HOUSE OF COMMONS LIBRARY

BRIEFING PAPER

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Manufacturing: international comparisons

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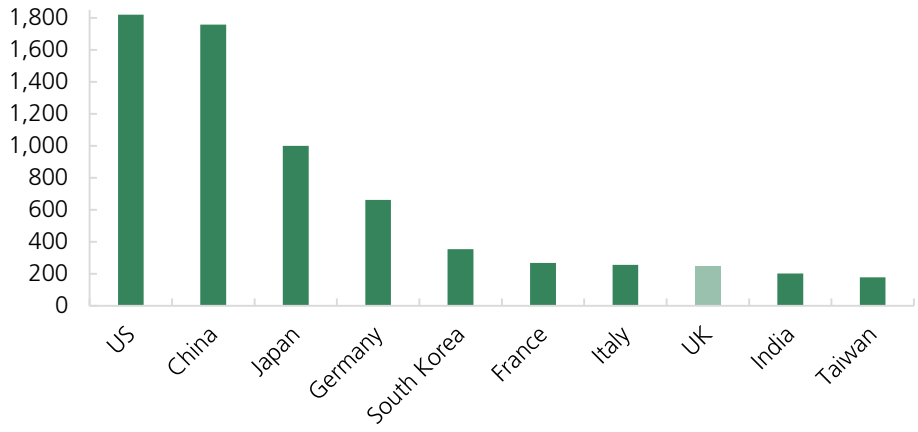

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Summary

This note uses UN Conference on Trade and Development (UNCTAD) data to compare manufacturing in different countries. The most recent data from this source are for 2013.

Manufacturing output in 2013:

- The USA had the highest manufacturing output: $1.8 trillion
- China's manufacturing output was slightly lower, but also rounded to $1.8 trillion
- The UK's manufacturing output was $245 billion, the 8th highest in the world

Manufacturing output per head:

- In Switzerland, manufacturing output per head was $11,300 in 2013
- In the UK, manufacturing output per head was $3,900, but note that the population and total manufacturing output in the UK is far larger than in Switzerland.

Manufacturing as a proportion of national economic output in 2013:

- Small, developing economies that are highly reliant on their manufacturing sector are those with the highest manufacturing output as a proportion of total economic output
- In Swaziland, manufacturing accounts for 41% of total output and in Turkmenistan it accounts for 38% of output
- In the UK, the manufacturing sector accounts for 10% of output

1. Manufacturing output

Manufacturing output in 2013
$US in 2005 prices using 2005 exchange rates

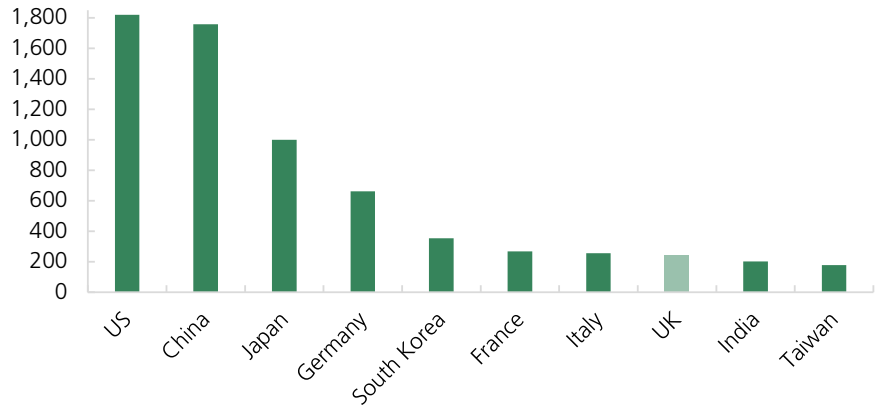
	Manufacturing output			% of national	% of world
	Rank in world	$ billions	Per head, $	output	manufacturing
US	1	1,820	5,600	12%	19%
China	2	1,757	1,300	30%	18%
Japan	3	1,001	7,900	19%	11%
Germany	4	663	8,000	22%	7%
South Korea	5	354	7,200	31%	4%
France	6	268	4,000	11%	3%
Italy	7	256	4,200	15%	3%
UK	**8**	**245**	**3,900**	**10%**	**3%**
India	9	203	200	13%	2%
Taiwan	10	179	7,700	29%	2%
Mexico	11	164	1,300	18%	2%
Brazil	12	156	800	13%	2%
Canada	13	146	4,100	11%	2%
Spain	14	140	3,000	13%	1%
Russia	15	138	1,000	15%	1%
Turkey	16	115	1,500	17%	1%
Indonesia	17	113	500	24%	1%
Switzerland	18	92	11,300	19%	1%
Poland	19	91	2,400	19%	1%
Netherlands	20	89	5,300	12%	1%

Source: UN Conference on Trade and Development (UNCTAD)
Rank out of 237 countries
World average is the unweighted mean of all countries in the world. This measure is used throughout this note.

UK manufacturing output totalled $245 billion in 2013. This was below manufacturing output in the other major European economies: France, Italy and Germany.

The UK accounted for 3% of the world manufacturing output. Between them, the US, China, Japan and Germany accounted for 55% of world manufacturing output.

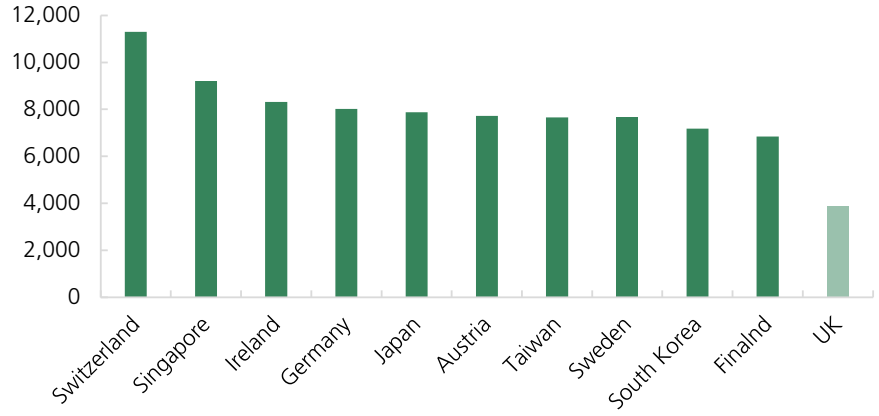
Manufacturing output, *$ billions,*
2013 top ten, 2005 prices using 2005 exchange rates



The manufacturing output of the top 20 countries featured in the table above accounted for 84% of world manufacturing output in 2013.

2. Manufacturing output per head

Manufacturing output per head, ***$s***
2013 top ten, 2005 prices using 2005 exchange rates



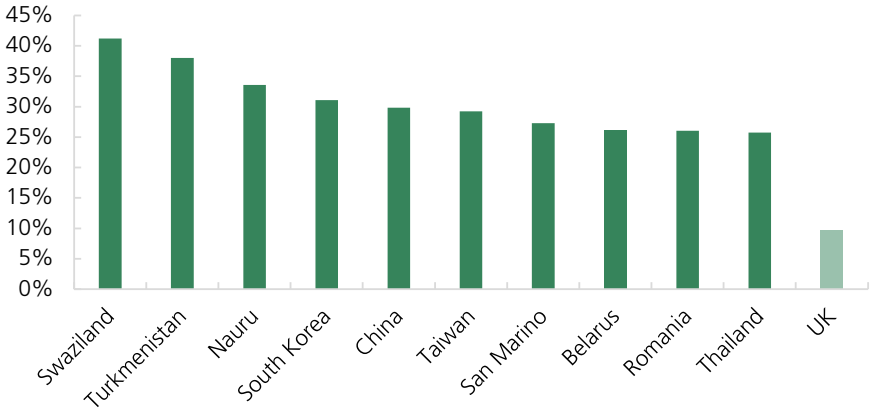
Per head, manufacturing output in the UK was $3,900 in 2013, below many advanced economies, such as Germany ($8,000), Japan ($7,900), and the US ($5,600).

Some of the countries featured in the chart above have relatively low total manufacturing output, such as Switzerland ($91.7 billion) and Singapore ($49.8 billion), but also small populations meaning that manufacturing output per head is high.

Countries such as the US or China, have huge manufacturing output (around $1.8 trillion each) but also large populations, so manufacturing output per head is lower than in many countries: $5,600 in the US and $1,300 in China.

3. Manufacturing output as % of national economic output

Manufacturing output as a % of national output
2013 top ten, 2005 prices using 2005 exchange rates



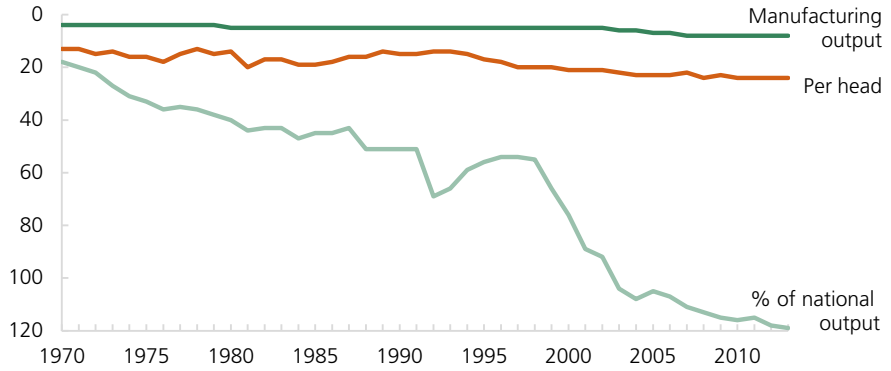
Manufacturing as a proportion of UK national economic output was 10% in 2013.

Many countries in which manufacturing accounts for a high proportion of economic output are developing countries with relatively low total economic output. Swaziland and Turkmenistan, where manufacturing accounted for 41% and 38% of economic output in 2013, have small economies by Western standards, with total economic output a fraction of the UK's.

4. UK manufacturing output: historic rankings

UK rankings for manufacturing output

Out of 237 countries, 1=highest



Between 1970 and 2002, the UK was ranked 4th or 5th in the world in terms of total manufacturing output. Since then the UK has fallen down the international rankings for manufacturing output and was 8th in 2013.

In terms of manufacturing output per head, the UK was ranked 13th in the world in 1970 and 24th in 2013.

In terms of manufacturing as a proportion of national economic output, the UK has fallen from 18th in the world in 1970 to 113th in the world in 2013. This is a product of the growth of manufacturing bases in other parts of the world, and the diversification of the UK economy, with the service industries contributing a far larger proportion now than in 1970.

5. Manufacturing output: international comparisons since 1970

International comparisons of manufacturing output: *1970, 1980, 1990, 2000 and 2013; top 20 countries in 2013*
$US in 2005 prices using 2005 exchange rates

	Manufacturing output ($ billions)					Manufacturing output (Rank out of 237)					Manufacturing output as a % of national output				
	1970	1980	1990	2000	2013	1970	1980	1990	2000	2013	1970	1980	1990	2000	2013
US	691	823	1,054	1,573	1,820	1	1	1	1	1	24%	21%	18%	15%	12%
China	-	-	-	-	1,757	-	-	-	-	2	-	-	-	-	31%
Japan	306	472	754	825	1,001	3	2	2	2	3	33%	26%	25%	20%	19%
Germany	-	-	516	545	663	-	-	3	3	4	-	-	27%	22%	24%
South Korea	5	23	74	167	354	41	26	12	7	5	19%	25%	27%	28%	31%
France	122	166	191	245	268	5	6	7	6	6	23%	21%	18%	15%	10%
Italy	112	204	253	289	256	6	4	4	4	7	27%	28%	22%	20%	16%
UK	**178**	**202**	**243**	**264**	**245**	**4**	**5**	**5**	**5**	**8**	**27%**	**22%**	**19%**	**16%**	**10%**
India	16	24	49	87	203	22	25	17	13	9	14%	16%	17%	16%	14%
Taiwan	7	25	50	82	179	34	22	16	14	10	30%	36%	32%	25%	26%
Mexico	37	75	92	142	164	13	11	11	10	11	19%	19%	20%	20%	18%
Brazil	40	97	99	119	156	12	8	10	11	12	27%	31%	26%	17%	13%
Canada	62	87	110	165	146	8	10	9	8	13	22%	19%	17%	19%	11%
Spain	58	92	114	149	140	9	9	8	9	14	27%	25%	21%	18%	13%
Russia	-	-	-	89	138	-	-	-	12	15	-	-	-	22%	15%
Turkey	13	22	44	67	115	25	27	19	18	16	21%	23%	29%	21%	18%
Indonesia	-	-	-	-	113	-	-	-	-	17	-	-	-	-	24%
Switzerland	45	52	59	68	92	10	13	13	17	18	23%	23%	20%	18%	19%
Poland	10	16	12	37	91	27	30	40	24	19	31%	31%	29%	17%	17%
Netherlands	37	45	59	80	89	14	14	15	15	20	24%	17%	18%	15%	13%

Source: UN Conference on Trade and Development (UNCTAD)
Rank out of 237 countries
World average is the unweighted mean of all countries in the world.
- indicates data not available

6. Note on sources

Similar data to those used in this note are also available from other sources, such as the World Bank and the OECD. Due to methodological and definitional differences, different sources should not be directly compared.

The figures in this note are in US dollars, converted from national currencies using 2005 exchange rates. The figures are in 2005 prices. This means that price inflation and fluctuations in the strength of local currencies are not reflected in the data in this note.

Manufacturing is defined using the International Standard Industrial Classification of all Economic Activities (ISIC), revision 3.1, Section D. Some slight local variations in the definition of manufacturing mean that comparisons should be made with caution.

The measure of economic output used here is Gross Value Added, which measures total economic output of part of the economy, minus any costs incurred in production.

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