

Defence Inflation Estimates Statistical Notice 2010/11



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Executive Summary

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

This statistical notice presents estimates of defence inflation for financial years 2005/06 to 2010/11.

Defence Analytical Services and Advice (DASA) at the Ministry of Defence (MOD) welcome feedback on all statistical products. If you have comments on this, or any other DASA statistical product, please visit the DASA website (www.dasa.mod.uk) and complete the feedback form.

Key Findings

- Defence inflation was 4.2% in 2010/11. A change in methodology for calculating inflation in military labour costs between 2009/10 and 2010/11 hinders direct comparisons with earlier years.
- Defence inflation averaged 3.8% over the period 2005/06 to 2010/11.
- In 2010/11, inflation in the GDP deflator was 3.0% and inflation in RPIX (a widely accepted proxy for UK general inflation) was 5.0%. Defence inflation has been higher than the GDP deflator and RPIX for four out of the six years between 2005/06 and 2010/11. In 2006/07 the three measures were broadly similar. In 2010/11 the defence inflation was higher than the GDP deflator, but lower than RPIX.
- Inflation in defence contract expenditure was 3.8% in 2010/11.
- Inflation in defence labour cost expenditure was 4.7% in 2010/11 – inflation in civilian labour costs was 3.6%, and inflation in military labour costs was 4.9% in 2010/11.
- Inflation in Cash Offices was 9.7%, driven by the inflation rates affecting US dollar and Euro payments and movements in the exchange rates of these currencies against Sterling.

Table 1 Defence Inflation, 2005/06 to 2010/11

<i>Weights</i> ¹	Contracts ^{2,3}	Labour Costs ^{2,3}	Cash Offices ^{2,3}	All Defence (UK) ³
	644	341	15	1000
Financial Year	Growth Rate ⁴			
2005/06	3.4%	5.6%	0.9%	4.1%
2006/07	3.4%	3.5%	1.4%	3.4%
2007/08	3.7%	4.3%	2.4%	3.9%
2008/09	4.2%	3.6%	9.3%	4.2%
2009/10	2.5%	4.0%	8.2%	3.2%
2010/11 ⁵	3.8%	4.7% r	9.7%	4.2% r

[1] These weights apply to the 2010/11 measure. Due to chain-linking, weights reflect the expenditure pattern within the base year not the reference year e.g. for the 2010/11 inflation measure weights reflect expenditure in 2009/10. Due to rounding the weights may not sum to 1000.

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

[3] Data from 2005/06 to 2009/10 have been revised since their original publication in March 2010 and September 2010. For further details see Chapter 5: Methodology.

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

[5] 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 of 2010/11 military labour cost inflation rates with historical estimates are not possible. For further details refer to Defence Inflation: Military Labour Costs - Statistical Bulletin No.12.

[r] Indicates a change to figures previously published in the 2010/11 statistical notice.

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1 Defence Inflation: Summary Results

The defence inflation estimates 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.

Headline Results

In 2010/11, defence inflation was 4.2%. Defence inflation averaged 3.8% over the period 2005/06 to 2010/11 (Figure 1). However, a change in methodology for calculating inflation in military labour costs between 2009/10 and 2010/11 hinders direct comparisons with earlier years. For further information see **Chapter 3: Labour Costs**, or for the full details see [Defence Inflation: Military Labour Costs – Statistical Bulletin No. 12](#).

Figure 1 Defence Inflation, 2005/06 to 2010/11

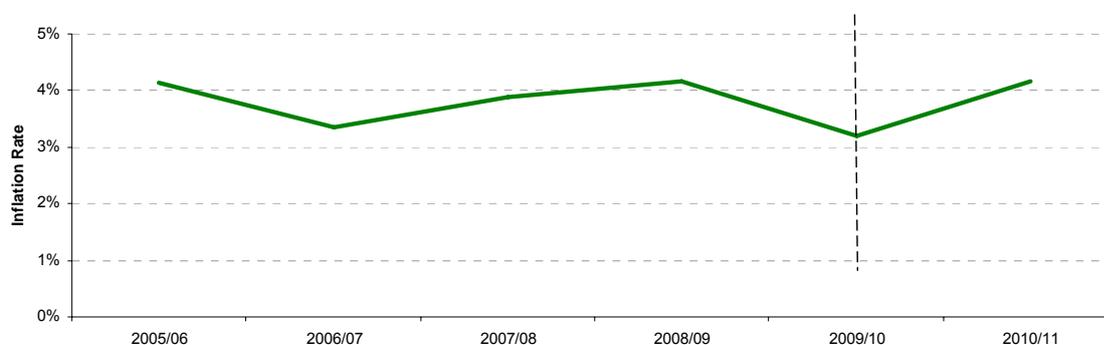


Table 2 presents chain-linked Laspeyres price index numbers and equivalent year-on-year growth rates for the three main components of defence – contracts, labour costs and cash offices – as well as overall defence expenditure. The weights are expressed as values out of 1000 and reflect the contribution 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](#).

Table 2 Defence Inflation, 2005/06 to 2010/11

Weights ¹	Contracts ^{2,3}		Labour Costs ^{2,3,5}		Cash Offices ^{2,3}		All Defence (UK) ^{3,5}	
	644		341		15		1000	
Financial Year	Index & Growth Rate ⁴							
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 ⁵	122.9	3.8%	128.3	4.7% r	135.8	9.7%	125.2	4.2% r

[1] These weights apply to the 2010/11 measure. Due to chain-linking, weights reflect the expenditure pattern within the base year not the reference year e.g. for the 2010/11 inflation measure weights reflect expenditure in 2009/10. Due to rounding the weights may not sum to 1000.

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

[3] Data from 2005/06 to 2009/10 have been revised since their original publication in March 2010 and September 2010. For further details see Chapter 5: Methodology.

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

[5] 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 of 2010/11 military labour cost inflation rates with historical estimates are not possible. For further details refer to Defence Inflation: Military Labour Costs - Statistical Bulletin No.12.

[r] Indicates a change to figures previously published in the 2010/11 statistical notice.

Comparison with General Inflation

Input measures of inflation (such as defence inflation) do not take account of productivity or efficiency improvements. Consequently, input measures generally have higher growth than comparative output measures. Therefore, the overall measure of defence inflation (an input measure) is not directly comparable to output measures of general inflation such as the Gross Domestic Product (GDP) deflator or the Retail Price Index excluding mortgage interest payments (RPIX).

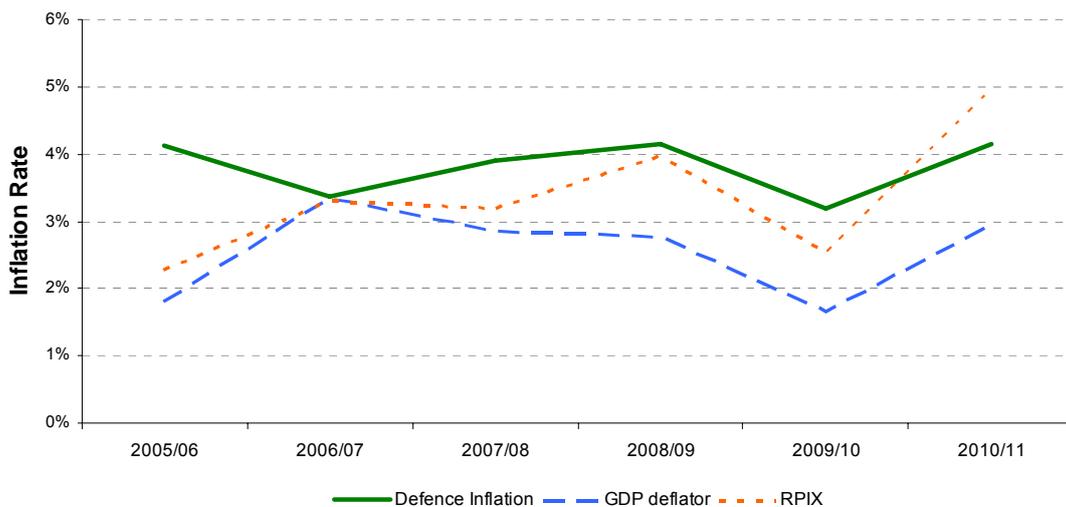
In 2010/11, inflation in the GDP deflator was 3.0% and inflation in RPIX (a widely accepted proxy for UK general inflation) was 5.0%. Defence inflation was 1.2 percentage points higher than the GDP deflator, but 0.8 percentage points lower than RPIX in 2010/11.

Defence inflation has been higher than the GDP deflator and RPIX for four out of the six years between 2005/06 and 2010/11. In 2006/07 the three measures were broadly similar. In 2010/11 defence inflation was higher than the GDP deflator, but lower than RPIX (Figure 2).

Defence inflation averaged 1.3 percentage points higher than the GDP deflator between 2005/06 and 2010/11, compared to an average of 0.4 percentage points higher than RPIX over the same period.

Inflation in defence contract expenditure has, on average, been around 0.1 percentage points higher than RPIX over the period 2005/06 to 2010/11. However, in 2010/11 inflation within contract expenditure was 3.8% compared to a growth rate of 5.0% in RPIX.

Figure 2 Defence Inflation and General Inflation, 2005/06 to 2010/11



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

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.

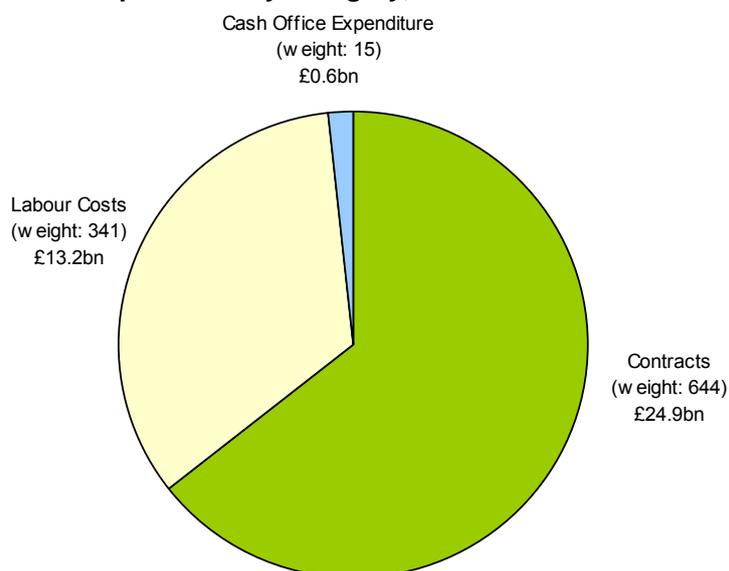
Cost growth is when a MOD project suffers cost or schedule over run. This apparent cost growth is often an “accounting problem” or a failure to specify needs accurately, rather than the result of external economic conditions flowing into defence. Additionally, the Department may be over-optimistic in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

As the Department moves to new platforms 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, rather than as a result of economic conditions flowing into defence. DASA estimate that the average real intergenerational cost growth is between 3.5% and 6%, varying by platform type.

Expenditure and Weights

The 2010/11 defence inflation estimates utilise expenditure figures for the base year 2009/10 (Figure 3). For further details refer to **Chapter 5: Methodology**.

Figure 3 Defence Inflation Expenditure by Category, 2009/10



Expenditure in 2009/10 – used within the 2010/11 defence inflation measure – was £38.7bn, a rise of £1.2bn (3.2%) compared to 2008/09 (Table 3). This increase was primarily driven by an increase in expenditure on contracts of £1.2bn (5.2%) compared to 2008/09, and an increase in labour cost expenditure of £0.6bn (4.7%) compared to 2008/09.

Table 3 Defence Inflation Expenditure by Category, 2004/05 to 2009/10

	<i>£ million</i>					
	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10
All Defence (UK)	29,386	30,879	31,387	34,361	37,438	38,652
Contracts	17,065	18,085	18,352	20,795	23,653	24,873
Personnel	11,313	11,703	11,896	12,166	12,598	13,193
Cash Office Expenditure	1,008	1,091	1,139	1,399	1,186	586

Contracts

Expenditure on contracts accounts for nearly two-thirds of the total expenditure captured within the 2010/11 defence inflation measure.

In 2010/11, inflation in defence contract expenditure was 3.8% (Table 2). Between 2005/06 and 2010/11 inflation in contract expenditure averaged 3.5% year-on-year growth, ranging from 2.5% in 2009/10 to 4.2% in 2008/09.

The methodology for estimating inflation in defence contracts is dependent on price indices published by the Office for National Statistics (ONS). **Chapter 2: Contracts** presents further information on inflation within different types of contracts and further details on the key drivers.

Labour Costs

Expenditure on labour costs accounts for just over one third of the total expenditure captured within the 2010/11 defence inflation measure.

A new methodology for calculating inflation in military labour costs has been developed for 2010/11. This new method produces a chain-linked Laspeyres index for military labour cost inflation and is now directly comparable with inflation in civilian labour costs. For a brief summary of the methodology developments see **Chapter 3: Labour Costs**, and for a detailed account refer to the [Defence Inflation: Military Labour Costs - Statistical Bulletin No. 12](#).

In 2010/11, inflation in labour cost expenditure was 4.7% (Table 2). The rate of inflation for military labour cost expenditure was 4.9% in 2010/11, whilst the inflation rate for civilian labour cost expenditure was 3.6% (Table 6). Between 2005/06 and 2010/11 inflation in labour costs averaged 4.2% year-on-year growth. Due to the methodology developments in military labour cost inflation, this is the first year that military labour cost inflation can be directly compared with civilian labour cost inflation.

Chapter 3: Labour Costs presents further information on the inflation rates within the components of labour costs for military and civilian personnel. This includes inflation rates within pay, employer National Insurance contributions (ERNIC), employer pension contributions (SCAPE), travel and subsistence, and allowances.

NOTE: Since the publication of 2010/11 defence inflation estimates in September 2011, revisions have been made to the civilian and military labour cost inflation estimates. These revisions are indicated with an 'r' marker.

Cash Office Expenditure

Cash office expenditure accounts for about one and a half per cent of the total expenditure captured within the 2010/11 defence inflation measure.

The inflation rates within cash offices represent inflation due to: expenditure on foreign currency by MOD cash offices; and domestic inflation within those countries.

In 2010/11, inflation in cash office expenditure was 9.7%. Broadly speaking the rate of inflation for cash offices is driven by the inflation rates affecting US dollar and Euro purchases – 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. For further details refer to **Chapter 4: Cash Office Expenditure**.

Contract Payments in Foreign Currencies

There is an additional inflationary pressure when contracts are paid in foreign currency. To account for this, in 2010/11 an adjustment of 0.5 percentage points, based broadly upon exchange rates the Ministry of Defence (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, both capture the inflationary effect of paying for contracts in foreign currencies. It is assumed that the impact is the same across all contract types. The breakdowns of inflation by contract type, presented in **Chapter 2: Contracts** also capture this effect. However, more detailed estimates of inflation for contracts (such as contract inflation by industry group) exclude this adjustment.

Further details on the methodology and historical adjustments are provided in **Chapter 5: Methodology** and within the [Defence Inflation Statistical Bulletin No.10](#).

Revisions

Since the publication of 2010/11 defence inflation estimates in September 2011, revisions have been made to the civilian and military labour cost inflation estimates. These revisions are indicated with an 'r' marker.

Revisions to the Previously Published 2010/11 Statistical Notice

- Changes to the military and civilian labour cost inflation rates reflect corrections to the weights utilised within the labour cost inflation calculation process. These changes have been made to the 2010/11 notice following original publication on 28 September 2011.

Since the 2009/10 defence inflation estimates were published in September 2010, there have been revisions to previous figures. Throughout the tables, these revisions are indicated within the footnotes. These revisions reflect:

Revisions since Publication of the 2009/10 Statistical Notice

- Revisions to price index data and replacement of provisional data with firm data (primarily Services Producer Price Indices and Construction Price Indices), correcting some re-basing errors in the original data, and ensuring inflation in composite indices are based on growth rates rather than index values.
- Correction of an error in the Euro exchange rate for 2009/10 within the cash office inflation estimate, and cash office expenditure figures for the same year.
- Correction of an error in military National Insurance and T+S inflation rates.

Methodology and Data Improvements

- Moving expenditure and corresponding inflation for contracts related to the purchase of fuels, from the high value firm price contract category to the fixed price contract category. This reflects the closer alignment between pricing arrangements for these fuel contracts and fixed price contracts.
- Improvements to the methodology for estimating inflation in aspects of labour costs, using a more relevant data source for estimating exchange rate variations.
- A review of the imputation method used for estimating inflation in high value miscellaneous and low value contracts without a DASA SIC group.

A comparison to the top level estimates previously published and the impact of these revisions is provided in **Chapter 5: Methodology**. For previously published estimates refer to the [Defence Inflation Statistical Notice 2005/06 – 2008/09](#)¹, [Defence Inflation Statistical Notice 2009/10](#)² and the [Defence Inflation Statistical Bulletin No. 10](#)³.

¹ Published March 2010.

² Published September 2010.

³ Published March 2010.

2 Contracts

Key Findings

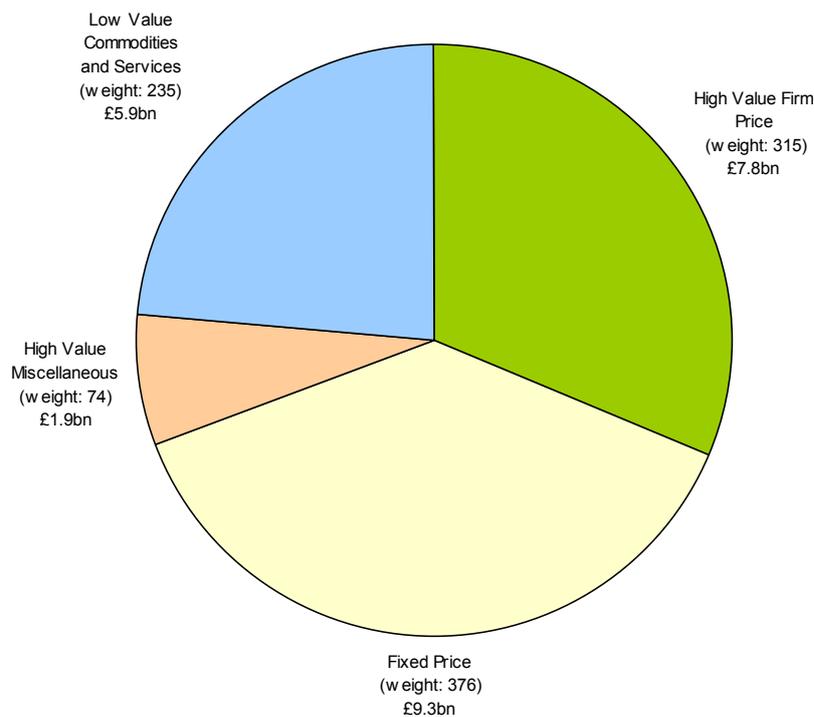
- Inflation in contract expenditure was 3.8% in 2010/11.
- Between 2005/06 and 2010/11, inflation in contracts averaged 3.5% year-on-year growth.
- A fifth of contract expenditure was associated with the aircraft and spacecraft industry group. The inflation rate for these contracts was 2.3%, compared with the overall contract inflation rate of 3.8%.
- Inflation in equipment contracts and non-equipment contracts were both 3.2% in 2010/11.

Expenditure and Weights

In 2009/10 the Ministry of Defence (MOD) had around 37,000 contracts with payments against them, accounting for nearly £25bn (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 Analytical Services and Advice (DASA) have defined four sub-groups of contracts (see **Glossary** for definitions). Figure 4 presents the proportion of total contract expenditure spent on each sub-group.

Figure 4 Contract Inflation Expenditure by Contract Type, 2009/10



Inflation Rates across Defence Contracts

In 2010/11, inflation in expenditure on contracts was 3.8%, 1.3 percentage points higher than in 2009/10 (Table 4). Over the period 2005/06 to 2008/09 inflation within contracts steadily increased, from 3.4% in 2005/06 to 4.2% in 2008/09, before falling in 2009/10 to 2.5%. The increase from 2009/10 to 2010/11 of 1.3 percentage points is the largest year-on-year increase since the current series began in 2005/06.

This increase in the inflation rate for contract expenditure between 2009/10 and 2010/11 reflects the general increase in price inflation across the whole economy during that period. In particular the Retail Price Index excluding mortgage interest payments increased at a rate of 5.0% between 2009/10 and 2010/11 and is one of the key individual indices driving defence inflation.

Table 4 Defence Inflation – Defence Contracts, 2005/06 to 2010/11

Contract Type	High Value Firm Price ^{2,3,4}		Fixed Price ^{2,3,5}		Low Value Commodities and Services ^{2,3}		High Value Miscellaneous ^{2,3}		Defence Contracts ³	
<i>Weights¹</i>	315		376		235		74		1000	
Financial Year	Index & Growth Rate ⁵									
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%

[1] These weights apply to the 2010/11 measure. Due to chain-linking, weights reflect the expenditure pattern within the base year not the reference year e.g. for the 2010/11 inflation measure weights reflect expenditure in 2009/10. Due to rounding weights may not sum to 1000.

[2] For the definitions of Contract Types used for the defence inflation estimates, refer to the Glossary.

[3] Data from 2005/06 to 2009/10 have been revised since the previous Statistical Notice in September 2010. For further details see Chapter 5: Methodology.

[4] For the 2010/11 publication, expenditure on defence fuel contracts have been moved from high value firm price contracts into fixed price contracts. All historical estimates from 2005/06 through to 2009/10 have been updated accordingly to ensure comparability over time.

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

The inflation rates for fixed price, low value commodities and services, and high value miscellaneous contracts all increased between 2009/10 and 2010/11. However, the inflation rate for high value firm priced contracts decreased between 2009/10 and 2010/11 (Table 4). This reflects the difference in methodologies used to estimate inflation for each group; specifically high value firm price contracts are assumed to capture inflationary conditions at the time of placement, rather than the current conditions.

A change in methodology has resulted in moving expenditure and corresponding inflation for contracts related to the purchase of fuels from the high value firm price contract category to the fixed price contract category. This reflects the closer alignment between pricing arrangements for these fuel contracts and fixed price contracts. Table 4 reflects this change for all years. This change in methodology means that estimates of inflation in high value firm price and fixed price contracts published in this statistical notice cannot be compared with earlier reports.

High Value Firm Price Contracts

Expenditure on high value firm price contracts accounts for 31% of the 2010/11 defence inflation measure for contracts. The inflation rate for these contracts was 4.2% in 2010/11. This is 0.3 percentage points lower than the 2009/10 inflation rate. However, the inflation rate for 2010/11 was 0.5 percentage points higher than the average year-on-year growth rate (3.7%) between 2005/06 and 2010/11 for high value firm price contracts.

Estimates of high value firm price contract inflation are based either on corporate knowledge provided by project teams or by linking them to suitable price indices produced by the Office for National Statistics (ONS).

Fixed Price Contracts

Expenditure on fixed price contracts accounts for 38% of the 2010/11 defence inflation measure for contracts. The inflation rate for these contracts was 3.8% in 2010/11. This is 2.5 percentage points higher than the 2009/10 inflation figure, and 0.1 percentage points higher than the average year-on-year rate (3.6%) between 2005/06 and 2010/11.

Estimates of fixed price contract inflation are based on specific ONS price indices, as defined in the corresponding Variation of Price (VoP) clauses. Around 30% of the expenditure on Fixed Price contracts was linked to the Retail Price Index excluding mortgage interest payments (RPIX), which increased from 2.5% year-on-year growth in 2009/10 to 5.0% in 2010/11. Across all fixed price contracts, nearly 90% of expenditure was linked to price indices with higher growth rates in 2010/11 compared to 2009/10. Inflation in defence fuel contracts, which are now included in the fixed price contract category, was about 26% between 2009/10 and 2010/11.

Low Value Commodities and Service Contracts

Expenditure on low value commodities and service contracts accounts for 24% of the 2010/11 defence inflation measure for contracts. The inflation rate for these contracts was 3.1% in 2010/11. This is 0.2 percentage points lower than the average year-on-year rate (3.3%) between 2005/06 and 2010/11.

High Value Miscellaneous Contracts

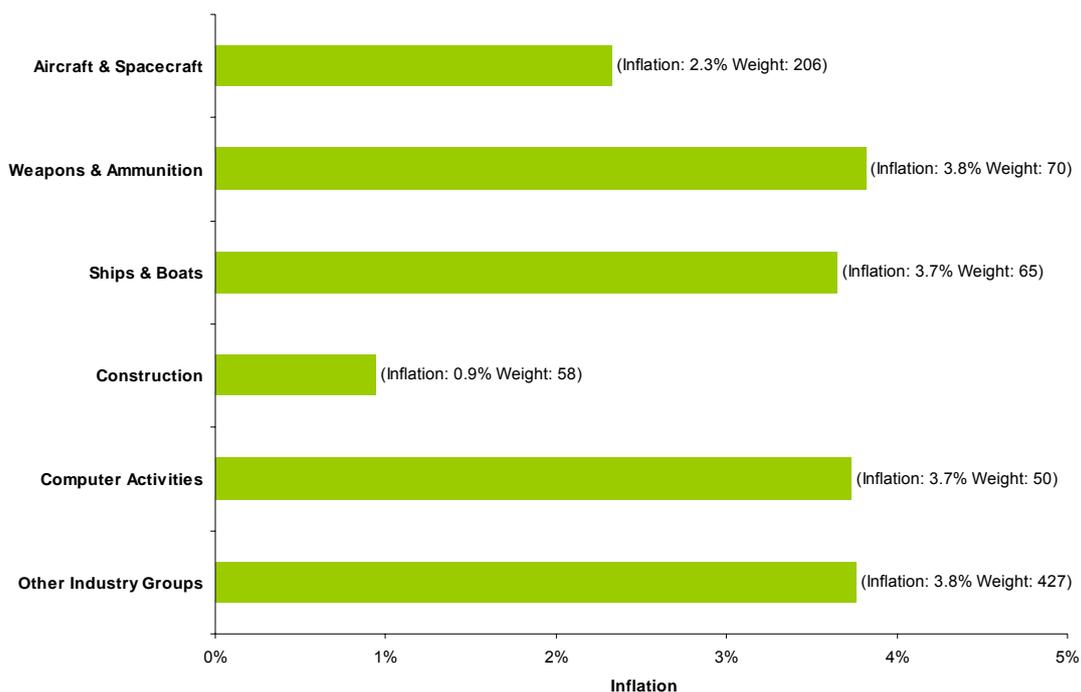
Expenditure on high value miscellaneous contracts accounts for 7% of the 2010/11 defence inflation measure for contracts. The inflation rate for these contracts was 3.8% in 2010/11. This is 0.5 percentage points higher than the average year-on-year rate (3.3%) between 2005/06 and 2010/11.

Inflation by Industry Group

Figure 5 presents inflation in contract expenditure broken down by industry group. The five industry groups (out of a possible 52 industry groups) with the highest expenditure in 2010/11 are presented along with their associated inflation rates. The method of estimating inflation often relies upon the Standard Industrial Classification (SIC) assigned to the contract. DASA places contracts into homogeneous groups, based upon the SIC code which reflects the good or service being procured. These 52 groups provide a useful tool for identifying relevant price indices for contracts, where information about inflation is not explicitly available. For further details see [Defence Inflation Statistical Bulletin No. 10 \(Appendix 1\)](#).

In 2009/10 contracts associated with the aircraft and spacecraft industry group accounted for over a fifth of expenditure on contracts and had an inflation rate of 2.3%. Of the five most significant industry groups by proportion of contract expenditure, the industry group with the highest inflation rate in 2010/11 was weapons and ammunition (3.8%). These inflation rates by industry group exclude the foreign exchange adjustment – see **Chapter 5: Methodology** for further details.

Figure 5 Defence Inflation – Defence Contracts by Industry Group^{1,2}, 2010/11

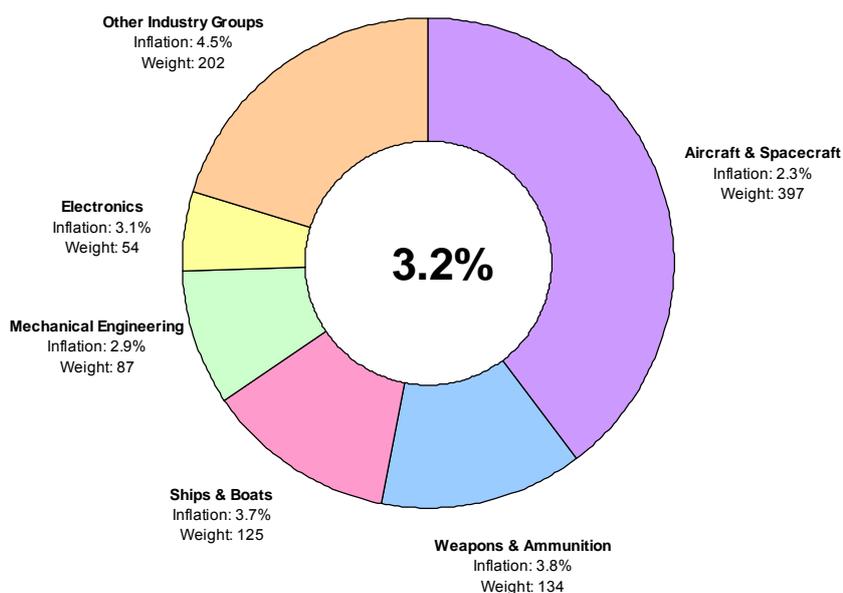


[1] This analysis is based on high value firm price, fixed price and low value commodities and service contracts. It excludes high value miscellaneous contracts and a small subset of low value contracts due to insufficient SIC information. Therefore, weights do not sum to 1000 due to a weight of 125 being associated with contracts with no SIC information.

[2] All inflation rates are before any adjustments due to paying for contracts in foreign currencies. In 2010/11 all contract inflation was adjusted by 0.5 percentage points. See Chapter 5: Methodology for further details.

A contract’s SIC group can also be used to give an indication of whether the contract relates to equipment or non-equipment acquisitions. Of the 52 SIC groups, 31 relate to equipment acquisitions and 21 relate to non-equipment acquisitions. Figure 6 and Figure 7 present inflation in contract expenditure broken down by equipment or non-equipment contracts, with the five most significant industry groups by proportion of contract expenditure.

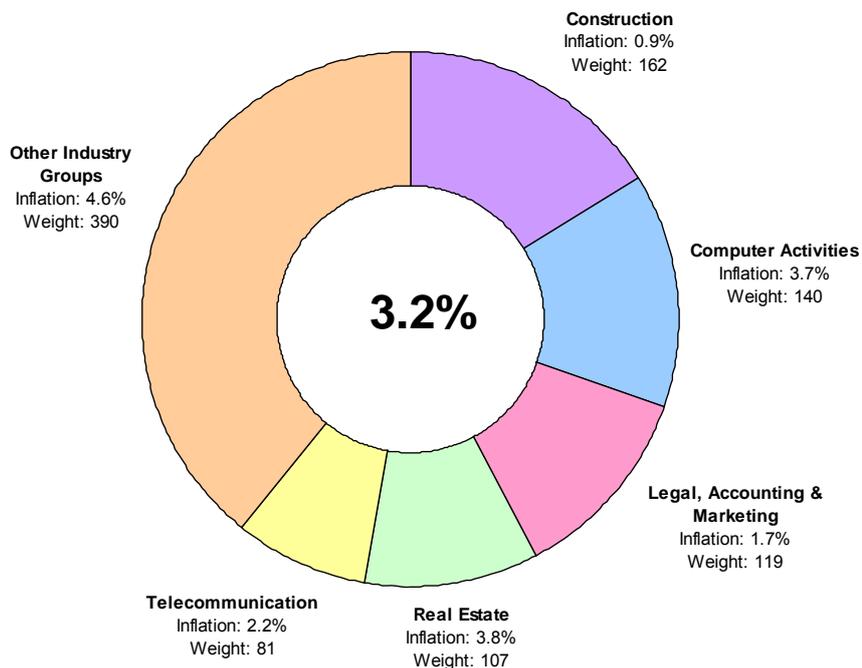
Figure 6 Defence Inflation – Defence Contracts: Equipment^{1,2}, 2010/11



[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 a small subset of low value contracts due to insufficient data. Weights are based on expenditure relative to known equipment contracts.

[2] All inflation rates are before any adjustments due to paying for contracts in foreign currencies. In 2010/11 all contract inflation was adjusted by 0.5 percentage points. See Chapter 5: Methodology for further details.

Figure 7 Defence Inflation – Defence Contracts: Non-Equipment^{1,2}, 2010/11



[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 a small subset of low value contracts due to insufficient data. Weights are based on expenditure relative to known non-equipment contracts.

[2] All inflation rates are before any adjustments due to paying for contracts in foreign currencies. In 2010/11 all contract inflation was adjusted by 0.5 percentage points. See Chapter 5: Methodology for further details.

In 2010/11, equipment contracts accounted for just over half of all contract expenditure, whilst non-equipment contracts accounted for just over a third. During 2010/11 inflation in equipment and non-equipment contracts was the same (3.2% year-on-year growth).

Within equipment contracts, of the five most significant industry groups by proportion of contract expenditure, the industry group with the highest inflation rate in 2010/11 was weapons and ammunition (3.8%). Within non-equipment contracts, of the five most significant industry groups by proportion of contract expenditure, the industry group with highest inflation rate in 2010/11 was real estate (3.8%).

These inflation rates by industry level exclude the foreign exchange adjustment – see **Chapter 5: Methodology** for further details

3 Labour Costs

Key Findings

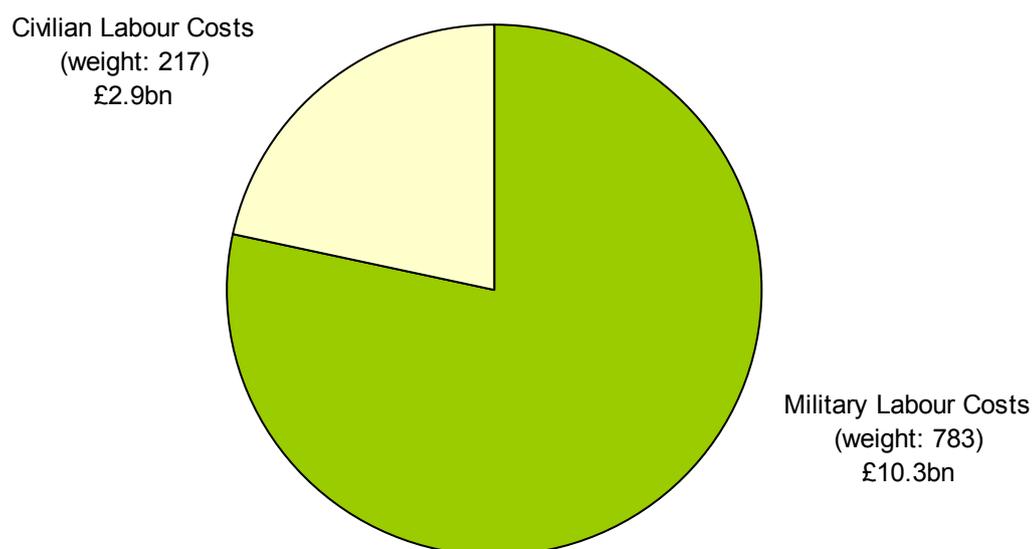
- Inflation in labour cost expenditure was 4.7% in 2010/11.
- Inflation in civilian labour costs was 3.6% and inflation in military labour costs was 4.9% in 2010/11.
- Between 2005/06 and 2010/11 inflation within labour costs averaged 4.2% per year. However a change in methodology for calculating inflation in military labour costs between 2009/10 and 2010/11 hinders direct comparisons with earlier years, but improves comparability between military and civilian labour cost inflation rates in 2010/11. See [Methodology Development](#) below.
- In 2010/11 inflation in civilian gross pay (3.9%) was higher than inflation in military basic and specialist pay (2.8%). However, inflation in civilian pay and allowances (3.4%) was lower than inflation in military pay and allowances (4.2%).

NOTE: Since the publication of 2010/11 defence inflation estimates in September 2011, revisions have been made to the civilian and military labour cost inflation estimates. These revisions are indicated with an 'r' marker.

Expenditure and Weights

Expenditure on labour costs accounts for just over one third of the Department's expenditure. For the 2010/11 estimates, 78% of this expenditure was on military labour costs and 22% was on civilian labour costs (Figure 8).

Figure 8 Labour Cost Inflation Expenditure by Personnel Type, 2009/10



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, over and above changes in their pay.

Methodology Development: Military Labour Cost Inflation

A new methodology has been implemented for the 2010/11 estimate of inflation in military labour costs. This new method ensures estimates of inflation within military labour costs, and specifically military pay, capture the impact of personnel joining or leaving the Department, and personnel progressing up the pay scales.

Direct comparisons can now be made between inflation in civilian and military labour costs. However, the new methodology development hinders comparisons with earlier years for military labour cost inflation and defence labour cost inflation.

DASA estimate the impact of this new methodology increased the 2010/11 military labour cost inflation rate by 0.4 percentage points.

Further information on these changes is detailed in full within [Defence Inflation: Military Labour Costs – Statistical Bulletin No. 12](#).

Labour Costs

Inflation in labour cost expenditure was 4.7% in 2010/11 (Table 5). However a change in methodology for calculating inflation in military labour costs between 2009/10 and 2010/11 hinders direct comparisons with earlier years, but improves comparability between military and civilian labour cost inflation rates in 2010/11. See [Methodology Development](#) above.

Table 5 Defence Inflation – Labour Costs, 2005/06 to 2010/11

<i>Weights</i> ¹	Military ^{2,3} 783		Civilian ^{2,3} 217		Defence Labour Costs ³ 1000	
Financial Year	Index and Growth Rate ⁴					
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 ⁵	128.2 r	4.9% r	128.5 r	3.6% r	128.3 r	4.7% r

[1] These weights apply to the 2010/11 measure. Due to chain-linking, weights reflect the expenditure pattern within the base year not the reference year e.g. for the 2010/11 inflation measure weights reflect expenditure in 2009/10. Due to rounding the weights may not sum to 1000.

[2] For the definitions of 'Labour Costs', 'Military Labour Costs' and 'Civilian Labour Costs' used for the defence inflation estimates, refer to the Glossary.

[3] Data from 2005/06 to 2009/10 have been revised since their original publication in March 2010 and September 2010. For further details see Chapter 5: Methodology.

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

[5] 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 of 2010/11 military labour cost inflation rates with historical estimates are not possible. For further details refer to Defence Inflation: Military Labour Costs - Statistical Bulletin No.12.

[r] Indicates a change to figures previously published in the 2010/11 statistical notice.

Military Labour Costs

Inflation in military labour cost expenditure was 4.9% in 2010/11 (Table 6). A change in the method used for calculating inflation within military labour costs for 2010/11 hinders comparisons with earlier years – see [Methodology Development](#) above.

Table 6 Defence Inflation – Military Labour Costs, 2005/06 to 2010/11

Military Labour Costs ^{1,2,3}	Weights ⁴	Growth Rate ⁵					2010/11
		2005/06	2006/07	2007/08	2008/09	2009/10	
Basic Pay and Specialist Pay ^{3,6}	630	3.0%	3.1%	3.6%	3.7%	2.8%	2.8% r
Non-Activity Allowance	27	-2.7%	9.2%	36.2%	-11.4%	12.1%	17.7%
Activity Allowance ³	17	5.0%	7.5%	14.2%	2.6%	1.8%	32.4% r
Pay and Allowances³	674	2.9%	3.3%	4.9%	3.0%	3.1%	4.2% r
Pension Contributions ³	166	18.1%	3.1%	3.6%	3.8%	10.7%	9.4% r
National Insurance Contributions ³	51	2.6%	5.4%	4.0%	1.5%	2.5%	3.9% r
Travel and Subsistence	110	2.4%	2.7%	3.2%	5.4%	3.7%	3.6%
Military Labour Costs³	1000	5.0%	3.3%	4.5%	3.3%	4.3%	4.9% r

[1] For definitions used for the defence inflation estimates, refer to the Glossary.

[2] Data from 2005/06 to 2009/10 have been revised since their original publication in March 2010 and September 2010. For further details see Chapter 5: Methodology.

[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 of 2010/11 military labour cost inflation rates with historical estimates are not possible. For further details refer to Defence Inflation: Military Labour Costs - Statistical Bulletin No. 12.

[4] These weights apply to the 2010/11 measure. Due to chain-linking, weights reflect the expenditure pattern within the base year not the reference year e.g. for the 2010/11 inflation measure weights reflect expenditure in 2009/10. Due to rounding the weights may not sum to 1000.

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

[6] Includes reservists and cadets pay.

[r] Indicates a change to figures previously published in the 2010/11 statistical notice.

The key drivers behind the 2010/11 rate of inflation in military labour costs (4.9%) were:

- ↑ Inflation within basic pay and specialist pay for military personnel was 2.8% in 2010/11. This reflects the impact of leavers, joiners and progression on top of rises in average military salaries.
- ↑ Activity allowances had an inflation rate of 32.4% in 2010/11. This increase in the rate compared with 2009/10 was primarily due to increases in operational allowance which took effect in 2010/11.
- ↑ Non-activity allowances had an inflation rate of 17.7% in 2010/11.
- ↑ Inflation within employer pension contributions (9.4%) was driven in part by inflation in military pay, but also by an increase in SCAPE rates for both officers and ranks. Similar effects were also observed in 2005/06 and 2009/10.

Civilian Labour Costs

Inflation in civilian labour cost expenditure was 3.6% in 2010/11 (Table 7). This is lower than the average rate of inflation for civilian labour cost expenditure of 4.3% between 2005/06 to 2010/11.

Table 7 Defence Inflation – Civilian Labour Costs, 2005/06 to 2010/11

Civilian Labour Costs ^{1,2}	Weights ³	Growth Rate ⁴					
		2005/06	2006/07	2007/08	2008/09	2009/10	2010/11
Gross Pay ⁵	647	4.0%	3.3%	3.7%	4.0%	2.8%	3.9% r
Locally Engaged Civilians Pay	101	5.3%	4.8%	4.3%	11.0%	7.8%	0.6%
Royal Fleet Auxiliary Pay	29	2.5%	3.0%	2.6%	2.6%	3.2%	1.9%
Pay and Allowances	777	4.1%	3.5%	3.7%	4.8%	3.4%	3.4% r
Pension Contributions	117	43.4%	7.3%	3.6%	3.6%	-0.8%	3.8% r
National Insurance Contributions	48	3.6%	4.0%	0.7%	2.9%	-0.9%	5.6% r
Travel & Subsistence	57	2.1%	2.7%	3.9%	5.0%	3.0%	4.8%
Civilian Labour Costs	1000	7.4%	3.9%	3.5%	4.5%	2.7%	3.6% r

[1] For definitions used for the defence inflation estimates, refer to the Glossary.

[2] Data from 2005/06 to 2009/10 have been revised since their original publication in March 2010 and September 2010. For further details see Chapter 5: Methodology.

[3] These weights apply to the 2010/11 measure. Due to chain-linking, weights reflect the expenditure pattern within the base year not the reference year e.g. for the 2010/11 inflation measure weights reflect expenditure in 2009/10. Due to rounding weights may not sum to 1000.

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

[5] Gross pay includes overtime, allowances and non-consolidated performance related pay award inflation.

[r] Indicates a change to figures previously published in the 2010/11 statistical notice.

Inflation in civilian labour costs was 3.6% in 2010/11. This is higher than the 2.7% inflation rate in 2009/10:

- ↑ There was a 3.9% rise in Gross Pay between 2009/10 and 2010/11 due to implementation of the final year of the 2008-2010 Industrial and Non-Industrial Pay Award.
- ↑ There was a 3.8% rise in employer pension contributions driven by the increase in Gross Pay.
- ↑ 2010/11 saw the highest level of inflation in employer National Insurance contributions (NIC) for the period 2005/06 to 2010/11 (5.6%). This was driven by the increase in Gross Pay along with a change to the NIC Lower Earning Level.

Pay and Allowances

Estimates of inflation in labour costs include the inflation in pay and allowances. In 2010/11 pay and allowances accounted for 67% of military labour costs and 78% of civilian labour costs.

- ↑ Military pay and allowances inflation was 4.2% in 2010/11. This is higher than the average of 3.6% between 2005/06 and 2010/11 (though direct comparisons cannot be made over time due to a new methodology in 2010/11). This rate is particularly affected by the 32.4% and 17.7% uplifts in activity allowances and non-activity allowances respectively.
- ↔ The 2010/11 civilian pay and allowances inflation rate (3.4%) is lower than the average of 3.8% between 2005/06 to 2010/11. The 2010/11 rate was driven by inflation in gross pay of 3.9%, but offset by relatively low inflation in pay for Locally Engaged Civilians (0.6%) and the Royal Fleet Auxiliary (1.9%).

In 2010/11 inflation in civilian gross pay (3.9%) was higher than inflation in military basic and specialist pay (2.8%). However, inflation in civilian pay and allowances (3.4%) was lower than inflation in military pay and allowances (4.2%).

4 Cash Office Expenditure

Key findings

- Inflation in cash office expenditure was 9.7% in 2010/11.
- Between 2005/06 and 2010/11, inflation in cash office expenditure averaged 5.3% year-on-year growth, but has been volatile over this period.
- Inflation within cash offices for US dollars was 9.2% and for Euros was 12.7% in 2010/11.

Cash Offices

Cash office expenditure accounts for 1.5 per cent of the total expenditure captured within the defence inflation measure in 2010/11. The inflation rates within cash offices capture both: the inflation due to changes in currency exchange rates; and domestic inflation in the relevant country.

Table 8 presents inflation in cash office expenditure over the period 2005/06 to 2010/11. In 2010/11, inflation within cash office expenditure was 9.7%. Over the six year period inflation in cash offices averaged 5.3%, 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 affecting US dollar and Euro payments – 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.

Exchange rates for US dollars and Euros used to estimate defence inflation in cash offices are based upon the actual rates achieved by the MOD for currency deliveries through spot buys and the forward buy programmes. For all other currencies, exchange rates are based on spot prices only.

Table 8 Defence Inflation – Cash Office Expenditure, 2005/06 to 2010/11

Currency	Cash Offices - US Dollar ^{2,3}		Cash Offices - Euro ^{2,3}		Cash Offices - Other ^{2,3}		Cash Offices ^{2,3}	
<i>Weights¹</i>	529		251		221		1000	
Financial Year	Index & Growth Rate ⁴							
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%

[1] These weights apply to the 2010/11 measure. Due to chain-linking, weights reflect the expenditure pattern within the base year not the reference year e.g. for the 2010/11 inflation measure weights reflect expenditure in 2009/10. Due to rounding the weights may not sum to 1000.

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

[3] Data from 2005/06 to 2009/10 have been revised since their original publication in March 2010 and September 2010. For further details see Chapter 5: Methodology.

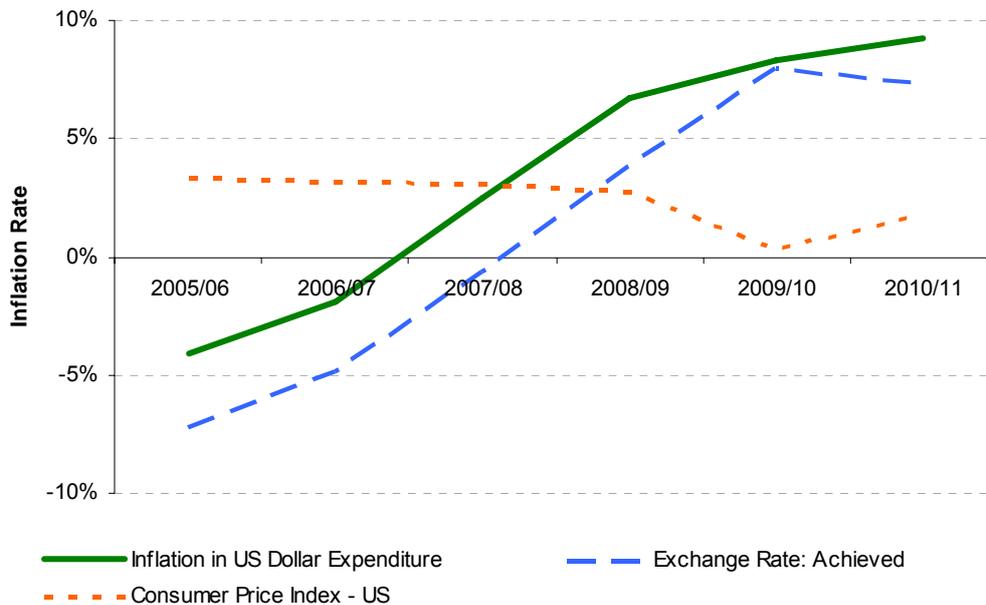
[4] Growth rates are year-on-year and calculated from unrounded data.

Cash Offices – US Dollars and Euros

Just over half of the expenditure through cash offices in 2009/10 (base year for the 2010/11 inflation measure) was spent on US dollars and about a quarter was spent on Euros. In 2010/11, the inflation rate for cash office expenditure on US dollars and Euros was 9.2% and 12.7%, respectively.

Figure 9 presents 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 2009/10 there has been a steady increase in US dollar expenditure inflation. This increase slowed in 2009/10 because of the fall in US CPI inflation between 2008/09 and 2009/10. It was further slowed in 2010/11 due to a slight fall in the US dollar achieved exchange rate.

Figure 9 Inflation in Cash Offices on US Dollars



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 for 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 Statistical Bulletin No.10, published on www.dasa.mod.uk.

The components of defence inflation are listed below, with percentages indicating the average breakdown of MOD expenditure in the last six years (rounded to nearest five per cent).

Expenditure on Contracts (60%)

1. Fixed price contracts with explicit indexation clauses (20%)
2. High value firm price contracts (20%)
3. High value miscellaneous payments (5%)
4. Low value contracts and miscellaneous payments (15%)

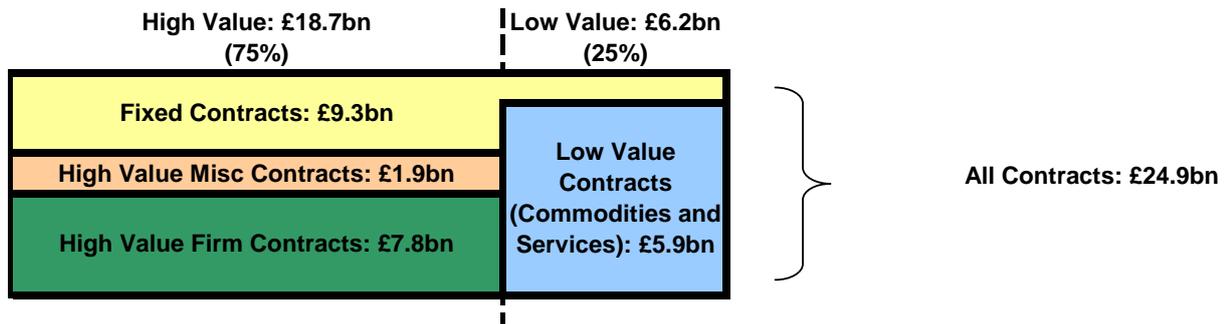
Expenditure on Labour (35%)

5. Military labour costs (25%)
6. Civilian labour costs (10%)

Cash Office Expenditure (5%)

Contracts

In 2009/10 the Ministry of Defence (MOD) had around 37,000 contracts with payments against them, accounting for nearly £25bn (two thirds) of the Department's annual expenditure. The method developed for estimating inflation in contracts reflects the skewed distribution of payments. There are three categories of high value (ranked in the top 75% of annual expenditure) contracts each with a method of estimation tailored to their particular characteristics and one category for low value contracts with its own estimation method. Figure 10 provides an indicative illustration of the split by contract type and high value / low value.

Figure 10 Contract Inflation Expenditure by Contract Type, 2010/11


The method of estimating inflation often relies upon the Standard Industrial Classification (SIC) assigned to the contract. DASA places contracts into groups, based upon the SIC code which reflects the good or service being procured. These groups 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 [Defence Inflation Statistical Bulletin No 10](#).

Labour Costs

Expenditure on labour costs accounts for around one third of the Department's expenditure. 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 SCAPE rates are determined by the Government's Actuary Department, reflecting their expectations of future pension provision rather than changes to economic conditions. However, changes in SCAPE rates result in the Department experiencing a change in the cost of employing an individual without a change in output.

In 2010/11 a new methodology was developed for estimating inflation in military labour costs, and as such the estimates on inflation in civilian and military pay and labour costs are now directly comparable. Previously, the military pay inflation method assumed the structure of the Armed Forces, by rank and point on the pay-scale, was fixed and therefore did not take account of joiners, leavers or progression up the pay scale. However, the new method is a chain linked Laspeyres index and is directly comparable with civilian labour costs, with both inflation rates capturing the impact of joiners, leavers and progression.

For further information on the new methodology for military labour cost inflation, see [Defence Inflation: Labour Costs - Bulletin No. 12](#).

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. Expenditure through cash offices on US dollars includes some foreign payments on contracts.

The Department's Cash and Banking Services records transfers of Euros and US Dollars from the forward and spot buy programme to cash offices around the World, and also purchase many other quoted and non-quoted currencies. Data on volumes and achieved rates for Euros and US dollar deliveries are used to estimate the inflation in the actual achieved exchange rates by the Department in this category of expenditure. For all other currencies spot rates are used.

Expenditure on personnel and contracts is removed from the overall currency purchases figure, as the inflationary impacts of these elements are included elsewhere. An estimate of the inflation for cash office expenditure is then estimated as a product of the local inflation, as measured by the change in country's Consumer Price Index, and the average change in the exchange rates.

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 comparison, it is not possible to identify which firm price contracts are paid in foreign currencies. Instead, information on volume and price of actual currency deliveries is used to estimate the overall inflationary pressure of paying some contracts in foreign currency; this is assumed to be spread equally across all contracts. Table 9 provides the inflationary adjustments to contracts between 2005/06 and 2010/11 as a result of paying for some contracts in foreign currency; in 2010/11 this adjustment was 0.5 percentage points.

Table 9 Impact of Paying Contracts in Foreign Currencies

	<i>Percentage Points</i>					
	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11
Contract Adjustment	-0.4	-0.2	-0.1	0.4	0.8	0.5

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.

Since the publication of 2010/11 defence inflation estimates in September 2011, revisions have been made to the civilian and military labour cost inflation estimates. These revisions are indicated with an 'r' marker.

Revisions to the Previously Published 2010/11 Statistical Notice

- Changes to the military and civilian labour cost inflation rates reflect corrections to the weights utilised within the labour cost inflation calculation process. These changes have been made to the 2010/11 notice following original publication on 28 September 2011.

Since the 2009/10 defence inflation estimates were published in September 2010, there have been revisions to previous figures. Throughout the tables, these revisions are indicated within the footnotes. These revisions reflect:

Revisions since Publication of the 2009/10 Statistical Notice

- Revisions to price index data and replacement of provisional data with firm data (primarily Services Producer Price Indices and Construction Price Indices), correcting some re-basing errors in the original data, and ensuring inflation in composite indices are based on growth rates rather than index values.
- Correction of an error in the Euro exchange rate for 2009/10 within the cash office inflation estimate, and cash office expenditure figures for the same year.

- Correction of an error in military National Insurance and T+S inflation rates.

Methodology and Data Improvements

- Moving expenditure and corresponding inflation for contracts related to the purchase of fuels, from the high value firm price contract category to the fixed price contract category. This reflects the closer alignment between pricing arrangements for these fuel contracts and fixed price contracts.
- Improvements to the methodology for estimating inflation in aspects of labour costs, using a more relevant data source for estimating exchange rate variations.
- A review of the imputation method used for estimating inflation in high value miscellaneous and low value contracts without a DASA SIC group.

The overall impact of all revisions in the 2010/11 publication resulted in small changes to some of the defence inflation estimates between 2005/06 and 2009/10. There were also some revisions to estimates in the September 2010 publication following the original publication in March 2010. For further details on the drivers of these revisions refer to the [2009/10 Defence Inflation Statistical Notice](#). Table 10 presents how each of these revisions impacted on the top-level estimates, comparing results from latest and previous publications.

Table 10 Impact of Revisions at 28 September 2011

Defence Inflation	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11
Latest: September 2011	4.1%	3.4%	3.9%	4.2%	3.2%	4.2% r
September 2010 publication	4.1%	3.3%	3.9%	4.2%	3.1%	n/a
March 2010 publication	3.8%	3.3%	3.7%	4.1%	n/a	n/a
Difference: Sept 2011 to Sept 2010	0.0	0.1	0.0	-0.1	0.1	n/a

[r] Indicates a change to figures previously published in the 2010/11 statistical notice.

For other previously published figures refer to the [2005/06 – 2008/09 Defence Inflation Statistical Notice](#) or [Defence Inflation Statistical Bulletin No 10](#) published in March 2010.

Quality

A Background Quality Statement providing an assessment of the defence inflation statistics can be accessed at the following link on www.dasa.mod.uk:

<http://www.dasa.mod.uk/applications/newWeb/www/index.php?page=48&pubType=3&thiscontent=900&PublishTime=09:30:00&date=2010-09-29&displayText=Single%20Report&from=listing&topDate=2010-09-29>

Glossary

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

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.

DASA see **Defence Analytical Services and Advice**.

Defence Analytical Services and Advice DASA was created in July 1992 and provides National Statistics on Defence and other corporate information, forecasting and planning and consultancy, advice and research services to the MOD. It ceased to be an Agency on 1 April 2008 and was renamed Defence Analytical Service and Advice.

Defence Contracts All contracts have been grouped by **DASA** 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 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 DASA defined sub-group of **defence contracts** which captures contracts with a non-variable inflation rate imbedded in the contract price.

Fixed Price Contracts DASA 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.

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

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 Laspeyres 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**.

Non-Activity Related Allowances are essentially benefits paid to individuals such as education, 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 who 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 DASA defined groups based upon the Standard Industrial Classification of economic activity, which is maintained by the Office for National Statistics, and 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**.

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.

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