Evaluation of the selection of comparators used in Annex 9 of Ofcom's pay TV phase three document

A report for British Sky Broadcasting Limited

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Final report

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1 Summary and conclusions

1.1 Background and scope of the study

On 26 June 2009, Ofcom published its "Pay TV phase three document" as part of its investigation into pay TV in the UK. Annex 9 to that document is a study on Sky's profitability prepared by Oxera Consulting Ltd ("Oxera") entitled "BSkyB's profitability in the context of the Ofcom market investigation". British Sky Broadcasting Ltd ("Sky") commissioned us, PricewaterhouseCoopers LLP ("we", "us" or "PwC"), to conduct research and analysis to evaluate the selection of comparators used in Oxera's benchmarking of Sky's profitability against other businesses (Section 6 of Oxera's report).

Oxera's selection of comparator businesses includes both TV and non-TV companies. Whilst we analysed TV companies on a business-by-business basis, we carried out a sectoral analysis of non-TV companies to determine whether businesses in each sector may generally be considered as reliable comparators.

Our analysis considers the comparability of companies between 2003 and 2007, the period used by Oxera for its analysis. We do not assess the implications of subsequent events on comparability after 2007.

1.2 Methodological framework for our analysis

The rationale for using benchmarking analysis as the basis for assessing the level of Sky's profitability is that, in the long-run, companies with a similar risk profile to Sky would be expected to earn a similar level of returns. If Sky was to be found to have a higher level of returns than a group of such comparators this might be indicative that its profitability was higher than would be expected in an effectively competitive market. However, to draw such a conclusion it is necessary that the observed returns of the comparator group are indicative of long-run returns, that risk exposure is similar across comparators and that measurement error, including features of business models that may affect the accounting ratios used to proxy underlying economic profitability, does not distort the comparison.

Based upon the above, we developed criteria to assess whether each of the comparator companies used in Oxera's analysis is a reliable comparator to Sky for the purpose of profitability assessment. We define a reliable comparator as a business that would reasonably be expected to have a similar level of measured profitability to Sky in all the circumstances of the study – including the particular metrics and the time period used – so that observed differences in the measures of profitability compared would provide reliable evidence on whether Sky's profitability appeared to be above or below average for companies of a similar nature. The criteria we developed to assess the reliability of Oxera's comparator companies relate to the following characteristics which should be similar between Sky and the comparator businesses:

- Cost of capital;
- Business model (main source(s) of revenue, asset intensity, level of programme and content costs, and geographical diversification);

- Business maturity and key events (including business combinations and disposals);
- Sector and country-specific factors (including sector maturity): and
- Regulation.

If businesses that do not share similar characteristics with regard to the above criteria are included in a comparator set, then it is not possible to draw any meaningful conclusions regarding the level of profitability of any single firm based on the observed dispersion of returns for that set of comparators for a particular short period in time. The differences in observed profitability could be explained by a range of factors associated with differences in the business model, business maturity, key events, sector and country factors or regulation. Furthermore, even in a well-specified set of comparators, where differences in the criteria listed above were not significant, it would be expected that there would be a dispersion of observed profitability for any sample of companies, reflecting factors such as measurement error associated with the profitability measures chosen to proxy underlying economic profitability, and differing levels of success in managing risks and generating value, particularly in a short time period such as the 5 years examined by Oxera. Caution therefore needs to be exercised, both in choosing the comparator set, and in drawing conclusions from it.

In order to assess Oxera's comparator businesses against our criteria, we gathered and analysed relevant sector-specific and company-specific data from a variety of sources. Whilst every endeavour was made to collect the most relevant and available data, it is possible that additional sources exist that were not identified in this study. Where reasonable and informed estimates needed to be made, we made such estimates on the basis of our own expert judgement in conjunction with relevant sector, accounting and/or valuations expertise. It was beyond the scope of our work to undertake an exhaustive assessment of the reliability of each comparator company considered by Oxera. Our conclusions are based on the evidence we gathered as described in this report. More extensive research could have yielded further evidence that might alter our conclusions. Furthermore, in some cases we identify factors (such as merger activity or accounting treatments) that we believe may undermine the reliability of the comparisons made by Oxera. It might be possible to undertake analysis to adjust for these factors, but this was also outside the scope of our work.

1.3 Approach to drawing conclusions

We have undertaken a factual analysis of the comparability of the non-TV and TV companies used by Oxera as comparators for profitability benchmarking for the period between 2003 and 2007. Our detailed analysis and conclusions regarding individual companies and sectors are set out throughout this report where we have assessed their comparability.

We acknowledge that there is an element of judgement in assessing whether a company is a reliable or unreliable comparator for profitability benchmarking based on accounting figures. We have taken an objective approach, considering all the different elements of comparability together. The differences that have emerged most strongly from our analysis as ruling out most companies as reliable comparators (for profitability benchmarking based on accounting figures), are business model differences (which affect risk and the comparability of accounting ratios) and particular events and business or sector maturity (either of which mean that recorded profitability is not necessarily reflective of long-term profitability).

Furthermore, in our view it is inherently difficult to draw conclusions about the profitability of a particular company, or the competitive pressures it faces, based on the measured profitability of a group of comparator companies in a limited time period such as the five years analysed by Oxera. In addition to the differences set out in the previous paragraph, in such a short time period it would be normal for different companies to have quite different levels of profitability due to variations in managerial performance and success. In addition, in a sector such as pay TV, which is relatively highly concentrated and has been characterised by a great deal of investment, innovation and change, the challenges in finding reliable comparators and drawing meaningful conclusions are magnified greatly. This appears to be common ground between ourselves, Oxera and Ofcom. We note that, according to Oxera, *"Ofcom has previously noted that identifying appropriate benchmarks for the UK pay-TV market and for Sky is particularly challenging"*.[1]

Our analysis of the reliability of individual comparators should be considered in the context of the acknowledged difficulty of the task as a whole.

1.4 Summary conclusions on Oxera's non-TV comparators to Sky

We consider that none of the non-TV companies used by Oxera can be considered reliable comparators to Sky for the purpose of profitability benchmarking using the accounting ratios considered by Oxera for the period between 2003 and 2007) based on accounting figures.

Table 1 sets out our conclusions regarding the comparability of each of Oxera's non-TV comparators to Sky, and the main differences that led us to each conclusion.

Table 1 – Conclusions regarding the comparability of non-TV companies used in Oxera's profitability benchmarking

Sector	Oxera's comparators	Conclusion	Main relevant differences to Sky
Oxera's "commercial radio" comparators	Chrysalis, GCap, NRJ	Unreliable comparators	▪ Non-subscription revenues ▪ Lack of subscriber acquisition costs and revenues ▪ Lack of comparable investment and risks in content ▪ Advertising revenue decline ▪ Listening decline ▪ Costs of digital transition ▪ Mergers and acquisitions distort results and ratios and change characteristics of businesses ▪ Difference in sector life cycle stage ▪ Restrictive regulation

[1] Oxera (2009), "BSkyB's profitability in the context of the Ofcom market investigation", Page 42.

Sector	Oxera's comparators	Conclusion	Main relevant differences to Sky
Oxera's "record companies" comparators	EMI, Sony BMG, Warner Music	Unreliable comparators	▪ Lack of retail activities ▪ Non-subscription revenues ▪ Different copyright lengths and risks of content investment ▪ Piracy ▪ Difficulty of monetising online provision of content ▪ Difference in sector life cycle stage
Oxera's "cinema" comparators	Cinemaxx, Cineworld Group plc, Kinepolis, Odeon Cinemas, Vue Entertainment	Unreliable comparators	▪ Non-subscription revenues ▪ Higher asset intensity ▪ Mergers and acquisitions distort results and ratios and change characteristics of businesses ▪ Costs of digitisation ▪ Shrinking theatrical window ▪ Lower cost of capital
Oxera's "DVD rentals" comparators	Blockbuster	Unreliable comparator	▪ Non-subscription revenues ▪ Lack of comparable wholesale activities ▪ Relative lack of customer investment ▪ Higher asset intensity ▪ Difference in nature of costs (actual purchase of DVDs)
	LOVEFiLM	Unreliable comparator	▪ Difference in nature of costs (actual purchase of DVDs) ▪ Lack of comparable wholesale activities
Oxera's "book publisher" comparators	Pearson plc, Reed Elsevier plc	Unreliable comparators	▪ Large proportion of non-subscription revenues ▪ Of proportion of revenues from subscriptions, a large proportion is from organisations rather than individuals ▪ Mergers and acquisitions distort results and ratios and change characteristics of businesses ▪ Costs of shifting to digitised content and distribution ▪ Difference in sector life cycle stage ▪ Lower cost of capital
Oxera's "newspaper publishing" comparators	Axel Springer Aktiengesellschaft, Daily Mail and General Trust plc, Johnston Publishing Ltd, Mecom Group plc, Trinity Mirror plc, United Business Media	Unreliable comparators	▪ Non-subscription revenues ▪ Advertising revenue decline ▪ Differences in nature of content acquisition and use ▪ Difference in sector life cycle stage
Oxera's "vertically integrated telecoms operators" comparators	Belgacom, Deutsche Telekom, France Telecom, KPN, TDC, Telecom Italia, Telefónica, Telenor, TeliaSonera, Vodafone	Unreliable comparators	▪ Lack of comparable wholesale operations ▪ Higher asset intensity ▪ 3G licence acquisitions ▪ Mergers and acquisitions distort results and ratios and change nature of businesses ▪ Lower cost of capital

Sector	Oxera's comparators	Conclusion	Main relevant differences to Sky
Oxera's "alternative operators (MVNOs, fixed altnets)" comparators	Carphone Warehouse Group[2]	Unreliable comparator	▪ Higher asset intensity ▪ Recent changes to business mean that profitability may have been impacted (launch of broadband services, change in business model with launch of unbundled local loop-based services) ▪ Greater geographical diversification
	Smart Telecom	Unreliable comparator	▪ Change in business structure from launch of fixed telephony services via unbundled local loops ▪ Experienced financial difficulties, suggesting that it was not exhibiting long-run rates of profitability
	TalkTalk Group[3]	Unreliable comparator	▪ Higher asset intensity ▪ Business experienced extremely rapid growth of subscribers over the relevant period ▪ Change of business model with launch of unbundled local loop-based services) ▪ Acquisitions over the relevant period (Onetel, AOL UK)
	Tele2	Unreliable comparator	▪ High asset intensity (presence of conventional mobile and cable network operations) ▪ Greater geographical diversification ▪ Significant exposure to lower income Eastern European countries ▪ Business events over the period (corporate restructuring, acquisitions, disposals)
	Tesco Mobile	Unreliable comparator	▪ Higher asset intensity ▪ More focus on pre-pay rather than subscription (compared to Sky) ▪ Recent start-up (in 2004) means that profitability over the relevant period is unlikely to reflect long-run profitability
	Tiscali	Unreliable comparator	▪ Substantial acquisitions and disposals ▪ Change in business structure from launch of fixed telephony services via unbundled local loops ▪ Experienced financial difficulties, suggesting that it was not exhibiting long-run rates of profitability
	Virgin Mobile	Unreliable comparator	▪ Higher asset intensity ▪ More focus on pre-pay rather than subscription (compared to Sky) ▪ Pre-merger costs are not likely to reflect the post-merger business

2 Carphone Warehouse Group is a parent company of TalkTalk Group.

3 TalkTalk Group is a subsidiary of Carphone Warehouse Group.

Sector	Oxera's comparators	Conclusion	Main relevant differences to Sky
	Vonage	Unreliable comparator	▪ Share price decline of 95% over the relevant period is indicative of an unstable business that is not exhibiting long-run levels of profitability

1.5 Conclusions on Oxera's TV comparators to Sky

Amongst the TV companies used as comparators by Oxera, there are some which appear to be relatively more reliable as comparators for profitability benchmarking against Sky based on accounting figures over the period considered by Oxera. We note, however, that even those that, on first appearance, seem relatively more comparable to Sky, have significant differences if analysed within the relevant 5 year period. Furthermore, exceptional events, accounting methods and other differences mean that unadjusted accounting ratios may be clear misrepresentations of a business' underlying long-run profitability.

From our analysis we consider that the TV companies can be divided into three groups for the purpose of assessing their comparability against Sky for profitability benchmarking based on accounting figures over the relevant period:

- Companies whose main revenue source is advertising – For these companies, the nature of their revenue differs from subscription revenue, in terms of long-term trends, risk and cyclicality. Furthermore, these are typically channel providers with limited or no retail activity. Hence we consider these to be unreliable comparators to Sky for profitability benchmarking using accounting ratios.

- Companies which operate cable networks – The pay TV retail activities of these companies are typically included within larger basic pay TV businesses (and sometimes broadband or telephony businesses accounting for a large proportion of revenue). Furthermore they have a high level of tangible asset intensity, reflected in high accounting asset intensity (measured using property, plant and equipment). Hence we consider these to be unreliable comparators to Sky for profitability benchmarking based on accounting figures.

- Companies whose basic business models are broadly comparable to Sky's – In principle, these companies could potentially be reliable comparators to Sky for profitability analysis, but our analysis identified substantial differences that mean that, in practice, profitability benchmarking based on accounting figures over the period considered by Oxera would not necessarily produce reliable results:

  – Companies with substantial exposure to developing countries – Business models, revenue sources, risks and opportunities are substantially different in developing countries. This makes profitability comparison of businesses in developed and developing countries unreliable;

  – Companies experiencing large sectoral or business shocks that cause profitability between 2003 and 2007 to be an unreliable proxy for long-run profitability. It may or may not be possible to make adjustments to accounting figures to remove the effect of these events; and

– Companies that have substantial differences to Sky, but which exhibit some similarities in business model, and relatively few business or sectoral shocks. These are the most-aligned comparators to the relevant features of Sky; however in all cases we identified substantial differences which mean that caution should be taken in drawing conclusions from the results of any analysis.

As a result, the number of companies analysed by Oxera that we consider to be potentially reliable comparators is small – there are three in total (Canal+ Group, DIRECTV[4] and Dish Network), and two of these (Canal+ Group and DIRECTV) should only be considered if certain adjustments were made to reported results. Such a small sample would be sensitive to specific characteristics or events that differ from Sky, and hence we conclude that profitability benchmarking of Sky based on accounting figures has extremely limited value, unless additional (more reliable) comparators exist, outside of the sample selected by Oxera.

Table 2 sets out our conclusions regarding the comparability of each of Oxera's TV comparators to Sky and the main differences that led us to each conclusion.

Table 2 – Conclusions regarding the comparability of TV companies used in Oxera's profitability benchmarking

Company (Country)	Conclusion	Main relevant differences to Sky
Five (UK)	Unreliable comparator	▪ Reliance on advertising revenues ▪ Relatively recent entry
ITV (UK)	Unreliable comparator	▪ Reliance on advertising revenues ▪ Post-merger transition costs ▪ Destabilising events
Virgin Media (UK)	Unreliable comparator	▪ High asset intensity ▪ Pre-merger results do not represent the post-merger business ▪ Larger proportion of non-pay TV revenues
Antena 3 (Spain)	Unreliable comparator	▪ Reliance on advertising revenues ▪ Significant radio business
Ono (Spain)	Unreliable comparator	▪ High asset intensity ▪ A large acquisition (Auna in 2005) is likely to have distorted results and had likely transition costs
Sogecable (Spain)	Unreliable comparator	▪ Costs incurred in the launch of a major new channel (Cuatro) ▪ Costs incurred in the acquisition of DTS ▪ Regulatory restrictions associated with the DTS acquisition

[4] We note that Oxera refers to "Direct TV", operating in Canada. We were unable to identify this entity and assume that Oxera refers to DIRECTV, operating mainly in the USA.

Company (Country)	Conclusion	Main relevant differences to Sky
Telecinco (Spain)	Unreliable comparator	▪ Reliance on advertising revenues ▪ Appears to be at a different level of development compared to Sky, or to have experienced large exceptional or cyclical effects
Mediaset (Italy)	Unreliable comparator	▪ Reliance on advertising revenues
Telecom Italia Media (Italy)	Unreliable comparator	▪ Reliance on advertising revenues ▪ Relatively recent launch ▪ Greater geographical diversification
Canal+ Group (France)	Not necessarily an unreliable comparator but results should be interpreted with caution, and should not be compared without adjustment	▪ Regulatory restrictions following the acquisition of TPS ▪ Unusual position within the French TV landscape (analogue terrestrial pay TV channel) ▪ Accounting figures need to be adjusted for high goodwill
M6 Metropole TV (France)	Unreliable comparator	▪ Reliance on advertising revenues ▪ Characteristics of substantial non-TV activities differ substantially from Sky's activities
TF1 (France)	Unreliable comparator	▪ Reliance on advertising revenues ▪ Business appears to be at a different stage of maturity
Kabel Deutschland (Germany)	Unreliable comparator	▪ High asset intensity ▪ Substantial proportion of business appears to relate to non-"genuine" pay TV
Premiere (Germany)	Unreliable comparator	▪ Exceptional changes in pricing and packaging and instability associated with the loss of Bundesliga rights in the relevant period
ProSiebenSAT1 Media AG (Germany)	Unreliable comparator	▪ Reliance on advertising revenues ▪ Sector appears to be in a later stage of maturity, or to have experienced substantial cyclical or exceptional effects.
RTL Group (Germany)	Unreliable comparator	▪ Reliance on advertising revenues ▪ Greater geographical diversification
Unity Media (Germany)	Unreliable comparator	▪ Higher asset intensity ▪ Different level of maturity of the business compared to Sky ▪ Ratios distorted by business events over the period (particularly the launch of ArenaSAT)

Company (Country)	Conclusion	Main relevant differences to Sky
Canwest Global Communications (Canada)	Unreliable comparator	▪ Reliance on advertising revenues ▪ Sectors in which Canwest operates are at a different level of development compared to pay TV in the UK ▪ Business events (disposals, acquisitions, launches).
DIRECTV(Canada)[5]	Not necessarily an unreliable comparator but results should be interpreted with caution, and should not be compared without adjustment	▪ Business events (corporate restructuring, disposals and acquisitions) ▪ Different level of development of the pay TV sector in the USA ▪ Returns need to be adjusted for exceptional items
Dish Network (Canada)[6]	Not necessarily an unreliable comparator but results should be interpreted with caution	▪ Different level of maturity of the business compared to Sky ▪ Different level of development of the pay TV sector in the USA
Discovery Holding Company (USA)	Unreliable comparator	▪ Different nature of revenues (non-subscription revenues) ▪ Higher tangible asset intensity ▪ Business events including separation from Liberty Media Corporation in 2005 and significant impairment charges in 2006 and 2007
Liberty Media/Starz Entertainment (USA)	Unreliable comparator	▪ Lack of clarity over which entity was analysed by Oxera. We analyse Liberty Capital Group ▪ Different revenue mix (significant component of revenues from film production, baseball franchise, technology companies) ▪ Events over the period (acquisitions)
Time Warner Cable (USA)	Unreliable comparator	▪ High asset intensity ▪ Absence of comparable wholesale operations ▪ Different level of development of the pay TV sector in the USA
Viacom (USA)	Unreliable comparator	▪ Reliance on advertising revenues, significant filmed entertainment business
Com Hem (Sweden)	Unreliable comparator	▪ Higher asset intensity ▪ Larger share of non-TV revenues (compared to Sky) ▪ Business events (acquisition of UPC Sweden)

[5] We note that Oxera refers to "Direct TV", operating in Canada. We were unable to identify this entity and assume that Oxera refers to DIRECTV, operating mainly in the USA.

[6] Although Oxera classifies this as a company in Canada, we understand that this company mainly operates in the USA.

Company (Country)	Conclusion	Main relevant differences to Sky
MTG (Sweden)	Unreliable comparator	▪ Greater exposure to advertising revenues ▪ Greater geographical diversification exposure to Eastern Europe
Astro All Asia Networks plc (Malaysia)	Unreliable comparator	▪ Different level of development of pay TV sector in Malaysia ▪ Country specific factors (lower income per capita in countries of operation, higher cost of capital) ▪ Higher geographic diversification
Liberty Global (The Republic of Ireland)	Unreliable comparator	▪ Higher asset intensity ▪ Greater geographical diversification ▪ Business events (consolidation of J:COM, acquisition of Telenet, disposals) ▪ Operations in countries where pay TV sector is at a different level of development compared to the UK
Naspers Limited (South Africa)	Unreliable comparator	▪ Greater geographical diversification ▪ Operations in countries where pay TV sector is at a different level of development compared to the UK

1.6 Conclusions on Oxera's comparators to the notional Sky retail and Sky wholesale businesses

Oxera also conducts a disaggregated profitability benchmarking analysis by dividing Sky's business up into two notional units – the "wholesale business" and the "retail business". We note that Oxera appears to place less emphasis on its disaggregate profitability analysis than its aggregate analysis. We agree that less emphasis should be placed on the disaggregate analysis, because any separation of Sky's activities into separate notional businesses adds significantly to the complexity and uncertainty in an exercise which, for the reasons set out above, is already inherently difficult.

We analysed whether the companies in Oxera's disaggregated profitability benchmarking were valid comparators for each of the notional businesses. We concluded that:

- Compared with the aggregate analysis, Oxera identifies few companies as comparators for the two notional Sky businesses;
- Using the same criteria as above, we found that most of the comparators identified by Oxera are unreliable comparators to Sky for profitability analysis; and
- As a result, the reliable comparator set is too small to draw meaningful conclusions regarding the profitability of Sky's notional retail and wholesale businesses.

2 Introduction

In this section we set out the background to and scope of this study, detail our approach, and outline the structure of the report.

2.1 Background

On 26 June 2009, Ofcom published its "Pay TV phase three document" as part of its investigation into pay TV in the UK. Annex 9 to this document is a study on Sky's profitability prepared by Oxera Consulting Ltd ("Oxera") entitled "BSkyB's profitability in the context of the Ofcom market investigation". British Sky Broadcasting Ltd ("Sky") commissioned us, PricewaterhouseCoopers LLP ("we", "us" or "PwC"), to conduct research and analysis to evaluate the selection of comparators used in Oxera's benchmarking of Sky's profitability against other businesses (Section 6 of Oxera's report).

2.2 Scope of the study

We were asked to:

- Develop a list of criteria that should be satisfied in order for a company to be considered a reliable comparator for profitability benchmarking purposes. We define a reliable comparator as a business that would reasonably be expected to have a similar level of measured profitability to Sky in all the circumstances of the study – including the particular metrics and the time period used – so that observed differences in the measures of profitability compared would provide reliable evidence on whether Sky's profitability appeared to be above or below average for companies of a similar nature. Our list of criteria should include both qualitative (e.g. comparability of business model, similarity of regulatory restrictions, impact of specific events such as mergers) and financial (e.g. capex-sales relationship, beta analysis) criteria, and should take account of the potential overlaps between these criteria; and

- Review each of Oxera's comparator businesses against these criteria and assess whether each business meets the criteria of a reliable comparator.

Oxera's selection of comparator businesses includes both TV and non-TV companies. Whilst we analysed TV companies on a business-by-business basis, we carried out a sectoral analysis of non-TV companies to determine whether businesses in each sector may generally be considered as reasonable comparators.

2.3 Our approach to the study

We conducted our research and analysis between 1 August 2009 and 16 September 2009. We:

- Developed a methodological framework for our analysis. We based this on the economic principles that determine why observed profitability (measured using accounting figures) may differ across companies;

- Identified (in the context of the methodological framework) the features of Sky that should be shared by a reliable comparator to Sky;
- Gathered qualitative and quantitative data[7] on sectors and companies from:
  - Company annual reports;
  - Company websites;
  - Market analysis reports; and
  - Consultation documents and submissions to Ofcom's pay TV market investigation.
- Consulted sector experts and accounting and valuation experts; and
- Compared each potential comparator to Sky selected by Oxera against the features we identified that should be exhibited by a reliable comparator. For the non-TV comparators we analysed the features of the sector as a whole.

Whilst every endeavour was made to collect the most relevant and available data, it is possible that additional sources exist that were not identified in this study. Where reasonable and informed estimates needed to be made, we made such estimates on the basis of our own expert judgement in conjunction with relevant sector, accounting and/or valuations expertise. It was beyond the scope of our work to undertake an exhaustive assessment of the reliability of each comparator company considered by Oxera. Our conclusions are based on the evidence we gathered as described in this report. More extensive research could have yielded further evidence that might alter our conclusions. Furthermore, in some cases we identify factors (such as merger activity or accounting treatments) that we believe may undermine the reliability of the comparisons made by Oxera. It might be possible to undertake analysis to adjust for these factors, but this was also outside the scope of our work.

2.4 Structure of this report

The remainder of the report is structured as follows:

- Section 2 sets out the methodological framework for our analysis;
- Section 3 sets out the features of Sky that should be shared by a reliable comparator;

[7] Sources are detailed throughout. Financial data are sourced from annual reports of the relevant company, unless stated otherwise.

- Section 4 reports on our analysis of Oxera's non-TV comparators to Sky;
- Section 5 reports on our analysis of Oxera's TV comparators to Sky;
- Section 6 reports on our analysis of Oxera's comparators to Sky's notional retail and wholesale businesses; and
- Section 7 concludes.

In addition there are two appendices to this report:

- Appendix 1 – Oxera's comparators
- Appendix 2 – Cost of capital

3 Methodological framework for our analysis

This section sets out the methodological framework for our assessment of the reliability of profitability comparators for Sky. In order to comment on the reliability of different companies as comparators to Sky it is important to understand what such a profitability benchmarking is intended to achieve, and hence what the characteristics of reliable comparators should be. Without such a methodological framework it would be possible to select companies as comparators based on perceived similarities in their activities, and then draw incorrect conclusions from a comparison that, on a superficial basis, would seem to offer important insights.

3.1 A methodological framework for profitability benchmarking

The underlying assumptions for conducting a profitability benchmarking analysis are that, (1) in the long-run (2) in competitive markets, (3) the economic profitability of firms (4) exposed to the same degree of exposure to risk should be the same. Thus, if a group of companies is selected on the basis that they all have the same degree of risk exposure (condition 4), and their profitability is measured in such a way that the measured returns are fully reflective of their economic profitability (condition 3) over the long-run (condition 1), then this would be indicative that a company within the group found to have high returns compared to the others was not exposed to fully effective competition (condition 2).

This indeed appears to be the methodology underpinning Oxera's approach. Oxera states that its *"choice of benchmarks was informed by the principle that, in the long term, returns should be in line with risk"*[8] (conditions 1 and 4), and hence *"appropriate comparators were selected according to their risk exposure"*[9] (condition 4). Oxera's stated *"purpose"* is *"to provide insights"* into *"the range of plausible economic rates of return earned by Sky"*[10] (condition 3). Furthermore, Oxera notes that *"assuming these comparators operate in competitive markets, their profitability might provide an indication of whether estimates of Sky's returns could be regarded as high"*[11] (condition 2).

Hence, to conclude that a lack of effective competition (condition 2) is responsible for observed differences in measured profitability in a benchmarking exercise, it is important that the measured returns accurately reflect long-run returns (condition 1), that risk exposure is similar across comparators (condition 4) and that the metrics used to compare profitability are reflective of economic profitability (condition 3).

Based upon the above, we have identified three types of criteria impacting the selection of companies for profitability benchmarking, which do not appear to have been fully considered in Oxera's analysis:

[8] Oxera (2009), "BSkyB's profitability in the context of the Ofcom market investigation", Page 42.

[9] Oxera (2009), "BSkyB's profitability in the context of the Ofcom market investigation", Page iv.

[10] Oxera (2009), "BSkyB's profitability in the context of the Ofcom market investigation", Page i.

[11] Oxera (2009), "BSkyB's profitability in the context of the Ofcom market investigation", Page 1.

- The exposure to risk, and hence the cost of capital, may differ (condition 4). If the companies chosen as comparators have different costs of capital then measured returns (even if perfectly measured) would differ even in the long-run in the model of perfect competition. This is consistent with statements regarding risk and return in Oxera's report[12] but we note that differences in the cost of capital are not taken into account in the selection of benchmarks, and results are not adjusted for such differences.

- The accounting ratios used to estimate profitability (ROCE, ROS, EV/total assets and EV/(Opex + Capex)) may misrepresent true economic profitability (condition 3).

- Differences between sectors and businesses in the short time period considered (2003 to 2007), such as stage of life cycle and experience of shocks, could obscure the true rate of return, even if there were no differences in the cost of capital or inaccuracies in the profitability measures used (condition 1).

These are discussed in turn below. In addition, even if allowances were properly made for these three types of differences, we would expect there to be an observed dispersion of profitability within any sample of companies, due to the differing degrees of success achieved by firms in managing risks and creating value. These differences could persist over the long-run (and indeed would be expected to do so in the case of businesses exposed to significant non-systematic risk associated with launching innovative products, the success of which *ex-ante* was in doubt). In a relatively short time period, such as the five years examined by Oxera, such differences would be normal.

3.1.1 Differing cost of capital

In the theoretical framework, properly measured long term economic profits would differ between firms in any sample where there were differences in the systematic risks of the firms. Investors are risk-averse and so require higher returns to compensate them for bearing risk. In particular, equity holders need to be compensated for the systematic risk exposure associated with holding a particular equity investment as part of a portfolio of investments. Debt holders need to be compensated for both systematic risk and specific risks that affect the probability of default[13].

Oxera appears to have assumed that, by choosing to benchmark Sky's profitability against the profitability of firms in what it considers to be similar sectors, differences in the cost of capital can be assumed to be small, so any observed differences in profits between firms in its sample could not be explained by differences in the cost of capital. Our approach is to estimate the cost of capital for sectors for the sectors of the proposed non-TV comparators using the standard methodology employed in business valuations. This enables us to comment on the extent to which any differences in the empirically measured outcome returns can be explained by differences in the cost of capital. Our results are set out in Appendix 2.

[12] Oxera (2009), "BSkyB's profitability in the context of the Ofcom market investigation", Page 42.

[13] See (among others) Ogier, T., Rugman, J. and Spicer, L. (2004), "The real cost of capital", Financial Times Prentice Hall.

3.1.2 Accounting ratios may misrepresent economic profitability

Accounting profits often do not accurately represent economic profits. Oxera's report acknowledges that *"different business models may distort the comparison of accounting returns of profitability"*[14]. The academic and regulatory literature is critical of the practice of benchmarking profitability across companies using unadjusted accounting ratios. For example, Graham and Steele (1997)[15], in an OFT research paper, reject the use of ROCE and ROS benchmarking as a valid basis for assessing profitability:

> *"The widely used technique of comparative analysis whereby the return on capital employed (ROCE), also known as the accounting rate of return (ARR), is compared with an industry or national average, with both returns based on historic costs and Generally Accepted Accounting Practices, has little merit. Its self-evident failure has prompted the use of the return on sales (ROS) in lieu of ROCE, but there has been no convincing justification for this practice".*

Other authors also criticise the approach, usually advocating adjustments or cash-flow based metrics as a basis for comparison including:

- Higson (1999)[16] states that *"commercial users of ROCE now almost invariably make some adjustments to accounting"*; and
- Rappaport (1998)[17] notes that, because investments in working capital and fixed capital needed to sustain a business are excluded from the earnings equation, *"…differences in capital requirements will result in inaccurate comparisons of profitability"*.

We consider that comparative benchmarking based on accounting figures is not an inappropriate methodology *per se*, given the practical constraints on estimating alternative measures of profitability. However, the intrinsic sensitivity of these ratios to differences between companies means that a great deal of caution must be exercised in determining whether this method is appropriate, and particular care must be taken regarding the selection of comparators. We note that there are likely to be instances (i.e. certain companies) where no reliable comparators exist (or too few for robust findings to be drawn from a comparison) for benchmarking using these accounting ratios.

Our approach is to identify the key indicators of differing business models that may impact the comparison of profitability using the four measures (ROCE, ROS, EV/total assets and EV/(Opex + Capex)) used by Oxera, and also to assess qualitative factors, leveraging our industry expertise to identify where business models may differ to that of Sky. Where there are non-trivial differences in business models compared with Sky as measured by these indicators, this suggests that such companies are not reliable comparators for benchmarking using the four accounting ratios used by Oxera. We note furthermore that differences in accounting policies may exclude a company as a reliable comparator.

[14] Oxera (2009), "BSkyB's profitability in the context of the Ofcom market investigation", Page 42.

[15] Graham, M. and Steele, A. (1997), "The assessment of profitability by competition authorities", Office of Fair Trading research paper 10.

[16] Higson, C. (1999), "The use of CARR in the assessment of profitability by competition authorities", London Business School Regulation Initiative Discussion Paper Series Number 27.

[17] Rappaport, A. (1998), "Creating shareholder value", The Free Press.

We note that the standard definition of capital employed is total assets minus current liabilities[18]. Oxera uses *"total assets less investments in securities and JVs (including goodwill)"*[19] as a definition for Sky's capital employed, and total assets as the definition for other comparators. Aside from the inaccuracy arising from using different definitions of the same ratio, we note that Oxera effectively includes working capital assets within capital employed but does not deduct working capital liabilities. This could result in significant mismatches between comparators. For example, comparators with cash-generative working capital models, which are likely to be reflected by a net current liability position, and which can therefore run their businesses using a lower capital base, will not see this reflected in their ROCE figures. Under the standard methodology these differences would be reflected in the ROCE figures as current liabilities would be deducted. It does not seem consistent to incorporate working capital assets into the ROCE analysis, yet exclude working capital liabilities. Furthermore, this approach will bias Sky's ROCE figure upwards in relation to the comparator group, as capital employed is being diminished by investments in securities and JVs in Sky's case, but not for the comparators.

The ideal asset-based measure of profitability would include all business assets in the denominator. This would include not only the tangible assets employed by businesses, but also intangible assets, as investors would reasonably expect to earn a return on all the assets created and deployed by a business. We believe that intangible assets are likely to be important assets for Sky, which has invested heavily, *inter alia*, in acquiring content rights and in customer acquisition and loyalty. However, in practice it is difficult to reflect the level of intangible assets appropriately in accounting ratios such as those used by Oxera, because different intangible assets are treated differently in different companies' accounts. In particular, the value of intangible assets that *is* recognised in accounting data is linked closely to the value of goodwill which, for accounting purposes, depends on past acquisitions (i.e. firms, such as Sky, which grow primarily through organic growth, will not generally record such assets in their accounts, whereas they will be recorded – at a value which may or may not reflect their true economic value – for firms which grow through acquisition).

Accounting ratios can therefore inform or misstate economic asset intensity. In order to obtain the most comparable figures for accounting asset intensity, we focus on fixed assets, which in this report we define as property, plant and equipment. Whilst this suffers from the weakness that it will not identify differences in (unmeasured) total assets across companies, it provides broadly comparable figures across companies and hence gives an indication of whether businesses models are similar with respect to the extent they rely on tangible assets.

In summary, we consider that the use of accounting ratios for comparative benchmarking purposes is not an inappropriate methodology *per se*, given the practical constraints on estimating alternative measures of economic profitability. Furthermore, the accounting ratios selected by Oxera are not unreasonable (subject to our concerns outlined above regarding Oxera's use of different measures of capital employed for Sky and the comparator businesses), given the difficulties in calculating more sophisticated measures for a large number of businesses.

However, the intrinsic weaknesses of these ratios for comparing different businesses means that a great deal of caution should be exercised regarding the implementation of this methodology, and in particular the selection of comparators, given the tendency for accounting ratios to produce skewed (and hence unreliable) results due to differences between businesses. In our view, Oxera's approach to selecting comparators does not take into account such differences in sufficient depth, resulting in comparator businesses that differ in ways (for example large differences in asset intensity) that render accounting ratio comparisons unreliable.

[18] See http://www.investorwords.com/5440/capital_employed.html, or http://www.finance-glossary.com/define/capital-employed/206

[19] Oxera (2009), "BSkyB's profitability in the context of the Ofcom market investigation", Pages 26 and 48.

3.1.3 Differences between sectors and businesses such as stage of life cycle and experience of shocks obscure the true rate of return

3.1.3.1 Changes or shocks to a sector cause it to be out of "equilibrium"

Measuring profits in a defined, short, time period makes profitability benchmarking more practical, but undermines the condition that long-term profits should be compared. The profitability of firms in a sample for a particular short time period would be expected to differ if any of the comparator firms operated in a sector that was not in "equilibrium" for the period considered. Equilibrium is a theoretical concept. However, a practical interpretation is that in a profitability comparison analysis all the comparator businesses should be in sectors that are at a similar stage of development, and there should have been no shocks that occurred or were occurring which differ from those experienced by the other sectors in the sample.

Differences in stages of the product/industry life cycle

The textbook description of the product/industry life cycle is that industries, in general, may follow an S-curve growth pattern, split into four broad stages – introduction, growth, maturity and decline. Across these different stages in the industry life cycle, the characteristics of businesses, the activities they undertake and the risks to which they are exposed, vary substantially. Hence profitability comparisons should only consider businesses that are broadly at the same stage in the product/industry life cycle. Porter (1998) summarises what is considered to be the "most common" predictions for how aspects of industries vary across the life cycle. We summarise the section on profitability in Table 3.

Table 3 – Summary of margins and profits across the life cycle

Aspect of business	Introduction	Growth	Maturity	Decline
Margins and profits	▪ High prices and margins ▪ Low profits ▪ Price elasticity to individual seller not as great as in maturity	▪ High profits ▪ Fairly high prices ▪ Lower prices than introductory phase ▪ Recession resistant ▪ High P/Es ▪ Good acquisition climate	▪ Falling prices ▪ Lower profits ▪ Lower margins ▪ Increased stability of market shares and price structure ▪ Lowest prices and margins	▪ Low prices and margins ▪ Falling prices ▪ Prices might rise in late decline

Source: PwC analysis based on Porter, M. (1998), "Competitive strategy", The Free Press.

There are limitations to this approach. In particular, it is often not clear what stage of the life cycle an industry has reached, meaning that there will often be substantial doubt as to whether two businesses are in the same life cycle stage or not. Furthermore, the life cycle in reality will differ across different sectors and across countries within the same sector, both in terms of the time spent in each stage, but importantly also in terms of the activities undertaken in each stage. For example some industries in the Introduction or Growth stages may invest heavily in building intangible assets (for example through marketing), whilst in other industries where intangible assets are less important there may be more investment in tangible assets or in efficiency savings. Alternatively, industry evolution is likely to take a different route in countries which are leading innovators (i.e. “first-movers”) compared to “followers”, where less investment is likely to be made in innovation and research and development.

Shocks/events

Such shocks might include, for example, the entry or departure of a major industry player, changes in industry business models or changes in technology. Ofcom’s annex on profitability analysis in phase one of its pay TV investigation[20] states that *“…profits in a market characterised by high degrees of innovation may reflect the competitive rewards, and a snapshot of profits would not be an accurate reflection of the competitive situation.”*

3.1.3.2 Changes or shocks to the business causing it to be out of “equilibrium”

Similar to sectors, businesses should be at the same stage of the business cycle and should not have experienced significant recent changes or shocks other than those comparable to the shocks and changes experienced by Sky. The best approach is likely to be to include only companies that are in similar sectors and countries, with similar developments and in which they are taking a similar “route” towards a stable business. For comparison against Sky, businesses that might constitute reliable comparators are businesses that are growing and have high levels of innovation. Businesses of different scale are unlikely to be reliable comparators for profitability analysis as the structure and activities of businesses of different size could differ substantially. In addition, businesses that have experienced major change (e.g. merger or de-merger activity, rapid changes in profitability or business model) are unreliable comparators, as are companies that had negative returns, as these cannot be sustainable in the long-run.

3.1.3.3 Country differences

Business risks and returns are impacted by the countries in which they operate. Differing systematic risks should be reflected in differing costs of capital, but there are also likely to be different non-systematic risks resulting from the countries in which businesses operate. Such differences may include:

- Consumer incomes – consumers in lower income countries are likely to spend less on consumer products such as pay TV. Similarly the value of advertising (and hence advertising revenues) is likely to be lower.
- History of provision of TV and consumer tastes – differing tastes for TV, and the history of TV in the country, mean that different business models may be more or less profitable. For example, in countries with strong well-established free-to-air offerings, pay TV may be less popular, and potentially less profitable.
- Pay TV penetration – pay TV retailers operating in countries with low pay TV penetration are likely to differ substantially from those in high pay TV penetration countries:

[20] Ofcom (2007), “Analysis of profitability and investor returns – Annex 12 to pay TV market investigation consultation”.

- – The market is likely to be less developed, so a different mix of products is supplied to consumers with different experiences and tastes;
- – The business is likely to be smaller; and/or
- – A large proportion of the business' activities may not relate to "genuine" pay TV[21].

- Different macroeconomic environment – as the accounting ratios used by Oxera to assess profitability do not control for revenue cyclicality, different timings or magnitudes of economic cycles can result in comparing businesses at different points in the business cycle or in substantially different business cycles.
- Different legal environment – companies may have different levels of legal restrictions on activities and ownership.

3.1.3.4 Regulation

Regulation may affect either costs or revenues or both. Regulation impacting profitability for TV companies includes:

- Restrictions on advertising that tend to limit the potential upside of revenue earned;
- Public service requirements that may contribute to costs; and
- Other regulation, such as restrictions on provision of services across media or explicit or implicit subsidy, that may affect either revenues or costs.

Businesses with significantly differing regulatory requirements are therefore unlikely to be reliable comparators for the purpose of profitability benchmarking analysis[22].

3.1.4 Summary

We consider that this has the following implications for our analysis:

[21] For a discussion of "genuine" pay TV, see PricewaterhouseCoopers (2008), "The outcomes for consumers in relation to pay TV in Europe", Annex 1 to Sky's submission to Ofcom's first pay TV market investigation consultation.

[22] We note that, in principle, correctly applied economic or price regulation would yield a reliable profitability benchmark. However, many regulatory restrictions discussed in this report relate not to economic but to technical regulation (such as, for example, restrictions on format in the radio sector) which cannot necessarily be expected to result in companies earning "normal" returns. For example, Ofcom has stated that "*the regulatory burden on analogue local commercial radio may be unsustainable*" (Ofcom, "The Future of Radio", 16 November 2006), indicating that returns may not be equivalent to "normal" returns in an effectively competitive market.

- **Choosing comparators** – to understand whether a company is a reliable comparator to Sky we should understand the following aspects of its business, and conclude that a company is a reliable comparator if it is similar to Sky in terms of its:
  - Cost of capital;
  - Business model:
    - Main source(s) of revenue;
    - Asset intensity;
    - Level of programme and content costs; and
    - Geographical diversification.
  - Business maturity and key events:
    - Business maturity; and
    - Business events (including business combinations and disposals).
  - Sector and country-specific factors:
    - Sector events & maturity; and
    - Country-specific factors; and
  - Regulation

  We consider that Oxera does not address these key differences in its approach to selecting comparators. Oxera does include some quantitative analysis of financial ratios of potential comparators, but does not consider the nature of the activities undertaken, events that have occurred or other differences outlined above. Such an overly “quantitative-focussed” approach can lead (and in our view, has led) to inappropriate selections of comparators;

- **Interpretation of results** – Oxera uses the benchmarking analysis to *"crosscheck"*[23] the conclusion that Sky's profitability appears high (in the sense that it is in excess of Sky's cost of capital, and hence is indicative of super-normal profits). We do not, in principle, disagree with attempting such an analysis. However before undertaking a benchmarking exercise it is crucial to consider whether sufficient reliable comparators exist for such an analysis to produce meaningful conclusions. The characteristics of some businesses may be such that a large number of reliable comparators exist to benchmark against that business. However, for some other businesses, a sufficient set of reliable comparators may not be available.

When businesses that do not fulfil the above criteria are included in a comparator set, then it is not possible to draw any meaningful conclusions regarding the level of profitability of any single firm based on the observed dispersion of returns for that set of comparators for a particular short period in time. The differences in observed profitability could be explained by a range of factors associated with differences in the business model, business maturity, key events, sector and country factors or regulation. Furthermore, even in a well-specified set of comparators, where differences in the criteria listed above were not significant, it would be expected that there would be a dispersion of observed profitability for any sample of companies, reflecting factors such as measurement error associated with the profitability measures chosen to proxy underlying economic profitability, and differing levels of success in managing risks and generating value, particularly in a short time period such as the 5 years examined by Oxera. Caution therefore needs to be exercised, both in choosing the comparator set, and in drawing conclusions from it.

3.2 Oxera's "closest comparators"

In this paper, we consider all of Oxera's comparators to Sky. However, Oxera also attempts to identify those companies amongst its full sample which are the "closest comparators" to Sky, at both the aggregate and disaggregate (notional retail and wholesale businesses) level. In this section we set out our conclusions regarding Oxera's use of "clustering analysis" to identify the closest comparators to Sky's aggregate business and to the notional Sky retail and wholesale businesses. It is notable that Oxera's methodology to identify the closest comparators does not include any justification for the selection of the broader sample, and hence this "relative" analysis is not a substitute methodology for an in-depth analysis of the "absolute" characteristics of businesses against criteria that identify whether they can inherently be considered to be reliable comparators.

3.2.1 Sample sizes for "closest comparators"

Oxera's analysis of "closest comparators" to Sky's aggregate business has extremely small sample sizes. For example the "Group 3" non-TV comparators sample for comparison of valuation metrics consists of only two companies (EMI and Sony BMG). The largest of these samples ("Group 1" TV comparators) consists of only five companies.

Conclusions based upon such small samples of comparators are extremely sensitive to any differences between companies that do not affect the selection decision (i.e. any differences between companies that are not included in Oxera's dissimilarity measure, such as one-off events affecting the profitability of individual firms in the short period examined). This means that the results of comparisons of very small samples (unless the clustering analysis is a perfect measure of "closeness") are unreliable.

[23] Oxera (2009), "BSkyB's profitability in the context of the Ofcom market investigation", Page iv.

3.2.2 Inclusion of variables

Oxera's cluster analysis includes some measures that we agree are important inputs into a decision as to the reliability of a company as a comparator (for example measures of asset intensity and programme costs). However Oxera's cluster analysis also appears to exclude important variables from its cluster analysis, and may place insufficient weighting on differences which, by themselves, may cause a business to be an unreliable comparator, for example particular events that have affected the business (or its sector), or country differences.

We set out below two examples of where we consider that the clustering analysis leads to the classification of unreliable comparator businesses as "closest comparators": Premiere and Astro Malaysia.

Example 1 – Premiere

Premiere is selected as a "closest comparator" to the aggregate Sky business and to the notional Sky wholesale business. However Premiere has experienced exceptional events, during the period of Oxera's analysis, that make it an unreliable comparator: In 2006, Premiere lost Bundesliga broadcasting rights to Unitymedia's subsidiary ArenaSAT. It lost 150,000 customers in 2006 and responded by almost halving the price of its entry-level packages. In 2006 it reported an EBIT loss of €41m (compared to a €56m profit in the previous year). In June 2007, it signed a redistribution deal with Arena, which allowed it to screen the matches on its platform and distribute the packages on cable and IPTV platform. In 2007 Premiere reported an EBIT loss of €10m.

Hence, Premiere is an unreliable comparator on *at least* three dimensions:

1. For some of the period under consideration, Premiere did not have exclusive rights to important content (important sports content);
2. Premiere experienced large shocks to its business model, including dramatic changes to pricing and packaging; and
3. Premiere made a substantial loss for two of the years of Oxera's analysis. Negative returns cannot be a reliable benchmark for long-term profitability, as a business earning negative returns in the long-term would cease to operate.

Example 2 – Astro Malaysia

Astro Malaysia is selected as a "closest comparator" to the aggregate Sky business. In Box 6.1 "Output of clustering" Oxera states that *"While this company seems similar to Sky in terms of financial and operational risk metrics, there may be a concern that it may not provide an appropriate comparator because it operates in markets that are potentially riskier than the UK. However this would be expected to contribute further to the conservative nature of the analysis (higher country risk requires higher returns for investors)."*[24]

[24] Oxera (2009), "BSkyB's profitability in the context of the Ofcom market investigation", Page 46.

We concur that different countries mean different country risk premia and different costs of capital and that businesses in riskier countries would have a premium applied to their costs of capital. What Oxera's analysis fails to address, however, is that operating in different countries means a range of other differences that might not be reflected in the cost of capital, and that the direction of impact on profitability of these differences is not straightforward: for example, different regulation and government intervention, the impacts of operating in a different sector or selling to different types of customers, and different products that firms may be able to offer to customers, meaning that the business itself might be in a different life-cycle stage. Put together, these factors mean that businesses with substantial operations in emerging markets are unlikely to be reliable comparators to businesses that operate only in developed economies, particularly where economic profits are proxied by accounting measures over a short time period.

3.2.3 Analysis of Oxera's dendrograms suggests that Sky may be an outlier in some samples

In our view, the dendrograms produced by Oxera's clustering analysis suffer from some weaknesses, regarding the exclusion of important business characteristics, and potentially the weighting of those characteristics that are included. We furthermore have doubts about whether reliance on an exclusively quantitative approach to the selection of "closest comparators" is appropriate, given the qualitative nature of some differences (e.g. recent business or sector shocks).

Nevertheless, analysis of Oxera's dendrograms does provide some insight into the relative similarity of businesses within each sample, as set out below.

In Oxera's aggregate benchmarking, for both "Group 3" and "Group 4", Sky appears to be an outlier:

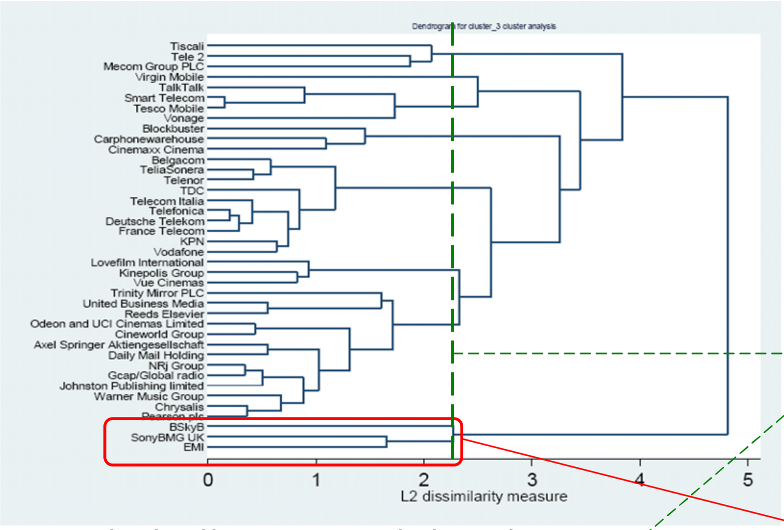
- The dissimilarity measure of the "node" at which Sky and its closest comparator are clustered together is relatively high (approximately 2.25 for "Group 3" and almost 3 for "Group 4"). This is in contrast to most other companies within the sample, which form an initial cluster at a dissimilarity measure of around 1, or less; and

- When a cluster does form which includes Sky, it includes few other businesses. In fact for both "Group 3" and "Group 4", an alternative interpretation is that the cluster within which Sky is included is a distinct cluster, and all other businesses are in a separate cluster (and hence are not reliable comparators).

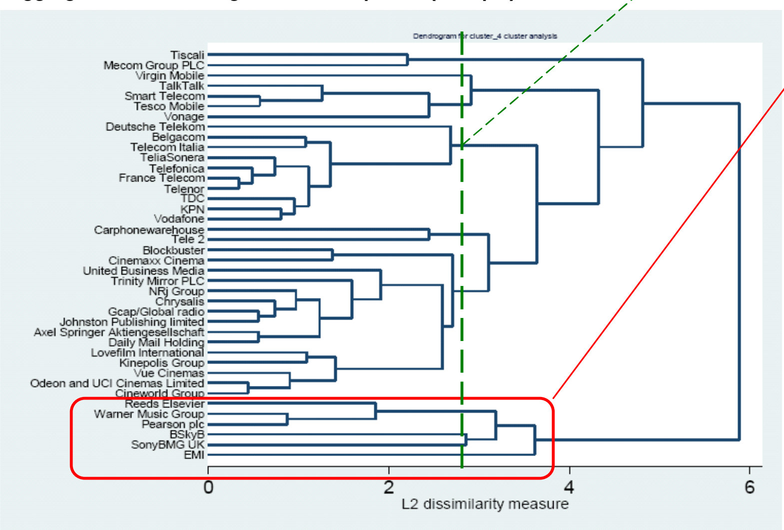
This is demonstrated in Figure 1.

Figure 1 – Cluster analysis of non-TV companies suggests that Sky is an outlier

Aggregate benchmarking, non-TV companies (Group 3)



Aggregate benchmarking, non-TV companies (Group 4)



The level of dissimilarity at which Sky joins another company in a cluster is relatively high.

The number of companies that appear to be in a cluster with Sky is small and this cluster appears to be relatively dissimilar to the rest of the non-TV companies

Source: Oxera (2009), "BSkyB's profitability in the context of the Ofcom market investigation" Page 83, PwC analysis

Similar patterns (that Sky appears to be an outlier) hold in “Group 5” (retail benchmarking against TV companies)[25] and “Group 10” (wholesale benchmarking against non-TV companies)[26] – the number of companies in an identifiable cluster is small and the level of dissimilarity at which a cluster is first formed is relatively high. In “Group 5”, Sky is identified as the least similar business within the sample (although Oxera does not appear to have carried out a comparison of the notional Sky retail business against the “Group 5” comparators).

3.2.4 Changes between dendrograms demonstrate the sensitivity of Oxera’s clustering analysis to missing variables

Oxera’s “Group 5” clustering is based on the same financial ratios as “Group 6” (total revenue volatility, ratio of opex to total assets and ratio of depreciation to opex) plus two extra financial ratios: subscription revenue as a proportion of total revenue and the ratio of content cost to opex.

The addition of these two financial metrics causes the shape of the dendrogram[27], and in particular the identity of Sky’s closest comparators (in “Group 5” there are none), to change dramatically from “Group 6” to “Group 5”. This is indicative of the sensitivity of the clustering analysis to missing variables – when some missing variables are added in “Group 5”, Sky – which previously appeared comparable to some of the other companies – becomes a clear outlier.

The sensitivity outlined above suggests that, were the range of important qualitative and quantitative variables that have currently been excluded from Oxera’s clustering analysis to be included properly, it is possible that the shapes of all dendrograms (and hence the identify and/or existence of the closest comparators to Sky) could also change dramatically. This casts doubt on the robustness of the selection of “closest comparators” to Sky and the selection of comparators to the disaggregated notional Sky retail and Sky wholesale business.

This is demonstrated in Figure 2.

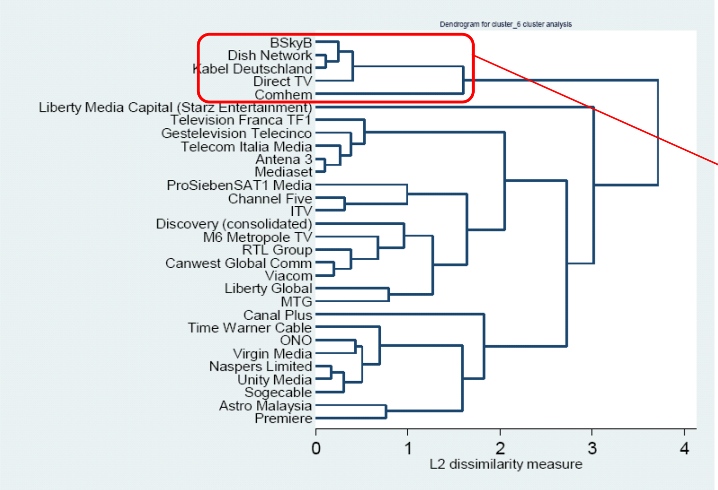
[25] Oxera (2009), “BSkyB’s profitability in the context of the Ofcom market investigation”, Page 84.

[26] Oxera (2009), “BSkyB’s profitability in the context of the Ofcom market investigation”, Page 86.

[27] Oxera (2009), “BSkyB’s profitability in the context of the Ofcom market investigation”, Page 84.

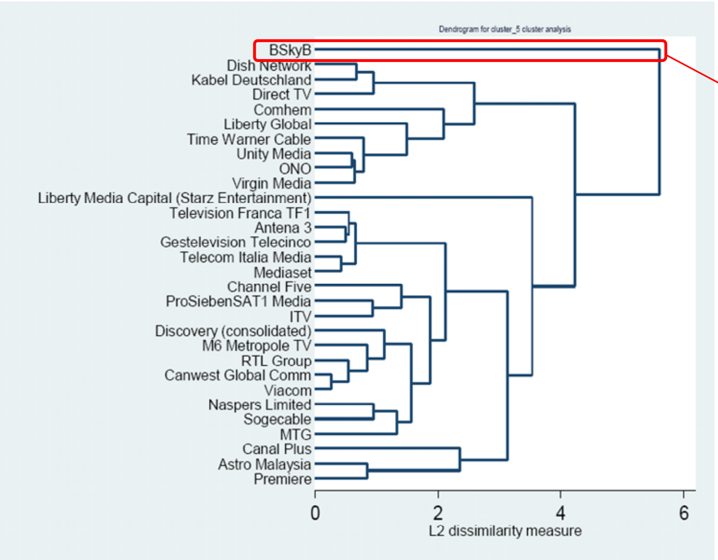
Figure 2 – Oxera's clustering analysis appears to be highly sensitive to missing variables

Retail benchmarking, TV companies (Group 6)



In "Group 6": Sky appears to be part of a cluster including Dish Network, Kabel Deutschland, Direct TV and (possibly) Com Hem.

Retail benchmarking, TV companies (Group 5)



When two additional financial metrics are included in "Group 5" (subscription revenue as a proportion of total revenue and the ratio of content cost to opex) Sky appears to be an outlier to the whole set of TV companies.

Source: Oxera (2009), "BSkyB's profitability in the context of the Ofcom market investigation" Page 84, PwC analysis

3.2.5 Conclusions regarding Oxera's clustering analysis

Oxera uses its quantitative clustering analysis to (1) identify the "closest comparators" to Sky; and (2) identify which companies to use as comparators to the notional Sky wholesale and Sky retail businesses. It is difficult to assess precisely how appropriate Oxera's methodology is for this purpose, as details of the clustering analysis undertaken were not supplied in the report[28]. Such details may have important effects on the resulting clusters.

Our conclusions, based on the analysis above, are as follows:

- The sample sizes, for the "closest comparators" and comparator sets for the notional Sky retail and wholesale businesses, are too small for results to have robust meaning;
- The clustering analysis lacks some variables such as business or sector events or stage of life cycle, and places insufficient weight on others, for example different asset intensities or the characteristics of revenue source (e.g. advertising rather than subscription revenues);
- Analysis of Oxera's dendrograms suggests that Sky is an outlier in some samples; and
- Changes between dendrograms demonstrate the sensitivity of Oxera's clustering analysis to different variables, and suggest that results are likely to be highly sensitive to the missing variables.

[28] For example, we were unable to identify how the different measures are "normalised" to produce the dissimilarity measure (effectively this would explain whether there is an implicit weighting on each of the variables considered) or the details of cluster formation (such as whether clusters were formed based on the average characteristics of smaller clusters, or on the specific characteristics of companies within each smaller cluster).

4 Characteristics of Sky relevant for choice of comparators

4.1 Introduction

This section sets out our understanding of Sky's activities and the features and characteristics which would be required of a reliable comparator for the purpose of profitability analysis. We consider first Sky's business on an aggregate basis – this is the main way in which Oxera performs the profitability benchmarking analysis. We then look at the characteristics associated with the separate notional wholesale and retail businesses which are also examined by Oxera.

4.2 Sky in aggregate

4.2.1 Sky's activities and characteristics

We define four "businesses" within Sky that can be distinguished (in principle): the "broadcasting business", the "retail business", the "platform business" and the "non-TV business". We define activities and characteristics of each of these "businesses" below.

While the focus of Oxera's work was on Sky's TV activities we understand that Oxera has not stripped out Sky's non-pay TV activities from its aggregate profitability analysis (although it appears to have done so for the disaggregated retail and wholesale analyses[29]). This implies that Sky's non-pay TV activities are also relevant for the selection of comparators[30].

[29] Oxera (2009), "BSkyB's profitability in the context of the Ofcom market investigation", Page 57.

[30] Oxera also stripped out Sky's joint ventures, although we understand that these include investments in joint ventures with other pay TV broadcasters, which we would have expected to be included within an analysis of Sky's pay TV activities.

Table 4 – Sky's activities and characteristics

Business area	Sky's activities	Relevant characteristics
Broadcasting business	▪ Acquisition/commissioning of audiovisual programmes ▪ Creation of audiovisual programmes ▪ Assembling programmes into channels ▪ Media sales ▪ Broadcasts channels via DTH, DTT, 3G mobile, the internet, and Tiscali's IPTV network ▪ Licensing channels to third party distributors/retailers ▪ Notionally licences channels to Sky's notional "retail" business ▪ Substantial marketing activities – building channel brands and inform consumers of content	▪ Main revenue sources are licence fees (carriage fees) and revenues from advertising and sponsorship ▪ Main costs are content costs (for acquisition, commissioning or creation of content), marketing costs and costs of broadcasting capacity[31] ▪ Limited tangible assets (studios for programme creation, buildings to house staff for other activities) ▪ Costs of outdoor broadcasting equipment[32] for sports events
Retail business	▪ Licences channels from third party broadcasters ▪ Notionally licences channels from Sky's notional "wholesale" business ▪ Creates packages of TV channels (and other services) ▪ Markets packages (and other services) ▪ Subscriber acquisition ▪ Subscriber retention ▪ Subscriber management	▪ Main revenue source is subscription revenue ▪ Main costs are licence fees (carriage fees), though also costs of marketing and subscriber acquisition, retention and management (in particular call centres) ▪ Limited tangible assets (buildings to house call centres)
Platform business[33]	▪ Provision of set top boxes and dish installation ▪ Provide access to platform services	▪ Main revenue source is fees for platform services (conditional access, electronic programme guide and access control services) ▪ Main costs are set top box subsidies, dish installation subsidies ▪ Asset-light[34] – the main asset is the conditional access infrastructure
Non-TV business	▪ Broadband and telephony ▪ Sky Betting and Gaming, Sky.com ▪ Network management and hosting (Easynet)[35] ▪ Online sports media brand management (365 Media Group)[36]	▪ Various costs and revenues ▪ Revenues include a substantial subscription element

Source: PwC analysis.
Note: Sky also provides multi-platform VOD services. We understand that this was a relatively small business (as a proportion of Sky's total activity) for much of the relevant period.

[31] Sky leases rather than owns broadcasting capacity.

[32] Sky generally rents rather than owns outdoor broadcasting equipment.

[33] We define a platform as the (a population of) equipment installed in people's homes via which they are able to receive audiovisual services plus the technical services and infrastructure required to deliver services to that reception equipment, e.g. terrestrial broadcasting networks and spectrum, satellite capacity, cable and IPTV networks.

[34] Set top boxes to receive Sky's services are owned by households.

[35] Wholly owned subsidiary of BSkyB since January 2006, http://www.easynet.com/gb/en/about/fastFacts.aspx?SecondaryNavID=52

[36] Wholly owned subsidiary of BSkyB since January 2007, http://www.365mediagroup.com/0,,10065,00.html

A reliable comparator to Sky would exhibit features similar to those set out above, including but not limited to:

- High share of subscription revenues as a proportion of total revenues;
- Much smaller share of advertising revenues than subscription revenues as a proportion of total revenue;
- Small share of revenues from platform activities;
- Diversified set of non-TV businesses, including broadband and telephony operations;
- Substantial programming costs;
- Substantial marketing costs; and
- (Tangible) asset-light business models for all activities, except for some activities within the non-TV businesses (important for identifying comparators with a common risk exposure and for ensuring that a comparison of accounting ratios can proxy a comparison of actual profitability).

4.2.2 Other relevant features of Sky in aggregate

Other features of Sky that are relevant for consideration of comparators for profitability benchmarking include:

- **Geographical diversification** – Sky's operations are almost entirely in the UK and the Republic of Ireland, of which operations in the UK are much the larger share (at the end of the third quarter of 2007, 6% of Sky's subscribers were in the Republic of Ireland[37]);
- **Regulation** – Sky's platform is subject to specific regulation. Sky is subject to UK legislation and regulation regarding cross-media ownership and specific rulings relating to specific investments;
- **Business maturity** – BSkyB was formed from the merger of Sky and BSB in 1990. It also began retailing pay TV in 1990[38]. However, it is apparent from the rapid technological development, introduction of new services and increasing penetration of pay TV, that the sectors in which Sky operates have generally not reached maturity. Furthermore, Sky has been at the forefront of innovation through the introduction of new products and services in

[37] http://www.electricnews.net/story/show/144052, PwC analysis

[38] Sky offered an unencrypted DTH TV service in 1990.

pay TV in the UK, which itself is a relatively innovative sector (in the sense of introducing and achieving consumer uptake of new services[39]). Hence we consider pay TV in the UK, and Sky in particular, to be in the "growth" phase of the product/sector life cycle; and

- **Key events and sector developments** – The pay TV sector in the UK has been subject to a number of shocks and recent changes which may mean that participants' historical profitability may not represent future profitability. These include the launch of new competitors (Freeview in 2002, Top Up TV in 2004, BT Vision in 2006, Setanta in 2007 etc), the merger of ntl and Telewest to form Virgin Media, and changes in the way that Premier League football rights are packaged and auctioned (including a ceiling on the number of games to which one business can hold rights). The launch of Freeview strengthened free-to-air competition to pay TV services in the UK. Furthermore, the licence fee-funded BBC (which does not compete for advertising or subscription revenue) has an impact on TV businesses competing for consumers (viewers and/or subscribers). The launch of Freeview strengthened free-to-air competition to pay TV services in the UK. Sky faces competition from both other pay TV retailers and free to air broadcasting.

4.3 Features of a reliable comparator to Sky in aggregate

In this section we outline, drawing on the description of Sky above and our methodological framework outlined in Section 2, the main features a business should exhibit in order to be considered a reliable comparator to Sky.

The main features of a business that would make it a reliable comparator to Sky include the following (below). The list is not necessarily exhaustive – substantial differences in areas other than those included on this list could also make a business an unreliable comparator. However, these are the features we have identified as major differences:

- Business model:
  - **Main source(s) of revenue** – Subscription revenues.
  - **Asset intensity** – Tangible asset-light.
  - **Level of programme and content costs** – Substantial investment in content.
  - **Geographical diversification** – Focus on a single country[40].
- Business maturity and key events:

[39] See PricewaterhouseCoopers (2008) "The outcomes for consumers in relation to pay TV in Europe", Annex 1 to Sky's submission to Ofcom's first pay TV consultation, paragraph 4.10; and PricewaterhouseCoopers (2009) "The outcomes for consumers in relation to pay TV in Europe – Supplementary Report", Annex 1 Part 1 to Sky's submission to Ofcom's first pay TV consultation, paragraph 5.6.

[40] Sky derives a small proportion of revenues from its operations in the Republic of Ireland.

- **Business maturity** – Established business in a growth sector.
- **Business events (including business combinations and disposals)** – Sky acquired Easynet during the relevant period (in 2005), which tends to make Sky difficult to compare reliably against any other companies. But in any case, we do not consider that businesses that have been involved in substantial acquisitions or disposals in a short time period considered are likely to represent reliable benchmarks for profitability in effectively competitive markets.

▪ Sector and country-specific factors:

- **Sector events & maturity** – Growth sector, but with substantial penetration.
- **Country-specific factors** – No substantial macroeconomic or other differences to the UK.

▪ **Regulation** – Content regulation is relatively light. Specific regulations, particularly regarding platform operations.

We consider that a business exhibiting substantial differences to these features of Sky would not be a reliable comparator to Sky for profitability benchmarking. These are summarised very broadly in Table 5 for non-TV comparators and Table 6 for TV comparators. We have used separate criteria for the two sets of comparators because the breadth of activities and business models in the non-TV comparators sectors means that a number of the TV-specific criteria do not apply.

Table 5 – Summary characteristics of Sky for comparability analysis of non-TV comparators

	Main source(s) of revenue	Asset intensity	Other business model differences	Sector events	Sector maturity	Regulation
Sky	80% subscription revenues	Tangible asset-light - fixed assets / sales = 0.11, capex / sales = 3.7%	-	Relatively minor, including creation of Virgin Media, launch of competitors (including Freeview, Setanta, Top Up TV and BT Vision) during the relevant period	Subscription revenue CAGR 5%	Relatively little content regulation; subject to ownership restrictions

Table 6 – Summary characteristics of Sky for comparability analysis of TV comparators

	Main source(s) of revenue	Asset intensity	Level of programme and content costs	Geographical diversification	Business maturity	Business events (including business combinations and disposals)	Sector events and maturity	Country-specific factors	Regulation
Sky	Subscription = 80% of revenues, Advertising revenues = 8%, Broadband and telephony services	Asset light - fixed assets / sales = 0.11, capex / sales = 3.7%	42% of total costs	Minimal - exposure to UK and Ireland only	Established but developing business, revenue CAGR 9.3% (current prices)	Acquired Easynet in 2005	Relatively minor, including creation of Virgin Media, launch of competitors (including Freeview, Setanta, Top Up TV and BT Vision) during the relevant period, subscription revenue CAGR 5%	None	Relatively little content regulation; subject to ownership restrictions

Note: Sky's subscription revenues include revenues from telephony and broadband subscriptions. In FY 2007, 2% of Sky's subscription revenues were from broadband subscriptions.

4.4 Oxera's notional wholesale/retail split

4.4.1 Our understanding of Oxera's definition of Sky's notional "wholesale" and "retail" activities

Oxera appears to place most emphasis on the analysis of Sky on an aggregate basis, and we agree that this is the correct emphasis as any separation of Sky's activities into separate notional businesses adds significantly to complexity and uncertainty in an exercise which, as set out in our methodology section above, is already inherently difficult. Nevertheless, for completeness we also comment on Oxera's disaggregated analysis.

Our understanding of Oxera's notional wholesale-retail split is that activities included within the "Broadcasting business" are assumed to be "wholesale"; and activities in either the "Retail business" or "Platform business" are included within Oxera's definition of "retail". Oxera has attempted to exclude non-TV activities from both the wholesale and retail definitions[41].

It is beyond the scope of this report to comment on the accuracy or otherwise of Oxera's allocation of costs and revenues to these definitions. For the purpose of assessing the validity of comparators to Sky's notional wholesale and retail businesses we note the following key features of these notional businesses that should be exhibited by reliable comparators to Sky's "wholesale" and "retail" activities respectively:

- **"Wholesale"** – The main activities are the creation and acquisition of programmes, aggregation into channels and licensing channels to third parties. The main revenues are advertising and licensing revenues and the main costs are content costs, with significant marketing costs. The business has a relatively low level of tangible assets.

- **"Retail"** – The main activity is combining channels into packages and retailing to customers, although a reliable comparator should also be a platform operator. Almost all revenues are subscription revenues, although there are also fees from the provision of platform services. The main costs are licence fees, with smaller platform operation costs. The business has a relatively low level of tangible assets.

[41] Oxera (2009), "BSkyB's profitability in the context of the Ofcom market investigation", Pages 56 to 57.

5 Comparison of Oxera's non-TV comparators to Sky

5.1 Introduction

In this section of the report we examine the companies selected by Oxera as non-TV comparators. We compare the characteristics of the sectors in which these companies operate with the key characteristics of Sky's business as identified in the previous section, in order to assess whether the selected comparators operating in those sectors can be considered to be reliable comparators to Sky. The sector characteristics we have investigated include:

- Business model:
  - Extent to which revenue is subscription-based.
  - Whether the sector business model is tangible asset-light.
  - Other business model differences – for example, whether there is a different cost structure to that of Sky.
- Key events affecting businesses within the sector;
- Sector events & maturity – Whether a sector has a similar level of maturity (established growth sector) to Sky; and whether specific events make companies in a sector unreliable comparators;
- Regulation; and
- Cost of capital[42].

For each non-TV sector we summarise below the results of our analysis of the reliability or otherwise of sectors as profitability benchmarking comparators for Sky. We also comment on certain specific companies within the sectors identified by Oxera, identifying issues which indicate whether or not they are reliable comparators.

We note that some of the comparator companies selected by Oxera have, in our view, been inappropriately allocated to certain sectors. For example, Pearson and Reed Elsevier have been selected as comparators in the book publishing sector, whereas they have diversified operations of which book

[42] Ofcom estimated Sky's pre-tax cost of capital at 10.3%, (Ofcom (2009), "Sky's Cost of Capital – Annex 10 to pay TV phase three consultation document" Page 2) compared to our estimate of 11.0% to 12.0%. In the remainder of this section we refer post-tax figures (see Appendix 2) Neither Oxera nor Ofcom present estimates of the cost of capital of the comparator sectors.

publishing is just one activity. United Business Media has been selected as a comparator in the newspaper publishing sector, whereas the majority of its business operations are derived from business-to-business publications and conferences. The inclusion of comparators as representative of sectors to which it is questionable they belong undermines the validity of the analysis.

The analysis in this section should be read in the context of Section 3, setting out our methodological approach to an assessment of comparators, and Section 4, setting out the activities and characteristics of Sky and Sky's notional wholesale and retail businesses (as defined by Oxera).

5.2 Oxera's "commercial radio" comparators

5.2.1 Summary

Oxera included three companies from the commercial radio sector in its analysis, based on perceived similarities with Sky's wholesale activities, in that raw content is acquired, aggregated and broadcast[43]. The three commercial radio business included in the Oxera benchmarking analysis are GCap, Chrysalis and NRJ Group. GCap and Chrysalis Radio (a segment of Chrysalis plc) were acquired by Global Radio in June 2008 and July 2007, respectively.

These three commercial radio businesses are similar to each other in that they will be subject to similar operating pressures and general trends. In particular, they operate in a mature sector that has cost and revenue pressures associated with trends in advertising revenues and the transition to digital transmission, and they operate in a sector with substantial state intervention through public service broadcasters (the BBC in the UK and Radio France in France) and restrictive conditions included in licences. There are, however, country-specific and regulatory differences between NRJ Group, which is based in France, and the Global group (the parent of GCap and Chrysalis Radio), which is based in the UK. We have therefore discussed the more general sector trends from a UK perspective, with the majority (but not all) of these industry trends being applicable to commercial radio in France.

5.2.2 Business model

Oxera states that there are similarities between commercial radio and Sky's wholesale activities, in that raw content is acquired, aggregated and broadcast[44]. In our view, the nature of the content aggregated by radio companies differs significantly from that in pay TV in general, and Sky in particular. A large portion of radio content is music content which is non-exclusive and is paid for in arrears. This limits the associated risk as the radio stations rarely invest in and own any content, and do not have long term contracts in place to license specific pieces of music, giving them the ability to play what is popular at any given time with no up front cash investment.

A large proportion of content in the commercial radio sector consists of music tracks paid for on a per play basis *in arrears*, whereas Sky acquires content *in advance*. This is a substantial difference in operating risk. It also means that Sky has an asset on the balance sheet that will be amortised over the life of the contract with the content providers. This difference in payment terms means that commercial radio stations hold minimal assets in relation to content, and therefore a lowered asset balance, impacting the comparability of profitability metrics.

As the music content is not exclusive, most radio stations differentiate themselves through their DJs and marketing. DJs and their popularity drive the value of the non-music content on radio stations and as such are one of the largest cost outlays, estimated to account for 36% of GCap's[45] total costs. Intangible assets predominantly relate to brand value and radio licences[46]. Furthermore, the customer base is likely to be a more important asset for Sky (due to the

[43] Oxera (2009), "BSkyB's profitability in the context of the Ofcom market investigation", Page 44.

[44] Oxera (2009), "BSkyB's profitability in the context of the Ofcom market investigation", Page 44.

[45] Deutsche Bank Securities Ltd. – GCAP Media plc.

[46] NRJ Group annual accounts 2008.

ongoing subscription relationship) than for commercial radio companies. Oxera has included a valuation of this asset in its analysis, but this will not be recognised by commercial radio operators, as they have no control over the listener relationship.

The analysis above indicates that the cost structure of companies in the commercial radio sector differs from that of Sky due to commercial radio's lower level of medium-term and longer-term risk relating to content and its less significant investment in intangible assets (such as the subscriber base and brand). Furthermore, the commercial radio sector has no subscriber acquisition costs, and less marketing expenditure than Sky. These features affect the costs, revenues, assets and risks of the businesses, and as a result we would not necessarily expect the accounting ratios of commercial radio businesses to be similar to those of a business in the pay TV sector.

5.2.3 Sector maturity and key events

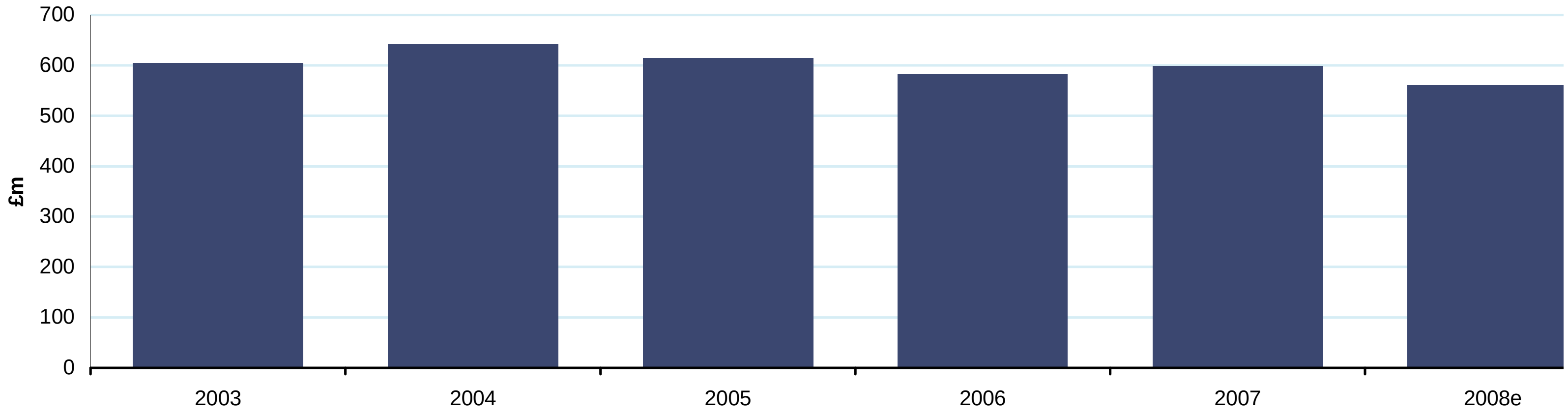
The commercial radio sector derives a large majority of revenues from advertising rather than subscriptions[47]. According to Oxera's analysis, the radio businesses selected as comparators did not derive any revenues from subscriptions, in comparison to Sky deriving 76% of revenues from subscriptions[48]. Reliance on advertising revenues means that the commercial radio sector is highly sensitive to consumer trends and general economic conditions. Revenues in the sector declined over the relevant period (see Figure 3), with a 7% decline in revenues in the UK from a peak in 2004 to 2007[49].

[47] We note that there is a significant subscription radio sector in the USA, but the comparators from this sector included in Oxera's study are from the UK and France only.

[48] Oxera (2009), "BSkyB's profitability in the context of the Ofcom market investigation", Page 91.

[49] UK Commercial Radio Update, Enders Analysis, March 2009, PwC analysis.

Figure 3: UK Commercial Radio revenues (£m, current prices)

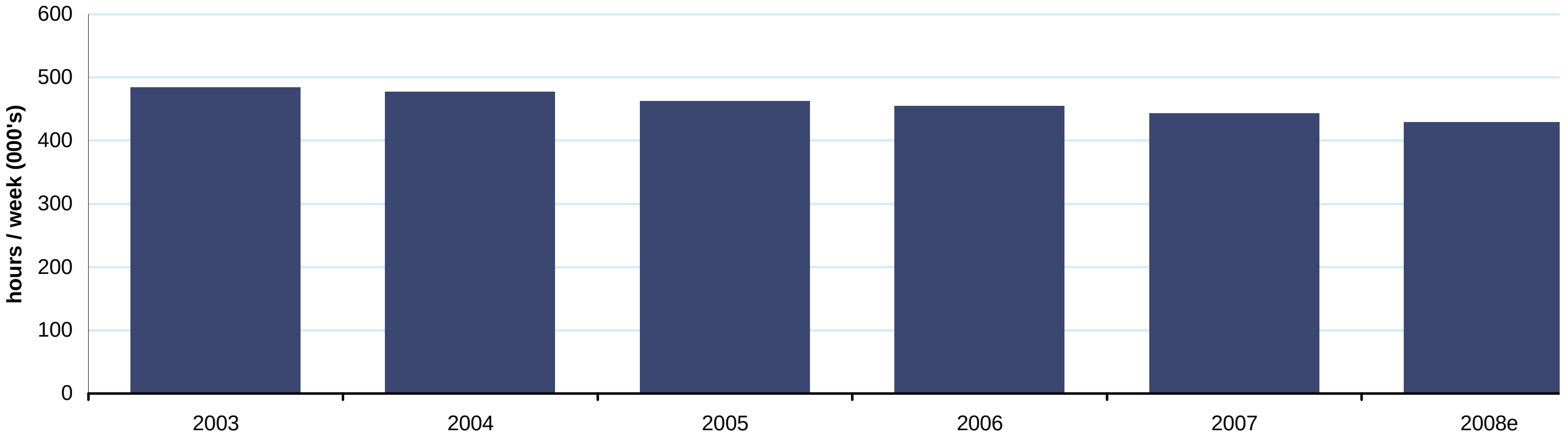


Source: UK Commercial Radio Update, Enders Analysis, March 2009

Although current adverse macroeconomic conditions have exacerbated the decline in revenues, this downward trend was apparent prior to the onset of the recent recession, due to apparent structural changes in the UK commercial radio sector, including a decline in the total number of listeners of approximately 2%-3% per annum since 2003. Commercial radio has lost approximately 70,000 listening hours each week since the peak in 2001 (approximately 4% per annum as shown in Figure 4)[50]. This is due in part to the increasing availability of alternative forms of listening (including internet radio and streaming services) as well as strong competition (in the UK) from the BBC.

[50] UK Commercial Radio Update, Enders Analysis, March 2009.

Figure 4: UK total Commercial Radio hours per week ('000s)



Source: RAJAR / UK Commercial Radio Update, Enders Analysis, March 2009

Commentators have argued that the financial impact on UK commercial radio has been even larger than that suggested by total listening hours because there has been a disproportionate decline in commercial listening by the traditionally core commercial radio audience of 25 to 34 year olds[51], which is perceived to be one of the most valuable groups to advertisers. In the UK, commentators have attributed this to a repositioning of non-commercial radio stations (in particular BBC Radio 1 and BBC Radio 2) to attract listeners in these age-groups. The BBC, which runs the major non-commercial radio stations within the UK, is relatively protected from the economic downturn due to receiving licence fees. This means BBC radio stations can maintain attractive content offerings and are well-positioned to attract listeners from the struggling commercial sector.

Despite this decline, the number of radio stations has continued to increase over the period from 2004, meaning that average station revenues in 2008 are at their lowest level since 1980[52] (in real terms), and any year-on-year revenue improvement in a given radio station is due to the cannibalisation of revenues from another station, rather than attracting new listeners to the medium.

Further evidence that the commercial radio sector was not in a stable position during the period of the Oxera report is provided by subsequent events:

[51] Enders Analysis – UK Commercial Radio Update 13th March 2009.

[52] Enders Analysis – UK Commercial Radio Update 13th March 2009.

- Since the period of the Oxera report the sector has seen both the closure of several commercial radio stations struggling to adjust to the change in macroeconomic conditions, and also considerable consolidation within the sector. Global Radio now accounts for 40% of UK commercial radio revenues following the acquisition of Chrysalis Radio and GCap Media, and the next four major radio groups account for a further 45% of commercial listening in the UK[53]. This consolidation is likely to distort reported results and means that the characteristics of businesses change – so that pre-merger businesses are not representative of activities, structures and likely profitability of post-merger business in the future.

- The consolidation in the sector has not resulted in an immediate improvement in the financial performance of radio stations as they continue to suffer from high overheads and declining revenues driven by the structural problems described above. Approximately 50% of commercial radio stations in the UK make a loss or generate annual profits of less than £100,000[54].

- These low profits may be further impacted by future demands on the industry to maintain their analogue licences and to invest in the switchover to digital. The Digital Britain interim report committed to DAB as a primary radio platform, but the switchover date will only be announced once 50% of listening is on digital devices, national DAB coverage is comparable to FM coverage, and local DAB coverage reaches 90% of the population and all major roads. With uncertainty over the rate of DAB uptake by consumers, several radio stations are deciding whether to maintain both analogue and digital radio offerings, due to the additional costs of dual transmission. Some DAB-only radio stations, such as Planet Rock and theJazz (owned by GCap Media)[55], have closed, and 4 Digital handed back its radio multiplex licence. This has meant that, unlike Sky, which invested heavily in digital TV, the commercial radio sector has made minimal investment in digital-specific content.

The instability in the commercial radio sector as described above is in contrast to the pay TV sector in which Sky operates, which has exhibited growth, although the recent development of internet radio suggests a potential new business model that may lead to another growth phase. We conclude therefore that the commercial radio sector is at a different stage of development to the pay TV sector, which makes any comparison of Sky's business with commercial radio businesses unhelpful.

5.2.4 Company-specific factors

Over the period of Oxera's analysis Chrysalis plc still operated its commercial radio business, which contributed approximately half of the revenues of the group and all of the profits in the two years ending 2006 and 2007[56]. The remainder of the business was involved in music publishing, the exploitation of copyrights and the management of artists and should therefore not be identified as a commercial radio business. These other segments of the business were loss making over the relevant period, thereby reducing the group's results to a lower level than would have been the case for a standalone commercial radio business.

[53] Enders Analysis – UK Commercial Radio Update 13th March 2009.

[54] Enders Analysis – Key issues and trends in UK Media and Telecoms – Digital Britain – 19th Dec 2008.

[55] http://radio-now.co.uk/newspast2008.htm.

[56] Chrysalis annual report and accounts 2007.

5.2.5 Regulation

Commercial radio is subject to stringent regulation in the UK through (among others) licence conditions including restrictions on format, localness requirements, ownership rules and restrictions on advertising minutage. Ofcom has stated that *"the regulatory burden on analogue local commercial radio may be unsustainable"*, and that, *"the cost to the industry of following the local model arguably has been high"*[57]. As a result, the profitability of these businesses is dependent on the prevailing regulatory environment and may not necessarily correspond to the profitability that would prevail in an effectively competitive market.

5.2.6 Cost of capital

Our sectoral cost of capital analysis identified a rounded post-tax cost of capital of 7.0% for the commercial radio sector, in comparison to 8.0% to 8.5% for Sky[58]. Whilst this might suggest that commercial radio companies might be expected to earn lower returns than a pay TV company even if properly measured in the long-run, we consider that this figure for commercial radio is insufficiently robust to develop conclusions from it, because of the small sample of listed commercial radio companies available for the analysis.

5.2.7 Conclusion

We have identified a number of similarities between companies in the commercial radio sector and Sky (over the relevant period), including:

- Acquisition of content rights; and
- Substantial intangible assets.

However, we consider that the commercial radio sector has substantial differences from Sky which make commercial radio companies unreliable comparators to Sky for profitability benchmarking based on accounting figures over the period of Oxera's analysis:

- The commercial radio sector has substantial business model differences, in particular a reliance on advertising revenues rather than subscription revenues, and substantial cost differences including subscriber acquisition costs and the short-term nature of content acquisition in commercial radio compared to longer term investments in pay TV;
- The commercial radio sector has experienced exceptional events over the relevant period. In particular it has been in flux over digital switchover. Businesses have invested in DAB radio stations and in the switchover to this format over the course of the review period (incurring additional costs of

[57] Ofcom, "The Future of Radio", 16 November 2006.

[58] See Appendix 2.

dual transmission), but consumer uptake has not matched that of digital TV. Several smaller radio stations have gone into insolvency. This contrasts with Sky, which has invested heavily in digital services and has benefited from successful take-up by consumers;

- The commercial radio sector appears to have been in decline over the relevant period. This is in direct contrast to pay TV that is a growing sector with more limited exposure to the risk of the cyclicality of advertising revenues; and

- Commercial radio is subject to stringent regulation controlling choice of content, scheduling and cross-media ownership that is likely to reduce profitability.

Due to these differences in business models (the reliance on advertising revenue, the lack of subscriber acquisition costs and revenues, the lack of investment in content, the different risks associated with in the type of content broadcast), sector events (advertising revenue decline, listening decline, and costs of digital transition) the difference in sector life cycle stage (with the existing business model of commercial radio appearing to be under pressure), and the restrictive regulation to which the sector is subject, we consider that the commercial radio sector provides an unreliable comparator to Sky for profitability benchmarking.

Furthermore, the non-radio operations of Chrysalis reduced the company's profitability, making it unrepresentative of commercial radio activities.

Therefore we conclude that NRJ, GCap and Chrysalis are unreliable comparators to Sky for accounting ratio profitability benchmarking.

5.3 Oxera's "record companies" comparators

5.3.1 Summary

Oxera includes three record companies in the aggregate profitability benchmarking analysis: Sony BMG Music, EMI Music and Warner Music. These are all global businesses subject to common sectoral pressures. The recorded music industry experienced a large amount of upheaval over the relevant period included in the benchmarking analysis.

Consumption of music is as high or higher than it has ever been. It is now available via an increasing range of services, devices and formats. These include: the advent of dedicated television channels on satellite, cable and digital terrestrial television offering 24 hours-a-day music; the diversification of radio through the development of digital, satellite and internet radio; and the extensive use of music in video games, films and advertising.

The increase in music consumption has not, however, resulted in improving revenues in the music sector due to several factors that have had a negative impact on the record companies, with severe pressure on revenues and profits.

5.3.2 Business model

Oxera included the three record companies as comparators to Sky's aggregate business (i.e. its combined notional "wholesale" and "retail" activities). We consider that Sky's retail business can not be likened to the main activities carried out by record companies, which are to provide content in specific formats and sell them on to retail outlets which in turn retail to consumers. The record companies do not therefore perform a retail function, as this is undertaken further downstream.

Record companies are often able to negotiate deals which significantly limit their risk, and obtain long-term ownership of the rights over the music produced, rather than only holding these rights for a relatively short amount of time (as is the case with Sky). These rights are then protected by copyright laws: Warner Music states, *"Our business, like that of other companies involved in music publishing and recorded music, rests on our ability to maintain rights in musical works and recordings through copyright protection".* These copyrights are for between 50 years and 120 years or the life of the author plus a further 70 years[59].

This longer time frame allows record companies a much more significant amount of time to recoup the investment that they have made in the production of content, compared to Sky's much shorter timeframe to recoup investment through the wholesale business, and hence means that the risks to the business substantially differ.

Furthermore, the nature of revenues is substantially different between record companies and pay TV. Whereas the majority of pay TV revenues are from subscriptions, record company revenues are based on one-off sales.

[59] Warner Music Group Annual report 2008.

5.3.3 Sector maturity and key events

Over the relevant period, global sales of recorded music declined, with falls in revenue from physical formats exceeding growth in digital format revenues. The decline in sales of physical product is linked to increasing digital sales which continue to grow due to the availability of new listening devices (e.g. iPods), increased subscription to broadband services and the ability to download music (legally and illegally). These music downloads tend to be in lower volumes and at lower prices, as consumers have the ability to cherry-pick specific tracks, removing the need to purchase entire albums. Although digital formats are more profitable than physical formats on a per unit basis, lower volume and more selective purchases have lead to declines in overall profitability.

The profitability of businesses within the record industry has been negatively impacted over the period of Oxera's analysis by two main forms of piracy:

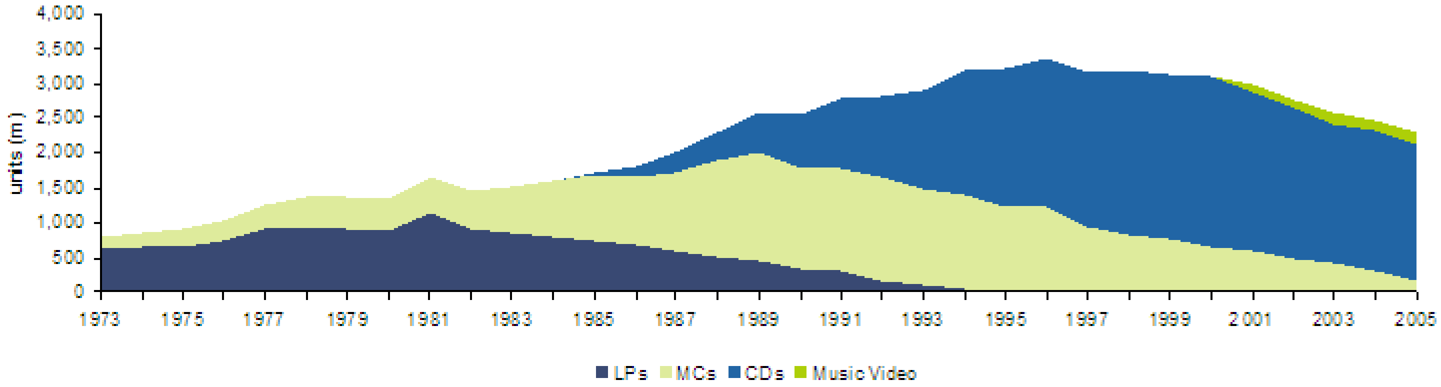
- Physical format piracy (creation and sale of illegal versions of cassettes and CDs) which continued to be substantial between 2003 and 2007; and
- The more recent challenge of online ("digital") piracy. Digital piracy is most common in the form of file-sharing services, which are now the subject of a number of legal challenges.

Record companies cite piracy as a significant reason for reduced revenues and profits. For example, Warner Music states in its 2008 annual report that *"the International Intellectual Property Alliance (IIPA) estimates that trade losses due to physical piracy of records and music in 51 key countries/territories around the world with copyright protection and/or enforcement deficiencies totalled $2.3 billion in 2007"*.

Furthermore, the advent of digital music has not generated a purchase (replacement) cycle similar to those associated with previous format changes from LPs to cassette and then onto CD. Now, the ease with which consumers can copy their CD collections onto computers and digital MP3 players at the same, or even higher quality than the digital download products offered by record companies, means that there is no comparable "replacement cycle"[60]. Overall, physical format sales have been in sharp decline since the phasing out of legacy formats, as shown in Figure 5.

[60] Page 1, "Recorded Music – Who benefits from Digital", On Media April 2008, PricewaterhouseCoopers.

Figure 5: Global full-length physical music sales, 1973-2005

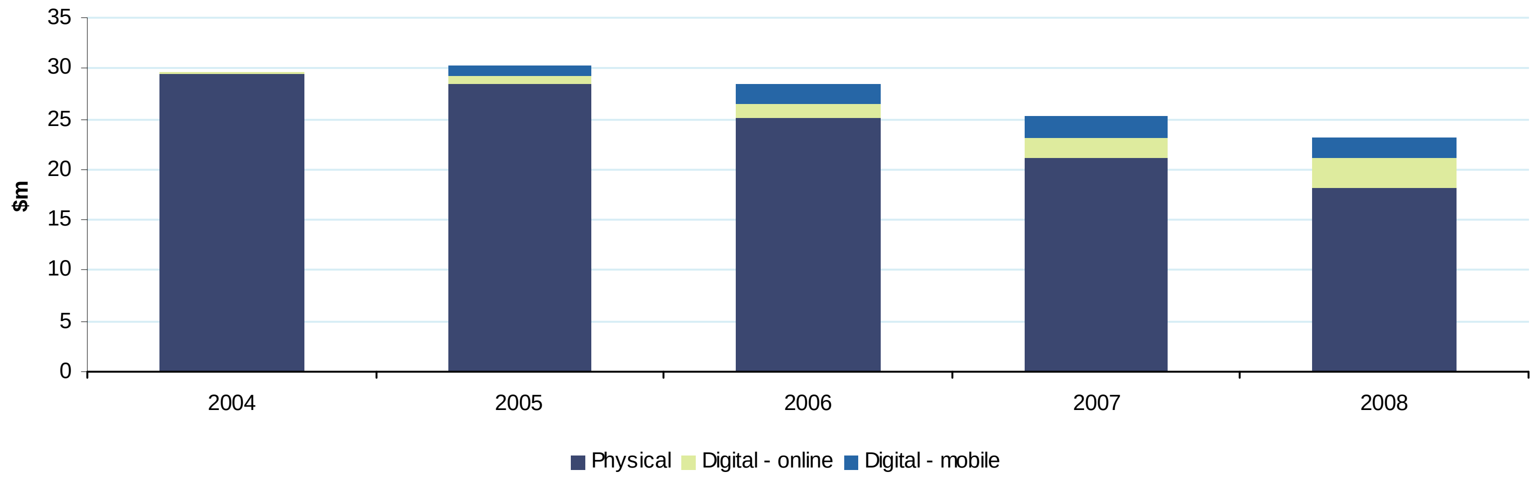


Source: International Federation of Phonographic Industries

Some of the decline in physical revenues resulted from declining real prices as supermarkets have established themselves as a major channel for music retailing, stocking a smaller range of music at lower prices than specialist retailers.

Although the sales of digital music are increasing, this was not sufficient to compensate for the decline in physical sales over the relevant period, with global sales falling after 2005, as illustrated by Figure 6.

Figure 6: Global Recorded Music Revenues, 2004-2008



Source: Enders Analysis – Recorded Music and Music Publishing 4th June 2009

Record companies have gone through a period of significant consolidation with several of the majors acquiring a number of the smaller independents. This process has led to varying levels of intangible assets on record company balance sheets. Those companies that have been more acquisitive have a higher intangible asset balance (including goodwill for example), whereas those that have grown organically do not recognise such assets to the same extent (e.g. internally generated goodwill is not recognised on the balance sheet). These accounting treatments impact the overall asset balance used in the calculation of profitability ratios.

The challenges faced by the record companies as described above, leading to declining revenues and profits, are characteristic of a sector in decline, which is in contrast to the pay TV sector which is still in a growth phase in the UK.

5.3.4 Regulation

Music collecting societies (the bodies which collect revenues from, among others, radio stations on behalf of artists) are subject to EU regulation.

5.3.5 Cost of capital

Our sectoral cost of capital analysis identified a rounded post-tax cost of capital of 8.5% for record companies, in comparison to 8.0% to 8.5% for Sky[61]. Hence we identified no substantial difference in cost of capital impacting Oxera's selection of comparators for profitability analysis.

5.3.6 Conclusion

We have identified a number of similarities between companies in the recorded music sector and Sky (over the relevant period), including:

- Acquisition of content rights; and
- Substantial intangible assets.

However, we consider that the recorded music sector has substantial differences from Sky which make recorded music companies unreliable comparators to Sky for profitability benchmarking based on accounting figures over the period of Oxera's analysis:

- The recorded music sector has different risks inherent in its business model compared to Sky, in particular the lack of retail activities of recorded music companies, the long copyright length of recorded music and the different revenue sources (one-off sale compared to subscriptions);
- The high rate of piracy affecting recorded music companies is an exceptional event that reduces its profitability;
- The recorded music industry has experienced substantial structural issues, including challenges in monetising the online provision of sound recordings, in contrast to pay TV where digitisation has opened up new opportunities for pay TV retailers; and
- There is evidence to suggest that the recorded music sector may be in decline, which contrasts to Sky, which is operating in a growth sector.

Due to these differences in business models (in particular the lack of retail activities and different copyright lengths), sector events (piracy and difficulty of monetising online provision of content) and the difference in sector life cycle stage (with the existing business model of the recording music sector possibly being in decline), we consider that the recorded music sector provides an unreliable comparator to Sky for profitability benchmarking.

Therefore we conclude that EMI, Sony BMG and Warner Music are unreliable comparators to Sky for the purpose of profitability analysis.

[61] See Appendix 2.

5.4 Oxera's "cinema" comparators

5.4.1 Summary

Oxera includes five businesses from the cinema sector in its benchmarking analysis: Vue Entertainment, Odeon Cinemas[62], Kinepolis, Cineworld Group plc[63] and Cinemaxx.

The cinema sector is relatively mature, with attendances in Western Europe levelling off in recent years. It is a capital intensive sector, with significant outlays on multiplexes achieving lower returns as the best sites are increasingly taken. There was also significant consolidation in the sector over the period of Oxera's analysis, impacting balance sheets and therefore accounting ratios.

5.4.2 Business model

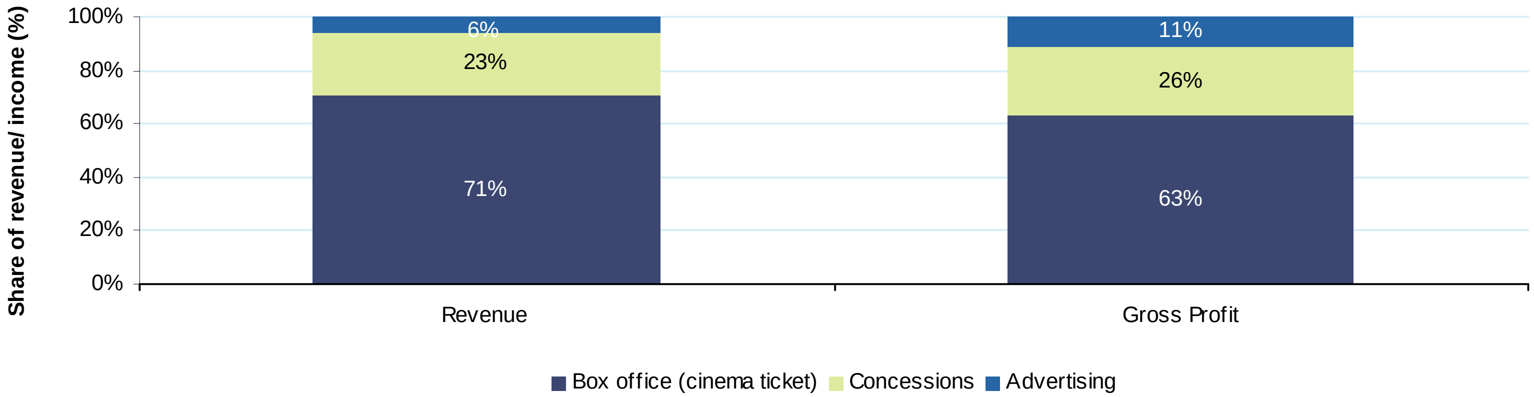
The revenues of cinemas are driven by the number of admissions and are generated through a mix of box office sales, concessions and advertising. Approximately 71% of sales are from the box office and 23% from concessions. Concessions, however, are more profitable (with gross margins of approximately 60% compared with 45% for box office sales)[64]. This is illustrated in Figure 7 below.

[62] We assume that Oxera refers to the Odeon and UCi Cinemas Group.

[63] Oxera appears to have misclassified Cineworld Group plc as a DVD rental business.

[64] PwC / Dodona (2005).

Figure 7: Sources of cinema revenue and gross profit



Source: Dodona, "Cinemagoing", (2005)

Cinema is a highly seasonal sector, driven by a number of factors including weather conditions, school holidays and the timing and quality of movie releases[65]. Whilst TV watching (and Sky) also experience seasonal changes, these are less volatile than those associated with the cinema sector. Furthermore, Sky's subscription revenues are (because of monthly payments) less linked to seasonal changes in viewing habits. Like Sky, cinema companies have content expenditure.

Prior to the round of consolidation between 2003 and 2007, there had already been a shift within the cinema sector away from smaller independent cinemas to larger multiplexes with higher numbers of screens. The fit-out of these multiplexes is generally capital intensive with a £2.5m project realising an average 20% cash return on investment approximately 36 months after the site has been acquired[66]. Once this initial outlay has been made there is minimal investment required for customer acquisition and minimal expenditure on advertising. This is due to the large amounts spent by the studios prior to a film release. Both of these characteristics are dissimilar to the pay TV sector and the Sky business model which are not capital intensive, but do have significant customer acquisition and marketing costs in order to attract new subscribers. Other cinema costs include licence costs to show movies.

The significant capital outlay required by cinema groups means that the cost and risk profile of the sector is very different to that of pay TV. The capital expenditure requirement is likely to result in lower ROCE and EV / assets ratios in comparison to pay TV business models.

In addition, the consolidation in the industry, as described below, may have had a twofold impact resulting in:

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[65] Evolution Securities (2008) "Cineworld".

[66] Evolution Securities (2008) "Cineworld".

- Cinema groups that have gone through significant consolidation are more likely to have significantly higher recorded intangible assets (such as goodwill) than others. For example, Cineworld Group's intangibles make up 56% of total assets[67], whereas those of Vue Entertainment only make up 4% of total assets[68]. Amortisation of intangible assets will also impact EBIT for profitability-based metrics. Ideally, the profitability metrics used for benchmarking should properly reflect the economic value of intangible assets. Where such assets have been developed through organic growth they will be under-reported in the accounting metrics used by Oxera; where they have been acquired, the value ascribed to them will depend on accounting rules and may be further distorted if businesses were acquired at prices above or below their underlying economic value; and

- Reduced profits as exceptional one-off restructuring costs in relation to the consolidation of businesses are incorporated into the profit and loss account.

Finally, although the digitisation of cinema has been delayed due to current macroeconomic conditions, there would have been research and development expenditure relating to digital cinema during the period of Oxera's review (Vue opened Europe's first digital cinema in 2007) and costs associated with new ticketing systems (such as ticket purchase via the internet). The research and associated costs may have been expensed, with minimal financial benefit realised, further depressing the profits of the businesses.

5.4.3 Sector maturity and key events

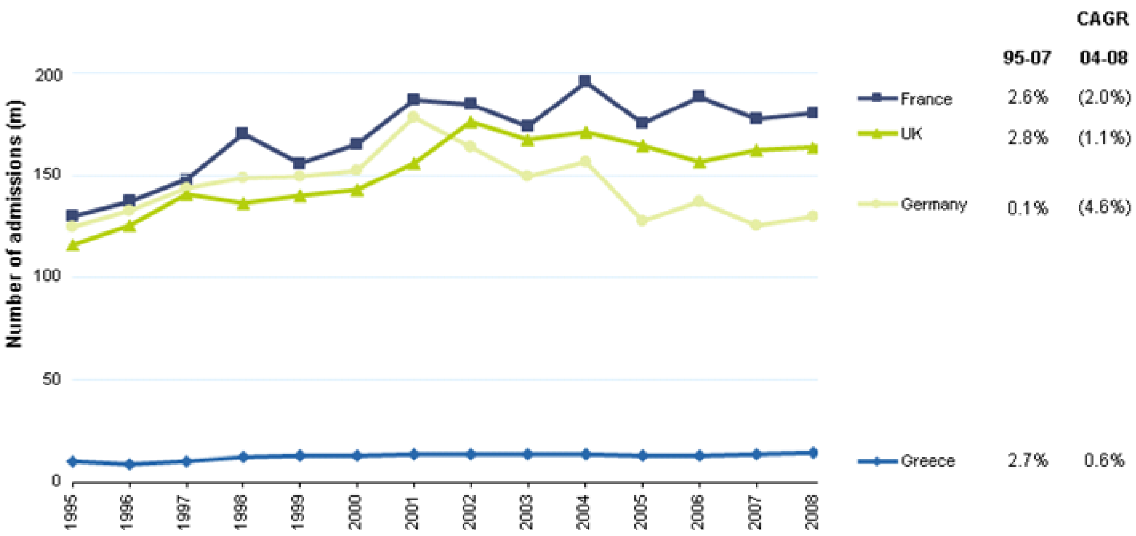
Cinema attendance in France, the UK and Germany appears to have reached a plateau, with annual cinema admissions fluctuating in the UK around 160 – 170 million[69], as shown in Figure 8.

[67] Cineworld plc Annual Report and Accounts 2008 / PricewaterhouseCoopers analysis.

[68] Vue balance sheet as at November 2008, OneSource / PricewaterhouseCoopers analysis.

[69] Film Market, Key Note report 2009.

Figure 8: Cinema admissions in France, Germany and the UK



Source: Screen Digest

Annual cinema admissions per screen in the UK declined from nearly 49,000 in 2003 to approximately 45,000 in 2007[70]. This decline is likely to have negatively impacted profitability.

Despite the decline in cinema admissions in the period from 2004, there has been continuing growth across each of the streams of revenue in the sector in the UK, as shown below in Table 7, although much of the growth is attributable to price inflation and "Other customer spending" has declined in real terms.

[70] The Cinema Exhibitors' Association Limited, PwC analysis.

Table 7 – Revenue composition of the cinema industry in the UK from 2004 to 2008 (current prices)

Revenue composition (£m)	2004	2005	2006	2007	2008	*% change 2004 - 2008*
Box office	770	776	762	821	850	*10.4%*
Other customer spending	348	308	218	338	350	*0.6%*
Total	**1,118**	**1,078**	**980**	**1,159**	**1,200**	***7.3%***
Advertising	192	188	188	207	214	*11.5%*
Admissions per screen (000s)	*49.2*	*47.3*	*43.9*	*45.1*	*43.9*	*-10.8%*

Source: Film Market, Key Note report 2009

This growth in the UK has mainly been attributed to increased ticket prices (average ticket yield in 2007 was 10% higher (in nominal terms) than in 2004)[71], despite generally low price inflation in the leisure industry. These price increases have been higher in the UK than in other Western European countries, but in all regions increased ticket prices offset falling audiences[72]. This contrasts sharply with the increasing take-up of pay TV in the UK, and increased numbers of Sky subscribers in particular.

Revenues from spend on ancillary items, such as drinks and snacks, fluctuated substantially over the period analysed by Oxera. Advertising revenue grew at a comparable rate to box office revenues despite a drop in advertising across other media such as newspapers and television. The nature of sales, and the relationship between the business and consumers, differs substantially between cinema and pay TV. In cinema, revenues are mostly reliant on one-off purchases (of tickets or ancillary items) which may be repeated if cinemagoers return[73], whereas pay TV revenues are mostly related to longer-term relationships (subscriptions), which implies a customer relationship intangible likely to be larger than that held by cinema businesses.

Whilst the cinema industry has been able to maintain revenues despite declining attendance, it is challenged by several non-controllable factors such as the increasing variety of ways the public spend their leisure time which has squeezed the number of attendees. One of the key factors restricting growth in cinema attendance has been the trend towards watching films at home. In contrast, Sky (and pay TV more generally) have benefited from this trend, achieving increasing subscriber numbers rather than suffering a declining customer base.

From a consumer perspective, the key determinants driving the purchasing decision are location and movie selection, with brand playing a more limited role. This has meant that:

- Competition for key locations is fierce. The rental of premium space (such as in new shopping centres) often results in bidding wars for key locations. The result is that a typical chain has a number of unprofitable (usually more recently opened) cinemas; and

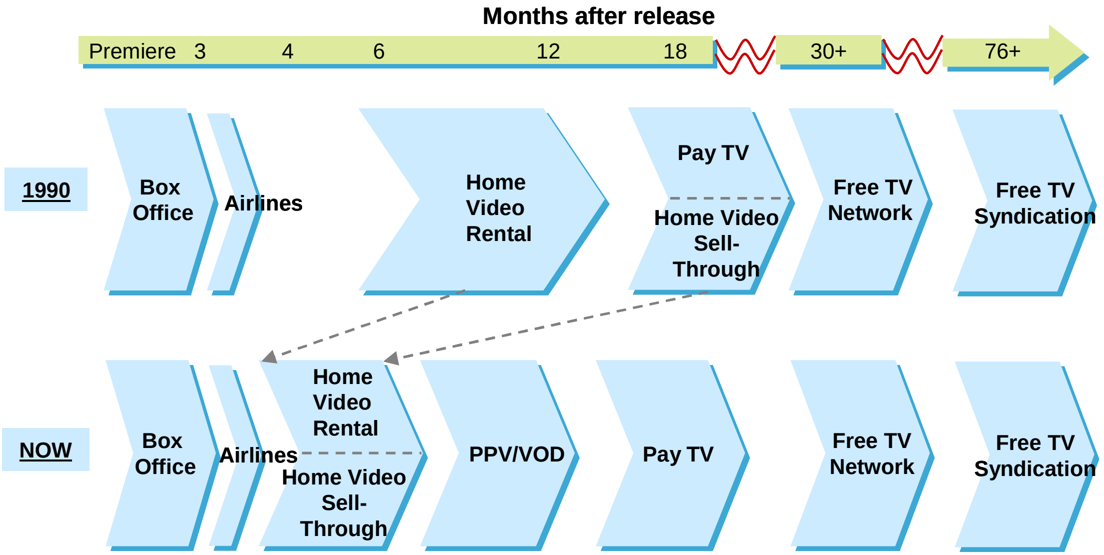
[71] Film Market, Key Note report 2009.

[72] PricewaterhouseCoopers analysis, April 2009.

[73] Some cinema companies offer a subscription model, but we understand this to correspond to a relatively small proportion of revenues.

- Historically film rights have been made available to cinemas on a revenue sharing basis on terms which were advantageous to the studios, rather than the cinemas. The studios' revenue shares tend to be higher early in the release period, which, coupled with a shrinking theatrical window (film distribution was historically restricted to cinemas for approximately 6 months following release, but this has reduced over the years, as illustrated below by Figure 9) has meant that cinemas no longer benefit from longer runs over which the studios have a smaller revenue share.

Figure 9: Film release cycle 1990 vs. present day



Source: PwC analysis

Cinema is beginning to shift towards a digital distribution model, which is expected to reduce distribution costs in the future, potentially increasing future profitability. To date, this transition has been limited, but investment has been made in the technology, which will have had the impact of depressing profit as the full benefits are yet to be realised.

Over the period of the Oxera review there was significant consolidation in the sector, especially within the USA and Europe, with 60% of UK screens now held by three competitors: Odeon, Cineworld and Vue[74]. This consolidation, driven by private equity groups buying and integrating cinema chains, may have impacted results in the run-up to the acquisitions and listings, and certainly after these business combinations took place.

The key acquisitions and listings over the period were as follows:

[74] Dodona research, PwC analysis.

- 2003: The Vue brand was created following the merger of Spean Bridge Cinemas & Warner Village. This group underwent further expansion following the takeover of Ster Century's UK cinemas in April 2005.
- 2004: Terra Firma Capital Partners bought both Odeon and UCI. Cineworld and UGC were acquired by Blackstone Group.
- 2006: Vue Entertainment underwent an MBO backed by the Bank of Scotland Corporate.
- 2007: Cineworld Group plc floated in 2007 with Blackstone retaining 50% of the company.

These consolidations have resulted in a high level of gearing, with the average sector gearing found in our cost of capital analysis being 114% (debt / equity ratio) compared to 32.3% and 38.9% for the retail and wholesale pay TV activities respectively.

5.4.4 Regulation

We have not identified significant regulation impacting profitability in this sector.

5.4.5 Cost of capital

Our sectoral cost of capital analysis identified a rounded post-tax cost of capital of 7.0% for cinema companies, in comparison to 8.0% to 8.5% for Sky[75]. This implies that it is inappropriate to conduct a profitability comparison of these companies to Sky without adjusting for different costs of capital.

5.4.6 Conclusion

We have identified a number of similarities between cinema companies and Sky (over the relevant period), including:

- Like Sky, cinema companies have content expenditure.

However, we consider that cinema companies have substantial differences from Sky which make them unreliable comparators to Sky for profitability benchmarking based on accounting figures over the period of Oxera's analysis:

- Cinema revenues are generally one-off or derived from advertising rather than subscriptions;
- Cinema companies have grown through acquisition, rather than the organic growth associated with Sky's pay TV activities;

[75] See Appendix 2.

- Cinema is a more capital intensive sector than pay TV;
- Cinema appears to be a more mature sector than pay TV;
- Substantial “shocks” that have occurred in the cinema industry, with significant consolidation of the key players, costs of digitisation and pressures on revenues and profitability (due to the shrinking theatrical window); and
- Cinema appears to have a lower cost of capital than Sky.

Due to these differences in business models (different revenue sources and capital intensity), sector events (consolidation, costs of digitisation and the shrinking theatrical window) and the cost of capital, we consider that cinema companies are unreliable comparators to Sky for profitability benchmarking.

Therefore we conclude that Vue Entertainment, Odeon Cinemas, Kinepolis, Cinemaxx and Cineworld Group plc are unreliable comparators to Sky for the purpose of profitability analysis.

5.5 Oxera's "DVD rentals" comparators

5.5.1 Summary

Home DVD rental businesses are retail only, and therefore are not comparable to Sky's notional wholesale business. Oxera proposed Blockbuster Video, LOVEFiLM and Cineworld Group plc as comparators to Sky's notional retail business. We believe that Cineworld has mistakenly been included in the DVD Rental sector[76] and have therefore disregarded it whilst reviewing this sector.

The two remaining comparators reflect two very different business models. Blockbuster Video operates to a significant degree through a large retail network, renting films out based on a fee per rental and sales of concessions via its store distribution network. LOVEFiLM on the other hand operates a more tangible asset-light business model, sending DVDs out by post and relying on a subscription-based model.

5.5.2 Business model

There is one key common attribute of the two DVD rental models that differ substantially from Sky's business model: these companies face relatively low risk associated with the acquisition of content (DVDs are generally bought outright at wholesale value and can be rented out or sold onto customers once the rental demand reduces).

There are also substantial differences between the two main business models currently operating within DVD rental, and in particular differences in capital intensity and revenue generation (i.e. revenues are generated through monthly subscriptions for some online mail-order services such as LOVEFiLM, whereas the traditional business model charges a fee per individual DVD rented and has substantial merchandise/concessions sales). In addition, "traditional" retail businesses such as Blockbuster incur relatively low customer investment and marketing costs compared to companies which rely on alternative means of distribution, such as LOVEFiLM. Based on this we consider that the industry can not be viewed as one group of comparable businesses but must be seen as individual businesses with differing business models and different inherent risks. The presence of two different business models (tangible asset-light and capital intensive respectively), may lead to a very different picture of the sector depending on the choice of comparators. This means that, even were the characteristics of some aspects of the DVD rental business similar to pay TV, the range of business models would reduce the usefulness of returns comparisons with pay TV.

Generally, DVD rental companies are characterised by relatively limited investment in customers and content. Therefore they benefit from limited volume risk. This aspect of their business model (and the associated risks) differs significantly from that of Sky, which makes both significant investment in customers and signs up to longer term contracts with the content providers. This applies to both Blockbuster's and LOVEFiLM's business models.

Both DVD rental companies have no comparable wholesale activities to Sky's content investment and broadcast business. They are essentially retail-only businesses.

[76] Oxera (2009), "BSkyB's profitability in the context of the Ofcom market investigation", Page 80.

The more traditional DVD rental business model (reaching customers via a retail network of stores) is also tangible asset-intensive in comparison to Sky. However, as Blockbuster is a more mature business, many of its assets are substantially depreciated (net book value to gross book value, is 16%[77]) with a small intangible asset balance (0.5% of total assets, as at January 2009[78]) as many of its acquisitions were made in the 1990s. Nonetheless, capital-based accounting ratios are liable to be distorted in comparison to Sky due to the difference in asset bases.

LOVEFiLM is still in its growth phase and has been highly acquisitive in recent years, and therefore it has a significantly higher intangible asset balance (73% of total assets as at December 2008[79]), but a substantially lower fixed asset balance. This skews accounting ratios in comparison to Sky and causes them to be incomparable.

In the period of the review, video on demand has gained some popularity and, in order to continue to grow, businesses such as LOVEFiLM have been examining the viability of this revenue channel, although the extent of this has been limited to date, and so is unlikely to have substantially impacted profitability in the relevant period.

5.5.3 Sector maturity and key events

The home DVD rental industry experienced a decline in the volume of rentals (both online and through stores) over the period considered by Oxera (see Figure 10). Commentators have attributed this to competition from movies on TV and increasing competition with DVD retailers (due to DVD sales price discounts and a reduction in the length of the DVD rental window). Linked to this, the difference between DVD purchase and rental prices has narrowed[80], as shown in Figure 11. The industry has also been impacted by:

- The emergence of new pay TV delivery technologies (digital cable, IPTV, internet) which allow customers to watch films on a pay per view basis (and sometimes in the same release window), as well as PVRs; and
- Ongoing piracy issues.

[77] Reuters, One Source / PricewaterhouseCoopers analysis.

[78] Reuters, One Source / PricewaterhouseCoopers analysis.

[79] Experian, One Source / PricewaterhouseCoopers analysis.

[80] Film Market, Key Note report, 2009.

Figure 10: UK Video Rental Sector – Volume and Value 2000-08

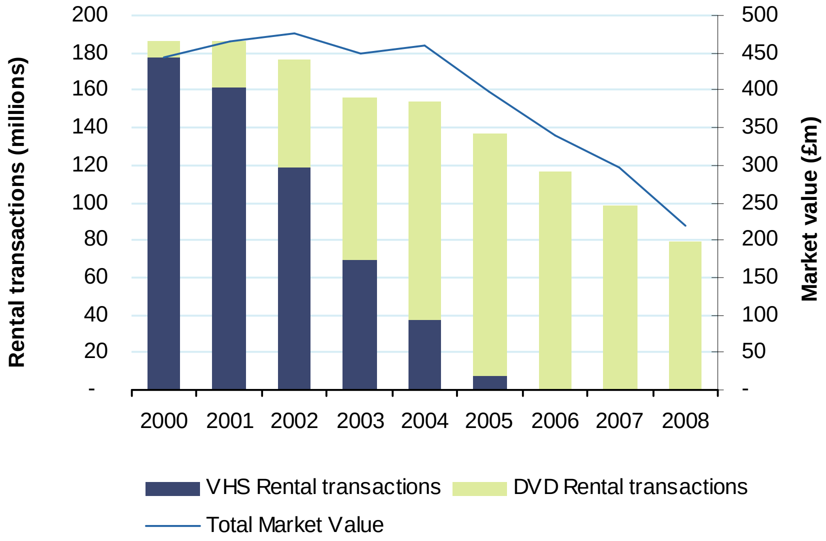
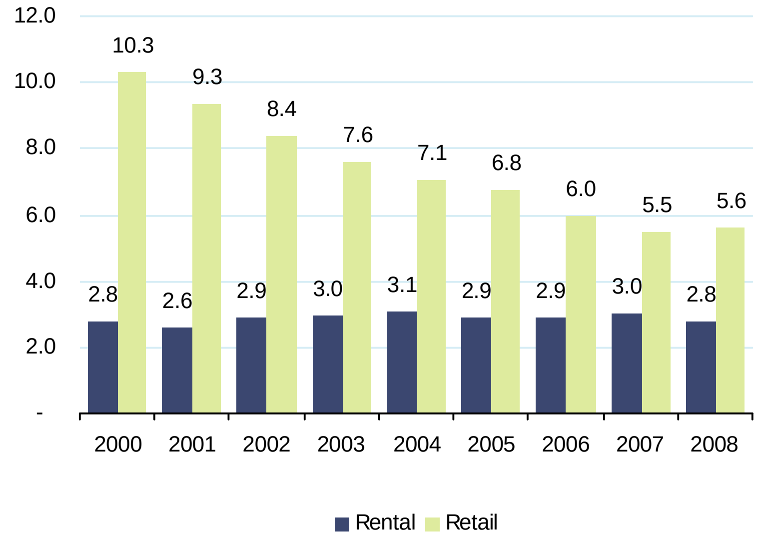


Figure 11: DVD retail vs. rental average price 2000-08



Source: British Video Association Yearbook 2008

In the past, the industry operated through large networks of stores, both owned and franchised, generating revenues through one-off rentals and sale of films, with some additional merchandising revenue generated. These traditional film rental businesses have grown significantly through acquisition. For example, Blockbuster became the largest video renter in the UK through the purchase of Cityvision in 1992, and also entered Scandinavia in 1996 through the acquisition of Christianshavn Video[81].

However, a new business model emerged in the early 2000s, allowing customers to receive films via home postal delivery (and more recently, online downloads). These new businesses, which are much more tangible asset-light, have grown rapidly, at the expense of previous sector participants, as shown in Figure 12. This led to several of the traditional retail chains entering administration in 2007, with larger businesses such as Blockbuster shifting merchandise towards video games and sell-through rather than relying predominantly on film rentals[82].

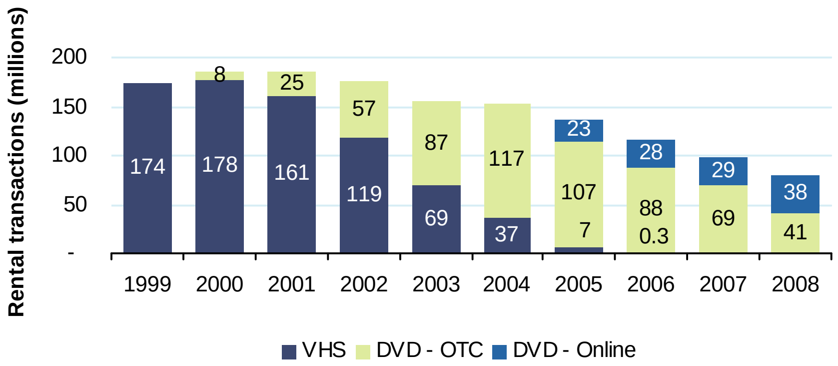
Overall, sector revenues fell substantially over the relevant period as declines in the “traditional” sector have not been completely offset by the emergence of online and by-post businesses. This is very different to the growing pay TV sector in which Sky operates.

[81] Blockbuster Inc Company Profile, Datamonitor, July 2009.

[82] Film Market, Key Note report 2009.

In addition, the shift in business models away from the traditional capital intensive structures (distribution through stores) to tangible asset-light (distribution through the postal system or internet) has resulted in businesses within the sector that are at very different phases of their business life cycles. For example, LOVEFiLM is still in the growth phase (causing potentially lower returns as investment is made for growth and new delivery channels are investigated). Blockbuster (with a more traditional rental business model), on the other hand, has declining revenues. In conclusion, in our view neither comparator is at a similar phase of development to Sky and we conclude that neither is a reliable comparator for the purposes of profitability analysis.

Figure 12: UK Video Rental Sector – Volume 2000-08



Source: BVA, TNS Worldpanel Entertainment

5.5.4 Regulation

We have not identified significant regulation impacting profitability in this sector.

5.5.5 Cost of capital

Our sectoral cost of capital analysis identified a rounded post-tax cost of capital of 9.0% for record companies, in comparison to 8.0% to 8.5% for Sky[83]. It is difficult to draw too many conclusions from this, given the different business models within the "DVD rentals" sector, although for the sector as a whole it suggests that a profitability comparison of companies within this sector to Sky without adjusting for different costs of capital may be inappropriate but would not, in itself, tend to overstate the relative profitability of Sky.

[83] See Appendix 2.

5.5.6 Conclusion

We have identified a number of similarities between DVD rental companies and Sky (over the relevant period), although these apply to LOVEFiLM and not to Blockbuster, including:

- Tangible asset-light business models; and
- Subscription revenues form a substantial proportion of revenues.

However, we consider that, considering the sector as a whole, DVD rental companies have substantial differences from Sky which make them unreliable comparators to Sky for profitability benchmarking based on accounting figures over the period of Oxera's analysis:

- The DVD rental sector is structured in such a way that the risks associated with it differ significantly from those faced by businesses within the pay TV sector. For example, DVD rental businesses buy specific items (rather than licences to the content itself) which they may sell-on when rental demand diminishes. Due to the non-exclusivity of this content, the outlay required is modest, and the level of risk is lower, which is very different to the Sky business model. In addition, they have minimal customer investment, further differentiating them from the pay TV business model;
- DVD rental companies have no comparable wholesale activities to Sky's content investment and broadcast business;
- Furthermore, Blockbuster (a "traditional" DVD rental company) earns a substantial proportion of revenues from merchandising activities, rather than DVD rental; and
- The traditional DVD rental sector is at a very different life cycle stage to pay TV. Despite some businesses being in decline and others in growth phases, the overall demand for rental DVDs from customers has fallen since 2004 with growth opportunities for individual businesses only available through the cannibalisation of revenues from other businesses in the sector. Although there may be some future opportunities to grow the online offering to attract sales away from pay per view TV and VOD, this shift would require investment.

We conclude that Blockbuster (a film rental business with significant retail networks) is an unreliable comparator to Sky for the purpose of profitability analysis, particularly because of its significantly different business model (asset intensity and main source of revenue) to Sky.

We have identified some similarities between Sky's retail model and LOVEFiLM, although the nature of costs (buying rights compared to buying actual DVDs), the absence of comparable wholesale activities and the level of risk suggests that LOVEfiLM is an unreliable comparator to Sky for profitability benchmarking based on accounting figures.

5.6 Oxera's "book publisher" comparators

5.6.1 Summary

Oxera compares Sky with two companies from the book publishing sector (Pearson plc and Reed Elsevier plc) because it considers that the long-term contracts for content acquisition and exclusivity of content in this sector are similar to the characteristics of Sky's notional wholesale business[84].

This sector is diverse and includes consumer publishing, education (primary, secondary and college) and professional publishing (or business to business publishing). These sectors have different characteristics and customers, different levels of maturity and varying profit margins. In particular, there is a substantial journal publishing business within each of the two comparators considered, much of which is likely to be business-to-business sales.

5.6.2 Business model

There has been an increasing trend in the consumer sector of focusing on best-sellers rather than more diverse offerings[85], meaning that while premium authors (e.g. JK Rowling) may have leverage with publishers, lesser known authors generally have little bargaining power within the industry. This is particularly salient in the consumer sector, but can also be seen in the educational field. This is a substantial difference to the features and risks of pay TV sector where providers of content generally have stronger bargaining positions.

The duration of licences for content in book publishing are much longer than in pay TV, with publishers able to re-use content that they have used to produce previous books repeatedly as and when there is demand. This is particularly useful in the educational sector where there is a cyclical demand for new material or text books. If the educational material has not changed substantially there is minimal cost to the publisher in reproducing updated books with only limited changes to editions. This lowers the risk within the sector as publishers have a longer time frame over which to recoup the upfront costs of author content acquisition and plate production[86].

The pattern of distribution for books is relatively complex, as since the abolition of the Net Book Agreement during the 1990s, organisations and businesses that sell books have been free to sell them at a discount[87]. This means that publishers get varying returns and demands from their distributors, sometimes being required to supply significant quantities of free books to maintain good favour with more powerful distributors / academic organisations. This has had a significant impact on the gross margins of certain titles.

[84] Oxera (2009), "BSkyB's profitability in the context of the Ofcom market investigation", Page 44.

[85] United Kingdom – Books, Datamonitor, July 2009.

[86] PricewaterhouseCoopers analysis, 2007.

[87] This contrasts to magazines and newspapers which are sold at a fixed cover price.

Other products within the diverse portfolios have differing revenue and costs characteristics. One point of note is that we understand a large proportion of journal subscriptions (itself a large proportion of total revenues, as set out below) are subscriptions held by businesses (or other organisations such as schools or universities), rather than direct relationships with consumers.

5.6.3 Sector maturity and key events

In general, the overall sector is relatively mature, with growth in revenues of between 3%-5% per annum over the period of review in Oxera's report, driven by increases in readership as well as slight price increases and a wider variety of new offerings such as e-books[88].

However, the industry is undergoing significant changes, due to the large scale digitisation of content[89]. The book publishing sector is experiencing greater change than any other sector of the publishing industry. Some publishers are planning to digitise vast numbers of the books that they have published in the past – Reed Elsevier states in its 2008 annual report that, *"other significant investments in recent years have been in…digitisation of the archive of almost nine million research articles and e-books".* The major academic publishers are increasingly investing in digitised content and are printing much less material.

There were also disposals and acquisitions in the sector over the period of the Oxera analysis. This has resulted in varying levels of intangible assets across the industry. For example Pearson, having been highly acquisitive, has a larger balance of intangible assets than other businesses, including Sky, impacting accounting ratios. Further examples in 2007 include: EMAP plc was broken up and sold, Reed Elsevier plc sold Harcourt Education to Pearson plc, and BBC Worldwide bought the travel publisher Lonely Planet. This consolidation in the industry is likely to continue into the future[90].

Downstream trends in book retail include the increasing presence of online sales and book retail in supermarkets, both of which tend to reduce prices paid to book publishers. Increases in the price of raw materials such as paper have exerted further downwards pressure on margins and profitability.

The evidence above demonstrates that the book publishing sector is at a more mature stage of development than the pay TV sector. Furthermore, costs of digital conversion and restructuring costs are likely to have lowered profitability.

5.6.4 Company-specific factors

The two businesses that Oxera selected as close comparators (Pearson and Reed Elsevier) are highly diversified with different product lines and operations in various geographies that make direct comparison with each other and other publishing companies difficult.

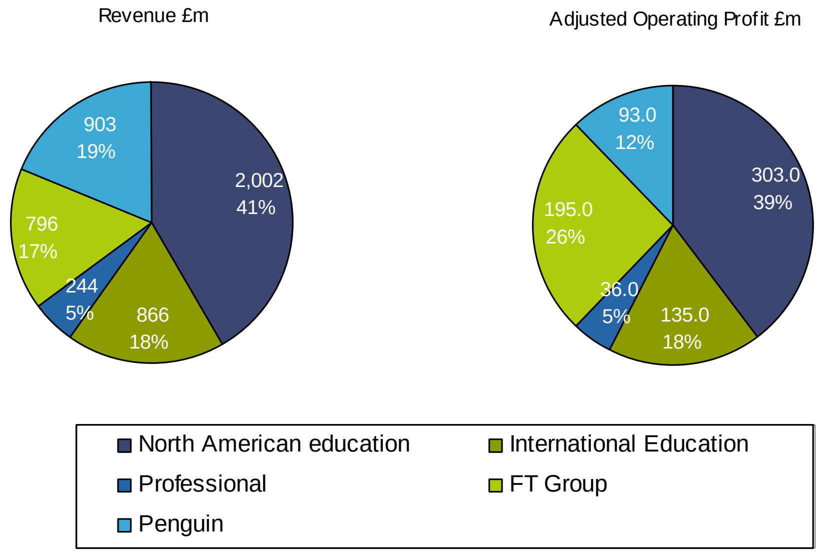
[88] Publishing industry market review 2008, Key Note.

[89] Publishing industry market review 2008, Key Note.

[90] Publishing industry market review 2008, Key Note.

Pearson is an international media and education company with businesses in education, business information and consumer publishing. It has a presence in 60 countries worldwide, with 63% of its sales generated in the USA[91]. Pearson's product diversification is relatively unusual as few publishing companies are involved in more than one sector of the publishing sector (newspapers, magazines and books), and only Pearson has significant interests in all three sectors.

Figure 13: Revenue & adjusted operating profit composition of Pearson Group



Source: Pearson 2008 annual accounts

The Pearson educational offering includes electronic learning programmes, test development, processing, and scoring services to educational institutions, corporations and professional bodies around the world. This business unit contributes 64% of sales (including professional), and has a significantly different customer base to that of Sky with the major customers being governments, schools, professional bodies and students. This unit is also relatively sheltered from the economic climate, but is highly reliant upon government policies determining whether the books that they select to support curricula are those provided by Pearson.

The FT Group, which contributes 17% of Pearson Group's sales, is made up of the Financial Times newspaper and the related website, and Interactive Data, a provider of specialist financial data to financial institutions and retail investors. This segment of the business is very different to book publishing, and also to Sky, as it is much more reliant on daily content that has limited long term value and is highly exposed to the advertising sector. We note that a proportion of

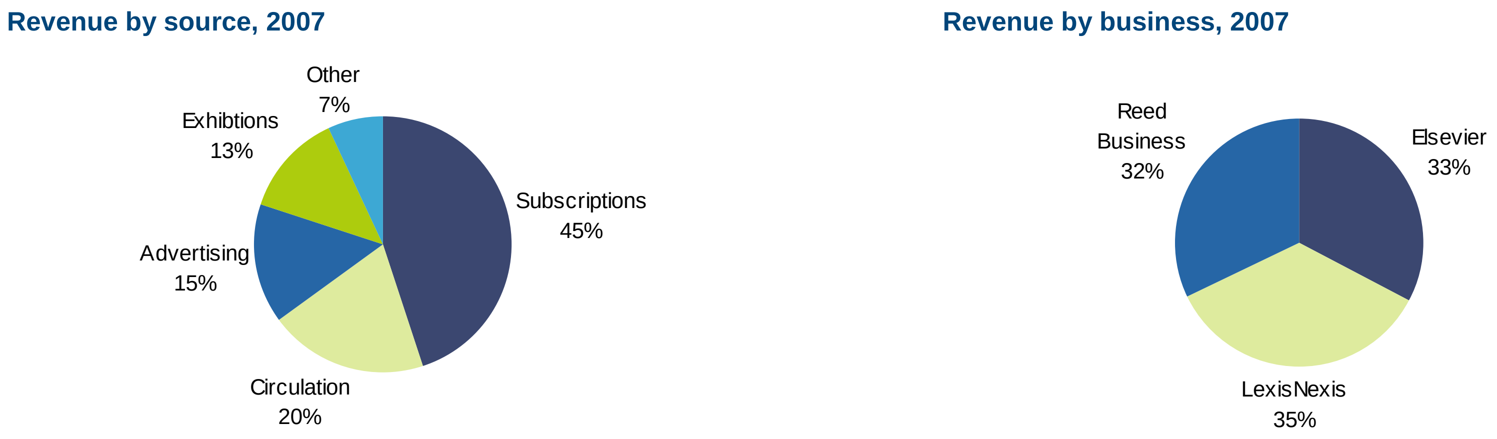
[91] Pearson annual accounts 2008.

this revenue relates to subscriptions, in particular to FT.com. However we understand that most such subscriptions are business-expensed so are not subject to the same exposure to consumer decisions as with subscription to pay TV.

The Penguin group contributes the remaining 19% of the Pearson Group's sales. This segment publishes fiction and non-fiction books with longer contracts with authors than most of the content deals in the pay TV sector.

Reed is similarly diverse and although more predominantly focused on professional publishing (such as journals), also has electronic and online offerings. Reed's activities include science and medical, legal and business publishing and the organisation of trade exhibitions. It predominantly operates in North America and Europe. The Company's businesses provide products and services that are organised in four business divisions: Elsevier serves the science and medical sector; LexisNexis, the legal and other professional sectors, Reed Exhibitions, the exhibitions and conferences sector; and Reed Business Information, the trade magazines and information business sector[92].

Figure 14: Revenue by source and business for Reed Elsevier in 2007



Source: Reed Elsevier 2007 Annual Report

[92] One Source.

Reed Elsevier has been changing the structure of its businesses gradually to become less focused on areas of the industry that require longer-term investment to generate returns. For example, in 2007 it sold its Harcourt Education division for £2.5bn and it is planning to sell Reed Business Information in order to reduce its exposure to cyclical advertising revenues, but over the course of the Oxera analysis both of these divisions were still held[93].

Over the course of the review period, Reed's product mix was well-diversified, but a significant proportion of its publications (particularly business-to-business) are dependent on having in-house authors in order to ensure a constant stream of information for more frequent publications. The business then owns the rights to this information, but it is likely to vary in useful economic life dependent on the publication and sector (e.g. medical compared to legal or business).

The product diversification common to Pearson and Reed contrasts sharply with Sky's high dependence on pay TV subscription revenues (80% of total revenues over the relevant period). Differing diversification entails differing risks and suggests that the businesses are likely to be unreliable comparators. Similarly, some of the sectors in which the businesses operate have substantially higher tangible capital intensity than Sky.

5.6.5 Regulation

We have not identified significant regulation impacting profitability in this sector.

5.6.6 Cost of capital

Our sectoral cost of capital analysis identified a rounded post-tax cost of capital of 7.5% for book publishers, in comparison to 8.0% to 8.5% for Sky[94]. While some caution should be exercised in interpreting this result due to the range of different activities undertaken by the businesses Oxera classifies as "book publishers", this nevertheless suggests that it is inappropriate to conduct a profitability comparison of these companies to Sky without adjusting for different costs of capital.

5.6.7 Conclusion

We have identified a number of similarities between the companies Oxera includes in its "book publishing" comparators and Sky (over the relevant period), including:

- Acquisition of content rights; and
- Substantial proportion of subscription revenues.

[93] Publishing industry market review 2008, Key Note.

[94] See Appendix 2.

However, we consider that the book publishing sector has substantial differences from Sky which make book publishing companies unreliable comparators to Sky for profitability benchmarking based on accounting figures over the period of Oxera's analysis:

- The businesses considered within this sector have highly diverse portfolios, so that overall profitability ratios are unlikely to give real insight into the different segments of the business and hence it is not clear to which activities Sky is being compared;
- A substantial proportion of the comparator organisations' revenues are associated with journal subscriptions, much of which is associated with relationships with businesses or other organisations, rather than individual consumers;
- The book publishing sector has experienced substantial sector events, including mergers and acquisitions and a shift away from traditional print media to digitised content and distribution;
- The book publishing sector appears to be in a later stage of the sector life-cycle than Sky; and
- The cost of capital for companies in the book publishing sector appears to be lower than that for Sky.

Due to these differences in business models (diverse portfolios, substantial proportion of revenues from one-off purchases and substantial revenues from subscriptions held by organisations rather than individuals), sector events (mergers and acquisitions and a shift to digitised content and distribution), the difference in sector life cycle stage and apparent difference in the cost of capital, we consider that the book publishing sector provides an unreliable comparator to Sky for profitability benchmarking.

Therefore we conclude that Reed Elsevier plc and Pearson plc are unreliable comparators to Sky for the purpose of profitability analysis.

5.7 Oxera's "newspaper publishing" comparators

5.7.1 Summary

The six companies included in Oxera's analysis from the newspaper publishing sector are: Daily Mail and General Trust plc, Axel Springer Aktiengesellschaft, Mecom Group plc, Trinity Mirror plc, United Business Media and Johnston Publishing Ltd. The newspaper publishing sector is wholesale-based with a limited retail function. We note that Johnston Publishing Ltd has a larger local newspaper business than the other UK companies.

The business model of newspapers differs significantly to that of pay TV with a significantly higher proportion of revenues from advertising in comparison to the pay TV sector. Advertising revenue is much more volatile than subscription revenue, and hence there is a higher cyclical impact on the profitability of newspaper companies, as evidenced over the period of Oxera's analysis. Furthermore, the newspaper industry currently appears to be in a period of contraction as consumers turn to other forms of media for access to news.

5.7.2 Business model

The key revenue streams relating to newspaper publishing are:

- Print advertising revenue (display and classified) – This constituted the majority of newspaper publishing revenue from 2004 onwards, but is declining as a proportion of total advertising revenues.

- Digital advertising revenues – These contribute a relatively small proportion to overall turnover within the sector (e.g. online advertising sales contributed 3% of the overall newspaper advertising revenues on average between 2005 and 2007)[95]. Despite expected growth, digital advertising revenue is only expected to increase to 9% of total advertising revenues by 2013[96]; and

- Circulation revenues – These have been relatively stable, despite declining circulation, due to increases in cover prices in the various daily papers.

Figure 15 and Figure 16 below illustrate the compound annual revenue growth in circulation revenues, compared with the declines in advertising revenue from 2002 to 2007. As noted above this is predominantly due to price increases in all types of newspapers, but most noticeably in cover prices of Sunday newspapers, shown by Figure 16.

[95] PwC Global Entertainment and Media Outlook, 10th Edition. Figures refer to the EMEA region.

[96] PwC Global Entertainment and Media Outlook, 10th Edition. Figures refer to the EMEA region.

Figure 15: Newspaper and magazine sector growth rates 2002-07

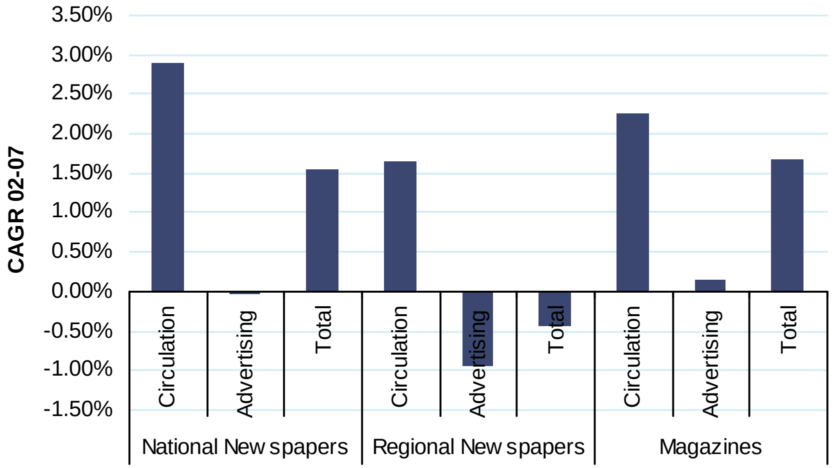
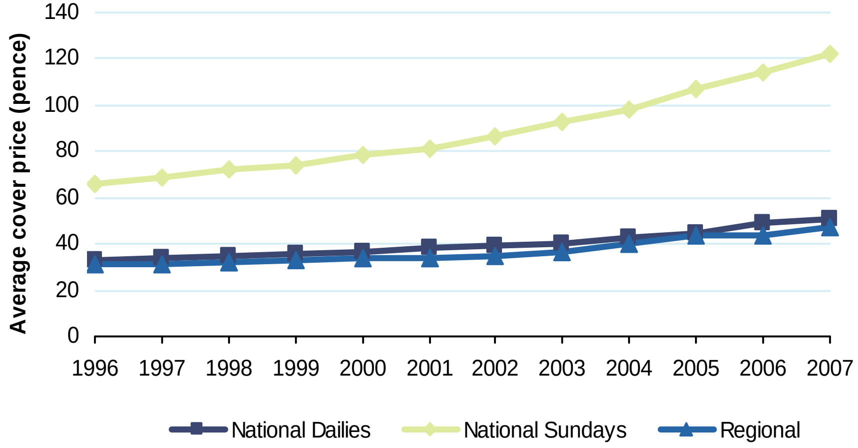


Figure 16: Average newspaper prices, 1995-2007



Source: ABC

The content in newspapers is significantly different to that used by pay TV. It is typically not unique or exclusive, with news items likely to be covered in several different newspapers and other sources; and it is short-lived, losing the majority of value almost immediately with minimal potential for repeat sales.

However, a similarity with Sky is that newspapers undertake substantial marketing costs and investment to build relationships with readers. It is common for consumers to have a regular newspaper, reflecting a substantial customer relationship intangible asset.

The companies selected in this analysis have significant costs associated with maintaining and replacing printing equipment, which will have either an adverse effect on their profitability, or increase their asset base thereby impacting ratios such as ROCE.

5.7.3 Sector maturity and key events

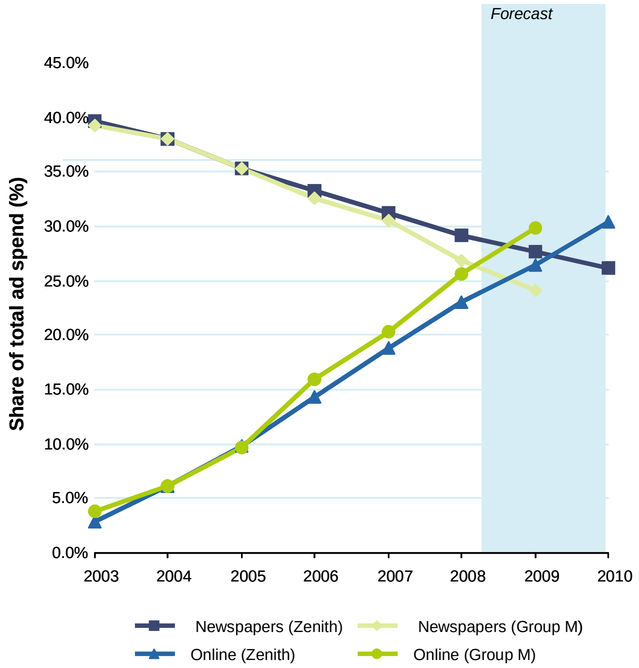
There is evidence that the newspaper publishing sector has experienced both general decline and strong cyclical impacts, with print advertising currently being affected by three adverse trends:

- The economic downturn is leading to significant declines in classified advertising revenues, the most cyclically sensitive advertising category and traditionally the most important revenue stream for regional newspapers. In addition, classified advertising is moving to online specialists (e.g. Rightmove.co.uk, TotalJobs.com) away from local newspapers;

- Consumers are increasingly migrating from print to the Internet for free news services. This has had an adverse effect on both the circulation of newspapers and the propensity of advertisers to spend on advertising in newspapers. The share of advertising expenditure in newspapers is declining, whilst online advertising spend continues to grow, as shown in Figure 17 below; and

- Overall circulation is declining because of declining readership (driven by factors such as an ageing readership and a trend to read news online) and the factors set out above. Although newspaper companies' digital revenues are growing they were insufficient to offset falling print revenues over the relevant period.

Figure 17: Newspaper vs. Online Ad Spend Shares



Source: Group M (Dec '08), Zenith (Dec '08)

In combination these factors have resulted in falling revenues and market values: e.g. Johnston's share price declined by more than 90% in 2008 while Trinity Mirror's market value fell by more than 80% during the same period. This compares unfavourably to a fall of around 30% in the FTSE250 over the same period. There were over fifty newspaper closures in 2008 in the UK and the future of at least eleven further titles is reportedly currently under consideration[97]. These are indicative of an industry which is currently contracting.

Exposure to advertising has meant that the fortunes of the sector are tied to the propensity for advertisers to spend on this medium. Given that this impact is strongly negative, and not linked solely to the economic cycle, this means that the sector is not in equilibrium and does not act as a reliable comparator to the pay TV sector.

Share prices within the industry have dropped substantially since the time period considered by Oxera, due to both the structural issues inherent in the businesses, and also the fall in advertising revenues. Such changes indicate that figures from a five year period cannot be relied upon as estimates of long-run profitability.

5.7.4 Company-specific factors

United Business Media is one of the six newspaper companies included in the comparability analysis. In fact, a significant proportion of its revenues and profits are contributed by trade events that it organises. In 2008, 33% of the group's revenues and 47% of profits were contributed from the business-to-business events hosted. In comparison, its business-to-business magazine / publishing business, which is in some ways more comparable to a newspaper business, but is still significantly different due to a different customer set, contributed less than a quarter of revenues and 14% of profits[98].

5.7.5 Regulation

The newspaper industry is subject to cross-media ownership restrictions.

5.7.6 Cost of capital

Our sectoral cost of capital analysis identified a rounded post-tax cost of capital of 8.0% for newspaper publishers, in comparison to 8.0% to 8.5% for Sky[99]. Hence we identified no substantial difference in the cost of capital impacting Oxera's selection of comparators for profitability analysis.

5.7.7 Conclusion

We have identified a number of similarities between companies in the newspaper industry and Sky (over the relevant period), including:

[97] PricewaterhouseCoopers (2009), "On Media, From Riches to Rags: Prospects for Regional Newspapers"

[98] United Business Media, Annual Report and Accounts 2008.

[99] See Appendix 2.

- Content acquisition/development; and
- A substantial customer relationship intangible.

However, we consider that the newspaper publishing sector has substantial differences from Sky which make companies in the newspaper publishing sector unreliable comparators to Sky for profitability benchmarking based on accounting figures over the period of Oxera's analysis:

- Newspaper publishers are heavily reliant on advertising revenues;
- Content is produced internally rather than bought in from third parties and is not unique or exclusive as other newspapers and media sources are able to obtain and print the main news stories immediately; and
- The industry appears to have been contracting in contrast to the growing subscriber base of pay TV.

Due to these differences in business models (exposure to advertising revenues and differences in content acquisition and use) and sector maturity (contracting demand), we consider that newspaper publishing companies are unreliable comparators to Sky for profitability benchmarking.

Therefore we conclude that Daily Mail and General Trust plc, Axel Springer Aktiengesellschaft, Mecom Group plc, Trinity Mirror plc, United Business Media and Johnston Publishing Ltd are unreliable comparators to Sky for the purpose of profitability benchmarking.

5.8 Oxera's "vertically integrated telecoms operators" comparators

5.8.1 Summary

Oxera includes ten vertically integrated telecommunications operators in its profitability benchmarking: Vodafone, Telenor, TDC, TeliaSonera, France Telecom, Deutsche Telekom, KPN, Telecom Italia, Telefónica and Belgacom. Vertically integrated telecommunications operators provide voice and data services to personal and business customers. Unlike the alternative operators and MVNOs which we discuss in greater detail below, they own and operate most of the physical network infrastructure required for the provision of their services.

5.8.2 Business model

Like Sky, the integrated telecoms operators' revenue has a significant subscription component. However, other revenue streams are also important:

- Prepaid mobile services. The importance of prepaid telephony varies by operator and sector. In the UK, prepaid accounts for 61% of all mobile connections (but for a smaller share of revenue), while the figure for Italy is 95%;
- Corporate data services; and
- Wholesale access to the network.

Retail businesses in the telecommunications sector are characterised by high investment in subscriber acquisition and retention activities (e.g. the average subscriber acquisition cost for Orange mobile customers in France is €117 or 29% of annual average revenue per user ("ARPU"), and the subscriber retention cost is €160 or 40% of ARPU[100]). Though country variations exist, customers typically expect discounted or even free handsets / modems. Additionally, Sky's rate of churn is lower than in the mobile telecoms sector.

The telecoms sector's wholesale activities relate to granting access to network infrastructure or capacity to other telecoms operators (including alternative operators and MVNOs). These activities may exhibit some similarities to Sky's provision of wholesale access to its platform, but are not similar to Sky's wholesale provision of channels and content. In particular, telecoms companies make little or no content investment. The licences in which telecoms operators invest have much longer timeframes than Sky's content licences – for example, the 3G licences were granted for a period of more than 20 years.

Telecoms operators rarely own content, tending to provide access to third party content providers over their networks rather than developing their own content, in contrast to Sky. However, several integrated telecoms operators have launched pay TV offerings. These include BT Vision (BT) in the UK, Imagenio (Telefónica) in Spain and Belgacom TV (Belgacom) in Belgium. However, the relative contribution of pay TV activities to the operator's overall

[100] France Telecom, 2007 Key Performance Indicators release

operations remains small. In general, investment in sports and movies content has been limited, with the exception of Belgacom TV, which has held exclusive rights to show the Belgian top division football league matches since 2005, paying over €170m cumulatively.

Tangible capital intensity among the vertically integrated telecom operators is greater than in the pay TV sector generally and for Sky in particular. The bulk of the physical network infrastructure is owned and operated by the telecoms companies. However, certain elements of the network are leased (e.g. telecommunication towers and wireless links from companies such as Arqiva and Crown Castle). The sector is highly tangible capital intensive with an average capex to sales ratio of 15% over the past decade for the set of comparators identified by Oxera. This reduces the reliability of accounting ratio comparisons between telecoms companies and pay TV companies. Furthermore the risks associated with such different businesses are likely to be substantially different, making these companies unreliable comparators for profitability benchmarking.

In conclusion business model differences (particularly capital intensity) and geographical diversification between the integrated telecommunications sector and Sky and historical factors make the comparison between companies in the sector and Sky's retail activities unreliable.

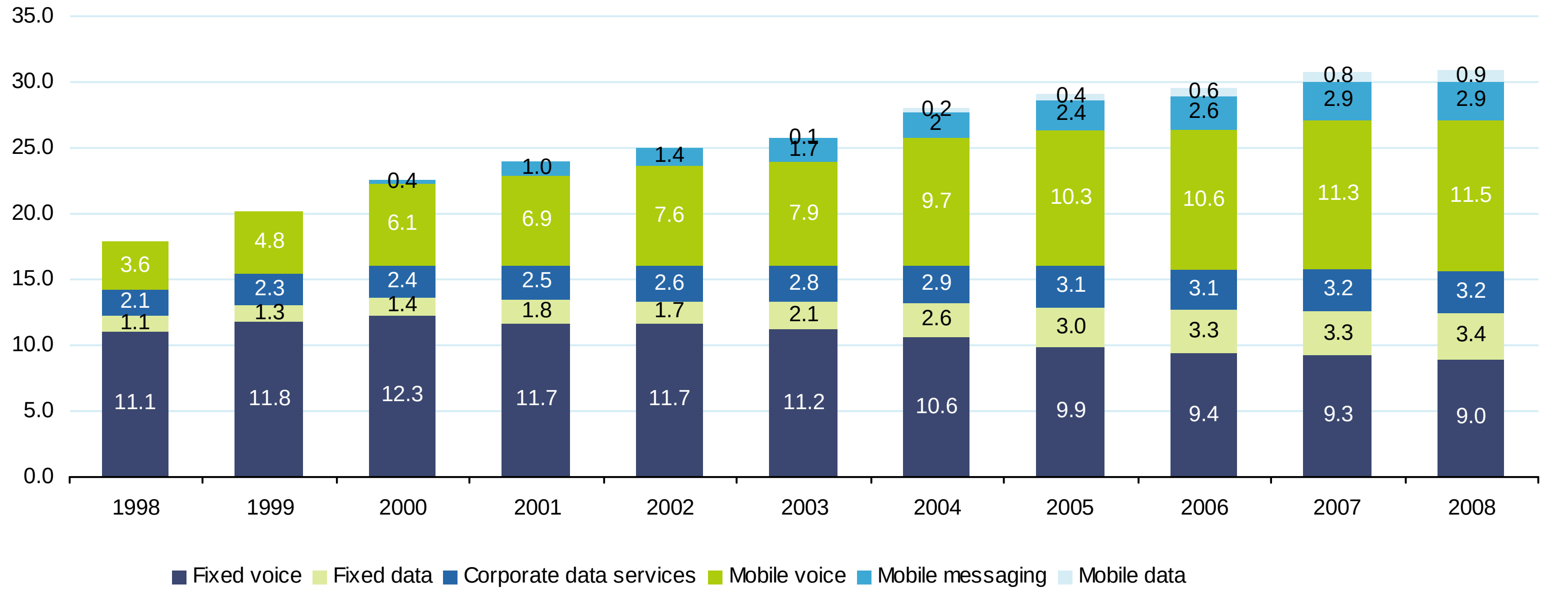
5.8.3 Sector maturity and key events

The trends across the developed European countries are consistent. After enjoying high rates of growth in the late 1990s and early 2000s, the telecoms sector reported significantly slower revenue growth in the last five years (see Figure 18). The overall trend masks significant differences between fixed and mobile communications:

- Traditional fixed voice revenues have declined since 2000, with the fall only partially offset by the growth in first dial-up narrowband and then broadband internet services. There are two key reasons for the decline in fixed voice revenues. The first is fixed-to-mobile cannibalisation with consumers and businesses increasingly relying on mobile voice services. The second is regulatory: both the termination charges (fees charged by the fixed telecom operator for connecting in-bound calls to its customers) and the monthly line rental have been subject to regulator-mandated price decreases.

- Revenues from mobile voice and data services grew consistently over the relevant period, driven primarily by growth in penetration and usage. In recent years growth has slowed as penetration across most developed sectors has levelled off and growing usage has increasingly been offset by the declines in prices and regulated termination revenues.

Figure 18: Telecommunication sector revenue split by service, 1998-2008 (UK)



Source: The Communications Market 2009, Ofcom

A number of telecoms operators, including Vodafone, Telefónica, Telenor and TeliaSonera, have sought growth through geographical diversification. For example, 28% of Vodafone's revenues and 24% of its EBITDA is now derived from developing countries (FY 2008/09 results). Telenor's emerging markets operations now contribute over 40% to total group revenue (FY 2008 results). By contrast, Sky is focused entirely on the UK and Ireland[101]. The fact that some operators are active in emerging markets means that at least some elements of their businesses are at a different stage of maturity to Sky, and may be investing for growth.

As a result, the profitability of such investments is likely to be structurally different, potentially resulting in depressed group-level ROCE and ROS. At the same time, emerging market exposure improves growth prospects, which may inflate enterprise value-to-total assets and enterprise value-to-operating expenditure and capital expenditure valuation multiples.

The sector has been characterised by product innovation and the introduction of new technologies. Within fixed-line telecoms, there has been rapid growth in residential and business internet penetration (first of dial-up narrowband services and then broadband). The growth in data services required substantial investment in infrastructure. First, the operators upgraded their networks to enable the introduction of broadband internet, with the second wave of investment

[101] Annual reports.

currently underway (both in the core networks (NGN) and the last mile) to facilitate increases in broadband speeds. Furthermore, several integrated telecoms operators have recently introduced IPTV services. For mobile telecoms, growth of mobile voice services was underpinned by the operators' investment in improving network coverage and product innovation (particularly the introduction of prepaid services). The development of the innovative non-SMS data services required substantial long-term investments in 3G licences in 2000 and 2001 (the European 3G licence auctions cumulatively raised over $100bn[102]) and the subsequent rollout and upgrades of 3G networks.

Over the period of Oxera's analysis, the European telecommunications sector experienced significant cross border consolidation. Selected transactions include:

- Telefónica (Spain) acquired O2 (UK, Germany, Ireland) in 2006;
- France Telecom (France) acquired Amena (Spain) in 2005;
- In 2002 Telia and Sonera merged their Scandinavian operations; and
- Vodafone acquired Mannesman in Germany and Omnitel in Italy (both in 2000)[103].

The acquisition of 3G licences and M&A transactions at the peak of the telecoms bubble resulted in significant discrepancies between the economic and book values of the integrated telecom companies' assets. Despite a number of significant write downs to correct for the mismatch (for example, Vodafone made a record write down of £23.5bn in 2006 in relation to its acquisition of Mannesman), overall it is possible that book values and economic values of some telecoms companies' assets could be misaligned, undermining any analysis based on book values of assets (such as ROCE and EV/Total assets).

As set out above, the telecommunications sector as a whole appears relatively mature with flattening penetration and revenues. The overall figures mask diverging underlying performance: fixed voice services are in a structural decline as a result of the shift of traffic volumes to mobile but there is some scope for increasing penetration of broadband services. Furthermore, there are ongoing technological innovations requiring substantial network investment.

In addition, many of the telecoms operator comparators selected by Oxera have significant investments in emerging markets which are at a very different stage of development both compared to the European telecommunications sector and to the pay TV sector.

5.8.4 Regulation

The telecommunications sector is heavily regulated, potentially capping the operators' profitability and returns. There are several layers of regulation. For example:

[102] Paul Klemperer, *How (Not) to Run Auctions: the European 3G Telecom Auctions*, European Economic Review 2002.

[103] Vodafone Airtouch Plc FY 2001 Annual Report.

- "Incumbent" fixed network operators are typically required to ensure that essential services (such as fixed telephony or broadband) are available universally (these are known as universal service obligations or USOs);

- Fixed and mobile integrated telecoms operators' wholesale prices are also usually regulated. For example, all European regulators specify the price caps for termination charges – the payments which the operators levy on each other for connecting inbound calls to their customers. Similarly, the fees which the fixed network operators charge others for accessing their infrastructure (for example, the "last mile") are also regulated;

- The monthly line rental fees charged by the fixed telephony operators are typically regulated; and

- Wholesale and retail roaming charges of the EU mobile operators are capped.

Each of the vertically integrated telecoms operators cited by Oxera is subject to one or more sets of the regulations described here. As a result, the profitability and valuation metrics of these companies may not correspond to what would be observed in a competitive market.

5.8.5 Cost of capital

Our sectoral cost of capital analysis identified a rounded post-tax cost of capital of 6.5% for vertically integrated telecoms operators, in comparison to 8.0% to 8.5% for Sky[104]. This implies that it is inappropriate to conduct a profitability comparison of these companies to Sky without adjusting for different costs of capital.

5.8.6 Conclusion

We have identified a number of similarities between vertically integrated telecoms operators and Sky (over the relevant period), including:

- Substantial proportion of subscription revenues; and

- Substantial subscriber acquisition and retention costs.

However, we consider that vertically integrated telecoms operators have substantial differences from Sky which make them unreliable comparators to Sky for profitability benchmarking based on accounting figures over the period of Oxera's analysis:

- They have no comparable wholesale operations to Sky;

[104] See Appendix 2.

- They make little or no investment in content, and the licences they hold (e.g. network licences) have much longer timeframes than the content licences held by Sky;
- Tangible capital intensity is substantially higher than Sky and the risks of the businesses differ;
- They are subject to substantial regulation impacting profitability;
- The industry has experienced substantial recent shocks (including the 3G licence acquisitions and M&A transactions); and
- This sector appears to have a lower cost of capital than Sky.

Due to these differences in business models (lack of wholesale operations, high capital intensity and different risk characteristics), sector shock (3G licence acquisitions and M&A transactions) and a lower apparent cost of capital, we consider that vertically integrated telecoms operators are unreliable comparators to Sky for profitability benchmarking.

Therefore we conclude that Vodafone, Telenor, TDC, TeliaSonera, France Telecom, Deutsche Telekom, KPN, Telecom Italia, Telefónica and Belgacom are unreliable comparators to Sky for profitability benchmarking.

5.9 Oxera's "alternative operators (MVNOs, fixed altnets)" comparators

5.9.1 Summary

Oxera includes eight alternative operators in its profitability benchmarking: Carphone Warehouse, Virgin Mobile, Tesco Mobile, Tele 2, Vonage, TalkTalk, Smart Telecom and Tiscali.

All comparators exhibit some similarities to Sky, in particular:

- Like Sky, their subscription revenues comprise a major part of their overall revenues; and
- Although there is significant variation, all incur substantial subscriber acquisition costs.

However, in other respects this is a diverse set of companies, so the business models and key events are addressed for each company individually.

Carphone Warehouse Group

Business Model

Carphone Warehouse Group has two main sets of activities. Carphone Warehouse is a leading independent mobile phone and services distributor with operations in the UK and eight other European countries. TalkTalk Group provides fixed voice and data services in the UK using both its own and leased infrastructure and is currently the third largest broadband provider in the UK. Carphone Warehouse stores are TalkTalk Group's key distribution channel.

Like Sky, Carphone Warehouse Group derived a significant proportion of its revenues from customer subscriptions:

- In 2007, 27% of Carphone Warehouse Group's revenues were contributed by the company's fixed line business[105] (i.e. the provision of telephony and broadband services to residential and business customers), where monthly subscription payments are the main revenue source. However, it is notable that this was a significant growth area for the business and it is likely to have contributed substantially less to group revenues on average over the relevant period (for example, in FY2006 Fixed Line revenues accounted for 18% of overall revenues, though the lack of comparable data does not permit us to trace this further back).

[105] Carphone Warehouse Group Segmental Data (2006-2008).

- In addition, in 2007 approximately 2% of Carphone Warehouse Group's revenues (but nearly 24% of its operating profits before interest, taxes, depreciation, amortisation and support costs) were derived from retaining a share of customer call spend (or ARPU) of customers the Group connected to certain networks.

The majority of Carphone Warehouse Group's remaining revenues were derived from retail operations. Therefore, the overall contribution of subscription revenues was significantly below that of Sky, which derived 79% of its revenues from subscriptions in 2007. We consider that businesses with substantially different relative shares of retail and subscription revenues should not necessarily be expected to earn comparable returns or have similar valuation ratios.

TalkTalk Group, like Sky, incurs substantial subscriber acquisition costs. For example, in FY 2008 subscriber acquisition and marketing costs amounted to 12% of TalkTalk Group sales[106]. However, TalkTalk Group contributed only 32% of Carphone Warehouse Group's total revenues and the other businesses did not incur subscriber acquisition costs.

Key events

Carphone Warehouse Group's revenues grew at a CAGR of 22% between 2003 and 2007, substantially higher than the 9% for Sky over the same period. The significantly higher growth is partly a function of the growth of the company's traditional retail business but also reflects a number of new product launches and inorganic growth[107]:

- In 2003, Carphone Warehouse Group launched TalkTalk, a residential fixed line telecom service and acquired Hutchison Telecommunications, a German mobile service provider.

- In 2005, Carphone Warehouse Group acquired two residential fixed line telecommunication service providers – Onetel (with approximately 1.5m telephony and internet customers) and Tele2 UK (with approximately 200,000 customers).

- In 2006, it launched a "Free Broadband, Forever" campaign offering free broadband to all subscribers of its TalkTalk service. Later the same year the company acquired AOL UK (which at the time of the acquisition had approximately 2.1m subscribers).

- In FY 2007, Carphone Warehouse Group started migrating its fixed line customers to unbundled local loops.

These events are likely to have resulted in non-recurring start up losses, acquisition and integration related costs, which are likely to have impacted Carphone Warehouse Group's profitability metrics. Furthermore, various acquisitions during and prior to the relevant period resulted in significant goodwill recorded in the company's balance sheet (goodwill contributed 41% to the group's total assets in FY 2007), which potentially further distorts accounting returns metrics compared to Sky which has grown largely organically.

[106] http://www.cpwplc.com.

[107] http://www.cpwplc.com

Overall, the differential revenue growth rates suggest that the respective businesses of Carphone Warehouse Group and Sky are at different stages of development or experienced different cyclical or one-off effects, and accordingly should not necessarily be expected to earn comparable returns.

TalkTalk Group

Business Model

TalkTalk Group, a subsidiary of Carphone Warehouse Group, provides fixed voice and data services in the UK using both its own and leased infrastructure and is currently the third largest broadband provider in the UK. Carphone Warehouse stores are TalkTalk Group's key distribution channel. It relies on a mixture of own and leased network assets, so its tangible asset intensity would be expected to be more closely comparable to Sky's than the integrated telecom operators.

We have not been able to identify a breakdown of TalkTalk Group revenues. However, given the nature of services provided by the company, it is highly probable that over the relevant period it derived a majority of its revenues from customer subscriptions. Furthermore, TalkTalk Group, like Sky, incurs substantial subscriber acquisition costs. For example, in FY 2008 subscriber acquisition and marketing costs amounted to 12% of TalkTalk Group sales[108].

Key events

Carphone Warehouse Group first entered the UK fixed line telecommunications services sector in November 2002 by acquiring Opal Telecom, a fixed line, voice telecommunications provider[109]. It launched a new residential fixed line service across the UK in February 2003 under the TalkTalk brand and since then has grown significantly both organically and through acquisitions to become the UK's third biggest broadband provider in the UK. In 2008, Carphone Warehouse Group announced its decision to restructure its operations and separate its fixed line telephony and broadband business in the UK into a separate entity, TalkTalk Group. The company has grown substantially over the relevant period. Between 2003 and 2007, the revenues of Carphone Warehouse Group's fixed telecom business (closely related to TalkTalk Group) increased by a factor of 16[110] compared to Sky's CAGR of 9% over the same period. Between 2005 and 2007[111], TalkTalk Group revenues increased at a CAGR of 74%, compared to 9% for Sky over the same period. The differential revenue growth rates and the relatively recent launch of TalkTalk services (in 2002) suggest that TalkTalk Group's and Sky's businesses are at different stages of development and accordingly should not be expected to earn comparable returns or have comparable valuation ratios.

We identified a number of significant events related to TalkTalk Group over the period including:

- The launch of TalkTalk, residential fixed line telecom service, by Carphone Warehouse in 2003.

[108] Carphone Warehouse Group website.

[109] Carphone Warehouse Group website.

[110] Carphone Warehouse Group Segmental Data (2006-2008).

[111] This is the period for which TalkTalk Group accounts were provided in Carphone Warehouse Group 2007 Annual Report.

- In 2005, Carphone Warehouse Group acquired two residential fixed line telecommunication service providers – Onetel (with c. 1.5m telephony and internet customers) and Tele2 UK (with c. 200 thousand customers) – and integrated them into its fixed line telecommunications business.

- In 2006, it launched a “Free Broadband, Forever” campaign offering free broadband to all subscribers of its TalkTalk service. Later the same year Carphone Warehouse acquired AOL UK (which at the time of the acquisition had c. 2.1m subscribers) and integrated it into its fixed line telecommunications business.

- In FY 2007, Carphone Warehouse Group started migrating its fixed line customers to unbundled local loop.

These events are likely to have resulted in non-recurring start up losses, acquisition and integration related costs, which are likely to have impacted TalkTalk Group’s (and its predecessor business’) profitability metrics. Furthermore, various acquisitions during and prior to the relevant period resulted in significant goodwill recorded in the company’s balance sheet, which potentially distorts accounting returns metrics compared to Sky which has grown largely organically.

Virgin Mobile

Business Model

Virgin Mobile (owned by Virgin Media) is an MVNO which provides mobile voice and data services in the UK using the T-Mobile mobile network. Virgin Mobile has its own store network and also distributes through retailers such as Carphone Warehouse. Like the traditional mobile network operators and Sky, MVNOs make significant investment in customers. However, in absolute terms subscriber acquisition costs for Virgin Mobile are likely to be lower due to its focus on prepaid customers (rather than contract customers who pay monthly subscription fees)[112]. Furthermore, subscription revenues are likely to have accounted for a relatively small proportion of its overall revenues, in contrast to Sky, which derived 80% of its revenues between 2003 and 2007 from subscriptions.

Between 2004 and 2005, Virgin Media’s average tangible assets to sales ratio was 0.05x, lower but overall comparable to Sky’s 0.11x over the same period. This reflects its mixture of own and leased network assets – it has a lower tangible asset intensity than integrated telecom operators.

Key events

Virgin Media became part of Virgin Media in 2007[113]. Integration costs are likely to mean that costs in 2007 (and possibly in 2006) were not a good reflection of long-run costs. Furthermore, the business structure is likely to differ substantially in the future compared to its pre-merger structure.

[112] Virgin Mobile only launched subscription based services in 2005, according to the company’s press release dated 29 April 2005.

[113] http://pressoffice.virginmedia.com/phoenix.zhtml?c=205406&p=irol-history

Tesco Mobile

Business Model

Tesco Mobile (a 50:50 joint venture between Tesco and O2) is an MVNO which provides mobile voice and data services in the UK using the O2 mobile network. Tesco Mobile's main distribution channel is through Tesco supermarket stores. In addition, it distributes online. Like the traditional mobile network operators and Sky, MVNOs make significant investment in customers. However, in absolute terms subscriber acquisition costs for Tesco Mobile are likely to be lower due to its focus on prepaid customers (rather than contract customers who pay monthly subscription fees). It launched in 2003[114] and grew rapidly, taking a 30% share of new business for the provision of pay-as-you-go mobile phones[115] in the fourth quarter of 2006.

Tesco Mobile relies on O2's network assets, so its tangible asset intensity would be expected to be more closely comparable to Sky's than it is for integrated telecom operators'.

Key events

Tesco Mobile launched its services in 2004, and hence it is unlikely that its profitability over the relevant period was representative of its likely long-term profitability.

Tele2

Business Model

Tele2 has a very diverse business portfolio: it currently provides fixed and mobile telephony (both as an MVNO and as a conventional mobile network operator), broadband and cable TV services across 11 countries to over 24 million customers.

We have not been able to identify the proportion of Tele2's total revenue that was derived from subscriptions. However, its product mix suggests that the contribution of subscriptions to the overall revenues should not be too dissimilar to Sky's, for which subscription fees accounted for 80% of revenues on average between 2003 and 2007.

The presence of conventional telecommunications networks in Tele2's portfolio meant that its asset intensity was greater than Sky's: its fixed asset to sales ratio was 0.36x in 2007 compared to 0.15x for Sky in the same year. Its capex to sales ratio was also higher at 12.9% in 2007, compared to 6.4% for Sky. Accordingly, it should not necessarily be expected to earn returns or have valuation metrics comparable to Sky's.

[114] Tesco Plc Press Release dated 4 June 2003.

[115] Tesco plc, Annual Report 2006.

Key events

Between 2004 and 2007, Tele2's revenue CAGR was 13%[116], significantly above 8% for Sky over the same period. The higher growth rate in part reflects the fact that Tele2 was highly acquisitive over the relevant period. Its acquisitions since 2005 alone include operations in the Netherlands, Sweden, Belgium, Russia and Denmark. Over the same period it discontinued or sold operations in several countries including Sweden, France, Italy, Spain and the UK. The company's stated strategy since 2005 has been to rebalance its portfolio towards mobile operations over its own networks with a particular focus on expanding its operations in Russia and the Commonwealth of Independent States. Its major acquisitions are likely to have resulted in the recognition of significant intangible assets on the balance sheet. Furthermore, acquisition and disposal activities also resulted in non-recurring integration and disposal costs which are likely to have depressed returns and valuation metrics over the period of analysis.

In addition, over the relevant period, Tele2 started providing fixed telecom services using unbundled local loops. This represented a dramatic change in the company's business model and resulted in significant investment. Potentially, this change suggests that the company's returns over the relevant period were not representative of the company's performance in the long-run.

Vonage

Business Model

Vonage is a Voice over Internet Protocol (VoIP) provider, which in 2007 had 2.5 million subscribers worldwide. It allows customers to make and receive calls using their broadband internet connections. Its main distribution channel is online, but it also sells through retailers such as Best Buy, WalMart and Target. It incurs substantial expenses in acquiring customers: in the first quarter of 2009, Vonage's average subscriber acquisition cost amounted to $363 compared to the average monthly revenue per customer of $28.88. Also, like Sky, Vonage operates a relatively tangible asset-light business model. Its tangible assets to sales ratio was 0.26x between 2003 and 2007, somewhat higher, but nevertheless comparable to Sky's 0.11x over the same period.

Key events

Vonage's revenue CAGR between 2003 and 2007 was 163% per annum, significantly above 9% for Sky over the same period. The dramatic difference between the companies' growth profiles over the relevant period suggest that Sky and Vonage were at different levels of maturity, and accordingly should not necessarily have been expected to earn comparable returns or have similar valuation metrics.

[116] Tele2 2008 Annual Report.

Vonage's average return on sales was -91% between 2003 and 2007, suggesting that its operations cannot be considered to be sustainable or in equilibrium[117]. This is further illustrated by the fact that, following its flotation in May 2006[118], Vonage's share price declined by 86% by the end of 2007. This dramatic change in investors' valuation of the business indicates that the business was not in equilibrium over the period of analysis.

Tiscali

Business Model

Tiscali's main operations over the relevant period were in the UK and Italy where it provided broadband, fixed telephony and IPTV services using its own and leased network infrastructure. Although we were not able to identify the breakdown of Tiscali's revenues, the mix of services which it provides suggests that a majority of its revenues were from subscriptions. Furthermore, like Sky, Tiscali incurred substantial subscriber acquisition costs related to connecting and providing equipment to customers.

Tiscali relies on a mixture of own and leased network assets, so its tangible capital intensity was more closely comparable to Sky's than integrated telecom operators'. Nevertheless, its asset intensity was somewhat higher than Sky's with tangible assets to sales ratio of 0.30x and capex to sales of 11.3% in 2007, compared to 0.15x and 6.4% respectively for Sky in the same year.

Key events

During the period analysed by Oxera, Tiscali actively restructured its business portfolio:

- In 2005, Tiscali sold its operations in France to Telecom Italia;
- In 2006, Tiscali acquired Video Networks in the UK, which had 45 thousand customers in the UK, mostly taking triple play services (broadband, telephony, TV)[119].
- In 2007, Tiscali acquired Pipex, which at the time of the acquisition had 570 thousand broadband and 650 thousand fixed line telephony customers in customers in the UK[120];

[117] Vonage 2007 Form 20-F.

[118] Vonage 2007 Form 20-F.

[119] Tiscali Press Release dated 12 August 2006.

[120] Tiscali Investor Presentation, July 2007.

- In addition, Tiscali undertook several small acquisitions and disposals between 2003 and 2007. For example, its acquisitions included Airtelnet in Spain, Wanadoo in Belgium, npower in the UK, Cable & Wireless operations in France and EUnet in Austria[121]. Over the same period Tiscali disposed of its operations in Austria, Belgium, Denmark, France, Germany, the Netherlands, Norway, Sweden, South Africa and Switzerland 2004.

These transactions are likely to have resulted in non-recurring integration and disposal costs and therefore depressed returns and valuation metrics over the period of analysis. Furthermore, they led to the recognition of significant goodwill on the balance sheet (goodwill accounted for around 32% of Tiscali's total assets in 2007), which further impacted Tiscali's accounting returns. Overall, the events described above limit the reliability of comparisons between Tiscali and Sky, which grew primarily organically over the relevant period.

Over the relevant period, Tiscali started providing fixed telecom services using unbundled local loops[122]. This represented a dramatic change in the company's business model and required significant investment. Potentially, this change suggests that the company's returns over the relevant period were not representative of the company's performance in the long-run.

It is notable that Tiscali experienced substantial financial difficulties shortly after the period of analysis, suggesting that its operations cannot be considered to be sustainable or in equilibrium[123].

Smart Telecom

Business Model

Smart Telecom provides fixed telephony and data services to consumers and businesses in Ireland, relying on a mixture of its own network assets and the network of the incumbent fixed operator, Eircom. Smart Telecom collapsed in 2006 when Eircom stopped providing wholesale services to Smart after a period of non-payment. The company was rescued by an investment vehicle, in which a state-backed venture capital fund was a major investor and service provision was subsequently restored. Smart Telecom recently posted its first ever quarter of positive EBITDA (quarter ending June 2009)[124].

We have not been able to identify the proportion of Smart Telecom's revenues that was derived from subscriptions. However, its product mix suggests that the contribution of subscriptions to the overall revenues should not be too dissimilar to Sky's, for which subscription fees accounted for 80% of revenues on average between 2003 and 2007.

Smart Telecom relies on a mixture of own and leased network assets, so its tangible capital intensity would be expected to be more closely comparable to Sky's than the integrated telecom operators'.

[121] Tiscali Press Release s, 2003-2007.

[122] LLU roll out began in 2004 in Italy and in 2005 in the UK.

[123] As a result, in 2009 Tiscali sold its UK operations to Carphone Warehouse Group.

[124] Smart Telecom website.

Key events

Smart Telecom experienced substantial financial difficulties in 2006 and entered examinership, a process similar to administration in 2009[125], suggesting that its operations cannot be considered to be sustainable or in equilibrium.

It is also notable that over the relevant period, Smart Telecom started providing fixed telecom services using unbundled local loops. This represented a dramatic change in the company's business model and resulted in significant investment. Potentially, this change suggests that the company's returns over the relevant period were not representative of the company's performance in the long run.

5.9.2 Regulation

Wholesale access charges paid by alternative fixed network operators are typically regulated. As a result, the profitability of these operators is heavily dependent on the prevailing regulatory environment and may not necessarily correspond to the profitability which would prevail in an effectively competitive market.

5.9.3 Cost of capital

Our sectoral cost of capital analysis identified a rounded post-tax cost of capital of 8.0% for alternative operators, in comparison to 8.0% to 8.5% for Sky[126]. While caution should be exercised in drawing conclusions from this, given the wide range of activities carried out by different businesses classified in this sector, it does not indicate that businesses that Oxera classifies within this sector are necessarily unreliable comparators on the basis of different costs of capital.

5.9.4 Conclusion

We have identified a number of similarities between the companies Oxera includes in its “alternative operators” comparators and Sky (over the relevant period), including:

- Substantial proportion of subscription revenues;
- Substantial subscriber acquisition and retention costs; and
- With the exception of Tele2, alternative operators have a relatively tangible asset-light business model.

[125] Smart Telecom website.

[126] See Appendix 2.

However, we consider that all of the alternative operators considered have substantial differences from Sky which make them unreliable comparators to Sky for profitability benchmarking using accounting ratios over the period of Oxera's analysis. All companies have little or no content costs, and we have not identified licensing costs equivalent to licence costs for content within their business models. Other significant differences we have identified are:

- **Carphone Warehouse Group** – Non-subscription based activities account for a significant proportion of the Group's revenue. Carphone Warehouse's substantially higher revenue growth rates over the relevant period (than Sky) indicate that it was either at a different level of maturity or experienced exceptional events (e.g. growth through acquisitions). Carphone Warehouse Group was involved in a number of significant acquisitions and introduced a number of new services, which are likely to have impacted its profitability and returns over the relevant period.

- **TalkTalk Group** – TalkTalk Group appears to have been at a different level of maturity or experienced exceptional events (e.g. growth through acquisitions) compared to Sky, as evidenced by its substantially higher revenue growth rates over the relevant period and its relatively recent launch. TalkTalk Group's business was also impacted by a number of significant acquisitions and introduction of a number of new services, which are likely to have impacted its profitability and returns over the relevant period.

- **Virgin Mobile** – Virgin Mobile had a greater focus on prepaid rather than subscription revenues (compared to Sky). The likely difference between the business before and after the Virgin Media merger mean that profitability is not likely to reflect its current and future profitability.

- **Tesco Mobile** – Tesco Mobile had a greater focus on prepaid rather than subscription revenues (compared to Sky). Its recent start-up (in 2004) means that profitability over the relevant period is unlikely to reflect long-run profitability.

- **Tele2** – Tele2's business was subject to extensive restructuring including substantial disposals and acquisitions. It also launched fixed telephony services via unbundled local loop, changing the overall business model. Tele2's business is significantly more asset intensive than Sky's.

- **Vonage** – Vonage's revenue growth rate over the period was significantly above Sky's indicating that the two companies were at different levels of maturity. Vonage was consistently loss-making over the period and experience a large fall in its market value, which suggests that the business was not in equilibrium.

- **Tiscali** – Tiscali made a substantial number of acquisitions and disposals, launched fixed telephony services via unbundled local loops and changed the overall business structure. Since the period analysed, it has run into financial difficulties, suggesting that it was unlikely to have been exhibiting long-run rates of profitability.

- **Smart Telecom** – Smart Telecom launched fixed telephony services via unbundled local loops during the relevant period, changing the overall business structure. It experienced financial difficulties both during and subsequent to the period of analysis, suggesting that it was not exhibiting long-run rates of profitability.

Due to these differences in business models (different capital intensity forTele2, likely different revenue mix for Carphone Warehouse Group, Virgin Mobile and Tesco) and sector and business events (including business model changes and mergers and acquisitions for Carphone

Warehouse Group, TalkTalk Group, Virgin Mobile, Tesco Mobile, Tele2, Vonage, Smart Telecom and Tiscali) we consider that Carphone Warehouse, Smart Telecom, TalkTalk, Tele2, Tesco Mobile, Tiscali, Virgin Mobile and Vonage are unreliable comparators to Sky for profitability benchmarking.

6 Comparison of Oxera's TV comparators to Sky

6.1 Introduction

In this section we analyse Oxera's proposed TV sector comparators to Sky. For each company we summarise its activities, characteristics and relevant events and conclude on whether or not it is comparable to Sky, based on the key criteria outlined in Section 4 and based on the methodological framework outlined in Section 3. Our analysis concentrates on the period analysed by Oxera (2003 to 2007). Where data are unavailable for the whole period we have drawn conclusions based on the data available, compared to Sky over the same period.

Cost of capital

We have not undertaken a cost of capital analysis for each individual TV comparator, on the basis that companies undertaking similar activities in similar locations should have similar costs of capital. There are likely to be some differences associated with revenue sources (for example advertising versus subscription), product diversification and geographic location of activities. These factors are incorporated into the analysis below.

6.2 UK

6.2.1 Five

Description

Five is a channel provider and broadcaster in the UK that, following the acquisition by RTL Group of a minority stake from United Business Media in July 2005, is now a wholly-owned subsidiary of RTL Group. Its main channel (Five) is the smallest (by audience share) of the five channels available via analogue terrestrial signal in the UK, and broadcasts to 80% of the UK population via analogue terrestrial signal. Both Five (the channel) and a portfolio of digital channels are broadcast via digital terrestrial, cable and satellite delivery technologies.

Business model

Main source(s) of revenue

Over the relevant period, Five's main revenue source was advertising revenues. Between 2004 and 2007, on average 96% of Five's revenues were earned from advertising, in contrast to 8% for Sky.

In the UK, subscription revenues for the sector as a whole (Sky's main source of revenue) increased at a CAGR of 5% in real terms between 2003 and 2007, while advertising revenues for the sector as a whole decreased at a CAGR of -2%[127]. These contrasting figures indicate that advertising and subscription revenues were subject to different trends. Accordingly, companies with different relative exposures to subscription and advertising revenues should not necessarily be expected to earn comparable returns or have similar valuation ratios.

In contrast to Sky, Five did not offer broadband and telephony services between 2003 and 2007.

Asset intensity

Over the relevant period Five's tangible asset intensity was substantially lower than that of Sky, although we consider that both are tangible asset-light businesses[128]. Five's average fixed assets to sales ratio between 2003 and 2007 was 0.01x, even lower than that of Sky (0.11x), and its average capex to sales ratio between 2004 and 2007 was 0.3%, even lower than the 4.2% for Sky.

Level of programme and content costs

Between 2004 and 2007, Five's programming costs (including acquired and commissioned programmes) amounted to 62% of revenues, on average, compared to 40% for Sky[129] over the same period. We consider that, as a channel provider, Five's wholesale operations are comparable to Sky's wholesale operations.

Geographical diversification

In the relevant period, Five operated only in the UK. Its geographical diversification was therefore comparable to that of Sky, which operated only in the UK and the Republic of Ireland.

[127] Five website.

[128] We also note that Five's total asset intensity calculated as a ratio of the sum of tangible assets and intangible assets (less goodwill) to sales was also lower than that for Sky.

[129] Sky's programming costs include payment for: (i) licences of television rights from certain USA and European film licensors, including the results of foreign exchange programme hedges; (ii) the rights to televise certain sporting events; (iii) other programming acquired from third party licensors; (iv) the production and commissioning of original programming; and (v) the rights to retail Sky-distributed channels to DTH subscribers.

Business maturity and key events

Business maturity

Five was launched in 1997 and its first profitable year was 2003. Five's relatively recent achievement of profitable status (in 2003) means that profits in the relevant period are unlikely to be representative of future profitability (i.e. it is unlikely to have reached its "steady state" level of profitability). Furthermore, Five is a substantially smaller company than Sky, with average (2003-2007) turnover of £303m compared to £3,877m for Sky.

This means that we should not necessarily expect similar profitability, for example if its small size is indicative that Five had not reached efficient scale by the beginning of the analysis period. In 2005, the Chief Executive of RTL (then Five's majority shareholder) stated that Five needed to develop a multichannel strategy to have the right critical mass after analogue switch off[130]. This implies a lack of efficient scale at the beginning of the period considered by Oxera.

Business events (including business combinations and disposals)

We identified no substantial business events (other than those in the preceding section) likely to impact profitability substantially.

Sector and country-specific factors

Sector events & maturity

The evidence on different trends of advertising and subscription revenues in the UK (presented above) provides evidence that, over the relevant period, the sector in which Five operates was at a different level of maturity or experienced different cyclical or one-off effects to pay TV in the UK, and hence Five should not necessarily be expected to have had comparable profitability and valuation ratios to Sky.

Country-specific factors

As Five operates in the same main country as Sky (although Sky has continuing operations in the Republic of Ireland), there are no relevant differing country-specific factors.

Regulation

Five's main channel is subject to a range of public service obligations (though less than ITV) and regulatory restrictions that do not apply to Sky's channels and which are likely to negatively impact profits. In 2004 these included[131]:

[130] Five website.

- 51% of programme hours should be originations, including 42% of peak-time hours;
- Repeats limited to 40% of programming hours;
- Minimum of 25% of qualifying hours independently produced;
- Required hours of news, current affairs, children's TV and other genres; and
- Restrictions on advertising minutage – While most channels are restricted to nine minutes of advertising per hour, advertising minutage on Five (a public service broadcasting channel) is restricted to seven minutes per hour[132].

Sky is subject to platform regulation that does not apply to Five.

Conclusion

We have identified a number of similarities between Five and Sky (over the relevant period), including:

- Both businesses are tangible asset-light; and
- Similar geographical diversification.

However, Five's comparability to Sky is limited by the following features of Five over the relevant period:

- Reliance on advertising revenues (contrasting with subscription revenues for Sky);
- Five was a new entrant to the sector and achieved positive profits for the first time in 2003 (hence profits were not reflective of expected long-term profits);
- Five was a substantially smaller business and may not have reached minimum efficient scale during the relevant period;
- Different regulatory restrictions to those affecting Sky; and

[131] http://www.ofcom.org.uk/tv/ifi/tvlicensing/c5/

[132] http://www.ofcom.org.uk/tv/ifi/codes/code_adv/tacode_072009.pdf

- The declining total advertising revenues in the UK indicate that Five operates in a sector with different dynamics to subscription revenues in the UK.

Overall, we do not consider Five to be a reliable comparator to Sky for profitability benchmarking based on accounting figures over the relevant period, particularly because of its reliance on advertising revenues and its relatively recent entry.

6.2.2 ITV

Description

The main activities of ITV plc ("ITV") are channel provision and broadcasting. It provides the largest (by viewing share) commercial TV channel in the UK and a portfolio of digital-only channels available free to air. Its production division develops content for ITV and other UK businesses. ITV also generates revenues by distributing ITV and third-party programming internationally, and through the sale of DVDs and merchandise associated with ITV and third-party programmes.

Business model

Main source(s) of revenue

Over the relevant period, ITV's main revenue source was advertising revenues. Between 2004 and 2007, on average 73% of ITV's revenues were earned from advertising, in contrast to 8% for Sky.

In the UK, subscription revenues (Sky's main source of revenue) for the sector as a whole increased at a CAGR of 5% in real terms between 2003 and 2007, while advertising revenues for the sector as a whole decreased by a CAGR of -2%[133]. These contrasting figures indicate that advertising and subscription revenues were subject to different trends. Accordingly, companies with different relative exposures to subscription and advertising revenues should not necessarily be expected to earn comparable returns or have similar valuation ratios.

In contrast to Sky, ITV did not offer broadband and telephony services between 2003 and 2007.

[133] Western Europe TV 12th Edition, IMF World Economic Outlook, PwC analysis.

Asset intensity

Over the relevant period ITV's tangible asset intensity was comparable to that of Sky. ITV's average fixed assets to sales ratio between 2003 and 2007 was 0.11x, the same (to 2 decimal places) as Sky (0.11x), and its average capex to sales ratio between 2003 and 2007 was 2.1%, even lower than, but broadly comparable to, the 4.2% for Sky[134].

Level of programme and content costs

Between 2003 and 2007, ITV's programming costs amounted to 47% of revenues, on average, comparable to 42% for Sky over the same period. These costs relate both to acquisition of programmes, in-house production and amortisation of sports rights[135]. We understand ITV's proportion of originated (rather than acquired) content to be higher than Sky's, and that it has a greater proportion of productions from independent producers than Sky.

We consider that, as a channel provider, ITV's wholesale operations are comparable to Sky's wholesale operations.

Geographical diversification

In the relevant period, ITV operated only in the UK. Its geographical diversification was therefore comparable to that of Sky, which was operating only in the UK and the Republic of Ireland.

Business maturity and key events

Business maturity

ITV plc was created in 2004 following the merger of Granada and Carlton plc[136]. However, the constituent companies of ITV have broadcast regional versions of its main TV channel (now "ITV 1") since 1955[137]. Over the relevant period, its revenues (in current prices) grew at a CAGR of 12% between 2003 and 2005 but then declined at a CAGR of -3% between 2005 and 2007. This provides evidence that (over the relevant period) the sector in which ITV operates was at a different level of maturity or experienced different cyclical or one-off effects compared to pay TV in the UK, and hence ITV should not necessarily be expected to have had comparable profitability and valuation ratios to Sky.

Business events (including business combinations and disposals)

[134] However, we note that ITV's total asset intensity calculated as a ratio of the sum of tangible assets and intangible assets (less goodwill) to sales was significantly higher than that for Sky.

[135] PwC conversations with ITV Investor Relations.

[136] http://www.itvplc.com/about/history/

[137] http://www.itvplc.com/about/history/

Transition costs related to the 2004 merger (and associated uncertainty) mean that profitability in 2004 and 2005 is unlikely to be representative of ITV's profitability today and in the future. Pre-merger profitability (i.e. 2003) is not representative of the post-merger profitability because the structure of the business changed substantially.

Due to various acquisitions made by ITV during and prior to the period analysed by Oxera, significant intangible assets including goodwill are recorded on the company's balance sheet. This distorts asset-based accounting ratios in comparison to Sky, which has grown largely organically. Although Oxera has tried to correct for this imbalance by including an estimate of the value of Sky's subscriber base in its ROCE analysis, distortions are likely to remain for the following reasons:

- Oxera has not attempted to assess the value of internally-generated goodwill for Sky. ITV had significant goodwill on the balance sheet: between 2004 and 2007, goodwill contributed 58% on average to ITV's total assets compared to 18% for Sky. Goodwill will incorporate the value of intangible assets which do not necessarily meet the identification criteria of the relevant accounting standards. This will further distort capital-based accounting ratios between companies which grow through acquisition and those which grow organically.

- Oxera has attempted to value Sky's subscriber base, but has not valued other intangible assets (such as brands) which would typically be assigned a value in a Purchase Price Allocation exercise for acquisition accounting purposes, nor has it reassessed the value of tangible assets. This may understate the value of tangible and intangible assets for Sky (which has primarily grown organically) relative to companies which have grown through acquisitions.

These considerations reduce the value of using ITV as a comparator to Sky for the purposes of profitability and valuation benchmarking.

ITV also experienced ownership uncertainty associated with a bid from ntl and regulatory proceedings relating to the stake in ITV held by BSkyB and unprofitable diversification ventures, including the £170m purchase of Friends Reunited in December 2005, sold in August 2009 for £25m[138].

Sector and country-specific factors

Sector events & maturity

The evidence on different trends of advertising and subscription revenues in the UK (presented above) provides evidence that (over the relevant period) the sector in which ITV operates was at a different level of maturity, or experienced different cyclical or one-off effects, to pay TV in the UK, and hence ITV should not be expected necessarily to have had comparable profitability and valuation ratios to Sky. Furthermore, we consider that the fundamental differences between advertising-funded and subscription-based sectors make profitability and valuation comparisons inappropriate.

[138] http://www.broadcastnow.co.uk/news/finance/itv-suffers-as-it-sells-friends-reunited-for-25m/5004356.article

Country-specific factors

As ITV operates in the same main country as Sky (although Sky has continuing operations in the Republic of Ireland), there are no relevant differing country-specific factors.

Regulation

ITV is subject to a range of extensive public service obligations and regulatory restrictions that differ from those that apply to Sky and which are likely to negatively impact profits, including:

- Contract Rights Renewal[139] – regulation restricting the prices ITV can charge for advertising space on its main channel (ITV1);
- Production quotas[140] – including a requirement that 33% of production hours (40% of expenditure) come from outside of London; and that 25% of programme hours be supplied by independent producers;
- Regional programming[141] – including broadcasting a minimum of 8 hours and 30 minutes of regional news, current affairs and other regional programmes per week for each of the 11 regional licences it holds; and
- Restrictions on advertising minutage – while most channels are restricted to nine minutes of advertising per hour, advertising minutage on ITV1 (a public service broadcasting channel) is restricted to seven minutes per hour[142].

Other regulations include its "Must-carry" status on cable and satellite channels and networking arrangements relating to coordination with holders of the other regional licences.

Sky is subject to platform regulation that does not apply to ITV.

Conclusion

We have identified a number of similarities between ITV and Sky (over the relevant period), including:

139 http://www.competition-commission.org.uk/inquiries/completed/2003/carlton/

140 http://www.ofcom.org.uk/tv/ifi/tvlicensing/c3/

141 http://www.ofcom.org.uk/tv/ifi/tvlicensing/c3/

142 http://www.ofcom.org.uk/tv/ifi/codes/code_adv/tacode_072009.pdf

- Comparable wholesale operations including similar levels of programming costs (although proportional spend on originated content is higher for ITV than Sky);
- Similar geographical diversification; and
- Similar asset intensity.

However, ITV's comparability to Sky is limited by the following features of ITV over the relevant period:

- Reliance on advertising revenues (contrasting with subscription revenues for Sky);
- Different regulations;
- Post-merger transition costs, destabilising events and unprofitable diversification ventures; and
- The declining total advertising revenues in the UK indicate that ITV operates in a sector with different dynamics to subscription revenues in the UK, either due to one-off or cyclical effects.

Overall, we do not consider ITV to be a reliable comparator to Sky for profitability benchmarking based on accounting figures over the relevant period, particularly because of its reliance on advertising revenues, destabilising events and post merger transition costs.

6.2.3 Virgin Media

Description

Virgin Media is a residential and business broadband provider, pay TV retailer and cable platform operator, channel provider and broadcaster, and retailer of fixed and mobile telephony services.

Business model

Main source(s) of revenue

Over the relevant period, Virgin Media's main revenue source was the distribution of television programming over its cable network and the provision of broadband and fixed line telephone services to consumers, businesses and public sector organisations. We have not identified a further breakdown of these revenue sources, but we understand that, like Sky, Virgin Media derives a large proportion of its revenues on a subscription basis.

Virgin's provision of TV services includes, in addition to operating a cable platform, the provision of "free" TV services. This is the provision of multichannel TV services via cable, where the channels are equivalent (or very nearly equivalent to) services that consumers could otherwise obtain via a free to air DTT service. We consider this a separate type of service from Virgin Media's (and Sky's) "genuine" pay TV services, which mostly retail channels that are not available free to air via an alternative delivery technology. Furthermore, we note that it is likely that Virgin Media derived a significantly higher proportion of its revenues from the provision of telephony and broadband services than Sky. On average between 2003 and 2007, 84% of Virgin Media's customers subscribed to its telephony services and 62% to its broadband services[143]. In contrast, Sky did not provide broadband services before August 2006[144] and at the end of FY 2007, 8% of its customers subscribed to broadband and 6% to telephony services from Sky[145], a significantly lower proportion than for Virgin Media.

Asset intensity

Virgin Media's provision of analogue and digital cable services over the relevant period means that its tangible asset intensity was substantially different to that of Sky. Virgin Media's average fixed assets to sales ratio between 2003 and 2007 was 1.71x compared to 0.11x for Sky, and its average capex to sales ratio between 2003 and 2007 was 12.7% compared to 4.2% for Sky[146].

Level of programme and content costs

We were unable to identify the proportion of Virgin Media's expenditure that related to programme production or acquisition over the relevant period. Virgin Media's channel portfolio includes seven channels provided by Virgin Media Television (VMtv) and, via a stake in Flextech, a portfolio of channels under the UKTV brand. From our understanding of Virgin Media's activities we consider that Virgin Media's wholesale operations were not incomparable to Sky's wholesale operations.

Geographical diversification

In the relevant period, Virgin Media was operating in the UK only (and, prior to 2005, the Republic of Ireland). Its geographical diversification was therefore comparable to that of Sky, which was operating only in the UK and the Republic of Ireland.

143 Virgin Media 2006 and 2007 Annual Reports and 2005 10-K filing.

144 BSkyB FY2007 1st Quarter Results Press Release.

145 BSkyB FY2007 Investor Presentation.

146 Total asset intensity calculated as a ratio of the sum of tangible assets and intangible assets (less goodwill) to sales was also significantly higher for Virgin Media than it was for Sky.

Business maturity and key events

Business maturity

The TV business of Virgin Media was formed in 2006 through a combination of NTL and Telewest (although it did not adopt the name Virgin Media until the subsequent merger with Virgin Mobile in February 2007). However, the constituent companies had provided (initially local) cable services since 1993 (NTL) and 1984 (Telewest)[147]. Virgin Media's revenue CAGR of 21% between 2003 and 2007 substantially exceeds that of Sky (9%), but it is probable that this was in part due to inorganic growth, in particular the 2006 merger.

Business events (including business combinations and disposals)

The creation of Virgin Media through the combination of NTL, Telewest, Virgin Mobile and Virgin.net in February 2007[148] meant that non-recurring restructuring and integration charges were incurred. Exceptional costs are likely to have meant that profits during 2007 were not representative of the profits the business will earn in the future. There may also be impacts on reported results in the preceding year (2006). Furthermore, profits relating to the period before the merger (i.e. pre-2007) are highly unlikely to reflect the profitability of the combined business now and in the future, given that the structure and activities of the businesses have changed dramatically.

Due to various acquisitions made by Virgin Media during and prior to the period analysed by Oxera, significant intangible assets including goodwill are recorded on the company's balance sheet. This distorts asset-based accounting ratios in comparison to Sky, which has grown largely organically. Although Oxera has tried to correct for this imbalance by including an estimate of the value of Sky's subscriber base in its ROCE analysis, distortions are likely to remain for the following reasons:

- The subscriber base has been valued by Oxera on a replacement cost basis. However, often, in Purchase Price Allocation exercises, the value of subscribers is assessed using an excess earnings method, i.e. incorporating profit attributable to subscribers. Therefore Oxera's methodology for estimating the value of Sky's subscriber base may not be consistent with the methodology applied by Virgin Media when valuing its acquired subscribers.

- Oxera has attempted to value Sky's subscriber base, but has not valued other intangible assets (such as brands) which would typically be assigned a value in a Purchase Price Allocation exercise for acquisition accounting purposes, nor has it reassessed the value of tangible assets. This may understate the value of tangible and intangible assets for Sky (which has primarily grown organically) relative to companies which have grown through acquisitions.

These considerations reduce the value of using Virgin Media as a comparator to Sky for the purposes of profitability and valuation benchmarking.

[147] http://www.ntltelewestbusiness.co.uk/about_us/corporate_info/company_history/telewest_history.aspx

[148] http://pressoffice.virginmedia.com/phoenix.zhtml?c=205406&p=irol-history

Sector and country-specific factors

Sector events & maturity

Virgin Media's pay TV business operates in the same sector as Sky's pay TV business, so there are no major differences in sector events or maturity.

Country-specific factors

As Virgin Media operates in the same main country as Sky (although Sky has continuing operations in the Republic of Ireland), there are no relevant country-specific factors.

Regulation

Virgin Media's content and channel activities are subject to similar regulation as Sky, since it operates in mostly the same sectors in the same main country (the UK), although the platform activities of the two businesses differ. Virgin Media's mobile telephony business is subject to additional restrictions to which Sky is not subject.

Conclusion

We have identified a number of similarities between Virgin Media and Sky (over the relevant period), including:

- A similar portfolio of services provided (channel provision and broadcast, platform operation, pay TV retail and broadband) and reliance on subscription revenues;
- Comparable wholesale operations; and
- Virgin Media operates in the same pay TV sector in the same country and hence within the same regulatory framework.

However, Virgin Media's comparability to Sky is limited by the following features of Virgin Media over the relevant period:

- Greater reliance on broadband and telephony revenues;
- High tangible capital intensity associated with its cable network;
- Larger proportion of non-pay TV revenue streams;

- Exceptional costs associated with the 2006 NTL-Telewest merger and the 2007 NTL:Telewest-Virgin Mobile merger; and
- The incomparability of the pre-merger businesses to the integrated post-merger services offered.

Overall, we do not consider Virgin Media to be a reliable comparator to Sky for profitability benchmarking based on accounting figures over the relevant period, particularly because of its high capital intensity, the effects of the 2006 and 2007 mergers and the larger proportion of non-pay TV revenues.

6.3 Spain

6.3.1 Antena 3

Description

Grupo Antena 3 ("Antena 3") is a media company operating in Spain which is active in TV channel provision and broadcasting. Its main channel, "Antena 3", is the second most-watched channel in Spain[149]. It also has activities in radio broadcasting, local TV, cinema advertising and online entertainment.

Business model

Main source(s) of revenue

Antena 3's main TV channel was its main source of revenues over the relevant period, contributing 86% to group revenues in 2007[150]. Radio contributed 10%, with other activities accounting for the remaining 4% of revenues.

Advertising was the main revenue source over the relevant period. Between 2004 and 2007, on average 90%[151] of Antena 3's revenues were from advertising, in contrast to 8% for Sky.

In Spain subscription revenues (for the sector as a whole) increased at a compound annual growth rate of 9% per year in real terms between 2003 and 2007, while total advertising revenues (for the sector as a whole) increased at a much slower rate of 4% per year on average[152]. These contrasting figures indicate that advertising and subscription revenues were subject to different trends. Accordingly, companies with different relative exposures to subscription and advertising revenues should not necessarily be expected to earn comparable returns or have similar valuation ratios.

In contrast to Sky, Antena 3 did not offer broadband and telephony services between 2003 and 2007.

[149] Telecinco 2007 Annual Report.

[150] Grupo Antena 3 2007 Annual Report.

[151] Grupo Antena 3 2003-2008 Annual Reports.

[152] Informa Western European TV 12th Edition, IMF World Economic Outlook, PwC analysis.

Asset intensity

Over the relevant period Antena 3's asset intensity was comparable to that of Sky. Antena 3's average tangible fixed assets to sales ratio between 2003 and 2007 was 0.11x (the same as Sky to two decimal places) and its average capex to sales ratio between 2003 and 2007 was 1.1% compared to 4.2% for Sky[153]. Sky's higher average capex to sales ratio over the relevant period may be explained by Sky's investment in broadband network infrastructure required to support its telephony and broadband offerings, as well as ongoing investments in customer service facilities, IT and broadcast infrastructure required for its pay TV retail activities.

Level of programme and content costs

Between 2003 and 2007, Antena 3's programming costs amounted to 35% of revenues, on average, compared to 42% for Sky over the same period. These costs relate both to acquisition of programmes and in-house productions.

We consider that, as a channel provider, Antena 3's wholesale operations are comparable to Sky's wholesale operations.

Geographical diversification

In the relevant period, Antena 3 was operating in Spain only. While the specific country was different from Sky, the geographical diversification was therefore comparable to that of Sky, which was operating only in the UK and the Republic of Ireland.

Business maturity and key events

Business maturity

Antena 3 has broadcast its main TV channel (Antena 3 TV) since 1990[154]. It reported robust revenue growth over the relevant period, a CAGR of 10% between 2003 and 2007, comparable to Sky's 9% CAGR over the same period.

Business events (including business combinations and disposals)

In 2006 Antena 3 launched two new TV channels (Antena.Neox and Antena.Nova), broadcast using digital terrestrial delivery technology. However, due to the relatively late development of DTT in Spain, by 2007 these channels enjoyed audience shares of only 0.22% (the highest among channels available on

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[153] Total asset intensity calculated as a ratio of the sum of tangible assets and intangible assets (less goodwill) to sales was also broadly comparable for the two companies.

[154] Antena 3 Website

the DTT platform that year) and 0.12% respectively. It is likely that start-up costs associated with the launch of these channels impacted Antena 3's financial performance over the relevant period.

Sector and country-specific factors

Sector events & maturity

Advertising revenues in Spain for the sector as a whole (Antena 3's main revenue source) grew at a CAGR of 4% in real terms between 2003 and 2007. This is similar to the substantial growth of subscription revenues in the UK (Sky's main revenue source), which grew at a CAGR of 5% between 2003 and 2007[155] in real terms. This evidence suggests that (over the relevant period) the sector in which Antena 3 operated may have been at a similar level of maturity to pay TV in the UK. Nevertheless, we consider that the fundamental differences between advertising-funded and subscription-based sectors make profitability and valuation comparisons inappropriate.

Country-specific factors

The publicly-owned Spanish TV channels in the RTVE group compete for advertising revenue with privately-owned TV channels, unlike the BBC, which does not compete for advertising. The direction and magnitude of the impact of this difference on TV channels and pay TV is much debated. It is probable, however, that these differences in public intervention will impact profitability elsewhere in the TV sector and reduce the value of comparisons between companies in the Spanish and UK TV sectors.

Regulation

Antena 3 is subject to a voluntary code regulating broadcasting practices with respect to broadcasting to children.

Conclusion

We have identified a number of similarities between Antena 3 and Sky (over the relevant period), including:

- Similar growth dynamics;
- Comparable wholesale operations;
- Similar asset intensity; and

[155] Informa Western European TV 12th Edition, IMF World Economic Outlook, PwC analysis.

- Comparable geographical diversification.

However, Antena 3's comparability to Sky is limited by the following features of Antena 3 over the relevant period:

- Advertising is Antena 3's main revenue source;
- Its significant radio business; and
- Factors idiosyncratic to the Spanish market (public sector broadcasters compete for advertising revenues).

Overall, we do not consider Antena 3 to be a reliable comparator to Sky for profitability benchmarking based on accounting figures over the relevant period, particularly because of its significantly greater exposure to advertising revenue and its significant radio business.

6.3.2 Ono

Description

The Ono Group ("Ono") is a residential and business broadband and telephony provider, pay TV retailer and cable platform operator in Spain. Ono also has a subsidiary channel provider[156].

Business model

Main source(s) of revenue

Over the relevant period, Ono's main revenue sources were subscription and connection fees and the sale of equipment to residential customers. Between 2005 and 2007, on average 67% of Ono's revenues were from residential customers. The remaining 33% of Ono's revenues were from the provision of voice and data services to businesses and the public sector, indirect access, wholesale and operator services. By contrast, Sky's business-to-business revenues were less than 2% of its total revenues in 2007[157]. Business customers are likely to differ substantially from residential customers in terms of the services they require, the cost of servicing them and the duration of contracts.

[156] Teuve (Factoria de Canales).

[157] In 2006 Sky acquired Easynet, which offered network solutions and hosting content to corporate and public sector customers. According to BSkyB's 2007 Annual Report, Easynet generated revenues of £76m in 2007, contributing 1.7% to Sky's overall revenues.

It is also notable that between 2003 and 2007, whilst 54% of Ono's residential customers subscribed to its TV services, 89% subscribed to its telephony services and 49% to its broadband services. These figures indicate that broadband and telephony are likely to have contributed significantly more to Ono's overall revenues over the relevant period than for Sky (in FY 2007 Sky's broadband revenues contributed only 1% to Sky's overall turnover).

Asset intensity

Ono's provision of analogue and digital cable services over the relevant period means that its tangible asset intensity was substantially different to that of Sky. Ono's average fixed assets to sales ratio between 2003 and 2007 was 3.89x compared to 0.11x for Sky. Its average capex to sales ratio was 39.4% compared to 4.2% for Sky[158].

Level of programme and content costs

In 2007, Ono's programming costs amounted to 7% of revenues, compared to 34% for Sky in the same year. Ono's programming expenditure related primarily to fees paid to third-party channel providers and fees paid to distribute movies and football on a pay per view basis (these are primarily payable to Sogecable)[159]. Through its Teuve subsidiary, Ono was also active in channel provision over the relevant period (Teuve produced 12 channels for Ono in 2007[160]). The significant difference in programming costs (as a proportion of revenues) between Ono and Sky is likely to result (at least in part) from Ono's different revenue mix and in particular its greater reliance on business customers, and broadband and telephony revenues.

Overall, we consider Ono's wholesale operations to be comparable to Sky's, although they are likely to constitute a smaller proportion of its business.

Geographical diversification

In the relevant period, Ono was operating in Spain only. While the specific country was different from Sky, the geographical diversification was comparable to that of Sky, which was operating only in the UK and the Republic of Ireland.

[158] Total asset intensity calculated as a ratio of the sum of tangible assets and intangible assets (less goodwill) to sales was also significantly higher for Ono than for Sky.

[159] 2006 Debt Prospectus: "programming fees consist primarily of fees paid to television content owners to distribute their cable television content and fees paid to distribute movies and soccer on a pay-per-view basis".

[160] Ono 2007 Annual Report.

Business maturity and key events

Business maturity

Over the relevant period, Ono invested heavily to upgrade its network and customers to digital. Ono began to introduce digital services in 2003, and by the end of 2003 13% of Ono's TV customers received digital services[161]. By the end of 2007 90% of Ono's TV customers had digital access[162]. Sky, on the other hand, completed its analogue to digital transition by 2001. The impact of ongoing digitisation potentially impacted the relative performance of Ono over the period analysed by Oxera.

Furthermore, over the relevant period Ono invested to expand its cable network and between the end of 2005 (following the merger of Ono and Auna, which we discuss in greater detail below) and 2007, the number of homes that could subscribe to its services increased by 20% from 5.7m to 6.8m. Sky did not invest as heavily in large capital expenditure projects over the relevant period.

Business events (including business combinations and disposals)

In 2005 Ono acquired Auna, another cable operator in Spain with revenues of a similar magnitude to Ono's. Prior to the merger, Auna had a different business mix to Ono, with a greater reliance on indirect and business customers and lower margins[163]. As a result, the consolidation of Auna in Ono's accounts depressed Ono's profit margins and consequently returns from 2005 onwards.

Table 8 – Ono and Auna in 2005

	Ono 2005	Auna 2005
Residential customers	784,000	777,000
Total revenues	€595m	€1,132m
Residential access	90%	44%
Business	10%	25%
Residential indirect access	-	8%
Wholesale and operations	-	23%
EBITDA	€250m	€207m
EBITDA margin	42%	18%

Source: Ono 2004 Investor Presentation

[161] Cableuropa form 20-F for the year ended 31 December 2003.

[162] Ono results for FY2007.

[163] Ono Midco 2007 Annual Report.

Furthermore, the integration of the two businesses resulted in substantial restructuring costs. At the time of the merger Ono estimated restructuring costs of approximately €100-150m in 2006[164] which would have reduced ROS by between 6 and 9 percentage points and ROCE by between 1.6 and 2.3 percentage points in that year. In its 2007 Annual Report, Ono Midco (Ono's holding company[165]) also noted that the integration process was likely to continue through to 2008, indicating that Ono's financial performance is also likely to have been affected in 2006 and 2007. In addition, in 2007, Ono recognised an impairment charge of €211m in relation to goodwill recorded in connection with the Auna acquisition[166]. This exceptional item reduced Ono's ROS by 13.0 and ROCE by 3.4 percentage points in 2007.

In 2005, Ono acquired the channel provider Teuve (Factoria de Canales). By the end of 2007 Teuve produced seven movie and five entertainment channels. This acquisition is also likely to have impacted Ono's profitability and returns over the relevant period.

As a result of various transactions involving Ono during and prior to the period analysed by Oxera, significant intangible assets including goodwill are recorded on the company's balance sheet. This distorts asset-based accounting ratios in comparison to Sky, which has grown largely organically. Although Oxera has tried to correct for this imbalance by including an estimate of the value of Sky's subscriber base in its ROCE analysis, distortions are likely to remain for the following reasons:

- The subscriber base has been valued by Oxera on a replacement cost basis. However, often, in Purchase Price Allocation exercises, the value of subscribers is assessed using an excess earnings method, i.e. incorporating profit attributable to subscribers. Therefore Oxera's methodology for estimating the value of Sky's subscriber base may not be consistent with the methodology applied by Ono when valuing its acquired subscribers.

- Oxera has attempted to value Sky's subscriber base, but has not valued other intangible assets (such as brands) which would typically be assigned a value in a Purchase Price Allocation exercise for acquisition accounting purposes, nor has it reassessed the value of tangible assets. This may understate the value of tangible and intangible assets for Sky (which has primarily grown organically) relative to companies which have grown through acquisitions.

These considerations further reduce the value of using Ono as a comparator to Sky for the purposes of profitability and valuation benchmarking.

[164] Ono 2004 Investor Presentation.

[165] Ono's corporate structure is as follows. Cableuropa is the Ono Group's legal name. 100% of Cableuropa's equity is held by Ono Midco, which is in turn fully owned by Grupo Corporativo Ono. Grupo Corporativo Ono's main shareholders are private equity groups.

[166] Ono 2007 Annual Report

Sector and country-specific factors

Sector events & maturity

Pay TV penetration in Spain was 19% compared to 41% in the UK in 2003. Between 2003 and 2007, it increased from 19% to 24%. Over the same period pay TV penetration increased from 41% to 46% in the UK[167]. This suggests that the pay TV sector in Spain was at a different level of development to that in the UK over the relevant period. This limits the usefulness of profitability and returns comparisons between Ono and Sky.

The main revenue source of both Ono and Sky is subscription revenues. In Spain subscription revenues for the sector as a whole increased at a compound annual growth rate of 9% per year in real terms between 2003 and 2007, while subscription revenues in the UK for the sector as a whole increased at a much slower rate of 5% per year on average[168]. This suggests that the pay TV sectors in Spain and the UK may have been at different stages of development and that Ono should not necessarily be expected to have had comparable profitability and valuation ratios to Sky.

Country-specific factors

The publicly-owned Spanish TV channels in the RTVE group compete for advertising revenue with privately-owned TV channels, unlike the BBC, which does not compete for advertising. The direction and magnitude of the impact of this difference on TV channels and pay TV is much debated. It is probable, however, that these differences in public intervention will impact profitability elsewhere in the TV sector and reduce the value of comparisons between companies in the Spanish and UK TV sectors.

Regulation

Ono has several obligations which were also in place over the relevant period including[169]:

- It must include the following channels in its consumer offerings: TVE 1, La Segunda, Antena 3 TV, Telecinco, Cuatro, La Sexta and local analogue channels; and
- It is required to ensure that at least 30% of Spanish language channels are independent channels, whenever the supply of these is sufficient and of a suitable quality.

[167] Informa Western European TV 12th Edition.

[168] Informa Western European TV 12th Edition, IMF World Economic Outlook, PwC analysis.

[169] Ono Midco 2007 Annual Report.

Conclusion

We have identified a number of similarities between Ono and Sky (over the relevant period), including:

- A broadly comparable proportion of subscription revenues as a share of total revenues;
- Comparable wholesale operations; and
- Similar geographic diversification.

We have identified several features of Ono which limit the value of profitability comparisons with Sky over the relevant period:

- Significantly higher tangible asset intensity associated with its cable network;
- Greater exposure to non-residential customers and non-pay TV revenue streams;
- The acquisition of Auna resulted in significant non-recurring restructuring costs; and
- Ono was operating in a substantially smaller and less-developed pay TV sector than Sky.

Overall, we do not consider Ono to be a reliable comparator to Sky for profitability benchmarking based on accounting figures over the relevant period, particularly because of its greater asset intensity and the impact of a large acquisition (Auna). The reliability is further weakened by the different level of development of the pay TV sector in Spain compared to the UK.

6.3.3 Sogecable

Description

Sogecable is a media company operating in Spain which acquires and manages audiovisual rights, provides and broadcasts channels, retails pay TV and operates a digital satellite platform.

Business model

Main source(s) of revenue

Over the relevant period, Sogecable's main revenue source was subscription revenues. Between 2003 and 2007, on average 70% of Sogecable's revenues were from subscriptions, comparable to 80% for Sky.

In 2005 Sogecable launched a new (available free to air) channel ("Cuatro"). By the end of 2007 Cuatro had an average audience share of 7.8%[170] (making it the fourth most popular channel in Spain). In FY 2007, Cuatro's revenue amounted to €287.5m or 16% of total group revenue. As the contribution of Cuatro grew, Sogecable's revenue mix and risk profile changed accordingly. Whereas in 2003 advertising contributed 4% to Sogecable's revenues, by 2007 it contributed 17%. At the same time subscription revenues as a proportion of the total declined from 76% in 2003 to 60% in 2007. In contrast, Sky's subscription / advertising revenue mix remained relatively stable over this period.

In Spain subscription revenues for the sector as a whole increased at a CAGR of 9% per year in real terms between 2003 and 2007, while total advertising revenues for the sector increased at a much slower CAGR of 4% per year[171]. These contrasting figures indicate that advertising and subscription revenues were subject to different trends. Accordingly, companies with different relative exposures to subscription and advertising revenues should not necessarily be expected to earn comparable returns or have similar valuation ratios.

In contrast to Sky, Sogecable did not offer broadband and telephony services between 2003 and 2007. In fact Sogecable was prohibited from making offers combining retail of its own satellite pay TV services and Telefónica's broadband service following Sogecable's acquisition of DTS in 2003 (see below).

Asset intensity

Over the relevant period Sogecable's tangible asset intensity was comparable to that of Sky. Sogecable's average fixed assets to sales ratio between 2003 and 2007 was 0.15x compared to 0.11x for Sky. Its average capex to sales ratio between 2003 and 2006 was 2.6% compared to 3.7% for Sky[172].

Level of programme and content costs

Sogecable's programming costs as a proportion of revenues over the relevant period were higher than Sky's. Between 2005 and 2007, Sogecable's programming costs amounted to 57% of revenues, on average, compared to 38% for Sky over the same period. Nevertheless, we consider that Sogecable's wholesale operations, as a channel provider and pay TV retailer, may be comparable to Sky's wholesale operations.

[170] Sogecable 2007 Annual Report.

[171] Informa Western European TV 12th Edition, IMF World Economic Outlook, PwC analysis.

[172] Total asset intensity calculated as a ratio of the sum of tangible assets and intangible assets (less goodwill) to sales was somewhat higher for Sogecable but broadly comparable to that of Sky.

Geographical diversification

In the relevant period, Sogecable was operating in Spain only. While the specific country was different from Sky, the geographical diversification was therefore comparable to that of Sky, which was operating only in the UK and the Republic of Ireland.

Business maturity and key events

Business maturity

At the start of 2003 35% of Sogecable's customers received analogue services[173], and Sogecable's digitisation efforts continued over the period analysed by Oxera. Sky, on the other hand, completed analogue to digital migration by 2001. The impact of ongoing digitisation potentially impacted the relative performance of Sogecable over the period analysed by Oxera.

Business events (including business combinations and disposals)

In 2003 Sogecable acquired DTS (a competing pay TV retailer and satellite platform operator). Although most of the restructuring costs incurred in the integration of the two businesses were treated as exceptional and did not affect Sogecable's operating profits, it is nevertheless likely that acquisition-related expenses and one-off accounting adjustments affected Sogecable's profitability, returns and valuation ratios over the relevant period. Moreover, the transformation of the businesses following the transaction is likely to have affected profitability for a number of years after the acquisition.

As a result of various transactions involving Sogecable during and prior to the period analysed by Oxera, significant intangible assets including goodwill are recorded on the company's balance sheet. This distorts asset-based accounting ratios in comparison to Sky, which has grown largely organically. Although Oxera has tried to correct for this imbalance by including an estimate of the value of Sky's subscriber base in its ROCE analysis, distortions are likely to remain for the following reasons:

- The subscriber base has been valued by Oxera on a replacement cost basis. However, often, in Purchase Price Allocation exercises, the value of subscribers is assessed using an excess earnings method, i.e. incorporating profit attributable to subscribers. Therefore Oxera's methodology for estimating the value of Sky's subscriber base may not be consistent with the methodology applied by Sogecable when valuing its acquired subscribers.

- Oxera has attempted to value Sky's subscriber base, but has not valued other intangible assets (such as brands) which would typically be assigned a value in a Purchase Price Allocation exercise for acquisition accounting purposes, nor has it reassessed the value of tangible assets. This may understate the value of tangible and intangible assets for Sky (which has primarily grown organically) relative to companies which have grown through acquisitions.

[173] 2002 Fourth Quarter Consolidated Results

These considerations reduce the value of using Sogecable as a comparator to Sky for the purposes of profitability and valuation benchmarking.

As noted above, in 2005 Sogecable launched a new (available free to air) channel Cuatro. Cuatro made EBIT losses of €28.6m and €102.9m in 2005 and 2006 respectively, breaking even for the first time in 2007. This had a negative effect on Sogecable's overall profitability (and consequently returns and valuation ratios).

Sector and country-specific factors

Sector events & maturity

Between 2003 and 2007, pay TV penetration in Spain increased from 19% to 24%. Over the same period pay TV penetration increased from 41% to 46% in the UK[174]. This suggests that the pay TV sector in Spain was at a different level of development to that in the UK over the relevant period. This limits the usefulness of profitability and returns comparisons between Sogecable and Sky.

The main revenue source of both Sogecable and Sky is subscription revenues. Subscription revenues in Spain for the sector as a whole increased substantially in real terms between 2003 and 2007 (a CAGR of 9%). This is significantly higher than the growth of subscription revenues in the UK, which grew at a CAGR of 5% between 2003 and 2007[175]. This provides evidence that (over the relevant period) the sector in which Sogecable operates was at a different level of maturity or experienced different cyclical or one-off effects compared to pay TV in the UK and hence Sogecable should not necessarily be expected to have had comparable profitability and valuation ratios to Sky.

Country-specific factors

The publicly-owned Spanish TV channels in the RTVE group compete for advertising revenue with privately-owned TV channels, unlike the BBC, which does not compete for advertising. The direction and magnitude of the impact of this difference on TV channels and pay TV is much debated. It is probable, however, that these differences in public intervention will impact profitability elsewhere in the TV sector and reduce the value of comparisons between companies in the Spanish and UK TV sectors.

Regulation

Sogecable's acquisition of DTS in 2003 led to stringent regulatory restrictions. Among others, these restrictions prevented Sogecable from holding exclusive sports and movie broadcasting rights. For example, Sogecable had to make access to key football matches available to its competitors on a wholesale basis.

[174] Informa Western European TV 12th Edition

[175] Informa Western European TV 12th Edition, IMF World Economic Outlook, PwC analysis.

Prior to the integration of the two companies, Sogecable and DTS each owned a 40% stake in AVS, a company created to acquire and license TV broadcasting rights to Spanish football events. The Spanish Competition Authority (TDC) ruled that to counteract the anti-competitive effect of the merger, Sogecable must, in the event it held exclusive broadcasting rights to any major Spanish football competitions, guarantee access to the matches to other TV operators through pay per view and / or free broadcast.

Other remedies imposed on Sogecable as a result of the merger included[176]:

- Sogecable was prohibited from acquiring exclusive rights to majors' movie and thematic channels;
- For films produced by the majors, Sogecable was required to limit the duration of the first showing broadcast window (the "first window") to one year;
- Sogecable had to licence to third-party operators at least one channel broadcasting films produced by the majors in the first window, under fair, transparent and non-discriminatory conditions;
- Sogecable was required to license to third-party operators any thematic channel produced by a Sogecable subsidiary, including those broadcasting majors' films in a second window, under fair, transparent and non-discriminatory conditions;
- At least 20% of the channels included in Sogecable's satellite TV platform had to be owned by companies independent of the Sogecable group. Access prices had to be cost-oriented. For that purpose, Sogecable was required to keep separate accounts for its wholesale satellite TV platform business;
- Sogecable was banned from making combined offers including its own satellite pay TV platform and Telefónica's broadband internet access;
- Sogecable was prohibited from passing on to customers any costs associated with the integration of Sogecable and DTS's operations. In addition, the prices charged by Sogecable had to be homogenous throughout Spain; and
- For four years, the maximum prices that Sogecable could charge were subject to a "CPI-X" mechanism. The X was set by the Spanish Competition Defence Service (the Servicio de Defensa de la Competencia (SDC)) annually, after consulting a report prepared by the regulator of the telecommunications sector (the Comisión del Mercado de las Telecomunicaciones, (the CMT)).

The remedies were to remain in place for five years, except for the CPI-X remedy (four years) and the remedies concerning Sogecable's relationship with Telefónica (which would be withdrawn if Telefónica's stake in Sogecable fell below 3%).

[176] Concurrences Merger Remedies Matrix.

In 2007, Sogecable acquired effective control of AVS[177]. The transaction was investigated by the Spanish Competition Board – the Tribunal de Defensa de la Competencia (TDC) – and as a result several remedies were imposed, including the requirement for Sogecable to make football match broadcasts available to its competitors on a pay per view basis while Sogecable retains control of AVS.

These regulatory restrictions reduce the value of making comparisons between the profitability of Sky and Sogecable, as Sogecable's profitability and valuation over the period is not necessarily representative of companies operating in an effectively competitive environment.

Conclusion

We have identified a number of similarities between Sogecable and Sky (over the relevant period), including:

- A similar proportion of subscription revenues as a share of total revenues;
- Comparable wholesale operations;
- Similar tangible asset intensity; and
- Similar geographical diversification.

However, Sogecable's comparability to Sky is limited by the following features of Sogecable over the relevant period:

- The launch of Cuatro and the increasing contribution of advertising revenues;
- Post-acquisition transition costs;
- Stringent regulatory restrictions associated with the acquisition of DTS; and
- Sogecable was operating in a substantially smaller and less-developed pay TV sector than Sky.

Overall, we do not consider Sogecable to be a reliable comparator to Sky for profitability benchmarking based on accounting figures over the relevant period, particularly because of the regulatory restrictions imposed on it, particularly in relation to the acquisition of DTS and the different level of development of the pay TV sector in Spain compared to the UK.

[177] The transaction involved the sale of TVC's 20% stake and Sogecable's 5% stake in AVS to Mediapro. As part of the transaction, the rule requiring approval of holders of at least 85% of equity to take certain strategic decisions was removed, giving Sogecable (with its 75% stake) effective control of AVS.

6.3.4 Telecinco

Description

Telecinco is a channel provider and broadcaster in Spain. Its activities also include the publication of books, newspapers and magazines and the production, acquisition and marketing of brands, patents, audiovisual works and recordings. However, its non-TV business remains relatively small, contributing less than 3% of group revenue in 2007[178]. In 2007 Telecinco acquired a minority stake in Endemol, a global entertainment programming producer.

Business model

Main source(s) of revenue

Over the relevant period, Telecinco's main revenue source was advertising revenues. Between 2004 and 2007, on average 95% of Telecinco's revenues were from advertising, in contrast to 8% for Sky.

In Spain subscription revenues for the sector as a whole increased at a compound annual growth rate of 9% per year in real terms between 2003 and 2007, while total advertising revenues for the sector increased at a much slower rate of 4% per year on average[179]. These contrasting figures indicate that advertising and subscription revenues were subject to different trends. Accordingly, companies with different relative exposures to subscription and advertising revenues should not necessarily be expected to earn comparable returns or have similar valuation ratios.

In contrast to Sky, Telecinco did not offer broadband and telephony services between 2003 and 2007.

Asset intensity

Over the relevant period Telecinco's tangible asset intensity was comparable to Sky's. Telecinco's average fixed assets to sales ratio between 2003 and 2007 was 0.07x compared to 0.11x for Sky. Its average capex to sales ratio over the relevant period was 1.2% compared to 4.2% for Sky[180]. Sky's higher asset intensity over the relevant period may be explained by Sky's investment in broadband network infrastructure required to support its telephony and broadband offerings as well ongoing investments in customer service facilities, IT and broadcast infrastructure required for its pay TV retail activities.

[178] Telecinco 2007 Annual Report.

[179] Informa Western European TV 12th Edition, IMF World Economic Outlook, PwC analysis.

[180] Total asset intensity calculated as a ratio of the sum of tangible assets and intangible assets (less goodwill) to sales was lower for Telecinco but broadly comparable to that of Sky.

Level of programme and content costs

Telecinco's programming costs amounted to 17% of revenues on average between 2006 and 2007[181], compared to 45% for Sky over the same period. These costs relate both to acquisition of programmes and in-house production. Telecinco's lower programming costs are potentially a function of its focus on in-house production, rather than acquisition of content from third parties: its 2008 Annual Report highlighted that live and in-house productions of Telecinco accounted for 85.8% of total programming[182]. Although Telecinco held the rights to broadcast Formula 1 events in Spain (from 2004 onwards) and the Copa del Rey (the main Spanish football cup competition) final for 2006/07 and 2007/08 seasons, unlike Sky it made limited other investments in sports and movie rights[183]. Overall, although it has a greater focus on in-house production and consequently lower programming costs, we do not consider Telecinco's wholesale operations incomparable to Sky's.

Geographical diversification

In the relevant period, Telecinco's main operations were in Spain (although in 2007 Telecinco acquired a minority holding in Endemol which had operations globally). While the specific country was different from Sky, its geographical diversification was comparable to that of Sky, which was operating only in the UK and the Republic of Ireland.

Business maturity and key events

Business maturity

Telecinco has broadcast its main TV channel (Telecinco) since 1990[184]. In 2004 it overtook TVE1, previously the largest channel (by audience), as the most watched channel in Span[185]. Telecinco's revenues grew rapidly between 2003 and 2007 with a CAGR of 18% compared to Sky's revenue CAGR of 9% over the same period. While both businesses are well established, Telecinco appears to have been in a particularly expansive period between 2003 and 2007. Such growth rates are unlikely to persist and hence profitability during this period is unlikely to reflect long term profitability.

[181] Telecinco 2008 Annual Report.

[182] Telecinco 2008 Annual Report. The report also notes that Telecinco's business model is "…based on in-house production and provides greater flexibility to the operating leverage inherent in the broadcast television business".

[183] Telecinco 2007 Annual Report. Also according to the Annual Report, Formula 1 and Copa del Rey were 8th and 9th most popular broadcasts in Spain in 2007.

[184] Telecinco 2007 Annual Report.

[185] Telecinco 2007 Annual Report.

Business events (including business combinations and disposals)

In 2005, Telecinco introduced two DTT channels (available free to air): Telecinco Estrellas and Telecinco Sport. However the viewing share of these channels remained small at 0.08% for Estrellas and 0.02% for Sport in 2006 (penetration of DTT remained relatively low). The launch of these channels could have affected Telecinco's profitability over the analysis period.

In 2007, Telecinco acquired an equity stake in Endemol, a global content producer. Telecinco's ROCE and ROS metrics were not impacted by the acquisition since it did not consolidate Endemol's results following the acquisition.

Sector and country-specific factors

Sector events & maturity

Between 2003 and 2007, pay TV penetration in Spain increased from 19% to 24%. Over the same period pay TV penetration increased from 41% to 46% in the UK[186]. This suggests that the pay TV sector in Spain was at a different level of development to that in the UK over the relevant period. This limits the usefulness of profitability and returns comparisons between Telecinco and Sky.

Advertising revenues in Spain for the sector as a whole (Telecinco's main revenue source) grew at a CAGR of 4% in real terms between 2003 and 2007. This is similar to the substantial growth of subscription revenues for the sector in the UK (Sky's main revenue source), which grew at a CAGR of 5% between 2003 and 2007[187] in real terms. Nevertheless, we consider that the fundamental differences between advertising-funded and subscription-based sectors make profitability and valuation comparisons inappropriate.

Country-specific factors

The publicly-owned Spanish TV channels in the RTVE group compete for advertising revenue with privately-owned TV channels, unlike the BBC, which does not compete for advertising. The direction and magnitude of the impact of this difference on TV channels and pay TV is much debated. It is probable, however, that these differences in public intervention will impact profitability elsewhere in the TV sector and reduce the value of comparisons between companies in the Spanish and UK TV sectors.

[186] Informa Western European TV 12th Edition.

[187] Informa Western European TV 12th Edition, IMF World Economic Outlook, PwC analysis.

Regulation

Telecinco is subject to several voluntary codes regulating broadcasting practices with respect to broadcasting to children and the issues of diversity, gender violence, and coverage of immigration issues.

Conclusion

We have identified a number of similarities between Telecinco and Sky (over the relevant period), including:

- Comparable wholesale operations;
- Comparable asset intensity; and
- Comparable geographical diversification.

However, we have identified several features of Telecinco which limit the value of profitability comparisons with Sky over the relevant period:

- Reliance on advertising revenues as a main revenue source;
- Telecinco's substantially higher revenue growth rates suggest that its business is at a different level of development compared to Sky; and
- Factors idiosyncratic to the Spanish market (public sector broadcasters compete for advertising revenues).

Overall, we do not consider Telecinco to be a reliable comparator to Sky for profitability benchmarking based on accounting figures over the relevant period, particularly because of its reliance on advertising revenues and because its rapid revenue growth indicates either large cyclical or exceptional effects or that it was at a different stage of development to Sky.

6.4 Italy

6.4.1 Mediaset

Description

Mediaset's core business is channel production and broadcasting in Italy through its ownership of channels of Canale 5, Italia 1, Rete 4 and others. It also produces and retails pay TV programmes on a pay per view basis and has other operations, including management and provision of retail access to its DTT platform, merchandising, teleshopping, the management of movie theatres, and movie production and distribution via its subsidiary, Medusa. Mediaset also has a presence in Spain (through its control of Telecinco) and in the Netherlands (where it has a stake in production company Endemol).

Business model

Main source(s) of revenue

Over the relevant period, Mediaset's main revenue source was advertising revenues. Between 2003 and 2007, on average 92% of Mediaset's revenues were from advertising revenues, in contrast to 8% for Sky. Mediaset launched Mediaset Premium, a digital terrestrial pay TV service available on a pay per view basis, in 2005. However, the contribution of pay TV revenues to the overall group remained low and by 2007 amounted to 3% of group revenues.

In Italy, subscription revenues for the sector as a whole increased by 15% in real terms between 2003 and 2007, while total advertising revenues decreased by 1%[188]. These contrasting figures indicate that advertising and subscription revenues were subject to different trends. Accordingly, companies with different relative exposures to subscription and advertising revenues should not necessarily be expected to earn comparable returns or have similar valuation ratios.

Unlike Sky, Mediaset did not offer broadband and telephony services between 2003 and 2007.

Asset intensity

Over the relevant period Mediaset's tangible asset intensity was comparable to that of Sky. Mediaset's average fixed assets to sales ratio between 2003 and 2007 was 0.11x, the same as for Sky[189], and its average capex to sales ratio between 2003 and 2007 was 5.5%, compared to 4.2% for Sky.

[188] Western European TV, 12th edition.

[189] However, we note that total asset intensity calculated as a ratio of the sum of tangible assets and intangible assets (less goodwill) to sales was substantially higher for Mediaset than it was for Sky.

Level of programme and content costs

Mediaset's programming costs as a proportion of revenues over the relevant period were significant but lower than Sky's. Between 2006 and 2007, Mediaset's programming costs (related both to acquisition of programmes and in-house production) amounted to 21% of revenues, on average, compared to 36% for Sky over the same period. Overall, we do consider Mediaset's wholesale operations, as a channel provider, to be comparable to Sky's.

Geographical diversification

In the relevant period, Mediaset was operating in Italy (Italian operations contributed 74% to Mediaset's 2007 revenues) and Spain (14%). The geographical diversification was therefore substantially greater than that of Sky, whose core operations were in the UK (with 6% of subscribers in the Republic of Ireland).

Business maturity and key events

Business maturity

Like Sky, Mediaset is a well-established company. Canale 5 started national broadcasting in 1980, with Italia 1 and Retequattro channels added to the Group in 1982 and 1984 respectively[190]. In 2003 Mediaset increased its shareholding in Telecinco, a Spanish channel provider and broadcaster to 50.1% and consolidated Telecinco results in its financial accounts.

Mediaset reported revenue CAGR of 7% between 2003 and 2007, comparable to Sky's 9% CAGR over the same period. These similarities suggest that Sky and Mediaset could be at a similar stage of maturity.

Business events (including business combinations and disposals)

Significant events over the period include:

- In 2003 Mediaset increased its stake in Telecinco to acquire a controlling interest. This transaction resulted in over €350m of goodwill being recorded on Mediaset's balance sheet. Goodwill is a component of total assets and could have distorted ROCE and EV/TA metrics over the relevant period.
- In 2005 Mediaset launched Mediaset Premium, a pay digital terrestrial television service that offered viewers access to live Serie A football matches, films and live events on a pay per view basis. This is a start-up business which incurred losses in the relevant period (EBIT losses of €12m, €21m and

[190] http://www.mediaset.it/investor/home_en.shtml - Italia 1 was acquired from publishing group Rusconi and Retequattro was acquired from Arnoldo Mondadori Editore.

€40m in 2005, 2006 and 2007 respectively[191]). Indeed, Mediaset does not expect its Mediaset Premium operations to break even until 2010[192]. The launch of pay TV services depressed Mediaset's accounting profitability (and consequently returns and valuation metrics) over the relevant period.

- In 2006 Mediaset built Europe's first digital terrestrial mobile TV network using DVB-H technology. Partly as a result of the costs associated with development of the new platform, as well as the ongoing development of its digital terrestrial platform, Mediaset's Network Operator segment posted a €21m EBIT loss in 2006, compared to €4m profit in 2005.

- In 2007 Mediaset indirectly acquired a 33% stake in Endemol, a Dutch TV production company. Mediaset accounted for this investment using the equity accounting method[193]. As a result, a proportion of Endemol's assets were included in total assets, but Endemol's contribution (a loss) was not captured in operating profit. The transaction therefore potentially impacted ROCE over the relevant period.

- In 2007 Mediaset acquired Medusa, an Italian film production and distribution company.

These events are likely to have resulted in non-recurring acquisition, integration and restructuring costs over the relevant period. They reduce the comparability of returns and valuations ratios between Mediaset and Sky (over the relevant period).

Sector and country-specific factors

Sector events & maturity

Advertising revenues in Italy for the sector as a whole (Mediaset's main revenue sources) fell in real terms between 2003 and 2007 (CAGR of -1%). This contrasts to the substantial growth of subscription revenues in the UK (Sky's main revenue source) which grew at a CAGR of 5% between 2003 and 2007[194]. This provides evidence that (over the relevant period) the sector in which Mediaset operates was at a different level of development to pay TV in the UK and hence Mediaset should not necessarily be expected to have had comparable profitability and valuation ratios to Sky.

Country-specific factors

The publicly-owned Italian TV channels in the Rai group compete for advertising revenue with privately-owned TV channels, unlike the BBC, which does not compete for advertising. The direction and magnitude of the impact of this difference on TV channels and pay TV is much debated. It is probable, however,

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[191] Mediaset 2007 and 2006 Annual Reports

[192] Informa Western European TV 12th Edition.

[193] Mediaset 2007 Annual Report.

[194] Western European TV 12th edition, IMF World Economic Outlook.

that these differences in public intervention will impact profitability elsewhere in the TV sector and reduce the value of comparisons between companies in the Italian and UK TV sectors.

Regulation

Mediaset is subject to several layers of regulation:

- The Broadcasting Consolidated Act specifies that no registered communication operator may earn, directly or through subsidiaries, revenues exceeding 20% of the "CIS" (the communications integrated system, which includes all media sector activities, such as broadcasting, sponsorship, radio, cinema, advertising, publishing of newspapers, magazines, as well as e-publishing).

- In 2005, the Italian Communications Authority ("Agcom") found that RAI and Mediaset abused their dominant positions in the TV advertising market and imposed fines on RAI and Mediaset equal to 2% of their 2003 TV advertising revenues, though Mediaset subsequently appealed Agcom's decision.

- In an effort to prevent RAI and Mediaset acquiring similar dominance in the digital environment, Agcom introduced several restrictions on the two companies including[195]:

  - Since 2006, Pubitalia, Mediaset's advertising sales house, has only been permitted to operate for simulcast digital channels. A separate sales house was required for other digital channels;

  - Between 2005 and 2006, Mediaset's digital channels were not permitted to devote more than 12% of broadcasting time to advertising per hour;

  - RAI was required to create a digital channel which would not carry advertising.

- Following the investigation of the acquisition by Mediaset of broadcasting rights to certain Serie A football matches in 2004, Mediaset committed to sublicense its football rights to Sky Italia from 2007. Mediaset also committed to contract durations of three years beyond 2009/10, and not to hold exclusive domestic football broadcasting rights.

It is likely that the regulatory restrictions imposed on Mediaset over the relevant period impacted its profitability and consequently returns and valuation metrics over the relevant period. This reduces the value of profitability and valuation comparisons between Sky and Mediaset between 2003 and 2007.

[195] Informa Western European TV 9th Edition.

Conclusion

We have identified a number of similarities between Mediaset and Sky (over the relevant period), including:

- Comparable tangible asset intensity;
- Comparable wholesale operations; and
- Comparable level of development of Sky's and Mediaset's businesses.

However, Mediaset's comparability to Sky is limited by the following features of Mediaset over the relevant period:

- Its reliance on advertising revenues;
- Greater geographic diversification;
- Relatively stringent regulatory restrictions; and
- Country-specific factors (less developed state of the Italian pay TV sector).

Overall, we do not consider Mediaset to be a reliable comparator to Sky for profitability benchmarking based on accounting figures over the relevant period, particularly because of its greater reliance on advertising revenues over the relevant period.

6.4.2 Telecom Italia Media

Description

Telecom Italia Media ("TIM") is a diversified media company operating in Italy and is a subsidiary of the Telecom Italia Group[196]. It is a channel provider and broadcaster of channels La7 and MTV Italia (both available free to air) and other TV channels (available via pay TV only) and broadcaster and pay TV retailer on a digital terrestrial platform. Its activities also include content and channel provision for distribution on Telecom Italia's IPTV platform, via the internet, via the mobile platform, and by third-party retailers; management and leasing of digital terrestrial capacity, and news agency services.

[196] As of December 2007, Telecom Italia directly and indirectly held 69% of Telecom Italia Media's equity capital. Telecom Italia Media 2007 Annual Report.

Business model

Main source(s) of revenue

Over the relevant period, TIM's main revenue source was advertising. Between 2006 and 2007, on average 89%[197] of TIM's revenues were from advertising, in contrast to 8% for Sky.

In Italy subscription revenues for the sector as a whole increased at a CAGR of 15% in real terms between 2003 and 2007, while total advertising revenues decreased by 1% per year on average[198]. These contrasting figures indicate that advertising and subscription revenues were subject to different trends. Accordingly, companies with different relative exposures to subscription and advertising revenues should not necessarily be expected to earn comparable returns or have similar valuation ratios.

Furthermore, we note that TIM channel La7 had a relatively low viewing share of 3%[199] in 2007, making it the seventh most popular channel in Italy. Profitability (and consequently returns and valuation metrics) of channels with relatively small audience shares may be different from their larger counterparts.

In contrast to Sky, TIM did not offer broadband and telephony services between 2003 and 2007.

Asset intensity

TIM's tangible asset intensity is higher but comparable to Sky's. TIM's fixed assets to sales ratio was 0.24x on average between 2003 and 2007 compared to 0.11x for Sky[200]. Its average capex to sales ratio over the same period was 10.9% compared to 4.2% for Sky.

Level of programme and content costs

We did not identify data on TIM's programming costs over the relevant period. However, we expect its programming costs as a proportion of revenues to be similar to that of other channel providers, which in general are comparable to Sky's. Therefore, we have no reason to believe that TIM's programming costs as a proportion of revenues or its wholesale operations would have been substantially different to Sky over the relevant period.

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[197] TIM 2007 Annual Report.

[198] Informa Western European TV 12th Edition, IMF World Economic Outlook, PwC analysis.

[199] TIM 2007 Annual Report.

[200] However, we note that total asset intensity calculated as a ratio of the sum of tangible assets and intangible assets (less goodwill) to sales was substantial higher for TIM than it was for Sky.

Geographical diversification

In the relevant period, TIM's core activities were in Italy. TIM's Italian operations contributed 92% on average to total revenues, with operations in other European countries contributing the remaining 8%. Its geographical diversification was therefore comparable to that of Sky, which was operating only in the UK and the Republic of Ireland.

Business maturity and key events

Business maturity

TIM's main TV channel (La7, formerly Telemontecarlo) has been broadcasting since 1974[201]. TIM's revenue (excluding the impact of the disposal of the Seat Paigine Gialle Yellow Pages business) grew significantly faster than Sky's revenues over the relevant period (TIM's revenue CAGR was 18% between 2004 and 2007, compared to 8% for Sky over the same period). The differential growth profiles over the analysis period indicate that the two companies may have been at different levels of maturity or experienced different cyclical or one-off effects.

Business events (including business combinations and disposals)

TIM was formed in 2003, when Telecom Italia, its parent, split its directories and business information division into a separate company and created TIM to take over Telecom Italia's remaining media operations. The same year, TIM acquired a press agency (Apcom).

TIM has undertaken a significant transformation over the relevant period, including the following events:

- Telecom Italia acquired the Virgilio and Tin.it internet divisions from TIM in 2005 and disposed of Buffetti Group;
- La7 acquired Elefante TV and Delta TV and set up a digital terrestrial multiplex. It launched the MTV Flux channel in 2006; and
- It launched pay TV services on DTT, offering customers access to Serie A football matches on a pay per view basis. The service was subsequently extended to include movies and music. It is notable that TIM's pay TV DTT operations were disposed of in 2008.

TIM's creation in 2003 and a string of subsequent acquisitions, launches and disposals indicate that throughout the period analysed by Oxera, TIM was a business in transition. Accordingly its profitability (and consequently returns and valuation) are likely to have been affected by a number of non-recurring start up and restructuring costs, and therefore are unlikely to be representative of its expected performance in the long run. Accordingly, there is limited value in comparing Sky's and TIM's returns and valuation over the relevant period.

[201] Encyclopaedia of contemporary Italian culture, Author: Gino Moliterno, Published: Taylor & Francis e-library

Sector and country-specific factors

Sector events & maturity

Between 2003 and 2007, pay TV penetration in Italy increased from 11% to 20%. Over the same period it increased from 41% to 46% in the UK[202]. This suggests that the pay TV sector in Italy was at a different level of development to that in the UK over the relevant period. This limits the usefulness of profitability and returns comparisons between TIM and Sky.

Advertising revenues in Italy for the sector as a whole (TIM's main revenue sources) fell in real terms between 2003 and 2007 (CAGR of -1%). This contrasts to the substantial growth of subscription revenues for the sector in the UK (Sky's main revenue source), which grew at a CAGR of 5% between 2003 and 2007[203]. This provides evidence that (over the relevant period) the sector in which TIM operates was at a different level of maturity or experienced different cyclical or one-off effects to pay TV in the UK and hence TIM should not necessarily be expected to have had comparable profitability and valuation ratios to Sky.

Country-specific factors

Italy has seven national free to air channels offering a wide choice of local and acquired content, sports and movies, as well as a number of local regional private channels, which may have impacted the development of pay TV in Italy. The publicly-owned Italian TV channels in the Rai group compete for advertising revenue with privately-owned TV channels, unlike the BBC, which does not compete for advertising. The direction and magnitude of the impact of this difference on TV channels and pay TV is much-debated. It is probable, however, that these differences in public intervention will impact profitability elsewhere in the TV sector and reduce the value of comparisons between the companies in Spanish and UK TV sectors.

[202] Western European TV 12th edition.

[203] Western European TV 12th edition, IMF World Economic Outlook.

Regulation

The Broadcasting Consolidated Act specifies that no registered communication operator may earn, directly or through subsidiaries, revenues exceeding 20% of the “CIS” (the communications integrated system, which includes all media sector activities, such as broadcasting, sponsorship, radio, cinema, advertising, publishing of newspapers, magazines, as well as e-publishing).

In 2005, the Italian Communications Authority (“Agcom”) found that RAI and Mediaset abused their dominant positions in TV advertising and imposed fines on RAI and Mediaset equal to 2% of their 2003 TV advertising revenues. In an effort to prevent RAI and Mediaset acquiring similar dominance in the digital environment, Agcom introduced several restrictions on the two companies including[204]:

- Since 2006, Pubitalia, Mediaset’s advertising sales house, has only been permitted to operate for simulcast digital channels. A separate sales house was required for other digital channels;
- Between 2005 and 2006, Mediaset’s digital channels were not permitted to devote more than 12% of broadcasting time to advertising per hour;
- RAI was required to create a digital channel which would not carry advertising.

It is likely that the regulatory restrictions imposed on Mediaset over the relevant period, impacted TIM’s ability to compete over the relevant period, and consequently influenced its profitability.

Conclusion

We have identified a number of similarities between TIM and Sky (over the relevant period), including:

- Probably comparable wholesale operations;
- Somewhat higher but comparable tangible asset intensity; and
- A similar degree of geographic diversification.

However, TIM’s comparability to Sky is limited by the following features of TIM over the relevant period:

- TIM’s reliance on advertising as the main revenue source;

[204] Informa Western European TV 9th Edition.

- TIM’s relatively recent formation, the ongoing restructuring of the group’s activities and launch of new operations; and
- Factors specific to the Italian TV market including significant market power held by RAI and Mediaset in the Italian TV market and regulatory remedies designed to address this.

Overall, we do not consider TIM to be a reliable comparator to Sky for profitability benchmarking based on accounting figures over the relevant period, particularly because of its exposure to advertising revenues, and TIM’s relatively recent formation and significant changes to the group’s activities over the relevant period.

6.5 France

6.5.1 Canal+ Group

Description

Canal+ Group ("Canal+") is a wholly-owned subsidiary of Vivendi in France. It is a TV channel provider and broadcaster, pay TV retailer, platform operator and movie producer and distributor.

Business model

Main source(s) of revenue

Although we did not undertake a complete breakdown of Canal+'s sources of revenue, its product mix (including channel provision and broadcasting, retail of pay TV and platform operation) was relatively similar to Sky over the relevant period. Hence there is no reason to believe that its revenue mix was substantially different to Sky's.

In contrast to Sky, Canal+ did not offer broadband and telephony services between 2003 and 2007, but it did have other significant non-TV revenue streams, including movie production and distribution.

Asset intensity

Over the relevant period Canal+'s tangible asset intensity was comparable to that of Sky. Canal+'s average capex to sales ratio between 2003 and 2007 was 3.9%, compared to 4.2% for Sky.

Level of programme and content costs

We have not identified data on Canal+'s programming costs as a proportion of revenues over the relevant period. However, its mix of programming (including important sports and movies content) means that there is no reason to believe that its wholesale operations would have been substantially different to Sky's.

Geographical diversification

In the relevant period, Canal+'s main country of operations was France, with smaller operations in the French overseas departments and in sub-Saharan Africa (although other operations under the same brand operated in other countries, most of these are not owned by the Canal+ Group). It also managed the

Cyfra+ platform in Poland[205]. Its geographical diversification was therefore not comparable to that of Sky (particularly due to its Polish operations), which was operating only in the UK and the Republic of Ireland.

Business maturity and key events

Business maturity

Canal+ launched its main TV channel (Canal+) as an analogue terrestrial pay TV service in 1984[206] (although some programmes were broadcast unencrypted). Its growth rate over the relevant period (revenue CAGR of 1% in current prices compared to 9% for Sky) is indicative of a mature business (real revenue growth was negative between 2003 and 2007) in a mature sector, which is dissimilar to Sky which, although it was a well-established business, operated in a growth sector.

The main sector event to have occurred between 2003 and 2007 was the merger of TPS (a satellite operator and pay TV retailer) with CanalSat under Canal+ Group ownership. This is discussed below.

Business events (including business combinations and disposals)

Canal+ Group offered both analogue pay TV and digital pay TV services. In the period examined by Oxera it had a relatively large number of subscribers to its analogue pay TV channel: the proportion of such subscribers fell from 53% of total subscriptions in 2004[207] to 14% of subscriptions in 2006[208]. A single channel analogue pay TV business is likely to have structurally different profitability from multichannel digital pay TV business[209]. Indeed, profitability metrics increased substantially between 2003 and 2007 (after accounting for exceptional items), which would be consistent with higher profitability from subscribers to digital services than to analogue services, and would mean that higher profits would be expected in the future. Furthermore, there may be costs of transferring existing analogue subscribers to digital services (such as provision of set top boxes) that would have reduced profits over the relevant period.

In January 2007, CanalSat and TPS (competing pay TV retailers and satellite distribution companies) merged under Canal+ Group majority ownership (65%)[210]. This has led to increased costs from the technical transfer of TPS subscribers to CanalSat's platform from October 2007 onwards. Transaction costs associated with the merger were 70% and 18% of EBITA (before accounting for these costs) in 2006 and 2007 respectively, meaning that the relationship between future profitability and measured profitability is uncertain:

[205] http://www.vivendi.com/vivendi/IMG/pdf/20080422_annual_report_2007-4.pdf

[206] http://www.canalplusgroup.com/pid163.htm#anch_26

[207] http://www.vivendi.com/vivendi/IMG/pdf/canal_juin_05.pdf

[208] http://www.vivendi.com/vivendi/IMG/pdf/PrezPrint_US__final_new_en_101.pdf, PwC analysis.

[209] Assuming that the analogue operation is less profitable than digital pay TV operations (which have higher average revenue per user), this means that historical profitability would understate current and future profitability.

[210] http://www.vivendi.com/vivendi/IMG/pdf/04_PR170206Lagardere.pdf

- The exceptional items in 2006 and 2007 mean that true profitability was understated; and
- Canal+ Group is targeting €350m cost savings from merger synergies by 2010[211]. Should these be realised, future profitability will exceed historical profitability.

As a result of various transactions involving Canal+ during and prior to the period analysed by Oxera, significant intangible assets including goodwill are recorded on the company's balance sheet. This distorts asset-based accounting ratios in comparison to Sky, which has grown largely organically. Although Oxera has tried to correct for this imbalance by including an estimate of the value of Sky's subscriber base in its ROCE analysis, distortions are likely to remain for the following reasons:

- Oxera has not attempted to assess the value of internally-generated goodwill for Sky. Canal+ had significant goodwill on the balance sheet: between 2004 and 2007, goodwill contributed 65% on average to Canal+'s total assets compared to 18% for Sky. Goodwill will incorporate the value of intangible assets which do not necessarily meet the identification criteria of the relevant accounting standards. This will further distort capital-based accounting ratios between companies which grow through acquisition and those which grow organically.
- The subscriber base has been valued by Oxera on a replacement cost basis. However, often, in Purchase Price Allocation exercises, the value of subscribers is assessed using an excess earnings method, i.e. incorporating profit attributable to subscribers. Therefore Oxera's methodology for estimating the value of Sky's subscriber base may not be consistent with the methodology applied by Canal+ when valuing its acquired subscribers.
- Oxera has attempted to value Sky's subscriber base, but has not valued other intangible assets (such as brands) which would typically be assigned a value in a Purchase Price Allocation exercise for acquisition accounting purposes, nor has it reassessed the value of tangible assets. This may understate the value of tangible and intangible assets for Sky (which has primarily grown organically) relative to companies which have grown through acquisitions.

These considerations reduce the value of using Canal+ as a comparator to Sky for the purposes of profitability and valuation benchmarking.

Sector and country-specific factors

Sector events & maturity

Between 2003 and 2007, pay TV penetration in France increased from 31% to 45%. Over the same period it increased from 41% to 46% in the UK[212]. This provides evidence that the pay TV sector in France was at a different level of development to that in the UK over the relevant period and hence Canal+ should not necessarily be expected to have had comparable profitability and valuation ratios to Sky.

[211] Vivendi Investor Presentation, June 2008.

[212] Western European TV 12th edition, IMF World Economic Outlook.

Country-specific factors

The publicly-owned French TV channels in the France Télévisions group compete for advertising revenue with privately-owned TV channels, unlike the BBC, which does not compete for advertising. The direction and magnitude of the impact of this difference on TV channels and pay TV is much debated. It is probable, however, that these differences in public intervention will impact profitability elsewhere in the TV sector and reduces the value of comparison between companies in the French and UK TV sectors.

Regulation

During the relevant period the following regulations are likely to have significantly affected Canal+'s profitability[213]:

- Under French law, the Canal+ Group may not hold more than a 49% interest in the programming activities of the Canal+ channel.
- Under its broadcasting licence in France, the Canal+ channel must comply with the following content and production requirements: 60% of the audiovisual works and films broadcast by the channel must be produced in Europe and 40% must be original French-language works. In addition, Canal+ must invest 4.5% of its revenue in audiovisual works (including television fiction, documentaries and series) which "contribute to the development of both European and original French-language audiovisual works" (two-thirds of which must be dedicated to the development of independent production).

Furthermore, Canal+ was required to make 59 commitments to ensure no anti-competitive conduct following the TPS acquisition, relating to third party access to audiovisual content, non-exclusive access to channels and carriage of independent channels in the retail offering of the merged business[214]. These restrictions, while intended to prevent anti-competitive conduct, mean that Canal+'s profitability may not be the profitability that would be expected in a competitive market.

Conclusion

We have identified a number of similarities between Canal+ and Sky (over the relevant period), including:

- Similar revenue streams;
- Probable comparable wholesale operations; and

[213] http://www.vivendi.com/vivendi/IMG/pdf/20080422_annual_report_2007-4.pdf

[214] http://www.vivendi.com/vivendi/IMG/pdf/PR060831_Authorization_CANALSAT_TPS_EN.pdf

- Similar tangible asset intensity.

However, Canal+'s comparability to Sky is limited by the following features of Canal+ over the relevant period:

- Regulatory restrictions and potential accounting distortions associated with the combination with TPS; and
- The following differences in sources of revenue:
  - Canal+'s historic and ongoing provision of an analogue pay TV channel; and
  - Canal+'s significant movie business has different characteristics to Sky's non-TV businesses (telephony and broadband services).

Overall, we consider that Canal+ Group is a potentially reliable comparator to Sky for profitability benchmarking based on accounting figures over the relevant period, but results should be interpreted with caution because of the post-acquisition regulatory restrictions and potential transition costs imposed on it, and the unusual source of revenue from the position of Canal+ within the French TV landscape (for viewers and regulators) as a result of its analogue terrestrial pay TV channel. Although Canal+ Group is a potentially reliable comparator to Sky for profitability benchmarking based on accounting figures over the relevant period, we note that the results are unreliable if they are not adjusted for Canal+ Group's high value for goodwill.

6.5.2 M6 Metropole TV

Description

M6 Metropole TV ("M6") is a channel provider and broadcaster in France.

Business model

Main source(s) of revenue

Over the relevant period, M6's main revenue source was advertising: between 2003 and 2007 advertising revenues contributed 52% to M6's overall revenues[215], in contrast to 8% for Sky.

[215] M6 Annual Reports. In 2006 and 2007 group advertising revenues were obtained by adding advertising revenues from M6 FTA, Digital Channels and Diversification and Audiovisual Rights segments. In 2003 and 2004, consolidated advertising revenues are used.

In France subscription revenues for the sector as a whole increased at a CAGR of 9% in real terms between 2003 and 2007, while total advertising revenues decreased at a CAGR of 0.1% per year[216]. These contrasting figures indicate that advertising and subscription revenues were subject to different trends. Accordingly, companies with different relative exposures to subscription and advertising revenues should not necessarily be expected to earn comparable returns or have similar valuation ratios.

Unlike Sky, M6 did not offer broadband and telephony services between 2003 and 2007.

Asset intensity

Over the relevant period M6's tangible asset intensity was somewhat lower but comparable to that of Sky. M6's average fixed assets to sales ratio between 2003 and 2007 was 0.07x compared to 0.11x for Sky. Its average capex to sales ratio between 2003 and 2007 was 1.6% compared to 4.2% for Sky[217].

Level of programme and content costs

Between 2004 and 2007, M6's programming costs amounted to 23%[218] of revenues, on average, compared to 40% for Sky over the same period. We consider that, as a channel provider, M6's wholesale operations are comparable to Sky's wholesale operations.

Geographical diversification

In the relevant period, M6 was operating in France only. While the specific country was different from Sky, the geographical diversification was therefore comparable to that of Sky, which was operating only in the UK and Republic of Ireland.

Business maturity and key events

Business maturity

M6 has broadcast its main TV channel (M6) since 1987[219]. Its relatively stable revenues over the relevant period (CAGR of 3.6% between 2003 and 2007) are indicative of a mature business in a mature sector, which is dissimilar to Sky which, although it was a well-established business, was in a growth sector and had growing revenues (CAGR of 9.3% between 2003 and 2007).

[216] Western European TV 12th edition, IMF World Economic Outlook.

[217] Total asset intensity calculated as a ratio of the sum of tangible assets and intangible assets (less goodwill) to sales was also comparable for M6 and Sky.

[218] For M6 we define programming costs as the sum of costs related to broadcast rights consumption, amortisation of audiovisual rights and amortisation of production costs.

[219] http://jimfilbert.com/gts/countries/france.htm

Business events (including business combinations and disposals)

In 2006 the satellite pay TV retailer TPS (at that time part-owned by M6) merged with CanalSat (part of the Canal+ Group)[220]. This indicates a shift in the structure of M6's activities away from pay TV retail (i.e. those activities less reliant on advertising revenues). The disposal of TPS may distort M6's reported profitability over the relevant period.

Sector and country-specific factors

Sector events & maturity

TV advertising revenues (M6's main source of revenues) for the sector as a whole in France were the same in 2007 as in 2003 (in real terms). This compares to 4.9% real CAGR of subscription revenues for the pay TV sector in the UK (Sky's main source of revenues)[221]. This provides evidence that (over the relevant period) the sector in which M6 operates was at a different level of maturity or experienced different cyclical or one-off effects compared to pay TV in the UK and hence M6 should not necessarily be expected to have had comparable profitability and valuation ratios to Sky.

Country-specific factors

The publicly-owned French TV channels in the France Télévisions group compete for advertising revenue with privately-owned TV channels, unlike the BBC, which does not compete for advertising. The direction and magnitude of the impact of this difference on TV channels and pay TV is much debated. It is probable, however, that these differences in public intervention will impact profitability elsewhere in the TV sector and reduce the value of comparisons between companies in the French and UK TV sectors

Regulation

The M6 channel's broadcasting licence restrictions include minimum proportions of programmes and films that must be of European origin (60%) and French origin and language (40%), and a requirement to invest 4.5% of revenues in programme development (of which two-thirds must be on independent productions). These requirements are likely to increase costs and negatively impact returns.

Conclusion

We have identified a number of similarities between M6 and Sky (over the relevant period), including:

[220] http://www.groupem6.fr/index.php/m6/Le-Groupe/Presentation/Dates-cles

[221] Western European TV 12th edition, IMF World Economic Outlook.

- Geographic diversification; and
- Similar tangible asset intensity.

However, M6 comparability to Sky is limited by the following features of M6 over the relevant period:

- M6 has greater exposure to advertising revenues;
- Characteristics of substantial non-TV activities differ substantially from Sky's activities;
- It appears to be a relatively mature business in a mature sector; and
- M6's investment in programming and content is a substantially smaller proportion of revenues than Sky's.

Overall, we do not consider M6 to be a reliable comparator to Sky for profitability benchmarking based on accounting figures over the relevant period, particularly because of its reliance on advertising revenues, its substantial non-TV activities having different characteristics from Sky's activities and because it appears to be a relatively mature business in a mature sector.

6.5.3 TF1

Description

Television Franca TF1 ("TF1") is a channel provider and broadcaster in France.

Business model

Main source(s) of revenue

Over the relevant period, TF1's main revenue source was advertising revenues. Between 2003 and 2007, on average 62% of TF1's revenues were from advertising, in contrast to 8% for Sky.

In France subscription revenues for the sector as a whole increased at a CAGR of 9% in real terms between 2003 and 2007, while total advertising revenues for the sector decreased at a compound average rate of 0.1%[222]. These contrasting figures indicate that advertising and subscription revenues were subject to

[222] Western European TV, 12th edition, IMF World Economic Outlook.

different trends. Accordingly, companies with different relative exposures to subscription and advertising revenues should not necessarily be expected to earn comparable returns or have similar valuation ratios.

Unlike Sky, TF1 did not offer broadband and telephony services between 2003 and 2007.

Asset intensity

Over the relevant period TF1's tangible asset intensity was somewhat lower but comparable to that of Sky. TF1's average tangible fixed assets to sales ratio between 2003 and 2007 was 0.06x compared to 0.11x for Sky. Its average capex to sales ratio was 2.2% compared to 4.2% for Sky[223].

Level of programme and content costs

Between 2005 and 2007, TF1 Channel's programming costs amounted to 38% of TF1 Group revenues, on average, the same as for Sky over the same period. These costs relate to both acquired content and in-house production. We consider that, as a channel provider, TF1's wholesale operations are comparable to Sky's wholesale operations.

Geographical diversification

In the relevant period, TF1 was operating in France and internationally (10% of its 2006 revenues were from international businesses)[224]. Its geographical diversification was therefore greater that of Sky, which was operating only in the UK and Republic of Ireland (with 6% of subscribers in the Republic of Ireland).

Business maturity and key events

Business maturity

TF1 was privatised in 1987, at which point it offered a single channel. The business model accounting for the majority of revenues has not changed dramatically since. TF1's total revenues declined by -0.3% between 2003 and 2007 (current prices), indicating that TF1 is a mature business.

[223] Total asset intensity calculated as a ratio of the sum of tangible assets and intangible assets (less goodwill) to sales was also comparable for TF1 and Sky.

[224] TF1 Annual Report, page 6.

Business events (including business combinations and disposals)

TF1 disposed of its stake in the satellite pay TV retailer TPS in January 2007. This may have led to unusual profitability during 2006 and 2007, and represents a move away from activities common to Sky (i.e. pay TV retail and platform operation).

Sector and country-specific factors

Sector events & maturity

TV advertising revenues (TF1's main source of revenues) for the sector as a whole in France were the same in 2007 as in 2003 (in real terms). This compares to 4.9% real CAGR of subscription revenues for the pay TV sector in the UK (Sky's main source of revenues)[225]. This provides evidence that (over the relevant period) the sector in which TF1 operates was at a different level of maturity or experienced different cyclical or one-off effects compared to pay TV in the UK and hence TF1 should not necessarily be expected to have had comparable profitability and valuation ratios to Sky.

Country-specific factors

The publicly-owned French TV channels in the France Télévisions group compete for advertising revenue with privately-owned TV channels, unlike the BBC, which does not compete for advertising. The direction and magnitude of the impact of this difference on TV channels and pay TV is much debated. It is probable, however, that these differences in public intervention will impact profitability elsewhere in the TV sector and reduce the value of comparisons between companies in the French and UK TV sectors.

Regulation

The TF1 channel's broadcasting licence restrictions include floors on the proportion of programmes and films of European origin (60%) and French origin and language (40%), and a requirement to invest 4.5% of revenues in programme development (of which two-thirds must be on independent productions). These requirements are likely to increase costs and negatively impact returns.

Conclusion

We have identified a number of similarities between TF1 and Sky (over the relevant period), including:

- Similar tangible asset intensity; and

[225] Western European TV 12th edition, IMF World Economic Outlook.

- Comparable wholesale operations.

However, TF1 comparability to Sky is limited by the following features of TF1 over the relevant period:

- TF1 has greater exposure to advertising revenues; and
- Greater geographic diversification

Overall, we do not consider TF1 to be a reliable comparator to Sky for profitability benchmarking based on accounting figures over the relevant period, particularly because of its reliance on advertising revenues and apparent later stage of business maturity.

6.6 Germany

6.6.1 Kabel Deutschland

Description

Kabel Deutschland ("KDG") is a pay TV retailer, residential broadband and telephony provider, and the largest cable platform operator in Germany.

Business model

Main source(s) of revenue

Between 2006 and 2007, KDG's subscription revenues accounted for 87%[226] of its revenues, comparable to 81% for Sky over the same period. Hence, like Sky, KDG derives a majority of its revenues from customer subscriptions[227], but this includes a large number of subscriptions to basic cable (i.e. non-"genuine" pay TV) services. The price of these services is commonly included in the customers' utility bills. These services are associated with lower revenues per customer[228] and imply that often KDG does not have a direct relationship with its subscribers. The utility-like nature of these payments, and the fact that many contracts are negotiated with housing associations rather than individual customers, mean that KDG's revenues have different characteristics to Sky's.

Like Sky, KDG started offering broadband and telephony services over the analysis period. Broadband and telephony revenues contributed 2% to KDG's total revenues between 2005 and 2007[229].

Asset intensity

KDG's provision of analogue and digital cable services over the relevant period means that its tangible asset intensity was substantially different to that of Sky. KDG's average fixed assets to sales ratio between 2005 and 2007 was 0.90x compared to 0.12x for Sky. Its average capex to sales ratio was 12.4% compared to 4.8% for Sky.

[226] KDG FY2007 Investor Relations Release.

[227] KDG 2008 Annual Report.

[228] KDG's average revenue per cable customer was €7.76 per month in the quarter ending December 2007 (Informa Western European TV 12th Edition). Sky's average revenue per user was significantly higher at £33.83 per month in the same quarter (Informa Western European TV 12th Edition, the figure is obtained by dividing annualised ARPU by 12).

[229] KDG 2007 Annual Report. The share of broadband and telephony revenues increased from 0% in 2005 to 5% in 2007. These revenues include both subscription / usage fees and installation fees.

Level of programme and content costs

We have not identified data on KDG's programming costs over the relevant period. However, its reliance on basic pay TV and channels acquired from third parties, with no significant in-house production[230], suggests that KDG's wholesale operations were incomparable to Sky's.

Geographical diversification

In the relevant period, KDG operated in Germany (excluding Hesse and North Rhine-Westphalia) only. Its geographical diversification was therefore comparable to that of Sky, which was operating only in the UK and the Republic of Ireland.

Business maturity and key events

Business maturity

KDG was formed in 1999 by Deutsche Telekom, its parent company at the time. In 2003, a consortium of private equity investors acquired six regional cable networks from Deutsche Telekom and combined them into Kabel Deutschland Group.

KDG's growth rate over the relevant period (revenue CAGR of 4% in current prices compared to 9% for Sky) is indicative of a mature business in a mature sector, unlike Sky which, although it was a well-established business, was in a growth sector.

Business events (including business combinations and disposals)

Like Sky, KDG launched fixed telephony and broadband services over the period analysed by Oxera.

Over the relevant period KDG undertook significant investment to upgrade its analogue cable network to digital. So whereas in March 2006 KDG's digital network reached 4.1m homes[231], by December 2007 10.8m homes could technically receive digital services[232]. As well as substantial network infrastructure investment, the process of digitisation is also likely to have impacted KDG's profitability (and consequently returns and valuation metrics) because KDG replaced the set top boxes of customers upgrading to digital and applied impairment charges in relation to the network equipment being replaced. In contrast, Sky completed its analogue to digital migration in 2001 and so was not similarly affected over the relevant period.

[230] KDG 2006 debt prospectus states: "We do not produce our own content. For the provision of programs distributed via our cable television network, we enter into agreements with program providers, such as public and commercial broadcasters, or providers of pay television or pay-per-view television".

[231] 2006 Financial Year Investor Relations Release.

[232] Informa Western European TV 12th Edition.

Sector and country-specific factors

Sector events & maturity

Subscription revenues in Germany for the sector as a whole (KDG's main revenue source) grew slowly in real terms between 2003 and 2007 (CAGR of 2%), although this includes both "genuine" and non-"genuine" pay TV subscriptions. This contrasts to the substantial growth of subscription revenues in the UK (Sky's main revenue source), which grew at a CAGR of 5% between 2003 and 2007[233]. This provides evidence that (over the relevant period) the sector in which KDG operates was at a different level of maturity or experienced different cyclical or one-off effects to pay TV in the UK and hence KDG should not necessarily be expected to have had comparable profitability and valuation ratios to Sky.

Country-specific factors

The German TV sector differs substantially from the UK. The reported pay TV penetration figures in 2007 are relatively high at 57% (compared to 46% in the UK), due to widespread adoption of basic (predominantly analogue) cable services, which we consider non-"genuine" pay TV services[234]. The majority of cable customers access 30-35 channels[235] for a relatively small monthly fee (less than €10).

The publicly-owned German TV channels ARD and ZDF compete for advertising revenue with privately-owned TV channels, unlike the BBC, which does not compete for advertising. The direction and magnitude of the impact of this difference on TV channels and pay TV is much debated. It is probable, however, that these differences in public intervention will impact profitability elsewhere in the TV sector and reduce the value of comparisons between companies in the German and UK TV sectors.

Regulation

KDG is subject to several layers of regulation, including[236]:

- Regulation of contractual terms and fees for certain services that KDG provides, in particular with respect to prices that KDG charges to broadcasters and wholesale offers to smaller cable operators;
- Restrictions on the ability of cable operators to use channels ("must carry" obligations); and

[233] Informa Western European TV 12th Edition, IMF World Economic Outlook, PwC analysis.

[234] Cable operators served 17.9m households in Germany at the end of 2007, equivalent to c. 48% of all TV households in Germany, according to Informa. Approximately 80% of these customers received analogue services.

[235] Informa Western European TV 9th Edition.

[236] KDG 2008 Annual Report.

- Requirements and regulations covering a variety of other operational areas such as conditional access obligations, interconnection, subscriber service, and youth protection issues.

In 2007, BNetzA, the Federal Network agency, concluded that KDG held significant market power in the markets for broadcasting transmission services and delivering broadcast content to end users. As a result, BNetzA imposed several additional obligations on KDG, particularly relating to the feed-in market for broadcasters and signal delivery market to Level 4 operators[237].

It is also notable that as a result of KDG's historical links with Deutsche Telekom, 34% of KDG's personnel had a civil servant status and 41% were unionised (as of March 2006)[238]. This could potentially have reduced KDG's flexibility in managing its workforce and resulted in higher personnel-related costs.

Potentially these obligations impacted KDG's profitability and valuation metrics over the period analysed by Oxera, by reducing its pricing flexibility and increasing costs.

Conclusion

We have identified some similarities between KDG and Sky particularly in terms of:

- The comparable revenue mix in terms of the contribution of subscription revenues to total revenues; and
- Comparable geographical diversification.

However, KDG's comparability to Sky is limited by the following features of KDG over the relevant period:

- Significantly higher tangible asset intensity of KDG's business model;
- Incomparable wholesale operations;
- Factors specific to the German TV sector including relatively slow subscription growth and high penetration of non-"genuine" pay TV services; and
- Regulatory restrictions and obligations imposed on KDG.

[237] KDG 2008 Annual Report.

[238] KDG GmbH 2006 debt prospectus.

Overall, we do not consider KDG to be a reliable comparator to Sky for profitability benchmarking based on accounting figures over the relevant period, particularly because of its higher asset intensity and that a substantial proportion of its business relates to non-"genuine" pay TV.

6.6.2 Premiere (Sky Deutschland AG)

Description

Premiere's[239] activities include TV channel provision and broadcasting, pay TV retailing and acquisition and management of audiovisual rights in Germany (and Austria). Premiere also undertakes subscriber management services on behalf of ArenaSAT.

Business model

Main source(s) of revenue

Over the relevant period, Premiere's main revenue source was subscription revenues. Between 2004 and 2007, on average 85% of Premiere's revenues were from subscriptions, comparable to 81% for Sky.

Unlike Sky, Premiere did not offer broadband and telephony services between 2003 and 2007.

Asset intensity

Over the relevant period Premiere's tangible asset intensity was lower but broadly comparable to that of Sky. Premiere's average fixed assets to sales ratio between 2003 and 2007 was 0.01x compared to 0.11x for Sky. Its average capex to sales ratio between 2003 and 2007 was 3.8% compared to 4.2% for Sky[240].

Level of programme and content costs

Premiere's programming costs (which relate both to acquired and licensed content and in-house production) as a proportion of revenues over the relevant period were comparable to, but higher than, Sky's. Between 2003 and 2007, Premiere's programming costs amounted to 55% of revenues, on average, compared to 42% for Sky over the same period. Furthermore, it has a similar mix of programming, including important sports and movies content, to Sky. Overall, we consider Premiere's wholesale operations to be comparable to Sky's.

[239] Premiere has recently been rebranded as Sky Deutschland.

[240] Total asset intensity calculated as a ratio of the sum of tangible assets and intangible assets (less goodwill) to sales was significantly higher for Premiere than it was for Sky.

Geographical diversification

In the relevant period, Premiere's was operating in Germany and Austria. While the specific countries were different from Sky, the geographical diversification was comparable to that of Sky, which was operating only in the UK and the Republic of Ireland.

Business maturity and key events

Business maturity

Like Sky, Premiere is a well-established business: Premiere's first pay TV channel in Germany was launched in 1991[241]. However, its revenue growth rate over the relevant period was substantially below Sky's (revenue CAGR of 4% in current prices compared to 9% for Sky). Furthermore, it is notable that Premiere's growth rates varied significantly over the period of analysis: its revenue CAGR between 2003 and 2005 was 16% but revenues declined at a compound average rate of 7% between 2005 and 2007 (for comparison, Sky's CAGR was relatively stable at 10% and 9% respectively). These differences suggest that Sky's and Premere's businesses were at different stages of development over the relevant period.

Business events (including business combinations and disposals)

In 2006, Premiere lost Bundesliga cable and satellite broadcasting rights to Unitymedia (subsequently Unitymedia set up a subsidiary (ArenaSAT) to showcase the matches). Premiere lost 156,000 customers in 2006[242] and responded by almost halving the price of its entry-level pay TV packages[243]. As a result, Premiere's profitability declined sharply: in 2006 it reported an EBIT loss of €41m compared to a €56m profit in the previous year. In July 2006, Premiere signed a redistribution deal with Arena, which allowed it to market Bundesliga packages on cable in areas covered by Kabel Deutschland's network[244]. In February 2007, a broader licensing deal was signed which granted Premiere rights to market Bundesliga packages on satellite[245]. Under the terms of the agreement, Premiere was also commissioned to take over the operation and administration of ArenaSAT's satellite platform. The agreement was suspended during the period of a regulatory investigation but was re-established, with amendments, in July 2007[246]. Partly as a result of these developments, Premiere's EBIT losses narrowed to €10m in 2007.

[241] http://www.broadbandtvnews.com/2009/08/17/premiere-officially-sky-deutschland/

[242] Premiere 2006 Annual Report

[243] PwC The outcomes for consumers in relation to pay TV in Europe, Supplementary Report.

[244] Unitymedia Press Release dated 13 July 2006.

[245] Premiere Press Release dated 8 February 2007.

[246] In addition, in May 2006 Premiere signed a sublicensing agreement with Deutsche Telekom to broadcast the matches on the T-Home IPTV platform. However, we do not consider that this agreement was likely to materially impact Premiere's profitability over the relevant period, given the relatively low uptake of Deutsche Telekom services over the relevant period (according to Informa Western European TV 12th Edition Deutsche Telekom had 116,000 subscribers by the end of 2007).

In addition, due to various transactions undertaken by Premiere prior to the period analysed by Oxera, significant intangible assets including goodwill are recorded on the company's balance sheet. This distorts asset-based accounting ratios in comparison to Sky, which has grown largely organically. Although Oxera has tried to correct for this imbalance by including an estimate of the value of Sky's subscriber base in its ROCE analysis, distortions are likely to remain for the following reasons:

- Oxera has not attempted to assess the value of internally-generated goodwill for Sky. Premiere had significant goodwill on the balance sheet: between 2004 and 2007, goodwill contributed 30% on average to Premiere's total assets compared to 18% for Sky. Goodwill will incorporate the value of intangible assets which do not necessarily meet the identification criteria of the relevant accounting standards. This will further distort capital-based accounting ratios between companies which grow through acquisition and those which grow organically.

- Oxera has attempted to value Sky's subscriber base, but has not valued other intangible assets (such as brands) which would typically be assigned a value in a Purchase Price Allocation exercise for acquisition accounting purposes, nor has it reassessed the value of tangible assets. This may understate the value of tangible and intangible assets for Sky (which has primarily grown organically) relative to companies which have grown through acquisitions.

These considerations reduce the value of using Premiere as a comparator to Sky for the purposes of profitability and valuation benchmarking.

Sector and country-specific factors

Sector events & maturity

Subscription revenues in Germany for the sector as a whole (Premiere's main revenue source) grew slowly in real terms between 2003 and 2007 (CAGR of 2%)[247] although this includes both "genuine" and non-"genuine" pay TV subscriptions. This contrasts to the substantial growth of subscription revenues in the UK (Sky's main revenue source), which grew at a CAGR of 5% between 2003 and 2007[248]. This provides evidence that (over the relevant period) the sector in which Premiere operates was at a different level of maturity or experienced different cyclical or one-off effects to pay TV in the UK and hence Premiere should not necessarily be expected to have had comparable profitability and valuation ratios to Sky.

Country-specific factors

The German TV sector differs substantially from that in the UK. The reported pay TV penetration figures are relatively high at 57% (compared to 46% in the UK), due to widespread adoption of basic (predominantly analogue) cable services, which we consider to be non-"genuine" pay TV services[249]. The majority of

[247] Western Europe TV 12th Edition, IMF World Economic Outlook.

[248] Western Europe TV 12th Edition, IMF World Economic Outlook.

[249] Cable operators served 17.9m households in Germany at the end of 2007, equivalent to c. 48% of all TV households in Germany, according to Informa. Approximately 80% of these customers received analogue services.

cable customers access 30-35 channels[250] for a relatively small monthly fee (less than €10). Historically, the resulting relatively high multichannel penetration hindered the uptake of satellite pay TV and by 2007 DTH pay TV penetration reached 5% compared to 32% in the UK.

The publicly-owned German TV channels ARD and ZDF compete for advertising revenue with privately-owned TV channels, unlike the BBC, which does not compete for advertising. The direction and magnitude of the impact of this difference on TV channels and pay TV is much debated. It is probable, however, that these differences in public intervention will impact profitability elsewhere in the TV sector and reduce the value of comparisons between companies in the German and UK TV sectors.

Regulation

In early 2007, Unitymedia, ArenaSAT and Premiere made a sublicensing agreement which specified that Unitymedia would hold exclusive rights to market Bundesliga packages in Hesse and North Rhine Westphalia[251]. Premiere, in turn, would hold exclusive rights to market Bundesliga games to DTH satellite customers and to cable customers outside of Hesse and North Rhine Westphalia. In exchange, ArenaSAT (Unitymedia's subsidiary) received a 16.4% share-ownership of Premiere AG. The agreement attracted the attention of the Federal Cartel Office ("FCO"), which was concerned that the agreement restricted competition between Unitymedia and Premiere. The protracted investigation resulted in the suspension of the agreement in April 2007 and Premiere stopped marketing ArenaSAT's Bundesliga packages via satellite[252]. In July 2007, the FCO approved a modified version of the agreement, concerned that a prohibition would cause ArenaSAT (which was incurring heavy losses) to stop marketing Bundesliga rights altogether[253]. Following FCO's decision, Premiere resumed the marketing of ArenaSAT's Bundesliga rights.

This regulatory intervention resulted in a temporary suspension of marketing of the Bundesliga package by Premiere between April and July 2007. It also may have impacted Premiere's marketing efforts prior to April 2007. Accordingly, regulatory factors are likely to have affected Premiere's profitability (and consequently returns and valuation metrics) over the relevant period. This reduces the value of returns and valuations comparisons between Premiere and Sky.

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[250] Informa Western European TV 9th Edition.

[251] See the decision of the Federal Cartel Office published on http://www.bundeskartellamt.de/wDeutsch/archiv/PressemeldArchiv/2007/2007_07_18.php

[252] Premiere Press Release 18 April 2007.

[253] See the decision of the Federal Cartel Office published on http://www.bundeskartellamt.de/wDeutsch/archiv/PressemeldArchiv/2007/2007_07_18.php

We understand that the FCO does not generally approve of sublicensing of important rights within the pay TV sector, although it made an exception to allow an agreement between for a limited period between Premiere and ArenaSAT[254]. We understand that this regulatory backdrop has influenced pay TV company business decisions, and hence affects the comparability of profitability with the UK.

Conclusion

We have identified a number of similarities between Premiere and Sky (over the relevant period), including:

- A similar proportion of subscription revenues as a share of total revenues;
- Comparable wholesale operations; and
- Similar tangible asset intensity.

However, Premiere's comparability to Sky is limited by the following features of Premiere over the relevant period:

- Premiere's business appears to be at a different stage of development compared to Sky;
- Loss of cable and satellite Bundesliga broadcasting rights to Unitymedia in 2006;
- Regulatory intervention in relation to the Bundesliga sublicensing agreement between Premiere, Unitymedia and ArenaSAT in 2007; and
- Factors specific to the German TV sector including relatively slow subscription growth and high penetration of non-"genuine" pay TV services.

Overall, while its business model is not incomparable, we do not consider Premiere to be a reliable comparator to Sky for profitability benchmarking based on accounting figures over the relevant period, particularly because of the exceptional changes in pricing and packaging and instability associated with the loss of Bundesliga broadcasting rights during the relevant period. Furthermore, average Premiere ROCE and ROS across the period analysed by Oxera were negative. Negative returns cannot represent a sustainable rate of return in the long run.

[254] http://www.bundeskartellamt.de/wEnglisch/News/Archiv/ArchivNews2007/2007_07_18_II.php

6.6.3 ProSiebenSAT1 Media AG

Description

ProSieben SAT1 Media AG ("ProSieben SAT1") is a media company in Europe with its main operations in Germany. Its core business is channel provision and broadcasting and it has additional operations, which include online games and online video sharing, radio and publishing.

Business model

Main source(s) of revenue

Over the relevant period, ProSiebenSAT1's main revenue source was advertising revenues. Between 2004 and 2007, on average 90% of ProSiebenSAT1's revenues were from advertising, in contrast to 8% for Sky. Although since 2007 ProSiebenSAT1 has operated on a significantly more international scale (in the Netherlands, Belgium, Northern Europe and Central and Eastern Europe), prior to that its operations were concentrated in Germany.

In Germany subscription revenues for the sector as a whole increased at a CAGR of 2% per annum on average in real terms between 2003 and 2007 (although this includes both "genuine" and non-"genuine" pay TV subscriptions), while total advertising revenues decreased at a CAGR of 1% over the same period[255]. These contrasting figures indicate that advertising and subscription revenues were subject to different trends. Accordingly, companies with different relative exposures to subscription and advertising revenues should not necessarily be expected to earn comparable returns or have similar valuation ratios.

In contrast to Sky, ProSiebenSAT1 did not offer broadband and telephony services between 2003 and 2007.

Asset intensity

Over the relevant period ProSiebenSAT1's tangible asset intensity was comparable to that of Sky. ProSiebenSAT1's average fixed assets to sales ratio between 2003 and 2007 was 0.12x compared to 0.11x for Sky. Its average capex to sales ratio between 2003 and 2007 was 1.2% compared to 4.2% for Sky[256].

Level of programme and content costs

ProSiebenSAT1's programming costs (which relate to audiovisual rights and commissioned programmes) as a proportion of revenues over the relevant period were comparable to Sky's. Between 2004 and 2007, ProSiebenSAT1's programming costs amounted to 56% of revenues, on average, compared to

[255] Informa Western European TV 12th Edition, IMF World Economic Outlook, PwC calculations.

[256] Total asset intensity calculated as a ratio of the sum of tangible assets and intangible assets (less goodwill) to sales was also similar for ProSiebenSAT1 and Sky.

40% for Sky over the same period. Overall, we consider that ProSiebenSAT1's wholesale operations, as a channel provider, are comparable to Sky's wholesale operations.

Geographical diversification

In the relevant period, ProSiebenSAT1 operated in Germany, France, the Netherlands, Hungary, Sweden and other European countries. Its geographical diversification was therefore substantially greater than that of Sky, which was operating only in the UK and the Republic of Ireland.

Business maturity and key events

Business maturity

ProSiebenSAT1 has broadcast its main TV channels ProSieben and Sat1 since 1988 and 1984 respectively[257]. Its growth rate between 2003 and 2007 was relatively similar to that of Sky (revenue CAGR of 11% compared to 9% for Sky), but much of this growth related to the acquisition of SBS Group in 2007. It had relatively stable revenues prior to consolidation of SBS Group in July 2007 (nominal CAGR of 4% between 2003 and 2006) which is indicative of a mature business in a mature sector, which is dissimilar to Sky which, although it was a well-established business, was in a growth sector and had growing revenues (CAGR of 7% between 2003 and 2006).

Business events

We identified several key events over the relevant period including:

- In 2004, ProSiebenSAT1 founded new subsidiary SevenOne International, the Group's international marketing arm. The German-language channel ProSievenSAT1 Welt was launched in the United States.
- In 2005, ProSiebenSAT1 took over full ownership of Euvia Group, which ran several pay TV channels.
- In 2006, ProSiebenSAT1 launched two new pay TV channels ("Sat.1 Comedy" and "Kabel eins classics"). In the same year, RTL started a VOD portal "maxdome" with United Internet AG and acquired a stake in "MyVideo", an online video community and "Lokalisten", a social network website.
- In 2007 ProSiebenSAT1 acquired SBS Broadcasting Group, whose activities included provision and broadcasting of TV channels, radio broadcasting and related print businesses across ten European countries. This was a significant acquisition, which resulted in an increase of roughly €1.8 billion in

[257] http://en.prosiebensat1.com/aktivitaeten/laender/germany/free_tv/sat1/

ProSiebenSAT1's asset base (including a substantial goodwill component). ProSiebenSAT1 also acquired a majority stake in Solute GmbH, which operates the second largest German[258] pricing search engine. It also acquired all of Austrian station PULS TV.

These events, particularly the acquisition of SBS Broadcasting Group in 2007, are likely to have distorted ProSiebenSAT1's profitability and hence returns and valuation metrics over the relevant period, reducing the value of returns and valuation comparisons between Sky and ProsiebenSAT1.

Sector and country-specific factors

Sector events & maturity

Advertising revenues in Germany for the sector as a whole (ProSiebenSAT1's main revenue source) fell in real terms between 2003 and 2007 (-1% CAGR)[259]. This contrasts to the substantial growth of subscription revenues in the UK (Sky's main revenue source), which grew at a CAGR of 5% between 2003 and 2007[260]. This provides evidence that (over the relevant period) the sector in which ProSiebenSAT1 operates was at a different level of maturity or experienced different cyclical or one-off effects to pay TV in the UK and hence ProSiebenSAT1 should not necessarily be expected to have had comparable profitability and valuation ratios to Sky.

Country-specific factors

The German TV sector differs substantially from the UK. The reported pay TV penetration figures are relatively high at 57% in 2007 (compared to 46% in the UK), due to widespread adoption of basic (predominantly analogue) cable services, which we consider non-"genuine" pay TV services[261]. The majority of cable customers access 30-35 channels[262] for a relatively small monthly fee (less than €10).

The publicly-owned German TV channels ARD and ZDF compete for advertising revenue with privately-owned TV channels, unlike the BBC, which does not compete for advertising. The direction and magnitude of the impact of this difference on TV channels and pay TV is much debated. It is probable, however, that these differences in public intervention will impact profitability elsewhere in the TV sector and reduce the value of comparisons between companies in the German and UK TV sectors.

[258] http://en.prosiebensat1.com/unternehmen/geschichte/index_en.php/

[259] Western Europe TV 12th Edition, IMF World Economic Outlook.

[260] Western Europe TV 12th Edition , IMF World Economic Outlook.

[261] Cable operators served 17.9m households in Germany at the end of 2007, equivalent to c. 48% of all TV households in Germany, according to Informa. Approximately 80% of these customers received analogue services.

[262] Informa Western European TV 9th Edition.

Regulation

ProSiebenSAT1 does not face any strict regulation regarding a minimum amount of local content. However, in accordance with the provisions of the State Treaty on Broadcasting and Telemedia and the broadcasting acts of the states that implement Council Directive 89/552/EEC, broadcasters must reserve transmission time for European feature films, television movies, and television series. Additionally, the programmes should include a significant portion of own, commissioned and joint productions from German-speaking and other European regions.

In addition, ProSiebenSAT1's subsidiary SevenOne Media was subject to an investigation by the German Federal Cartel Office. Following this, ProSiebenSAT1 paid a fine of €120 million (the first two instalments of which were paid after 2007) and SevenOne Media introduced a new discount and fee model.

Conclusion

We have identified a number of similarities between ProSiebenSAT1 and Sky (over the relevant period), including:

- Comparable geographical diversification, but only prior to 2007;
- Comparable wholesale operations; and
- Similar asset intensity.

However, ProSiebenSAT1 comparability to Sky is limited by the following features of ProSiebenSAT1 over the relevant period:

- ProSiebenSAT1's exposure to advertising revenues and the decline of advertising revenues in Germany (as compared to growth of subscription revenues in the UK);
- Business maturity (ProSiebenSAT1 is a mature business in a mature sector); and
- Significant developments in the business (particularly the acquisition of SBS Broadcasting Group in 2007).

Overall we do not consider ProSiebenSAT1 to be a reliable comparator to Sky for profitability benchmarking based on accounting figures over the relevant period, particularly because of its exposure to advertising revenue which has declined for the sector as a whole, indicating cyclical or exceptional events or a later stage of sector maturity than pay TV in the UK.

6.6.4 RTL Group

Description

RTL Group ("RTL") is a European media company which in 2007 produced and broadcast (mainly free to air) 42 TV channels in ten countries and 32 radio stations in six European countries. Its flagship TV channels include RTL Television in Germany, M6 in France, Five in the UK, RTL 4 in the Netherlands and RTL TVI in Belgium. Through its FremantleMedia subsidiary RTL is also active in content production and rights acquisition and management.

Business model

Main source(s) of revenue

Over the relevant period, RTL's main revenue source was advertising revenues. Between 2003 and 2007, on average 62% of RTL's revenues were from advertising, in contrast to 8% for Sky. In the relevant period, 36% of its revenues were generated in Germany, 22% in France (through its subsidiary M6, covered elsewhere in this report), 7% in the UK (through Five, covered elsewhere in this report), and the remaining 16% in the Netherlands, Belgium, France, Luxembourg and Croatia. Although it is significantly diversified, we consider Germany to be the main country of operation for the purpose of this section.

In Germany subscription revenues for the sector as a whole increased by 2% per annum on average in real terms between 2003 and 2007 (this includes both "genuine" and non-"genuine" pay TV subscriptions), while total advertising revenues decreased at a CAGR of 1% over the same period[263]. These contrasting figures indicate that advertising and subscription revenues were subject to different trends. Accordingly, companies with different relative exposures to subscription and advertising revenues should not necessarily be expected to earn comparable returns or have similar valuation ratios.

Unlike Sky, RTL did not offer broadband and telephony services between 2003 and 2007.

Asset intensity

Over the relevant period RTL's tangible asset intensity was somewhat lower but comparable to that of Sky. RTL's average fixed assets to sales ratio between 2003 and 2007 was 0.07x compared to 0.11x for Sky. Its average capex to sales ratio between 2003 and 2007 was 1.5% compared to 4.2% for Sky[264].

[263]Informa Western European TV 12th Edition, IMF World Economic Outlook, PwC calculations.

[264] Total asset intensity calculated as a ratio of the sum of tangible assets and intangible assets (less goodwill) to sales was also comparable for RTL and Sky.

Level of programme and content costs

RTL's programming costs (including costs of acquired, commissioned and in-house production and sports rights) of as a proportion of revenues over the relevant period were comparable to Sky's. Between 2006 and 2007, RTL's programming costs amounted to 42% of revenues, on average, compared to 36% for Sky over the same period.

Geographical diversification

In the relevant period, RTL was operated in Germany, France, Belgium, the Netherlands, the USA (through Freemantle Media), and Luxembourg and, from 2004 onwards, Croatia. It also had a small shareholding in a Portuguese media company, Grupo Media Capital. Its geographical diversification was therefore substantially greater than that of Sky, which was operating only in the UK and the Republic of Ireland.

Business maturity and key events

Business maturity

RTL has broadcast its main TV channel (RTL Television), since 1984[265]. Its revenue CAGR of 6% between 2003 and 2007 was comparable to Sky's (9%). Nevertheless, it is difficult to draw firm conclusions about the maturity of RTL's business given its diverse operations across several European countries.

Business events (including business combinations and disposals)

Significant events over the relevant period include:

- In 2004, RTL launched operations in Croatia with the TV channel RTL Televizija;
- In 2006, RTL launched pay TV operations in Germany, in joint venture with UFA. It also sold its stake in Sportfive, the sports and marketing company; and
- In 2007, RTL expanded TV and radio operations in the Netherlands and radio operations in France.

However, we do not expect these developments to have materially impacted RTL's profitability, returns and valuation metrics over the relevant period.

[265] http://www.rtlgroup.com/www/htm/operationstelevision_07DA51371ACC49CB8A8256AB3310F1BF.aspx

It is notable that as a result of various acquisitions made by RTL prior to the period analysed by Oxera, significant intangible assets including goodwill are recorded on the company's balance sheet. This distorts asset-based accounting ratios in comparison to Sky, which has grown largely organically. Although Oxera has tried to correct for this imbalance by including an estimate of the value of Sky's subscriber base in its ROCE analysis, distortions are likely to remain for the following reasons:

- Oxera has not attempted to assess the value of internally-generated goodwill for Sky. RTL had significant goodwill on the balance sheet: between 2004 and 2007, goodwill contributed 36% on average to RTL's total assets compared to 18% for Sky. Goodwill will incorporate the value of intangible assets which do not necessarily meet the identification criteria of the relevant accounting standards. This will further distort capital-based accounting ratios between companies which grow through acquisition and those which grow organically.

- Oxera has attempted to value Sky's subscriber base, but has not valued other intangible assets (such as brands) which would typically be assigned a value in a Purchase Price Allocation exercise for acquisition accounting purposes, nor has it reassessed the value of tangible assets. This may understate the value of tangible and intangible assets for Sky (which has primarily grown organically) relative to companies which have grown through acquisitions.

These considerations reduce the value of using RTL as a comparator to Sky for the purposes of profitability and valuation benchmarking.

Sector and country-specific factors

Sector events & maturity

Advertising revenues in Germany for the sector as a whole (RTL's main revenue source) fell in real terms between 2003 and 2007 (CAGR of -1%)[266]. This contrasts to the growth of subscription revenues in the UK (Sky's main revenue source), which grew at a CAGR of 5% between 2003 and 2007[267]. This provides evidence that (over the relevant period) the sector in which RTL operates was at a different level of maturity or experienced different cyclical or one-off effects to pay TV in the UK and hence RTL should not necessarily be expected to have had comparable profitability and valuation ratios to Sky.

Country-specific factors

The German TV sector differs substantially from the UK. The reported pay TV penetration figures are relatively high at 57% (compared to 46% in the UK), due to widespread adoption of basic (predominantly analogue) cable services, which we consider non-"genuine" pay TV services[268]. The majority of cable customers access 30-35 channels[269] for a relatively small monthly fee (less than €10).

[266] Western Europe TV 12th Edition, IMF World Economic Outlook.

[267] Western Europe TV 12th Edition, IMF World Economic Outlook.

[268] Cable operators served 17.9m households in Germany at the end of 2007, equivalent to c. 48% of all TV households in Germany, according to Informa. Approximately 80% of these customers received analogue services.

The publicly-owned German TV channels ARD and ZDF compete for advertising revenue with privately-owned TV channels, unlike the BBC, which does not compete for advertising. The direction and magnitude of the impact of this difference on TV channels and pay TV is much debated. It is probable, however, that these differences in public intervention will impact profitability elsewhere in the TV sector and reduce the value of comparisons between companies in the German and UK TV sectors.

Regulation

RTL does not face any strict regulation regarding a minimum amount of local content. However, in accordance with the provisions of the State Treaty on Broadcasting and Telemedia and the broadcasting acts of the states that implement Council Directive 89/552/EEC, broadcasters must reserve transmission time for European feature films, television movies, and television series. Additionally, the programmes should include a significant portion of own, commissioned and joint productions from German-speaking and other European regions.

Conclusion

We have identified a number of similarities between RTL and Sky (over the relevant period), including:

- Comparable programming costs;
- Comparable revenue dynamics; and
- Similar asset intensity.

However, RTL comparability to Sky is limited by the following features of RTL over the relevant period:

- RTL's exposure to advertising revenues and the decline of advertising revenues in Germany (as compared to growth of subscription revenues in the UK);
- Presence of significant goodwill on RTL's balance sheet; and
- RTL's broad geographical footprint.

Overall, we do not consider RTL to be a reliable comparator to Sky for profitability benchmarking based on accounting figures over the relevant period, particularly because of its exposure to advertising revenues and its substantial geographical diversification.

[269] Informa Western European TV 9th Edition.

6.6.5 Unitymedia

Description

Unitymedia is a media company operating in Germany which (between 2003 and 2007) was active in pay TV retailing, cable platform operation in the Hesse and North Rhine-Westphalia regions, operation of the ArenaSAT pay TV satellite platform and acquisition and management of audiovisual rights.

Business model

Main source(s) of revenue

Unitymedia derives a majority of its revenues from customer subscriptions. Between 2005 and 2007, Unitymedia's subscription revenues accounted for 74%[270] of its revenues, comparable to 81% for Sky over the same period.

Like Sky, Unitymedia offered broadband and telephony services over the analysis period. Broadband and telephony revenues contributed 3% to Unitymedia's overall revenues between 2005 and 2007.

Asset intensity

Unitymedia's provision of analogue and digital cable services over the relevant period means that its tangible asset intensity was substantially different to that of Sky. Unitymedia's average fixed assets to sales ratio between 2005 and 2007 was 1.50x compared to 0.12x for Sky. Its average capex to sales ratio between 2005 and 2007 was 15.4% compared to 4.8% for Sky[271].

Level of programme and content costs

We have not identified data on Unitymedia's programming costs as a proportion of revenues over the relevant period. However, the acquisition of Bundesliga broadcasting rights from the 2006/07 season suggests that Unitymedia incurred significant content and programming-related expenses in the relevant period. Programming and production costs associated with Bundesliga rights alone cost Unitymedia approximately €300m in the 2006/07[272] season, 34%of Unitymedia's average revenues per annum of €879m across 2006 and 2007. In comparison, Sky's programming costs amounted to 36% of its revenues, on average, between 2006 and 2007. Like Sky, Unitymedia was engaged in channel provision, albeit only for a limited time during the relevant period

[270] Subscription revenue comprises of Basic Cable Services, Digital Pay TV, Internet and Telephony revenues. It excludes any allocation of ArenaSAT revenues as it is not possible to differentiate between ArenaSAT's sublicensing and subscriber revenues. Therefore, the subscription revenue figure as we defined it is likely to understate the true contribution of subscription fees to Unitymedia's revenues. Figures are taken from Unitymedia's 2007 Annual Report.

[271] Total asset intensity calculated as a ratio of the sum of tangible assets and intangible assets (less goodwill) to sales was also significantly higher for Unitymedia than it was for Sky.

[272] Unitymedia 2007 Annual Report.

(Unitymedia subsequently subcontracted its Bundesliga production and broadcasting responsibilities to Premiere). Overall, we consider Unitymedia's and Sky's wholesale operations comparable.

Geographical diversification

In the relevant period, Unitymedia operated in Germany only, although its revenues are concentrated in two regions – Hesse and North Rhine Westphalia. While the specific country was different from Sky, we consider this to be comparable to the geographical diversification of Sky, which was operating only in the UK and the Republic of Ireland.

Business maturity and key events

Business maturity

Unitymedia was created in 2005 through the merger of regional cable operators Ish and Iesy, and later in the same year it acquired Tele Columbus, responsible for billing and servicing a significant proportion of Unitymedia's customers. Also in 2005, Unitymedia acquired exclusive TV broadcasting rights to a majority of Bundesliga matches for three seasons starting with the 2006/2007 season. In 2006 ArenaSAT was launched to showcase the matches, although the Bundesliga rights were subsequently sublicensed to Premiere in a series of agreements in 2006 and 2007[273]. Therefore, although the component businesses of Unitymedia were well-established businesses (Ish and Iesy have been in existence since the 1980s), the business in its current form has existed only since 2006.

Furthermore, over the period of analysis Unitymedia undertook significant investment to upgrade its cable network to digital. Whereas at the end of 2005, 21% of Unitymedia's network was upgraded to enable digital services, by the end of 2007 this figure had increased to 66%[274]. As well as substantial network infrastructure investment, the process of digitisation is also likely to have impacted Unitymedia's profitability (and consequently returns and valuation metrics) because Unitymedia replaced the set top boxes of customers upgrading to digital and applied impairment charges in relation to the network equipment being replaced. In contrast, Sky completed its analogue to digital migration in 2001 and so was not similarly affected over the relevant period.

[273] In July 2006, Premiere signed a redistribution deal with Arena, which allowed it to market Bundesliga packages on cable in areas covered by Kabel Deutschland's network . In February 2007, a broader licensing deal was signed which granted Premiere rights to market Bundesliga packages on satellite. Under the terms of the agreement, Premiere was also commissioned to take over the operation and administration of ArenaSAT's satellite platform. The agreement was suspended during the period of a regulatory investigation but was re-established, with amendments, in July 2007.

[274] Percentages refer to proportion of homes passed with bi-directional capabilities at 862 MHz. Figures are from Unitymedia's 2007 Annual Report.

Business events (including business combinations and disposals)

The creation of Unitymedia through a three-way combination between Ish, Iesy and Tele Columbus is likely to have resulted in significant integration and restructuring costs which are likely to have depressed profitability and returns over the period analysed by Oxera[275].

Furthermore, it is notable that as a result of the transactions leading to the creation of Unitymedia, significant intangible assets including goodwill are recorded on the company's balance sheet. This distorts asset-based accounting ratios in comparison to Sky, which has grown largely organically. Although Oxera has tried to correct for this imbalance by including an estimate of the value of Sky's subscriber base in its ROCE analysis, distortions are likely to remain for the following reasons:

- Although recorded levels of goodwill for the two companies are comparable (Unitymedia's goodwill contributed 20% on average to its total assets between 2006 and 2007, compared to 18% for Sky), Oxera has not attempted to assess the value of internally-generated goodwill for Sky. Differing levels of internally-generated goodwill distorts capital-based accounting ratios between companies which grow through acquisition and those which grow organically.

- The subscriber base has been valued by Oxera on a replacement cost basis. However, often, in Purchase Price Allocation exercises, the value of subscribers is assessed using an excess earnings method, i.e. incorporating profit attributable to subscribers. Therefore Oxera's methodology for estimating the value of Sky's subscriber base may not be consistent with the methodology applied by Unitymedia when valuing its acquired subscribers.

- Oxera has attempted to value Sky's subscriber base, but has not valued other intangible assets (such as brands) which would typically be assigned a value in a Purchase Price Allocation exercise for acquisition accounting purposes, nor has it reassessed the value of tangible assets. This may understate the value of tangible and intangible assets for Sky (which has primarily grown organically) relative to companies which have grown through acquisitions.

These considerations reduce the value of using Unitymedia as a comparator to Sky for the purposes of profitability and valuation benchmarking.

Furthermore, Unitymedia's launch of satellite pay TV operations in 2006 resulted in substantial start up costs which similarly depressed the company's accounting profitability. To illustrate the magnitude of the impact we note that Unitymedia's cable operations reported EBIT margins of 9% and 15% in 2006 and 2007 respectively. However, once ArenaSAT losses are taken into account, Unitymedia's EBIT margins shrink to -17% and 6% respectively[276].

[275] We note that Unitymedia subsequently sold certain assets of Tele Columbus to Orion cable in 2006.

[276] Unitymedia 2007 Annual Report.

Sector and country-specific factors

Sector events & maturity

Subscription revenues in Germany for the sector as a whole (Unitymedia's main revenue source) grew relatively slowly in real terms between 2003 and 2007 (CAGR of 2%) although this includes both "genuine" and non-"genuine" pay TV subscriptions. This contrasts to the substantial growth of subscription revenues in the UK (Sky's main revenue source), which grew at a CAGR of 5% in real terms between 2003 and 2007[277]. This provides evidence that (over the relevant period) the sector in which Unitymedia operates was at a different stage of development to pay TV in the UK and hence Unitymedia should not necessarily be expected to have had comparable profitability and valuation ratios to Sky.

Country-specific factors

The German TV sector differs substantially from the UK. The reported pay TV penetration figures are relatively high at 57% (compared to 46% in the UK), due to widespread adoption of basic (predominantly analogue) cable services, which we consider non-"genuine" pay TV services[278]. The majority of cable customers access 30-35 channels[279] for a relatively small monthly fee (less than €10). Historically, the resulting relatively high multichannel penetration hindered the uptake of satellite pay TV and by 2007 DTH pay TV penetration reached 5% compared to 32% in the UK.

The publicly-owned German TV channels ARD and ZDF compete for advertising revenue with privately-owned TV channels, unlike the BBC, which does not compete for advertising. The direction and magnitude of the impact of this difference on TV channels and pay TV is much debated. It is probable, however, that these differences in public intervention will impact profitability elsewhere in the TV sector and reduce the value of comparisons between companies in the German and UK TV sectors.

Regulation

In early 2007, Unitymedia, ArenaSAT and Premiere signed a comprehensive sublicensing agreement which specified that Unitymedia would hold exclusive rights to market Bundesliga packages in Hesse and North Rhine Westphalia[280]. Premiere, in turn, would hold exclusive rights to market Bundesliga to DTH satellite customers and to cable customers outside of Hesse and North Rhine Westphalia. In exchange, ArenaSAT (Unitymedia's subsidiary) received 16.4% shares in Premiere AG. The agreement attracted the attention of the Federal Cartel Office ("FCO"), which was concerned that the agreement restricted competition between Unitymedia and Premiere. The protracted investigation resulted in the suspension of the agreement in April 2007 and Premiere stopped

[277] Informa Western European TV 12th Edition, IMF World Economic Outlook, PwC analysis.

[278] Cable operators served 17.9m households in Germany at the end of 2007, equivalent to c. 48% of all TV households in Germany, according to Informa. Approximately 80% of these customers received analogue services.

[279] Informa Western European TV 9th Edition.

[280] See the decision of the Federal Cartel Office published on http://www.bundeskartellamt.de/wDeutsch/archiv/PressemeldArchiv/2007/2007_07_18.php

marketing ArenaSAT's Bundesliga package via satellite[281]. In July 2007, the FCO approved a modified version of the agreement, concerned that a prohibition would cause ArenaSAT (which was incurring heavy losses) to stop marketing Bundesliga rights altogether[282]. Following the FCO's decision, Premiere resumed the marketing of ArenaSAT's Bundesliga rights via satellite.

This regulatory intervention resulted in a temporary suspension of marketing of the Bundesliga package by Premiere between April and July 2007. It also may have impacted Premiere's marketing efforts prior to April 2007. Accordingly, regulatory factors are likely to have affected ArenaSAT's (and consequently Unitymedia's) profitability over the relevant period. This reduces the value of returns and valuations comparisons between Unitymedia and Sky. Furthermore, we understand that the FCO does not generally approve of sublicensing of important rights within the pay TV sector, although it made an exception to allow an agreement between for a limited period between Premiere and ArenaSAT. We understand that this regulatory backdrop has influenced pay TV company business decisions, and hence affects the comparability of profitability with the UK.

Furthermore, Unitymedia is subject to several forms of regulation, including[283]:

- Regulation of contractual terms and fees for certain services that Unitymedia provides, in particular with respect to subscriber, signal delivery and carriage fees;
- Rules regarding the fair, reasonable and non-discriminatory treatment of broadcasters, Level 4 operators, subscribers and other customers;
- Restrictions on the ability of cable operators to use channels ("must carry" obligations) and to package channels into premium cable television offerings. In particular these regulations vary across regions; and
- Requirements and regulations covering a variety of other operational areas such as conditional access obligations, rights of way, interconnection, subscriber service, billing requirements and youth protection issues.

In 2007, BNetzA, the Federal Network agency, concluded that Unitymedia held significant market power in the markets for broadcasting transmission services and delivering broadcast content to end users. As a result, BNetzA imposed several additional obligations on Unitymedia including[284]:

- Requirements to publish information on technical specifications, network characteristics, contractual terms and fees;

[281] Premiere Press Release 18 April 2007.

[282] See the decision of the Federal Cartel Office published on http://www.bundeskartellamt.de/wDeutsch/archiv/PressemeldArchiv/2007/2007_07_18.php

[283] Unitymedia 2008 Annual Report.

[284] Unitymedia 2008 Annual Report

- The carriage fees charged to broadcasters and related collocation services are subject to ex-post regulation in accordance with the Telecommunications Act with a potential retroactive effect; and
- Unitymedia is required to grant signal delivery access to small cable operators, provide co-location for the purpose of granting signal delivery access and, as part of this, provide smaller cable operators and their agents with access to these facilities at all times.

Potentially these obligations impacted Unitymedia's profitability and valuation metrics over the period analysed by Oxera, by reducing its pricing flexibility and increasing costs.

Conclusion

We have identified a number of similarities between Unitymedia and Sky (over the relevant period), including:

- A similar proportion of subscription revenues as a share of total revenues;
- Comparable wholesale operations; and
- Broadly comparable geographical diversification (Unitymedia has no international diversification).

However, Unitymedia's comparability to Sky is limited by the following features of Unitymedia over the relevant period:

- Significantly higher tangible asset intensity of Unitymedia's business model;
- Unitymedia is at a relatively early stage of development having been created through a three-way merger in 2005;
- The three-way merger in 2005, the acquisition of Bundesliga broadcasting rights and the subsequent launch of ArenaSAT are likely to have resulted in significant non-recurring costs which impacted Unitymedia's returns and valuation metrics between 2005 and 2007;
- Factors specific to the German TV sector including relatively slow subscription growth and high penetration of non-"genuine" pay TV services; and
- Regulatory restrictions and obligations imposed on Unitymedia.

Overall, we do not consider Unitymedia to be a reliable comparator to Sky for profitability benchmarking based on accounting figures over the relevant period, particularly because: it appears to be at a different stage of maturity compared to Sky, it has a higher asset intensity and it has experienced an exceptional business event (the launch of ArenaSAT).

6.7 USA and Canada

6.7.1 Canwest Global Communications

Description

Canwest Global Communications Corporation ("Canwest") is an international media company operating primarily in Canada and Australia. Canwest is Canada's largest publisher of paid English language daily newspapers and is also active in TV channel provision and broadcasting, outdoor advertising and radio broadcasting.

Business model

Main source(s) of revenue

In 2007, 50% of Canwest's revenues came from its TV channel provision and broadcasting business, 45% from publishing (mainly newspaper publishing) and the remainder primarily from radio and outdoor advertising[285]. In contrast, Sky's revenues relate to pay TV, broadband and telephony provision and it does not have any publishing operations.

In 2007, Canwest's main revenue source was advertising. 89% of Canwest's revenues were from advertising, in contrast to 8% for Sky in the same year. The remainder of Canwest's total revenue was derived from newspaper circulation and subscription revenues for Canwest's pay TV channels. In general, we would not expect advertising (Canwest's main revenue source) and subscriptions (Sky's main revenue source) revenues to be subject to the same trends, and accordingly companies with different relative exposures to subscription and advertising revenues should not necessarily be expected to earn comparable returns or have similar valuation ratios. Furthermore, Canwest is heavily exposed to newspaper publishing which, as we discuss in Section 5.7, is subject to several structural pressures.

Asset intensity

Over the relevant period Canwest's tangible asset intensity was somewhat greater but broadly comparable to that of Sky. Canwest's average fixed assets to sales ratio between 2003 and 2007 was 0.25x compared to 0.11x for Sky. Its average capex to sales ratio between the same period was 2.8% compared to 4.2% for Sky[286].

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[285] Source: 2007 Canwest Annual Report (http://www.canwestglobal.com/investors/investor_documents/F07/CWG_Annual_Report_web.pdf)

[286] However, we note that total asset intensity calculated as a ratio of the sum of tangible assets and intangible assets (less goodwill) to sales was substantially higher for Canwest than it was for Sky.

Level of programme and content costs

We have not identified data on Canwest's programming costs as a proportion of revenues over the relevant period. Nevertheless, we consider that Canwest's wholesale operations, as a channel provider, may be comparable to Sky's over the relevant period.

Geographical diversification

In the relevant period, Canwest was operating primarily in Canada, Australia, New Zealand and Turkey. In addition, it had operations in Indonesia, Singapore, the United Kingdom and the United States. Its geographical diversification was substantially greater than that of Sky, which was operating only in the UK and the Republic of Ireland. As a result, Canwest faced additional risks such as currency fluctuations and country-specific and regulatory risks.

Business maturity and key events

Business maturity

Canwest has been providing TV services since 1975 and entered the newspaper business in 2000, with the acquisition of several newspaper titles from Hollinger Inc[287]. Its relatively low revenue growth over the relevant period (CAGR of 3% between 2003 and 2007) is indicative of a mature business in a mature sector, which is dissimilar to Sky which, although it was a well-established business, was in a growth sector and had growing revenues (CAGR of 9% between 2003 and 2007).

Business events (including business combinations and disposals)

There were several significant developments in Canwest's business over the relevant period including[288]:

- Disposal of several business units, including the sale of TV and radio broadcasting operations in New Zealand in 2007 and the sale of several radio stations in Canada in 2006;
- Acquisitions, including the acquisition of four radio stations in Turkey in 2006 and 13 TV channels in Canada in 2007; and
- New ventures including the launch of Canwest News Service in 2003, the launch of several radio stations in Canada and the UK, the introduction of online classified advertising businesses in 2004 and print and online directories in 2007.

[287] http://www.canwestglobal.com/about/history.asp

[288] http://www.canwestglobal.com/about/history.asp

The acquisition, disposal and commencement of new operations are likely to have resulted in integration, restructuring and start up costs being incurred which are likely to have depressed Canwest's returns over the relevant period.

Furthermore, due to various acquisitions made by Canwest during and prior to the period analysed by Oxera (particularly the acquisition of various newspaper titles in 2000), significant intangible assets including goodwill are recorded on the company's balance sheet. This distorts asset-based accounting ratios in comparison to Sky, which has grown largely organically. Although Oxera has tried to correct for this imbalance by including an estimate of the value of Sky's subscriber base in its ROCE analysis, distortions are likely to remain for the following reasons:

- Oxera has not attempted to assess the value of internally-generated goodwill for Sky. Canwest had significant goodwill on the balance sheet: between 2004 and 2007, goodwill contributed 41% on average to Canwest's total assets compared to 18% for Sky. Goodwill will incorporate the value of intangible assets which do not necessarily meet the identification criteria of the relevant accounting standards. This will further distort capital-based accounting ratios between companies which grow through acquisition and those which grow organically.

- Oxera has attempted to value Sky's subscriber base, but has not valued other intangible assets (such as brands) which would typically be assigned a value in a Purchase Price Allocation exercise for acquisition accounting purposes, nor has it reassessed the value of tangible assets. This may understate the value of tangible and intangible assets for Sky (which has primarily grown organically) relative to companies which have grown through acquisitions.

These considerations further reduce the value of using Canwest as a comparator to Sky for profitability and returns benchmarking.

Sector and country-specific factors

Sector events & maturity

TV advertising revenues in Canada for the sector as a whole (one of Canwest's main revenue sources) grew slowly in real terms between 2003 and 2007 (CAGR of 2%) and newspaper advertising revenues (its other main revenue source) declined in real terms over the same period (-2% CAGR)[289]. This contrasts to the substantial growth of subscription revenues in the UK pay TV sector (Sky's main revenue source), which grew at a CAGR of 5% between 2003 and 2007[290]. This provides evidence that (over the relevant period) the sectors in which Canwest operates were at a different stage of development compared to the pay TV sector in the UK. Accordingly, Canwest should not necessarily be expected to have had comparable profitability and valuation ratios to Sky. Furthermore, we consider that the fundamental differences between advertising-funded and subscription-based sectors make direct profitability and valuation comparisons between Sky and Canwest inappropriate.

[289] Zenith Optimedia, IMF World Economic Outlook, PwC analysis.

[290] Informa Western European TV 12th Edition, IMF World Economic Outlook, PwC analysis.

Country-specific factors

The publicly-owned Canadian TV channels in the CBC group compete for advertising revenue with privately-owned TV channels, unlike the BBC, which does not compete for advertising. The direction and magnitude of the impact of this difference on TV channels and pay TV is much debated. It is probable, however, that these differences in public intervention will impact profitability elsewhere in the TV sector and reduce the value of comparisons between companies in the Canadian and UK TV sectors.

Furthermore, Canwest operates in Turkey which has lower income per capita than the UK. However, the contribution of Turkish operations to Canwest's business was small (1% of total revenues in 2007[291]) and hence Canwest's emerging market exposure is unlikely to have materially impacted its financial performance over the relevant period.

Regulation

As a result of current regulatory arrangements, Canwest does not currently receive carriage fees from cable and satellite pay TV retailers in relation to its Global and E! channels (but it does receive a share of subscription fees for its pay TV channels). In contrast, Sky receives carriage fees for broadcasting its channels on Virgin Media's cable network. These arrangements potentially impacted Canwest's financial performance over the relevant period.

It is notable that in 2007, the Canadian Radio, Television and Telecommunications Commission ("CRCT") signalled its intention to review the arrangements for broadcaster compensation in its review of the Canadian TV sector[292].

Conclusion

We have identified a number of similarities between Canwest and Sky (over the relevant period), including:

- Somewhat higher but broadly comparable tangible asset intensity; and
- Probable comparable wholesale operations.

However, Canwest's comparability to Sky is limited by the following features of Canwest over the relevant period:

- A significantly different source of revenues (greater exposure to advertising revenues);

[291] Canwest 2007 Annual Report.

[292] Canwest 2007 Annual Report.

- Greater geographical diversification;
- Business events including acquisitions, disposals and new business ventures;
- Different level of maturity of the sectors in which Canwest operates;
- Considerations specific to the Canadian TV sector; and
- Regulatory restrictions on Canwest's ability to charge carriage fees for its flagship channel.

Overall, we do not consider Canwest to be a reliable comparator to Sky for profitability benchmarking based on accounting figures over the relevant period, particularly because of its exposure to advertising revenues, substantial geographical diversification and exposure to sectors which have had slow or falling real revenues (TV advertising and newspaper advertising).

6.7.2 DIRECTV

Description

The DIRECTV Group ('DIRECTV'), Inc[293] is a leading provider of digital television entertainment in the USA and Latin America. Its two business segments, DIRECTV U.S. and DIRECTV Latin America, which are differentiated by geographic location, are engaged in acquiring, promoting, selling and/or distributing digital entertainment programming via satellite to residential and commercial subscribers.

Business model

Main source(s) of revenue

We did not identify a breakdown of DIRECTV's sources of revenue. However, given its focus on retailing pay TV services, we consider that its revenue mix is likely to be relatively similar to Sky, which derived 80% of its revenues from subscriptions between 2003 and 2007. Advertising probably accounts for a smaller proportion of DIRECTV revenues than it does for Sky because we understand it to have limited channel provision activities[294].

[293] Oxera's report is unclear on the identity of this comparator, referring to "Direct TV", as a company operating in Canada. We were unable to identify a likely candidate for inclusion under this name operating in Canada. Hence we refer to DIRECTV, a major TV company operating in the USA.

[294] DIRECTV 2007 Annual Report notes: "We earn revenues mostly from subscriptions to basic and premium channel programming, pay-per-view programming and seasonal and live sporting events. We also earn revenues from fees that we charge subscribers with multiple set-top receivers (which we refer to as mirroring fees), hardware revenues from subscribers who purchase receivers under our direct sales and upgrade and retention programs, our published programming guide, warranty service fees and advertising services".

Like Sky, DIRECTV offered broadband services to consumers over the relevant period, but (unlike Sky) not telephony services. However, it divested its Network Systems division (which was a provider of satellite-based private business networks and consumer broadband internet access) in 2005.

Asset intensity

Over the relevant period DIRECTV's tangible asset intensity was higher than that of Sky, although not as high as most cable operators, for example. DIRECTV's average fixed assets to sales ratio between 2003 and 2007 was 0.31x compared to 0.11x for Sky. Its average capex to sales ratio between 2003 and 2007 was 10.5% compared to 4.2% for Sky[295]. It is likely that DIRECTV's greater asset intensity results from its ownership of nine satellites (Sky leases satellite capacity) and its policy of capitalising expenditures associated with providing receiving equipment to its customers[296] (whereas Sky treats all costs associated with providing and installing receiving equipment as an expense[297]).

Level of programme and content costs

DIRECTV's programming expenditure over the relevant period was comparable to Sky's. Between 2003 and 2007, DIRECTV's programming costs amounted to 44% of revenues, on average, compared to 42% for Sky over the same period. We understand that these costs relate primarily to payments for third party-provided channels and programmes, including costs associated with the rights held by DIRECTV to broadcast the NFL's Sunday Ticket package. Although DIRECTV programming costs were comparable to Sky's, we understand that DIRECTV had limited channel provision activities. As a result we consider DIRECTV's wholesale operations to be incomparable to Sky's.

Geographical diversification

In the relevant period, DIRECTV was operating primarily in the United States. However, its Latin American operations (Argentina, Chile, Colombia, Puerto Rico, Brazil and Mexico) contributed around 7%, on average, to DIRECTV's revenues between 2003 and 2007. DIRECTV's revenue exposure to Latin America introduces different risks into its business model (greater currency risks, exposure to multiple regulatory systems, operational complexity), compared to Sky. Nevertheless, the relatively small (albeit increasing) contribution of DIRECTV's international activities suggest that the extent of its geographical diversification was not incomparable to Sky's, which was operating only in the UK and the Republic of Ireland.

[295] Total asset intensity calculated as a ratio of the sum of tangible assets and intangible assets (less goodwill) to sales was also higher for DIRECTV than it was for Sky.

[296] DIRECTV 2007 Annual Report.

[297] BSkyB 2007 Annual Report.

Business maturity and key events

Business maturity

Like Sky, DIRECTV is a well established business. DIRECTV launched pay TV services using digital satellite delivery technology in 1994[298]. In 1998 it acquired USSB, which prior to the merger retailed packages (including important movies and sports) in conjunction with DIRECTV's basic pay TV service.

DIRECTV's revenue CAGR of 16% over the relevant period is significantly above Sky's revenue CAGR of 9% (both in nominal terms). In part, DIRECTV's higher growth is a function of its international expansion: the revenue CAGR for DIRECTV's operations in Latin America between 2003 and 2007 was 30%. But it also reflects rapid growth in DIRECTV's USA pay TV operations, where revenues increased by 19% on average between 2003 and 2007. Indeed, if we strip out the revenues of DIRECTV's Network Services business which was sold in 2005, DIRECTV's revenue growth rate would have been 20% per year on average, significantly above Sky's growth. The differential performance over the relevant period suggests that as a business DIRECTV was at a different stage of development to Sky.

Business events (including business combinations and disposals)

In 2004, General Motors sold a 34% stake in DIRECTV to News Corporation. The uncertainty associated with the prolonged sale process, which lasted three years, resulted in "structural, operational and competitive weaknesses"[299]. Following the transaction a new executive team was installed and a major restructuring of the business was undertaken with the aim of focussing on DIRECTV's pay TV operations. As a result of these developments, several significant events occurred over the relevant period including:

- The sale of a stake in Hughes Network Systems ("HNS") in 2004. This transaction resulted in a non-recurring asset impairment charge of $190.6m;
- An impairment charge of $1.1bn was incurred in connection with its Spaceway programme (related to launch of three satellites) as a result of DIRECTV's decision not to use these satellites for the Spaceway broadband business. The impairment charges related to HNS, Spaceway and certain other activities reduced DIRECTV's 2004 operating profit by $1.7bn;
- The sale of DIRECTV's controlling interest in PanAmSat for $2.6bn in 2004. DIRECTV recorded a loss of $723.7m (net of taxes) in connection with the sale in that year;
- In 2004 DIRECTV changed its accounting methods in relation to subscriber acquisition and retention costs. This, in part, explains the increase in subscriber acquisition costs from $404m in 2003 to $993m in 2004;

[298] DIRECTV website.

[299] DIRECTV 2004 Annual Report.

- In 2004 DIRECTV acquired Pegasus and NRTC, which held exclusive rights to distribute DIRECTV services in certain rural areas in the USA, for $773m. These acquisitions are likely to have resulted in non-recurring integration and restructuring costs in the relevant period which could potentially impact DIRECTV's returns (and consequently valuation). Furthermore, Pegasus was subject to Chapter 11 bankruptcy proceedings at the time of the acquisition, suggesting that the incorporation of its performance into DIRECTV's results further diluted DIRECTV's overall profitability; and

- In 2006 DIRECTV completed the merger of its Brazilian operations with Sky Brazil.

These specific events and the broader restructuring of the business, suggest that DIRECTV was in transition over the period analysed by Oxera. It is therefore likely that DIRECTV's profitability (and consequently accounting returns and valuation metrics) was not representative of the metrics which would be observed in "steady state".

Sector and country-specific factors

Sector events & maturity

Between 2003 and 2007, pay TV penetration in the USA increased from 82% to 87%[300]. Over the same period it increased from 41% to 46% in the UK[301]. The significantly higher level of pay TV penetration in the USA suggests that the pay TV sector in the USA was at a different level of development compared to that in the UK over the relevant period. This limits the usefulness of profitability and returns comparisons between DIRECTV and Sky.

Country-specific factors

Relevant country-specific features distinguishing the USA from the UK include the high cable coverage (reflected in high pay TV penetration), the presence of two DTH operators and that DTT has only a very small presence.

Regulation

The FCC approved the acquisition by News Corporation of its equity investment in DIRECTV in 2003. In doing so, the FCC imposed a number of regulatory conditions on DIRECTV and News Corporation. In particular, the FCC has imposed on them program carriage conditions, intended to prevent discrimination against all forms of unaffiliated programming; and certain program access conditions, intended to ensure non-discriminatory access to much of the programming carried on the DIRECTV service.

Under a requirement of the Communications Act, the FCC has imposed certain public interest obligations on direct broadcast satellite operators, including DIRECTV, including a requirement that such providers set aside 4% of channel capacity exclusively for non-commercial programming of an educational or

[300] SNL Kagan 2009.

[301] Informa Western European TV 12th Edition.

informational nature, for which providers must charge programmers below-market rates and for which they may not impose additional charges on subscribers. FCC rules also require the providers to comply with a number of political broadcasting requirements to which broadcasters are subject under the Communications Act, as well as limits on the commercialization of children's programming applicable to cable operators.

These regulations were in place throughout the period covered by Oxera's analysis, and they potentially reduce the value of making comparisons between the profitability of Sky and DIRECTV.

In 2007 it was reported that DIRECTV was in the process of negotiating a seven-year deal with Major League Baseball ("MLB") exclusively to broadcast "out of market" matches on DIRECTV's satellite platform[302] (DIRECTV already held exclusive rights to broadcast NFL Sunday Ticket American football matches as part of a five-year deal worth $3.5bn[303]). The negotiations attracted the attention of the Federal Communications Commission and ultimately the agreement specified that DIRECTV would only hold exclusive rights if no other pay TV retailer matched DIRECTV's contract terms[304]. Subsequent to the announcement, iN DEMAND (owned by Comcast, Cox Communications and Time Warner Cable) reached a separate agreement with MLB to broadcast the matches[305], ending the brief period in which DIRECTV was the only rights-holder. Potentially, the perceived regulatory constraints relating to exclusive rights to broadcast important sports events differentiate the dynamics of the USA and the UK TV sectors. This lessens the value of comparisons between the companies in the USA TV sector and Sky.

Conclusion

We are not clear that DIRECTV is the company referred to as "Direct TV" in Oxera's benchmarking analysis. We have identified a number of similarities between DIRECTV and Sky (over the relevant period), including:

- Comparable revenue composition; and
- Broadly comparable geographical diversification.

However, DIRECTV's comparability to Sky is limited by the following features of DIRECTV over the relevant period:

- Higher tangible asset intensity;
- DIRECTV appears to be at a different level of development compared to Sky;

[302] For example, Associate Press "FCC investigating MLB's proposed DirecTV deal", 22 February 2007.

[303] DIRECTV Press Release, "DIRECTV Extends and Expands Exclusive NFL SUNDAY TICKET Agreement With NFL Through 2010 Season", 8 November 2004.

[304] DIRECTV Press Release "MLB, DIRECTV Extend, Expand Multi-Year Agreement", 8 March 2007.

[305] MLB Press Release "MLB announces iN DEMAND deal", 4 April 2007.

- DIRECTV's wholesale operations are not comparable to Sky's;
- Pay TV sector in the USA appears to be at a different level of development compared to the UK; and
- Business events prior and during the relevant period including a corporate restructuring, asset sales and acquisitions.

We are uncertain as to the business analysed Oxera as Direct TV. We have examined DIRECTV in this context. Overall DIRECTV appears to be a potentially reliable comparator to Sky for profitability benchmarking based on accounting figures over the relevant period, but its comparability is limited by its higher asset intensity, business events during the relevant period, the different level of development of its business in comparison to Sky and the different level of development of the USA pay TV sector as a whole when compared to the UK. Although DIRECTV is a potentially reliable comparator to Sky for profitability benchmarking based on accounting figures over the relevant period, we note that the results are unreliable if they are not adjusted for substantial events for which the business took impairment charges.

6.7.3 Discovery

Description

In Oxera's report, it states that it has used Discovery (Consolidated) as the comparator. It is not clear to which entity it refers, but it appears that it has used data for Discovery Holding Company (our analysis that follows is based on the assumption that this was the company used by Oxera, but is subject to the caveat that we cannot be sure due to the ambiguity in Oxera's report). Discovery Holding Company had two wholly-owned subsidiaries over the period, Ascent Media Group LLC ("Ascent Media") and Ascent Media CANS LLC ("AccentHealth"). Ascent Media provides creative and network services to the media and entertainment industries in the USA, the UK and Singapore. Ascent Media's clients include major motion picture studios, independent producers, broadcast networks, programming networks, advertising agencies and other companies that produce, own and/or distribute entertainment, news, sports, corporate, educational, industrial and advertising content. AccentHealth operates an advertising-supported television network in doctor office waiting rooms in the USA.

In addition, Discovery Holding Company held an investment in Discovery Communications Holding ("Discovery Communications"), a TV channel provider, over the period of Oxera's analysis. Discovery Holding Company accounted for this investment using the equity method and, accordingly, Discovery Holding Company's revenues and operating profits did not reflect its investment in Discovery Communications[306].

We note that profitability metrics differ greatly, depending on the entity analysed. For example, the ROS figure for Discovery Communications was in the range 20% to 21% between 2006 and 2007, in contrast to Oxera's estimated ROS for Discovery Holding Company over the relevant period of -0.8%[307].

[306] Discovery Communications Holding investment is Discovery Holding Company's most significant asset. In 2007, Discovery Holding Company's investment in Discovery Communication Holding accounted for 56% of its total asset base.

[307] Oxera (2009), "BSkyB's profitability in the context of the Ofcom market investigation", Page iii.

Furthermore, because Discovery Holding Company's investment in Discovery Communications was treated as an associate, total assets included its investment in Discovery Communications, but its operating profit did not include a share of profits earned by Discovery Communications. Therefore the ROCE ratios calculated by Oxera may have been distorted (unless special adjustments were made, on which we have no visibility).

Business model

Main source(s) of revenue

Over the period of Oxera's analysis, no detailed revenue breakdown was available for Discovery Holding Company. However, the nature of Ascent Media's activities (primarily relating to provision of creative services such as fees for video and audio post production, special effects and editorial services for the television, feature film and advertising industries, provision of facilities to optimise and manage completed media, and provision of facilities and services necessary to assemble and distribute programming content for cable and broadcast networks) and AccentHeatlh's activities (operating an advertising-supported television network in doctor office waiting rooms in the USA) suggests that its mix of revenues was dissimilar to Sky's over the period examined by Oxera.

In contrast to Sky, Discovery did not offer broadband and telephony services between 2003 and 2007.

Asset intensity

Over the analysis period, Discovery Holding Company's tangible asset intensity was significantly greater than that of Sky. Discovery Holding Company's tangible assets to sales ratio was 0.39x between 2004 and 2007, compared to 0.12x for Sky and its capex to sales ratio between 2004 and 2007 was 9.7%, also significantly higher than to 4.5% for Sky.

Therefore, without further information, it is difficult to draw any meaningful conclusions from comparing the asset ratios calculated by Oxera based on data for Discovery Holding Company to those of Sky.

Level of programme and content costs

We were unable to identify the proportion of Discovery Holding Company's expenditure that related to programme production or acquisition. Based on our understanding that Oxera has selected Discovery Holding Company as its comparator to Sky, it is unlikely that the level of programming costs would be similar, as the Ascent Media businesses did not develop programming content.

Geographical diversification

We were not able to find data on the geographical diversification of the activities of Discovery Holding Company over the period of Oxera's analysis.

Business maturity and key events

Business maturity

Discovery Holding Company was incorporated in 2005 as a wholly-owned subsidiary of Liberty Media Corporation. However, Discovery Communications has been operating for a longer period of time; it has broadcast its main TV channel (the Discovery Channel) in the USA since 1985[308].

Business events (including business combinations and disposals)

A key event affecting Discovery Holding Company over the relevant period was its separation from Liberty Media Corporation in 2005. This may potentially have resulted in transition and restructuring costs which may have impacted Discovery Holding Company's profitability over the period examined by Oxera.

Furthermore, it is notable that as a result of the transactions related to Discovery Holding Company, significant intangible assets including goodwill are recorded on the company's balance sheet. This distorts asset-based accounting ratios in comparison to Sky, which has grown largely organically. Although Oxera has tried to correct for this imbalance by including an estimate of the value of Sky's subscriber base in its ROCE analysis, distortions are likely to remain for the following reasons:

- Oxera has not attempted to assess the value of internally-generated goodwill for Sky. Discovery Holding Company had significant goodwill on the balance sheet: between 2004 and 2007, goodwill contributed 36% on average to Discovery Holding Company's total assets compared to 18% for Sky. Goodwill will incorporate the value of intangible assets which do not necessarily meet the identification criteria of the relevant accounting standards.

- Oxera has attempted to value Sky's subscriber base, but has not valued other intangible assets (such as brands) which would typically be assigned a value in a Purchase Price Allocation exercise for acquisition accounting purposes, nor has it reassessed the value of tangible assets. This may understate the value of tangible and intangible assets for Sky (which has primarily grown organically) relative to companies which have grown through acquisitions.

These considerations reduce the value of using Discovery Holding Company as a comparator to Sky for the purposes of profitability and valuation benchmarking.

We also note that in 2006 and 2007, Discovery Holding Company recorded significant impairment charges in connection with goodwill associated with its Ascent Media subsidiary. These impairment charges, amounting to $93m in 2006 and $165m in 2007, had a substantial non-recurring negative impact on Discovery Holding Company's profitability over the period analysed by Oxera.

[308] "Discovery Communications Inc.", Datamonitor, July 2008.

Sector and country-specific factors

Sector events & maturity

Over the relevant period, film production in the USA (the main activity of Ascent Media (Discovery Holding Company's main consolidated subsidiary) has experienced the following sector developments:

- Increasing geographical diversification of revenues, as demand from outside the USA for USA-produced movies has increased;
- Changes in technology, in particular a transition to digital production techniques for a range of activities within film production; and
- Increased entry of small companies producing or providing production services to filmmakers.

We do not consider any of the developments in film production services (the main sector of Ascent Media – Discovery Holding Company's main consolidated subsidiary) identified above to reduce the reliability of Discovery Holding Company as a comparator to Sky for profitability analysis over the relevant period.

However the nature of film production services (and hence the main consolidated revenue of Discover Holding Company) is substantially different from Sky's activities, for example:

- Fees are not generally subscription-based; and
- It is generally a business-to-business business (i.e. Ascent Media sells production services to other businesses).

Country-specific factors

We have not identified relevant country-specific factors which were likely materially to impact the reliability of using Discovery Holding Company as a comparator for the purposes of profitability benchmarking based on accounting figures over the relevant period.

Regulation

We have not identified any specific regulations, which were likely to have impacted Discovery Holding Company over the period examined by Oxera.

Conclusion

It appears that Oxera has used figures for Discovery Holding Company for its analysis. This entity undertook a range of activities over the period of the analysis, including the loss-making activities (for four years over the five-year period of the analysis) of Ascent Media.

Discovery Holding Company's comparability to Sky is limited by the following features of Discovery Holding Company over the relevant period:

- Different nature of revenues (non-subscription revenues);
- Activities are primarily business-to-business;
- Higher tangible asset intensity; and
- Business events including separation from Liberty Media Corporation in 2005 and significant impairment charges in 2006 and 2007.

Overall, we do not consider Discovery Holding Company to be a reliable comparator to Sky for the purposes of profitability benchmarking based on accounting figures over the relevant period, because of its differing types of revenues, higher asset intensities, and specific business events (separation from Liberty Media Corporation in 2005 and significant impairment charges in 2006 and 2007). We have not analysed other entities related to Discovery Holding Company, including Discovery Communication Holding.

6.7.4 Dish Network

Description

Dish Network is a pay TV retailer and platform operator operating in the USA. Oxera classifies Dish Network as operating in Canada, but its main operations appear to be in the USA.

Business model

Main source(s) of revenue

Over the relevant period, Dish Network's main revenue source was from subscriptions. Between 2003 and 2007[309], on average 95% of Dish Network's revenues were from subscriptions, comparable to 80% for Sky over the same period.

In contrast to Sky, Dish Network did not offer broadband and telephony services between 2003 and 2007.

Asset intensity

Dish Network's tangible asset intensity was higher than that of Sky over the relevant period. Its average fixed assets to sales ratio between 2003 and 2007 was 0.36x compared to 0.11x for Sky. Its average capex to sales ratio between 2003 and 2007 was 12.4% compared to 4.2% for Sky[310]. Dish Network's greater asset intensity is likely to result from its ownership of eleven satellites (Sky leases satellite capacity) and its policy of capitalising expenditures associated with leasing receiving equipment to its customers[311] (whereas Sky treats all costs associated with providing and installing receiving equipment as an expense[312]).

Level of programme and content costs

Data were unavailable on Dish Network's programme and content costs, but we understand that for Dish Network these primarily relate to carriage fees for channels provided by third parties. This is evidenced by the lack of Dish Network-owned channels in the packages it retails[313]. Together these suggest that Dish Network's wholesale activities were probably not comparable to Sky's.

Geographical diversification

In the relevant period, Dish Network was primarily operating in the USA (international revenues contributed less than 1% to Dish Network's revenues on average between 2003 and 2007[314]). While the specific country was different from Sky, the geographical diversification was therefore comparable to that of Sky, which was operating only in the UK and the Republic of Ireland.

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309 We did not identify a split of revenues into subscription and other sources for 2007.

310 Total asset intensity calculated as a ratio of the sum of tangible assets and intangible assets (less goodwill) to sales was also higher for Dish Network than it was for Sky.

311 Dish Network 2007 Annual Report.

312 BSkyB 2007 Annual Report.

313 http://www.dishnetwork.com/packages/programming/default.aspx

Business maturity and key events

Business maturity

Like Sky, Dish Network is a well-established business. Dish Network launched pay TV services using digital satellite delivery technology in 1996[315]. However, Dish Network's nominal revenue CAGR of 18% over the relevant period is significantly above Sky's revenue CAGR of 9%. The differential performance over the relevant period suggests that Dish Network was at a different stage of development to Sky.

Business events (including business combinations and disposals)

In 2007 Dish Network acquired Sling Media for $342m (contributing $257m to goodwill). However, it is unlikely that this acquisition materially impacted Dish Network's accounting returns and valuation over the relevant period. We identified no further events (over the relevant period) which could potentially have impacted the suitability of Dish Network for the purposes of profitability benchmarking.

Sector and country-specific factors

Sector events & maturity

Between 2003 and 2007, pay TV penetration in the USA increased from 82% to 87%[316]. Over the same period pay TV penetration in the UK increased from 41% to 46%[317]. The significantly higher level of pay TV penetration in the USA suggests that the pay TV sector in the USA was at a different level of development compared to that in the UK over the relevant period. This limits the usefulness of profitability and returns comparisons between Dish Network and Sky.

Country-specific factors

Relevant country-specific features distinguishing the USA from the UK include high cable coverage (reflected in high pay TV penetration), the presence of two DTH operators and that DTT has only a very small presence.

[314] Dish Network 10-K forms.

[315] Dish Network 2007 Form 10-K.

[316] SNL Kagan 2009.

[317] Informa Western European TV 12th Edition.

Regulation

The 1992 review of the pay TV sector in the USA mandated the Federal Communications Commission (FCC) to foster the development of a more competitive market. This led to the introduction of Program Access Rules, which prohibited vertically integrated cable operators from:

- Significantly hindering or prohibiting a competing retailer from making programming available to subscribers;
- Discriminating in the prices, terms and conditions of sale or delivery of channels to competing retailers; or
- Entering into exclusive contracts with cable retailers unless the Commission finds the exclusivity to be in the public interest.

The prohibition on exclusivity was renewed in 2002, and then further renewed in October 2007, so that it now applies until 2012

Furthermore, Program Carriage Rules introduced prohibit retailers from:

- Demanding a financial interest in any channel as a condition of carriage of the content on its system;
- Coercing a channel supplier into providing exclusive rights as a condition of carriage; and
- Unreasonably restraining the ability of a channel supplier from competing fairly by discriminating on the basis of affiliation or non-affiliation of suppliers in the selection, terms, or conditions of carriage.

Conclusion

We have identified a number of similarities between Dish Network and Sky (over the relevant period), including:

- A similar proportion of subscription revenues as a share of total revenues; and
- Similar geographic diversification.

However, Dish Network's comparability to Sky is limited by the following features of Dish Network over the relevant period:

- Higher tangible asset intensity;

- Dish Network appears to be at a different stage of development compared to Sky (as evidenced by its substantially higher revenue growth rates over the relevant period);
- Dish Network's wholesale operations were incomparable to Sky's; and
- Different level of development of the USA pay TV sector compared to the UK pay TV sector.

Overall Dish Network appears to be a potentially reliable comparator to Sky for profitability benchmarking based on accounting figures over the relevant period, but its comparability is limited by its higher asset intensity, the different level of development of its business in comparison to Sky and the different level of development of the USA pay TV sector as a whole when compared to the UK.

6.7.5 Liberty Media (Starz Entertainment)

Description

Liberty Media Corporation is a holding company operating in the USA which undertakes a diverse range of activities, including the provision of TV channels.

Liberty Media Corporation is managed as two separate groups, the Interactive Group (its main operating entity is QVC) and the Capital Group (its main operating entity is Starz Entertainment). Prior to May 2006, the Capital Group was known as the Networks Group. In May 2006, Liberty Corporation completed a restructuring and issued two new trading stocks, Liberty Capital Group (formerly the Networks Group) and Liberty Interactive Group.

Inconsistencies in labelling mean that it is not clear from the Oxera report which entity it has used data for: the consolidated Group, the Capital Group or estimates for Starz Entertainment. On pages 46, 82, 84, and 86 of Oxera's report it is labelled as Liberty Media Capital (Starz Entertainment), whereas on page 75 and 89 it is labelled as Starz Entertainment and on page 87 it is labelled Liberty Media (Starz Entertainment). We analyse Liberty Capital Group (formerly the Networks Group prior to May 2006), as this appears to have similar accounting ratios to those calculated by Oxera in its analysis.

Business model

Main source(s) of revenue

It was not possible to find data detailing the revenue breakdown for Liberty Capital. However, the main operating entity within Liberty Capital is Starz Entertainment. This company provides premium movie networks and programming distributed by cable operators, direct-to-home satellite providers, and other distributors and via the internet throughout the United States. Starz Entertainment's service offerings include the Starz Encore Movie Pack with digital movie channels and more than 750 movies per month, Starz HDTV and Starz On Demand. This is similar to Sky's provision of movie channels on a wholesale basis. Another group of entities within the Liberty Capital Group is the Starz Media group of companies, which includes film production and distribution companies, which are not comparable to the activities of Sky.

Entities other than Starz Entertainment within the Liberty Capital Group over the period included:

- Overture Films, a wholly owned subsidiary of Starz Media, produces and acquires filmed entertainment (motion pictures), an activity which is not undertaken by Sky;
- Atlanta National League Baseball Club is a wholly owned subsidiary which owns and operates the Atlanta Braves Major League Baseball Franchise. This is not an activity which is undertaken by Sky;
- TruePosition Inc. develops and markets technology for locating wireless phones and other wireless devices. This is not an activity undertaken by Sky; and
- Leisure Arts, Inc., a wholly owned subsidiary, is a publisher and distributor of lifestyle and instructional publications. This is not an activity undertaken by Sky.

In addition, Liberty Capital holds investments in a number of entities, including Current Group, Embarq Corporation, Jingle Networks, Mobile Streams, Priceline.com, Sprint Nextel, Time Warner Inc. and Time Warner Cable. A number of these businesses are very different in operations to Sky. Their activities include, for example, the provision of broadband over electricity cables, e-commerce and the provision of wireless location products.

Asset intensity

It was not possible to assess the asset intensity of Liberty Capital Group separately. Over the relevant period, the asset intensity of Liberty Media Capital's parent company, Liberty Media Corporation, was comparable to that of Sky. Liberty Media Corporation's average fixed assets to sales ratio between 2003 and 2007 was 0.19x compared to 0.11x for Sky. Its average capex to sales ratio between 2003 and 2007 was 3.4% compared to 4.2% for Sky.

Level of programme and content costs

It was not possible to assess the level of programming and content costs for Liberty Capital Group. Between 2003 and 2007, Liberty Media Corporation's programming costs as a percentage of revenue was 7% on average compared to 42% for Sky over the same period. The significant difference in programming costs (as a proportion of revenues) between Liberty Media Corporation and Sky is likely to result (at least in part) from Liberty Media Corporation's different revenue mix and, in particular, its greater reliance on non-pay TV related activities. Overall, we consider that the wholesale operations of Liberty Media Corporation, as a channel provider, to be comparable to Sky's wholesale operations.

Geographical diversification

Although Starz Entertainment, the main operating subsidiary of Liberty Capital, operated mainly in the USA, it appears that Oxera has utilised financial data for Liberty Media Capital, which had operations in a number of territories and hence had greater geographical diversification than Sky.

Business maturity and key events

Business maturity

Liberty Capital Group became a publicly listed entity in May 2006; prior to that it was an operating segment of Liberty Media Corporation, which itself became a listed entity in 1991. Starz Entertainment was launched in 2004. Its stable revenues over the relevant period (nominal CAGR of 4% between 2003 and 2007) are indicative of a mature business in a mature sector, which is dissimilar to Sky which, although it was a well-established business, was in a growth sector and had growing revenues (CAGR of 7.4% between 2003 and 2007).

Business events (including business combinations and disposals)

Liberty Capital Group made a number of acquisitions over the period of Oxera's analysis[318], including:

- In 2003 it acquired the remaining shares of Ascent Media that it did not already own.
- In 2006 it acquired Starz Media.

The acquisition of Starz Media in 2006 had a negative impact on the profitability of Liberty Capital Group. In 2007, for example, Starz Media made an operating loss of $342m, in the context of an operating loss for Liberty Capital Group of $375m. Starz Entertainment, the more comparable segment of the business to Sky, made an operating profit of $210m in 2007.

Sector and country-specific factors

Sector events & maturity

Between 2003 and 2007, pay TV penetration in the USA increased from 82% to 87%[319]. Over the same period pay TV penetration in the UK increased from 41% to 46%[320]. The significantly higher level of pay TV penetration in the USA suggests that the pay TV sector in the USA was at a different level of

[318] Liberty Media, Datamonitor 12th August 2009.

[319] SNL Kagan 2009.

[320] Informa Western European TV 12th Edition.

development compared to that in the UK over the relevant period. This limits the usefulness of profitability and returns comparisons between Liberty Capital/Starz Entertainment and Sky.

Country-specific factors

Relevant country-specific features distinguishing the USA from the UK include high cable coverage (reflected in high pay TV penetration), the presence of two DTH operators and that DTT has only a very small presence.

Regulation

The 1992 review of the pay TV industry in the USA mandated the Federal Communications Commission (FCC) to foster the development of a more competitive market. This led to the introduction of Program Access Rules, which prohibited vertically integrated cable operators from:

- Significantly hindering or prohibiting a competing retailer from making programming available to subscribers;
- Discriminating in the prices, terms and conditions of sale or delivery of channels to competing retailers; or
- Entering into exclusive contracts with cable retailers unless the Commission finds the exclusivity to be in the public interest.

The prohibition on exclusivity was renewed in 2002, and then further renewed in October 2007, so that it now applies until 2012.

Furthermore, Program Carriage Rules introduced prohibit retailers from:

- Demanding a financial interest in any channel as a condition of carriage of the content on its system;
- Coercing a channel supplier into providing exclusive rights as a condition of carriage; and
- Unreasonably restraining the ability of a channel supplier from competing fairly by discriminating on the basis of affiliation or non-affiliation of suppliers in the selection, terms, or conditions of carriage.

Conclusion

We have identified a number of similarities between Starz Entertainment and Sky over the relevant period, including:

- A similar proportion of subscription revenues as a share of total revenues;

- Comparable wholesale operations; and
- Similar asset intensity.

However, Oxera appears to have derived accounting ratios for Starz Entertainment's parent company, Liberty Media Capital, for the purposes of its analysis. Liberty Media Capital is significantly different to Sky for the following reasons:

- Entities within the group have very different activities to Sky, including film production and distribution, a baseball franchise and a number of technology companies – these entities have predominantly not been profitable, resulting in an overall loss-making position for Liberty Media Capital, even though Starz Entertainment was profitable over the period of the analysis; and
- A significant number of acquisitions have been made by Liberty Media Capital over the period of the analysis. This has resulted in integration costs being incurred which will have negatively impacted profitability and a higher level of intangible assets on the balance sheet in comparison to Sky, which largely grew organically over the period.

Although labelling is unclear so we cannot be certain, it appears that Oxera has compared the accounting ratios of Sky to those of Liberty Media Capital (Starz Entertainment's parent company).

We do not consider that Liberty Media Capital is a reliable comparator to Sky for profitability benchmarking based on accounting figures over the relevant period, as it has significant business activities which are not similar to those undertaken by Sky (including film production and distribution, a baseball franchise and a number of technology companies), many of which are at an early stage of development and are loss-making.

6.7.6 Time Warner Cable

Description

Time Warner Cable retails pay TV, operates a cable network, and offers residential and commercial video, high-speed data and voice services over its broadband cable systems in the USA. In 2007, Time Warner Cable had the second largest number of subscribers in the USA, (approximately 13.4m) [321].

[321] Ofcom (2007) "Summary profiles of pay TV in France, Germany, Italy, Spain, Sweden and United States – Annex 9 to pay TV market investigation consultation"

Business model

Main source(s) of revenue

Over the relevant period, Time Warner Cable's main revenue source was subscription revenues. Between 2004 and 2007, on average 94% of Time Warner Cable's revenues were from subscriptions, comparable to 80% for Sky. Of total revenue in 2007, 64% was attributable to television subscriptions, 23% to broadband data subscriptions and 7% to telephony subscriptions. The remainder was attributable to advertising.

Asset intensity

Time Warner Cable's provision of analogue and digital cable services over the relevant period means that its tangible asset intensity was substantially different to that of Sky. Time Warner Cable's average fixed assets to sales ratio between 2004 and 2007 was 0.93x compared to 0.12x for Sky. Its average capex to sales ratio between 2003 and 2007 was 21.3% compared to 4.2% for Sky[322].

Level of programme and content costs

Time Warner Cable's programming costs[323] over the relevant period was different from Sky. Between 2004 and 2007, Time Warner Cable's programming costs amounted to 22% of revenues, on average, compared to 40% for Sky over the same period. We understand that these costs relate entirely to payments for third party-provided channels[324]. As a result we consider Time Warner Cable's wholesale operations to be incomparable to Sky's.

Geographical diversification

In the relevant period, Time Warner Cable operated in the USA only. Its geographical diversification was therefore comparable to that of Sky, which was operating only in the UK and Ireland.

Business maturity and key events

Business maturity

Time Warner Cable was founded in 1989 through the merger of Time Inc.'s cable television company, American Television and Communications Corp., and Warner Cable. Over the period of Oxera's analysis, Time Warner Cable was controlled by Time Warner Inc.

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[322] Total asset intensity calculated as a ratio of the sum of tangible assets and intangible assets (less goodwill) to sales was also significantly higher for Time Warner Cable than it was for Sky.

[323] For Time Warner Cable we define programming costs as costs related to video programming.

[324] Interview with Time Warner Cable Investor Relations.

Business events (including business combinations and disposals)

In 2006, Time Warner Cable and Comcast jointly acquired the assets of Adelphia Communications, at that time the fifth largest cable operator in the USA. This acquisition resulted in integration costs being incurred which depressed returns for Time Warner Cable.

Adelphia was bankrupt when acquired by Time Warner and Comcast, indicating that its profitability was below that of Time Warner Cable and hence Time Warner Cable's profitability was diluted with this acquisition and profitability ratios were reduced from those of the previous Time Warner Cable business.

Due to this and a number of other acquisitions made by Time Warner Cable, significant intangible assets including goodwill are recorded on the company's balance sheet. This distorts asset-based accounting ratios in comparison to Sky, which has grown largely organically. Time Warner Cable had an average intangible assets/total assets ratio of 68% between 2005 and 2007, in comparison with an equivalent ratio for Sky of 24% over the same period. Cable franchise rights represented a very significant intangible asset on Time Warner Cable's balance sheet over the period of the analysis. This asset had a net book value of $38.9bn in December 2007, with a valuation of $10.5bn assigned to this asset (relative to a purchase price of $14.9bn) in relation to the Adelphia acquisition[325]. Although Oxera has tried to correct for intangibles by including an estimate of the value of Sky's subscriber base in its ROCE analysis, there is likely to be a substantial remaining discrepancy for the following reasons:

- The subscriber base has been valued by Oxera on a replacement cost basis. However, typically, in Purchase Price Allocation exercises, the value of subscribers is assessed using an excess earnings method, i.e. incorporating profit attributable to subscribers. Therefore Oxera's methodology for estimating the value of Sky's subscriber base is unlikely to be consistent with the methodology applied by Time Warner Cable when acquiring subscribers. Furthermore, the intangible asset allocated the most value in Time Warner Cable's acquisitions was cable franchise rights, not customer relationships, another factor distorting accounting ratios when making comparisons between the two companies. Furthermore, Oxera's valuation methodology applied to the subscriber base is likely to result in an underestimation of Sky's intangible assets compared to those on the balance sheet of Time Warner Cable.

- Oxera has attempted to value Sky's subscriber base, but has not valued other intangible assets (such as brands) which would typically be assigned a value in a Purchase Price Allocation exercise for acquisition accounting purposes, nor has it reassessed the value of tangible assets. This may understate the value of tangible and intangible assets for Sky (which has primarily grown organically) relative to companies which have grown through acquisitions.

- Oxera has not attempted to assess the value of internally-generated goodwill for Sky. Time Warner Cable had significant goodwill on the balance sheet (for example, $1.8bn in 2005 and $2.1bn in 2007) over the period of Oxera's analysis (compared to £301m for Sky in 2005, and £745m in 2007). Goodwill will incorporate the value of intangible assets which do not necessarily meet the identification criteria of the relevant accounting standards (e.g. FAS141 under US GAAP). This will further distort capital-based accounting ratios between companies which grow through acquisition and those which grow organically.

[325] Time Warner Cable Annual Report 2007

These considerations reduce the value of using Time Warner Cable as a comparator to Sky for the purposes of profitability and valuation benchmarking.

Sector and country-specific factors

Sector events & maturity

Between 2003 and 2007, pay TV penetration in the USA increased from 82% to 87%[326]. Over the same period pay TV penetration in the UK increased from 41% to 46%[327]. The significantly higher level of pay TV penetration in the USA suggests that the pay TV sector in the USA was at a different level of development compared to that in the UK over the relevant period. This limits the usefulness of profitability and returns comparisons between Time Warner Cable and Sky.

Country-specific factors

Relevant country-specific features distinguishing the USA from the UK include high cable coverage (reflected in high pay TV penetration), the presence of two DTH operators and that DTT has only a very small presence.

Regulation

The 1992 review of the pay TV industry in the USA mandated the Federal Communications Commission (FCC) to foster the development of a more competitive market. This led to the introduction of Program Access Rules, which prohibited vertically integrated cable operators from:

- Significantly hindering or prohibiting a competing retailer from making programming available to subscribers;
- Discriminating in the prices, terms and conditions of sale or delivery of channels to competing retailers; or
- Entering into exclusive contracts with cable retailers unless the Commission finds the exclusivity to be in the public interest.

The prohibition on exclusivity was renewed in 2002, and then further renewed in October 2007, so that it now applies until 2012

Furthermore, Program Carriage Rules introduced prohibit retailers from:

[326] SNL Kagan 2009.

[327] Informa Western European TV 12th Edition.

- Demanding a financial interest in any channel as a condition of carriage of the content on its system;
- Coercing a channel supplier into providing exclusive rights as a condition of carriage; and
- Unreasonably restraining the ability of a channel supplier from competing fairly by discriminating on the basis of affiliation or non-affiliation of suppliers in the selection, terms, or conditions of carriage.

Conclusion

We have identified a number of similarities between Time Warner Cable and Sky over the relevant period, including:

- A similar proportion of subscription revenues as a share of total revenues; and
- Similar geographical diversification.

However, Time Warner Cable's comparability to Sky is limited by the following features of the company over the relevant period:

- A significantly higher level of capital intensity;
- A more mature business in a more mature sector;
- Lack of comparable wholesale operations; and
- A significant acquisition which will have resulted in integration costs and higher level of intangible assets on the balance sheet.

Overall, we do not consider Time Warner Cable to be a reliable comparator to Sky for profitability benchmarking based on accounting figures over the relevant period, particularly because of the high level of capital intensity in the business and the absence of comparable wholesale operations (we understand that its broadcasting operations are carried out by Time Warner Networks, another subsidiary of Time Warner).

6.7.7 Viacom

Description

Viacom is a channel provider and broadcaster operating in the USA which provides content through television, motion pictures and a range of digital media. We note that the estimated return figures differ greatly depending on the entity analysed. For example, Viacom Media Networks (Viacom's channel provision business) achieved a ROS figure of between 38% and 40% between 2005 and 2007, substantially higher than Oxera's estimate of 25.3% for Viacom as a whole.

Business model

Main source(s) of revenue

Over the relevant period, a key revenue source for Viacom was advertising revenues. Between 2003 and 2007, on average 39% of Viacom's revenues were from advertising, in contrast to 8% for Sky. Viacom also has a higher proportion of revenues from advertising than other TV companies in the USA. In 2007, advertising represented approximately 58% of Viacom's total domestic media networks revenue[328], higher than Discovery, News Corp and Disney.

In 2000, Viacom merged with CBS Corporation, incorporating Infinity Broadcast Corporation, the cable networks TNN and CMT, the CBS Television Stations Division and Paramount Parks. This arrangement continued over the initial period of the Oxera analysis, until the demerger of the two businesses took place in 2005, from which point onwards the two key divisions in the Viacom business were Media Networks and Filmed Entertainment.

Since the demerger from CBS, Viacom has been entirely reliant upon wholesale affiliate fees and advertising on third party networks. Between 2003 and 2007, affiliate revenues fell from 20% of revenue to 17% of revenue. This contrasts with Sky's revenue composition, where on average 80% of revenues were derived from subscriptions over the period (in 2007, 2% of subscription revenues were from broadband subscriptions[329]).

Viacom derives a significant proportion of its revenues from feature film production: in 2007, this constituted 39% of revenues[330]. The Filmed Entertainment division produces, finances and distributes feature motion pictures, television programming and music under brands such as Paramount Pictures, Nickelodeon Movies and DreamWorks. Filmed Entertainment earns its revenues primarily from theatrical release and/or distribution of motion pictures, sale of home entertainment products such as DVDs, and licensing motion pictures and other content to pay and basic cable television, broadcast television and other digital television platforms.

It is notable that in both 2006 and 2007, Viacom's feature film business had the lowest return on assets of the four major studio groups[331]. This part of the business therefore had the impact of significantly lowering reported profits for the group as a whole over the period of the analysis relative to the returns of its TV-related activities.

In contrast to Sky, Viacom did not offer broadband and telephony services between 2003 and 2007.

[328] Viacom 2008 Form 10-K.

[329] BSkyB Annual Report 2007, PwC analysis.

[330] Viacom 2008 Form 10-K.

[331] Source: RBC Capital Markets, "Viacom Inc.", 1 April 2009

Asset intensity

Over the relevant period Viacom's tangible asset intensity was broadly comparable to that of Sky. Viacom's average fixed assets to sales ratio between 2003 and 2007 was 0.12x compared to 0.11x for Sky. Its average capex to sales ratio between 2003 and 2007 was 1.8% compared to 4.2% for Sky[332].

Level of programme and content costs

Between 2003 and 2007, Viacom's programming costs amounted to 32% of revenues, on average, compared to 42% for Sky over the same period. These costs relate both to acquisition of programmes and in-house production.

We consider that, as a channel provider, Viacom's wholesale operations are comparable to Sky's wholesale operations.

Geographical diversification

In the relevant period, Viacom derived revenues from a number of international markets, with on average 24% of revenues derived internationally. Its geographical diversification was therefore substantially greater than that of Sky, which was operating only in the UK and the Republic of Ireland.

Business maturity and key events

Business maturity

Viacom has broadcast its main TV channel MTV since 1986[333] and merged with Paramount in 1994. Both the TV broadcast and filmed entertainment businesses are mature businesses in mature sectors, which is dissimilar to Sky which, although it was a well-established business, was in a growth sector and had growing real revenues (CAGR of 9% between 2003 and 2007).

Business events (including business combinations and disposals)

Significant events over the period include:

- The acquisition of a 50% interest in Comedy Central and (via its subsidiary MTV Networks Europe) a 50% stake in French videogames channel GameOne through a partnership with Atari in 2003[334];

[332] Total asset intensity calculated as a ratio of the sum of tangible assets and intangible assets (less goodwill) to sales was also comparable for Viacom and Sky.

[333] Source: Datamonitor, "Viacom Inc", 14 July 2009.

- The acquisition of VIVA Media (a German music television business) and SportsLine.com in 2004. In the same year Viacom disposed of one of its radio stations to Spanish Broadcasting System (SBS) in return for a 10% stake in SBS; as well as acquiring CBS Sacramento affiliate KOVR-TV 13 from the Sinclair Broadcast Group;

- In 2005, the company split into two publicly traded businesses, Viacom and CBS. The separation agreement provided that Viacom was responsible for the first $195m[335] in costs directly related to the separation. For the year ending December 2005, $163.5m of Selling, General & Administrative expenses were incurred. This had the impact of depressing profits compared to "business as usual"; and

- The acquisition of DreamWorks, a leading producer of live-action motion pictures and television programming for $1.53bn, Xfire (www.xfire.com), a leading gaming and social networking service and the remaining 58% interest in BET.com in 2006.

As a result of acquisitions made by Viacom during and prior to the period analysed by Oxera, significant intangible assets including goodwill are recorded on the company's balance sheet. This distorts asset-based accounting ratios in comparison to Sky, which has grown largely organically. Although Oxera has tried to correct for this imbalance by including an estimate of the value of Sky's subscriber base in its ROCE analysis, distortions are likely to remain for the following reasons:

- Oxera has not attempted to assess the value of internally-generated goodwill for Sky. Viacom had significant goodwill on the balance sheet: between 2004 and 2007, goodwill contributed 53% on average to Viacom's total assets compared to 18% for Sky. Goodwill will incorporate the value of intangible assets which do not necessarily meet the identification criteria of the relevant accounting standards. This will further distort capital-based accounting ratios between companies which grow through acquisition and those which grow organically.

- Oxera has attempted to value Sky's subscriber base, but has not valued other intangible assets (such as brands) which would typically be assigned a value in a Purchase Price Allocation exercise for acquisition accounting purposes, nor has it reassessed the value of tangible assets. This may understate the value of tangible and intangible assets for Sky (which has primarily grown organically) relative to companies which have grown through acquisitions.

These considerations reduce the value of using Viacom as a comparator to Sky for the purposes of profitability and valuation benchmarking.

[334] Datamonitor, "Viacom Inc.", 14 July 2009.

[335] Datamonitor, "Viacom Inc.", 14 July 2009.

Sector and country-specific factors

Sector events & maturity

Advertising revenues in the USA for the sector as a whole (Viacom's main revenue source) grew slowly in real terms between 2003 and 2007 (CAGR of 0.2%)[336]. This contrasts with the substantial growth of subscription revenues in the UK (Sky's main revenue source), which grew at a CAGR of 4.9% over the same period in real terms[337]. This provides evidence that (over the relevant period) the sector in which Viacom operated was at a different level of maturity or experienced different cyclical or one-off effects compared to pay TV in the UK and hence Viacom should not necessarily be expected to have had comparable profitability and valuation ratios to Sky.

Country-specific factors

Relevant country-specific features distinguishing the USA from the UK include high cable coverage (reflected in high pay TV penetration), the presence of two DTH operators and that DTT has only a very small presence.

Regulation

The 1992 review of the pay TV industry in the USA mandated the Federal Communications Commission (FCC) to foster the development of a more competitive market. This led to the introduction of Program Access Rules, which prohibited vertically integrated cable operators from:

- Significantly hindering or prohibiting a competing retailer from making programming available to subscribers;
- Discriminating in the prices, terms and conditions of sale or delivery of channels to competing retailers; or
- Entering into exclusive contracts with cable retailers unless the Commission finds the exclusivity to be in the public interest.

The prohibition on exclusivity was renewed in 2002, and then further renewed in October 2007, so that it now applies until 2012

Furthermore, Program Carriage Rules introduced prohibit retailers from:

- Demanding a financial interest in any channel as a condition of carriage of the content on its system;

[336] Zenith Optimedia, IMF World Economic Outlook, PwC analysis.

[337] Zenith Optimedia, IMF World Economic Outlook, PwC analysis.

- Coercing a channel supplier into providing exclusive rights as a condition of carriage; and
- Unreasonably restraining the ability of a channel supplier from competing fairly by discriminating on the basis of affiliation or non-affiliation of suppliers in the selection, terms, or conditions of carriage.

The majority owner of Viacom, Sumner Redstone and family, is also the majority owner of CBS. This means that the Federal Communications Commission (FCC) treats the two entities as if they were one company from the point of view of granting broadcast licences and cross media ownership restrictions.

Conclusion

We have identified a number of similarities between Viacom and Sky (over the relevant period), including:

- Comparable wholesale operations; and
- Similar tangible asset intensity.

Viacom’s comparability to Sky is limited by the following features of Viacom over the relevant period:

- Its high advertising revenues as a proportion of total revenues;
- Viacom’s separation from CBS in 2005 with accompanying transaction costs;
- Viacom’s significant Filmed Entertainment business, which is not comparable to Sky and has been underperforming;
- The geographical diversification of Viacom in comparison to Sky; and
- Viacom operating in a higher pay TV penetration (and hence more “mature”) sector than Sky for the majority of its revenues.

Overall, we do not consider Viacom to be a reliable comparator to Sky for profitability benchmarking based on accounting figures over the relevant period, particularly because its reliance on advertising revenues and lack of subscription revenues.

6.8 Sweden

6.8.1 Com Hem

Description

Com Hem is a broadband and telephony provider, pay TV retailer and cable platform operator in Sweden.

Business model

Main source(s) of revenue

The provision of pay TV services, broadband and telephony contributed on average 57%, 25% and 11% respectively to Com Hem's revenues in 2006 and 2007. While we did not identify a breakdown of Com Hem's sources of revenue in terms of the contribution of subscription and advertising revenues, its product mix suggests that subscriptions are likely to be its main revenue contributor. Accordingly there is no reason to believe that the relative contributions of subscription and advertising revenues for Com Hem were substantially different to Sky over the relevant period. However, the contribution of pay TV services for Com Hem's was significantly below that for Sky. For example, in FY 2007 Sky's broadband revenues contributed only 1% to Sky's overall turnover, compared to 23% for Com Hem in the same year. Broadband and TV revenues are likely to be subject to different dynamics. Accordingly, despite Com Hem's and Sky's likely similarity in terms of their reliance on subscription revenues, their differing relative exposures to TV and broadband revenues suggest they should not necessarily be expected to earn comparable returns or have comparable valuation multiples.

It is notable that in 2007 around 72% of Com Hem's subscribers paid a small subscription fee to their landlord or housing association for a 12-15 channel package and therefore had no direct relationship with Com Hem[338]. The utility-like nature of these payments and the fact that many contracts were negotiated with housing associations rather than individual customers make the nature of Com Hem's revenue streams substantially different to Sky's.

Asset intensity

Com Hem's provision of analogue and digital cable services over the relevant period means that its tangible asset intensity was substantially different to that of Sky. Com Hem's average fixed assets to sales ratio between 2006 and 2007 was 0.65x compared to 0.14x for Sky. Its average capex to sales ratio between 2006 and 2007 was 34.7% compared to 5.2% for Sky[339].

[338] Informa Western European TV 12th Edition, Com Hem 2007 Annual Report.

[339] Total asset intensity calculated as a ratio of the sum of tangible assets and intangible assets (less goodwill) to sales was also significantly higher for Com Hem than it was for Sky.

Level of programme and content costs

We were unable to identify the proportion of Com Hem's expenditure that was related to programme production or acquisition over the relevant period. We understand that Com Hem's programming expenditures relate primarily to the acquisition of content and channels provided by 3rd parties. Accordingly, we consider that Com Hem's wholesale operations were not comparable to Sky's over the relevant period.

Geographical diversification

In the relevant period, Com Hem operated in Sweden only. Its geographical diversification was therefore comparable to that of Sky, which was operating only in the UK and the Republic of Ireland.

Business maturity and key events

Business maturity

Com Hem (then part of the Telecommunications Authority) commenced cable TV services in 1983[340]. Although well-established, Com Hem's business has undergone significant transformation and experienced substantial growth over the relevant period. For example, its revenue increased by 49% between 2006 and 2007, reflecting a combination of the acquisition by Com Hem of UPC Sweden, a cable operator in the Stockholm area, and strong organic growth (like-for-like growth, stripping out the impact of the UPC Sweden acquisition was 14%[341]). This compares to the growth rate of 10% for Sky over the same period. These differential growth rates suggest that over the relevant period Com Hem was at a different stage of development compared to Sky.

Business events (including business combinations and disposals)

In 2006, Com Hem acquired UPC Sweden, a cable platform operator, pay TV retailer and broadband provider in Stockholm which at the time of the acquisition had 300,000 TV and 97 broadband customers (compared to Com Hem's 1.4m TV and 216 thousand broadband customers at the end of 2005). The integration of the two businesses resulted in non-recurring restructuring costs which impacted Com Hem's profitability over the relevant period. Therefore, the analysis of Com Hem's returns over the period is unlikely to be representative of its expected performance in the long run. Consequently, returns and valuation comparisons using Com Hem's data from 2006 and 2007 are unlikely to be informative.

Due to various transactions involving Com Hem during and prior to the period analysed by Oxera, significant intangible assets including goodwill are recorded on the company's balance sheet. This distorts asset-based accounting ratios in comparison to Sky, which has grown largely organically. Although Oxera has tried to correct for this imbalance by including an estimate of the value of Sky's subscriber base in its ROCE analysis, distortions are likely to remain for the following reasons:

[340] Source: Com Hem website, www.comhem.se

[341] Source: Com Hem 2006 Year End report, 2007 Annual Report. The growth rate is calculated using pro forma 2006 revenues which include UPC Sweden.

- Oxera has not attempted to assess the value of internally-generated goodwill for Sky. Com Hem had significant goodwill on the balance sheet: between 2006 and 2007, goodwill contributed 67% on average to Com Hem's total assets compared to 18% for Sky. Goodwill will incorporate the value of intangible assets which do not necessarily meet the identification criteria of the relevant accounting standards. This will further distort capital-based accounting ratios between companies which grow through acquisition and those which grow organically.

- The subscriber base has been valued by Oxera on a replacement cost basis. However, often, in Purchase Price Allocation exercises, the value of subscribers is assessed using an excess earnings method, i.e. incorporating profit attributable to subscribers. Therefore Oxera's methodology for estimating the value of Sky's subscriber base may not be consistent with the methodology applied by Com Hem when valuing its acquired subscribers.

- Oxera has attempted to value Sky's subscriber base, but has not valued other intangible assets (such as brands) which would typically be assigned a value in a Purchase Price Allocation exercise for acquisition accounting purposes, nor has it reassessed the value of tangible assets. This may understate the value of tangible and intangible assets for Sky (which has primarily grown organically) relative to companies which have grown through acquisitions.

These considerations further reduce the value of using Com Hem as a comparator to Sky for the purposes of profitability benchmarking.

Sector and country-specific factors

Sector events & maturity

The Swedish TV sector differs substantially from the UK. The reported pay TV penetration figures were relatively high at 78% in 2007 (compared to 46% in the UK), due to widespread adoption of basic (predominantly analogue) cable services, which we consider to be non-"genuine" pay TV services[342]. The majority of cable customers access 12-15 channels[343] for a relatively small monthly fee paid to their landlord or housing association[344]. The fact that most cable customers do not have a direct relationship with the pay TV retailer, the utility-like nature of the payments and the substantially different pay TV offerings all point to structural differences between the UK and Swedish pay TV sectors. It is also notable that analogue terrestrial transmission was switched off in Sweden in October 2007, aiding conversion from analogue to digital among TV households, whereas in the UK the switch off is scheduled in 2012. Therefore, the overall level of development of the broader TV sector is also likely to be different. So although revenue dynamics in the two sectors were similar (both the UK and Swedish pay TV subscription revenues increased at a CAGR of 5% in real terms between 2003 and 2007), Com Hem and Sky should not necessarily be expected to have had comparable profitability and valuation ratios.

[342] Cable operators served 2.5m households in Sweden at the end of 2007, equivalent to around 57% of all TV households in Sweden, according to Informa. Approximately 74% of these customers received analogue services.

[343] Based on information provided in Com Hem's 2007 Annual Report. Com Hem serves 70% of all Swedish cable customers, according to Informa.

[344] Informa Western European TV 12th Edition.

Country-specific factors

Swedish DTT market recently attracted the attention of the EU, and particularly the sole DTT platform operator and pay TV retailer Boxer, which is majority owned by the state-backed company Teracom. The Swedish government responded by requiring Boxer to allow competitors access to its infrastructure. Boxer's position as the only DTT operator and pay TV retailer, particularly in the run up to the analogue terrestrial signal switch off, could have potentially distorted competition in the TV sector over the relevant period. This potentially limits the value of direct comparisons between Swedish TV companies (and specifically Com Hem) and Sky.

Regulation

Com Hem is subject to "must carry" obligations: it is required to carry programmes broadcast by SVT1, SVT2, Kunskapskanalen, Barnkanalen and an additional local channel. In our view, these regulatory restrictions are unlikely to have materially impacted Com Hem's financial performance over the relevant period.

Conclusion

We have identified some similarities between Com Hem and Sky (over the relevant period), including:

- Comparable revenue mix in terms of the contribution of subscription revenues; and
- Similar level of geographical diversification.

However, Com Hem's comparability to Sky is limited by the following features of Com Hem over the relevant period:

- Greater contribution of broadband and fixed telephony activities to Com Hem's revenues;
- Higher tangible asset intensity;
- Com Hem's limited wholesale operations;
- Com Hem appears to be at a different stage of development in comparison to Sky (as evidenced by its differential growth performance between 2006 and 2007);
- Business events over the relevant period (the acquisition of UPC Sweden); and
- Com Hem operates in a TV sector which is substantially different from the UK

Overall, we do not consider Com Hem to be a reliable comparator to Sky for profitability benchmarking based on accounting figures over the relevant period, particularly because of its higher asset intensity, large proportion of non-"genuine" pay TV subscribers, substantially larger (than Sky) share of revenues from non-TV services and exceptional costs and uncertainty associated with the acquisition of UPC Sweden.

6.8.2 MTG

Description

Modern Times Group ("MTG") is an international entertainment group whose activities include pay and FTA channel provision and broadcasting, pay TV retailing, radio broadcasting, online entertainment (including sale of CDs, DVDs, games and electronic products, music download and on demand film streaming) and film production and distribution.

Business model

Main source(s) of revenue

Between 2003 and 2007, TV-related operations (pay and FTA channel provision and broadcasting and pay TV retailing) contributed 77% on average to MTG's revenues, with the remaining 23% derived from radio, online and film production and distribution activities.

Over the relevant period, MTG's main revenue sources were advertising and subscription revenues. Between 2003 and 2007, on average 40% of MTG's revenues were from advertising and 38% from subscriptions, compared to 8% and 80% respectively for Sky. Furthermore it is notable that MTG's exposure to advertising revenues increased over time: whereas in 2003 37% of its revenues were derived from advertising by 2007 this figure increased to 43%. In contrast, the contribution of advertising revenues for Sky remained fairly constant over the period (it decreased slightly from 9% in 2003 to 8% in 2007). Overall, MTG was significantly more exposed to advertising over the relevant period, although, like Sky, it derives a substantial proportion of its revenues from subscriptions.

Over the relevant period, on average 36% of MTG's revenues were generated in Sweden, 26% in Denmark, 18% in Norway, and the remaining 21% primarily in Central and Eastern Europe (Hungary, Russia, Czech Republic, Slovenia, and the Baltics). In addition, prior to 2004, MTG had operations in North and South America, Asia, and Africa. Although it is geographically diversified, we consider Sweden, Norway and Denmark to be the main countries of operation in this section.

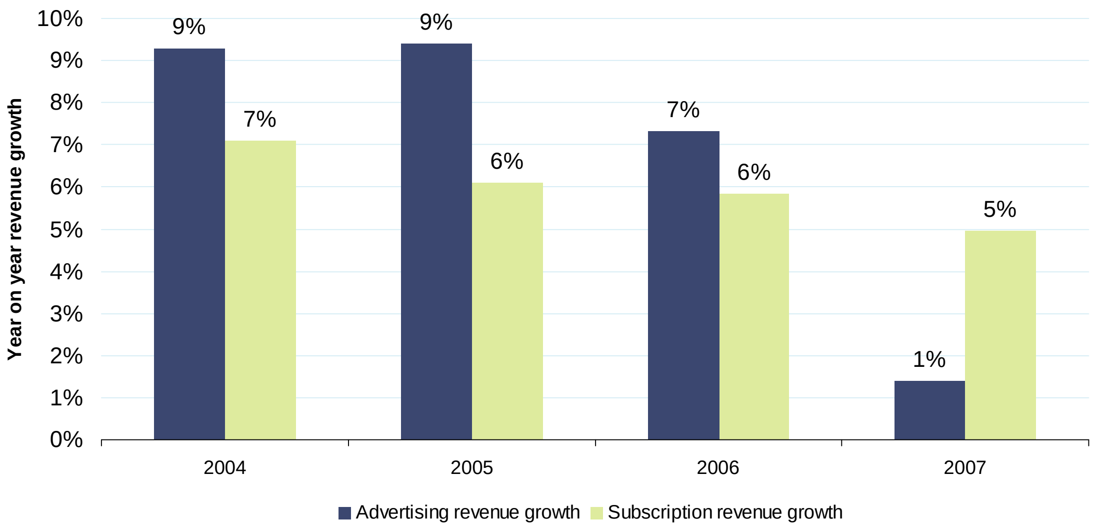
In Sweden, Norway and Denmark[345] subscription revenues for the sector as a whole increased at a CAGR of 6% in real terms between 2003 and 2007, comparable to the advertising revenue growth rate of 7% over the same period[346]. The similarity in the headline figures masks substantial differences in the

[345] To calculate subscription and advertising revenue growth rates in Scandinavian countries where MTG operates, we take a weighted average real CAGR for each of Sweden, Denmark and Norway and weight them by each country's contribution to MTG's revenues.

[346] Informa Western European TV 12th Edition, IMF World Economic Outlook, PwC analysis.

growth dynamics of advertising and subscription revenues over the relevant period. As Figure 19 demonstrates, subscription revenue growth over the period remained fairly stable at 5% to 7% while advertising revenue growth varied from 9% between 2005 and 2006 to only 1% between 2006 and 2007. This indicates that advertising and subscription revenues were subject to different trends. Accordingly, companies with different relative exposures to subscription and advertising revenues should not necessarily be expected to earn comparable returns or have similar valuation ratios.

Figure 19: Real subscription and advertising revenue growth in Sweden, Denmark and Norway



Source: Informa Western European TV 12th Edition, IMF World Economic Outlook, PwC analysis.

In contrast to Sky, MTG did not offer broadband and telephony services between 2003 and 2007.

Asset intensity

Over the relevant period MTG's asset intensity was lower but comparable to that of Sky. MTG's average fixed assets to sales ratio between 2003 and 2007 was 0.02x compared to 0.12x for Sky. Its average capex to sales ratio between 2003 and 2007 was 2.2% compared to 4.2% for Sky[347].

Level of programme and content costs

Between 2005 and 2007, MTG's programming costs amounted to 36% of revenues, on average, compared to 38% for Sky over the same period. These costs relate to acquired and commissioned programmes, sports rights and in-house productions[348] (including important sports and movies content).

We consider that, as a channel provider as well as pay TV retailer, MTG's wholesale operations are comparable to Sky's wholesale operations.

Geographical diversification

In the relevant period, MTG was operating in Sweden, Denmark, Norway, Hungary, Russia, Czech Republic, Slovenia, the Baltics and the Balkans. In addition, up to 2004 MTG had operations in North and South America, Asia, and Africa. Its geographical diversification was therefore substantially greater than that of Sky, which was operating only in the UK and Ireland.

Business maturity and key events

Business maturity

Like Sky, MTG is a well established business. It has broadcast its main free to air TV channel (TV3) in Sweden since 1987 and in Denmark and Norway since 1988[349]. MTG's Viasat DTG satellite pay TV platform was launched in 1991[350]. MTG's revenue CAGR of 16% over the relevant period is significantly higher than Sky's revenue CAGR of 9% over the same period (both growth rates are reported in nominal terms). In part, MTG's higher growth is a function of its international expansion: the nominal CAGR for the revenue of MTG's Central and Eastern European operations between 2004 and 2007 was 70%. But it also reflects rapid growth in MTG's Scandinavian pay TV operations, where revenues increased by 18% (also in nominal terms) on average between 2004 and 2007. The differential performance over the relevant period suggests that as a business MTG is at a different stage of development to Sky.

[347] MTG's total asset intensity calculated as a ratio of the sum of tangible assets and intangible assets (less goodwill) to sales was also lower but broadly comparable to that of Sky.

[348] MTG Investor Relations.

[349] MTG 2004 Annual Report.

[350] MTG 2004 Annual Report.

Business events (including business combinations and disposals)

Significant events over the period include[351]:

- Launch of pay TV movie channel TV1000 and Viasat Explorer in Russia, Moldova, Belarus and the Baltics in 2003;
- Launch of seven new pay TV channels; agreement with NRJ Group to assume management of 20 radio stations in Sweden; sale of the SDI Media business providing multi-lingual subtitling, dubbing and translation services (SDI Media contributed around. 5% to MTG group revenue and 6% to operating profit in 2003); and the launch of pay TV operations in the Ukraine in 2004;
- Acquisition of a controlling stake in TV Prima in Czech Republic; launch of pay TV operations in Georgia, Kazakhstan, the Czech Republic, Slovakia, Slovenia and Serbia; increase in MTG's stake in gaming and betting company Bet24 to 51% in 2005;
- Launch of TV6, an FTA channel in Sweden; acquisition of PRVA channel in Slovenia; launch of pay TV operations in Uzbekistan, Kyrgystan, Bosnia & Herzegovina, Croatia and Macedonia in 2006; and
- Acquisition of controlling stakes in Balkan Media Group, social networking community Playahead, Linus-Lotta.com, BookPlus.fi and Nelly.com; sale of TV-Shop; expansion of TV6 to Latvia; and expansion of pay-TV channel business to Armenia and Montenegro in 2007.

The acquisitions, disposals and launches of new operations are likely to have resulted in integration, restructuring and start up costs being incurred which are likely to have depressed returns for MTG over the relevant period.

Sector and country-specific factors

Sector events & maturity

Pay TV penetration in Sweden, Denmark and Norway (the main countries in which MTG operates) was significantly higher than in the UK. In 2007, pay TV penetration in Sweden was 78%, 90% in Denmark and 89% in Norway, compared to 46% in the UK[352]. These higher figures reflect the widespread adoption of basic (predominantly analogue) cable services, which we consider non-"genuine" pay TV services. The majority of cable customers access a number of basic pay TV channels for a relatively small monthly fee paid to their landlord or housing association. The fact that most cable customers do not have a direct relationship with the pay TV retailer, the utility-like nature of the payments and the substantially different pay TV offerings all point to structural differences between the UK and Nordic pay TV sectors. So although revenue dynamics in the two UK and the Nordic pay TV sectors were similar (subscription and

[351] MTG website, 2004 Annual Report.

[352] Informa Western European TV 12th Edition.

advertising revenues in Sweden, Denmark and Norway increased at a CAGR of 6% and 7% respectively between 2003 and 2007 in real terms, comparable to UK subscription revenues CAGR of 5%), MTG and Sky should not necessarily be expected to have had comparable profitability and valuation ratios.

MTG's diverse international operations in Central and Eastern European countries operated in countries which had less mature pay TV sectors than the UK over the relevant period, further diminishing the value of direct returns and valuation comparisons between MTG and Sky.

Country-specific factors

The publicly-owned Danish and Norwegian channels compete for advertising revenue with privately-owned TV channels, unlike the BBC, which does not compete for advertising. The direction and magnitude of the impact of this difference on TV channels and pay TV is much debated. It is probable, however, that these differences in public intervention will impact profitability elsewhere in the TV sector and reduce the value of comparisons between companies operating in Denmark or Norway and those operating in the UK[353].

It is notable that the Swedish DTT sector recently came under investigation by European competition authorities, in particular the DTT platform operator and pay TV retailer Boxer, which is majority owned by the state-backed company Teracom. The Swedish government responded by requiring Boxer to allow competitors access to its infrastructure. Boxer's position as the only DTT operator and pay TV retailer, particularly in the run up to the analogue terrestrial signal switch off, could have potentially distorted competition in the TV sector over the relevant period. This potentially limits the value of direct comparisons between Swedish TV companies (and specifically MTG) and Sky.

Furthermore, MTG operated in Central and Eastern European countries which tended to have lower income per capita than the UK and the Republic of Ireland in the relevant period. Businesses operating in lower incomes countries are likely to face different demand conditions, including lower willingness to pay and fewer consumers able to pay for TV services. This is likely to lead to different profitability to those in more developed higher-income countries.

Regulation

Most of MTG's channels were broadcast from London and were therefore subject to Ofcom's regulations. We have not identified additional regulatory restrictions which might be expected to cause persistent profitability and valuation differences between MTG and Sky.

Conclusion

We have identified a number of similarities between MTG and Sky (over the relevant period), including:

- Similar programming costs; and

[353] It is notable that in Sweden, the public broadcaster SVT is financed entirely through licence fees.

- Similar asset intensity.

However, MTG’s comparability to Sky is limited by the following features of MTG over the relevant period:

- Greater exposure to advertising revenues;
- Greater degree of geographical diversification and exposure to lower income Eastern European markets;
- MTG’s different level of development in comparison to Sky (as evidenced by its significantly faster revenue growth);
- Business events (including acquisitions, disposals and launches of new operations);
- Different stage of development of the Scandinavian TV sectors compared to the UK and exposure to less mature TV sectors in Central and Eastern Europe ; and
- MTG was operating in countries where publicly owned broadcasters compete for advertising.

Although elements of MTG’s business are comparable to Sky’s business model, we do not consider MTG to be a reliable comparator to Sky for profitability benchmarking based on accounting figures over the relevant period, particularly because of its substantially greater share of revenues from advertising and its geographical diversification (including a significant and growing share of revenues from Eastern Europe).

6.9 The Republic of Ireland, Malaysia and South Africa

6.9.1 Astro All Asia Networks plc

Description

Astro All Asia Networks plc (“Astro”) is Malaysia’s leading cross-media group. Its main activities are channel provision, pay TV retail and operation of a DTH TV platform in Malaysia, but it also has operations in Singapore, Hong Kong, Vietnam, Indonesia, India and the Middle East.

Business model

Main source(s) of revenue

Over the relevant period, Astro Malaysia’s main revenue source was subscription revenues (an average of 81%[354] of total revenues between 2005 and 2007). Over the same period, on average 13% of Astro Malaysia’s revenues were from advertising, comparable to 8% for Sky.

In contrast to Sky, Astro Malaysia did not offer broadband and telephony services between 2003 and 2007.

Asset intensity

Over the relevant period Astro Malaysia’s asset intensity was somewhat higher but broadly comparable to that of Sky. Astro Malaysia’s average fixed assets to sales ratio between 2003 and 2007 was 0.21x compared to 0.11x for Sky. Its average capex to sales ratio was 2.7% compared to 4.2% for Sky[355].

Level of programme and content costs

Between 2003 and 2007, programming costs amounted to 32% of revenues, on average, compared to 42% for Sky over the same period.

Astro Malaysia's wholesale operations appear to be comparable to Sky's wholesale operations. It provides entertainment, sports and movies channels (including important content) and other channels which is comparable to Sky's provision of entertainment, sports and movies channels (including important content) and other channels.

[354] PwC estimate based on annual accounts.

[355] Astro Malaysia s total asset intensity calculated as a ratio of the sum of tangible assets and intangible assets (less goodwill) to sales was also somewhat higher but broadly comparable to that of Sky.

Geographical diversification

In the relevant period, Astro Malaysia operated in Malaysia, Singapore, Hong Kong, Vietnam, Indonesia, India and the Middle East. Its geographical diversification was therefore substantially greater than that of Sky, which was operating only in the UK and Ireland. Hence, it faces diverse risks such as currency fluctuations and country-specific and regulatory risk.

Business maturity and key events

Business maturity

Astro Malaysia has provided TV services in Malaysia since 1996[356]. It is the largest provider of pay TV in Malaysia by a large margin and had a nominal revenue CAGR of 18% over the relevant period, substantially higher than Sky's 9% nominal revenue CAGR over the same period. Astro Malaysia's significantly higher revenue growth suggests that over the relevant period it was at a different stage of development compared to Sky.

Business events (including business combinations and disposals)

In 2005[357], Astro entered into a joint-venture with the Lippo group to provide pay TV services in Indonesia. This venture has led to costs and expenses amounting to RM157.4 million (approximately $46m), as of 2007[358]. This venture had a significant and non-recurring impact on Astro Malaysia's profitability over the period analysed by Oxera.

Sector and country-specific factors

Sector events & maturity

Growth in pay TV penetration and subscription revenues in Malaysia are closely linked to the penetration and revenues of Astro Malaysia itself, as there are no other large pay TV providers in the country. Astro Malaysia's revenues rapidly over the relevant period, suggesting that both Astro Malaysia and the pay TV sector in Malaysia as a whole, are in an earlier stage of development than the pay TV sector in the UK.

[356] http://www.astroplc.com/09/aboutus/

[357] Source: Astro Malaysia Annual Report 2005.

[358] PwC estimates based on Astro Malaysia 2003 and 2007 Annual Reports, and Central Bank of Malaysia exchange rate statistics.

Country-specific factors

Income per head in the countries in which Astro Malaysia operates was generally lower than in the UK and the Republic of Ireland in the relevant period. Average GDP per capita in Malaysia between 2003 and 2007 was $PPP11,704, compared to $PPP32,225 in the UK[359]. Businesses operating in lower income countries are likely to face lower levels of demand, including lower willingness to pay and fewer consumers able to pay for TV services. This is likely to lead to different profitability to those in more developed higher-income countries.

Regulation

Malaysia has restrictive content regulations (mostly relating to "indecency"), but otherwise we have identified no specific regulations that would materially impact Astro Malaysia's suitability for the purposes of profitability benchmarking.

Conclusion

We have identified a number of similarities between Astro Malaysia and Sky (over the relevant period), including:

- A similar proportion of advertising revenues as a share of total revenues; and
- Somewhat higher but broadly comparable tangible asset intensity.

However, Astro Malaysia's comparability to Sky is limited by the following features of Astro Malaysia over the relevant period:

- Differing geographical diversification, including operations in emerging economies; and
- Astro Malaysia was operating in a substantially smaller and less-developed pay TV sector than Sky.

Although there are some elements of Astro Malaysia's business that could be comparable to Sky's business model, we do not consider Astro Malaysia to be a reliable comparator to Sky for profitability benchmarking based on accounting figures over the relevant period, particularly because it operates in emerging markets with relatively undeveloped (but rapidly-growing) pay TV sectors and has substantial geographic diversification of its activities.

[359] Source: International Monetary Fund, World Economic Outlook Database, April 2009.

6.9.2 Liberty Global

Description

Liberty Global, Inc. ("Liberty Global") is a pay TV retailer, telephony and broadband provider, and cable and DTH network operator with operations in 15 countries including Belgium, the Netherlands, Switzerland, Austria, Ireland, Japan, Australia and Chile. Through its subsidiary Chellomedia, Liberty Global also has significant content and channel production operations in Europe.

Business model

Main source(s) of revenue

Over the relevant period, Liberty Global's main revenue source was subscription revenues. Between 2006 and 2007, on average 84% of Liberty Global's revenues were from subscriptions, comparable to 80% for Sky[360].

Like Sky, Liberty Global offered broadband and telephony services between 2003 and 2007. However, Liberty Global has a much greater degree of product diversification with pay TV forming only a part of its core offering (pay TV operations contributed 50% on average to Liberty Global's revenues in 2006 and 2007). Liberty Global's broadband activities contributed 23% to Liberty Global's revenues in 2007 compared to 1% for Sky[361]. Broadband and TV revenues are likely to be subject to different dynamics in the countries in which Liberty Global operates. Accordingly, despite Liberty Global's and Sky's similarity in terms of their reliance on subscription revenues, their differing relative exposures to TV and broadband revenues suggest they should not necessarily be expected to earn comparable returns or have comparable valuation multiples

Asset intensity

The extent of Liberty Global's cable network operations over the relevant period means that its asset intensity was substantially different to that of Sky. Liberty Global's average fixed assets to sales ratio between 2003 and 2007 was 1.43x compared to 0.11x for Sky. Its average capex to sales ratio between 2003 and 2007 was 14.9% compared to 4.2% for Sky[362].

Level of programme and content costs

We were unable to identify the proportion of Liberty Global's expenditure that was related to programme production or acquisition over the relevant period. Nevertheless, we understand that Liberty Global was active both in the distribution of channels and content supplied by third parties and in-house production

[360] Source: Liberty Global Annual Reports 2007 and 2008.

[361] Source: Liberty Global Annual Reports 2007 and 2008.

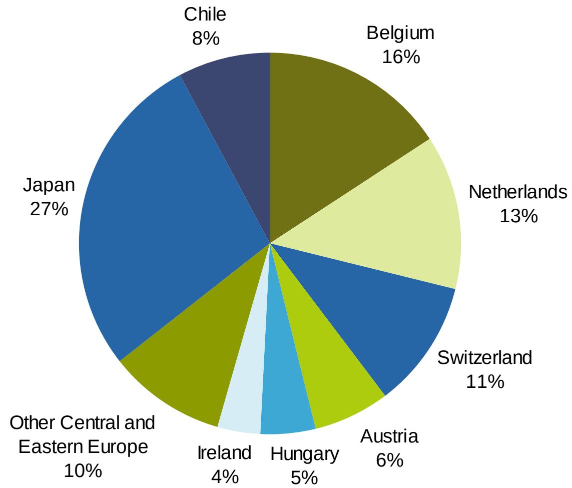
[362] Total asset intensity calculated as a ratio of the sum of tangible assets and intangible assets (less goodwill) to sales was also significantly higher for Liberty Global than it was for Sky.

(Liberty Global's Chellomedia subsidiary currently owns and operates 26 channels, including channels with important sports and movies content[363]). Accordingly it is likely that over the period of analysis Liberty Global's wholesale operations were not incomparable to Sky's.

Geographical diversification

In the relevant period, Liberty Global operated in the Netherlands, Switzerland, Austria, Ireland, Japan, Australia and Chile (see Figure 20). Its geographical diversification was therefore substantially greater than that of Sky, which was operating only in the UK and The Republic of Ireland. As a result, it faced diverse risks such as currency fluctuations and country-specific and regulatory risk.

Figure 20: Liberty Global revenue by country (2007)



Source: Liberty Global 2008 Annual Report

[363] Chellomedia website.

Business maturity and key events

Business maturity

Liberty Global was formed in 2005, as a result of the merger of two Liberty Media Corporation subsidiaries (LGI International and UGC)[364] and has changed substantially since through acquisitions, disposals and other changes. Therefore, although many of Liberty Global's subsidiaries have been operating since the 1980s, the company in its current form has been formed relatively recently. This suggests that the Liberty Global and Sky businesses are at different stages of development. This is also evidenced by Liberty Global's revenue nominal CAGR of 62% between 2004 and 2007, which is significantly higher than Sky's nominal CAGR of 8% over the same period.

Business events (including business combinations and disposals)

Significant events over the relevant period include[365]:

- As a result of governance changes at Super Media and J:COM, Liberty Global's Japanese subsidiaries, Liberty Global acquired control (and therefore started consolidating the results of) its Japanese operations in 2005. In 2005, J:COM contributed 37% to Liberty Global's consolidated revenues;
- In 2006, Liberty Global acquired a controlling interest in Telenet, the largest cable operator in Belgium with revenues over $1.0bn in 2006 (compared to Liberty Global's revenue of $6.5bn in the same year); and
- In 2006, Liberty Global completed divestitures of some of its Norwegian (UPC Norway and Priority Telecom), Swedish (UPC Sweden), Belgian (UPC Belgium and French (UPC France) operations.

It is likely that these developments resulted in non-recurring restructuring costs and accounting adjustments which depressed Liberty Global's returns and valuation over the relevant period.

Furthermore, due to various transactions involving Liberty Global during and prior to the period analysed by Oxera, significant intangible assets including goodwill are recorded on the company's balance sheet. This distorts asset-based accounting ratios in comparison to Sky, which has grown largely organically. Although Oxera has tried to correct for this imbalance by including an estimate of the value of Sky's subscriber base in its ROCE analysis, distortions are likely to remain for the following reasons:

- Oxera has not attempted to assess the value of internally-generated goodwill for Sky. Liberty Global had significant goodwill on the balance sheet: between 2005 and 2007, goodwill contributed 39% on average to Liberty Global's total assets compared to 18% for Sky. Goodwill will incorporate the

[364] Liberty Global 2007 Annual Report.

[365] Liberty Global 2007 Annual Report.

value of intangible assets which do not necessarily meet the identification criteria of the relevant accounting standards. This will further distort capital-based accounting ratios between companies which grow through acquisition and those which grow organically.

- The subscriber base has been valued by Oxera on a replacement cost basis. However, often, in Purchase Price Allocation exercises, the value of subscribers is assessed using an excess earnings method, i.e. incorporating profit attributable to subscribers. Therefore Oxera's methodology for estimating the value of Sky's subscriber base may not be consistent with the methodology applied by Liberty Global when valuing its acquired subscribers.

- Oxera has attempted to value Sky's subscriber base, but has not valued other intangible assets (such as brands) which would typically be assigned a value in a Purchase Price Allocation exercise for acquisition accounting purposes, nor has it reassessed the value of tangible assets. This may understate the value of tangible and intangible assets for Sky (which has primarily grown organically) relative to companies which have grown through acquisitions.

These considerations further reduce the value of using Liberty Global as a comparator to Sky for the purposes of profitability benchmarking.

Sector and country-specific factors

Sector events & maturity

Given the diversity of Liberty Global's operations it is difficult to draw broad conclusions about the maturity of the sectors in which it operates. However, we note that many of the European countries in which Liberty Global operates, particularly Belgium, Ireland, Switzerland and the Netherlands have relatively high reported pay TV penetration[366]. These higher figures reflect the widespread adoption of basic (predominantly analogue) cable services, which we consider to be non-"genuine" pay TV services. The resulting relatively high multichannel penetration is likely to have impacted the development of the TV sector in these countries, and therefore potentially influenced the financial performance of the companies in the sector.

Over the relevant period, Liberty Global invested heavily to upgrade its network and customers to digital. For example, in 2005, Liberty Global initiated a programme in the Netherlands which provides customers with a free digital set top box and digital TV services at no extra cost for a promotional period[367]. Promotional efforts such as these, as well as greater network investment, are likely to have impacted Liberty Global's profitability over the period. Sky, on the other hand, completed its analogue to digital transition by 2001.

These considerations, specific to Liberty Global's cable operations, suggest that Liberty Global and Sky should not necessarily be expected to have had comparable profitability and valuation ratios.

[366] Informa Western European TV 12th Edition.

[367] Liberty Global 2006 Annual Report.

Country-specific factors

Income per head in some of the countries in which Liberty Global operates were generally lower than in the UK and the Republic of Ireland in the relevant period. Average GDP per capita between 2003 and 2007 was $PPP12,274 in Chile, $PPP 9,552 in Romania and $PPP 13,845 in Poland compared to $PPP32,225 in the UK[368]. Businesses operating in lower income countries are likely to face a different demand environment, including lower willingness to pay and fewer consumers able to pay for TV services. This is likely to lead to different profitability to those in more developed higher-income countries. Although the contribution of these countries to Liberty Global's overall operations is small, this may nevertheless have had some impact on its profitability over the relevant period.

Regulation

Due to operations in numerous countries, Liberty Global faces regulatory requirements which vary from country to country, including "must carry" restrictions and interconnection fees regulations among others. Switzerland adopted certain provisions of the regulatory framework established by the Swiss Price Regulator in November 2006. In order to comply with this regulatory framework, Liberty Global began offering a lower-priced tier of digital cable services and decreased the rental price charged for digital cable set top boxes during the second quarter of 2007 in that country[369]. However, these developments occurred relatively late in the relevant period and affected a small proportion of Liberty Global's customers, and therefore are unlikely to have significantly impacted the company's profitability over the relevant period. We did not identify further specific regulations which are likely to have materially impacted Liberty Global's performance.

Conclusion

We have identified a number of similarities between Liberty Global and Sky (over the relevant period), including:

- A similar proportion of subscription revenues as a share of total revenues; and
- Probable comparable wholesale operations.

However, Liberty Global's comparability to Sky is limited by the following features of Liberty Global over the relevant period:

- Greater relative exposure to broadband revenues;
- Higher tangible asset intensity;

[368] Source: International Monetary Fund, World Economic Outlook Database, April 2009.

[369] Liberty Global 2007 Annual Report.

- Greater geographical diversification and exposure to lower income countries;
- Different level of business maturity;
- Business events (disposals and acquisitions); and
- Liberty Global's operation in countries with TV sectors which appear to be at a significantly different level of development in comparison to the UK.

Overall, we do not consider Liberty Global to be a reliable comparator to Sky for profitability benchmarking based on accounting figures over the relevant period, particularly because of the geographical diversity of its operations, its greater asset intensity, business events over the relevant period and its operations in TV sectors which are likely to be at a different level of development compared to the UK.

6.9.3 Naspers Limited

Description

Naspers Limited ("Naspers") is a multinational media company, operating mainly in South Africa, sub-Saharan Africa, China, Russia, Eastern Europe, the Netherlands, India, Brazil and Thailand, whose principal activities are in channel production, broadcasting, pay TV retail, internet services, and print media (including publishing, distribution, printing of magazines, newspapers and books).

Business model

Main source(s) of revenue

Over the relevant period, Naspers's main revenue source was subscription revenues. Between 2003 and 2007, on average 53% of Naspers's revenues were from subscriptions, compared to 80% for Sky. Over the relevant period, Naspers's second largest revenue source was advertising revenues. Between 2003 and 2007, on average 15% of Naspers's revenues were from advertising, compared to 8% for Sky.

Other revenues for Naspers (which are mostly e-commerce, technology, printing and circulation) account for 32% of total revenues on average between 2003 and 2007.

Asset intensity

Over the relevant period Naspers's asset intensity was comparable to that of Sky. Naspers's average fixed assets to sales ratio between 2003 and 2007 was 0.26x compared to 0.11x for Sky. Its average capex to sales ratio between 2003 and 2007 was 4.4% compared to 4.2% for Sky[370].

Level of programme and content costs

Between 2003 and 2007, Naspers's programming costs amounted to 18% of revenues[371], on average, lower than 42% for Sky over the same period. We consider Naspers' wholesale operations (including, in particular, its M-Net subsidiary) to be comparable to Sky's wholesale operations.

Geographical diversification

In the relevant period, Naspers operated in South Africa, sub-Saharan Africa, China, Russia, Eastern Europe, the Netherlands, India, Brazil and Thailand. Its geographical diversification was therefore substantially greater than that of Sky, which was operating only in the UK and Ireland. Hence, it faces diverse risks such as currency fluctuations and country-specific and regulatory risk.

Business maturity and key events

Business maturity

Like Sky, Naspers is a well established business. Naspers's pay TV business in South Africa was launched in 1985[372]. In 1992, it expanded operations into other areas of Africa. Naspers's growth profile over the relevant period (nominal revenue CAGR of 9%) was similar to Sky's (also 9%).

In 1995, Naspers launched its digital satellite transmission in Africa, Asia and Europe. However, Naspers has continued its digitisation over the period analysed by Oxera in less developed areas such as Namibia[373]. Sky, by comparison, completed analogue to digital migration by 2001. The impact of ongoing digitisation potentially impacted the relative performance of Naspers over the period analysed by Oxera.

Business events (including business combinations and disposals)

Significant events over the period include:

[370] Naspers' total asset intensity calculated as a ratio of the sum of tangible assets and intangible assets (less goodwill) to sales was also somewhat higher but broadly comparable to that of Sky.

[371] We define Naspers' programming costs as "Programme and film rights directly expensed".

[372] Source: 2007 Naspers Annual Report.

[373] Source: 2005 Naspers Annual Report.

- In February 2005, Naspers acquired the internet business of Tiscali in South Africa[374].
- In 2006, it sold its investment in the Thailand pay TV retailer UBC and its investment in MKSC World Dot Com Co. Limited, an internet business in Thailand. Furthermore, Irdeto (a subsidiary of Naspers) acquired CryptoTec Conditional Access. MIH (a subsidiary of Naspers) acquired a 30% stake in the leading Brazilian media company Abril S.A.
- In 2007 Naspers raised US$875 million in capital and in October 2007, MWEB Africa (a subsidiary of Naspers) completed the acquisition of Afsat, the leading African satellite ISP, for US$38.4 million.

These transactions may have impacted Naspers' accounting profitability (and consequently returns and valuation metrics) over the relevant period.

Sector and country-specific factors

Sector events & maturity

TV penetration of households in South Africa was 59% in 2005[375] compared to 99% in the UK, indicating that (over the relevant period) the sector in which Naspers operated was at a different level of maturity or experienced different cyclical or one-off effects compared to pay TV in the UK. Accordingly Naspers should not necessarily be expected to have had comparable profitability and valuation ratios to Sky.

Country-specific factors

Incomes per head in the countries in which Naspers operates were substantially lower than the UK and Ireland in the relevant period. Average GDP per capita in South Africa and the whole African region between 2003 and 2007 was $PPP8,532 and $PPP3,004 respectively, compared to $PPP32,225 in the UK[376]. Businesses operating in lower incomes countries are likely to face lower levels of demand, including lower willingness to pay and fewer consumers able to pay for TV services. This is likely to lead to different profitability to those in more developed higher-income countries.

Regulation

TV in South Africa in the relevant period was subject to specific regulation affecting advertising revenues[377]:

[374] Source: http://www.naspers.com/index.cfm?content=2924

[375] Source: World Bank http://go.worldbank.org/9Y5AECAM60

[376] Source: IMF World Economic Outlook Database (2009 April).

[377] www.omdmedia.co.za/samedialandscape2005.pdf

- The Government monitors advertising expenditure in order to ensure an “equitable investment” across media sectors; and
- A government agency, The Media Diversity and Development Agency (MDDA) collects a levy on advertising expenditure and redistributes it across media sectors.

These regulations may impact substantially on Naspers’ South African advertising revenues. However advertising revenues were only 15% of total revenues, and not all advertising revenues were from its South African operations. Hence these regulations are unlikely to have had a significant impact on Naspers’ overall profitability.

Conclusion

We have identified a number of similarities between Naspers and Sky (over the relevant period), including:

- Similar tangible asset intensity; and
- Similar revenue CAGR between 2003 and 2007.

However, Naspers’s comparability to Sky is limited by the following features of Naspers over the relevant period:

- A significant proportion of Naspers’s revenues deriving from e-commerce, printing and other activities;
- Naspers had significantly lower programming costs as a percentage of total revenues compared to Sky;
- Naspers was operating in substantially lower incomes countries compared to Sky; and
- Varying regulatory restrictions in all the different countries of operation.

Although there are some elements of Naspers’ business that could be comparable to Sky’s business model, we do not consider Naspers to be a reliable comparator to Sky for profitability benchmarking based on accounting figures over the relevant period, particularly because of its geographic diversification including operations in a substantial number of lower income countries.

6.10 Concluding remarks

Our conclusions regarding the comparability of the TV companies benchmarked against Sky in Oxera's benchmarking analysis are set out in Table 9.

Table 9 – Conclusions regarding the comparability of TV companies used in Oxera's profitability benchmarking

Company (Country)	Conclusion	Main relevant differences to Sky
Five (UK)	Unreliable comparator	▪ Reliance on advertising revenues ▪ Relatively recent entry
ITV (UK)	Unreliable comparator	▪ Reliance on advertising revenues ▪ Post-merger transition costs ▪ Destabilising events
Virgin Media (UK)	Unreliable comparator	▪ High asset intensity ▪ Pre-merger results do not represent the post-merger business ▪ Larger proportion of non-pay TV revenues
Antena 3 (Spain)	Unreliable comparator	▪ Reliance on advertising revenues ▪ Significant radio business
Ono (Spain)	Unreliable comparator	▪ High asset intensity ▪ A large acquisition (Auna in 2005) is likely to have distorted results and had likely transition costs
Sogecable (Spain)	Unreliable comparator	▪ Costs incurred in the launch of a major new channel (Cuatro) ▪ Costs incurred in the acquisition of DTS ▪ Regulatory restrictions associated with the DTS acquisition
Telecinco (Spain)	Unreliable comparator	▪ Reliance on advertising revenues ▪ Appears to be at a different level of development compared to Sky, or to have experienced large exceptional or cyclical effects
Mediaset (Italy)	Unreliable comparator	▪ Reliance on advertising revenues
Telecom Italia Media (Italy)	Unreliable comparator	▪ Reliance on advertising revenues ▪ Relatively recent launch ▪ Greater geographical diversification
Canal+ Group (France)	Not necessarily an unreliable comparator but results should be interpreted with caution, and should not be compared without adjustment	▪ Regulatory restrictions following the acquisition of TPS ▪ Unusual position within the French TV landscape (analogue terrestrial pay TV channel) ▪ Accounting figures need to be adjusted for high goodwill

Company (Country)	Conclusion	Main relevant differences to Sky
M6 Metropole TV (France)	Unreliable comparator	▪ Reliance on advertising revenues ▪ Characteristics of substantial non-TV activities differ substantially from Sky's activities
TF1 (France)	Unreliable comparator	▪ Reliance on advertising revenues ▪ Business appears to be at a different stage of maturity
Kabel Deutschland (Germany)	Unreliable comparator	▪ High asset intensity ▪ Substantial proportion of business appears to relate to non-"genuine" pay TV
Premiere (Germany)	Unreliable comparator	▪ Exceptional changes in pricing and packaging and instability associated with the loss of Bundesliga rights in the relevant period
ProSiebenSAT1 Media AG (Germany)	Unreliable comparator	▪ Reliance on advertising revenues ▪ Sector appears to be in a later stage of maturity, or to have experienced substantial cyclical or exceptional effects.
RTL Group (Germany)	Unreliable comparator	▪ Reliance on advertising revenues ▪ Greater geographical diversification
Unity Media (Germany)	Unreliable comparator	▪ Higher asset intensity ▪ Different level of maturity of the business compared to Sky ▪ Ratios distorted by business events over the period (particularly the launch of ArenaSAT)
Canwest Global Communications (Canada)	Unreliable comparator	▪ Reliance on advertising revenues ▪ Sectors in which Canwest operates are at a different level of development compared to pay TV in the UK ▪ Business events (disposals, acquisitions, launches).
DIRECTV(Canada)[378]	Not necessarily an unreliable comparator but results should be interpreted with caution, and should not be compared without adjustment	▪ Business events (corporate restructuring, disposals and acquisitions) ▪ Different level of development of the pay TV sector in the USA ▪ Returns need to be adjusted for exceptional items
Dish Network (Canada)[379]	Not necessarily an unreliable comparator but results should be interpreted with caution	▪ Different level of maturity of the business compared to Sky ▪ Different level of development of the pay TV sector in the USA

[378] We note that Oxera refers to "Direct TV", operating in Canada. We were unable to identify this entity and assume that Oxera refers to DIRECTV, operating mainly in the USA.

[379] Although Oxera classifies this as a company in Canada, we understand that this company mainly operates in the USA.

Company (Country)	Conclusion	Main relevant differences to Sky
Discovery Holding Company (USA)	Unreliable comparator	▪ Different nature of revenues (non-subscription revenues) ▪ Higher tangible asset intensity ▪ Business events including separation from Liberty Media Corporation in 2005 and significant impairment charges in 2006 and 2007
Liberty Media/Starz Entertainment (USA)	Unreliable comparator	▪ Lack of clarity over which entity was analysed by Oxera. We analyse Liberty Capital Group ▪ Different revenue mix (significant component of revenues from film production, baseball franchise, technology companies) ▪ Events over the period (acquisitions)
Time Warner Cable (USA)	Unreliable comparator	▪ High asset intensity ▪ Absence of comparable wholesale operations ▪ Different level of development of the pay TV sector in the USA
Viacom (USA)	Unreliable comparator	▪ Reliance on advertising revenues, significant filmed entertainment business
Com Hem (Sweden)	Unreliable comparator	▪ Higher asset intensity ▪ Larger share of non-TV revenues (compared to Sky) ▪ Business events (acquisition of UPC Sweden)
MTG (Sweden)	Unreliable comparator	▪ Greater exposure to advertising revenues ▪ Greater geographical diversification exposure to Eastern Europe
Astro All Asia Networks plc (Malaysia)	Unreliable comparator	▪ Different level of development of pay TV sector in Malaysia ▪ Country specific factors (lower income per capita in countries of operation, higher cost of capital) ▪ Higher geographic diversification
Liberty Global (The Republic of Ireland)	Unreliable comparator	▪ Higher asset intensity ▪ Greater geographical diversification ▪ Business events (consolidation of J:COM, acquisition of Telenet, disposals) ▪ Operations in countries where pay TV sector is at a different level of development compared to the UK
Naspers Limited (South Africa)	Unreliable comparator	▪ Greater geographical diversification ▪ Operations in countries where pay TV sector is at a different level of development compared to the UK

Amongst the TV companies used as comparators by Oxera, there are some which appear to be relatively more reliable as comparators for profitability benchmarking against Sky based on accounting figures over the period considered by Oxera. We note, however, that even those that, on first appearance, seem relatively more comparable to Sky, have significant differences if analysed within the relevant 5 year period. Furthermore, exceptional events, accounting methods and other differences mean that unadjusted accounting ratios may be clear misrepresentations of the underlying long-run profitability of a business.

From our analysis we consider the TV companies can be divided into three groups for the purpose of assessing their comparability against Sky for profitability benchmarking based on accounting figures over the relevant period:

- Companies whose main revenue source is advertising – For these companies, the nature of their revenue differs from subscription revenue, in terms of long-term trends, risk and cyclicality. Furthermore, these are typically channel providers with limited or no retail activity. Hence we consider these to be unreliable comparators to Sky for profitability benchmarking using accounting ratios.

- Companies which operate cable networks – The pay TV retail activities of these companies are typically included within larger basic pay TV businesses (and sometimes broadband or telephony businesses accounting for a large proportion of revenue). Furthermore they have a high level of tangible asset intensity, reflected in high accounting asset intensity (measured using property, plant and equipment). Hence we consider these to be unreliable comparators to Sky for profitability benchmarking based on accounting figures.

- Companies whose basic business models are broadly comparable to Sky's – In principle, these companies could potentially be reliable comparators to Sky for profitability analysis, but our analysis identified substantial differences that mean that, in practice, profitability benchmarking based on accounting figures over the period considered by Oxera would not necessarily produce reliable results:

  - Companies with substantial exposure to developing countries – Business models, revenue sources, risks and opportunities are substantially different in developing countries. This makes profitability comparison of businesses in developed and developing countries unreliable;

  - Companies experiencing large sectoral or business shocks that cause profitability between 2003 and 2007 to be an unreliable proxy for long-run profitability. It may or may not be possible to make adjustments to accounting figures to remove the effect of these events; and

  - Companies that have substantial differences to Sky, but which exhibit some similarities in business model, and relatively few business or sectoral shocks. These are the most-aligned comparators to the relevant features of Sky; however in all cases we identified substantial differences which mean that caution should be taken in drawing conclusions from the results of any analysis.

As a result, the number of TV companies analysed by Oxera that we consider to be potentially reliable comparators is small – there are three in total (Canal+ group, DIRECTV[380] and Dish Network), and two of these (Canal+ Group and DIRECTV) should only be considered if certain adjustments were made to

[380] We note that Oxera refers to "Direct TV", operating in Canada. We were unable to identify this entity and assume that Oxera refers to DIRECTV, operating mainly in the USA.

reported results. Such a small sample would be sensitive to specific characteristics or events that differ from Sky, and hence we conclude that profitability benchmarking of Sky based on accounting figures has extremely limited value, unless additional (more reliable) comparators exist, outside of the sample selected by Oxera.

7 Comparison of Oxera's comparators to Sky's notional retail and wholesale businesses

7.1 Introduction

Whilst Oxera's aggregate profitability analysis is intended to benchmark Sky's overall level of returns, its disaggregate profitability analysis is intended to investigate the sources of profitability for Sky, by dividing Sky's business up into two notional units – a "wholesale business" and a "retail business". Section 4 sets out our understanding of Oxera's definition of these two notional businesses. We note that Oxera appears to place less emphasis on its disaggregate profitability analysis than its aggregate analysis. We agree that less emphasis should be placed on the disaggregate analysis, because any separation of Sky's activities into separate notional businesses adds significantly to the complexity and uncertainty in an exercise which, as set out in our methodology section (Section 3), is already inherently difficult.

Oxera states that the *"results of disaggregate profitability analysis were used to inform relative returns between activities, as opposed to absolute levels of returns."*[381] It is debatable, given this statement, to what extent the profitability benchmarking of the notional businesses is relevant to answer questions of relative profitability within Sky's aggregate business. By comparing the notional businesses against real-world businesses, Oxera is (intentionally or unintentionally) undertaking a comparison of absolute returns.

It is our view that profitability benchmarking of notional businesses is only likely to produce meaningful returns if the following conditions apply:

- The costs, revenue and assets of the notional businesses are conceptually and practicably separable, and this separation is carried out accurately; and
- A sufficient number of valid comparators exist for each of the hypothesised businesses to provide meaningful results.

The separability of the notional businesses is beyond the scope of this report. This section addresses the second criterion: the existence of a sufficient number of valid comparators for each of the hypothesised businesses.

7.2 The number of comparators used in Oxera's disaggregate profitability analysis

The identity, and numbers, of the comparators Oxera uses to benchmark the notional retail and wholesale businesses are set out in Table 10.

[381] Oxera (2009), "BSkyB's profitability in the context of the Ofcom market investigation", Page iii.

Table 10 – Oxera's comparators for its disaggregate profitability analysis[382]

Scenario /group	Metrics used in Oxera's selection analysis	TV companies	Non-TV companies	Number of comparators selected
Retail				
"Group 6"	Total revenue volatility; ratio of OPEX to total assets; ratio of depreciation to OPEX	Kabel Deutschland, Dish Network, Direct TV, Com Hem	-	4
"Group 7"	Subscriptions revenue as a proportion of total revenue; total revenue volatility; ratio of OPEX to total assets; ratio of programming cost to OPEX; ratio of depreciation to OPEX	-	Virgin Mobile, TalkTalk, Smart Telecom, Tesco Mobile, Vonage	5
"Group 8"	Total revenue volatility; ratio of OPEX to total assets; ratio of depreciation to OPEX	-	Belgacom, Telia Sonera, Vonage, KPN, Deutsche Telekom, Telecom Italia, Telefónica, France Telecom, Vodafone	9
Wholesale				
"Group 9"	Ratio of programming costs to OPEX; ratio of depreciation to OPEX; ratio of marketing costs to OPEX; exclusivity of content	Canal Plus, Premiere	-	2
"Group 10"	Subscription revenue as a proportion of total revenue; total revenue volatility; ratio of programming cost to OPEX; ratio of depreciation to OPEX	-	EMI, Sony BMG	2

Source: Oxera (2009), "BSkyB's profitability in the context of the Ofcom market investigation", page 47, Table 6.2

In our view, all of these samples are too small to produce robust results, particularly given that groups include companies from a range of countries (and hence are subject to country-specific effects) and, in the case of non-TV comparators, are concentrated in specific sectors (and hence are highly vulnerable to sector-specific events and differences). Only Group 8, the non-TV comparators to the notional Sky retail business is, with a sample of nine comparators, large enough that, *were comparators appropriately selected*, results could be interpreted to have some meaning, but even then we consider nine comparators to be a small sample, so the results will have a wide margin of error and should be interpreted with a great deal of caution.

The remainder of this section considers the validity (for profitability benchmarking based on accounting figures over the relevant period) of each of Oxera's comparators to Sky's notional retail and wholesale businesses.

382 We note that Table 6.2 of Oxera's report states that "Group 5", consisting of all of Oxera's TV comparators, is used to benchmark against the notional Sky retail business. We identified no point in the Oxera report at which the results of a comparison between all TV companies and the notional Sky retail business are reported and hence do not include "Group 5" in our analysis in this section.

7.3 Comparison of Oxera's comparators to Sky's notional retail business

7.3.1 Features of Sky's notional retail business

As set out in Section 4.4, our assessment of the main features of Sky's notional retail business that should be exhibited by a reliable comparator is as follows: the main activity is combining channels into packages and retailing to customers, although a reliable comparator should also be a platform operator; almost all revenues are subscription revenues, although there are also fees from the provision of platform services; the main costs are licence fees, with smaller platform operation costs; and the business has a relatively low level of tangible assets. Furthermore, it should not have experienced shocks or differing trends, as set out in Section 3

7.3.2 Oxera's non-TV comparators to Sky's notional retail business

Alternative operators (Oxera's "Group 7")

Oxera considers five alternative operators as comparators to Sky's notional retail business: Virgin Mobile, TalkTalk, Smart Telecom, Tesco Mobile and Vonage.

We have identified a number of similarities between these companies and the notional Sky retail business (over the relevant period), including:

- Substantial proportion of subscription revenues;
- Substantial subscriber acquisition and retention costs; and
- A relatively tangible asset-light business model.

However, we consider that all of the alternative operators considered have substantial differences from Sky which make them unreliable comparators to Sky for profitability benchmarking based on accounting figures over the period of Oxera's analysis. For example, we have not identified licensing costs equivalent to licence costs for content within their business models. Other significant differences we have identified are:

- **TalkTalk Group** – TalkTalk Group appears to have been at a different level of maturity or experienced exceptional events (e.g. growth through acquisitions) compared to the notional Sky retail business, as evidenced by its substantially higher revenue growth rates over the relevant period and its relatively recent launch. TalkTalk Group's business was also impacted by a number of significant acquisitions and introduced a number of new services, which are likely to have impacted its profitability and returns over the relevant period.

- **Virgin Mobile** – Virgin Mobile had a greater focus on pre-paid rather than subscription revenues (compared to the notional Sky retail business). The likely difference between the business before and after the Virgin Media merger means that profitability is not likely to reflect its current and future profitability.

- **Tesco Mobile** – Tesco Mobile had a greater focus on pre-paid rather than subscription revenues (compared to the notional Sky retail business). Its recent start-up (in 2004) means that profitability over the relevant period is unlikely to reflect long-run profitability.

- **Vonage** – Vonage's revenue growth rate over the period was higher than we understand it to have been for the notional Sky retail business indicating that the two companies were at different levels of maturity. Vonage was consistently loss-making over the period and experienced a large fall in its market value, which suggests that the business was not in equilibrium.

- **Smart Telecom** – Smart Telecom launched fixed telephony services via unbundled local loops during the relevant period, changing the overall business structure. It experienced financial difficulties both during and subsequent to the period of analysis, suggesting that it was not exhibiting long-run rates of profitability.

Due to these differences in business models (different capital intensity forTele2, likely different revenue mix for Virgin Mobile and Tesco) and sector and business events (including business model changes and mergers and acquisitions for TalkTalk Group, Virgin Mobile, Tesco Mobile, Vonage and Smart Telecom) we consider that Smart Telecom, TalkTalk, Tesco Mobile, Virgin Mobile and Vonage are unreliable comparators to the notional Sky retail business for profitability benchmarking based on accounting figures over the period of Oxera's analysis.

Vertically integrated telecoms operators (Oxera's "Group 8")

Oxera considers nine vertically integrated telecoms operators as comparators to Sky's notional retail business: Belgacom, Telia Sonera, KPN, Deutsche Telekom, Telecom Italia, Telefónica, France Telecom, Vodafone and Vonage.

There are certain similarities between the companies in Oxera's "Vertically integrated telecoms operators" group and Sky:

- Like Sky, their subscription revenues comprise a major part of their overall revenues; and

- Although there is significant variation, all incur substantial subscriber acquisition costs.

However, we consider companies in this sector to be unreliable comparators (based on accounting figures, over the relevant period) to Sky's notional retail business for the following reasons:

- The tangible asset intensity of these businesses is substantially higher than that of the notional Sky retail business, because most of the physical network infrastructure is owned and operated by these telecoms companies;

- A number of the companies considered in this sector (including Telia Sonera, Telefónica and Vodafone have undertaken substantial geographic diversification, in particular in developing countries, in comparison to Sky's notional retail business, which operates in the UK and Ireland only;
- The sector as a whole has been growing less rapidly than pay TV in the UK. There is some evidence that the telecoms sector in developed countries has reached maturity, in contrast to Sky, which is still in a growth phase;
- Companies made large investments in 3G networks (some of which have been written-off) and a number undertook substantial M&A activity; and
- Substantial regulation of telecoms companies is likely to impact profitability.

Due to the higher (tangible) asset intensity, substantial business and sector events (geographic diversification, 3G licence auctions and M&A activity), and substantial regulatory restrictions, we consider Belgacom, Telia Sonera, Vonage, KPN, Deutsche Telekom, Telecom Italia, Telefónica, France Telecom and Vodafone to be unreliable comparators (based on accounting figures, over the relevant period) to Sky's notional retail business.

7.3.3 Oxera's TV comparators to Sky's notional retail business (Oxera's "Group 6")

Oxera includes four companies (Com Hem, Direct TV, Dish Network and Kabel Deutschland) as TV comparators to the notional Sky retail business.

Com Hem

We have identified some similarities between Com Hem and the notional Sky retail business (over the relevant period), including:

- Comparable revenue mix in terms of the contribution of subscription revenues; and
- Similar level of geographical diversification.

However, Com Hem's comparability to the notional Sky retail business is limited by the following features of Com Hem over the relevant period:

- Greater contribution of broadband and fixed telephony activities to Com Hem's revenues;
- Higher asset intensity;
- Com Hem appears to be at a different stage of development in comparison to the notional Sky retail business (as evidenced by its differential growth performance between 2006 and 2007);

- Business events over the relevant period (the acquisition of UPC Sweden); and
- Com Hem operates in a TV sector which is substantially different from the UK

Overall, we do not consider Com Hem to be a reliable comparator to the notional Sky retail business for profitability benchmarking based on accounting figures over the relevant period, particularly because of its higher asset intensity, the acquisition of UPC Sweden and the different level of development of the pay TV sector in Sweden compared to the UK.

Direct TV

We are uncertain as to the business analysed Oxera as Direct TV. We have examined DIRECTV in this context. We have identified a number of similarities between DIRECTV and the notional Sky retail business (over the relevant period), including:

- Comparable revenue composition; and
- Broadly comparable geographical diversification.

However, DIRECTV's comparability to the notional Sky retail business is limited by the following features of DIRECTV over the relevant period:

- Higher asset intensity;
- DIRECTV appears to be at a different level of development compared to Sky;
- DIRECTV has some activities that would be included in the notional Sky wholesale business (rather than the notional retail business);
- The pay TV sector in the USA appears to be at a different level of development compared to the UK; and
- Business events prior and during the relevant period including a corporate restructuring, asset sales and acquisitions.

We are uncertain as to the business analysed Oxera as Direct TV. We have examined DIRECTV in this context. Overall DIRECTV appears to be a potentially reliable comparator to the notional Sky retail business for profitability benchmarking based on accounting figures over the relevant period, but its comparability is limited by its higher asset intensity, business events during the relevant period, the different level of development of its business in comparison to Sky and the different level of development of the USA pay TV sector as a whole when compared to the UK. Although DIRECTV is a potentially reliable comparator to the notional Sky retail business for profitability benchmarking based on accounting figures over the relevant period, we note that the results are unreliable if they are not adjusted for substantial events for which the business took impairment charges.

Dish Network

We have identified a number of similarities between Dish Network and the notional Sky retail business (over the relevant period), including:

- A similar proportion of subscription revenues as a share of total revenues; and
- Similar geographic diversification.

However, Dish Network's comparability to the notional Sky retail business is limited by the following features of Dish Network over the relevant period:

- Higher asset intensity (capex to sales);
- Dish Network has some activities that would be included in the notional Sky wholesale business (rather than the notional retail business);
- Dish Network appears to be at a different stage of development compared to the notional Sky retail business (as evidenced by its substantially higher revenue growth rates over the relevant period); and
- Different level of development of the USA pay TV sector compared to the UK pay TV sector.

Overall Dish Network appears to be a potentially reliable comparator to the notional Sky retail business for profitability benchmarking based on accounting figures over the relevant period, but its comparability is limited by its higher asset intensity, the different level of development of its business in comparison to the notional Sky retail business and the different level of development of the USA pay TV sector as a whole when compared to the UK.

Kabel Deutschland

We have identified some similarities between KDG and the notional Sky retail business particularly in terms of:

- The comparable revenue mix in terms of the contribution of subscription revenues to total revenues; and
- Comparable geographical diversification.

However, KDG's comparability to the notional Sky retail business is limited by the following features of KDG over the relevant period:

- Significantly higher asset intensity of KDG's business model;

- Factors specific to the German TV sector, including relatively slow subscription growth and high penetration of non-"genuine" pay TV services; and
- Regulatory restrictions and obligations imposed on KDG.

Overall, we do not consider KDG to be a reliable comparator to the notional Sky retail business for profitability benchmarking based on accounting figures over the relevant period, particularly because of its the higher asset intensity and the different level of development of the pay TV sector in Germany compared to the UK.

7.3.4 Conclusions

Of the four companies (Com Hem, DIRECTV, Dish Network and Kabel Deutschland) that Oxera includes as TV comparators to the notional Sky retail business, we consider that two (Com Hem and Kabel Deutschland) are unreliable comparators for profitability analysis based on accounting figures over the relevant period, particularly because of their high asset intensities and differing characteristics of their pay TV sectors (for example a large number of non-"genuine" pay TV subscribers). We consider that DIRECTV and Dish Network appear to be potentially reliable comparators (for profitability analysis based on accounting figures over the relevant period) to the notional Sky retail business, although both have some activities that could be described as "wholesale", have higher asset intensities than Sky, and operate in the USA pay TV sector, which appears to be more mature than its UK counterpart.

7.4 Comparison of Oxera's non-TV comparators to Sky's notional wholesale business

7.4.1 Features of Sky's notional wholesale business

As set out in Section 4.4, our assessment of the main features of Sky's notional wholesale business that should be exhibited by a reliable comparator to it for profitability analysis based on accounting figures over the relevant period is as follows: the main activities are the creation and acquisition of programmes, aggregation into channels and licensing channels to third parties; the main revenues are advertising revenues and the main costs are content costs, with significant marketing costs; and the business has a relatively low level of tangible assets.

7.4.2 Oxera's non-TV comparators to Sky's notional wholesale business (Oxera's "Group 10")

Record companies

Oxera includes two record companies (EMI, Sony BMG) as the only two non-TV comparators to the notional Sky wholesale business. The main similarity we identified between these companies and the notional Sky wholesale business is that they are both wholesale-only businesses, with no retail activities. There is also the appearance of similarity in business models, in that both record companies and the notional Sky wholesale business acquire (or produce) content and make it available to downstream retailers. However we consider this appearance of similarity between the business models to be illusory, as set out below.

We consider record companies to be unreliable comparators to the notional Sky wholesale business for profitability benchmarking based on accounting figures because:

- Content rights in recorded music are substantially longer than in wholesale TV, meaning that recorded music companies make investments up front to incur a revenue stream that may last for decades.
- The recorded music industry has experienced substantial structural issues, including challenges in monetising the online provision of sound recordings; and, in particular
- The high rate of piracy affecting recorded music companies is an exceptional event that has reduced its profitability.

Due to the differing nature, time horizon and risk of content rights, the sectoral events that have occurred and the high rates of piracy in the industry, we consider EMI and Sony BMG to be unreliable comparators to Sky's notional retail business for profitability benchmarking based on accounting figures.

7.4.3 Oxera's TV comparators to Sky's notional wholesale business

Canal+ Group

We have identified a number of similarities between Canal+ and the notional Sky wholesale business (over the relevant period), including:

- Similar revenue streams;
- Probably comparable investment in content; and
- Similar asset intensity.

However, Canal+'s comparability to the notional Sky wholesale business is limited by the following features of Canal+ over the relevant period:

- A substantial proportion of subscription revenues from its pay TV retail activities;
- Regulatory restrictions and potential accounting distortions associated with the combination with TPS; and
- Canal+'s historic and ongoing provision of an analogue pay TV channel.

Overall, we consider Canal+ Group to be an unreliable comparator to Sky for profitability benchmarking based on accounting figures, particularly because of its substantial pay TV retail operations and hence substantial subscription revenues.

Premiere

We have identified a number of similarities between Premiere and the notional Sky wholesale business (over the relevant period), including:

- Comparable programming costs and content acquisition; and
- Similar asset intensity.

However, Premiere's comparability to the notional Sky wholesale business is limited by the following features of Premiere over the relevant period:

- Premiere has substantial pay TV retail operations and a high proportion of revenues from subscription revenues (rather than advertising and licensing revenues);
- Premiere's business appears to be at a different stage of development compared to the notional Sky wholesale business;
- Premiere's loss of cable and satellite Bundesliga broadcasting rights to Unitymedia in 2006;
- Regulatory intervention in relation to the Bundesliga sublicensing agreement between Premiere, Unitymedia and ArenaSAT in 2007; and
- Factors specific to the German TV sector including relatively slow subscription growth and high penetration of non-"genuine" pay TV services.

Overall, we consider Premiere to be an unreliable comparator to Sky for profitability benchmarking based on accounting figures, particularly because of its substantial pay TV retail operations and the instability associated with the loss of Bundesliga broadcasting rights during the relevant period.

7.4.4 Conclusions

We consider that both Canal+ Group and Premiere are unreliable comparators to the notional Sky wholesale business (for profitability benchmarking based on accounting figures), because of differences in the sectors in which they operate (e.g. regulatory constraints imposed as results of agreements and acquisitions) and, in particular, because both companies have substantial pay TV retail operations, and hence a large proportion of revenues from subscriptions (rather than advertising and licence fees).

8 Concluding remarks

8.1 Our approach to forming conclusions

We have undertaken a factual analysis of the comparability of the non-TV and TV companies used by Oxera as comparators for profitability benchmarking for the period between 2003 and 2007. Our detailed analysis and conclusions regarding individual companies and sectors are set out throughout this report where we have assessed their comparability.

We acknowledge there is an element of judgement in assessing whether a company is a reliable or unreliable comparator for profitability benchmarking based on accounting figures. We have taken an objective approach, considering all the different elements of comparability together. The differences that have emerged most strongly from our analysis as ruling out most companies as reliable comparators for profitability benchmarking based on accounting figures are business model differences (which affect risk and the comparability of accounting ratios) and particular events and business or sector maturity (either of which mean that recorded profitability is not necessarily reflective of long-term profitability).

Furthermore, in our view it is inherently difficult to draw conclusions about the profitability of a particular company, or the competitive pressures it faces, based on the measured profitability of a group of comparator companies in a limited time period such as the 5 years analysed by Oxera. In addition to the differences set out in the previous paragraph, in such a short time period it would be normal for different companies to have quite different levels of profitability due to variations in managerial performance and success. In addition, in a sector such as pay TV, which is relatively highly concentrated and has been characterised by a great deal of investment, innovation and change, the challenges in finding reliable comparators and drawing meaningful conclusions are magnified greatly. This appears to be common ground between ourselves, Oxera and Ofcom. We note that, according to Oxera, *"Ofcom has previously noted that identifying appropriate benchmarks for the UK pay-TV market and for Sky is particularly challenging"*.[383]

Our analysis of the reliability of individual comparators should be considered in the context of the acknowledged difficulty of the task as a whole.

8.2 Conclusions on Oxera's non-TV comparators to Sky

We do not consider any of the non-TV comparators to be reliable comparators to Sky for the purpose of profitability analysis based on accounting figures. Our conclusions (and the main differences that led to those conclusions) on the comparability of each of Oxera's non-TV comparators are set out below, grouped according to the sectors into which they have been assigned by Oxera.

[383] Oxera (2009), "BSkyB's profitability in the context of the Ofcom market investigation", Page 42.

Oxera's "commercial radio" comparators

Due to differences in business models (the reliance on advertising revenue, the lack of subscriber acquisition costs and revenues, the lack of investment in content, the different risks associated with in the type of content broadcast), sector events (advertising revenue decline, listening decline, and costs of digital transition), the difference in sector life cycle stage (with the existing business model of commercial radio appearing to be under pressure), and the restrictive regulation to which the sector is subject, we consider that the commercial radio sector provides an unreliable comparator to Sky for profitability benchmarking based on accounting figures over the relevant period.

Furthermore, the non-radio operations of Chrysalis reduced the company's profitability, making it unrepresentative of commercial radio activities.

Therefore we conclude that NRJ, GCap and Chrysalis are unreliable comparators to Sky for profitability benchmarking based on accounting figures over the relevant period.

Oxera's "record companies" comparators

Due to differences in business models (in particular the lack of retail activities and different copyright lengths), sector events (piracy and difficulty of monetising online provision of content) and the difference in sector life cycle stage (with the existing business model of the recording music sector appearing to be under pressure), we consider that the recorded music sector provides an unreliable comparator to Sky for profitability benchmarking based on accounting figures over the relevant period.

Therefore we conclude that EMI, Sony BMG and Warner Music are unreliable comparators to Sky for profitability benchmarking based on accounting figures over the relevant period.

Oxera's "cinema" comparators

Due to differences in business models (different revenue sources and capital intensity), sector events (consolidation, costs of digitisation and the shrinking theatrical window) and differences in the cost of capital, we consider that cinema companies are unreliable comparators to Sky for profitability benchmarking based on accounting figures over the relevant period.

Therefore we conclude that Vue Entertainment, Odeon Cinemas, Kinepolis, Cinemaxx and Cineworld Group plc are unreliable comparators to Sky for profitability benchmarking based on accounting figures over the relevant period.

Oxera’s “DVD rentals” comparators

We conclude that Blockbuster (a film rental business with significant retail networks) is an unreliable comparator to Sky for profitability benchmarking based on accounting figures over the relevant period, particularly because of its significantly different business model (asset intensity and main source of revenue) to Sky.

We have identified some similarities between Sky’s retail model and LOVEFiLM, although the nature of costs (buying rights compared to buying actual DVDs), the absence of comparable wholesale activities and differences in the level of risk suggests that LOVEfiLM is an unreliable comparator to Sky for profitability benchmarking based on accounting figures over the relevant period.

Oxera’s “book publisher” comparators

Due to differences in business models (diverse portfolios, a substantial proportion of revenues from one-off purchases and substantial revenues from subscriptions held by organisations rather than individuals), sector events (mergers and acquisitions and a shift to digitised content and distribution), the difference in sector life cycle stage, and the apparent difference in the cost of capital, we consider that the book publishing sector provides an unreliable comparator to Sky for profitability benchmarking based on accounting figures over the relevant period.

Therefore we conclude that Reed Elsevier plc and Pearson plc are unreliable comparators to Sky for the purpose of profitability benchmarking based on accounting figures over the relevant period.

Oxera’s “newspaper publishing” comparators

Due to differences in business models (exposure to advertising revenues and differences in content acquisition and use) and sector maturity (a mature sector whose business model is under pressure), we consider that newspaper publishing companies are unreliable comparators to Sky for profitability benchmarking based on accounting figures over the relevant period.

Therefore we conclude that Daily Mail and General Trust plc, Axel Springer Aktiengesellschaft, Mecom Group plc, Trinity Mirror plc, United Business Media and Johnston Publishing Ltd are unreliable comparators to Sky for the purpose of profitability benchmarking based on accounting figures over the relevant period.

Oxera’s “vertically integrated telecoms operators” comparators

Due to differences in business models (lack of wholesale operations, high capital intensity and different risk characteristics), sector shock (3G licence acquisitions and M&A transactions) and a lower apparent cost of capital, we consider that vertically integrated telecoms operators are unreliable comparators to Sky for profitability benchmarking based on accounting figures over the relevant period.

Therefore we conclude that Vodafone, Telenor, TDC, TeliaSonera, France Telecom, Deutsche Telekom, KPN, Telecom Italia, Telefónica and Belgacom are unreliable comparators to Sky for profitability benchmarking based on accounting figures over the relevant period.

Oxera's "alternative operators (MVNOs, fixed altnets)" comparators

Due to differences in business models (different capital intensity forTele2, likely different revenue mix for Carphone Warehouse Group, Virgin Mobile and Tesco) and sector and business events (including business model changes and mergers and acquisitions for Carphone Warehouse Group, TalkTalk Group, Virgin Mobile, Tesco Mobile, Tele2, Vonage, Smart Telecom and Tiscali) we consider that Carphone Warehouse, Smart Telecom, TalkTalk, Tele2, Tesco Mobile, Tiscali, Virgin Mobile and Vonage are unreliable comparators to Sky for profitability benchmarking based on accounting figures over the relevant period.

8.3 Conclusions on Oxera's TV comparators to Sky

Amongst the TV companies used as comparators by Oxera, there are some which appear to be relatively more reliable as comparators for profitability benchmarking against Sky based on accounting figures over the period considered by Oxera. We note, however, that even those that, on first appearance, seem relatively more comparable to Sky, have significant differences if analysed within the relevant 5 year period. Furthermore, exceptional events, accounting methods and other differences mean that unadjusted accounting ratios may be clear misrepresentations of a the underlying long-run profitability of a business.

From our analysis we consider the TV companies can be divided into three groups for the purpose of assessing their comparability against Sky for profitability benchmarking based on accounting figures over the relevant period:

- Companies whose main revenue source is advertising – For these companies, the nature of their revenue differs from subscription revenue, in terms of long-term trends, risk and cyclicality. Furthermore, these are typically channel providers with limited or no retail activity. Hence we consider these to be unreliable comparators to Sky for profitability benchmarking using accounting ratios.

- Companies which operate cable networks – The pay TV retail activities of these companies are typically included within larger basic pay TV businesses (and sometimes broadband or telephony businesses accounting for a large proportion of revenue). Furthermore they have a high level of tangible asset intensity, reflected in high accounting asset intensity (measured using property, plant and equipment). Hence we consider these to be unreliable comparators to Sky for profitability benchmarking based on accounting figures.

- Companies whose basic business models are broadly comparable to Sky's – In principle, these companies could potentially be reliable comparators to Sky for profitability analysis, but our analysis identified substantial differences that mean that, in practice, profitability benchmarking based on accounting figures over the period considered by Oxera would not necessarily produce reliable results:

– Companies with substantial exposure to developing countries – Business models, revenue sources, risks and opportunities are substantially different in developing countries. This makes profitability comparison of businesses in developed and developing countries unreliable;

– Companies experiencing large sectoral or business shocks that cause profitability between 2003 and 2007 to be an unreliable proxy for long-run profitability. It may or may not be possible to make adjustments to accounting figures to remove the effect of these events; and

– Companies that have substantial differences to Sky, but which exhibit some similarities in business model, and relatively few business or sectoral shocks. These are the most-aligned comparators to the relevant features of Sky; however in all cases we identified substantial differences which mean that caution should be taken in drawing conclusions from the results of any analysis.

As a result, the number of TV companies analysed by Oxera that we consider to be potentially reliable comparators is small – there are three in total (Canal+ group, DIRECTV[384] and Dish Network), and two of these (Canal+ Group and DIRECTV) should only be considered if certain adjustments were made to reported results. Such a small sample would be sensitive to specific characteristics or events that differ from Sky, and hence we conclude that profitability benchmarking of Sky based on accounting figures has extremely limited value, unless additional (more reliable) comparators exist, outside of the sample selected by Oxera.

Our conclusions (and the main differences that led to those conclusions) on the comparability (for profitability benchmarking based on accounting figures over the relevant period) of each of Oxera's TV comparators are set out below, grouped according to the countries into which they have been assigned by Oxera.

8.3.1 UK

Five

Overall, we do not consider Five to be a reliable comparator to Sky for profitability benchmarking based on accounting figures over the relevant period, particularly because of its reliance on advertising revenues and its relatively recent entry.

ITV

Overall, we do not consider ITV to be a reliable comparator to Sky for profitability benchmarking based on accounting figures over the relevant period, particularly because of its reliance on advertising revenues, destabilising events and post merger transition costs.

[384] We note that Oxera refers to "Direct TV", operating in Canada. We were unable to identify this entity and assume that Oxera refers to DIRECTV, operating mainly in the USA.

Virgin Media

Overall, we do not consider Virgin Media to be a reliable comparator to Sky for profitability benchmarking based on accounting figures over the relevant period, particularly because of its high capital intensity, the effects of the 2006 and 2007 mergers and the larger proportion of non-pay TV revenues.

8.3.2 Spain

Antena 3

Overall, we do not consider Antena 3 to be a reliable comparator to Sky for profitability benchmarking based on accounting figures over the relevant period, particularly because of its significantly greater exposure to advertising revenue and its significant radio business.

Ono

Overall, we do not consider Ono to be a reliable comparator to Sky for profitability benchmarking based on accounting figures over the relevant period, particularly because of its greater asset intensity and the impact of a large acquisition (Auna). The reliability is further weakened by the different level of development of the pay TV sector in Spain compared to the UK.

Sogecable

Overall, we do not consider Sogecable to be a reliable comparator to Sky for profitability benchmarking based on accounting figures over the relevant period, particularly because of the regulatory restrictions imposed on it, particularly in relation to the acquisition of DTS and the different level of development of the pay TV sector in Spain compared to the UK.

Telecinco

Overall, we do not consider Telecinco to be a reliable comparator to Sky for profitability benchmarking based on accounting figures over the relevant period, particularly because of its reliance on advertising revenues and because its rapid revenue growth indicates either large cyclical or exceptional effects or that it was at a different stage of development to Sky.

8.3.3 Italy

Mediaset

Overall, we do not consider Mediaset to be a reliable comparator to Sky for profitability benchmarking based on accounting figures over the relevant period, particularly because of its greater reliance on advertising revenues over the relevant period.

Telecom Italia Media

Overall, we do not consider TIM to be a reliable comparator to Sky for profitability benchmarking based on accounting figures over the relevant period, particularly because of its exposure to advertising revenues, and TIM's relatively recent formation and significant changes to the group's activities over the relevant period.

8.3.4 France

Canal+ Group

Overall, we consider that Canal+ Group is a potentially reliable comparator to Sky for profitability benchmarking based on accounting figures over the relevant period, but results should be interpreted with caution because of the post-acquisition regulatory restrictions and potential transition costs imposed on it, and the unusual source of revenue from the position of Canal+ within the French TV landscape (for viewers and regulators) as a result of its analogue terrestrial pay TV channel. Although Canal+ Group is a potentially reliable comparator to Sky for profitability benchmarking based on accounting figures over the relevant period, we note that the results are unreliable if they are not adjusted for Canal+ Group's high value for goodwill.

M6 Metropole TV

Overall, we do not consider M6 to be a reliable comparator to Sky for profitability benchmarking based on accounting figures over the relevant period, particularly because of its reliance on advertising revenues, its substantial non-TV activities having different characteristics from Sky's activities and because it appears to be a relatively mature business in a mature sector.

TF1

Overall, we do not consider TF1 to be a reliable comparator to Sky for profitability benchmarking based on accounting figures over the relevant period, particularly because of its reliance on advertising revenues and apparent later stage of business maturity.

8.3.5 Germany

Kabel Deutschland

Overall, we do not consider KDG to be a reliable comparator to Sky for profitability benchmarking based on accounting figures over the relevant period, particularly because of its higher asset intensity and that a substantial proportion of its business relates to non-"genuine" pay TV.

Premiere (Sky Deutschland AG)

Overall, while its business model is not incomparable, we do not consider Premiere to be a reliable comparator to Sky for profitability benchmarking based on accounting figures over the relevant period, particularly because of the exceptional changes in pricing and packaging and instability associated with the loss of Bundesliga broadcasting rights during the relevant period. Furthermore, average Premiere ROCE and ROS across the period analysed by Oxera were negative. Negative returns cannot represent a sustainable rate of return in the long run.

ProSiebenSAT1 Media AG

Overall we do not consider ProSiebenSAT1 to be a reliable comparator to Sky for profitability benchmarking based on accounting figures over the relevant period, particularly because of its exposure to advertising revenue which has declined for the sector as a whole, indicating cyclical or exceptional events or a later stage of sector maturity than pay TV in the UK.

RTL Group

Overall, we do not consider RTL to be a reliable comparator to Sky for profitability benchmarking based on accounting figures over the relevant period, particularly because of its exposure to advertising revenues and its substantial geographical diversification.

Unitymedia

Overall, we do not consider Unitymedia to be a reliable comparator to Sky for profitability benchmarking based on accounting figures over the relevant period, particularly because: it appears to be at a different stage of maturity compared to Sky, it has a higher asset intensity and it has experienced an exceptional business event (the launch of ArenaSAT).

8.3.6 USA and Canada

Canwest Global Communications

Overall, we do not consider Canwest to be a reliable comparator to Sky for profitability benchmarking based on accounting figures over the relevant period, particularly because of its exposure to advertising revenues, substantial geographical diversification and exposure to sectors which have had slow or falling real revenues (TV advertising and newspaper advertising).

Direct TV

We are uncertain as to the business analysed Oxera as Direct TV. We have examined DIRECTV in this context. Overall DIRECTV appears to be a potentially reliable comparator to Sky for profitability benchmarking based on accounting figures over the relevant period, but its comparability is limited by its higher asset intensity, business events during the relevant period, the different level of development of its business in comparison to Sky and the different level of development of the USA pay TV sector as a whole when compared to the UK. Although DIRECTV is a potentially reliable comparator to Sky for profitability benchmarking based on accounting figures over the relevant period, we note that the results are unreliable if they are not adjusted for substantial events for which the business took impairment charges.

Discovery

In Oxera's report, it states that it has used Discovery (Consolidated) as the comparator. It is not clear to which entity it refers, but it appears that it has used data for Discovery Holding Company (our analysis is based on the assumption that this was the company used by Oxera, but is subject to the caveat that we cannot be sure due to the ambiguity in Oxera's report). Overall, we do not consider Discovery Holding Company to be a reliable comparator to Sky for the purposes of profitability benchmarking based on accounting figures over the relevant period, because of its differing types of revenues, higher asset intensities, and specific business events (separation from Liberty Media Corporation in 2005 and significant impairment charges in 2006 and 2007).

Dish Network

Overall Dish Network appears to be a potentially reliable comparator to Sky for profitability benchmarking based on accounting figures over the relevant period, but its comparability is limited by its higher asset intensity, the different level of development of its business in comparison to Sky and the different level of development of the USA pay TV sector as a whole when compared to the UK.

Liberty Media (Starz Entertainment)

Although labelling is unclear so we cannot be certain, it appears that Oxera has compared the accounting ratios of Sky to those of Liberty Media Capital (Starz Entertainment's parent company).

We do not consider that Liberty Media Capital is a reliable comparator to Sky for profitability benchmarking based on accounting figures over the relevant period, as it has significant business activities which are not similar to those undertaken by Sky (including film production and distribution, a baseball franchise and a number of technology companies), many of which are at an early stage of development and are loss-making.

Time Warner Cable

Overall, we do not consider Time Warner Cable to be a reliable comparator to Sky for profitability benchmarking based on accounting figures over the relevant period, particularly because of the high level of capital intensity in the business and the absence of comparable wholesale operations (we understand that its broadcasting operations are carried out by Time Warner Networks, another subsidiary of Time Warner).

Viacom

Overall, we do not consider Viacom to be a reliable comparator to Sky for profitability benchmarking based on accounting figures over the relevant period, particularly because its reliance on advertising revenues and lack of subscription revenues.

8.3.7 Sweden

Com Hem

Overall, we do not consider Com Hem to be a reliable comparator to Sky for profitability benchmarking based on accounting figures over the relevant period, particularly because of its higher asset intensity, large proportion of non-“genuine” pay TV subscribers, substantially larger (than Sky) share of revenues from non-TV services and exceptional costs and uncertainty associated with the acquisition of UPC Sweden.

MTG

Although elements of MTG’s business are comparable to Sky’s business model, we do not consider MTG to be a reliable comparator to Sky for profitability benchmarking based on accounting figures over the relevant period, particularly because of its substantially greater share of revenues from advertising and its geographical diversification (including a significant and growing share of revenues from Eastern Europe).

8.3.8 The Republic of Ireland, Malaysia and South Africa

Astro All Asia Networks plc

Although there are some elements of Astro Malaysia’s business that could be comparable to Sky’s business model, we do not consider Astro Malaysia to be a reliable comparator to Sky for profitability benchmarking based on accounting figures over the relevant period, particularly because it operates in emerging markets with relatively undeveloped (but rapidly-growing) pay TV sectors and has substantial geographic diversification of its activities.

Liberty Global

Overall, we do not consider Liberty Global to be a reliable comparator to Sky for profitability benchmarking based on accounting figures over the relevant period, particularly because of the geographical diversity of its operations, its greater asset intensity, business events over the relevant period and its operations in TV sectors which are likely to be at a different level of development compared to the UK.

Naspers Limited

Although there are some elements of Naspers' business that could be comparable to Sky's business model, we do not consider Naspers to be a reliable comparator to Sky for profitability benchmarking based on accounting figures over the relevant period, particularly because of its geographic diversification including operations in a substantial number of lower income countries.

8.3.9 Conclusions on Oxera's non-TV comparators to the notional Sky retail business

Alternative operators

Oxera considers five alternative operators as comparators to Sky's notional retail business: Virgin Mobile, TalkTalk, Smart Telecom, Tesco Mobile and Vonage.

Due to differences in business models (different capital intensity forTele2, likely different revenue mix for Virgin Mobile and Tesco) and sector and business events (including business model changes and mergers and acquisitions for TalkTalk Group, Virgin Mobile, Tesco Mobile, Vonage and Smart Telecom) we consider that Smart Telecom, TalkTalk, Tesco Mobile, Virgin Mobile and Vonage are unreliable comparators to the notional Sky retail business for profitability benchmarking based on accounting figures over the relevant period.

Vertically integrated telecoms operators

Oxera considers nine vertically integrated telecoms operators as comparators to Sky's notional retail business: Belgacom, Telia Sonera, KPN, Deutsche Telekom, Telecom Italia, Telefónica, France Telecom, Vodafone and Vonage.

Due to the higher (tangible) asset intensity, substantial business and sector events (geographic diversification, 3G licence auctions and M&A activity), and substantial regulatory restrictions, we consider Belgacom, Telia Sonera, Vonage, KPN, Deutsche Telekom, Telecom Italia, Telefónica, France Telecom and Vodafone to be unreliable comparators to Sky's notional retail business for profitability benchmarking based on accounting figures over the relevant period.

8.3.10 Conclusions on Oxera's TV comparators to the notional Sky retail business

Of the four companies (Com Hem, DIRECTV, Dish Network and Kabel Deutschland) that Oxera includes as TV comparators to the notional Sky retail business, we consider that two (Com Hem and Kabel Deutschland) are unreliable comparators, particularly because of their high asset intensities and the differing characteristics of their pay TV sectors (for example a large number of non-"genuine" pay TV subscribers). We consider that DIRECTV and Dish Network are potentially reliable comparators to the notional Sky retail business for profitability benchmarking based on accounting figures over the relevant period; although both have some activities that could be described as "wholesale", they have higher asset intensities and they operate in the USA pay TV sector, which appears to be more mature than that of the UK.

8.4 Conclusions on Oxera's comparators to the notional Sky wholesale business

8.4.1 Conclusions on Oxera's non-TV comparators to the notional Sky wholesale business

Oxera includes two record companies (EMI, Sony BMG) as the only two non-TV comparators to the notional Sky wholesale business.

Due to the differing nature, time horizon and risk of content rights, the sectoral events that have occurred and the high rates of piracy in the industry, we consider EMI and Sony BMG to be unreliable comparators to Sky's notional wholesale business for profitability benchmarking based on accounting figures over the relevant period.

8.4.2 Conclusions on Oxera's TV comparators to the notional Sky wholesale business

Oxera includes two companies (Canal+ Group and Premiere) as the only two TV comparators to the notional Sky wholesale business.

We consider that both Canal+ Group and Premiere are unreliable comparators to the notional Sky wholesale business for profitability benchmarking based on accounting figures over the relevant period, because of differences in the sectors in which they operate (e.g. regulatory constraints imposed as results of agreements and acquisitions) and, in particular, because both companies have substantial pay TV retail operations, and hence a large proportion of revenues from subscriptions (rather than advertising and licence/carriage fees).

Appendix 1 - Oxera's comparators

The following page sets out the TV companies (as set out in Appendix A3 to Oxera's report) included in our work. We include a note of whether Oxera includes each company as a comparator to Sky's notional retail or wholesale businesses in its disaggregate analysis.

Appendix Table 1 – Oxera's comparators

Aggregate TV comparators	Retail comparator?	Wholesale comparator?
Antena 3		
Astro Malaysia		
Canal Plus		✓
Canwest (GTV)		
ComHem	✓	
Direct TV	✓	
Discovery		
Dish Network	✓	
Five		
ITV		
Kabel Deutschland	✓	
Liberty Global		
Liberty Media		
M6		
Mediaset		
MTG		
Naspers Ltd.		
Ono		
Premiere		✓
ProSieben SAT1		
RTL		
Sogecable		
Starz Entertainment		
Telecinco		
TF1		
TIM		
Time Warner Cable		
Unity Media		
Viacom		
Virgin Media		

Aggregate non-TV comparators	Sector	Retail comparator?	Wholesale comparator?
Carphone Warehouse Group	Alternative operators		
Smart Telecom		✓	
TalkTalk Group		✓	
Tele2			
Tesco Mobile		✓	
Tiscali			
Virgin Mobile		✓	
Vonage		✓	
Pearson plc	Book publishers		
Reed Elsevier plc			
Cinemaxx Cinema	Cinema		
Cineworld Group plc			
Kinepolis Group			
Odeon Cinemas Ltd			
Vue entertainment			
Chrysalis	Commercial radio		
GCap			
NRJ Group			
Blockbuster Video	DVD rentals		
LOVEFiLM			
Daily Mail and General Trust plc	Newspaper publishing		
Axel Springer Aktiengesellschaft			
Mecum Group plc			
Trinity Mirror plc			
United Business Media			
Johnston Publishing Ltd			
EMI Music	Record companies		✓
Sony BMG Music			✓
Warner Music			
Belgacom	Vertically integrated telecoms operators	✓	
Deutsche Telekom		✓	
France Telecom		✓	
KPN		✓	
TDC			
Telecom Italia		✓	
Telefonica		✓	
Telenor			
TeliaSonera		✓	
Vodafone		✓	

Appendix 2 - Sky and non-TV sectors cost of capital

Introduction

We have assessed the cost of capital for the various sectors examined by Oxera in its analysis, including an analysis of the cost of capital for notional wholesale and retail pay TV sectors.

One reason why the observed profitability of companies may differ is because the risk of the business differs and hence the cost of capital varies. Oxera has not explicitly examined potential cost of capital differences as a selection criterion for businesses which could be expected to earn comparative profitability, relying on using businesses in sectors it considers to be similar to pay TV to avoid big differences in the risk profile. In this appendix we test whether this is a valid assumption for the sectors included in Oxera's analysis.

Our approach

Our approach was to estimate the weighted average cost of capital for sectors (for the proposed non-TV comparators) using our standard methodology employed in business valuations. Non-trivial differences (to Sky) in the cost of capital may indicate that sectors or businesses are unreliable comparators (unless observed returns are considered in the light of the differences in the cost of capital). Furthermore, differences between the costs of capital are evidence that different levels of return should be expected in different sectors, reflecting varying levels of risk and volatility.

We have adopted the standard Capital Asset Pricing Model (CAPM) methodology to derive a cost of capital on both a pre-tax and post-tax basis for the various industry sectors. We prefer to assess the cost of capital on a post-tax basis, as the majority of inputs are based on post-tax assumptions; however, we have included the grossed-up pre-tax cost of capital for comparison, as this measure is frequently referenced by regulators.

We have drawn upon our own industry expertise to identify companies most representative of those sectors; where appropriate, we have included comparators identified by Oxera, but in our view, some of those identified are not appropriate for the sectors into which Oxera has classified them. Furthermore, some comparator companies identified by Oxera are not listed and therefore it is not possible to incorporate them into cost of capital analysis as no beta information is available.

We note that our estimates are current estimates of the cost of capital, rather than estimates over the period 2003 to 2007. However, we have not identified reasons why this approximation would be inappropriate. We note that Ofcom makes a similar assumption in its estimates of Sky's cost of capital[385].

[385] Ofcom (2009), "Sky's Cost of Capital – Annex 10 to pay TV phase three consultation document" Page 2.

Results

Table 11 summarises the calculated weighted average cost of capital for the sectors analysed by Oxera:

Table 11 – Non-TV sectors cost of capital analysis

Sector	Pre-tax WACC	Pre-tax WACC (rounded)	Post-tax WACC	Post-tax WACC (rounded)
DVD rental	12.42%	12.5%	8.94%	9.0%
Alternative operators	10.95%	11.0%	7.88%	8.0%
Book publishers	10.59%	10.5%	7.62%	7.5%
Cinema	9.91%	10.0%	7.13%	7.0%
Commercial radio	9.92%	10.0%	7.14%	7.0%
Newspaper publishing	11.31%	11.5%	8.15%	8.0%
Record companies	12.07%	12.0%	8.69%	8.5%
Vertically integrated operators	9.16%	9.0%	6.60%	6.5%
Sky retail[386]	11.18%	11.0%	8.05%	8.0%
Sky wholesale (excluding comparators more dependent on advertising market)	11.41%	11.5%	8.21%	8.0%
Sky wholesale (including comparators more dependent on advertising market)	12.10%	12.0%	8.71%	8.5%

Source: PwC analysis

For some sectors the limited number of listed businesses makes deriving an accurate cost of capital more difficult; for example, we would expect the commercial radio sector to potentially have a higher cost of capital, but the majority of businesses operating in this sector are either part of larger media groups or are privately-owned.

The cost of capital for the notional Sky retail business is approximately in the middle of the range for the sectors adopted by Oxera as comparative. The cost of capital for the notional Sky wholesale business, however, is at the top end of the range. After removing comparators which are more dependent on the advertising market than Sky, the cost of capital declines but is still at the upper end of the range.

[386] Ofcom estimated Sky's pre-tax cost of capital at 10.3%. (Ofcom (2009), "Sky's Cost of Capital – Annex 10 to pay TV phase three consultation document" Page 2.). Neither Oxera nor Ofcom present estimates of the cost of capital of the comparator sectors.

Concluding remarks

This analysis may indicate that companies operating in the wholesale television sector would expect to earn higher returns than those in certain other sectors used by Oxera in its analysis, all other things being equal. However, care should be taken when interpreting the results, as the limited availability of data in turn affects the reliability of sectoral cost of capital analysis, and because this is only one factor which should be taken into account when comparing returns across sectors.

Nonetheless, our analysis shows that there are different costs of capital amongst the sectors deemed by Oxera to be comparable to the activities of Sky, and hence this must be one factor which explains why different comparators may earn different levels of return. Sky's cost of capital (implied by the costs of capital of its wholesale and retail activities) is near the top-end of this sample, meaning that we would expect it to appear relatively profitable in a benchmarking analysis that failed to take the cost of capital into consideration.