



# **The Profitability of BT's Regulated Services**

A REPORT PREPARED FOR VODAFONE

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# The Profitability of BT's Regulated Services

## Summary

The analysis described below shows that over the period April 2005 to March 2013:

- returns on BT's regulated services were consistently above the rate required to compensate investors, as determined by Ofcom;
- reported revenues over the period exceeded the level required to achieve the benchmark return by £4.9 billion;
- regulated wholesale prices would have been on average 10% lower, if they had been set such that BT had only earned a return at the benchmark level.

## Introduction

In this paper we present an analysis of publicly available information to show the returns in aggregate from BT's regulated services, against a benchmark cost of capital.

The structure of the paper is as follows:

- we begin by explaining the scope of our study;
- we then briefly describe our sources and methodology;
- we then present our key results; and
- we provide a conclusion.

## Scope of study

### SMP Markets

Under the EU framework, Ofcom can impose ex ante regulation on operators which have been found to have Significant Market Power (SMP) in defined relevant markets.

In a number of markets where BT operates, Ofcom has found that BT has SMP. As a result Ofcom has imposed a number of ex ante remedies including price

regulation<sup>1</sup> and requirements to produce accounting information on the services within these markets. The accounting information is published as part of BT's Regulatory Financial Statements (RFS).<sup>2</sup> We have defined the scope of BT's regulated services to be those services in markets where BT has been designated to have SMP, for which BT is required to publish information in the RFS. The RFS are published on an annual basis and are primarily intended to provide transparency for its stakeholders (including Ofcom and BT's customers) and to provide confidence that BT is complying with its SMP obligations (including cost orientation and non-discrimination obligations)<sup>3</sup>.

**Table 1** below sets out the markets where BT faces SMP regulation and the key products which are regulated.

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<sup>1</sup> In addition to a number of other regulatory obligations such as requirements to provide access, publish reference offers or to notify technical information.

<sup>2</sup> See: <http://www.btplc.com/thegroup/RegulatoryandPublicaffairs/Financialstatements/index.htm>

<sup>3</sup> Ofcom (2012) Regulatory financial reporting: a review consultation paragraphs 3.32 – 3.39.

Table 1. Key SMP Markets

SMP market	Key products
Business connectivity, wholesale – traditional Interface	Partial Private Circuits
Business connectivity, wholesale – alternative Interface	Wholesale Ethernet Services Backhaul Ethernet Services
Narrowband Wholesale analogue / ISDN 2, ISDN 30 exchange lines	Analogue Wholesale Line Rental, ISDN Wholesale Line Rental
Call origination	CPS, indirect access, NTS retail uplift
Geographic call termination	Geographic call termination
Wholesale Local Access Wholesale	Local Loop Unbundling
Wholesale broadband access	Bitstream access in distinct geographic areas where competitive conditions are not present

### Price regulation on SMP markets

Price regulation is a key part of the regulation of SMP markets. Absent such regulation there is a risk that BT would be able to set excessive prices to its customers (including wholesale customers) potentially resulting in higher prices for end users and impeding competition in downstream markets. For example Ofcom noted in its Fixed Access Market Reviews that “*we consider it appropriate to require BT to continue to provide specific forms of network access in each of the wholesale fixed access markets [...] and that most of these wholesale inputs and certain related services should also be subject to appropriate pricing remedies to ensure that BT does not set excessive prices to its competitors*”.<sup>4</sup> [Emphasis added] When assessing whether prices in SMP markets are excessive Ofcom considers whether BT has been able to earn returns in excess of its cost of capital<sup>5</sup>.

<sup>4</sup> Ofcom (2013) Fixed access market reviews: wholesale local access, wholesale fixed analogue exchange lines, ISDN2 and ISDN30 Consultation on the proposed markets, market power determinations and remedies paragraph 8.14.

<sup>5</sup> For example: “*BT’s reported profitability was significantly in excess of its cost of capital. We believed that this was prima facie evidence that wholesale charges for ISDN30 might be above the competitive*”

In price regulating ex ante BT's products and services Ofcom uses a range of tools (often in combination) summarised in **Table 2** below.

**Table 2. Ofcom price regulation tools**

Regulatory tool	Approach
<b>Multi-year charge control</b>	Prices are capped such that they are below a glide path such that prices are forecast to converge to costs by the end of the charge control
<b>Basis of charges obligations / Cost orientation obligation</b>	BT is obliged to demonstrate that prices reflect costs
<b>Safeguard cap</b>	Price rises are limited (not based on explicitly modelled costs)

Note: In addition, BT faces a number of pricing obligations related to the structure of prices which are aimed at preventing it from distorting competition: non-discrimination obligations (which ensure that prices set to BT's downstream operators are the same as those set to its downstream competitors; or "fair and reasonable" obligations (which can prevent discriminatory or predatory pricing practices).

## Methodology

### Measuring returns

We have assessed the profitability of BT services in the SMP markets. To assess profitability of BT's regulated services we have calculated the Return On Average Capital Employed (ROACE).

ROACE is defined as Earnings Before Interest and Tax (EBIT) as a percentage of the mean capital employed:

$$ROACE = \frac{\text{Regulatory revenue} - \text{Regulatory operating costs}}{\text{Regulatory Mean Capital Employed}}$$

Operating costs include operational expenditure and depreciation charges.

### Measuring regulatory costs

Regulatory operating costs and regulatory mean capital employed differ from the measures presented in BT's statutory accounts. The RFS present the value of assets on a Current Cost Accounting (CCA) basis, where asset values and

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*level* [Emphasis added]". Ofcom (2013) Fixed access market reviews: wholesale local access, wholesale fixed analogue exchange lines, ISDN2 and ISDN30 Consultation on the proposed markets, market power determinations and remedies paragraph 4.7.

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depreciation charges reflect current replacement costs and the consequent holding gains or losses due to revaluation of assets are included as an operating cost<sup>6</sup>. Where BT's costs are used as the basis of price regulation,<sup>7</sup> Ofcom typically draws on CCA information consistent with the RFS, but makes further adjustments in terms of both level of costs and the allocation of costs between services and markets.

The largest adjustment applied to the results of the RFS is a change to the asset valuation and the associated capital charges associated with duct and copper cable in BT's network<sup>8</sup> - the Regulatory Asset Value (RAV) adjustment. The RAV adjustment reduces the value of relevant assets purchased before August 1997, below the CCA valuation shown in the RFS, and similarly reduces operating costs.

Ofcom has published the calculations used to calculate the RAV adjustment in the consultation process leading to setting charge controls<sup>9</sup>. In order to estimate regulatory operating costs and regulatory mean capital employed for the SMP markets we have taken the reported information from BT's RFS on a current cost basis and then applied the RAV adjustment to both mean capital employed and operating costs<sup>10</sup>.

Due to changes in the format of the RFS we have only been able to produce results back to the 2005/06 financial year. The revenues used are as stated in the RFS<sup>11</sup>.

### Benchmark rate of return

Charge controls are set such that prices are expected to converge to costs, including to a return on capital employed equal to the determined cost of capital, i.e. the ROACE is equal to the determined cost of capital. Periodically Ofcom determines the appropriate cost of capital for given charge controls as a weighted

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<sup>6</sup> i.e. Financial Capital Maintenance (FCM)

<sup>7</sup> In some cases regulated prices are set not according to BT's reported costs, but based on a model of a hypothetical efficient operator – a so called “bottom up” approach.

<sup>8</sup> Ofcom Valuing BT's copper access network - Final statement Issued 18|08|05

<sup>9</sup> The latest published version associated with the Fixed access market reviews: Approach to setting LLU and WLR Charge Controls Consultation published 11|07|2013

<sup>10</sup> We have distributed the RAV adjustments for copper cable and for duct across the SMP markets in proportion to the distribution of CCA mean capital employed for duct and fibre reported by BT in the regulatory financial statements.

<sup>11</sup> For some markets where BT had cost orientation obligations, BT has been found later to have set prices above a cost oriented level and has been required to make repayments to the purchasing communication providers. The overcharges include £151 million for certain Ethernet services and repayments of £42 million for certain partial private circuit services. We have not adjusted the reported revenues to take account of the overcharges and subsequent repayment.

average cost of capital (WACC). This cost of capital therefore provides a good benchmark of the return that BT's shareholders require.

The determined costs of capital are found in Ofcom publications on the regulation of BT's SMP services<sup>12</sup>. Ofcom determines a separate, lower, cost of capital for services delivered by BT's Openreach division from those delivered by other divisions ("rest of BT"). The determined costs of capital are also reported in BT's RFS.

These two costs of capital are determined by de-composing a WACC for BT as a whole. As the regulated services are delivered from both Openreach and from other divisions the appropriate comparator should be a weighted average of the two determined costs of capital. However, for simplicity as a benchmark we have used a simple average of the two costs of capital<sup>13</sup>.

As Ofcom periodically reviews the cost of capital, the cost of capital has changed over the period, and potential may change within financial years. In order to provide a consistent approach for each financial year we have used the costs of capital as reported in BT's RFS for that year.

## Key results

**Figure 1** sets out BT's earnings for the SMP markets in aggregate (i.e. revenue less regulatory operating costs). There is some volatility in the figures which is caused by:

- holding gains and losses due to changes in input prices or changes in the methodologies used to estimate replacement cost; or
- changes in the scope of the SMP markets, as Ofcom conducts new market analysis and in some cases determines that BT no longer has SMP in a market

There is significant volatility in holding gains and losses due to changes in input prices, which in turn is due to fluctuations in the price of copper cable, reflecting movements in copper commodity prices. In addition there were significant holding gains and losses in 2007 and 2008 as a result of changes in accounting rules, which artificially increased operating costs and depressed returns in these two years.

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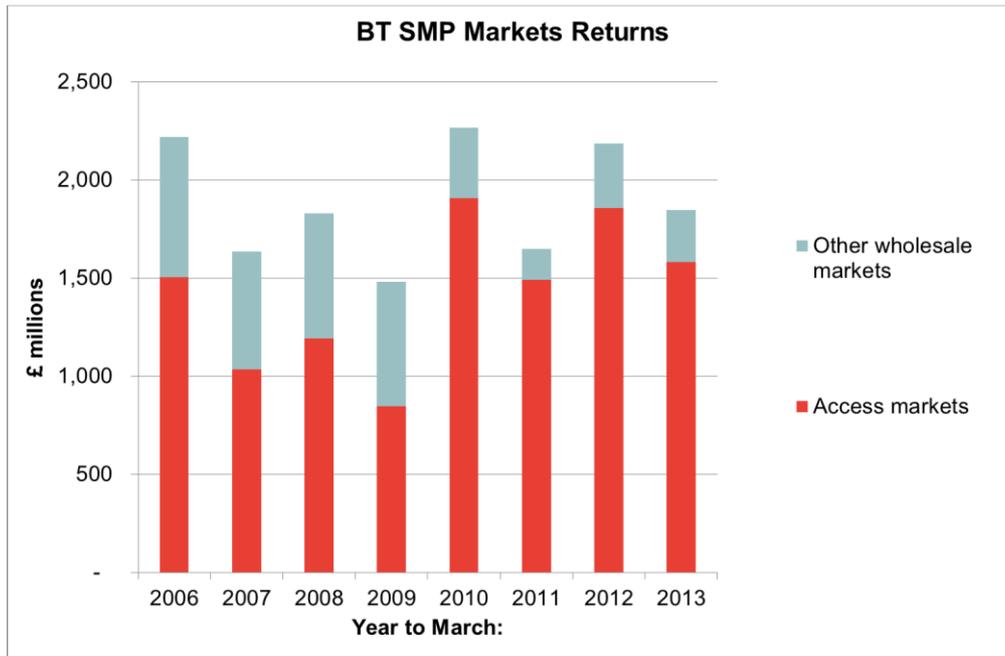
<sup>12</sup> Sources: For 2006-2008, Ofcom (Ofcom's approach to risk in the assessment of cost of capital - Final Statement, Ofcom, 18/08/2005. Source: For 2009-2012: Briefing for analysts: Telecoms, Ofcom, 03/07/2012. Source: For 2013: Fixed access market reviews: Approach to setting LLU and WLR Charge Controls Annexes Table A15.1: Estimate of BT WACC, March 2013.

<sup>13</sup> As the mean capital employed attributed to the Openreach services is greater than half of the overall SMP markets capital employed this simple average will marginally over-estimate the appropriate weighted cost of capital.

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The absolute level of returns was reduced by the re-designation of some wholesale markets as non-SMP markets in 2010 (local-tandem conveyance and transit market), and 2011 (WBA market 3)<sup>14</sup>.

**Figure 1. BT's earnings in SMP markets**

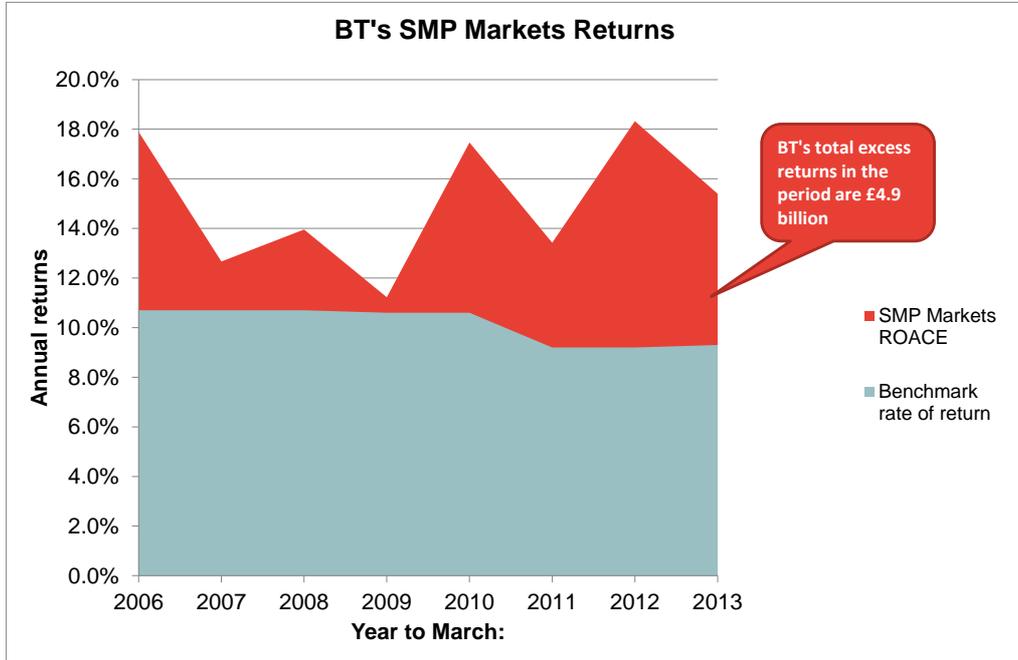


Source: Frontier analysis of BT RFS and published RAV model

**Figure 2** compares BT's ROACE for SMP markets with the benchmark cost of capital for the period since 2005/06. This shows that BT's ROACE for SMP markets has been consistently above the benchmark cost of capital. Over the period BT has earned revenues of £4,883 million more than if its returns on capital were consistent with its WACC.

<sup>14</sup> See: BT (2012) Primary Accounting Documents page 4.

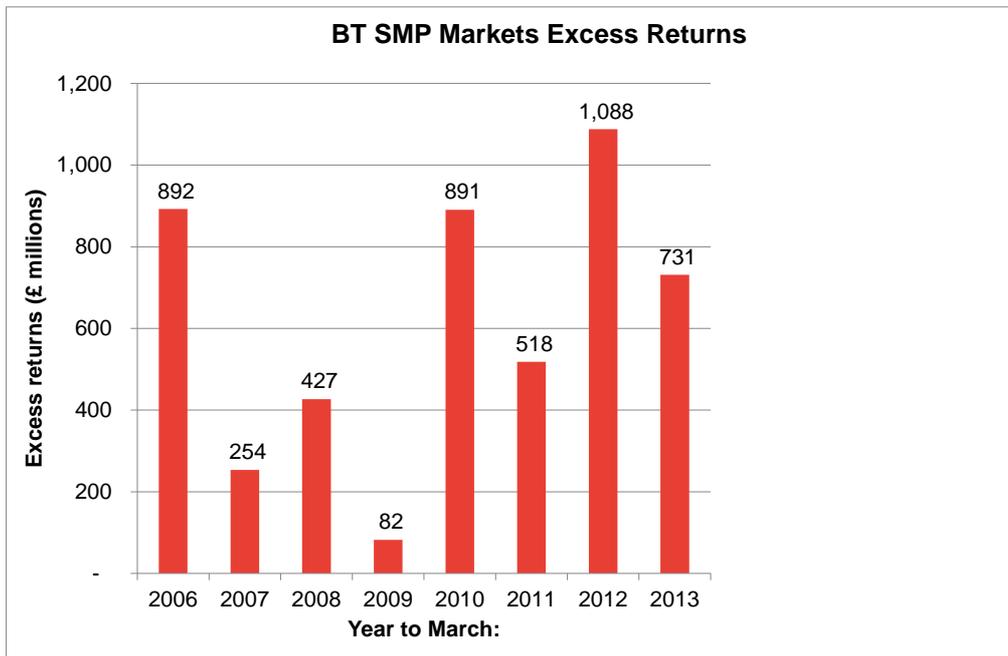
**Figure 2.** BT's regulatory return on capital compared to the benchmark rate (year to March)



Source: Frontier analysis of BT RFS and published RAV model

**Figure 3** shows the returns which are in excess of the benchmark cost of capital. The figure shows that in all years over the period, BT's returns on mean capital employed were in excess of its WACC.

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**Figure 3.** Analysis of excess returns in SMP markets

Source: Frontier analysis of BT RFS and published RAV model

## Conclusion

BT's returns for regulated services overall have been consistently above a benchmark rate based on Ofcom's determinations of the return required by investors. This implies that prices overall have been set at a higher level than that required to provide investors in BT with an appropriate rate of return: in other words, prices could have been lower and BT's investors would have still been adequately compensated.

There are a number of potential reasons for regulated returns to depart from the determined cost of capital:

- There may be differences in the regulatory cost base used for price regulation and our estimate of the regulatory cost base, due to adjustments to the RFS data that we have not taken into account;
- Some charge controls are set based on a cost basis which does not directly reflect BT's actual costs, for example bottom up models of a hypothetical network;

- BT may price services subject to cost orientation above fully allocated costs<sup>15</sup>;
- Ofcom may have set RPI-X charge controls at a level which allowed BT to achieve returns above the determined cost of capital
- There may be cost allocation issues between price regulated and non-price regulated services which could have impacted on the calculated returns.

Further analysis is required to understand which combination of these reasons may explain the results shown above.

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<sup>15</sup> Where Ofcom determines that BT has breached the cost orientation requirement, BT may be required to repay competitive providers for the overcharge on services they have purchased, but this repayment will not be reflected in these results.

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