

Measuring, negotiating and improving productivity in the public services

Health sector productivity: developments in the UK

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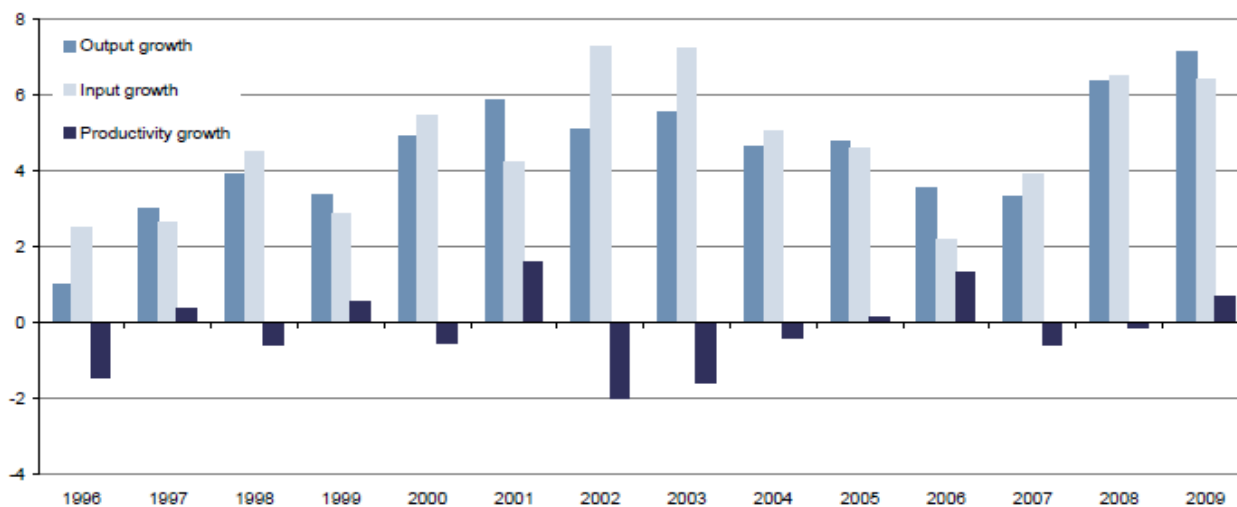
The NHS and Productivity

- Productivity fell 2.7% from 1995 to 2009, an average annual fall of 0.2%
- The volume of inputs grew by 88.8%, an annual average increase of 4.6%
- The volume of output grew by 83.8%, an annual average increase of 4.4%
- In 2009, productivity increased by 0.7%, following two years of decline

Productivity and the NHS

Figure 1.2 Growth in healthcare output, inputs and productivity estimates, 1995–2009

United Kingdom
Annual percentage change



United Kingdom	Percentages														
	Average annual percentage change														
	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	
Output growth	1.0	3.0	3.9	3.4	4.9	5.9	5.1	5.5	4.6	4.8	3.5	3.3	6.4	7.1	4.4
Input growth	2.5	2.6	4.5	2.8	5.5	4.2	7.3	7.2	5.0	4.6	2.2	3.9	6.5	6.4	4.6
Productivity growth	-1.4	0.4	-0.6	0.5	-0.5	1.6	-2.0	-1.6	-0.4	0.1	1.3	-0.6	-0.1	0.7	-0.2

Source: Office for National Statistics

NHS: Defining output

Table A.1 HCHS contribution to growth breakdown, 2002-03 to 2008-09

England								Percentage points
	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	Average annual percentage change
Elective and Day case	0.9	0.6	-0.1	0.9	0.7	2.4	0.9	0.9
Non-Elective and Observation wards	0.6	1.4	0.9	0.2	0.8	-0.5	1.3	0.7
Follow Up Attendance	0.1	0.2	0.1	0.5	0.1	0.4	0.9	0.4
Rehabilitation Services	0.2	0.6	0.1	0.1	0.4	0.1	0.5	0.3
First Attendance	0.1	0.2	0.4	0.5	-0.3	0.2	0.8	0.3
Accident and Emergency Services	0.2	0.2	0.3	0.2	0.1	0.0	0.6	0.2
Direct Access: Pathology Services	0.2	0.5	0.3	0.4	0.0	0.1	0.2	0.2
Mental Health	-0.6	-0.5	-0.5	-1.0	-0.3	0.5	0.3	-0.2
Other	0.2	0.5	0.7	1.2	0.2	0.7	1.7	0.8
Total England HCHS growth	1.8	3.6	2.3	3.0	1.6	4.1	7.1	3.6

1 Other relates to 27 small categories within hospital services.

Source: Office for National Statistics

Table A.3 FHS contribution to growth breakdown, 2002-03 to 2008-09

England								Percentage points
	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	Average annual percentage change
Dental Services	-0.15	0.20	-0.22	0.28	1.44		0.43	0.36
NHS Choices/ Direct/ Online	0.28	0.23	0.09	0.09	0.74	1.62	2.11	0.81
Ophthalmic Services	-0.09	0.11	0.18	0.11	0.07		0.04	0.09
GP Home Visit	-0.56	-0.28	-0.63	0.17	-0.08	0.00	0.27	-0.09
GP Consultation	0.19	0.28	0.36	0.35	0.15	-0.21	0.38	0.22
GP Phone Consultation	0.40	0.81	0.31	0.47	0.33	0.41	1.20	0.59
GP Surgery Consultation	0.24	1.28	-0.29	1.83	0.73	-0.23	-0.01	0.55
Practice Nurse Consultation	1.05	1.33	0.74	1.27	0.63	0.04	0.51	0.75
Walk-in-Centres	0.10	0.11	0.06	0.14	-0.03	0.10	0.04	0.07
Total England FHS growth	1.45	4.07	0.60	4.71	3.99	1.73	4.96	3.33

1 No data available for Dental Services and Ophthalmic Services, 2007-08.

Source: Office for National Statistics

NHS: Defining output

- Short-term survival
- Health gain following treatment
- Impact on waiting times

Table A.5 HCHS quantity and quality adjustment, 2001-02 to 2008-09

United Kingdom	Percentage points									
	Average annual percentage change									
	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	
HCHS	-	4.50	1.83	3.59	1.82	2.74	1.42	3.47	6.40	3.21
Quality Adjusted HCHS	-	4.40	3.08	4.24	2.88	3.47	1.70	3.75	7.50	3.87
Effect of the quality adjustment	-	-0.09	1.25	0.64	1.06	0.72	0.28	0.29	1.11	0.66

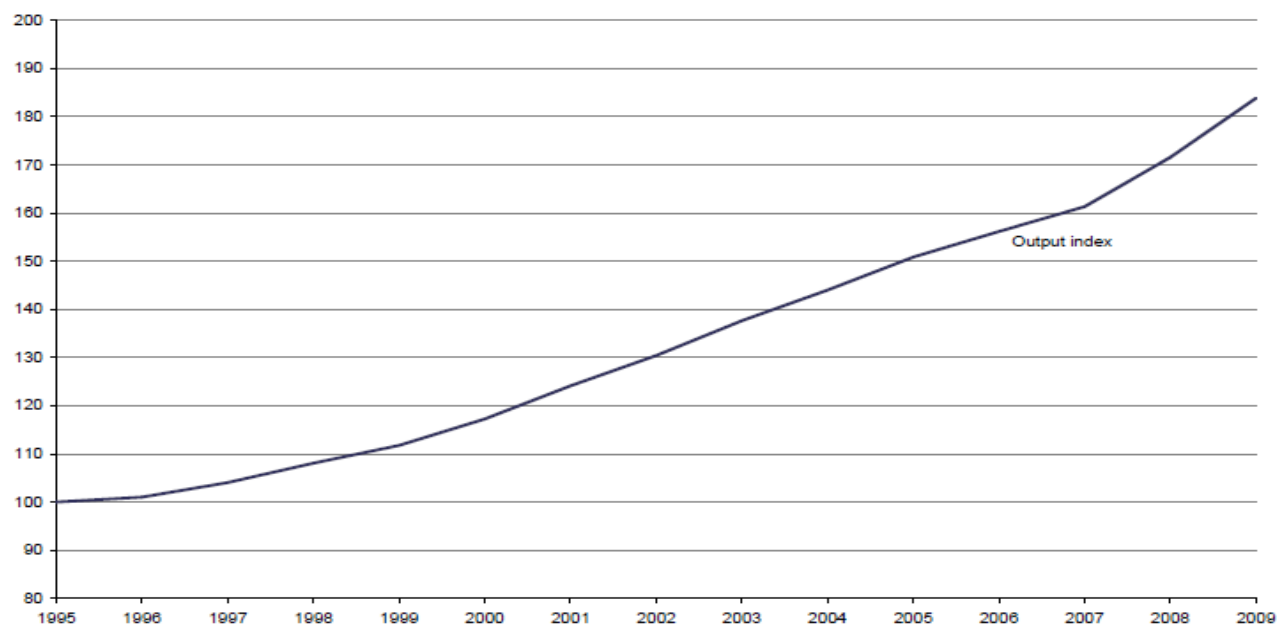
Note: Effect of the quality shown to two decimal places as changes are small

Source: Office for National Statistics

NHS: Measuring output

Figure 2.1 Healthcare output, 1995–2009

United Kingdom
Index numbers, 1995=100



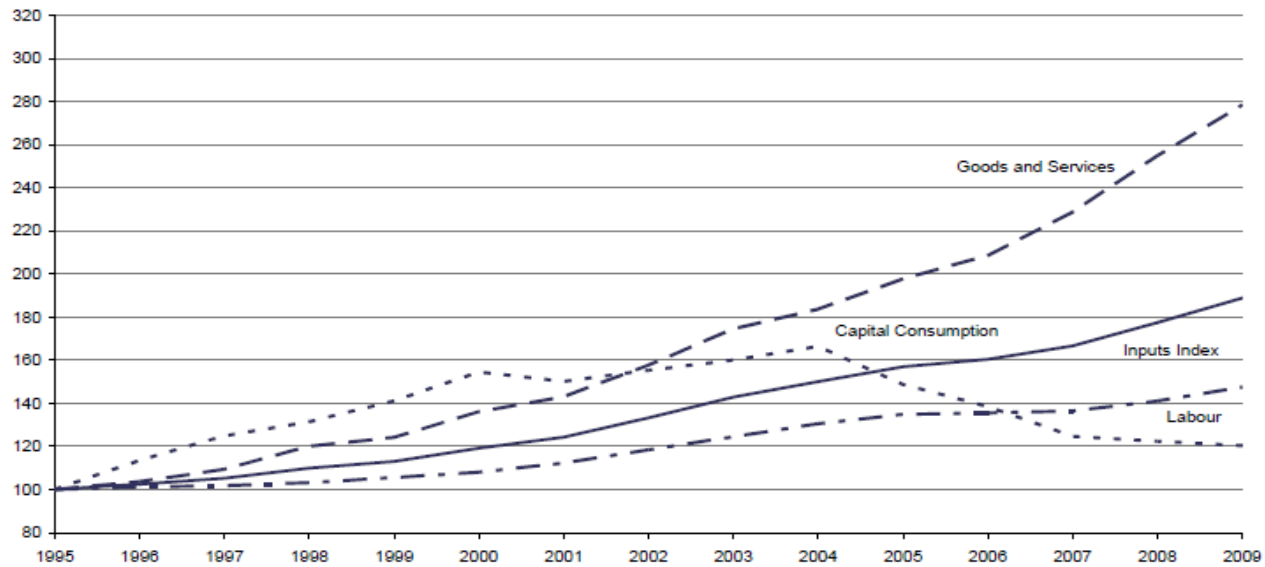
	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Average annual percentage change
Output index	100.0	101.0	104.0	108.1	111.7	117.2	124.1	130.4	137.6	144.0	150.8	156.2	161.3	171.6	183.8	4.4

Source: Office for National Statistics

NHS: Measuring inputs

Figure 3.5 Volume of Inputs by type of input, 1995–2009

United Kingdom
Index numbers, 1995=100



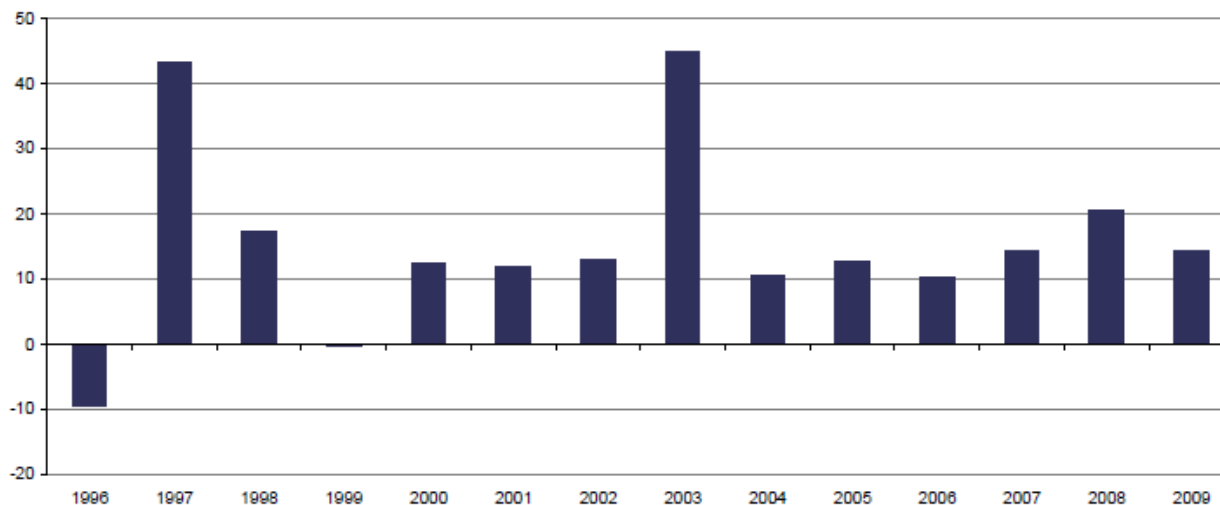
United Kingdom	Index numbers, 1995=100														Average annual percentage change	
	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	
Labour	100.0	101.2	101.7	103.2	105.5	108.0	112.3	118.4	124.4	130.5	134.9	135.5	136.4	141.1	147.5	2.8
Goods and Services	100.0	103.7	109.3	120.1	124.2	136.1	143.1	157.7	174.5	183.7	197.6	208.6	228.7	254.9	278.4	7.6
Capital Consumption	100.0	113.4	124.9	131.4	141.1	154.5	150.2	155.3	160.1	166.4	148.7	138.5	124.6	122.3	120.3	1.3
Total	100.0	102.5	105.2	109.9	113.0	119.2	124.2	133.3	142.9	150.1	157.0	160.4	166.6	177.5	188.8	4.6

Source: Office for National Statistics

NHS: Measuring inputs

Figure B.7 Growth in the volume of healthcare purchased from outside the NHS, 1995–2009

United Kingdom
Annual percentage change



United Kingdom

Index numbers, 1995=100

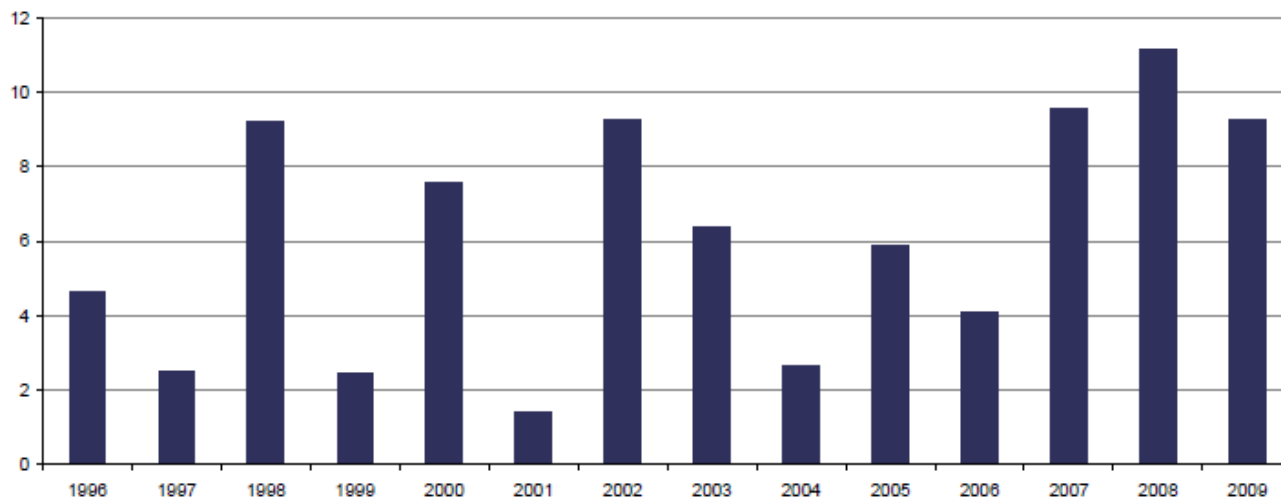
	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Average annual percentage change
Healthcare from outside the NHS growth	-	-9.5	43.3	17.3	-0.3	12.4	11.9	12.9	45.0	10.5	12.8	10.2	14.3	20.4	14.3	14.6
Healthcare from outside the NHS index	100.0	90.5	129.7	152.1	151.8	170.4	190.7	215.3	312.2	345.1	388.8	428.3	489.8	589.9	674.3	

Source: Office for National Statistics

NHS: Measuring inputs

Figure B.8 Growth in the volume of other goods and services, 1995–2009

United Kingdom
Annual percentage change



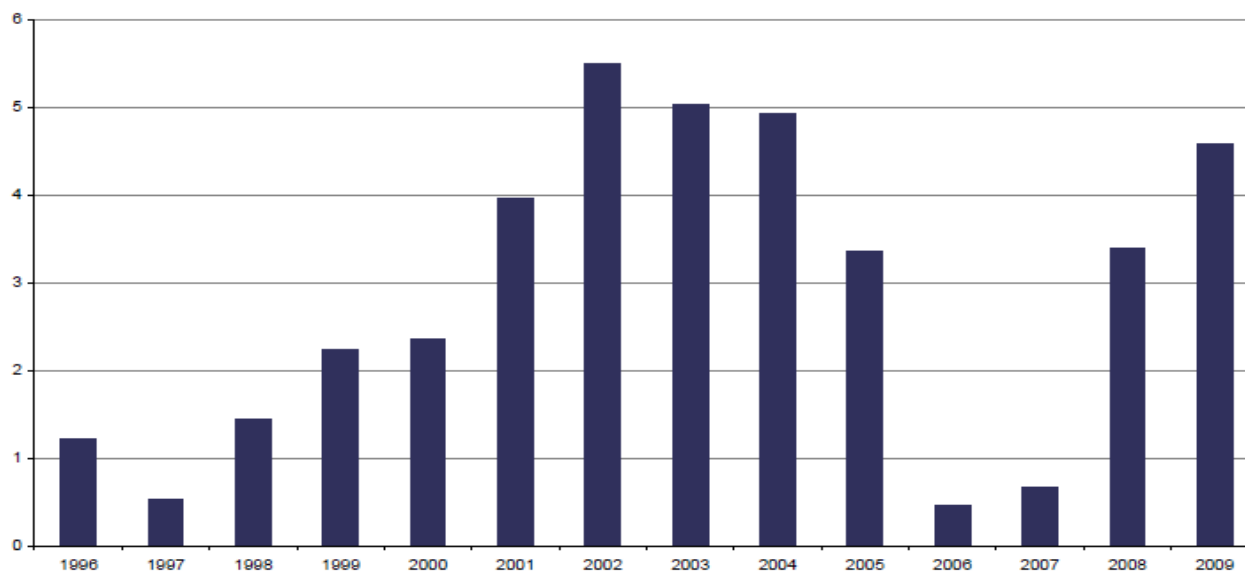
United Kingdom	Index numbers, 1995=100														Average annual percentage change	
	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	
Other goods and services growth	-	4.6	2.5	9.2	2.4	7.6	1.4	9.3	6.4	2.7	5.9	4.1	9.5	11.1	9.3	6.1
Other goods and services index	100.0	104.6	107.3	117.1	120.0	129.1	130.9	143.1	152.2	156.2	165.5	172.2	188.7	209.7	229.1	

Source: Office for National Statistics

NHS: Measuring inputs

Figure B.1 Growth in the volume of labour inputs, 1995–2009

United Kingdom
Annual percentage change



United Kingdom

Index numbers, 1995=100

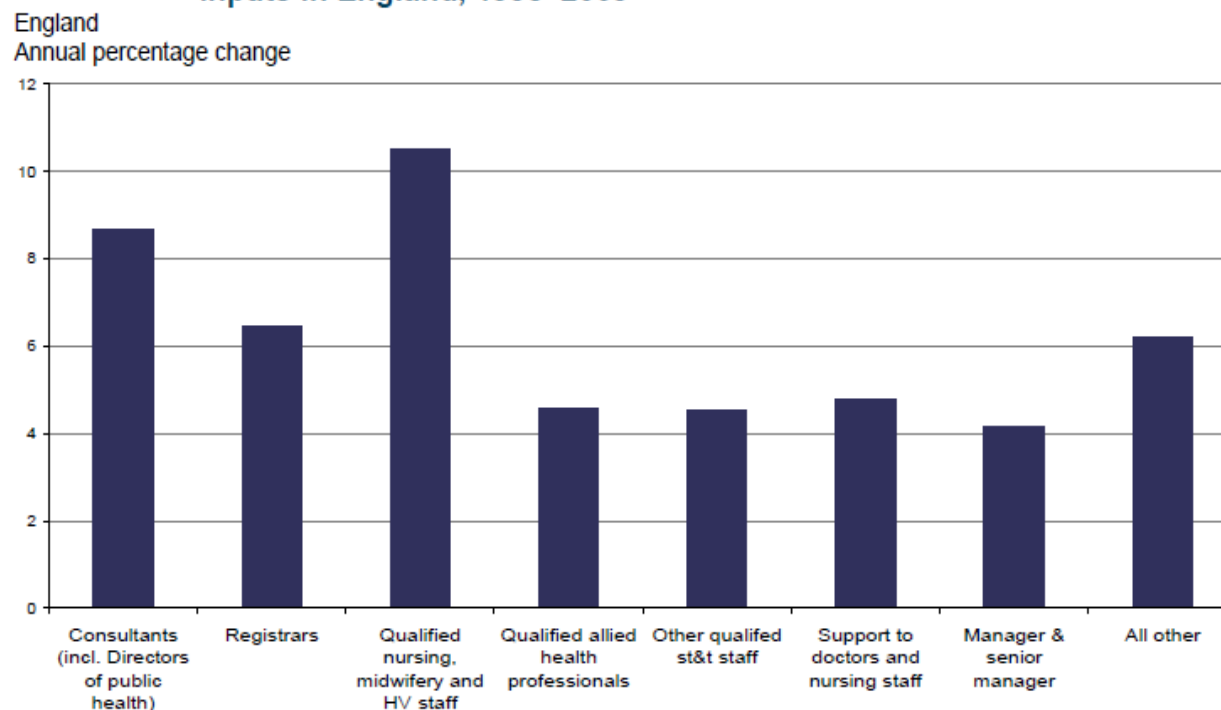
Average annual
percentage
change

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	
Labour Growth	-	1.2	0.5	1.4	2.2	2.4	4.0	5.5	5.0	4.9	3.4	0.5	0.7	3.4	4.6	2.8
Labour Index	100.0	101.2	101.7	103.2	105.5	108.0	112.3	118.4	124.4	130.5	134.9	135.5	136.4	141.1	147.5	

Source: Office for National Statistics

NHS: Measuring inputs

Figure B.3 Cumulative contributions to growth of the volume of HCHS labour inputs in England, 1995–2009



Source: Office for National Statistics

NHS: Measuring inputs

Table 3.3 Expenditure on publicly funded healthcare inputs, 1995–2009

United Kingdom																£billion
	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Average annual percentage change
Labour	23.3	25.2	26.3	27.2	28.1	30.1	33.4	36.5	41.3	46.7	50.2	53.9	55.0	57.9	61.7	7.2
Goods and Services	13.5	15.2	15.1	17.0	19.9	20.7	22.3	25.0	26.4	28.0	30.4	34.1	37.7	42.5	46.9	9.3
Capital Consumption	1.2	1.3	1.4	1.4	1.4	1.6	1.5	1.6	1.8	1.7	1.8	1.7	1.7	1.9	1.9	3.3
Total	38.1	41.7	42.8	45.6	49.4	52.4	57.2	63.1	69.4	76.4	82.3	89.7	94.5	102.2	110.6	7.9

Source: Office for National Statistics

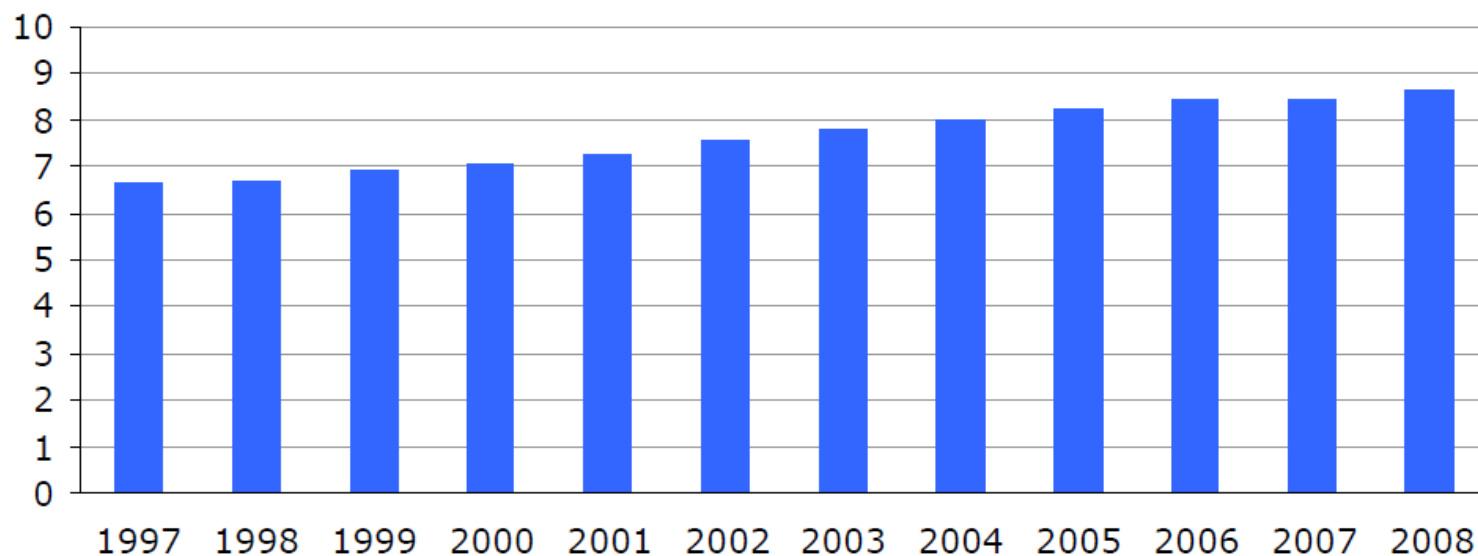
Table 3.4 Expenditure shares of publicly funded healthcare inputs, 1995–2009

United Kingdom																Percentages
	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Average annual percentage change
Labour	61.3	60.5	61.6	59.7	56.9	57.4	58.4	57.9	59.4	61.1	60.9	60.1	58.3	56.6	55.8	-0.7
Goods and Services	35.5	36.4	35.2	37.2	40.2	39.6	38.9	39.6	38.0	36.7	36.9	38.1	39.9	41.6	42.4	1.3
Capital Consumption	3.2	3.2	3.2	3.1	2.8	3.0	2.7	2.6	2.6	2.2	2.2	1.9	1.8	1.8	1.8	-4.3

Source: Office for National Statistics

NHS: Measuring inputs

Figure 1
Expenditure on healthcare as a percentage of GDP
United Kingdom

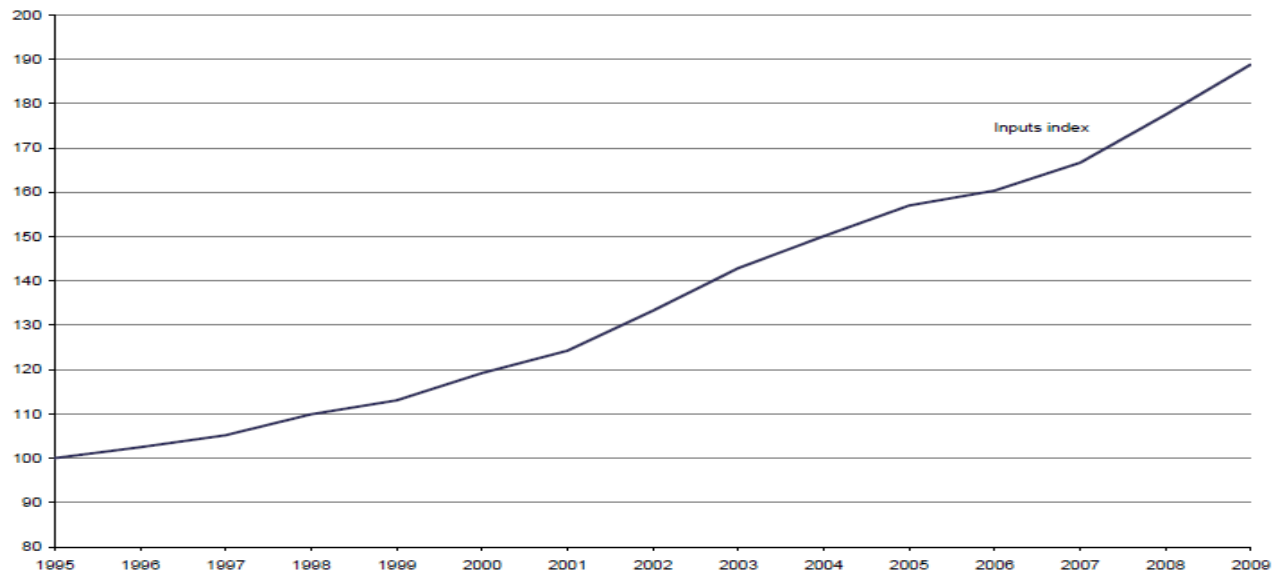


Source: Office for National Statistics

NHS: Measuring inputs

Figure 3.1 Volume of healthcare inputs, 1995–2009

United Kingdom
Index numbers, 1995=100



United Kingdom

Index numbers, 1995=100

Average annual
percentage
change

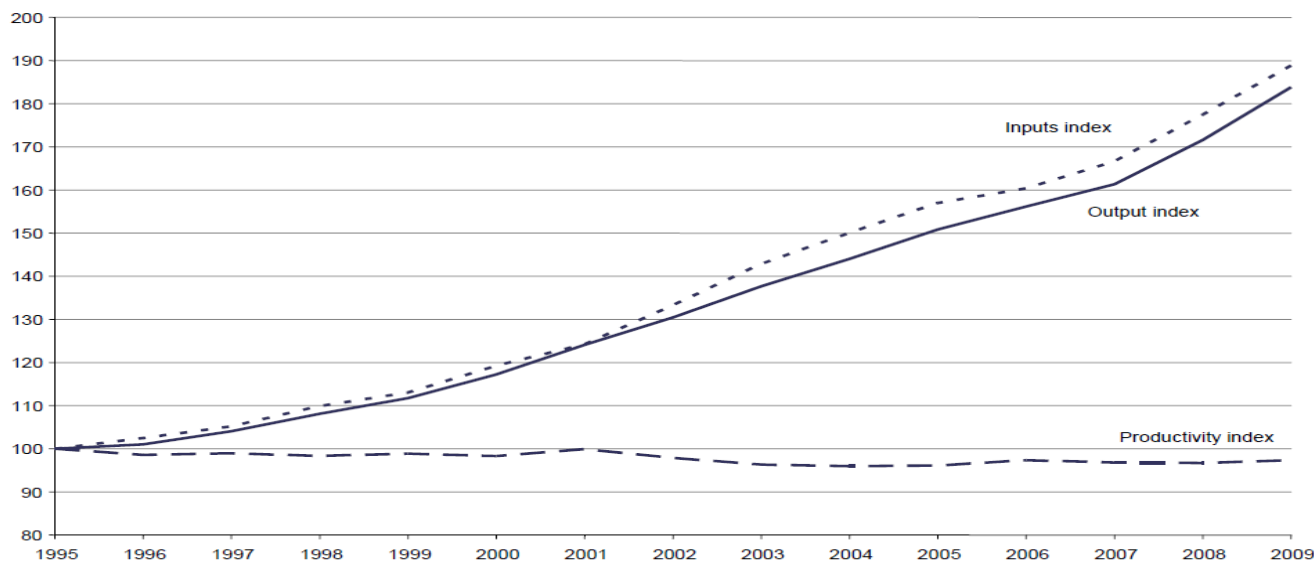
	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	
Inputs index	100.0	102.5	105.2	109.9	113.0	119.2	124.2	133.3	142.9	150.1	157.0	160.4	166.6	177.5	188.8	4.6

Source: Office for National Statistics

NHS: Productivity development

Figure 1.1 Growth in healthcare output, inputs and productivity estimates, 1995–2009

United Kingdom
Index numbers, 1995=100



United Kingdom	Index numbers, 1995=100															Average annual percentage change
	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	
Output index	100.0	101.0	104.0	108.1	111.7	117.2	124.1	130.4	137.6	144.0	150.8	156.2	161.3	171.6	183.8	4.4
Inputs index	100.0	102.5	105.2	109.9	113.0	119.2	124.2	133.3	142.9	150.1	157.0	160.4	166.6	177.5	188.8	4.6
Productivity index	100.0	98.6	98.9	98.3	98.9	98.3	99.9	97.9	96.3	96.0	96.1	97.4	96.8	96.7	97.3	-0.2

Source: Office for National Statistics

The NHS and Productivity

- What does the growth in 'other services and goods' mean?
- Is output adequately measured?
- Does an increase in spending automatically lead to a fall in productivity? (and a cut in funding in an improvement?)
- The development since 2001
- The development of labour productivity (output increased by 84%, labour input by 48%)

Thank you for your attention!

ADAPT International

Anticipating change through dialogue

FORBA

Working Life Research Centre

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