

8.1 Gross Domestic Product (GDP)

8.1.1 GDP is a monetary measure of the state of a country or region's economy. In the UK, the ONS calculates GDP from output (the value of goods and services produced in the economy), expenditure (the value of purchases made), and income (profits and wages). The Organisation for Economic Co-operation and Development (**OECD**) states that:

"Gross domestic product is an aggregate measure of production equal to the sum of the gross values added of all resident institutional units engaged in production (plus any taxes, and minus any subsidies, on products not included in the value of their outputs). The sum of the final uses of goods and services (all uses except intermediate consumption) measured in purchasers' prices, less the value of imports of goods and services, or the sum of primary incomes distributed by resident producer units."¹

8.1.2 Based on Intervistas figures, GDP from direct, indirect, induced, and catalytic effects are calculated as follows:

Direct:	7,893,500 jobs equate to €426.7 billion in GDP One job = €54,057/£45,408
Indirect:	1,353,100 jobs equate to €69.7 billion in GDP One job = €51,511/£43,270
Induced:	1,401,100 jobs equate to €76.4 billion in GDP One job = €54,529/£45,804
Catalytic:	1,696,200 jobs equate to €101.6 billion in GDP One job = €59,899/£50,315

The conversion from Euros to Sterling has been calculated at €1 to £0.89

8.1.3 For this calculation, the term GDP is used by Intervistas to refer to the contribution to GDP provided by the airport industry (Intervistas, 2015). It should be noted that the Intervistas work covered European airports and therefore the figures are not UK-specific. However, the UK is second only to Germany in Europe in terms of direct employment at airports.

8.1.4 The Airports Operators Association (**AOA**), also produced details of the economic activity of airports and associated aviation activities in the UK for 2013. These figures show the relationship between the four categories of jobs and GDP (AOA, 2016, p. 15):

Direct:	200,000 direct jobs equate to £13.9 billion GDP One job = £69,500
Indirect:	100,000 indirect jobs equate to £7.0 billion GDP One job = £70,000
Induced:	200,000 induced jobs equate to £10.4 billion GDP One job = £52,000

¹ <https://stats.oecd.org/glossary/detail.asp?ID=1163>

Catalytic: 700,000 catalytic jobs equate to £38.3 billion GDP
 One job = £54,700

8.1.5 Comparing the Intervistas and AOA figures shows that the Intervistas figures are considerably lower than the UK-specific AOA figures as shown in Table 1. Since the AOA figures are UK-based, there is an argument for using this calculation. However, in order to provide a range for potential GDP due to the operation of Manston Airport, both figures are shown in Table 2.

Table 1 Comparison between GDP calculations

	Intervistas	AOA
Direct	£45,408	£69,500
Indirect	£43,270	£70,000
Induced	£45,804	£52,000
Catalytic	£50,315	£54,700

8.1.6 Since the calculation used for indirect and induced jobs is combined in the forecast, the lower figure in each case has been used to ensure the estimate is as conservative as possible. As Table 2 shows, the effect of an operational airport at Manston has a considerable impact on GDP. Indeed, by Year 20 of operation, the total GDP from direct, indirect/induced, and catalytic impacts is forecast to be between £1.2 and £13 billion.

8.1.7 Thanet’s Economic Growth Strategy (TDC, 2016, p. 16) includes ambitious targets for GVA² per job and per capita. Their figures show a considerable difference between Thanet and Kent for these measures of productivity and wealth. In order to achieve the Council’s vision, the growth rate required to match the Kent average by 2031 would be 3.5% per annum for GVA per job (productivity) and 5.2% per annum for GVA per capita (wealth). These figures are almost double the growth rate based on business as usual assumptions for productivity and approaching three times for wealth. Without a major employer, whose operation generates considerable indirect, induced and catalytic impacts on the Thanet economy, the vision described by the Council will be difficult to achieve.

8.1.8 In order to estimate GVA from Manston Airport’s operations, the Stansted Airport figure, as used in their March 2018 Planning Application, has been applied (RPS, 2018). GVA per person in employment for the Stansted Airport operational study area was shown to be £60,500 (RPS, 2018, section 11.59). Applying this figure to the Manston direct job forecast only would generate GVA of £166 million in Year 10 and almost £207 million in Year 20.

² GVA is a key indicator of the state of the whole economy. It measures the contribution to the economy of producers, industries or sectors. The relationship between GDP and GVA is: GVA + taxes on products - subsidies on products = GDP

Table 2

Manston Airport GDP and tax contribution

	Direct			Indirect/ induced			Catalytic			Total			Tax			
	Jobs	IntV	AOA	Jobs	IntV	AOA	Jobs	IntV	AOA	Jobs	IntV	AOA	IntV	AOA		
Y1	116	£5.6	£8.1	0	£0.0	£0.0	0	£0.0	£0.0	0	£0.0	£0.0	£5.6	£8.1	£1.85	£2.68
Y2	856	£41.2	£59.5	1,542	£70.7	£80.2	0	£0.0	£0.0	0	£0.0	£0.0	£111.9	£139.7	£37.14	£46.36
Y3	1,551	£74.6	£107.8	2,791	£128.0	£145.1	6,203	£330.7	£339.4	6,203	£330.7	£339.4	£533.3	£592.3	£177.05	£196.66
Y4	2,085	£100.3	£144.9	3,753	£172.1	£195.2	8,341	£444.6	£456.3	8,341	£444.6	£456.3	£717.0	£796.4	£238.05	£264.41
Y5	2,150	£103.4	£149.4	3,870	£177.4	£201.3	8,601	£458.5	£470.6	8,601	£458.5	£470.6	£739.4	£821.3	£245.47	£272.66
Y6	2,466	£118.6	£171.4	4,438	£203.5	£230.8	9,862	£525.8	£539.6	9,862	£525.8	£539.6	£847.9	£941.8	£281.49	£312.67
Y7	2,576	£123.9	£179.0	4,638	£212.6	£241.2	10,306	£549.4	£563.9	10,306	£549.4	£563.9	£885.9	£984.1	£294.13	£326.71
Y8	2,645	£127.3	£183.8	4,762	£218.3	£247.6	10,581	£564.1	£578.9	10,581	£564.1	£578.9	£909.6	£1,010.4	£302.00	£335.45
Y9	2,668	£128.4	£185.4	4,803	£220.2	£249.7	10,673	£569.0	£583.9	10,673	£569.0	£583.9	£917.5	£1,019.1	£304.61	£338.34
Y10	2,749	£132.3	£191.1	4,948	£226.8	£257.3	10,996	£586.2	£601.6	10,996	£586.2	£601.6	£945.3	£1,050.0	£313.83	£348.59
Y11	2,812	£135.3	£195.4	5,062	£232.1	£263.2	11,249	£599.7	£615.5	11,249	£599.7	£615.5	£967.1	£1,074.2	£321.07	£356.63
Y12	2,890	£139.0	£200.9	5,202	£238.5	£270.5	11,561	£616.3	£632.5	11,561	£616.3	£632.5	£993.8	£1,103.9	£329.95	£366.50
Y13	2,947	£141.8	£204.8	5,305	£243.2	£275.9	11,789	£628.5	£645.0	11,789	£628.5	£645.0	£1,013.5	£1,125.7	£336.47	£373.74
Y14	3,018	£145.2	£209.8	5,432	£249.0	£282.5	12,072	£643.6	£660.5	12,072	£643.6	£660.5	£1,037.8	£1,152.7	£344.55	£382.71
Y15	3,094	£148.9	£215.0	5,570	£255.4	£289.6	12,378	£659.9	£677.2	12,378	£659.9	£677.2	£1,064.1	£1,181.9	£353.27	£392.40
Y16	3,164	£152.2	£219.9	5,695	£261.1	£296.1	12,656	£674.7	£692.4	12,656	£674.7	£692.4	£1,088.0	£1,208.5	£361.21	£401.22
Y17	3,224	£155.1	£224.1	5,802	£266.0	£301.7	12,894	£687.4	£705.5	12,894	£687.4	£705.5	£1,108.5	£1,231.3	£368.02	£408.79
Y18	3,301	£158.8	£229.4	5,942	£272.4	£309.0	13,205	£703.9	£722.5	13,205	£703.9	£722.5	£1,135.2	£1,260.9	£376.88	£418.62
Y19	3,349	£161.1	£232.8	6,029	£276.4	£313.5	13,397	£714.2	£733.0	13,397	£714.2	£733.0	£1,151.7	£1,279.3	£382.37	£424.72
Y20	3,417	£164.4	£237.5	6,151	£282.0	£319.8	13,668	£728.6	£747.8	13,668	£728.6	£747.8	£1,175.0	£1,305.1	£390.10	£433.30

8.1.9 As well as GVA per job and per capita, additional jobs in the economy give rise to tax income for government. The tax-to-GDP ratio compares GDP to the amount of tax able to be collected by government. The OECD's annual Revenue Statistics report³ found that the tax-to-GDP ratio for the United Kingdom increased by 0.7% from 32.5% in 2015 to 33.2% in 2016. Therefore, applying this ratio to the figures shown in Table 2, provides an estimate of the tax revenues generated by the operation of Manston Airport through direct, indirect, induced and catalytic job creation. These are shown in the final two columns of the table. Note that Intervistas has been abbreviated to "IntV".

³ <https://www.oecd.org/tax/tax-policy/revenue-statistics-united-kingdom.pdf>