



# Ministry of Defence

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### **Statistical Notice**

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The defence inflation statistic measures the average change in pay and prices of goods and services that make up the defence budget, with quality and quantity held constant.

#### Coverage

United Kingdom

#### **Key Points and Trends**

- Defence inflation was 2.1% in 2013/14.
- This is higher than the previous year's figure (1.5%) but is still the second lowest since estimates began in 2005/06.
- The biggest driver of the higher rate of defence inflation is the increased inflation in labour costs of 1.5% in 2013/14 compared with 0.5% in 2012/13.
- The rate of defence inflation of 2.1% was the same as the GDP deflator (a measure of general inflation) in 2013/14. Inflation in RPIX in 2013/14 was higher than both at 2.9%.
- The largest increase in labour cost inflation was for military personnel, with an inflation rate of 1.8% in 2013/14 compared with 0.5% in 2012/13. Civilian labour cost inflation has also shown a small rise to 0.6% in 2013/14 from 0.5% at 2012/13.
- Inflation in defence contract expenditure increased to 2.4% from 2.2% in 2012/13. Inflation has risen in all the main contract types in 2013/14 except for high value firm contracts.
- Inflation in cash offices expenditure was 1.2% in 2013/14, the same as in 2012/13.

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## Introduction

The defence inflation statistic measures the average change in pay and prices of goods and services that make up the defence budget, with quality and quantity held constant.

This statistical notice presents estimates of defence inflation for the financial years 2005/06 to 2013/14. Following the 2012/13 publication, a full peer review was conducted of this publication. Subsequently, a number of alterations have been made to the general structure and commentary of the report.

The 2013/14 defence inflation estimates utilise expenditure figures for the base year 2012/13. For further details of the methodology and data sources used, please refer to **Chapter 5: Methodology**.

## What is Defence Inflation?

The estimates of defence inflation capture inflation in the inputs to Defence. They reflect the mix of goods, labour and services bought each year and do not take account of productivity or efficiency improvements. Specifically, this means that to capture an overall measure of Defence Inflation, the amount of money spent in the base year (in this report, 2012/13) is fixed and it is assumed that the same mix of goods will be purchased in the current year (2013/14), allowing changes in the price of goods, labour and services to be calculated.

### **Users and Uses of Defence Inflation estimates**

The main motivation for the development of a measure of defence inflation was to inform parliamentary and national debate on Defence expenditure. The statistics have been used by academics for research purposes and by the government in making and monitoring policy. The key external users include the general public, media, defence industry, academics, the National Audit Office and Parliament (in particular the House of Commons Defence Committee and Parliamentary Accounts Committee).

Many of the key users of the defence inflation estimates are internal users within the MOD. The statistics are useful to the department in planning for budget and Spending Round negotiations with HM Treasury, dealing with parliamentary interest in the Department's expenditure, assessing the effectiveness of commercial policy and allocating budgets.

### **Comparisons with General Inflation**

It should be noted that defence inflation is not directly comparable to measures of general inflation such as the Gross Domestic Product (GDP) deflator or the Retail Price Index excluding mortgage interest payments (RPIX). This is because defence inflation only takes into account the cost of Defence inputs, whereas RPIX and the GDP deflator measures changes in outputs i.e. the price of final products and services. In general, input measures tend to have higher growth than comparable output measures as they do not take into account productivity improvements, i.e. how the same inputs one year can produce more outputs in another.

An output measure of defence inflation would require defining a unit of defence outputs such as 'a unit of security' or a 'unit of stability'. This is not feasible at present. The currently calculated input measure for defence inflation is therefore the best feasible measure to compare against the GDP deflator.

Although all comparisons with general inflation in this report are correct at the time of publication, it is possible that the Office for National Statistics (ONS) will make further revisions to the GDP deflator during the year. For the latest data users should refer to the ONS website: http://www.ons.gov.uk/ons/index.html

### Rounding

All percentages are quoted to 1 decimal place. Individual percentages may not sum to the total due to rounding.

## 1 Summary Results

- Defence inflation was 2.1% in 2013/14 (Table 1).
- Table 1 presents price index numbers and year-on-year growth rates for the three main components of defence defence contracts, labour costs and cash offices as well as overall defence expenditure. The weights are expressed as values out of 1000 and reflect the contribution each component makes to the overall measure of defence inflation. For further details on the methodology refer to Chapter 5: Methodology, Defence Inflation Statistical Bulletin No. 10 and Defence Inflation: Military Labour Costs Statistical Bulletin No. 12.

	Defence (	Contracts <sup>2</sup>	Labour	Costs <sup>2</sup>	Cash C	Offices <sup>2</sup>	All Defe	nce (UK)
Weights <sup>1</sup>	64	47	33	35	1	9	10	000
Financial Year			I	ndex & Gro	wth Rate <sup>3</sup>			
2004/05	100.0	-	100.0	-	100.0	-	100.0	-
2005/06	103.4	3.4%	105.6	5.6%	100.9	0.9%	104.1	4.1%
2006/07	106.9	3.4%	109.2	3.5%	102.2	1.4%	107.6	3.4%
2007/08	110.9	3.7%	113.9	4.3%	104.7	2.4%	111.8	3.9%
2008/09	115.5	4.2%	118.0	3.6%	114.4	9.3%	116.5	4.2%
2009/10	118.4	2.5%	122.6	4.0%	123.8	8.2%	120.2	3.2%
2010/11 <sup>4</sup>	122.9	3.8%	128.3	4.7%	135.8	9.7%	125.2	4.2%
2011/12 <sup>5</sup>	127.1	3.4%	132.6	3.4%	138.2	1.7%	129.4	3.4%
2012/13	129.8		133.3	0.5%	139.8	1.2%	131.4	1.5%
2013/14 <sup>6</sup>	132.9	2.4%	135.3	1.5%	141.5	1.2%	134.1	2.1%

#### Table 1: Defence Inflation, 2005/06 to 2013/14

[1] These weights apply to the 2013/14 measure. Due to chain-linking, weights reflect the expenditure pattern within the base year, so for the 2013/14 inflation measure weights reflect expenditure in 2012/13. Due to rounding the weights may not sum to 1000.

[2] For the definitions of 'Defence Contracts', 'Labour Costs', and 'Cash Offices', refer to the Glossary.

[3] Growth rates are year-on-year and calculated from unrounded data.

[4] From 2010/11, the methodology for estimating inflation in military labour costs was reviewed and improved following availability of new data sources. The change in methodology means comparisons with historical estimates are hindered.
 [5] From 2011/12, the methodology for estimating the adjustment to contract inflation as a result of foreign exchange was reviewed and improved

[5] From 2011/12, the methodology for estimating the adjustment to contract inflation as a result of foreign exchange was reviewed and improved following availability of a new data source. The change in methodology means comparisons with historical estimates are hindered.[6] From 2013/14, the methodology for estimating inflation in High Value Firm Price contracts was improved. This change in methodology means

[6] From 2013/14, the methodology for estimating inflation in High Value Firm Price contracts was improved. This change in methodology means comparisons with historical estimates are hindered. There has been a small impact on the overall contracts inflation rate, though the change does not affect the overall defence inflation measure. For details please see the **Methodology** section.

## **Overall Defence Inflation**

- The 2013/14 estimate of defence inflation is higher than the previous year's figure (1.5%) but is still the second lowest since estimates began in 2005/06. The biggest driver for the increase in defence inflation in 2013/14 was the inflation in defence labour costs. Defence labour cost inflation was 1.5% in 2013/14, compared with 0.5% in the previous year.
- Figure 1 presents the rate of defence inflation and UK general inflation from 2005/06 to 2013/14.



#### Figure 1: Defence Inflation and General Inflation, 2005/06 to 2013/14

Source: Annual inflation rates for RPIX and the GDP deflator from the Office for National Statistics.

## **Comparison with General Inflation**

- Inflation in the GDP deflator was 2.1% in 2013/14, and inflation in RPIX (a widely accepted proxy for UK general inflation) was 2.9%. In 2013/14, defence inflation was the same as inflation in the GDP deflator and 0.8 percentage points lower than inflation in RPIX.
- Based on the latest available published GDP figures from ONS, the increase in the rate of defence inflation between 2012/13 and 2013/14 closely follows the increase in the rate of inflation in the GDP deflator over the same period.
- Defence inflation has been lower than RPIX since 2010/11, which is in contrast to the five years from 2005/06 to 2009/10, when defence inflation was higher than both RPIX and the GDP deflator inflation measures.

## **Components of Defence Inflation**

- Defence labour cost inflation was 1.5% in 2013/14, compared with 0.5% in the previous year. The largest increase was for military labour cost inflation, which was 1.8% in 2013/14 compared with 0.5% in 2012/13, and was driven by higher inflation in basic and specialist pay. Civilian labour cost inflation has also shown a small rise (0.6% in 2013/14 compared with 0.5% in 2012/13) driven by higher inflation in gross pay and deflation in National Insurance contributions.
- Inflation in defence contract expenditure was 2.4% in 2013/14, up slightly from 2.2% in 2012/13. The increase in inflation in defence contract expenditure reflects the upward trend in foreign exchange rates and industry-specific inflation in the general economy. Inflation has risen in all the main contract types except for high value firm contracts, which saw a slight decrease in inflation compared with 2012/13.
- Inflation in cash offices expenditure was 1.2% in 2013/14, the same as in 2012/13. Annual inflation rates have been more volatile for this spending area than for labour costs or contract expenditure, and it has a small weighting in the overall defence inflation estimate. Although 1.2% is not the lowest level of inflation seen for cash offices to date, it is considerably lower than the year-on-year average of 4.0%.

• **Figure 2** presents the changes in the key components of Defence Inflation between 2012/13 and 2013/14 and the respective weight of each component.



Figure 2: Components of Defence Inflation<sup>1</sup>, 2012/13 to 2013/14

[1] Percentage changes in inflation rates are calculated from unrounded data

## **Expenditure and Weights**

• The 2013/14 defence inflation estimates utilise expenditure figures for the base year 2012/13 (Figure 3). Expenditure on contracts accounts for nearly two-thirds of the total expenditure captured within the 2013/14 defence inflation measure, with labour costs accounting for one third and cash offices for just under 2%.

### Figure 3: Defence Inflation Expenditure by Category, 2012/13



• Expenditure in 2012/13 – used within the 2013/14 defence inflation measure – was £37.8bn, a decrease of £620 million (1.6%) compared to 2011/12. Table 2 presents the total Defence

expenditure, broken down by each component of defence inflation, for the period 2004/05 to 2012/13.

			Inclusive of non-recoverable VA	AT at Current Prices (£ million)
	All Defence (UK)	Defence Contracts	Labour Costs	Cash Office Expenditure
2004/05	29,386	17,065	11,313	1,008
2005/06	30,879	18,085	11,703	1,091
2006/07	31,387	18,352	11,896	1,139
2007/08	34,361	20,795	12,166	1,399
2008/09	37,438	23,653	12,598	1,186
2009/10	38,652	24,873	13,193	586
2010/11	38,611	24,567	13,453	592
2011/12	38,426	24,218	13,504	703
2012/13	37,806	24,452	12,647	708

## Table 2: Defence Inflation Expenditure by Category, 2004/05 to 2012/13

## Key Findings

- Inflation in contract expenditure was 2.4% in 2013/14, which is an increase from the previous year (2.2%)
- In 2013/14, inflation was highest in high value firm price contracts (3.3%). This compares with inflation rates of 2.4% in fixed price contracts, 1.9% in high value miscellaneous and 1.6% in low value contracts in 2013/14. With the exception of high value firm price contracts, all other contract types showed an increase in the inflation rate from 2012/13, reflecting the upward trend in foreign exchange rates and industry-specific inflation in the general economy.
- Between 2005/06 and 2013/14, inflation in contract expenditure ranged from a low of 2.2% in 2012/13 to a high of 4.2% in 2008/09.
- Inflation in equipment contracts (2.6%) was slightly higher than inflation in non-equipment (2.4%) contracts in 2013/14.
- Approximately one sixth of contract expenditure (15.7%) was associated with the aircraft and spacecraft industry. The average inflation rate for contracts associated with the aircraft and spacecraft industry was 3.2%, compared with the overall contract inflation rate of 2.4%.

## **Expenditure and Weights**

In 2012/13 the MOD had over 26,000 contracts with payments against them, accounting for £24.5bn (almost two thirds) of the Department's annual expenditure. Some of these contracts are for the provision of complex defence equipment and support, and can last for decades; some are for off-the-shelf goods and services; and some are miscellaneous payments, such as those to local authorities and international collaborative projects.

Defence Economics defines four sub-groups of contracts. These are described in more detail below, and there are also definitions in the **Glossary**. **Figure 4** presents the proportion of total contract expenditure spent on each sub-group.

### Figure 4: Expenditure by Contract Type, 2012/13



## Inflation Rates across Defence Contracts

In 2013/14, inflation in contract expenditure was 2.4% (Table 3).

The methodology for estimating inflation in defence contracts is dependent on price indices published by ONS.

There is an additional inflationary pressure when contracts are paid in foreign currency. To account for this, in 2013/14 an adjustment of 0.2 percentage points, based broadly upon exchange rates the MOD achieved in its currency purchases, has been added to the estimates of inflation within contract expenditure.

The overall measure of contract inflation, and thus the overall defence inflation estimate, therefore captures the inflationary effect of paying for some contracts in foreign currencies. It is assumed that the impact is the same across all contract types.

In 2011/12 the methodology for estimating overall expenditure for contract payments in US Dollars, Euros and other foreign currencies was reviewed and improved. As a result, comparisons with estimates produced before that year are hindered. Further details on the methodology and historical adjustments are provided in **Chapter 5: Methodology** 

Contract Type	High Value	Firm Price <sup>2</sup>	Fixed	Price <sup>2,3</sup>	Low Commod Serv	Value lities and ices <sup>2</sup>	High Miscella	Value aneous <sup>2</sup>	Defence (	Contracts
Weights <sup>1</sup>	31	14	35	53	22	24	10	09	10	00
Financial Year					Index and G	rowth Rate <sup>4</sup>	•			
2004/05	100.0	-	100.0	-	100.0	-	100.0	-	100.0	-
2005/06	102.9	2.9%	104.2	4.2%	103.2	3.2%	103.3	3.3%	103.4	3.4%
2006/07	106.2	3.2%	108.2	3.8%	106.8	3.4%	106.6	3.2%	106.9	3.4%
2007/08	109.7	3.3%	113.1	4.5%	110.7	3.7%	109.7	2.9%	110.9	3.7%
2008/09	114.0	4.0%	117.8	4.2%	115.5	4.3%	114.7	4.5%	115.5	4.2%
2009/10	119.2	4.5%	119.4	1.3%	117.6	1.8%	116.9	2.0%	118.4	2.5%
2010/11	124.2	4.2%	123.9	3.8%	121.2	3.1%	121.4	3.8%	122.9	3.8%
2011/12 <sup>5</sup>	128.4	3.3%	128.5	3.7%	124.7	2.9%	125.8	3.6%	127.1	3.4%
2012/13	132.7	3.4%	130.7	1.7%	126.4	1.3%	127.7	1.5%	129.8	2.2%
2013/14 <sup>6</sup>	132.6	3.3%	131.6	2.4%	126.7	1.6%	128.1	1.9%	130.1	2.4%

Table 3: Defence Inflation – Defence Contracts, 2005/06 to 2013/14

[1] These weights apply to the 2013/14 measure. Due to chain-linking, weights reflect the expenditure pattern within the base year, so the 2013/14 inflation measure weights reflect expenditure in 2012/13. Due to rounding the weights may not sum to 1000.

[2] For the definitions of Contract Types, refer to the Glossary.

[3] Includes defence fuel contracts.

[4] Growth rates are year-on-year and calculated from unrounded data. [5] From 2011/12, the methodology for estimating the adjustment to contract inflation as a result of foreign exchange was reviewed and improved

following availability of a new data source. The change in methodology means comparisons with historical estimates are hindered. [6] From 2013/14, the methodology for estimating inflation in High Value Firm Price contracts was improved. This change in methodology means comparisons with historical estimates are hindered. There has been a small impact on the overall contracts inflation rate, though the change does not affect the overall defence inflation measure. For details please see the **Methodology** section.

## **High Value Firm Price Contracts**

Firm price contracts are those with a non-variable inflation rate embedded in the contract price. They become high value if the contract falls into the top 75% of contracts after they are ranked on expenditure. Typically, inflation rates will have been set by looking at long-term inflation of a relevant price index. As a result, inflation within high value firm price contracts tends to more closely reflect long-term inflation.

Expenditure on high value firm price contracts accounts for almost one third of the 2013/14 defence inflation measure for contracts. High value firm price contracts had an inflation rate of 3.3% in 2013/14, which was the highest inflation rate of all contract types in 2013/14. The inflation rate for high value firm price contracts has been consistent for the last three years and has had the highest inflation rate of all contract types four times in the past five financial years.

## **Fixed Price Contracts**

Fixed price contracts contain an indexation adjustment linked to real-time changes in specific ONS price indices, as defined in a Variation of Price (VoP) clause. Inflation for fixed price contracts tends to be more volatile than for firm price contracts, as it 'tracks' the year-on-year inflation of relevant price indices.

Expenditure on fixed price contracts accounts for 35% of the 2013/14 defence inflation measure for contracts. The inflation rate for these contracts was 2.4% in 2013/14, which was higher than the 2012/13 inflation rate (1.7%). This increase was largely due to higher inflation associated with foreign exchange rates compared to last year, as well as increased inflation in some industry sectors.

MOD uses a range of price indices in fixed price contracts. Just over one-third of expenditure on fixed price contracts included in this year's measure was linked to the Retail Price Index excluding mortgage interest payments (RPIX). Inflation in RPIX fell from 3.1% in 2012/13 to 2.9% in 2013/14 but due to the addition of the foreign exchange adjustment, there was still an overall increase in inflation for these contracts in 2013/14.

## Low Value Commodities and Service Contracts

Low value contracts are those contracts which have an annual payment that falls in the bottom 25% of contracts after ranking by expenditure. The vast majority of defence contracts fall into this category but because they are low value, they account for less than a quarter of contract expenditure. The inflation

rate for these contracts was 1.6% in 2013/14, which is 0.2 percentage points higher than the inflation rate in 2012/13.

Inflation rates for low value contracts are estimated using a derived inflation rate for each Standard Industrial Classification (SIC) group (see **Glossary** for further details). As for fixed price contracts, the increase in inflation for low value contracts is a result of higher inflation in some industry sectors and the impact of foreign exchange rates.

## High Value Miscellaneous Contracts

Expenditure on high value miscellaneous contracts accounts for 11% of the 2013/14 defence inflation measure for contracts. The inflation rate for these contracts was 1.9% in 2013/14, 0.3 percentage points higher than the inflation rate in 2012/13.

Similarly to low value contracts, inflation for high value miscellaneous contracts is linked to inflation in the relevant SIC groups.

## Inflation by Industry Group

Defence Economics allocates each contract into one of 51 groups, based upon its SIC code which reflects the good or service being procured. These 51 groups provide a useful tool for identifying relevant price indices for contracts, where information about inflation is not explicitly available. A contract's SIC group can also be used to indicate whether the contract relates to equipment or non-equipment acquisitions. Of the 51 SIC groups, 31 relate to equipment acquisitions and 20 relate to non-equipment acquisitions. For further details see <u>Defence Inflation Statistical Bulletin No. 10 (Appendix 1)</u>.

**Table 4** presents inflation in contract expenditure broken down by industry, and grouped into equipment and non-equipment acquisitions. The ten industries with the highest expenditure are presented along with their associated inflation rates. For comparison, the 2012/13 inflation rates are also presented.

		Inflatio	on rate
Industry	Weights <sup>1</sup>	2012/13	2013/14
Aircraft and Spacecraft	157	2.6%	3.2%
Ships	84	2.1%	2.4%
Weapons and Ammunition	60	1.5%	1.6%
Mechanical Engineering	47	2.6%	3.2%
Other Equipment	90	2.2%	2.2%
All Equipment	438	2.3%	2.6%
Legal, Accounting & Marketing	69	1.4%	1.8%
Computer Activities	53	2.2%	2.8%
Construction	53	2.8%	3.5%
Wholesale & Retail Trade	40	0.5%	-0.2%
Telecommunications	31	1.7%	1.4%
Real Estate	31	3.1%	2.4%
Other Non-Equipment	125	2.6%	3.2%
All Non-Equipment	402	2.2%	2.4%
Excluded contracts <sup>2</sup>	160	_	_

#### Table 4: Industry groups with the Greatest Contract Expenditure, with Inflation Rates

[1] Weights apply to the 2013/14 measure and reflect the expenditure pattern in the base year (2012/13). Due to rounding weights may not sum to 1000.

[2] High value miscellaneous contracts and low value contracts without an industry classification assigned to them are not included in the industry analysis.

In 2013/14, equipment contracts had an overall inflation rate of 2.6%. The aircraft and spacecraft industry had the highest expenditure in equipment contracts and accounted for almost one sixth of all expenditure (15.7%).

Non-equipment contracts had an inflation rate of 2.4% in 2013/14. Legal, Accounting and Marketing had the highest expenditure in non-equipment contracts and accounted for the 6.9% of all expenditure in 2013/14.

Of the ten largest industry groups by proportion of contract expenditure, the industry group with the highest inflation rate in 2012/13 was construction (3.5%), which in the previous year was 2.8%. **Figure 6** show the changes in inflation rate from 2012/13 to 2013/14 for the industries with the highest expenditure within equipment contracts. **Figure 7** shows the distribution of expenditure in 2012/13 within equipment contracts and the associated 2013/14 inflation rates for these industry groups.





[1] Percentage changes in inflation rates are calculated from unrounded data.





[1] This analysis is based on high value firm price, fixed price and low value commodities and service contracts. It excludes high value miscellaneous contracts and around a fifth of low value contract expenditure, due to insufficient SIC information.

**Figure 8** show the changes in inflation rate from 2012/13 to 2013/14 for the industries with the highest expenditure within non-equipment contracts. **Figure 9** shows the distribution of expenditure in 2012/13 within non-equipment contracts and the associated 2013/14 inflation rates for these industry groups.



Figure 8: Inflation Rates of Industries with the Highest Expenditure within Non-Equipment<sup>1</sup> Contracts, 2012/13 to 2013/14

[1] Percentage changes in inflation rates are calculated from unrounded data.





[1] This analysis is based on high value firm price, fixed price and low value commodities and service contracts. It excludes high value miscellaneous contracts and around a fifth of low value contract expenditure, due to insufficient SIC information.

## 3 Labour Costs

## **Key Findings**

- Inflation in labour cost expenditure increased to 1.5% in 2013/14 and is the main driver of the higher overall rate of defence inflation in 2013/14 compared with 2012/13.
- The largest increase in labour cost inflation was for military personnel, with an inflation rate of 1.8% in 2013/14 compared with 0.5% in 2012/13, and was driven by higher inflation in basic and specialist pay.
- Civilian labour cost inflation has shown a small rise (0.6% in 2013/14 compared with 0.5% in 2012/13) driven by higher inflation in gross pay and deflation in National Insurance contributions.
- **Figure 10** presents the inflation rate for military and civilian labour cost inflation from 2005/06 to 2013/14 and the respective weight each has on the overall inflation rate in labour costs.



Figure 10: Military and Civilian Labour Cost Inflation, 2005/06 to 2013/14

## **Expenditure and Weights**

Expenditure on labour costs accounts for one third of the total expenditure captured within the 2013/14 defence inflation measure. For the 2013/14 estimates, 80% of this expenditure was on military labour costs and 20% was on civilian labour costs (**Figure 11**).





For both military and civilian personnel, the inflation rate captures the growth in average labour costs, which includes gross pay, employer's National Insurance contributions (ERNIC), Travel and Subsistence (T&S) and pension contributions (SCAPE). It implicitly includes all paid sickness, paternity or maternity leave. The inclusion of all these costs captures the total inflationary impact of employing the Department's labour, in addition to changes in their pay.

## Labour Costs

**Table 5** shows the overall defence labour cost inflation rate, and the separate inflation rates for military and civilian labour costs.

Personnel Type	Military Lat	oour Costs	Civilian Lal	oour Costs	Defence La	bour Costs
Weights <sup>1</sup>	79	98	20	2	10	00
Financial Year			Index and G	rowth Rate	2	
2004/05	100.0	-	100.0	-	100.0	-
2005/06	105.0	5.0%	107.4	7.4%	105.6	5.6%
2006/07	108.5	3.3%	111.6	3.9%	109.2	3.5%
2007/08	113.4	4.5%	115.5	3.5%	113.9	4.3%
2008/09	117.1	3.3%	120.7	4.5%	118.0	3.6%
2009/10	122.2	4.3%	124.0	2.7%	122.6	4.0%
2010/11 <sup>3</sup>	128.2	4.9%	128.5	3.6%	128.3	4.7%
2011/12	133.2	3.9%	130.1	1.3%	132.6	3.4%
2012/13	133.8	0.5%	130.7	0.5%	133.3	0.5%
2013/14 4	136.2	1.8%	131.5	0.6%	135.3	1.5%

Table 5: Defence Inflation – Labour	Costs	, 2005/06 to 2013/	14
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[1] These weights apply to the 2013/14 measure. Due to chain-linking, weights reflect the expenditure pattern within the base year, so for the 2013/14 inflation measure weights reflect expenditure in 2012/13. Due to rounding the weights may not sum to 1000.

[2] Growth rates are year-on-year and calculated from unrounded data.

[3] From 2010/11, the methodology for estimating inflation in military labour costs was reviewed and improved following availability of new data sources. The change in methodology means comparisons with historical estimates are hindered.

Due to the different elements that make up military and civilian labour costs, such as differences in pay and allowances, it is not surprising that they have different inflation rates. 2012/13 was an unusual year in that the inflation rate in both military and civilian labour costs was the same (0.5%).

## Military Labour Costs

Inflation in military pay and allowances is primarily driven by key recommendations made by the Armed Forces' Pay Review Body.

Inflation in military labour cost expenditure was 1.8% in 2013/14 (**Table 6**), 1.3 percentage points higher than the 2012/13 inflation rate of 0.5% but still the second lowest inflation rate in the series so far. The key drivers were higher inflation in basic and specialist pay and employer pension contributions. These elements have a combined weighting of 82%.

	Basic Pay and Specialist Pay <sup>3,4</sup>	Non-Activity Allowance <sup>5</sup>	Activity Allowance <sup>3</sup>	Pay and Allowances <sup>3</sup>	Employer Pension Contributions <sup>3</sup>	Employer National Insurance Contributions <sup>3</sup>	Travel and Subsistence	Military Labour Costs <sup>3</sup>
Weights <sup>1</sup>	620	20	26	666	200	53	81	1000
Financial Year				Growth	Rate <sup>2</sup>			
2005/06	3.0%	-2.7%	5.0%	2.9%	18.1%	2.6%	2.4%	5.0%
2006/07	3.1%	9.2%	7.5%	3.3%	3.1%	5.4%	2.7%	3.3%
2007/08	3.6%	36.2%	14.2%	4.9%	3.6%	4.0%	3.2%	4.5%
2008/09	3.7%	-11.4%	2.6%	3.0%	3.8%	1.5%	5.4%	3.3%
2009/10	2.8%	12.1%	1.8%	3.1%	10.7%	2.5%	3.7%	4.3%
2010/11	2.8%	17.7%	32.4%	4.2%	9.4%	3.9%	3.6%	4.9%
2011/12	0.7%	-1.7%	8.7%	0.9%	15.4%	4.3%	4.3%	3.9%
2012/13	0.2%	-2.7%	4.6%	0.3%	0.2%	1.3%	1.8%	0.5%
2013/14	1.4%	20.8%	1.2%	2.0%	1.4%	1.0%	1.8%	1.8%

Table 6: Defence Inflation – Military Labour Costs, 2005/06 to 2013/14

[1] These weights apply to the 2013/14 measure. Due to chain-linking, weights reflect the expenditure pattern within the base year, so for the 2013/14 inflation measure weights reflect expenditure in 2012/13. Due to rounding the weights may not sum to 1000.
 [2] Growth rates are year-on-year and calculated from unrounded data.

[2] From 2010/11, the methodology for estimating inflation in military labour costs was reviewed and improved following availability of new data sources. The change in methodology means comparisons with historical estimates are hindered.

[4] Includes reservists and cadets pay.

[5] From 2012/13, the methodology for estimating inflation in education allowances was reviewed and improved following availability of new data. The change in methodology means comparisons with historical estimates are hindered.

The key reasons for the changes in military labour cost inflation are described below:

Basic and specialist pay: Inflation was 1.4% in 2013/14, compared with 0.2% in 2012/13.

- The inflation in basic pay was higher in 2013/14, reflecting the 1% pay rise for military staff and the end of a two-year pay freeze across the board for all military personnel (with the exception of a £250 uplift for those earning £21,000 or less) in 2011/12 and 2012/13.
- There was a 0.5 percentage point increase in X-factor payments for regulars and full-time full commitment reserves. For ranks up to and including OF4, X-factor payments is now at 14.5% of their salary, resulting in an overall pay increase of 1.5%.
- Normal incremental pay progression also benefits military personnel who are not already at the top of their pay scale.
- The MOD also experienced some deflation in pay, which was partly caused by an increase in the
  number of military personnel leaving in 2013/14 (in line with SDSR recommendations). Deflation
  occurs if those who leave were on a higher than average salary for their pay band, as the
  average salary for the current year will be lowered by them leaving. This is a complex effect and
  varies from year to year depending on the exact distribution of leavers and joiners, but in recent
  years it has generally offset some of the inflation resulting from pay rises and progression.
- The inflation rate for specialist pay was set at 1% in line with current policy. Specialist pay provides a very small weight to the overall calculation of basic and specialist pay.

Employer pension contributions: Inflation was 1.4% in 2013/14, compared with 0.2% in 2012/13. There were no changes from the previous year to pension contributions paid by the MOD. However, there was still some inflation as pension contributions increase in line with any increase in basic pay.

Non-activity allowances: These include education allowances and committal and retention allowances. Inflation was 20.8% in 2013/14 compared with a deflation of -2.7% in 2013/14. This was driven by high inflation in committal and retention allowances, largely as a result of the increased use of financial retention incentives by the Royal Navy. Non-activity allowances account for 2% of military labour costs, so have very little impact on calculation of the overall inflation rate.

Activity allowances: The overall inflation rate in activity allowances was 1.2%. These allowances include operational allowances, separation allowances and language awards. For most of the activity allowances there were no changes to policy in 2013/14, resulting in no inflation. The one exception was Longer Separation Allowance (LSA), which was subject to a 1% increase at all levels. Additionally, it is possible more personnel spent a greater amount of time away on Operational tours in 2013/14, so were receiving higher levels of payment.

Employer National Insurance contributions (ERNIC): Inflation is driven by ERNIC rates set by HM Revenue and Customs (HMRC). If there were no changes in ERNIC rates, we would expect inflation in ERNIC to be the same as the rate of inflation in pay. In 2013/14, there were increases in the lower earnings limit and secondary threshold for ERNIC contributions. Particularly for lower-earning personnel, the department paid less in ERNIC, resulting in inflation in ERNIC being lower than inflation in pay.

Travel and subsistence (T&S): UK expenditure is linked to specific ONS indices, most of which experienced lower inflation in 2013/14 than in 2012/13, in particular RPIX (attributed to 40% of UK expenditure) which reduced from 3.1% to 2.9%. Overseas expenditure is linked to a combination of foreign exchange rates and consumer price indices (CPIs). Around 90% of overseas expenditure was attributed to spending in Euros, against which there was inflation in 2013/14. Inflation in UK and overseas expenditure combined resulted in overall inflation of 1.8%, which was the same as in 2012/13.

## **Civilian Labour Costs**

Inflation in civilian labour cost expenditure was 0.6% in 2013/14 (Table 7), 0.1 percentage points higher than the 2012/13 inflation rate of 0.5% and the second lowest in the series so far. The key driver was the low inflation in gross pay, which has a weighting of 68%.

	Gross Pay <sup>3</sup>	Locally Engaged Civilian Pay	Royal Fleet Auxiliary Gross Pay <sup>4</sup>	Pay and Allowances	Employer Pension Contributions	Employer National Insurance Contributions	Travel and Subsistence	Civilian Labour Costs
Weights <sup>1</sup>	682	88	28	797	112	49	42	1000
Financial Year				Growth	Rate <sup>2</sup>			
2005/06	4.0%	5.3%	2.5%	4.1%	43.4%	3.6%	2.1%	7.4%
2006/07	3.3%	4.8%	3.0%	3.5%	7.3%	4.0%	2.7%	3.9%
2007/08	3.7%	4.3%	2.6%	3.7%	3.6%	0.7%	3.9%	3.5%
2008/09	4.0%	11.0%	2.6%	4.8%	3.6%	2.9%	5.0%	4.5%
2009/10	2.8%	7.8%	3.2%	3.4%	-0.8%	-0.9%	3.0%	2.7%
2010/11	3.9%	0.6%	1.9%	3.4%	3.8%	5.6%	4.6%	3.6%
2011/12	0.6%	4.5%	1.0%	1.1%	0.4%	2.7%	5.0%	1.3%
2012/13	0.0%	2.5%	0.7%	0.3%	0.5%	1.3%	2.7%	0.5%
2013/14	0.3%	2.3%	0.2%	0.6%	0.5%	-0.4%	2.2%	0.6%

Table 7: Defence Inflation – Civilian Labour Costs, 2005/06 to 2013/14

[1] These weights apply to the 2013/14 measure. Due to chain-linking, weights reflect the expenditure pattern within the base year, so for the 2013/14 inflation measure weights reflect expenditure in 2012/13. Due to rounding the weights may not sum to 1000.

[2] Growth rates are year-on-year and calculated from unrounded data.
 [3] Gross pay includes overtime, allowances and non-consolidated performance related pay award inflation.

[4] Gross pay includes permanent allowances. From 2012/13, the methodology for estimating inflation in Royal Fleet Auxiliary (RFA) Pay was reviewed and improved following availability of new data. The change in methodology means that comparisons with historical estimates are hindered.

The key reasons for the changes in civilian labour cost inflation are described below:

Gross pay: Inflation was 0.3% in 2013/14, compared with 0.0% in 2012/13.

- The higher inflation rate in 2013/14 compared with 2012/13 is a result of the 1% pay rise for all civilian staff in 2013/14, and the end of a two-year pay freeze (with the exception of a £250 uplift for those earning £21,000 or less) in 2011/12 and 2012/13.
- The inflation in gross pay as a result of the 1% pay rise has been counterbalanced by the cohort
  of personnel that left and joined the department in the year. 2013/14 was the final year in which
  personnel could leave the department under the Voluntary Early Release Scheme (VERS). A
  greater proportion of personnel left the department during 2013/14 than joined and those leaving
  generally exit on a higher salary than joiners, reducing the inflationary effect of the 1% pay rise on
  gross pay.
- Additionally, due to amendments in the eligibility criteria of the non-consolidated performance related pay award system which were originally made in 2012/13, the MOD paid out a lower amount in pay awards in 2013/14 than 2012/13, resulting in deflation. This further counterbalanced any inflation experienced in gross pay.

The inflation rates for the other elements of civilian labour costs were generally lower in 2013/14 than in 2012/13.

**Locally Engaged Civilian (LEC) Pay:** Inflation is driven by a combination of inflation in foreign exchange rates, overseas average earnings and CPIs. Inflation in LEC pay has decreased slightly in 2013/14 to 2.3%, due to deflation in the foreign exchange rates in currencies outside of the Euro,

**Royal Fleet Auxiliary (RFA) Gross Pay:** Inflation for RFA personnel was 0.2%, which was lower than the rate of inflation in gross pay for other civilians. RFA pay has a very small weighting in the overall civilian labour cost figures.

**Employer pension contributions:** There were no changes in 2013/14 from the previous year to the percentages of civilian employees' salaries paid by the MOD in pension contributions. However, there was still some inflation since pension contributions increase in line with any increase in gross pay.

**Employer National Insurance contributions:** Inflation is driven by ERNIC rates set out by HMRC. In 2013/14, there were increases in the lower earnings limit and secondary threshold for ERNIC contributions, resulting in the department paying less in ERNIC, particularly for lower-earning personnel. Due to a much lower increase in the rate of inflation of pay for civilian personnel, this led to deflation of 0.4% in ERNIC payments for civilian personnel.

**Travel and subsistence:** This includes travel and subsistence costs in both the UK and overseas. Inflation is predominantly driven by specific ONS indices attributed to spending in the UK. Over half of UK expenditure is linked to indices specific to food, travel and accommodation. The weighted inflation rate for these indices reduced from 3.0% in 2012/13 to 2.4% in 2013/14. This was the key driver for the overall lower rate of inflation in T&S costs (2.2%) in 2013/14.

## Key findings

- Inflation in cash office expenditure was 1.2% in 2013/14.
- Between 2005/06 and 2013/14, inflation in cash office expenditure averaged 4.0% year-on-year growth, but has been volatile over this period.
- Inflation within cash offices was 0.7% for US Dollars and 4.6% for Euros in 2013/14.

## **Cash Offices**

Cash Offices operate in British embassies and MOD bases around the world and are responsible for maintaining imprest accounts. Imprest accounts are used to make payments in local currency or Great British Pounds to personnel, which cannot be made by other means. These include payments to overseas units with non-sterling bank accounts, payments to operational units overseas and payments to HM Ships and RFAs afloat. Contractors should not normally be paid through imprest accounts.

Cash office expenditure in 2012/13 was £0.7 billion, accounting for just under 2 per cent of the total expenditure captured within the defence inflation measure in 2013/14. The inflation rates within cash offices capture both the inflation due to changes in currency exchange rates, and domestic inflation in the relevant country. Due to the low proportion of expenditure on cash offices, its inflation rate has very little impact on the overall defence inflation measure.

**Table 8** presents inflation in cash office expenditure over the period 2005/06 to 2013/14. In 2013/14, inflation within cash office expenditure was 1.2%. Over the eight year period, inflation in cash offices averaged 4.0%, ranging from 0.9% in 2005/06 to 9.7% in 2010/11.

Broadly speaking, the rate of inflation for cash offices is driven by the inflation rates within countries where US Dollars and Euros are spent - the two currencies which contribute most to the total level of foreign currency spend - and movements in the exchange rates of these currencies against Sterling.

			-	-				
Currency	Cash C US D	offices - ollar <sup>2</sup>	Cash Offic	ces - Euro <sup>2</sup>	Cash Offic	es - Other <sup>2</sup>	Cash C	)ffices <sup>2</sup>
Weights <sup>1</sup>	68	30	1	74	1	45	10	00
Financial Year				Index and G	rowth Rate	3		
2004/05	100.0	-	100.0	-	100.0	-	100.0	-
2005/06	95.9	-4.1%	101.5	1.5%	105.5	5.5%	100.9	0.9%
2006/07	94.1	-1.9%	106.2	4.6%	106.8	1.2%	102.2	1.4%
2007/08	96.4	2.5%	107.4	1.0%	110.9	3.9%	104.7	2.4%
2008/09	102.8	6.7%	113.5	5.7%	133.4	20.3%	114.4	9.3%
2009/10	111.4	8.3%	121.2	6.8%	147.1	10.3%	123.8	8.2%
2010/11	121.7	9.2%	136.7	12.7%	158.0	7.4%	135.8	9.7%
2011/12	122.1	0.4%	142.6	4.3%	161.9	2.5%	138.2	1.7%
2012/13	125.5	2.8%	137.8	-3.4%	167.0	3.2%	139.8	1.2%
2013/14	126.4	0.7%	144.1	4.6%	166.2	-0.5%	141.5	1.2%

Table 8: Defence Inflation – Cash Office Expenditure, 2005/06 to 2013/14

[1] These weights apply to the 2013/14 measure. Due to chain-linking, weights reflect the expenditure pattern within the base year, so for the 2013/14 inflation measure weights reflect expenditure in 2012/13. Due to rounding the weights may not sum to 1000.

[2] For the definition of 'Cash Offices' used within the defence inflation measure, refer to the Glossary.

[3] Growth rates are year-on-year and calculated from unrounded data.

## **Cash Offices – US Dollars and Euros**

In 2012/13 (the base year for the 2013/14 inflation measure) over two thirds of cash office expenditure was spent on US Dollars, with approximately one sixth spent on Euros and one sixth on other currencies. In 2013/14, the inflation rates for cash office expenditure on US Dollars and Euros were 0.7% and 4.6% respectively.

**Figure 12** shows the relationship between the exchange rate for US Dollar (based on the Department's spot purchases and forward buys), and the US Consumer Price Index (CPI). Between 2005/06 and 2010/11 there was a steady increase in US Dollar expenditure inflation. There was a considerable decrease in US Dollar expenditure inflation in 2011/12, driven by the appreciation of sterling against the US Dollar. Since then, the inflation rate in US Dollar expenditure has remained at a relatively low level.



Figure 12: Inflation in Cash Offices on US Dollars, 2005/06 to 2013/14

Source: Annual inflation rates for CPI US from the International Monetary Fund, sourced from Bureau of Labor Statistics.

## 5 Methodology

## Summary

Defence inflation estimates were published for the first time in March 2010. These measure the average change in pay and prices of goods and services, making up the defence budget, with quality and quantity held constant.

The estimate of defence inflation is a chain-linked Laspeyres price index. For each pair of consecutive years pure price growth is estimated by holding the quality and quantity of goods, services and personnel constant, and either directly measuring their change in price or making reference to relevant price indices. The year-on-year price growths are multiplied together to produce the chain-linked Laspeyres index with the reference period being the financial year 2004/05.

## Process

Each component (contract, labour cost and cash office expenditure) of defence inflation is estimated using a bespoke method reflecting the different data sources. These estimates are averaged, using the expenditures for individual components (from the Department's accounting data) as weights, to produce an overall measure of defence inflation. For a detailed overview of the methodology used to estimate defence inflation, refer to the <u>Defence Inflation Statistical Bulletin No. 10</u>.

## Cost Growth, Optimism Bias, and Intergenerational Effects

Cost growth, optimism bias and intergenerational effects make it difficult to determine the underlying impact of external economic conditions on defence expenditure.

**Cost growth** is when a MOD project suffers cost or schedule over run. This apparent cost growth is often an "accounting problem" or a failure to specify needs accurately, rather than the result of external economic conditions flowing into defence. Additionally, the Department may be over-optimistic in its initial cost estimates for equipment and support contracts; known as **optimism bias**. The subsequent changes in price reflect more realistic costs as projects progress.

As the Department moves to new platforms (for example, a new type of aircraft), there are usually step increases in unit costs, known as **intergenerational effects**. Intergenerational effects result from the Department choosing to buy more expensive platforms as they adapt to changing threats to enable better or different capability, rather than as a result of economic conditions flowing into defence. Defence Economics estimates that the average real intergenerational cost growth is between 3.5% and 6%, varying by platform type.

## Contracts

The method developed for estimating inflation in contracts reflects the skewed distribution of MOD contract payments. There are three categories of high value contracts (those ranked in the top 75% of annual expenditure), each with a method of estimation tailored to its particular characteristics and one category for low value contracts with its own estimation method. **Figure 13** illustrates the split by contract type and high value / low value.

#### Figure 13: Contract Inflation Expenditure by Contract Type, 2013/14



The method of estimating inflation often relies upon the Standard Industrial Classification (SIC) assigned to the contract. The SIC codes reflect the good or service being procured and provide a useful tool for identifying relevant price indices for contracts.

There is insufficient data to facilitate mapping between contracts which have reached their conclusion, and their replacement. Moreover, most new contracts incorporate changes in both quality and quantity. Therefore, the method focuses on estimating inflation embedded within contracts, assuming any residual price change is driven by changes in specification. In this way, the inter-generational effect of moving to new platforms is excluded from the measure of defence inflation. For further details see the <u>Defence</u> Inflation Statistical Bulletin No. 10.

In 2013/14 an improvement was made to the methodology for calculating inflation in high value firm price contracts. The new methodology uses a geometric mean to calculate the average inflation in the years before the start of the contract. This is more accurate than the arithmetic mean that was used previously, especially for long contracts where the prior inflation is averaged over several years. In addition, the new methodology restricts the prior inflation period to twice the length of the contract, rather than going back as far as data are available. This makes the method more consistent from one year to the next.

The impact of these changes for 2012/13 and 2013/14 is shown in **Table 9**. There is a small impact on the overall contracts inflation rate, but no impact on the overall defence inflation measure.

	201	2/13	201	3/14
	Old	New	Old	New
	method	method	method	method
HV Firm Contracts	3.4%	3.0%	3.5%	3.3%
All Contracts	2.2%	2.0%	2.5%	2.4%
Overall Defence	1.5%	1.5%	2.1%	2.1%

Table 3. Inibaci of Methodology Changes on Contract Initation Nates
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There were no other changes to the methodology for calculating inflation in contracts in 2013/14.

### Labour Costs

In 2010/11 a new methodology was developed for estimating inflation in military labour costs, and as such the estimates of inflation in civilian and military pay and labour costs are now directly comparable. For further information on the methodology for military labour cost inflation, see <u>Defence Inflation: Military Labour Costs – Statistical Bulletin No. 12</u>.

In 2012/13 there were changes to the methodology for estimating inflation in education allowances (military) and RFA pay and allowances (civilian). Details of these changes are available in the 2012/13 Defence Inflation report. These changes had a negligible effect on the overall civilian and military labour cost estimates in 2012/13.

There were no changes to the method of calculating military or civilian labour cost inflation in 2013/14.

## Cash Office Expenditure

Foreign currencies are purchased by the Department for a range of purposes: to meet personnel expenditure requirements; to make payments on contracts denominated in foreign currencies; and to make payments through cash offices. Exchange rates are based on spot rates, or the MOD's General Accounting Rate for countries where no spot price is available.

Expenditure on personnel is removed from the expenditure through cash offices, as the inflationary impact of overseas expenditure on personnel is captured within the labour costs element. An estimate of the inflation for cash office expenditure is then estimated as a product of local inflation, as measured by the change in the country's Consumer Price Index, and the average change in the exchange rates.

There were no changes to the method of calculating cash offices inflation in 2013/14.

### **Contract Payments in Foreign Currencies**

Exchange rate variation can have an inflationary impact on contracts in two ways: (i) the contract has a formal exchange rate variation clause that adjusts the price/cost, in pounds sterling, to reflect movements in exchange rates; or (ii) part, or all, of the contract is paid in a foreign currency.

Details of contracts with an exchange rate variation mechanism were collected as part of the work on fixed price contracts. Inflation due to foreign exchange movement is therefore captured explicitly for these contracts.

In 2011/12 the methodology for estimating the total contract expenditure for payments in US Dollars, Euros and other foreign currencies was reviewed, following the availability of a new data source which enables Defence Economics to determine annual total contract expenditure in each currency. In contrast, in previous years, total currency purchases were calculated indirectly from the Department's CaBS records for Euros and US Dollars.

The methodology development has enabled a more straightforward and comprehensive analysis of contract expenditure in foreign currencies. It has also highlighted far higher expenditure on contracts in foreign currencies than was identified in previous years (**Table 10**).

The overall inflation rate for contract payments in foreign currencies is estimated using weighted inflation rates for US Dollars, Euros and local currencies. **Table 10** presents total contract expenditure in foreign currencies since 2004/05, and the annual weightings of US Dollars, Euros and local currencies.

	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10		2010/11 <sup>1</sup>	2011/12	2012/13
Expenditure (£ million)	£1,439	£1,609	£1,887	£2,036	£2,600	£1,527		£4,044	£3,615 <sup>r</sup>	£3,609
Weights <sup>2</sup>										
US Dollars	578	560	617	664	591	497	Ш	513	500 <sup>r</sup>	500
Euros	370	397	335	310	387	473	Ш	446	464 <sup>r</sup>	463
Local Currencies	52	43	49	26	23	30	Ш	42	36 <sup>r</sup>	37

#### Table 10: Contract Expenditure in Foreign Currency and Currency Weights, 2004/05 to 2012/13

[1] From 2011/12, the methodology for estimating the adjustment to contract inflation as a result of foreign exchange was reviewed and improved following availability of a new data source. The change in methodology means comparisons with historical estimates are hindered.

[2] Due to rounding weights may not sum to 1000.

r The 2011/12 figures have been revised due to an error in the previous report.

When adjusting the contract inflation rate, it is not possible to identify which contracts are paid in foreign currencies. Instead the value of contracts purchased in foreign currencies and the weighted inflation rate are used to estimate the overall inflationary pressure of paying some contracts in foreign currency; this is assumed to be spread equally across all contracts. The greater the proportion of contracts purchased in foreign currencies and the higher the weighted inflation rate, the higher the contract adjustment will be.

**Table 11** provides the inflationary adjustments to contracts between 2005/06 and 2013/14 as a result of paying for some contracts in foreign currency; in 2013/14 this adjustment was 0.2 percentage points.

#### Table 11: Impact of Paying Contracts in Foreign Currencies, 2005/06 to 2013/14

									Perce	nage Points
	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2	2011/12 <sup>1</sup>	2012/13	2013/14
Contract Adjustment	-0.4	-0.2	-0.1	0.4	0.8	0.5		-0.1	-0.3	0.2

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[1] From 2011/12, the methodology for estimating the adjustment to contract inflation as a result of foreign exchange was reviewed and improved following availability of a new data source. The change in methodology means comparisons with historical estimates are hindered.

## Revisions

Revisions will be made to the defence inflation measure to improve the usability and relevance when necessary. Reasons for revising figures include:

- (i) Acquiring new information relating to already published results;
- (ii) Improvements to methodology and selection of data sources;
- (iii) Identification of significant errors.

Throughout the publication, where revisions occur, they will be indicated by table footnotes.

## Quality

A Background Quality Report providing an assessment of the defence inflation statistics has been published alongside these defence inflation estimates.

## Glossary

Activity Related Allowances Allowances awarded to individuals being asked to perform activities different from their standard duties, such as operations or training.

**Armed Forces' Pay Review Body** is a non-departmental public body (and a Review Body) established to review and recommend the pay and terms and conditions of employment of the British armed forces.

**Cash Offices** Operate in British embassies and MOD bases around the world and are responsible for maintaining imprest accounts. Imprest accounts are used to make payments in local currency or Great British Pounds to personnel, which cannot be made by other means. These include payments to overseas units with non-sterling bank accounts, payments to operational units overseas and payments to HM Ships and RFAs afloat. Contractors should not normally be paid through imprest accounts.

**Chain-Linked Price Index** An index which relates the price of a basket of goods and services to the prices of a similar basket in a previous period, not a fixed base period. Chain-linking an index enables the basket of goods to be regularly updated without introducing a break in the series.

**Commodities and Service Contracts** Any **low value contract** which does not have an indexation arrangement (e.g. **fixed price**). Commodity and service contracts are therefore made up of low value **firm price** and low value **miscellaneous** contracts.

**Defence Contracts** All contracts have been grouped by **Defence Economics** into four categories: high value **firm price**; **fixed price**; high value **miscellaneous**; and low value **commodities and services**. See also: **high value contracts** and **low value contracts**.

**Defence Economics** is part of the MOD Strategy Directorate. The defence inflation estimates are produced by the Economic Statistics and Equipment Support (ESES) Division within Defence Economics. ESES provides statistics and analysis to support MOD Head Office, particularly in relation to decision support, policy development and performance management, and publishes a wide range of economic, financial, commercial and industrial Official and National Statistics.

**Defence Inflation** Defence inflation is the average rate of increase in pay, and prices of all goods and services, making up the Defence budget, after allowing for changes in quality and quantity.

**Earnings Related National Insurance Contributions (ERNIC)** National Insurance payments made by the Department to HM Revenue & Customs, on earnings paid to the employee. These payments (secondary contributions) are in addition to those National Insurance contributions made by the individual themselves.

#### **ERNIC** see Earnings Related National Insurance Contribution.

**Firm Price Contracts** Defence Economics defined sub-group of **defence contracts** which captures contracts with a non-variable inflation rate imbedded in the contract price.

**Fixed Price Contracts** Defence Economics defined sub-group of **defence contracts** which captures contracts which contain an indexation adjustment, typically a variation of price clause. The indexation component of a contract links the contract payments to changes in price indices, in order to reflect inflation in related industries.

#### GDP Deflator see Gross Domestic Product Deflator.

**Gross Domestic Product Deflator** This is an implicit price deflator for the Gross Domestic Product and is derived by dividing the estimate of GDP at current prices by the estimate of GDP at constant prices. The GDP Deflator can be viewed, and is commonly used, as a measure of inflation in the economy for the country to which it refers.

**Gross Pay** This represents an individual's total pay before deductions (such as tax and pension contributions) have been removed. Gross pay also includes allowances, overtime and non-consolidated performance related pay awards.

**High Value Contracts** Defence Contracts having an annual payment which fall in the top 75% of all ranked contract expenditure.

#### HMRC see HM Revenue and Customs

**HM Revenue and Customs** is a non-ministerial department of the UK Government responsible for the administration and collection of a wide range of taxes and National Insurances.

**Labour Costs** The total expenditure on labour for both military and civilian personnel. Labour costs capture expenditure on: pay, allowances, employer national insurance contributions (**ERNIC**), employer pension contributions (**SCAPE**), and travel and subsistence.

**Laspeyres Price Index** This is a measure of the change in the price of a basket of goods. The quantities of the items within the basket of goods are fixed to allow a measure of pure price change. Prices are aggregated in a Laspeyeres index by using weights from the base period.

LEC Locally engaged civilian, see Locally Engaged Personnel.

**Locally Engaged Personnel** A civilian employee recruited overseas exclusively for employment in support of the UK Armed Forces deployed in a particular overseas theatre (or in support of the Sovereign Base Areas Administration in Cyprus) and on terms and conditions of service applicable only to that overseas theatre or Administration, including the dependents of UK military personnel or UK-based civilian staff employed in that overseas theatre (who are sometimes separately identified as UK Dependents). LECs are not civil servants.

Low Value Contracts Defence Contracts having an annual payment which fall in the bottom 25% of ranked contract expenditure.

**Ministry of Defence** The Ministry of Defence (MOD) is the United Kingdom government department responsible for implementation of government defence policy and is the headquarters of the British Armed Forces.

**Miscellaneous Contracts** The payment method employed by the MOD Financial Management Shared Service Centre (the MOD's primary bill paying authority) for running service items such as the provision of utilities. Such items are covered by "miscellaneous" transactions where no 'MOD HQ Contract' exists. These agreements for goods or services will have been set up locally between the MOD Branch and the Supplier and are legally binding.

#### MOD see Ministry of Defence.

**MOD Accounts (Departmental Resource Accounts)** The Department is required to prepare resource accounts for each financial year detailing the resources acquired, held, or disposed of during the year, and the way it has used them during the year.

**Non-Activity Related Allowances** are essentially benefits paid to individuals such as education allowances, and committal and retention allowances.

**Office for National Statistics (ONS)** A non-ministerial Department responsible for the production of a wide range of independent economic and social statistics. The ONS is the executive office of the UK Statistics Authority which reports directly to Parliament. The ONS is the UK Government's single largest statistical producer.

**Officers** Member of the Armed Forces holding the Queen's Commission. This includes ranks from Sub-Lt/2 and Lt/Pilot Officer up to Admiral of the Fleet/Field Marshal/Marshal of the Royal Air Force, but excludes Non-commissioned officers.

#### ONS see Office for National Statistics.

**Other Ranks** Members of the Royal Marines, Army and Royal Air Force who are not officers. The equivalent group in the Royal Navy is known as "Ratings".

**Retail Price Index excluding mortgage interest payments (RPIX)** is a **chain-linked price index** which measures the price change in the goods and services consumed by a typical household (excluding the change in price of mortgage interest payments). RPIX is a well known and commonly used indicator of inflation in the UK general economy.

#### RFA see Royal Fleet Auxiliary Service.

**Royal Fleet Auxiliary Service** Constituted in 1905, this is a civilian manned fleet, owned by the Ministry of Defence. Its main task is to supply warships of the Royal Navy at sea with fuel, food, stores and ammunition which they need to remain operational while away from base. It also provides aviation support for the Royal Navy, together with amphibious support and secure sea transport for Army units and their equipment. Its employees are full-time civil servants, but come under the Naval Discipline Act when deployed to sea under naval command.

#### **RPIX** see **Retail Price Index excluding mortgage interest payments.**

#### SCAPE see Superannuation Contribution Adjusted for Past Experience.

#### SIC see Standard Industrial Classification.

**SIC Groups** These are groups defined by Defence Economics, based upon the Standard Industrial Classification of economic activity, which is maintained by the Office for National Statistics. They are used to place defence contracts into homogeneous categories based upon the principle economic activity undertaken by a contract.

**Specialist pay** This is paid for undertaking specific activities related to an individual's normal work such as flying, parachuting, or being in a submarine.

**Standard Industrial Classification (SIC)** SIC classifies business establishments and other statistical units by the type of economic activity in which they are engaged. The classification is maintained by the **ONS**.

**Strategic Defence and Security Review** A cross Government, Cabinet Office led, review on the future structure and priorities of the Armed Forces, published on 10 October 2010. A link to the review can be found in the Bibliography section of this report.

**Superannuation Contribution Adjusted for Past Experience (SCAPE)** The model, accepted by HM Treasury, to charge government departments for the provision of an unfunded pension scheme. Under SCAPE, both the employer and the employee make contributions to the scheme. SCAPE rates are determined by the Government's Actuary Department to reflect their expectations of future pension provision.

**Variation of Price** is a pricing arrangement that can be negotiated into longer term contracts to help manage inflation risk. Fixed prices are set at a particular point in time (e.g. when the contract is placed) and are linked to a price index. The price paid over the duration of the contract is directly related to movements of that index.

#### VOP see Variation of Price

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https://www.gov.uk/government/organisations/ministry-of-defence/about/statistics

#### **Defence Inflation Background Quality Notice**

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http://www.direct.gov.uk/prod\_consum\_dg/groups/dg\_digitalassets/@dg/@en/documents/digitala sset/dg\_191634.pdf

#### HM Revenue and Customs: National Insurance Contribution Tables, 2012/13 http://www.hmrc.gov.uk/nitables/2012/ca38.pdf

#### **Office for National Statistics**

http://www.ons.gov.uk/ons/index.html

#### **UK Code of Practice for Official Statistics**

http://www.statisticsauthority.gov.uk/assessment/code-of-practice/index.html

#### **UK National Statistics Publication Hub**

http://www.statistics.gov.uk/hub/index.html

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