Retail Price Control for Jersey Telecom

SUMMARY OF APPROACH AND RECOMMENDATIONS

INTRODUCTION

Frontier Economics was engaged by the Jersey Competition Regulatory Authority to provide advice in relation to the retail price control to be applied to Jersey Telecom (JT) from 2008. This note sets out the approach taken by Frontier Economics in calculating the appropriate cost basis and forecasting Jersey Telecom's financial performance for the purposes of setting the retail price control and gives our recommendations on the appropriate structure and level of the price control.

This note sets out:

- An estimate of the cost of capital for JT;
- The approach adopted to forecasting the financial performance of JT;
- The inputs used in the forecasting process; and
- Our recommendations on the appropriate price cap.

COST OF CAPITAL

PricewaterhouseCoopers (PwC), on behalf of JT, produced two submissions on the appropriate cost of capital for JT.

The methodology proposed by PwC was to estimate a Weighted Average Cost of Capital (WACC) with the cost of equity estimated using the Capital Asset Pricing Model (CAPM). This is established practice and we have used a similar methodology.

The parameters suggested by PwC were drawn from a combination of: regulatory practice in other jurisdictions; empirical evidence and; market benchmark estimates from comparator operators. For most of the parameters we have used the estimates supplied by PwC, as they appear to be robust and unbiased estimates. However we have not used PwC's estimates of adjustments to take account of the relatively small size of Jersey Telecom.

Given the relatively small size of Jersey Telecom compared to the comparator operators, we have made upwards adjustments to the cost of capital estimated for these much larger operators. For the cost of equity we have applied an upwards adjustment based on an estimated "liquidity premium" for smaller companies, using the same value as used in the previous price control. PwC proposed a much larger Small Company Premium (SCP) based on empirical evidence that small quoted companies in the US produced higher returns than the market in the past.

For the cost of debt we have applied an upwards adjustment to benchmarks of debt premia from other (much larger) operators to take account of the higher funding costs of small companies, who are likely to rely on bank loans rather the

large bond issues used as benchmarks. Again the adjustment used the same value as in the previous price control.

We have used an estimate of beta based on the mid-point of the range provided by PwC in its second submission. This is at the higher end of the range of benchmarks from comparator companies provided by PwC in its initial submission. PwC's use of a relatively high beta was supported by empirical evidence showing that the betas of smaller companies were higher than larger companies.

The cost of capital used in determining the price control is 11.6% (pre-Tax, nominal). The input parameters used are shown in the table below.

	Parameters and cost of capital	**Source**
Risk free rate	4.50%	PwC's initial submission
Equity beta	1.20	Mid-point of range in PwC's 2nd submission
ERP	4.50%	PwC's initial submission
Small company premium (liquidity)	0.90%	Previous price control
Cost of equity	10.8%	
Debt margin large corporations	2%	PwC's initial submission
Additional debt margin for small enterprises	1.25%	Previous price control
Cost of debt (pre tax)	7.75%	
Tax rate	20%	Corporation tax rate in Jersey
Cost of debt (post tax)	6.20%	
Gearing	33.50%	PwC's initial submission
Post tax WACC	9.3%	
Pre tax WACC	11.6%	

Table 1: Jersey Telecom Estimated Cost of Capital

FINANCIAL FORECASTING APPROACH

Objective

Frontier Economics constructed a financial model to forecast the profitability of the relevant price control services under various assumptions about the level and coverage of price control.

This allowed sensitivities to be run in order to identify a level of price control which resulted in revenues from the controlled services moving into line with costs (including the cost of capital) over the period of the price control

Scope and basis of the model

The scope of the model was restricted to the fixed telecommunications activities of Jersey Telecom. The cost forecast is based on the regulatory accounts produced by JT. In terms of the regulatory accounts the model forecasts revenues and costs for the following 'businesses':

- The Fixed Access Network business;
- The Fixed Core Network business;
- The Fixed Retail business.

The model uses the regulatory accounts for 2006 as the base year, with this being the latest available regulatory accounts at the time the model was constructed. The regulatory accounts calculate depreciation and net asset values on a Historic Cost Accounting basis.

The model forecasts the allocation of the total costs of the fixed businesses to the services produced by the businesses (Fully Allocated Costs). The model assumes that the allocation of costs will alter going forwards to reflect changing demand different services, with those services that grow relatively faster having a higher proportion of costs allocated to them.

For a given level of price control the model estimates the level of price changes that is consistent with the price control (assuming that the price control is a binding constraint). Combining the changes in prices with the input demand forecast gives the forecast revenue. By altering running sensitivities on the level of the price control, the level of the price control that results in forecast revenues being in line with forecast costs for the basket of services can be estimated.

INPUTS TO THE MODELLING

Jersey Telecom's Regulatory Accounts

Regulatory accounting statements are used for a range of purposes including retail and wholesale price control setting. JT's regulatory accounting statements provide a breakdown of costs and hence profitability by fixed retail service.

The chart below shows the level of margin reported by JT for fixed retail services, with margin calculated after including the cost of capital for retail fixed

assets. This shows that overall revenues of the fixed retail business were greater than allocated costs. Revenues for the majority of call services were significantly above cost with line rental and connection also above cost.

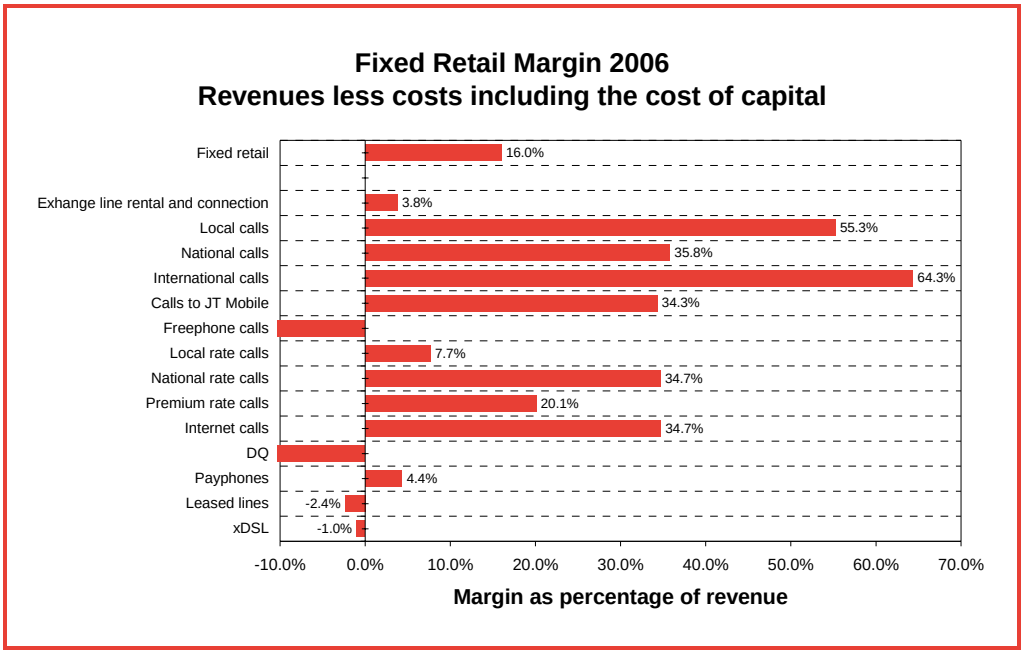

Figure 1: Margin by fixed retail service

Source: JT Regulatory Accounting Statements

Benchmarks of Comparative Efficiency

While JT's regulatory accounts report the actual level of costs incurred by JT in delivering services, price controls are typically set with respect to an estimate of the efficient level of cost. This efficient level of costs may be lower that the operator's actual level of costs due to operational inefficiencies or inefficient investment in the past.

Frontier Economics carried out an exercise to benchmark JT's costs against a number of comparator operators, in order to determine whether any adjustment to JT's reported costs was appropriate. The comparator operators, selected because of the public availability of separated accounts for these operators, were BT, eircom, Cable and Wireless Guernsey and Kingston Communications.

The analysis compared the total cost of the fixed activities of these operators with that reported by JT. While differences in definition, cost basis (other operators reporting on a CCA basis) and scale make comparisons imprecise, overall Frontier concluded that there was no evidence that the costs report by JT were above an efficient level.

Forecast Information provided by JT

Setting a forward looking price control requires making forecasts of the demand for relevant services and the cost base of the business. JT were requested to provide historical information on revenues and volumes of fixed services and forecasts of costs and demand for services.

Forecasting demand is more challenging than in the past due to a range of factors that will affect demand for JT's retail services. These factors include: mobile substitution of fixed lines and calls; changes in market share due to increased competition and; the impact of broadband services on the demand for fixed lines and calls. On the cost side, the major change expected in the medium term will be migration of the current ADSL and PSTN networks to a converged Next Generation Network.

Given the difficulties of making robust independent forecasts, our approach has been to base the model on JT's forecasts of demand and costs, as JT should be best placed to make accurate forecasts. However in order to validate these forecasts we have also run sensitivities based on simple projections of current trends and independent forecasts of demand and costs.

The sensitivity analysis suggests that JT's estimates of demand and costs results in a lower level of profitability than if current trends of demand and costs are continued.

RECOMMENDATIONS

Duration of price control

Given the difficulty of forecasting over a longer timescale, we would recommend that the price control duration be three years.

Coverage of price control

We have assumed that the overall scope of the price control, in terms of the services included, is unchanged from the current price control.

A formal market analysis is outside the scope of our engagement. The responses to the consultation[1] on the review of the price control suggested that the scope of the existing price control remains appropriate. In addition the 2006 profitability information shown in figure 1 does not provide any indication that competition was a binding constraint on the level of prices for those services most likely to be competitive, such as off-island calls.

Sub-baskets in Access

While call services are potentially competitive in the longer term, it is generally recognised that fixed incumbent operators' market power in the access market is

[1] JCRA Consultation Document 2007-2: Consultation on JT Price Control

more likely to persist, due to a high barriers to entry in the provision of wire line access networks. Wholesale remedies such as local loop unbundling have reduced the need for retail price regulation in larger markets such as the UK. However the different characteristics of the Jersey market mean that competition based on these wholesale services may not be a sufficient constraint on JT's retail pricing within the duration of the price control.

Within a broader basket, JT may have an incentive to raise the prices of access services above cost given the lack of competition for these services. In addition access services (line rental and connection) may form a high proportion of the total cost of telephony service for vulnerable users who make a low number of calls.

We recommend that a separate "sub basket" control be applied to narrowband access services (line rental and connection) within the overall price cap to ensure prices for these services are cost oriented.

The level of X

The financial model was run with JT's forecasts of demand and costs. Based on the basket and sub-basket recommended above, the level of X required to ensure that prices were cost oriented by the end of the price control period were estimated:

Basket	Recommended price control
Fixed narrowband access. A basket consisting of line rental and connection services.	RPI-1
Fixed telephony. A basket of access and call services, including the services in the current price control basket.	RPI-3

Table 2: Estimates of the level of X