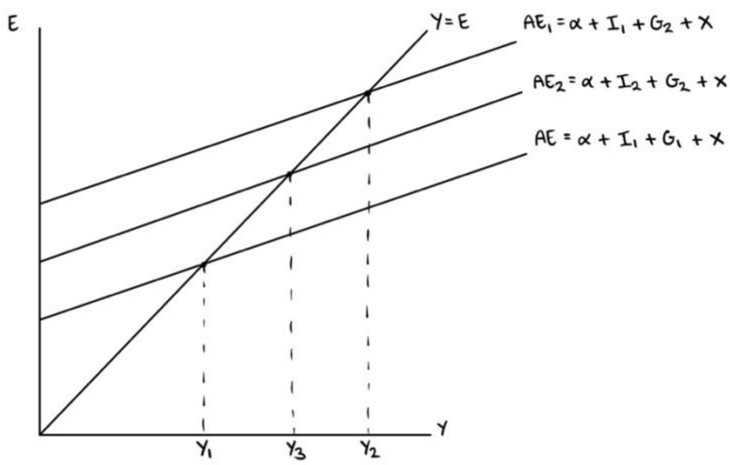
Conversely, the multiplier can have negative impacts. Government expenditure initially used for the investment is funded by taxing households and businesses. This reduces households’ disposable incomes and firm profits. This means that households and firms might be financially worse off; if consumers have lower real incomes, then consumption will fall, and the AD rise will be limited. Additionally, if G is financed by borrowing then this may lead to crowding out whereby interest rates rise, increasing the cost of borrowing for firms and reducing private-sector investment (Boyes, 2014) [D].

Another drawback of the local multiplier is if government expenditure is imposed to initiate the effect, then the government would be running a budget deficit which is unsustainable and could lead to over indebtedness. If government expenditure is more than what they earn from tax revenues, this could worsen the PSNCR. As national debt accumulates over time, it could lead to a fiscal crisis whereby the government cannot afford to provide welfare payments or healthcare as it must pay off the debt.

Furthermore, allowing the government to spend more money than it generates through revenue, a budget deficit, also known as a public sector net cash requirement (PSNCR), must be financed by public sector borrowing. If the borrowing is excessive, however, it could be quite detrimental. This is because demand-pull inflation may arise from excessive borrowing. The cause of demand-pull inflation is often excessive growth in aggregate demand relative to supply. High consumer spending is also a potential cause. Borrowing excessively could create demand-pull inflation partly because government borrowing raises the money supply, resulting in a greater quantity of money in the economy than can be matched by output. If money supply is growing at a faster rate compared to output, this means that the rise in money circulating through the economy is greater than the increase in goods produced. There is effectively now more money chasing fewer goods in the economy and so naturally this can lead to a rise in goods prices.

If demand-pull inflation is brought on by potential excessive borrowing, it can then lead to a rise in interest rates, which is a strategy used to lower aggregate demand which will then halt that rise in inflation. However, Increased interest rates will discourage investment by firms and make the country's currency rise in value, making its exports less price competitive, which is clearly not desirable. Moreover, a continuing budget deficit means that in the long-run, future generations will have to pay for the current spending and are likely to be faced with higher tax rates to pay the debt which means economic growth may be lower in the future. (Aliabadi, Dorestani, and Abdyldaeva, 2011) [B]

This in fact happened in London: a large injection of government spending was allocated towards the development of the Olympic Park. Overmyer M (2017) states that 'the final cost for the city and UK was extremely high… money used may have been better utilised [in] refining social programs, improving general infrastructure or in decreasing the number of homeless' [H]. Expenditure in unnecessary areas can be viewed as economically inefficient as there are no improvements or progressions towards the government's macroeconomic objectives; further creating an opportunity cost: 'it is common for central governments to expand massive amount[s] of capital in preparation for the games… however in place of spending of health care, education and welfare, an opportunity cost is always present' [A]. The government needs a source to fund the injection, and this can be done through borrowing (PSCNR). This could worsen the economy as increasing public sector spending typically disincentivises private investment as interest rates rise, which decreases animal spirits. Liu D et al. states that 'the crowding out effect is particularly relevant when considering major events' [G]. By having a reduction in private sector investment, we will see a fall in AD; and this can be seen diagrammatically: initial injection of G causes the AE line to shift to AE_1. Assuming the government borrows through the PSNCR, the effect of increasing interest rates will likely reduce private investments as business confidence will fall, which (depending on the magnitude of the decrease in I) will reduce AE_1 to AE_2. Therefore, the overall effect of the multiplier may be less beneficial as we initially see it due to the negative feedback that we see from the injection.



Keynesian Cross Model reflecting an intial increase in government expeniture and then due to crowding out, a decrease in investment.

<u>**Further Discussion:**</u>

Overall, we saw that the multiplier typically led to net benefits as it helped to attract further investment and, in the case of the Olympics, brought in more tourism. The 'Olympic city improved country citizen pride and led to long-term increases in tourism and foreign direct investment' [H]. General infrastructure in the area such as: The West Ham Stadium, the Athletes' village and the

ArcelorMittal Orbit became future profits which ‘achieved the economies of scale required to gain a return on these significant investments into infrastructure, transportation and community development’ [H]. Attracting development improved living standards and brought more investors into the area: there was higher confidence in the area compared to others as the park’s historical statistics of revenue and footfall were higher.

To add, the multiplier effect could be improved through reducing taxation/manipulating interest rates to stimulate consumption (through using expansionary fiscal/monetary policy) instead of using G. With the increase of C, output will naturally increase, and this may incentivise investment as they see potential in the area which could help with the development of the park, whilst also mitigating risks of government debt worsening. Alesina A. et al have stated that ‘Fiscal stimuli based on tax cuts are more likely to increase growth than those based on spending increases’ [H]. Utilising tax cuts/lowering r could also prevent demand-pull inflation from worsening as the government have much more control over setting these rates, instead of ambiguously increasing government spending to reach desired output: ‘governments imposing taxes to specifically financing Olympic costs… will fare far better than those that do not.’ [H].

Student ID’s: 100379318, 100389458, 100386759, 100415936, 100387850, 100362154

Verdict:

Ultimately, we saw with the 2012 London Olympics, that the multiplier produced an overall positive effect. The multiplier essentially kickstarted dynamic development as the initial attraction gained from the games helped to bring in more investment and increased business confidence in the general area. For that reason, we believe that the beneficial effects outweigh any of the negative impacts which may occur over the long term: there will be a constant development of infrastructure through further investment and development, which would have been an unlikely outcome without the initial decade-old investments.

Student ID's: 100379318, 100389458, 100386759, 100415936, 100387850, 100362154

Bibliography:

[A] - Alesina, A. and Ardagna, S. (2010). Large Changes in Fiscal Policy: Taxes versus Spending. *Tax Policy and the Economy*, 24(1), pp.35–68.
GOV.UK. (n.d.). *Inward investment on the rise as Olympics brings £2.5 BN to UK*. [online] Available at: https://www.gov.uk/government/news/inward-investment-on-the-rise-as-olympics-brings-25-bn-to-uk#:~:text=AP

[B] - Aliabadi, S., Dorestani, A. and Abdyldaeva, A. (2011) 'Budget Deficit, National Debt, and Government Spending: Is Now the Right Time to Cut Deficit and Reduce National Debt?', *Journal of Accounting, Business & Management*, 18(2), pp. 74–83.

[C] - Bloomfield, R. (2016) *Stratford house price rises outperform the rest of London*, *Evening Standard*. Evening Standard. [online] Available at: https://www.standard.co.uk/homesandproperty/buying-mortgages/london-house-prices-stratford-outperforms-the-rest-of-the-capital-with-up-to-70-per-cent-growth-since-2005-a99061.html.

[D] - Boyes, W.J., (2014). The Keynesian Multiplier Concept Ignores Crucial Opportunity Costs. *Quarterly Journal of Austrian Economics*, *17*(3), p.327.

[E] - Faggio, G. (2019). *Evolution of crime in Stratford Original and neighbouring areas, 2012Q1-2019Q1*. [online] Available at: https://stratfordoriginal.com/sites/default/files/docs/Evolution%20of%20crime%20in%20Stratford%20Original.pdf.

[F] - GOV.UK. (2013). *Inward investment on the rise as Olympics brings £2.5 BN to UK*. [online] Available at: https://www.gov.uk/government/news/inward-investment-on-the-rise-as-olympics-brings-25-bn-to-uk#:~:text=AP.

[G] - Liu, D. and Wilson, R. (2014). The negative impacts of hosting mega-sporting events and intention to travel: a test of the crowding-out effect using the London 2012 Games as an example. *International Journal of Sports Marketing and Sponsorship*, 15(3), pp.12–26.

[H] - Overmyer, M. (2017). *Honors Projects Undergraduate Research and Creative Practice 5-12-2017 Part of the Business Commons Recommended Citation Overmyer*. [online] Available at: https://scholarworks.gvsu.edu/cgi/viewcontent.cgi?article=1646&context=honorsprojects.

[I] - Rocket, S. (2019) *Stratford Olympic Park – GCSE Geography B Edexcel Revision*, *Study Rocket*. Edexcel. [online] Available at: https://studyrocket.co.uk/revision/gcse-geography-b-edexcel/uk-human-landscape/stratford-olympic-park#:~:text=Impacts,-Socially&text=The%20athletes'%20village%20has%20been,the%20grounds%20of%20the%20park.

[J] - Sampson, A. (2011). *Centre for Institutional Studies The 2012 Olympic Games at Stratford: the latest East London regeneration initiative considered*. [online] Available at: https://repository.uel.ac.uk/download/ca0dec9b495b5f916019a429ce3a848a9780af91bd8dcafb0ed05f4bf373822e/339515/Olympics.pdf.