

CABLE AND WIRELESS GUERNSEY LIMITED

Comments on Price Control for Telecommunications Services in Guernsey: Calculating Allowed Revenue and the Cost of Capital – Consultation Document OUR 04/11

Introduction

Cable and Wireless Guernsey Limited (Cable & Wireless Guernsey) welcomes the opportunity to respond to the above consultation. In the opinion of Cable & Wireless Guernsey the subject of this consultation is of fundamental importance to the telecommunications market in the Bailiwick.

Executive Summary

Cable & Wireless Guernsey's response primarily focuses on five key areas:

- The inappropriateness of a MAR adjustment
- Our support of the application of current cost accounting (CCA)
- The sub-optimal outcome that may result from regulating investment
- Our continued intention to appropriately balance efficiency gains against our obligation to provide high quality products
- The appropriateness of using WACC and CAPM for the cost of capital

Cable & Wireless firmly believes that a MAR adjustment leads to the creation of inappropriate signals in the market. It potentially hinders the introduction of new competition in the Bailiwick of Guernsey, damages the financial sustainability and investment capability of existing new entrants and reduces investment incentives to Cable & Wireless Guernsey. As such any gains to consumers resulting from a short period of lower prices may well be outweighed by the damaging impact that this adjustment has on long-term competition.

CCA provides a more efficient and economically correct valuation of assets where the intention of a regulator is to regulate prices so that they mimic those that could be expected in a competitive environment. Cable & Wireless Guernsey have expressed their intention to undertake such a valuation and are concerned that any MAR adjustment may form the lower bound of asset prices and therefore make any CCA valuation irrelevant in calculating the value of the opening regulatory asset base.

Cable & Wireless Guernsey is committed to providing a high quality service to consumers on a range of technically advanced products. Indeed, our broadband penetration rates are an indication of this. As such Cable & Wireless Guernsey is, and always has been, prepared to undertake investment that is necessary to provide these high quality services. Therefore we do not view including investment requirements in the licence obligations to be appropriate and believe that this may instead lead to inappropriate levels and types of investment. We strongly urge the OUR to assess Cable & Wireless Guernsey's investment in the light of our strong performance in our quality of service indicators and only to create this additional regulatory burden if

there is evidence to suggest that we are failing to provide consumers with high quality and technologically advanced products.

Cable & Wireless Guernsey hopes that the OUR recognise the need to allow a suitable return on assets as a method of funding future investment projects. We strongly believe that the CAPM approach to WACC, as recommended by operators and regulators throughout the world, provides the correct rate of return and this should be applied to our entire asset base regardless of the time of purchase.

Efficiency levels at Cable & Wireless Guernsey have improved substantially over the years since privatisation. We hope that these provide an indication of our commitment to operations that appropriately balance feasible gains in efficiency against the requirement to engage in adequate and vital investment expected of a high quality network operator. We believe that any regulation of investment / efficiency may not suitably reflect the trade-off between the two and may lead to a sub-optimal balance of these two key objectives.

A. General

Cable & Wireless Guernsey welcome the opportunity to comment on issues relating to asset valuation for the purpose of retail price control. We are, however, disappointed that the OUR has chosen to conduct this consultation simultaneously with the requirement for Cable & Wireless Guernsey to develop a 7-year business model since we would like to have finalised these issues in advance so that they could be fully captured within the plan. Ideally, Cable & Wireless Guernsey would have expected the OUR to run this consultation process and issue the consultation outcome on 04/09, 04/10 and 04/11. At this point, Cable & Wireless Guernsey could then construct a business plan that reflected the true regulatory environment, since operating and investment decisions hinge upon market definition, service regulation, asset valuation and cost of capital amongst other regulatory issues. Finally, we hope for a speedy consideration of these issues since uncertainty caused by a lengthy decision to these consultations can only result in delayed decision making in the market by Cable & Wireless Guernsey, other operators and consumers.

The OUR makes considerable linkages between the issues consulted in 04/10 and 04/11. However, this strength of link is usually only valid if a business planning style of price cap is implemented. For instance, in C&W plc experience, it is usual for a regulator to consider the use of a total factor productivity (TFP) based price cap, even if this is later discounted. Under this type of price cap, the link between allowable revenues and hence asset valuation and the cost of capital and the value of X is far more tenuous.

Cable & Wireless Guernsey thanks the OUR for providing us with additional worked examples of MAR and the opportunity to raise questions with the OUR. However, Cable & Wireless Guernsey has noted that in comments relating to the use of MAR, NPV and CCA, at times the OUR appears to present theoretical economic examples without providing detailed commentary to the practicalities and appropriateness of the use of these techniques in Guernsey. The OUR primarily cites examples from the natural monopolies in the UK which appear to provide substance to the OUR

proposals but does not consider the reasons why these centric UK approaches were not replicated in a number of other jurisdictions that have privatised utilities and in particular why, to the best of Cable & Wireless Guernsey's knowledge, this approach has not been implemented by a single Telecom's operator anywhere in the world. Additionally, it has been noted that the OUR mainly focuses on the theoretical arguments and recommendations contained in a number of MMC reports rather than the actual implementation of these issues and the practical outcomes of these decisions. For instance:

- The implemented value of the MAR adjustment in the UK gas industry was reduced below its theoretical optimal as a result of direct Government intervention
- The current allowable return on capital investment and uncertainty over future returns has contributed to under investment in the power industry. This is highlighted by the black-outs in the USA and the recent power failures on the London Underground and to London hospitals which were attributed to long-running under-investment¹.
- A "strict" price control on UK water companies as formulated by Ofwat has led to water companies being unable to make the environmental improvements that many believe are necessary

Cable & Wireless Guernsey would therefore encourage the OUR to carry out more detailed research on the subject of implementation and practical outcomes of these various economic methodologies to ensure that a decision to change the method for valuing the asset base of Cable and Wireless does not have long-term negative ramifications on the development of the telecommunications market and the general economic growth of the Bailiwick of Guernsey.

B. Comments on the NPV Neutrality Approach

While information on the intention to use a NPV neutrality approach has been included, the OUR has not provided an opportunity to comment on the reasonableness of this approach or any other methods that may be considered for price control. In Cable & Wireless Guernsey's experience, there are a number of approaches that may be used. Cable & Wireless Guernsey has commented on these approaches in the general section of its August 27th response to OUR 04/10. In this section we take the opportunity to express our concern at the unusual use of a NPV calculation.

The methodology being proposed by the OUR does not appear entirely consistent with internationally used methodologies that Cable & Wireless Guernsey has reviewed. Neither does the methodology appear consistent with the principles outlined in the academic publication on calculating the X-factor in price caps regimes.² In Cable & Wireless Guernsey's view, the OUR's approach is a variation of the zero economic profit methodology, with the model focusing on setting the price cap so as

¹ News article may be found at:

http://www.findarticles.com/p/articles/mi_m0BJK/is_15_14/ai_110470373

² One of the most widely cited academic methods is to be found in: Bernstein J., and D. Sappington, "Setting the X-factor in Price Cap Regulation Plan", *Journal of Regulator Economic*, Vol. 16, 1999. Alternatively: Cave, Majumdar and Vogelsang, *Handbook of Telecommunications Economics*, Volume 1: Structure, regulation and competition.

to maintain the long-run valuation of the company. Valuations are normally subjective estimates. A single valuation exercise may yield multiple values depending on the method and the objective of the valuation exercise. To overcome the errors and subjectivity in valuation model, practitioners normally quote wide ranges of values rather than single values. The fundamental problem with this methodology if applied to a price cap regime is that price caps are short run regimes, lasting at most four to five years and in some cases as short as three years, while valuation is a long-run exercise projecting values indefinitely. These are two separate objectives, and the methodological framework for long-run valuations differs from the short-run nature of price caps.

This methodology does not appear to be consistent with the usual broad objective of price cap regulation, which is typically to create the incentives for the regulated entity to act as though it were operating in a competitive market. By focusing on the long-term valuation and restricting the cash flows during the price cap period to maintain this valuation, the OUR's methodology appears not to consider the underlying annual returns in each year of the price caps, as well as the possible variances in key variables in the valuation model which will significantly affect the X-factor. In Cable & Wireless Guernsey's view, this approach diverges significantly from standard practice.

The following further elaborates on what Cable & Wireless Guernsey believes to be some of the shortcomings of the OUR's methodology.

- There does not appear to be a precedent for this methodology being used to set the X-factor for the telecommunications industry in other jurisdictions. This is not to say that the OUR's approach has not been used in other industries. However, even if it has been used to calculate the X-factor in other network industries, Cable & Wireless Guernsey is of the view that the dynamics and fundamentals in the telecommunications industry are different from other industries, and as such, the OUR proposed models and methods of setting the X-factor will not necessarily apply and will potentially lead to distortions and pricing difficulties in the market.
- The calculation of the revenue requirement and hence X-factor will be heavily influenced by the projected asset valuation at the beginning and end of the price cap periods. Whilst Cable & Wireless Guernsey has indicated that it will undertake a high-level Current Cost Accounting (CCA) valuation of assets to be included in the business plan, this high-level approach may not provide the degree of accuracy that is required under the OUR's approach. Economic theory states that the value of any asset is equivalent to the sum of discounted net cash flows generated by the asset over its useful life. The OUR's approach analyses the cash flow in the price cap period, as well as the cash flow in subsequent periods (to infinity). There are two major potential pitfalls with this.
 - First, the resulting revenue requirement and hence X-factor during the price cap period, will be heavily influenced by the closing asset valuations (subsequent cash flows), which will be unknown at the start of the price cap period. The variations in future valuations normally

introduce subjectivity in the estimation, and this is normally the main reason for variation in valuation estimates. To develop the price cap on this premise, which includes a high level of uncertainty, will require a more detailed valuation analysis that is beyond the scope of the price cap analysis. The use of a framework, which focuses on the price cap period, is simpler, more objective and more accurate and is therefore best suited for this analysis. This issue is compounded by the limitations in the CCA values that will be provided to the OUR by Cable & Wireless Guernsey in its business plan and which, we understand, the OUR intends to use at the price-cap development stage. Cable & Wireless Guernsey would therefore suggest the OUR should update the price cap model to reflect any significant differences in CCA asset valuation that are identified following the finalisation of full CCA by Cable & Wireless Guernsey for the financial year 2003/04.

- Second, the concept of depreciation in the model is not consistent with the corresponding asset valuation methodology. Depreciation in the model is treated in the same way as accounting depreciation methodologies, rather than the conceptually correct economic depreciation. Economic depreciation simply refers to the year-by-year change in market value of an asset and, as stated earlier, the value of an asset is determined by the future cash flows generated by the asset. The economic depreciation schedule should take into consideration technological obsolescence and other factors that are beyond the control of Cable & Wireless Guernsey. The illustration from the OUR's spreadsheets indicates that depreciation is more in keeping with the accounting depreciation concept (simple straight line accounting allocation), rather than the strict economic depreciation concept. If the existing model is used, an economic depreciation schedule should be developed and used as the model is extremely sensitive to this value.

C. Comments on specific questions

Q1 Do you agree that the MAR approach is an appropriate methodology to use when deriving the operating asset base for a regulated utility that has been privatised at a price lower than the value of its assets? If not, why, and what alternative approach do you consider the most appropriate and for what reason?

Cable & Wireless Guernsey has attached an appendix to this consultation response containing an opinion from PricewaterhouseCoopers (PwC) on the inappropriateness of applying a MAR adjustment to a telecommunications operation in the Bailiwick of Guernsey. Cable & Wireless Guernsey wishes to refer the OUR to this appendix as this also constitutes Cable & Wireless Guernsey's answer to this question since we fully support the findings of PwC expressed in this opinion. In addition to this attachment, Cable & Wireless Guernsey wishes to express the following supplementary opinion.

Cable & Wireless Guernsey believes that the appropriate valuation of the asset base for retail price control should be the actual value of the total net assets of the company

at this time. This may include the current cost valuation of assets, or the historic valuation if current cost accounting is deemed inappropriate³. The forces of supply and demand are used to determine the price of an asset at a particular time and since the sale of Guernsey Telecoms by the State of Guernsey to C&W was made with free will there is no reason to suggest that the market value was not accurately reflected in the price of the company (and hence the assets) at that time. The requirement to make a MAR adjustment suggests that the States were in fact incorrect in their assessment of the value of the business. Cable & Wireless Guernsey would be surprised if the government accepted such an assertion. Additionally, it ignores the fact that the company was sold at a market price, i.e. C&W did not gain any favours over other potential purchasers. That market price reflects the value attributed to the company by the relevant bidders at that time and the environment that it is operating in. Cable & Wireless Guernsey considers that the price paid for Guernsey Telecoms was affected by the regulatory regime at the time of sale including features such as the licence requirements, the requirements of the relevant laws and the periods of exclusivity that were granted to the Company. Cable & Wireless Guernsey should not be penalised now by the reduction in valuation that was attributed to the company as a result of the regulatory regime that was enacted and brought into force at the time of liberalisation.

Furthermore, and perhaps more crucially, Cable & Wireless Guernsey believes that the asset valuation that sends the correct build/buy decision to the market is one based on a current cost accounting basis (CCA). The MAR adjustment potentially reduces the value of the assets below the current cost value and therefore distorts the market-based signals. This effect can be viewed in the examples provided by the OUR to Cable & Wireless Guernsey. In these examples the CCA valuation becomes irrelevant when a MAR adjustment factor is applied, since the MAR adjustment provides the lower bound on the asset valuation. Therefore it is this, and not CCA, that provides the regulatory asset base of pre-acquisition assets in the OUR example.

The implementation of MAR presents an additional danger to pre-existing competition, beyond that associated with the build/buy decisions of those considering new entry into the market. Retail prices should be set on the basis of cost and with the intention of allowing a sufficient margin between the wholesale costs and the retail prices.⁴ When using the MAR adjustment, the link between wholesale and retail prices is effectively broken since the MAR adjustment applies solely to retail products as per the title of this consultation paper. It is perfectly possible that a severe MAR adjustment may lead to the retail price being based on such a relatively low asset valuation that the retail price is below the wholesale price or, in any case, effectively leads to a vertical price squeeze. In this case, a competitor would be either forced to reduce its prices to such an extent that it cannot recover its costs or be forced to leave the market in the long run. This distortion to the retail / wholesale margin will affect both service providers and infrastructure operators. To the extent that the OUR will then require a change in interconnection rates to correct this margin squeeze, Cable & Wireless Guernsey believes this would be unfair and unreasonable since

³ It is Cable & Wireless Guernsey's opinion that current cost accounting is appropriate for the valuation of assets in a retail price control. We expand on this opinion in our response to question 3 of this consultation response.

⁴ The interaction between wholesale and retail costs under a price control regime has been commented on by Cable & Wireless Guernsey on page 3 and elsewhere in the Cable & Wireless Guernsey response to consultation OUR 04/10

interconnection charges should be based on the actual cost of providing the service. Any reduction in the charge below the cost of provision will have a severe financial impact on Cable & Wireless Guernsey and reduce the potential for new investment and will also negatively impact the financial sustainability, and ultimately new investments, of any competing network provider in Guernsey, e.g. Wave Telecom. A creation of a vertical margin squeeze or below cost interconnection charges are inconsistent with the general duties of the OUR in terms of promoting effective and sustainable competition or best serving the economic and social development and well-being of the Bailiwick of Guernsey.⁵

Aside from the impact of the MAR on the entry decisions of potential new competitors and the financial sustainability of existing new operators, the impact on the potential of Cable & Wireless Guernsey should not be understated. Firstly, the implementation of a MAR adjustment appears to overlook the fact that the shareholders of C&W plc undertook a risk when purchasing Guernsey Telecom. This risk should be adequately rewarded by permitting the shareholders to make an appropriate return, (as discussed later in answer to questions 17-21) on the total net asset value of the company at the date of purchase. This return is essential if Cable & Wireless Guernsey is to continue to invest in new capital equipment that allows the provisioning of high quality and technologically advanced services that support the growth of the economy of the Bailiwick of Guernsey. This will provide the company with the appropriate incentives and necessary finances to make this level of investment. It will also provide the necessary confidence to Cable & Wireless Guernsey shareholders, who ultimately drive the investment decision, of their ability to make a suitable return on the actual incurred investment cost. This is a key factor in any investment appraisal process, including that utilised by Cable & Wireless Guernsey and its shareholders. We recognise that the OUR has stated at this time that it only intends to apply the MAR approach to assets purchased by C&W from the States of Guernsey and not to investment undertaken since this time or indeed to future investment. However, *any* reduction in the asset value will signal a change in regulatory direction that will create a degree of uncertainty in the market, since Cable & Wireless Guernsey (and indeed other telecoms' operators and regulated utilities) may be doubtful of the OUR's future intentions with regards to investment returns. This degree of uncertainty will be reflected in the decision making of any rational company and may lead to sub-optimal investment decisions. If the OUR believes investment by Cable & Wireless Guernsey to be an optimal outcome, then the Company hopes that the OUR would recognise that a sufficient rate of return on capital expenditure is needed to encourage such investment and that past, present and future investments and commitments cannot be divorced.

Although not noted in the consultation documents, in the NPV examples provided by the OUR there is a mention of the cash received at the time of purchase. Cable & Wireless Guernsey believes that the existence of such cash does not support the OUR assumption that the total value of assets at the point of sale should not be used to calculate the opening regulatory asset base. This cash was not available to be paid out

⁵ Cable & Wireless Guernsey notes that this consultation relates solely to retail price control and hence any decisions within this consultation process should apply solely to retail products. Cable & Wireless Guernsey notes that aside from this distinction, any adjustment of wholesale rates away from current costs would be out of line with international precedent and would distort the build / buy decision which is fundamental in the establishment of long term competition.

to shareholders as it was required to fund outstanding creditors, outstanding commitments not reflected in creditors, pension liabilities and future property rental liabilities.

With regards to the use of the MAR approach in other jurisdictions, Cable & Wireless Guernsey accepts that this was proposed by the UK Monopolies and Mergers Commission (MMC) in a number of cases involving privatised utilities, although it is important to note that the actual implementation of MAR was consistently different to that proposed. In fact, it is our belief that in at least one instance the impact of the MAR adjustment was reduced due to political intervention. The OUR will need to consider the impact of the imposition of MAR on Cable & Wireless Guernsey and the signals that will be sent to potential future purchasers of other government assets, e.g. Post & Electricity. Whilst there may be no immediate plans for such sales, such sales may be considered at a later date. In this case, a precedent would have been set which potential buyers will take into consideration when formulating their bid. It should be noted that the MMC (UK) attempted to be consistent in its approach of asset valuation requirements across the regulated utilities⁶. Therefore, if the OUR intends to follow the UK implementation of MAR then they should also consult with the other regulated utilities / Government to ensure that the MAR approach will be consistently implemented in the Bailiwick for other regulated utilities now and in the future. Therefore, it is recommended that the OUR should consider obtaining a formal States resolution on the implementation of the MAR adjustment prior to its implementation.

Furthermore, the MAR approach was applied to industries that were deemed to be natural monopolies and therefore it was not necessary to consider the negative impact of MAR on the introduction of competition in those industries. Cable & Wireless Guernsey cannot find any instances where a MAR adjustment has been applied in the telecommunications industry. We note that this point has not been addressed by the OUR. Cable & Wireless Guernsey believe that the use of a MAR adjustment is inappropriate where an objective of the regulator is to facilitate effective infrastructure competition. The infrastructure definition may be extended to include mobile infrastructure if this can be shown to be an effective substitute for fixed infrastructure.

It may be that the OUR has sought the introduction of a MAR adjustment to benefit the consumer in Guernsey. As has been noted above, whilst in the short term it is possible that the consumer may benefit from lower retail prices, in the longer term any gains may be eradicated due to the competitive impact of MAR furthered by uncertainty and significant potential for lack of investment. A more effective longer-term solution to maximising consumer welfare over a number of years is to provide effective regulation that actively promotes competition with the longer-term aim that the regulatory burden be reduced and replaced by effective competition. In order to justify the implementation of any MAR adjustment factor, the OUR will want to be certain that the short term gains to consumers do indeed outweigh the longer term gains from effective competition and the related increase in investment.

⁶ G Whittington (former UK Gas Regulator) in *Regulating Utilities: Understanding the Issues*.

In conclusion Cable & Wireless Guernsey strongly urges the OUR to reject the use of a MAR adjustment in favour of an asset valuation based on current cost accounting for the following key reasons:

- In order to begin to justify the implementation of any MAR adjustment factor, the OUR must be certain that the short term gains to consumers do indeed outweigh the longer term gains from effective competition and the related increase in investment. Cable & Wireless Guernsey has seen no evidence that the OUR have accurately reached this conclusion.
- Cable & Wireless Guernsey believe that the use of a MAR adjustment leads to excessive regulatory uncertainty that may impact negatively not only on the investment decisions and pricing structure of Cable & Wireless Guernsey but also on the decisions and long term sustainability of potential competitors, current competitors, other regulated industries who may also face this regulation, the Government in terms of decreased value of industries which may be privatised in the future and the people of Guernsey in terms of an increased reluctance to invest in new technology.
- Cable & Wireless Guernsey believes the most appropriate basis for asset valuation is current cost accounting since this sends the correct signals to the market and encourages the effective development of competition in the market. This approach has been taken by BT in the UK, Eircom in Ireland and its use is advocated by the European Union. Cable & Wireless Guernsey can find no such recommendation for the use of MAR for a telecoms operator by any other regulator, government or for the European Union.

Without prejudice to Cable & Wireless Guernsey's belief that the application of an MAR adjustment is inappropriate, Cable & Wireless Guernsey would like to comment on what we believe to be the flaws in the calculation proposed by the OUR.

In the consultative document, the OUR refers to the MAR adjustment being applied to the book value of assets. It is unclear whether this refers to the net book value (NBV) of fixed assets or total net assets, more commonly referred to as capital employed. In Cable & Wireless Guernsey's opinion it is critical that any adjustment is applied to total net assets not the NBV of fixed assets as otherwise the company is not being permitted to make a return on the total assets purchased. Furthermore, the apportionment of the purchase price between fixed assets and total net assets will in itself be a subjective matter. Cable & Wireless Guernsey notes that when Oftel (now Ofcom) calculated the retail price cap to be applied to BT, this was done on the basis of allowing a return on total net assets i.e. total capital employed, not just on the NBV of fixed assets⁷. Therefore Cable & Wireless Guernsey believe any price control should be calculated to include a return on total net assets and thus to ensure consistency the MAR should also be applied to the total net assets.

The OUR deduct cash from the purchase price when calculating the numerator of the MAR adjustment factor. This was not disclosed in the consultation document but was included in a footnote of the NPV neutrality examples kindly provided by the OUR. Cable & Wireless Guernsey does not feel this cash should be deducted in a fair calculation of MAR as it assumes that this cash was available to shareholders for

⁷ Phone conversation with Catherine Galvin at Ofcom.

distribution. This was in fact not the case since the cash was required to fund outstanding creditors, outstanding contracted commitments not included in creditors and redundancy costs⁸. It also fails to recognise that Cable & Wireless Guernsey inherited a deficit on the pension scheme under FRS17, which must be funded out of the cash⁹. Cable & Wireless Guernsey also had a liability of rent payable to the government over 25 years.¹⁰ Furthermore, the Sale and Purchase Agreement (SPA) entered into between C&W plc and the States of Guernsey required Cable & Wireless Guernsey to spend or commit to spend the sum of £5.2m on e-commerce related infrastructure prior to 31st December 2004.¹¹ This was to be funded by pre-acquisition cash reserves.

The total of all these liabilities would in time totally exhaust the pre-acquisition cash reserves and for this reason cash should not be deducted from the purchase price (the numerator) or the total net assets and a return on this cash should be permitted. This is consistent with the OUR's approach to Cable & Wireless Guernsey's separated accounts and also with that taken by Ofcom (and previously Oftel) when calculating the return that BT is allowed to make under a price cap regime.

The following page contains an example that contrasts the OUR approach as interpreted by Cable & Wireless Guernsey to that which we believe would be the correct application of MAR. This contains dummy values of input data and does not relate to Cable & Wireless Guernsey's actual financial position¹² This shows that the OUR approach significantly underestimates the opening regulatory asset value.

⁸ See note 3 in confidential appendix

⁹ See note 4 in confidential appendix

¹⁰ See note 5 in confidential appendix

¹¹ Clause 10.8 of the Sale and Purchase Agreement between The States of Guernsey and C&W plc

¹² The application of MAR using actual Cable & Wireless Guernsey valuations is contained in note 6 of the confidential appendix

Example inputs into proposed OUR calculation and adjusted MAR application

(Values in £m)

Sale price	20.00
Cash at point of sale	5.00
Total net assets at date of sale	40.00
NBV of fixed assets at date of sale	30.00
Property returned to Government	5.00
Post acquisition write off of capex	1.00
Off balance sheet liabilities	5.00
Post acquisition capex	10.00
Depreciation on post acquisition capex since sale	4.00
Depreciation of pre acquisition capex since sale	5.00
Total net assets at 31st March 2005	50.00

MAR Adjustment, using methodology proposed by OUR

Calculation of MAR Adjustment

Calculate MAR adjustment factor	
Numerator	15.0
Denominator	40.0
Adjustment Factor	37.5%
Value of assets on which factor is applied	30.0
MAR value of pre acquisition assets	11.3

Sale price - cash
Total net assets at date of sale
Numerator / denominator
NBV of fixed assets at date of sale
Adjustment factor * asset value

Calculation of Opening Regulatory Asset Base

MAR value of pre acquisition assets	11.3	a
Post acquisition capex	10.0	b
Depreciation on post acquisition capex	(4.0)	c
MAR value of depreciation on pre acquisition assets	(1.9)	d
Opening RAB	15.4	

Value of new capex since sale
MAR adjustment factor * actual depreciation on pre acquisition assets
Sum of a,b,c,d

MAR Adjustment using methodology proposed by C&WG

This includes an adjustment for property returned to government, write offs, off balance sheet liabilities and gains to shareholders

Calculation of MAR Adjustment

Calculate MAR adjustment factor	
Numerator	20.0
Denominator	29.0
Adjustment Factor	69.0%
Value of assets on which factor is applied	40.0
MAR value of pre acquisition assets	27.6

Sale price
Total net assets at date of purchase - property returned - write offs-off balance sheet liabilities
Total net assets at date of sale
Adjustment factor * asset value

Calculation of Opening Regulatory Asset Base

MAR value of pre acquisition assets	27.6	a
Post acquisition capex	10.0	b
Depreciation on post acquisition capex	(4.0)	c
MAR value of depreciation on pre acquisition assets	(3.4)	d
Calculate gain in shareholder value:		
Increase in net assets over period	16.0	
Less post acquisition capital investment	(10.0)	
Add depreciation on post acquisition capex	4.0	
Add MAR adjusted depreciation on preacquisition capex	3.4	
Shareholder gain	13.4	e
Opening RAB	43.6	

MAR adjustment factor * actual depreciation on pre acquisition assets
Net assets at date of sale - net assets at 31/3/05 -property-writeoffs
Value of new capex since sale
Sum of above 4 values
Sum of a,b,c,d,e

The key differences between our interpretation of the approach proposed by the OUR and Cable & Wireless Guernsey's application when calculating the MAR adjustment factor are:

- 1 The calculation of the numerator: The OUR subtract cash from the value paid for Cable & Wireless Guernsey. Cable & Wireless Guernsey believes that cash should not be deducted as this represented an asset purchased by the business in the same way it purchased fixed assets and working capital and is required to fund historic and acquisition liabilities
- 2 The calculation of the denominator: The OUR use the net book value of fixed assets as the denominator and does not recognise the value of write offs of pre-acquisition assets carried out post acquisition. Cable & Wireless Guernsey use total net assets and deducts from this the value of property returned to the Government, the value of write offs of pre-acquisition assets carried out post acquisition and any pre-acquisition off-balance sheet liabilities inherited by Cable & Wireless Guernsey.

- 3 Value of assets to which the factor is applied: The OUR applies its MAR adjustment factor to the NBV of fixed assets at the point of sale. Cable & Wireless Guernsey applies its MAR factor to the total net assets at the date of sale.

Cable & Wireless Guernsey's treatment of cash, property, write-offs and off-balance sheet liabilities substantially reduce the MAR adjustment factor, an effect that must be reflected in the calculation of the opening regulatory asset base and also in any MAR adjustment of depreciation.

The other key difference between the approach proposed by the OUR and Cable & Wireless Guernsey's view of the correct application is the treatment of shareholders gains. Shareholders gains should not be subject to the MAR adjustment and such gains should be added to the regulatory asset base. The example given by the OUR to Cable & Wireless Guernsey merely added on any post acquisition capital expenditure less depreciation in arriving at the opening regulatory asset base to be used for NPV neutrality purposes. This approach does not take into account any increase in net assets generated post acquisition and effectively denies the shareholders of C&W plc the ability to make a return on any value generated post acquisition. Instead, the total movement in total net assets from the point of acquisition to date should be added in full to any MAR adjusted value of total net assets. This is seen in the above example, where Cable & Wireless Guernsey adds shareholder gains to the other assets values to calculate the opening regulatory asset base. This is consistent with the return on capital employed calculation required by the OUR in Cable & Wireless Guernsey's separated accounts i.e. it is a return on total net assets not on just the net book value of fixed assets.

Cable & Wireless Guernsey has assessed the impact of (i) adjusting the net book value to reflect cash, property and write-offs; (ii) applying the MAR factor to total net assets as opposed to the NBV; and (iii) including shareholder gains in the regulatory asset base. We believe this leads to a substantial increase in the regulatory asset base proposed by the OUR and to a value not much lower than the unadjusted value of the regulatory asset base. Therefore, Cable and Wireless Guernsey feels this may provide additional adjustment against an MAR adjustment, in favour of CCA. However should the OUR deem the MAR approach to be appropriate, which Cable & Wireless Guernsey strongly feels is inadvisable, then we urge the OUR to update its calculation to reflect the correct treatment of current assets, liabilities and shareholder gains outlined by Cable & Wireless above. Cable & Wireless Guernsey considers that any failure to consider the above relevant adjustments would constitute a material irregularity due to its unreasonable method of calculation and is inconsistent with the approach required in the separated accounts.

Q2: On the basis that a MAR approach is adopted, do you agree that a uniform MAR should be utilised across the assets of the business? If not, why, and what alternative approach do you consider most appropriate and for what reasons?

Comments made in response to this question are without prejudice to the view of Cable & Wireless Guernsey that the MAR approach should not be adopted.

It is interesting to note that the OUR believe a uniform MAR should be taken, not disaggregated, which is not consistent with the OUR approach for all other cost activities. Is the driver purely simplicity, or are there other concerns the OUR might have, such as the low asset valuation of line plant, which would support Cable & Wireless Guernsey's claims of an access deficit (particularly if based on an actual CCA analysis)?

Cable & Wireless Guernsey is not aware of how separate MAR adjustment factors could be calculated for different assets of the business, since the original sale price of the business was not separated into asset specific values. Therefore only a single percentage figure could ever be computed.

However, Cable & Wireless Guernsey believes that if a uniform MAR adjustment is required then, in order to achieve consistency, other assumptions should also be made on this uniform basis. For example, the WACC should also be a blended figure.

Cable & Wireless Guernsey firmly believes that a MAR adjustment is inappropriate in its entirety. However, should the OUR adopt this approach then we believe that it should only be used to adjust the asset value associated with regulated products in the price control. That is, the single percentage figure should only be applied to assets associated with the regulated price control products.

Q3: Regardless of the adoption of a MAR approach, do you consider it appropriate to include some form of indexation and/or holding losses/gains if appropriate when using the current cost convention? If not, why, and what alternative approach would you propose and for what reasons?

Cable & Wireless Guernsey comments on the use of indexation

The current cost convention involves the revaluation of assets to "current prices". There are a number of techniques for determining the current price of an asset, of which indexation is an accepted approach in some instances. The methods that are typically used to value assets for CCA purposes are:

- Indexation: If a 'textbook' CCA valuation was carried out by an operator i.e. assets were revalued by resource intensive methods such as Modern Equivalent Asset (MEA) and absolute valuations as well as by indexation, it is generally accepted that indexation would be the more appropriate method when there has been little technological change in the asset category and all the direct costs associated with bringing the asset into service would be incurred if it were to be replaced today. Net replacement cost is derived using indexation of the historical net book values. Where an appropriate index is available then this may be used to bring historic costs up to date. In some cases, Cable & Wireless Guernsey may be able to develop an index based on the change in purchase price that it has experienced for a particular asset. It is most feasible to develop this index where Cable & Wireless Guernsey has been consistently purchasing a similar asset over a number of years. An appropriate index should consist of both a labour and material element, with the labour element being specific to market conditions in Guernsey. It must be a recent index so that it can be used to update an asset value to the current year

or it will require extending to the current year. It should also be sufficiently disaggregated so that it recognizes that different asset price profiles apply to different assets. For example, the use of a single index for assets for the fixed network will not reflect the fact that assets used in the access network typically increase in value (due to their high labour intensiveness), whilst assets used in the core conveyance network typically decrease in value due to technical progress. Obtaining appropriate indices can be problematic, however, where appropriate indices exist then indexation could be a cost-effective method of calculating CCA.

- Absolute valuation for existing technology: In using the indexation method there may be difficulties in establishing appropriate indices and hence it may be more accurate and reliable to use physical volumes and unit prices to derive an absolute valuation. Where it is possible to purchase the same specification asset today then obtaining the current value of this asset from a verifiable source may provide a more accurate basis for calculation.
- Absolute valuation for new technology: where it is no longer possible to purchase the existing asset, or the adoption of the forward looking principle implies it is inappropriate to purchase that asset, then the Modern Equivalent Asset (MEA) approach is required to undertake the absolute valuation. Where the MEA asset has a significant difference in functionality than the existing asset then the cost should be adjusted for this functionality.
- Historical Cost: the historical cost of an asset may be used as a proxy for the current cost of an asset if: (i) the asset was recently purchased so the historic cost is effectively the current cost; (ii) the asset has a short life, for example less than 5 years; or (iii) the asset is of low value. Ofcom and ODTR (and many other economic regulators) accept this approximation in these three instances.

In the absence of an index the appropriateness of each of the above methods should be considered on an asset by asset basis. When conducting CCA, it is typical that a business will use more than one of these methods. Therefore, Cable & Wireless Guernsey considers it appropriate to use some form of indexation where it is considered appropriate to use an index and an appropriately disaggregated and market specific index can be obtained. Where it is more appropriate to use historical cost as a proxy or to use the absolute replacement value approach then Cable & Wireless Guernsey considers these should be used.

Cable & Wireless Guernsey would also like to take the opportunity to comment on the OUR discussion on CCA, outside of the immediate scope of this question. Cable & Wireless Guernsey does not agree with the OUR statement that the difficulties associated with an absolute asset valuation approach often lead to indexation being used.¹³ Given the difficulty that Cable & Wireless Guernsey has encountered in obtaining appropriate indices, we do not believe indexation alone may necessarily be a feasible option for Cable & Wireless Guernsey. Cable & Wireless Guernsey is in the process of obtaining the Turner Index as stated in our letter to the OUR of 3

¹³ Page 13, Section 6.3 in OUR Consultation 04/11

September 2004, and following its receipt Cable & Wireless Guernsey will take a view on whether it believes the index provides a suitable basis for the valuation of various asset classes. Cable & Wireless Guernsey recognises that CCA implementation is costly and resource intensive and would not wish to engage in activities that were disproportionate in intensity to the size of Guernsey, particularly where equally appropriate and potentially less costly alternatives exist, such as indexation as directed by the OUR. Cable & Wireless Guernsey has requested guidance as to appropriate indices from the OUR, however the OUR has said that it is a matter that Cable & Wireless Guernsey must address¹⁴. We are aware that other operators including BT and Eircom refer extensively to the use of indices in their CCA methodologies. However, these larger companies purchase considerably more equipment on a more regular basis than Cable & Wireless Guernsey and can therefore construct their own indices from this transaction history. Given the smaller size of Cable & Wireless Guernsey and its hence less frequent equipment procurement, Cable & Wireless Guernsey believes that, in many instances, the use of sporadic equipment purchases would not lead to a sufficiently robust index being created. Further details on Cable & Wireless Guernsey's proposed CCA implementation plan have been provided to the OUR in our response to OUR 04/12 and in the associated Cable & Wireless Guernsey proposed implementation plan.

Cable & Wireless Guernsey is aware that CCA will involve calculating the current cost for a particular year and that for the purposes of the price control it will be necessary to forecast those costs into future years. It is here that Cable & Wireless Guernsey believes that the use of an external index may be useful. Cable & Wireless Guernsey is continuing to review the use of indexes and so cannot provide a commitment to a specific index at this time. However, for the purposes of forecasting Cable & Wireless Guernsey believes that the Turner Index could provide a useful tool. Alternatively, or alongside, Cable & Wireless Guernsey could compare its historic costs to the current costs and calculate the average change in annual cost of a particular asset category. Depending on the number of assets in the asset category and the method used to obtain the current cost, this may also provide a suitable index to forecast future current costs.

Cable & Wireless Guernsey comments on the inclusion of holding gains and losses

Cable & Wireless Guernsey firmly believes that holding gains and losses that are calculated as part of the current cost accounting process should be included. Cable & Wireless Guernsey has reviewed their inclusion by BT and other European operators and believe their inclusion to be entirely appropriate in an industry that is subject to significant technological progress. Technological progress in the telecoms industry is and has been rapid. It is beneficial to the population of Guernsey that Cable & Wireless Guernsey invests in new technology, for instance by rolling out broadband to consumers in the Bailiwick. Indeed, Cable & Wireless Guernsey's broadband penetration compares extremely favourably with UK broadband access. Failure to allow a technologically progressive business to recover its holding gains and losses penalizes this progress in a profit-maximising company and leads to extensive regulatory uncertainty¹⁵. The end result is a company that may be less likely to invest

¹⁴ Letter from Jon Buckland to Glenn Milnes dated 18 August 2004, Page 2, Valuation Methodology.

¹⁵ P95, G. Whittington: Regulatory Asset value and the cost of capital in Regulating Utilities: Understanding the Issues

in future technological advancements. Therefore, Cable & Wireless Guernsey views the inclusion of holding gains and losses to be appropriate where a regulator is intending to send signals to the market that result in continued technological advancements that should ultimately increase consumer welfare. Cable & Wireless Guernsey must be confident that it can recover the value of investments in high-end technology if it is to continue to be the provider of high-end technological services, as opposed to the provider of a basic telecommunications service.

Cable & Wireless Guernsey comments on the linkage between MAR and CCA

Cable & Wireless Guernsey has answered this question with specific regard to the use of indexation and the appropriateness of the inclusion of holding gains and losses when conducting current cost analysis. This is not intended as a response to any output that may be as a result of the use of the MAR process. However, Cable & Wireless Guernsey notes that it is difficult to answer the question, as the OUR asks, “regardless of the adoption of a MAR approach” since typically the interaction between the use of MAR and CCA assumptions is considered when assessing the appropriateness of a MAR approach in obtaining optimal regulatory outcomes. For example, Cable & Wireless Guernsey notes that the initial CCA valuation may be irrelevant when using MAR since MAR may provide the lower bound on the asset valuation. This is true in the MAR examples that were kindly provided to Cable & Wireless Guernsey by the OUR and are displayed below. It can clearly be seen that when the MAR adjustment factor is applied (D,E,F) the starting regulatory asset valuation is the same whether or not CCA has been undertaken.

	Starting Regulatory Value
A: Unadjusted Historic Costs	15.000
B: Unadjusted Current Costs - Indexation	12.000
C: Unadjusted Current Costs - Replacement Costs	12.000
D: MAR Adjusted Historic Costs	9.000
E: MAR Adjusted Current Costs - Indexation	9.000
F: MAR Adjusted Current Costs - Replacement Costs	9.000

Source: OUR, Summary Worksheet, NPV Neutrality Example Consultations

Initial analysis undertaken by Cable & Wireless Guernsey does indeed show that it is likely that the starting regulatory asset value used in price control would be dictated by the decision to undertake MAR and not CCA. This appears wholly inappropriate since the usual consensus is that CCA provides the correct entry and build/buy decisions to the market. Indeed, the DG herself notes that “*The clear advantage of current costing is that it sends efficient and correct economic signals to competitors in relation to market entry as it reflects the costs of investing in the market at current rates. It is also fair to consumers, reflecting the true cost of providing the services*”¹⁶. The fact that the CCA valuation is superseded by the valuation obtained under MAR surely provides an additional reason as to why MAR is inappropriate. Therefore,

¹⁶ Page 13, Section 6.3 in OUR Consultation 04/11

Cable & Wireless Guernsey would urge the OUR to review the interaction effects of CCA and MAR.

Q4: Regardless of the adoption of a MAR approach, do you consider it appropriate when adopting an indexation approach to current costs to exclude from the inflation rate used components associated with housing costs, for assets other than buildings? If not, why, and what alternative approach do you consider appropriate and for what reasons?

Cable & Wireless Guernsey has responded in question 3 that it does not believe that an indexation approach is necessarily and uniquely appropriate when undertaking CCA. However, without prejudice to that view, Cable & Wireless Guernsey believes that if the OUR seeks to exclude housing costs for assets other than buildings then it should seek to implement a symmetric approach for the valuation of other assets. So for example, the valuation of vehicle assets should be conducted based on the motoring component of the RPI with this motoring component being excluded from the general index.

Since it is not possible to obtain adjusted inflation indexes for each asset, Cable & Wireless Guernsey suggests that if the OUR adopts the indexation approach then the use of a single index to be applied to all assets is more appropriate. Cable & Wireless Guernsey suggests this as: (i) it is a proportionate response since Cable & Wireless Guernsey does not consider the widespread implementation of an indexation approach to be a likely option at this time; (ii) it is transparent and non-discriminatory in its application.

Cable & Wireless Guernsey strongly believes that this single inflation rate should be based on the composite RPI rate including the cost of housing. A high percentage of Cable & Wireless Guernsey costs are related to salaries and employee expenses¹⁷ which Cable & Wireless Guernsey alters in line with RPI including the housing costs. Since Cable & Wireless Guernsey costs effectively vary with housing costs, then the use of RPI should also include housing costs.

Q5: Regardless of the adoption of a MAR approach, if the regulated business does not provide a suitable asset valuation based on current costs, do you consider it appropriate for the DG to make such adjustments as are feasible based on other available information with respect the underlying valuation of the assets? If not, why, and what alternative approach do you consider appropriate and for what reasons?

First, Cable & Wireless Guernsey is willing to provide an asset valuation based on current cost for its regulated business. Cable & Wireless Guernsey has expressed its intention to do this in its response to OUR direction 04/12 and has met with the OUR on 20 August 2004 to discuss the methodological principles which require agreement with the OUR so that Cable & Wireless Guernsey can continue to progress the implementation. As noted in this and the related CCA implementation plan, Cable & Wireless Guernsey has suggested a 2 phase approach which aims to have a first version of CCA completed in time for inclusion in the price control business plan that

¹⁷ See note 1 in confidential appendix.

has been requested by the OUR¹⁸. Typically operators have taken many months, if not years, to implement CCA and therefore the endeavours of Cable & Wireless Guernsey to attempt a first draft of CCA in less than 3 months should be commended. Cable & Wireless Guernsey would like to re-iterate that before it can commence this exercise it is necessary for the principles of CCA to be defined by the OUR. Cable & Wireless Guernsey has provided the OUR with a list of principles with which it is usual for a regulator to provide an operator¹⁹ and looks forward to receipt of a decision on the principles from the OUR so that the calculations can progress.

In general, Cable & Wireless Guernsey believes it would be inappropriate for the OUR to make adjustments that are intended to proxy for current cost. Any adjustment that the OUR would make could surely be little more than a rule of thumb and unlikely to accurately proxy true current cost and thus may quite likely send inappropriate signals to Cable & Wireless Guernsey, other operators, consumers and potential new entrants considering the use of Cable & Wireless Guernsey infrastructure. Clearly more detailed comment is not possible because the nature of any likely adjustment is unknown at this time.

Cable & Wireless Guernsey suggests that an alternative approach to the outlined adjustment process is for Cable & Wireless Guernsey and the OUR to continue to engage in discussions to define the principles necessary for Cable & Wireless Guernsey to undertake a proper current cost accounting exercise in a timely and proportionate manner.

Q6: If a MAR adjustment approach is utilised, do you agree that depreciation schedules for assets purchased prior to the point of privatisation should be adjusted by the MAR? If not, why, and what alternative approach do you consider most appropriate and for what reasons?

Comments made in response to this question are without prejudice to the view of Cable & Wireless Guernsey that the MAR approach should not be adopted.

If a MAR adjustment approach is utilised, then it is important that the logical error that was encouraged in the 1993 MMC report on British Gas is not repeated²⁰. In that report a full current cost depreciation charge was allowed as a charge against profit, but only that proportion attributable to regulatory value (full current cost abated by the MAR) was deducted from the regulatory asset base. That error was recognised in Volume 2, paragraphs 7.78 to 7.80.

¹⁸ The full proposed methodology for the implementation of CCA for regulatory accounting purposes was submitted to the OUR 3 September 2004

¹⁹ Letter sent from Glenn Milnes to Jon Buckland on 11 August 2004

²⁰ Discussed in "Regulatory Asset Value and the Cost of Capital" by Geoffrey Whittington, University of Cambridge, section 4, page 97

Q7: If a MAR adjustment approach is utilised, do you agree that a uniform MAR should be adopted across the depreciation schedules? If not, why, and what alternative approach do you consider most appropriate and for what reasons?

Comments made in response to this question are without prejudice to the view of Cable & Wireless Guernsey that the MAR approach should not be adopted.

As for our answer to Q2, Cable & Wireless Guernsey cannot see how a separate MAR could be calculated for different assets in the depreciation schedule given that the purchase price was not identified against those assets at the time of purchase.

Q8: Regardless of whether a MAR adjustment approach is utilised, do you consider it appropriate to apply some form of indexation to the relevant depreciation schedules when utilising the current cost convention? If not, why, and what alternative approach would you propose and for what reasons?

As noted previously in its responses to questions 4 and 5, Cable & Wireless Guernsey does not believe that indexation alone is likely to provide a unique and sufficient basis for undertaking accurate and reliable CCA adjustments. However, Cable & Wireless Guernsey does believe that indexation may be one of several approaches that should be considered for obtaining a valuation for an individual asset class.

Ideally CCA depreciation would be calculated in the same way as for the statutory accounts i.e. depreciation for each individual asset is calculated based on its useful economic life. This cannot be done in CCA as, unlike in HCA where the data is held on a fixed asset register, the current cost data is calculated and it would not be feasible to apply the same detailed calculations as are applied with the historic data. In the first year of CCA, there is a “standard” approach to calculating CCA depreciation to reflect the fact that the closing current cost balance for the previous year is not available. However after the first year it is necessary to determine an alternative depreciation approach, Cable & Wireless Guernsey notes that other operators make a decision on whether to use the roll-forward or ratio method for depreciation. A brief description of each of those approaches is provided below:

Ratio Method: The ratio method is conceptually the easier to understand (and easier to calculate) - and hence is usually considered a good starting point. In situations where volumes are relatively stable (i.e., material impacts on gross replacement costs (GRC) are from price fluctuations only), it is an appropriate methodology. However, high levels of recent additions can easily distort the calculation. Under this method one would use the following set of formulae to obtain values for depreciation and holding gains/losses.

Closing GRC = Opening GRC + Additions – Disposals + holding gain/loss

The opening and closing GRC values are obtained from the two valuations, as is the GRC of the disposals made during the year. The additions made will be at historic cost. The holding gain/loss is obtained as the balancing figure.

Accumulated depreciation is given by:

$$\text{Closing accumulated depreciation} = \text{Opening accumulated depreciation} + \text{depreciation charge for year} - \text{disposals} + \text{holding gain/loss}$$

The disposal figure would be obtained from the valuation calculation. The closing accumulated depreciation is given by the ratio of closing GRC to gross book value (GBV) multiplied by the historic closing depreciation. The holding gain/loss is effectively the backlog depreciation. The depreciation charge for the year would be obtained as the balancing figure.

Roll Forward Method: Under this method the current cost depreciation charge is calculated based on the historical depreciation charge and the relationship between GRC and GBV.

The current cost depreciation charge for the year would be given by the following formula:

$$\text{CCA depreciation charge} = (\text{Opening GRC} + \text{Closing GRC}) / (\text{Opening GBV} + \text{Closing GBV}) \times \text{Historical depreciation}$$

The advantage of this method is that it is more flexible and provides 'sensible' net replacement costs (NRCs) in the majority of cases. The downside is that it is more complicated and resource intensive to calculate. The gross replacement cost and the related holding gain/loss are obtained in the same way as the ratio method. Accumulated depreciation is also obtained by the same formula as above, however in the roll forward method the depreciation charge for the year is calculated and the closing accumulated depreciation charge is the balancing figure.

If the asset category has sub-categories of assets with a marked range of asset lives or there are significant levels of current year additions then the roll forward method for depreciation calculation should be used. However, where there is not a range of asset lives, and there are no significant year on year volume movements, then the ratio method works acceptably. Cable & Wireless Guernsey proposes to analyse the appropriate method to use on an asset by asset basis. Where the less resource intensive ratio method is deemed to give a suitably accurate answer then Cable & Wireless Guernsey will seek to implement this approach. Where this approach is deemed unsuitable due its limitations discussed above then Cable & Wireless Guernsey will engage in the more time-consuming roll forward method. The type of depreciation approach usually varies on an asset by asset basis and therefore it is standard for both approaches to be seen within one set of CCA regulatory accounts. Cable & Wireless Guernsey also notes that the choice of depreciation methodology is not usually agreed until the first set of CCA accounts have been produced.

Cable & Wireless Guernsey believes this approach is inline with internationally recognised approaches. Cable & Wireless Guernsey sees this process as auditable, transparent, fair and proportionate and hopes that OUR will agree this approach so that Cable & Wireless Guernsey can begin to conduct its CCA exercise.

Q9: Regardless of whether a MAR adjustment process is utilised, if current cost estimates have not been provided by the regulated business, do you consider it appropriate for the Direction General to make such adjustments as are feasible based on other available information with respect to the underlying depreciation charges associated with the asset base? If not, why, and what alternative approach would you propose and for what reasons?

For a response to this question, please refer to the response provide in Q5.

Q10: Do you agree that it is appropriate, given the scale of Guernsey's economy and the need to ensure that future capital expenditure provides the economy with suitable strategic benefits, that it is necessary to ensure that capital expenditure proposals are justified, committed to and incorporated into the relevant licence conditions? If not, why? What alternative proposals would you consider more appropriate and for what reasons?

Cable & Wireless Guernsey has significant concerns about the proposal to include specific investment targets in the licence conditions. This would constitute a change to the relevant licence conditions and Cable & Wireless Guernsey would look for the OUR to comply with the applicable procedures in each and every case of such licence changes such that there would be consultations on the specific changes in accordance with the relevant telecommunications and regulation laws. Cable & Wireless Guernsey does not consider that this consultation would constitute such a process in the absence of specific details of such licence changes.

Cable & Wireless Guernsey is surprised at the OUR's proposal to include capital expenditure commitments as part Cable & Wireless Guernsey's retail price control regardless of the mechanism by which this is legislated. Cable & Wireless Guernsey is of the view that capital expenditure commitments, in the form that the OUR is suggesting, are unlikely to send the correct signals in a liberalized market system and will undermine market forces and encourage inefficient market entry.

Cable & Wireless Guernsey assumes that the OUR is interested in regulating capital investment since it may be concerned that an over stringent price control mechanism may result in decreased incentives to undertake capital investment. However, research has shown that quality of service and investment does not decrease as a result of a correctly specified price control model²¹. Cable & Wireless Guernsey has invested over £10m in the network in the last 2 years, despite being subject to a price control regime. To the extent that OUR does not consider that these levels represent its view of an 'efficient' level, an investigation would possibly show that this is due to inappropriate incentive setting (e.g. inappropriately low cost of capital or uncertainty over regulatory treatment of new products) rather than irrational behaviour by Cable & Wireless Guernsey and other operators.

The OUR's concerns regarding the continuation of an appropriate level of capital expenditure to further develop the Bailiwick's telecom sector appear to result from the change in ownership of Cable & Wireless Guernsey. With this change we are aware of the need to protect consumers and ensure continued high quality service. This need

²¹ Further details of this issue can be found in: Citizens for a sound economy. Issue Analysis 85: A primer on price cap regulation

has been identified in the UK and is the subject of a recent Ofcom consultation²². With this in mind, Cable & Wireless Guernsey recognises the need for the implementation of well-designed price control mechanism and minimum service quality standards, especially in cases where the market might fail. However, we believe that over-regulation and unnecessary market interference/intervention by the regulator can work against the very objectives they are trying to achieve, and in fact damage the interests of the consumers and industry participants. Capex commitment is one such policy that is likely to result in this situation. Given that the telecommunications market in Guernsey is undergoing considerable change with new entrants and new services emerging, it would be dangerous to include capital expenditure targets in the licence as it could (i) potentially require Cable & Wireless Guernsey to undertake more capital expenditure than the optimal which may hinder any infrastructure competition in Guernsey and lead to retail prices being based on an inefficiently high level of infrastructure; (ii) lead to Cable & Wireless Guernsey over investing in a particular area of the business and hence result in it not being able to sufficiently fund capital investment in another area of the business where capital investment isn't regulated and where the consumer need for product development is greater. For instance:

- Batelco (Bahrain) was initially required to meet formal capital expenditure targets. This resulted in Batelco having to invest in telex capability that was never fully utilised, rather than modern assets based on current technology. In a similar vein, formal expenditure targets could result in Cable & Wireless Guernsey being forced to invest in older products rather than introducing newer products for which demand cannot be accurately forecasted at the start of the price control period.
- Cable & Wireless Guernsey may budget £Xm for a new asset based on a current quotation from an equipment supplier. At the future time of purchase, the price of the asset may be below £X m given that asset prices are typically altering at an unpredictable level. In this example, Cable & Wireless Guernsey may be penalised for failing to invest sufficiently in monetary terms even though in terms of technology, quality and quantity Cable & Wireless Guernsey has met its investment objectives and the consumer has benefited from the cost saving. Without prejudice to the view of Cable & Wireless Guernsey that licence conditions requiring capital investment are inappropriate, Cable & Wireless Guernsey would welcome comment from the OUR on how it would propose to deal with this particular situation if formal targets were in place.
- Capital investment should be reactive to changes in demand for products. For example, IP networks were cited as a major necessary area of expansion for telcos several years ago however time has shown that IP roll out has been slower than expected. Cable & Wireless Guernsey could, in this example, be expected to have cited IP investment in any business plan however in reality investing in an IP network in these early stages would have been inadvisable. Similarly, broadband penetration rates are currently higher than those which Cable & Wireless Guernsey could reasonably have been expected to predict. Freedom to target investment to areas where consumer demand is higher away from areas where consumer demand is lower has led to the optimal level of investment. A failure to

²² Ofcom Consultation on quality parameters including a Notification and Draft Direction – 1 September 2004.

be reactive in this instance, could have lead to the inability to meet broadband demand due to the requirement to invest in other areas which may have hindered the economic growth of the Bailiwick of Guernsey.

- There may be instances where changes to capital investment plans occur and these are outside of Cable & Wireless Guernsey's control. For example, video on demand over ADSL was predicted to be a high growth service in the early 1990s, however demand for this particular combination did not materialise primarily due to the technology not being able to deliver the product. It was only following the growth in Internet adoption that ADSL has become a viable service. If such a demand / technology mismatch were to occur again due to technological issues outside of Cable & Wireless Guernsey's control then this may unfairly lead to Cable & Wireless Guernsey being penalised for not meeting capital expenditure targets in a particular period. Consideration should therefore be given to the multi-period nature of investment. A capital target requiring expenditure in a particular period may lead to Cable & Wireless Guernsey delaying investment plans for new technologies since Cable & Wireless Guernsey would not wish to be penalised for wrong predictions by equipment manufacturer as to when viable technology may be purchasable

The approach that the OUR is taking appears contradictory. In one instance, the OUR is seeking to reduce the return on capital and place uncertainties in the market that reduce incentives for investment. However, the OUR then states they are worried about under investment. As a publicly listed company, the aim of C&W plc is to deliver returns to its shareholders. C&W plc has limited funds for investment and allocates this risk capital to jurisdictions based on a decision as to where C&W plc can obtain the best results for shareholders. Therefore if one of the aims of the OUR is to ensure investment, then Cable & Wireless Guernsey feels that the OUR should ensure that the Bailiwick of Guernsey is seen as having a favourable environment for investment.

The most effective way to encourage investment is therefore to incentivise the company to invest provided that a sensible balance is struck in order to ensure the protection of consumers. The current proposals of the OUR would seem to disincentivise Cable & Wireless Guernsey from investing. This is not in the long-term interests of Guernsey.

Traditionally, a company would have a schedule of potential projects, and estimates of the associated costs. The sum of these costs is presented as a projection of the company's capital expenditure schedule. Recent experiences in the telecommunications industry, has shown that the pace of technological development, product innovations, and volatility in the price of telecommunications equipment make the projection of capital expenditure extremely difficult, if not impossible especially over a number of years. The requirement for Cable & Wireless Guernsey to present detailed capital expenditure commitments is therefore impossible, especially in an industry that is dynamic and changing at an unpredictable pace. The requirement for capital expenditure commitments in a dynamic industry is unrealistic and serves only to send the wrong signals and create unnecessary distortions that will harm market participants and ultimately consumers. Instead, the duration of the price cap should be set with a view to ensuring that estimates in all areas of the price cap are not allowed to fall too far out of line with reality.

In addition the proposal that Cable & Wireless Guernsey should be held to capital expenditure commitments through a revision in its licence comes at a time when the outcome of certain OUR consultations is awaited. Most notably the OUR findings on carrier pre-selection and number portability are unknown, making it impossible for Cable & Wireless Guernsey to foresee associated capital expenditure.

Finally, the OUR states that any submitted capital expenditure plans should “be fully justifiable and based upon rigorous investment appraisal techniques”. This appears to pose additional difficulties and resource requirement to Cable & Wireless Guernsey in undertaking investment, which surely contradicts the OUR’s previous statements regarding the importance of capital investment in Guernsey. Also, should Cable & Wireless Guernsey choose to make an investment then this is a commercial decision that should be based on Cable & Wireless Guernsey’s commercial decision-making process. Hence Cable & Wireless Guernsey should be able to choose its own investment appraisal techniques, without these being dictated by the OUR. It is indeed rather curious that the OUR should seem to suspect that Cable & Wireless Guernsey does not undertake investment appraisal as a matter of course and that it would be interested to know the foundations for these suggestions. Should the OUR have any specific examples of “*rigorous investment appraisal techniques*” that other regulators have imposed on other operators then Cable & Wireless Guernsey will certainly consider the inclusion of these techniques in its current investment appraisal process.

Cable & Wireless Guernsey has reviewed the academic literature and approaches taken by other regulators with regards to formalised investment conditions. This review leads it to believe that the imposition of such targets is not usual within the telecommunications industry. In particular, the following observations are relevant:

- Where there are capital expenditure targets, these are more common in countries with low exchange line penetration and where quality of service is low. Typically they may be included as a condition of privatisation in low-income countries and are related to the provision of basic services (usually access line roll out) that are already well provided in Guernsey.
- Where adequate investment is considered a key objective of the regulator, this is usually achieved via the use of quality of service targets not direct regulation of investment.
- Cable & Wireless Guernsey is not aware that other regulators have required specific investment commitments as part of their price control procedures. Indeed, in examining this issue in its March 2000 Price Control Review Oftel rejected this approach, concluding: “*the focus of regulation should be on outputs rather than inputs, and the controlled firm should be encouraged to find cheaper and more cost-effective ways of providing the output. A retrospective control on actual levels of investment would remove the incentive on the firm to find more efficient ways of providing the service*”²³.
- A possible theoretical link between declining investment and quality of service and the use of incentive based regulation is sometimes cited by regulators when assessing the appropriateness of incentive regulation. However, recent studies

²³ Oftel Price Control Review March 2000 paragraph 6.25

have not supported this theoretical link and have in fact shown that incentive based price control regulation does not appear to impact negatively on operator investment decisions. Academics at the University of Florida recently stated that “*there is no systematic link between incentive regulation and service quality, broadly defined*”²⁴. Therefore in the absence of any substantiated link, there can be no rationale for formalising capital expenditure targets as part of the price control since market forces will ensure that Cable & Wireless Guernsey sets investment at the optimal level for each period of time.

Cable & Wireless Guernsey now operates in a fully liberalized telecommunications market and therefore believes it should be left up to the forces of demand and supply to create the necessarily incentives and market signals that should determine the allocation of the industry’s scarce resources. We strongly believe that any unnecessary market intervention, as in the case of formal capital expenditure requirements, are not in keeping with the principles of a well functioning market system. Consequently, Cable & Wireless Guernsey does not believe that it is appropriate to include licence conditions requiring capital investment.

What alternative proposals would you consider more appropriate and for what reasons?

Whilst Cable & Wireless Guernsey does not agree with the direct regulation of investment, Cable & Wireless Guernsey is aware that the OUR may perceive a need to ensure that sufficient investment is being undertaken so that consumers continue to receive the high quality of service to which they are accustomed. Therefore, Cable & Wireless Guernsey suggests the continued use of the existing quality of service standards is the most appropriate mechanism for ensuring that Cable & Wireless Guernsey is engaging in sufficient investment to ensure a continued high grade of service. These alternative proposals are discussed in further detail below.

First, it should be recognised that Cable & Wireless Guernsey is not the sole mobile/fixed operator and therefore any capital expenditure requirements should not apply to Cable & Wireless Guernsey alone. If capital expenditure is to be enforced for social reasons in the conditions of our licence, then a fund, similar to a Universal Service Fund should be set up and every licensed operator should contribute towards the cost. This principle is used by the FCC in the USA where each local state operator is required to contribute an annually calculated percentage of end user revenue to the fund.²⁵

Second, the implementation of capital investment targets must be linked to any approach to “adjust for inefficiencies” that the OUR undertakes. For instance, many efficiency studies compare the asset base of the company in question to other telecommunications operators. However, this is not a fair approach where the decision to invest is taken based on regulatory or legal requirements and control of investment costs is therefore not entirely in the operator’s control. Cable & Wireless Guernsey is undertaking investment decisions that may be viewed by the OUR as being

²⁴ Chunrong Ai and David E.M Sappington, University of Florida: The impact of state incentive regulation on the US telecommunications Industry.

²⁵ The FCC determined each state operator should contribute 8.9% of end-user revenue in 2004. This decision is available on the FCC website.

inefficient, but which it views as unavoidable given its universal service and licence conditions. Cable & Wireless Guernsey urges the OUR to take into account the following issues when assessing Cable & Wireless Guernsey's capital efficiency:

- Due to laws stating that a road may only be dug up every 3 years, Cable & Wireless Guernsey is being forced to bring forward investment that involves digging up roads.
- Cable & Wireless Guernsey requires planning permission to erect poles to serve consumers with overhead aerial cable. Where planning permission is rejected then Cable & Wireless Guernsey must consider the more costly alternative of serving the consumer using underground cable.
- Where, due to laws regarding digging-up roads, Cable & Wireless Guernsey is unable to serve a consumer using underground cable, Cable & Wireless Guernsey must use the more expensive wireless local loop (WLL) technology.
- Cable & Wireless Guernsey is currently undertaking a capital investment plan to replace lead cables with more modern assets.

Cable & Wireless Guernsey would be interested to know how the OUR intends to align the question of holding Cable & Wireless Guernsey accountable for inefficient investment whilst regulating the amount of investment that Cable & Wireless Guernsey must make.

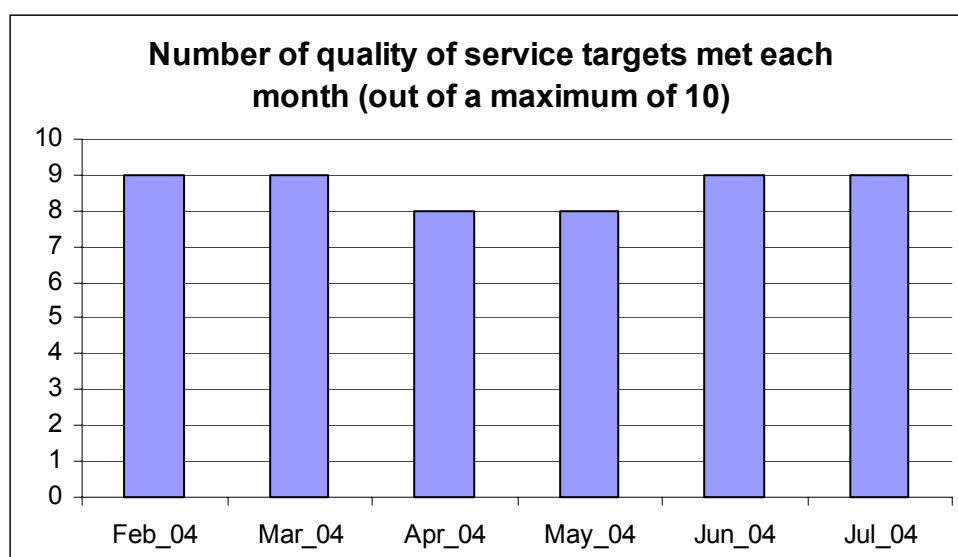
To the extent that the OUR believes that Cable & Wireless Guernsey should make commitments to investing in new services, Cable & Wireless Guernsey feel that this is not an appropriate task for a telecoms regulator to be undertaking and should not be relevant to the price cap regime. The introduction of new services is likely to be inherently risky and require substantial amounts of capital, which will need to be justified, reviewed and approved by the business at the time of investing. As the OUR has cited in consultation OUR 04/11 investment decisions should be made on the basis of a well implemented investment appraisal procedure and should be efficiently incurred. A decision as to whether an investment should be made is therefore most correctly informed at the time at which the investment is being considered which is not necessarily the time at which a price control mechanism is being implemented.

To the extent that the OUR believes that existing services could be better delivered through increased use of new technologies such as IP, these investments are best encouraged by giving Cable & Wireless Guernsey the freedom to decide on the most efficient delivery mechanisms and the ability to make a reasonable return on capital invested. Providing that Cable & Wireless Guernsey is allowed to make a reasonable and sufficient return on capital investments there is no reason to suspect that Cable & Wireless Guernsey would choose to make a suboptimal decision. This is backed-up by historical evidence that suggests that Cable & Wireless Guernsey has been adequately investing in telecommunications infrastructure since the purchase of Guernsey Telecoms by C&W.

In as far as investment may be needed to maintain high standards of service quality, Cable & Wireless Guernsey believes that this is more appropriately managed through a secondary target. This is a far more common regulatory approach with a set of quality of service targets usually being the chosen regulatory instrument. This has the benefit of leaving the regulated operators to decide on the appropriate investment

needed rather than direct management of operator's investment decisions by the regulator. Cable & Wireless Guernsey currently provides information to the OUR on a six monthly basis on an existing set of quality of service indicators as required by condition 16 of Cable & Wireless Guernsey's fixed telecommunications licence²⁶. The level at which these quality of service standards are set is in line with international precedent and are comparable to those standards required on a voluntary basis by BT. Cable & Wireless Guernsey has consistently met the majority of its quality of service targets in the recent period and the target in which it has failed in all months relates to a service provided by a third party and so is outside of direct Cable & Wireless Guernsey control. Therefore, Cable & Wireless Guernsey believes that the existing targets and its performance provide evidence that Cable & Wireless Guernsey is providing a high quality service to consumers and must therefore, by implication, be adequately investing in capital items.

The following graph provides evidence of the continued importance that Cable & Wireless Guernsey places on quality of service and ensuring adequate investment to maintain the high quality of service to which consumers are accustomed. Cable & Wireless Guernsey is seeking a resolution to the less than satisfactory quality of service provided by the third party mentioned above and hopes that this will lead to 100% success in these targets in future months.



Finally Cable & Wireless Guernsey notes that in consultation OUR 04/11, the OUR discusses the requirement for capital expenditure to be made on an efficient basis. Cable & Wireless Guernsey believes that its capital expenditure is efficiently incurred however the use of formal capital targets may lead to Cable & Wireless Guernsey altering its capital plans to meet these targets and as such expenditure may potentially become less efficiently incurred. Cable & Wireless Guernsey kindly requests that the

²⁶ Condition 16 of the Cable & Wireless Guernsey fixed licence requires it to submit telecommunications development and monitoring plans and report on progress against those plans to the OUR on a six monthly basis. These plans contain details on the quality of service statistics that are measured, the absolute value of each target and the process for measuring achievement. Cable & Wireless Guernsey reports on whether each target has been met.

OUR fully consider the relationship between efficiency and regulated investment targets when considering the appropriate balance of regulation.

Cable & Wireless Guernsey has made further comments on the requirement for formal capital expenditure agreements as part of its response to question 3 in OUR 04/10.

Q11: Do you agree that it is necessary for the regulated business to provide a robust, logical, transparent and fully justified explanation regarding the efficiency of its base year and projected operating costs? If not, why, and for what reasons

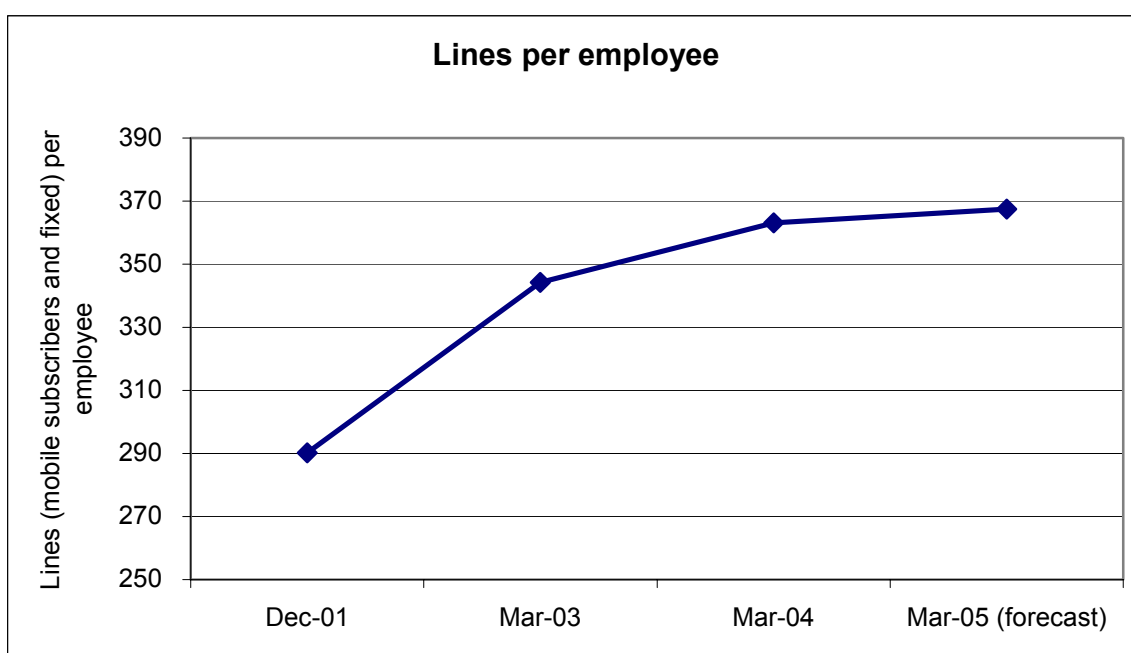
Before Cable & Wireless Guernsey answers this specific question, we would like to take the opportunity to comment on the views expressed by the OUR in section 9 of OUR 04/11. Cable & Wireless Guernsey do not agree with the OUR's statement that "*it is necessary to evaluate the regulated business's operating costs from the perspective of efficient operation rather than from the current level of operating costs implied by the company's statutory accounts*". Incentive regulation is designed to provide the regulated company with an incentive to increase its efficiency over time and the modeling of theoretical efficient costs in the base year would imply there was no need for efficiency improvements and thereby negate one of the key benefits of the price control. Indeed, any rational profit maximizing company facing X-factor regulation should be expected to attempt to achieve maximum efficiency levels in each period and therefore any possible improvements in efficiency should be expected to be obtained regardless of whether the initial operating base is subject to an efficiency adjustment. Indeed, the total factor productivity approach (TFP) to price cap regulation calculates the productivity differential between the telecoms sector and the wider economy on a historic basis²⁷. It is this historical calculation that is used to set the value of X in the price control since it is assumed that if there are efficiency gains to be made then a company facing an X-factor control will intrinsically choose to make these. This approach also solves the issue of determining what constitutes efficiency and how it should be calculated. Further more, if it can be shown that the existence of any inefficiencies occurred due to previous ownership practices and that steps have been taken to improve efficiency over time then credit should be given to the company and the company be allowed to continue this efficiency process and indeed incentivised to do so through the use of price cap regulation. Therefore Cable & Wireless Guernsey strongly feels that a single efficiency adjustment in the base year would be inappropriate and a more gradual approach should be taken within the price control should any inefficiency be identified.

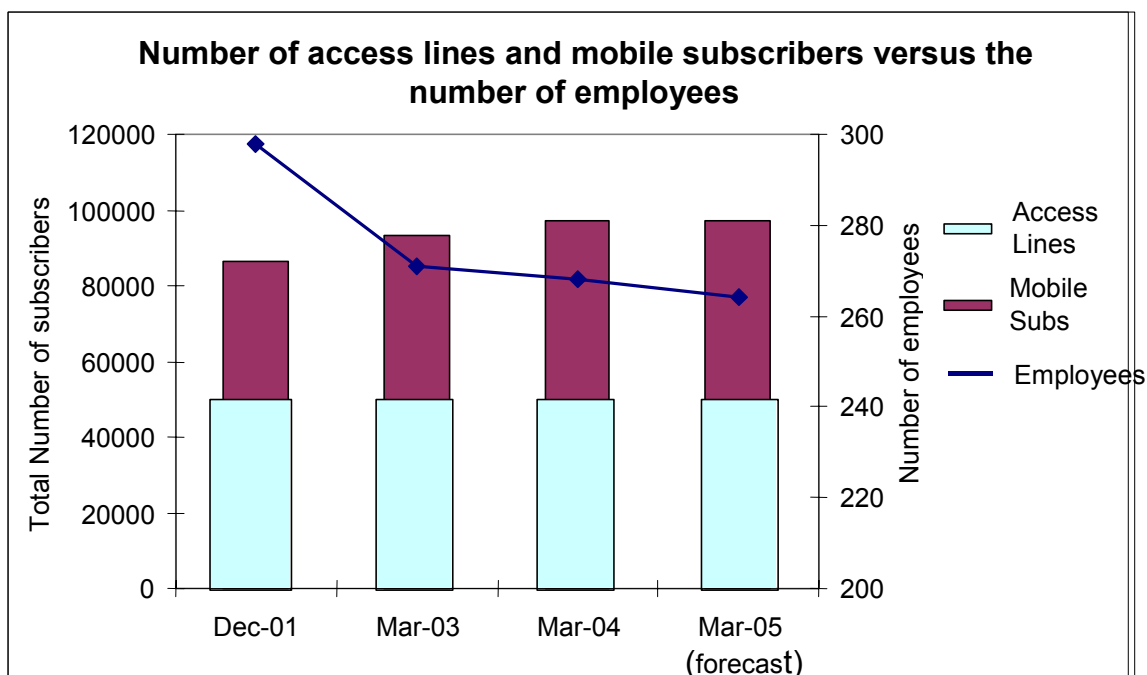
The OUR has presented no evidence to suggest that Cable & Wireless Guernsey is inefficient, however to the extent that inefficiencies may be subsequently proved to exist, Cable & Wireless Guernsey believes that the price cap process should provide the basis for encouraging continued efficiency improvements by Cable & Wireless Guernsey. It considers that it is the responsibility of the OUR to fully demonstrate why operating costs (or indeed capital expenditure) is inefficient before disallowing it. In order to do so, the OUR would need to fully appreciate all the legal, legacy and other considerations that affect Cable & Wireless Guernsey in this context. Cable &

²⁷ The TFP approach is favoured by the FCC in the USA and by some regulators in the Caribbean and South America amongst other jurisdictions.

Wireless Guernsey cannot be held responsible for the actions undertaken by Guernsey Telecoms who as a States owned company was faced with incentives that were thus fundamentally different to those that exist today. Since acquiring ownership, Cable & Wireless Guernsey has taken substantial steps to improve efficiency levels despite considerable obstacles to doing so.

The graphs below and on the next page provide an illustration of our increasing efficiency. As can be viewed, the number of lines per employee has increased by 25% between December 2001 and March 2004. The second graph shows the number of fixed lines in the bottom section of each bar, and mobile subscribers in the top sections. In absolute terms the number of employees has decreased since Q3 2002 despite an increase in the number of mobile subscribers over this period.





Despite Cable & Wireless Guernsey’s objection to a single efficiency adjustment and without prejudice to this, Cable & Wireless Guernsey seeks to provide the following response to the OUR’s question.

First, the OUR states that “*Overall, not only is it the regulated firm’s responsibility to provide a rigorous justification of their base and projected operating costs, it is in their interests to do so.*” Cable & Wireless Guernsey believes that this view appears to be based upon the assumption that Cable & Wireless Guernsey is inefficient unless it can prove that it is not. Cable & Wireless Guernsey believes that the alternative view that Cable & Wireless Guernsey is efficient unless the OUR proves otherwise should also be considered and indeed is the most widely used approach. Indeed, Cable & Wireless Guernsey notes that when Ofcom and ODTR challenged the efficiency of the incumbent operators within their jurisdiction, they did so by commissioning SFA efficiency studies and providing the incumbent with sufficient opportunity to commission their own. Whilst it may be argued that this sort of study requires resources that are disproportionate to the size of Guernsey, Cable & Wireless Guernsey would still expect the OUR to provide a detailed justification as to why and where Cable & Wireless Guernsey is inefficient before any adjustment to the efficient cost estimates that will be provided by Cable & Wireless Guernsey in their price control business plan is made. The Company should also be given the opportunity to comment on such adjustments.

Secondly, Cable & Wireless Guernsey believes that the OUR should define efficiency and the proposed method of calculation for the purposes of justifying figures in the price control business plan and with consideration of the time in which Cable & Wireless Guernsey has to undertake these justifications. For example, as the OUR agrees, efficiency may be calculated using one of many methods. These include: benchmarking; adjustment benchmarking; statistical techniques including stochastic frontier analysis (SFA); and mathematical techniques including data envelope analysis (DEA). Generally, there is a trade off between the accuracy of the output and

the complexity of the calculation process. Considering (i) the time available for constructing the business plan and the justifications for operating costs, (ii) that the response to this consultation (and hence the requirement for an efficiency justification) is unlikely to be known until after Cable & Wireless Guernsey must submit its business plan, (iii) the lack of guidance from the OUR on what constitutes a “*robust, logical, transparent and fully justified explanation*” and (iv) how Cable & Wireless Guernsey can expect to recover the costs of this explanation, Cable & Wireless Guernsey does not currently believe it is necessary, proportionate or an efficient use of resources to engage in a “best practice” efficiency study such as SFA or DEA which takes several months to complete and usually requires the use of outside consultants.

Cable & Wireless Guernsey does believe, however, that should a study be required then a statistical or econometric study is most likely to yield an accurate result as to its efficiency levels. However, where these studies use comparator data they typically use a comparison to CCA values²⁸. Therefore Cable & Wireless Guernsey would suggest that the requirement to undertake any study from an OUR standpoint or because it is in Cable & Wireless Guernsey’s best interest to do so should be delayed until CCA has been implemented. Any study undertaken now would be fairly meaningless and would need to be recalculated at considerable expense once CCA has been undertaken. This approach may need to be revisited depending on the outcome to the factors set out above.

Cable & Wireless Guernsey believes that there is no evidence at this time to suggest that it is inefficient. Therefore, Cable & Wireless Guernsey will seek to include an explanation as to the efficiency of its operating and capital costs when submitting the required price control business plan to the OUR. Cable & Wireless Guernsey plans to undertake this analysis using a methodology that requires resources that it believes is proportionate to the size of its operations. As stated above, Cable & Wireless Guernsey believes this is a sensible approach, given the question of efficiency adjustments and any appropriate method for calculating efficiency will not be answered until this consultation has been completed. However, this does not imply that Cable & Wireless Guernsey is necessarily unwilling to consider undertaking a particular efficiency calculation at some future point following this consultation.

The OUR states that it may not accept Cable & Wireless Guernsey operational expenditure forecasts as reasonable if they fail to satisfy the various OUR criteria. However, if the OUR chooses not to accept Cable & Wireless Guernsey costs then what costs does the OUR propose to use? The criteria must be transparent and objective. Any subjective rejection of such costs would be difficult for Cable & Wireless Guernsey to accept. The optimal price cap regime is one that is based on full and perfect information. Whilst in reality full perfect information does not exist, as it not possible to fully predict the market, costs from Cable & Wireless Guernsey surely provide the closest to full information. Indeed, this has been recognised by other European regulators including Oftel who utilises the cost information provided by BT when deriving a price cap. So, we would wish to understand what other cost estimates

²⁸ For example, the SFA efficiency studies commissioned by the ODTR and Ofcom on Eircom and BT respectively compared the operator costs in CCA terms against the cost of the US LECs.

or adjustments the OUR propose to use should they decide not to use those presented by Cable & Wireless Guernsey.

Q12: Do you agree that in order to form a conclusion regarding the efficiency of the operating cost proposals put forward by the regulated business, it is necessary and prudent for the DG to compare the regulated firm's operating cost levels with other operators? If not, why, and what alternatives would you propose and for what reasons?

As stated in our answer to question 11, Cable & Wireless Guernsey does not necessarily believe it is necessary to form a conclusion regarding the efficiency of the operating cost proposals since incentive regulation is designed to promote the company to undertake any feasible efficiency gains during the period of the price control. Without prejudice to this, Cable & Wireless Guernsey provides the following response to this particular question.

Cable & Wireless Guernsey will seek to provide a robust explanation of its operating costs as indicated under question 11. We hope that this justification is sufficient for the OUR to form a conclusion as to the efficient nature of Cable & Wireless Guernsey operating costs but will be happy to provide further information to the extent reasonably required by the OUR. In this case, it will be unnecessary for the OUR to compare the regulated company's operating costs with other operators.

In more general terms, Cable & Wireless Guernsey seeks to highlight the considerations that may be made when undertaking a comparison of the costs between Cable & Wireless Guernsey and other companies.

- Simple benchmarking involves a straightforward comparison of Cable & Wireless Guernsey costs to those incurred by other operators. There is no attempt to adjust for differences between the companies including economies of scale and scope, depreciation schedules, accounting standards, asset valuation methodologies, quality of service, product variety, environmental factors, routing factors, taxation, regulatory requirements and local laws. Cable & Wireless Guernsey believes that its relatively small size and location means that it is unable to achieve the economies of scale and scope that may be found in a larger company. Therefore unit costs at Cable & Wireless Guernsey can be reasonably expected to be higher than other larger operators. Cable & Wireless Guernsey would therefore expect to be compared against operators of a similar size in similar jurisdictions, however it is unlikely that a statistically significant number of operators with a similar scale of operations and available data can be found.
- Adjusted benchmarking would seek to adjust the costs of each company so that they reflect comparable conditions to those experienced by Cable & Wireless Guernsey. Examples of factors requiring adjustment are those listed above. The ability to make these adjustments is a function of the detail of the accounts that are published by the comparator operators. It is the belief of Cable & Wireless Guernsey that sufficient accounting and operational detail required to adequately apply these adjustment is predominantly only provided by the US LECs. However, a recent change in FCC reporting requirements means that only the larger LECs are now required to publish this information. Cable & Wireless Guernsey is concerned that there may in fact be structural differences between

large and small operators and therefore comparing Cable & Wireless Guernsey to even the adjusted costs of the large LECs could prove misleading if such a structural break does exist. Cable & Wireless Guernsey expects that the OUR would take suitable consideration of this and undertake sufficiently rigorous analysis to prove that no structural differences exist before relying solely on the outputs of any such analysis.

- Advanced statistical and econometric techniques (including the aforementioned stochastic frontier analysis as previously favoured by Oftel and ODTR) seek to provide statistical solutions that avoid the pitfalls of both simple and adjusted benchmarking. However, these solutions are not without problems themselves. Typically, SFA has relied on the use of fixed line LECs as comparator operators since only these operators provide sufficiently disaggregated data to conduct a full efficiency assessment using common parameters across all operators²⁹. This information provides comparison for national fixed line services only and does not include mobile or international services where the efficiency levels could reasonably be expected to be different. Since the change in regulatory reporting requirements, the exclusion of any data outliers (for example, New York City which has an unusual population distribution) is likely to reduce the number of operators in the study below 30 at which point the central limit theorem does not hold and the underlying sample distribution cannot be assumed to tend towards the normal distribution. Additionally, the LECs that continue to report on a “full” basis have a considerably larger scale of operations than Cable & Wireless Guernsey. The usual way to proxy for any “structural” differences in costs arising as a result of this would be to introduce a dummy variable. However, in this case the dummy variable would only be applied to Cable & Wireless Guernsey and would therefore be expected to pick up any inefficiency effects as well as any underlying structural differences. Finally, the definition of efficiency varies between the various studies with some studies seeking to compare the costs of the operator in question to the operating costs of other operators, whilst others seek to compare to a theoretical operator or to a theoretical efficiency frontier. The OUR must then decide whether it is realistic to expect Cable & Wireless Guernsey to reach this theoretical frontier not achieved by other operators or whether it is more realistic to expect Cable & Wireless Guernsey to be in the upper decile or quartile of efficient operators. Cable & Wireless Guernsey does not imply that these problems cannot be resolved, more that they require consideration before the output of any study is relied on. Cable & Wireless Guernsey has not sought to critique the whole range of statistical and mathematical studies due to the large number of methodologies that potentially may be used. However, Cable & Wireless Guernsey hopes to have provided an indication of some of the issues which the OUR may be confronted with and should be expected to deal with in a robust and rigorous manner.

Cable & Wireless Guernsey also wish to highlight the fact that it is our view that these studies are resource intensive and due to the specialist skills they require can

²⁹ A review of the SFA efficiency studies on Eircom undertaken by NERA (on behalf of the ODTR) and by PwC (on behalf of Eircom) indicate that the comparator operator data must be sufficiently disaggregated that asset ages, depreciation schedules, regulatory reporting requirements, taxes, land taxes and pension costs amongst other factors can be adjusted in the comparator operator accounts so that the remaining cost differences are a reflection of differing levels of output, environmental factors or inefficiency.

generally be expected to require the use of external consultants. Cable & Wireless Guernsey wonders whether the undertaking of these studies by Cable & Wireless Guernsey and the OUR is a cost effective and proportionate method of achieving efficiency gains above and beyond the gains that should be achievable as a result of using incentive regulation alone.

Finally, Cable & Wireless Guernsey seeks to understand how the OUR will address any efficiencies that exist due to factors outside of Cable & Wireless Guernsey's direct control. These include:

- Guernsey law stating that Cable & Wireless Guernsey may not dig up roads as it chooses. Therefore, Cable & Wireless Guernsey may be required to invest in more expensive technology (e.g. WLL) if it is unable to make appropriate use of underground cabling technology or even if planning permission is unavailable for overhead lines.
- Employment restrictions implying that in some cases it is more expensive to make a member of staff redundant than to keep employing them.
- The Universal Service Obligation, which requires Cable & Wireless Guernsey to provide basic telecommunication services to locations that require servicing which may not be economically viable.
- The intertemporal nature of efficiency which implies that investment in a particular asset may be efficient over the life of the asset (e.g. given anticipated product variety, demand, grade of service, lead times, requirement for a concurrent period of operation between old and new assets and regulatory requirements) but may not be efficient in any single year given the changing relative output / investment relationship.
- Stranded assets resulting due to a fall in demand due to competitive factors. Stranded assets may appear inefficient and may potentially require write-offs. The cost of stranded assets and write-off should be factored into the analysis of efficiency.
- Decisions made prior to C&W ownership on the level and type of investment.
- Regulatory requirements implying a proportionately large staff resource being required to undertake regulatory activities. This resource is out of the control of Cable & Wireless Guernsey and is a direct and sole result of the requirements of the OUR³⁰.

Additionally, it is recognized that an operator with a very high quality of service is, other things being equal, likely to require more investment and therefore may appear less efficient. Cable & Wireless Guernsey hopes that the OUR will consider the high quality of service with which Cable & Wireless Guernsey serves its consumers if it undertakes any evaluation of efficiency.

Q13: Do you consider the terms of the loan to fellow group companies to represent the economic opportunity cost of capital for Cable & Wireless Guernsey? Please provide your reasoning for your position.

Cable & Wireless Guernsey considers that the intent behind this question is misplaced and considers that it is irrelevant to discussions on the value of the cost of capital. The

³⁰ See note 7 in confidential appendix

cost of capital relates to the return that an investor would expect to receive in order to invest in Cable & Wireless Guernsey rather than an alternative investment opportunity. This is the rate that must be paid by Cable & Wireless Guernsey in order to raise debt / equity and is not equivalent to the rate that Cable & Wireless Guernsey can earn (e.g. by loaning funds to another company).

The table below attempts to clarify the difference between the “borrowing rate” and the “saving rate”.

	State owned company	Privatised company
Rate that must be paid in order to raise capital (debt/equity): “borrowing rate”	Risk free rate (government debt is very low risk)	WACC (weighted average of cost of debt & equity)
Best rate that can be earned “saving rate”,	Bank saving rate (slightly higher than RFR)	Bank saving rate (slightly higher than RFR)

Cable & Wireless Guernsey believes that, at best, the terms of an inter-company loan could be referred to as the opportunity cost of income from savings. That is, if Cable & Wireless Guernsey did not make this loan then the cash would remain in the bank and Cable & Wireless Guernsey would receive the appropriate interest income from this cash. Therefore, this loan is not the economic cost of capital and has no relevance whatsoever to the calculation of the weighted average cost of capital.

BT & other incumbents often have a lot of cash in the bank and this is considered usual given the nature of the telecommunications industry. It is not assumed that keeping the cash in the bank is the opportunity cost of capital. When calculating the cost of capital, what matters is the opportunity cost of investors (debt-holders & equity-holders), not what an operator can earn from one, low risk, alternative to investing in its own business.

Finally, apart from the failure to differentiate between the “borrowing” and “savings” rates, any such simple statement as that made by the OUR does not involve an analysis into the risk involved in the various investment opportunities that Cable & Wireless Guernsey may consider undertaking. Implicit in the portfolio approach to the cost of capital is an assumption that the cost of capital is being applied to a probability-weighted assessment of cash flow³¹. Therefore, an *individual* cost of capital for a particular investment should be calculated with reference to where the investment is taking place, both on a geographic and project specific basis. In this instance, the investment is in C&W plc which can be deemed to be less risky than Cable & Wireless Guernsey since it is subject to greater geographic and project diversification. Therefore investment in C&W plc requires a lower rate of return than investment undertaken in Guernsey. Again, it should be noted that this refers to the return on investment that Cable & Wireless Guernsey expects to receive when undertaking various projects, not the rate of return which investors expect to receive when they invest in Cable & Wireless Guernsey.

³¹ Page 19, The real cost of capital, Ogier, Rugman and Spicer, published by Prentice Hall

Since the OUR is interested in setting the cost of capital for Cable & Wireless Guernsey and not for investment opportunities in which Cable & Wireless Guernsey invests then the investment profile of Cable & Wireless Guernsey is a matter of consideration for Cable & Wireless Guernsey alone. Cable & Wireless Guernsey will invest in a range of projects and, where possible, can be expected to diversify investment. It can be shown that ex-ante an undiversified investment strategy represents a poor risk-reward trade-off³². So, a risk neutral or risk adverse company should take a diversified approach to investment and, as such, no single element of capital investment can be unilaterally stated to represent the opportunity cost of capital.

Q14. Do you consider the WACC methodology as the most appropriate mechanism for setting the cost of capital for Cable & Wireless Guernsey? Please provide your reasoning for your position.

There is a general consensus amongst both operators and regulators in the EU that the cost of capital should be estimated as the weighted average cost of capital (WACC) and more specifically the WACC as calculated by the capital asset pricing model (CAPM).³³ For example, Ofcom recently stated that *“The CAPM has a clear theoretical foundation and is simple to implement in comparison to other asset pricing models. This results in the continued wide use of the CAPM by the UK's economic regulators, and its wide use amongst practitioners.”*³⁴ Cable & Wireless Guernsey cannot perceive any reason as to why this reasoning would not apply to Cable & Wireless Guernsey and therefore supports the use of the WACC methodology and more specifically CAPM. Our reasoning for this is provided below.

There are different asset pricing models that may be used for estimating WACC. The four types that are most commonly referred to are:

- Capital Asset Pricing Model (CAPM);
- Arbitrage Pricing Theory (APT);
- Fama French model; and
- Nonlinear models

An independent study recently commissioned by Ofcom and the UK's other economic regulators supported the view that CAPM remains the most appropriate method³⁵. Alternatives to CAPM have well documented theoretical and/or practical implementation problems³⁶ and are not therefore the preferred calculation method by an operator or regulator.

³² Why an undiversified investment strategy is foolish, page 22 *The real cost of capital*, Ogier, Rugman and Spicer, published by Prentice Hall

³³ For example, see Page 3, *Calculating the cost of capital for fixed and mobile SMP operators in Sweden*. Anderson International Management, July 2003 and *A Study into Certain Aspects of the Cost of Capital for Regulated Utilities in the UK*, carried out on behalf of Ofcom and the UK's other economic regulators by Stephen Wright, Robin Mason, and David Miles ("WM&M"), and published in February 2003

³⁴ B.7 of Annex B, Statement on wholesale mobile voice call termination

³⁵ Wright, Mason and Miles: *A study into certain aspects of the cost of capital for regulated utilities in the UK*, Feb 2003

³⁶ These arguments are regularly expressed in economic literature e.g. Wright

Therefore Cable & Wireless Guernsey proposes that, in line with the views of other EU operators and regulators, the WACC methodology calculated using a CAPM approach is the most appropriate mechanism for setting the cost of capital for Cable & Wireless Guernsey. However, when applying this approach Cable & Wireless Guernsey recognises that a degree of pragmatism and proportionality is required when calculating the WACC under this mechanism due to the judgement calls and detailed data required in the calculation.

The OUR notes that it will “*consider whether a change in ownership has resulted in a change in behaviour that would warrant a change in the means of calculating the cost of capital*”. Cable & Wireless Guernsey believes that the method of calculating the cost of capital should be chosen with reference to best practice economic principles and that a previous methodology should not be given precedence for the sole reason that it has been used historically. If the OUR chooses to continue to use the current cost of capital methodology primarily because it was used in the past then this approach should be applied consistently to all aspects of regulation including the requirement to move from historic to current cost accounting and to question historical efficiency levels. Cable & Wireless Guernsey believes that the previous calculation method and the resulting value of 5% is inappropriate and provides no incentives to undertake investment. The inappropriateness of this 5% can clearly be seen when comparing this value to the comparator rates provided by the OUR in OUR 04/11 where the lowest cited pre tax nominal WACC is 9.34% and the highest is 14.18%.³⁷ Additionally, the 5% is extremely similar to the equity risk premium suggested by both Cable & Wireless Guernsey and the OUR. This would suggest that the investment in Cable & Wireless Guernsey is as “safe” as investing in Government bonds since it does not provide investors with additional returns that they would expect when investing in a riskier company.

Finally, the OUR states that the chosen methodology should be a function of the available data. Cable & Wireless Guernsey recognises this as a valid point. However, virtually all European regulators have managed to calculate a WACC from the data available to them. Whilst the OUR may cite this to be a function of their size and the fact that many (but certainly not all) of these companies are individually listed on the stock market, Cable & Wireless Guernsey notes that the CAPM approach is the favoured approach for the calculation of the cost of capital for the majority, if not all, of C&W’s business units in the Caribbean and Far East who also face similar issues of size and lack of individual listing. Therefore Cable & Wireless Guernsey has to question what is so different about Cable & Wireless Guernsey that the OUR cannot also obtain sufficient information to calculate the WACC using an appropriate methodology. Cable & Wireless Guernsey would like to work with the OUR, and indeed has already supplied a WACC calculation to the OUR for consideration as is referenced in this consultation document.

³⁷ Annex 2: Cost of capital benchmarks in OUR 04/11

Q15. Do you agree that if the price control applies only to the fixed business then a cost of capital should be calculated that excludes the mobile business? If not please explain your reasons.

The standard theory of corporate finance prescribes that, in principle, the cost of capital should be estimated for each individual investment project as the optimal capital structure and project specific uncertainty may deviate from the aggregate company. In practice however, Cable & Wireless Guernsey recognises that this is not a very pragmatic approach. However, when deviating from the standard theory Cable & Wireless Guernsey believes that a standard, non-discriminatory and transparent approach should be applied across regulatory determinations and across investment projects.

Should the OUR take the route of stripping out the parts of the business that are not relevant for price control, then the OUR should be consistent and non-discriminatory in its approach to the calculation of WACC for other regulatory purposes. So, for example, when calculating the cost based charge for terminating a call on the fixed network the allowable cost of capital should be equal to the WACC of the conveyance network and not a blended core conveyance and access WACC. A blended WACC is likely to be below the standalone WACC for the core conveyance network and therefore the use of a blended WACC is leading to a lower cost based interconnect charge than one that would be applicable if the WACC were conveyance specific. Cable & Wireless Guernsey has considered calculating separate WACC estimates for different parts of the business but believes that the difference in the WACC weight and thus the difference in the final regulatory outcome would not be sufficiently substantial to justify the additional time and resources to perform these calculations. Thus, Cable & Wireless Guernsey believes that if the OUR is to require a separate WACC for the fixed business in price control then the OUR should consistently apply this approach of the calculation of separate WACC's throughout its regulatory process. However, Cable & Wireless Guernsey firmly believe that calculating this large number of separated WACC estimates would be disproportionate to the size of Guernsey and a single rate would be more appropriate in order to be consistent, transparent and proportionate.

As many EU operators have a standalone mobile business then the issue of calculating a separate WACC for mobile has been less of a contentious issue since in this case the WACC appropriate for mobile services is also the WACC appropriate for the aggregate business. However, it has been noted that there are substantial difficulties in calculating and separating fixed network WACCs for an operator since most of the data comes from an integrated (fixed and mobile) operator³⁸ and there are difficulties in undertaking separate calculations using shared data.

Cable & Wireless Guernsey is concerned that the OUR may wish to calculate separate WACC's due to its belief that the cost of capital related to the fixed network business is often below that of the mobile business. However, recent evidence suggests there may be less divergence between WACC's than was initially suggested by European telecommunication regulators. The company/project specific elements of WACC are:

³⁸ E.g. as noted in Calculating the cost of capital for fixed and mobile SMP operators in Sweden, Anderson International Management, July 2003.

- Beta;
- Debt premium;
- Gearing

Cable & Wireless Guernsey suggests there is no priori reason why mobile beta would be higher than a fixed line beta. For example, MMO2's asset beta is substantially lower than the asset beta of its former parent company, BT. This is illustrated on the graph on page 50. This comparison of mobile and fixed line betas illustrates that many fixed line providers (e.g. Colt and BT) have substantially higher betas than mobile operators (e.g. Vodafone and MMO2). Similarly, Cable & Wireless Guernsey does not perceive an obvious reason as to why the gearing or debt premium of a mobile operator may be higher than a fixed line operator. For example, Ofcom assumes a 10% or 30% gearing ratio for UK mobile operators compared to 35%-40% for BT³⁹.

Cable & Wireless Guernsey believes that a single WACC should be used to apply to the entire business. Cable & Wireless Guernsey notes that this may possibly lead to a slightly higher return than a separate WACC for the purposes of a price control of the fixed network, however this is balanced by the lower cost based mobile termination charge and indeed fixed termination charge that Cable & Wireless Guernsey receives as a result of not having a separate WACC for each business.

Q16: If price control were to apply to fixed and mobile services do you consider that:

- **The blended mobile/fixed cost of capital should be used, or**
- **A separate cost of capital should be calculated for the mobile business.**

Cable & Wireless Guernsey recognises that it is necessary to use a WACC in a number of regulatory decisions. If the OUR requires a fixed WACC to be calculated separately then by default it is necessary to calculate a WACC for the mobile part of the business and separately for the other parts of the business since it is necessary to reconcile the separate WACC's with a blended Cable & Wireless Guernsey WACC. Given the time and resources required to calculate the various different WACC's then Cable & Wireless Guernsey believes that the use of a blended WACC is a prudent option.

Where separate WACC's for mobile and fixed have been calculated, this is usually because the fixed and mobile business are either legally or structurally separate and therefore the calculation of a separate WACC is appropriate since the decisions of one part of the business do not (or cannot where the operator only operators in one type of market) affect the other type of business. However, in the case of a small market such as that in Guernsey, it is appropriate for Cable & Wireless Guernsey to gain limited economies of scale and scope by operating both a fixed and mobile arm. Through

³⁹ Mobile operator gearing in Competition Commission Calls report on the charges made by UK mobile operators for terminating calls from fixed and mobile networks, December 2002 and PPC Charge controls, Ofcom 2004:
http://www.ofcom.org.uk/consultations/current/ppc_charge_control/ppc.pdf?a=87101

price control regulation, the OUR is attempting to ensure that the consumer also benefits from these economies of scale and scope in terms of lower prices. Additionally, the fixed and mobile operations share a number of similar characteristics and shared functionality and there is an ongoing convergence between fixed and mobile telecommunications. Therefore, unless an operator is a standalone fixed or mobile provider then the case for calculation of separate WACC's is rather weak.

Finally, even if the blended WACC applied to the fixed and mobile services allow Cable & Wireless Guernsey to earn a slightly above-normal economic profit in the fixed retail market (and this may not be the case across all products) then this is counter balanced by the slightly below normal profit that Cable & Wireless Guernsey is being allowed to earn in the mobile business and on fixed termination where the WACC also contains the access charge. Therefore Cable & Wireless Guernsey believes that given the inherent uncertainties surrounding any price cap forecasting model, correcting this very potentially slight anomaly in WACC that should in any case be expected to counter-balanced over all business operations would not be an effective use of time and resources.

A slight change in WACC to align with theoretical best practice is a very minor consideration when the OUR is attempting to base price control on a model which, by the very nature of its unusually long planning period, is unlikely to be completely aligned to real market conditions and therefore is unlikely to prove 100% successful in meeting its end objective of normal returns for Cable & Wireless Guernsey on regulated products.

The OUR notes that in relation to the calculation of WACC that *“there are a number of variables in the complex calculation that are absent for Cable & Wireless Guernsey or that have to be estimated.”* Requiring the calculation of separate WACC's for mobile and fixed investments adds to the complexity of the calculation.

Q17: Do you consider it appropriate to apply separate cost of capital to investment pre and post privatisation?

No, it is not appropriate to apply separate cost of capital rates for investment pre and post privatisation. As stated previously, the cost of capital should be calculated using the international recognised CAPM methodology that takes no account of time profile.

The WACC is calculated based on current operating conditions and the opportunity cost that exists in the market place at this moment of time. Inclusion of the impact of historic decisions is inappropriate since it biases current decision making. The WACC is used for forward-looking decision making and should therefore be based on forward-looking assumptions. This is particularly important for wholesale purposes in that the use of CCA and WACC is intended to send correct build / buy signals to the market.

The OUR notes that in using separate WACCs *“it could be said that the advantage of this is that it rewards past investment at the cost of capital that applied when the investment was made”*. This is an approach that, as far as Cable & Wireless Guernsey

can ascertain, has not been used by any European telecommunications regulator. Given the importance placed on the WACC calculation, if there was a strong rationale behind this then it is probable that this approach would have been at least considered elsewhere. Cable & Wireless Guernsey believes that the 5% cost of capital used in the past was inappropriately low and, as such, a methodology that continues to rate WACC at this level is fundamentally flawed.⁴⁰

Typically, European telecommunications regulators update the WACC on a regular basis to ensure that correct signals are being sent to the market, it is unheard of for this update to be made because of a desire to take into account historic decision making. Additionally, when updating the WACC, a regulator does not propose using the updated WACC for new investments and retaining the old WACC for the old investments. This would send the wrong signals to the market and would potentially result in a sub-optimal investment recovery profile.

Finally, the OUR notes that in relation to the calculation of WACC that “*there are a number of variables in the complex calculation that are absent for Cable & Wireless Guernsey or that have to be estimated.*” Requiring the calculation of separate WACC’s for pre privatisation and post privatisation merely adds to this complexity without adding any obvious benefit to the calculation.

Q18: Respondents are invited to comment on the Cable & Wireless Guernsey’s assumptions and the OUR commentary or on the appropriate Risk free rate.

Cable & Wireless Guernsey notes that the risk free rate is an input into both the calculation of the cost of debt and cost of equity. Cable & Wireless Guernsey’s answer to this point also relates to Q21 where respondents are asked to comment upon the appropriate cost of debt.

Cable & Wireless Guernsey proposed using a risk free rate that was proxied by the 5-year UK gilt rate. Cable & Wireless Guernsey believes that the return on Government bonds provides an adequate proxy of the risk free rate and that UK bonds specifically are the most appropriate since these are issued in the same currency as that used in Guernsey.⁴¹ In its May 2004 WACC submission Cable & Wireless Guernsey proposed the value of 4.81%, which was the average risk free rate on 5 year UK gilts for April 2004. The 4.75% figure used by Ofcom in June 2004 and referred to by the OUR was not available for Cable & Wireless Guernsey’s consideration at the time of its submission in May 2004. Cable & Wireless Guernsey does not necessarily disagree with the use of this 4.75% as opposed to the suggested 4.81%. Cable & Wireless Guernsey notes that this slight decrease in the risk free rate leads to a fall in the WACC calculated in its medium scenario from 12.6% to 12.5%.

However, Cable & Wireless Guernsey also notes the risk free rate has increased over the last couple of months since the Ofcom report. The most recent data from the Bank

⁴⁰ For example, using a 5% rate implies that investors essentially required no premium over the market risk premium for investing in Cable & Wireless Guernsey. This is clearly not correct given the potentially volatile and technological risks associated with Telecoms.

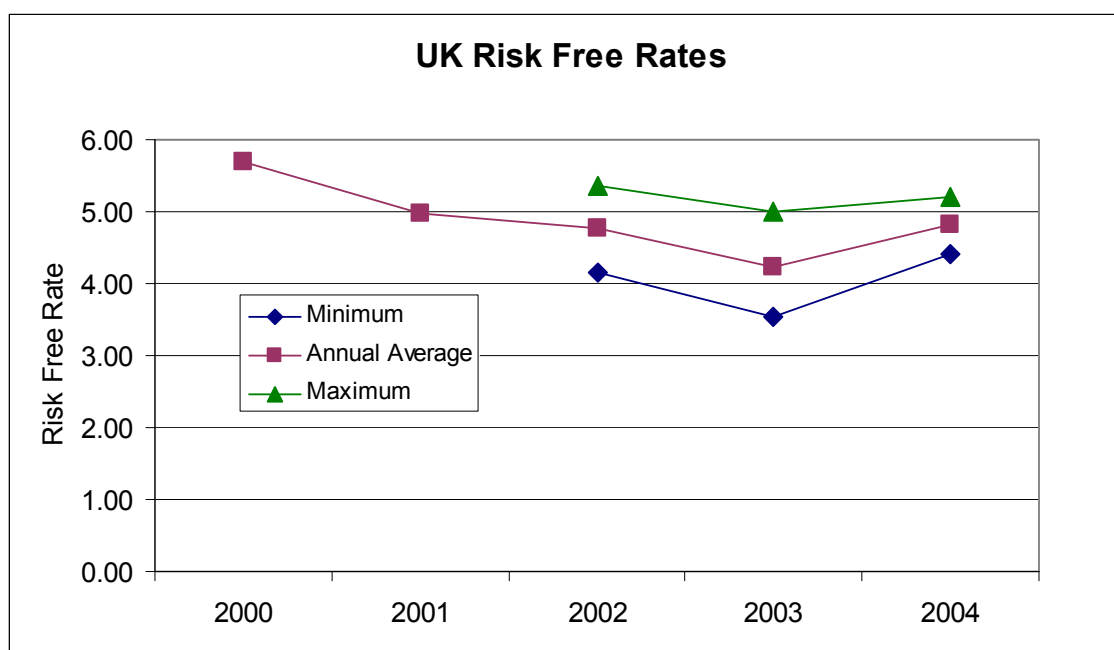
⁴¹ The use of Government bonds as a risk free rate proxy and the desirability of using bonds in the same currency unit as that used by the operator is often discussed. For example, see 8 of Batelco’s cost of capital: A determination issued by the TRA, August 2003

of England is presented in the figures below.⁴² Cable & Wireless Guernsey’s proposed value of 4.81% is slightly below the average risk free rate for the year to date (4.82%) and is substantially below the most recently published risk free rate of 5.04%. This shows that Cable & Wireless Guernsey’s figure errs on the low side of the published data and that a reduction to 4.75% would put it outside of the UK 2004 range.

Average UK Risk Free Rate for 2004

Period	Nominal Yield on 5 year gilts
July	5.04
Jun – July	5.08
May – July	5.06
Apr – July	4.99
Jan – July	4.82

Nominal Yield on 5 Year Gilts– Average time series



Cable & Wireless Guernsey agrees with the OUR that the rates it presented are within a relatively small range. However whether, as the OUR states, “a small variation can have a significant overall impact on the final cost of capital” is relatively subjective since, as Cable & Wireless Guernsey has illustrated above, the update of its value to that used by Ofcom has not caused huge variation.

Finally, the OUR questions Cable & Wireless Guernsey’s use of a risk free rate that relates to 5-year gilts. There are arguments in favour of both long-term and short-term gilts as the best estimate of the risk free rate for the purposes of the proposed price control:

⁴² Yield curve data available from the Bank of England website

- a maturity of 3 years may be appropriate as the OUR has proposed that the price control should be concerned with a period of 3 years; and
- Cable & Wireless Guernsey is required to make investments (for example regarding network infrastructure) that will have economic lifetimes in excess of a 3 year period, and hence a longer gilt rate may be appropriate.

Cable & Wireless Guernsey believes that the use of 5-year gilts is the most appropriate since it aims to reflect both the period of the price control and the economic lives of assets. Cable & Wireless Guernsey believes that there is no justification to reduce the period given that the proposed length of the price control is 3-years to be based on a 5 year forecast business plan and Cable & Wireless Guernsey's average economic asset life could be expected to be in excess of 5 years. The question is therefore, should a shorter term be used? This would lead to an increase in the risk free rate, increasing the cost of debt and equity and producing a higher cost of capital. Cable & Wireless Guernsey feels that given the gilt curve is relatively flat then using the yield on shorter term gilts would produce only marginally higher estimates, additionally this issue was considered by Ofcom, who also viewed 5 year rates to be appropriate.⁴³ Therefore, Cable & Wireless Guernsey accepts the use of a 5-year term and believes that this indicates a degree of conservatism in Cable & Wireless Guernsey's cost of capital calculation.

In conclusion, Cable & Wireless Guernsey feels that its risk free rate of 4.81% is applicable and actually errs on the low side of possible estimates given the average UK yield rates and the use of a 5-year term for yields.

Q19: Respondents are invited to comment on the Cable & Wireless Guernsey's assumptions and the OUR commentary or on the appropriate Equity Risk Premium.

First, Cable & Wireless Guernsey believes it has been misrepresented by the OUR in its critique of Cable & Wireless Guernsey's WACC submission of 20 May 2004. In the low and medium WACC scenarios, Cable & Wireless Guernsey has used an Equity Risk Premium (ERP) of 5%. As will be shown below, this 5% is extremely reasonable and actually errs on the low side of published ERPs.

Cable & Wireless Guernsey does not have the resources available to large regulators when calculating the input parameters for the cost of capital. Therefore, in the interests of prudence and proportionality, Cable & Wireless Guernsey utilised sources quoted by these regulators and reputable academics when determining individual parameters making up the cost of capital.

Cable & Wireless Guernsey have noted that "*Ofcom's current view is that 5% is an appropriate value for the ERP*"⁴⁴ and believes that this provides a reasonable proxy for the equity risk premium in Guernsey.

⁴³ G.15, page 89 of PPC Charges Control, Ofcom 2004

http://www.ofcom.org.uk/consultations/current/ppc_charge_control/ppc.pdf?a=87101

⁴⁴ http://www.ofcom.org.uk/consultations/current/ppc_charge_control/ppc.pdf?a=87101

Cable & Wireless Guernsey also notes the recent update by Dimson, Marsh and Staunton that states that “*a plausible, forward looking risk premium for the world’s major markets would be on the order of 3% on a geometric mean basis, while the corresponding arithmetic mean risk premium would be around 5%*”⁴⁵. This quote was published by Dimson, Marsh and Staunton in Sep 2003 and therefore supersedes their earlier reference in the 2002 Triumph of the Optimists that is referred to by the OUR.⁴⁶ This 5% figure supports Cable & Wireless Guernsey estimate of the ERP and is not “*at the top of the range quoted by the authors*” as the OUR states.

Furthermore, Cable & Wireless Guernsey is not convinced that the adjustment of the ERP from 5.9% to 5% by Dimson and Marsh is appropriate. Whilst Cable & Wireless Guernsey agrees that “*treating historic average returns as necessarily equal to true underlying expected returns may be naïve*”, Cable & Wireless Guernsey agrees with a recent study commissioned by the UK economic regulators and referred to by Ofcom that suggests that the adjustment may not be valid.⁴⁷ Therefore, it suggests that the 5.9% ERP may indeed be calculated using the more credible methodology and, if this is the case, then the figure proposed by Cable & Wireless Guernsey does indeed appear conservative.

Cable & Wireless Guernsey presents details from this independently commissioned study that supports our own view of the potential weaknesses in the adjustment:

“Dimson, Marsh, and Staunton (2001a) propose that arithmetic premia should be adjusted downwards to reflect forward-looking assessments of volatility. To the extent that this reflects clear distortions in the historic record (e.g., extreme volatility during hyper-inflations) this is almost certainly valid. But to the extent that it embodies the assumption that the world is a safer place, this approach is on distinctly less firm ground. There is indeed a reasonable amount of evidence that macroeconomic aggregates like GDP became more stable in the second half of the twentieth century. But, at least in mature markets, the evidence that stock markets, as opposed to the rest of the economy, have got much safer, is distinctly weaker. In economies that escaped major disruption, such as the UK or the US, there is little or no evidence of a decline in stock return volatility”.⁴⁸

“...also proposed by Dimson et al, is to infer that the equity premium must have permanently fallen from the observed fall in the dividend yield. The problem with this argument is that it is driven entirely by the rise in the market during the 1990s. It is certainly a logically possible justification for the high market, but the only evidence for it is the level of the market itself...”

“Another argument used by Dimson et al is that trading costs of forming diversified

⁴⁵ <http://wehner.tamu.edu/finc.www/finc-cuny/equity%20premium.pdf>

⁴⁶ Triumph of the Optimists was published in 2002. Dimson, Marsh and Staunton updated their findings in global evidence on the equity risk premium as published in September 2003. The 2003 version is that referred to by Ofcom in their recent price control consultation.

⁴⁷ Wright, Mason and Miles: A study into certain aspects of the cost of capital for regulated utilities in the UK, on behalf of Smithers & Co, February 2003. Commissioned by the UK economic regulators and the office of fair trading.

⁴⁸ Fama and French (2001) note that observed volatility in the US market fell slightly in the postwar period, but the fall was well within the confidence intervals associated with an assumed constant rate of true volatility.

portfolios have fallen. At the same time, however, the proportion of the population investing indirectly in the stock market has risen enormously. The rise of 3rd party investment, via pension funds, etc, may quite possibly have increased principal-agent type costs for the average investor. There is certainly evidence that the costs of 3rd party investment are distinctly non-trivial study for the FSA. Thus the case for lower trading costs does not appear clear-cut.”⁴⁹

Although this issue has not been addressed by the OUR, Cable & Wireless Guernsey wishes to take this opportunity to support the use of the arithmetic mean as opposed to the geometric mean when it is used in the context of generating a forward looking estimate. There is discussion in the academic literature over the use of arithmetic as opposed to a geometric mean. Generally, the arithmetic mean is deemed to be preferable where there is uncertainty over returns. Also, the arithmetic mean is a more appropriate measure for forward-looking results since it presents the mean of all the returns that may occur over the investment period. Cable & Wireless Guernsey feels that the arithmetic mean is more appropriate since returns on telecommunications investments in Guernsey are subject to uncertainty particular given the current uncertainty over new competition, and the fact that the WACC is being used in a *forward looking* price control.

The table below provides estimates of the ERP published by Ofcom and Dimson, Marsh and Staunton. These are the two key sources referred to in Cable & Wireless Guernsey’s WACC submission (May 2004) and by the OUR in consultation 04/11.

Study	ERP %	Specifics	Reference
UK Competition Commission / Oftel, Calls to Mobile Enquiry	5%	UK	http://www.ofcom.org.uk/consultations/past/mobile_call_termination/mct_consultation/anne_xe.pdf
London Business School (Dimson, Marsh & Staunton)	5.7% 4.9% 6.9% 5.9% 5.9% 5.1%	World bills World bonds Average bills Average bonds UK bills UK bonds	Global Evidence on the Equity Risk Premium: Elroy Dimson, Paul Marsh and Mike Staunton, London Business School Http://wehner.tamu.edu/finc.www/finc-cuny/equity%20premium.pdf
Ofcom, PPC price control Consultation	5%	UK	http://www.ofcom.org.uk/consultations/current/ppc_charge_control/ppc.pdf?a=87101

The figures provided in the table above appear to refute the argument that Cable & Wireless Guernsey has been selective in its use of data (particularly that from Dimson, Marsh and Staunton) and that Cable & Wireless Guernsey has erred on the high side when considering that 5% is reasonable value for an ERP in its low and medium scenarios. Since the range of possible values ranges from 4.9% to 6.9%, then the use of 5% would appear to be erring on the low side.

⁴⁹ For example, see table 2.5 *retail investing costs*, James 2000 for the FSA in “*The price of retail investing in the UK*” Occasional Paper Series 6, FSA

As the previous table illustrates, the ERP figures for the telecommunications sector are consistently higher than comparator figures for other regulated utilities including the gas, electricity and water companies. This point is commonly discussed in the economic literature and is cited due to the higher inherent risk in the telecoms industry primarily due to its technological and innovative focus for which investors require a high return. Lowering the risk premium would likely lead to a reduction in technological and risky investment in the telecommunications industry.

It should also be noted that Cable & Wireless Guernsey has not requested the inclusion of a small company risk premium that would lead to an increase in the equity risk premium. This is yet another indication of our attempt to provide a conservative WACC calculation. The WACC calculated for Jersey Telecom by Coleago for the JCRA, includes a small company risk premium of 0.9% i.e. the same rate is was used by Oftel (now Ofcom) for Kingston Communications⁵⁰. Grabowski and King of PricewaterhouseCoopers (1999) ran a regression of the average risk premium on the market value of equity and found in general the level of the equity beta is significantly and inversely related to the size of the company (X coefficient of -3.121% , t statistic = 9.67)⁵¹. In a second regression analysis, Grabowski and King used seven measures of company size, all of which demonstrated the same result that returns are negatively to market size. That is, investors apply a higher cost of capital discount rate in assessing the value of a small company. Grabowski and King concluded that there are compelling reasons why investment in small companies should require higher returns than that derived under the standard CAPM approach⁵². Under this logic, the equity risk premium for Cable & Wireless Guernsey should actually be above the premium calculated by Ofcom since investors require an additional premium to reflect the relatively small size of Cable & Wireless Guernsey.

Therefore, Cable & Wireless Guernsey believes that the benchmark data on ERPs and its decision not to include a small company risk premium clearly indicates that it has not erred on the high side of an acceptable ERP. Indeed, Cable & Wireless Guernsey believes that throughout its calculation it has provided reasonable and justifiable estimates of parameters required in the WACC calculation. Uncertainty over the allowed cost of capital hinders Cable & Wireless Guernsey in its daily operations and investment decisions and therefore Cable & Wireless Guernsey has intentionally presented reasonable estimators rather than erring on the high side (as may usually be expected) in order to bring about a speedy resolution of this issue.

Q20: Respondents are invited to comment on the Cable & Wireless Guernsey's assumptions and the OUR commentary or on the appropriate Equity Beta.

Cable & Wireless Guernsey does not believe that a model based estimate of beta for regulatory purposes is unusual, as is stated by the OUR. Since Cable & Wireless

⁵⁰ Source – “Price Control of JT: Final Report February 2004” by Martin Duckworth, Coleago Consulting Limited

⁵¹ Equity risk premium study conducted by Grabowski and King (1999) as reported in table 10.3 in *The Real Cost of Capital*, Ogier, Rugman and Spicer, published by Prentice Hall
Cable & Wireless Guernsey can provide further details of this study, if requested.

⁵² Specifically, Grabowski and King found that investors in “small” companies with a market capitalization of \$750m should add 1.7 percentage points to the cost of equity derived from a standard CAPM methodology.

Guernsey is not a separately listed company, it is necessary to either estimate the beta using a model or comparator analysis. Both of these methods are recognised approaches, as is justified below.

The Barra model of beta calculation is a model that is recommended for use by JP Morgan and by Ogier, Rugman and Spicer who are specialists in the field of cost of capital estimation⁵³. Ogier, Rugman and Spicer provide a comparison of the techniques used by the various beta providers and highlight the differences between the approaches. The table below provides a brief summary of the key differences.

Source	Period	Frequency of Observations	Technique	Bayesian Adjustment
Datastream	5 years	Monthly	Log regression	Yes
Value Line	5 years	Weekly	Linear regression	No
LBS	5 years	Monthly	Linear regression	Yes
Barra	5 years	Monthly	Linear regression	No
Bloomberg	2 year default	Weekly default	Linear regression	Yes or No

Source: Table 2.8, The real cost of capital

Cable & Wireless Guernsey believes that whether the beta is being used for regulatory or commercial purposes should not necessarily have an impact on the method of calculation or the output. Cable & Wireless Guernsey also believes that the Barra is a recognised provider of betas for regulatory purposes. For example, Barra provided the beta value to Batelco (Bahrain) for use in its cost of capital calculation and the Telecoms Regulatory Authority in Bahrain used the Barra estimate to support its own calculation.⁵⁴ Consultancy company Monitor also used data from Barra when discussing the relevant beta value for Telecom New Zealand⁵⁵. Further details of this approach are available in the texts listed in the footnotes and also at Barra.com should the OUR require further details on the calculation methodology.

Cable & Wireless Guernsey cannot find evidence to support the OUR's comment that the latest Ofcom report showed BT's equity beta's to be just above 1 on a weekly basis and just below 1 on an annual basis and that the beta for BT presented by Cable & Wireless Guernsey is the region of 70% higher. Ofcom determined that the appropriate equity beta for BT was 1.3 based on a set of estimates provided by the Brattle Group and London Business School. All but one of these estimates is considerably higher than 1. The table on the next page contains this information.⁵⁶

⁵³ Barra is listed alongside Datastream, valueline, London Business School and Bloomberg as an available source of betas on page 55, The Real Cost of Capital, Ogier, Rugman and Spicer.

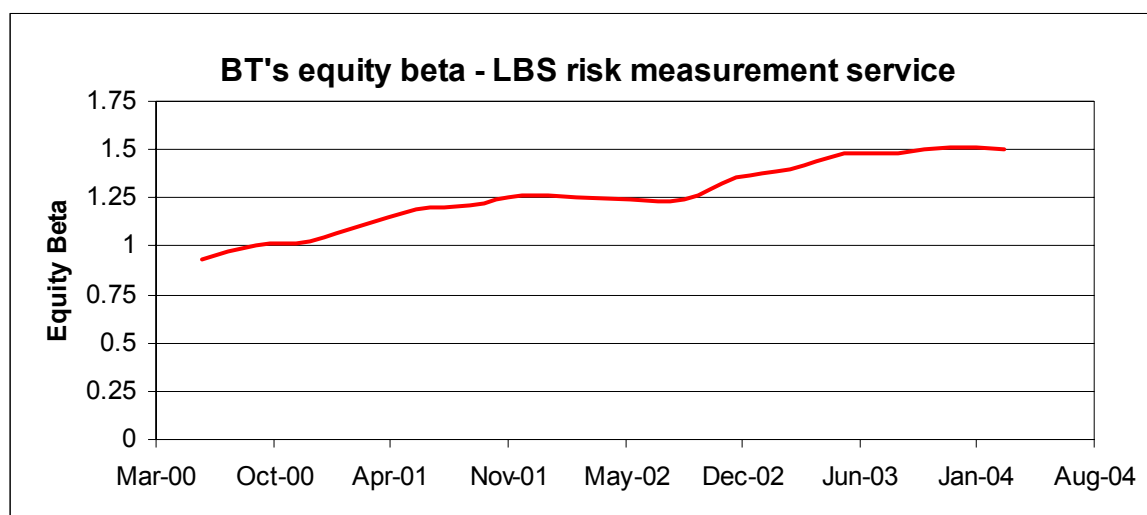
⁵⁴ Section 6.3 of of Batelco's cost of capital: A determination issued by the TRA, August 2003

⁵⁵ Comments on Beta and the risk free rate when using the CAPM to calculate the WACC for TNZ, Monitor, July 2003

⁵⁶ Table G2 in The Real Cost of Capital, Ogier, Rugman and Spicer, published by Prentice Hall

Estimated By:	Data Frequency	Index	Period	Estimate
Ofcom	N/a	N/a	N/a	1.3
The Brattle Group	Daily	UK	2002-03	1.29
The Brattle Group	Daily (+ Dimson adjustment)	UK	2002-03	1.29
LBS RMS	Monthly	UK	1998-2003	1.51
The Brattle Group	Daily	World	2002-03	0.89

Further more, Cable & Wireless Guernsey presents values of BT's equity beta as calculated by London Business School Risk Measurement Service. This provides additional evidence that counters the OUR's claim that BT's equity beta is just above or just below 1 depending on the calculation basis. A beta is a measure of the volatility of an individual investment to the market as a whole, So given the recent share price movements in the telecoms sector it would be surprising if a beta for telecoms company was less than one since this would indicate a below average variance.



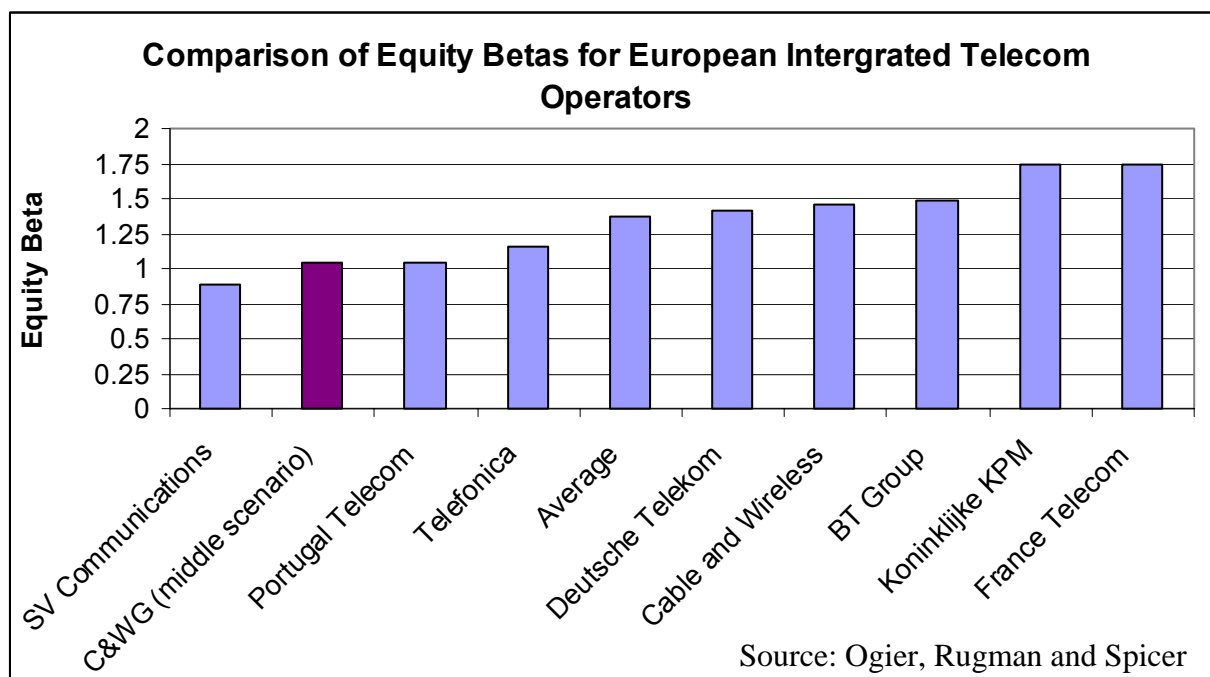
Cable & Wireless Guernsey also recognises comparator analysis (benchmarking) when estimating a beta. Cable & Wireless Guernsey recognises the value of the beta is a positive function of the gearing, which varies substantially between companies, and is itself an input into the WACC calculation. Therefore, any attempt to use a comparator figure or average figure for the beta should be adjusted for the different gearing ratios.

Cable & Wireless Guernsey has compared the beta calculated by Barra to a number of other equity betas for European integrated telecoms operators and to those of telecommunication service providers in the UK FTSE 350. Cable & Wireless Guernsey compares favourable under both comparisons, as the graphs below indicate. Cable & Wireless Guernsey does not believe that it is appropriate to compare Cable & Wireless Guernsey's beta to those in other utilities as it has been shown that

telecommunication operators typically have higher betas than other regulated utilities.⁵⁷

The OUR states that the time period for the asset beta and gearing calculation are misaligned in Cable & Wireless Guernsey’s original WACC submission. Both graphs presented below use data from 2004 and thus reflect any falls in gearing that the OUR states have occurred.

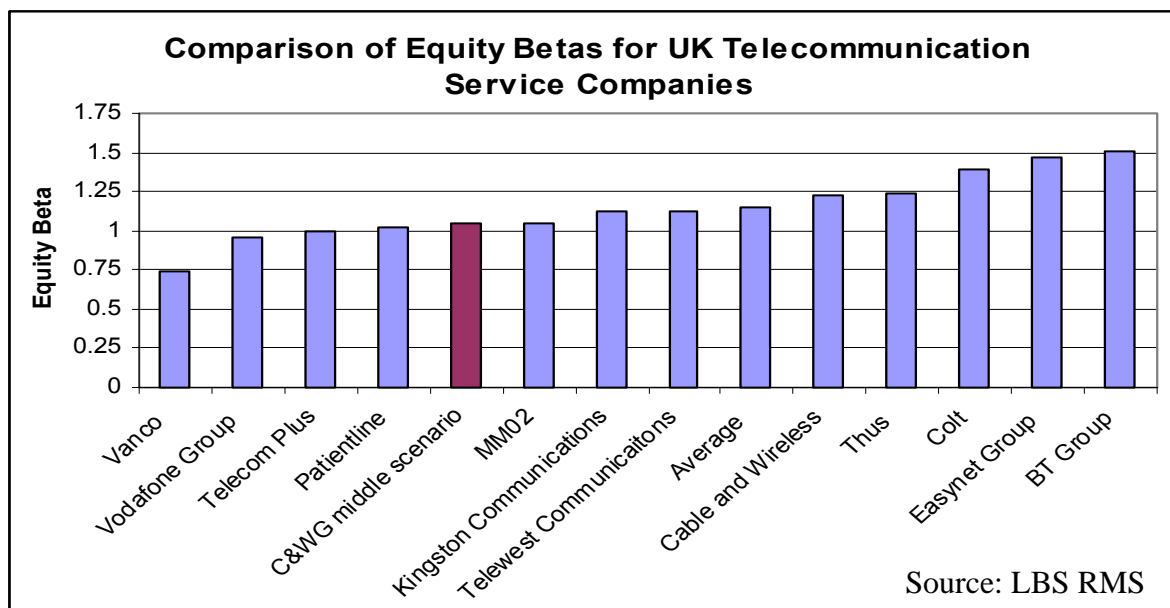
The following graph uses 2004 equity beta data for integrated telecom operators, as published by Ogier, Rugman and Spicer. The average equity beta for an integrated telephone carrier is 1.37, which is 0.32 above the equity beta of 1.047 proposed by Cable & Wireless Guernsey in its middle scenario.



London Business School Risk Management Services is perhaps the most widely known and accepted source of beta data. Information by the London Business School has been widely quoted by Ofcom throughout 2001-2004 in the context of both fixed and mobile operators. The figure below presents the equity beta for all FTSE 350 telecommunication service companies from the January – March 2004 Risk Management Service report.⁵⁸ They also confirm that the proposed equity beta for Cable & Wireless Guernsey is below the average beta for these companies.

⁵⁷ For example, Monitor consultancy in their paper Comments on Beta and the risk free rate when using the CAPM to calculate the WACC for TNZ, July 2003 ran a regression of the value of the beta of a number of regulated utilities on a number of independent variables including a series of dummy variables that represented the particular industry in which the utility operated. It was found that the dummy variable representing the telecoms industry had a positive value of 0.1678 and was significant at the 5% level.

⁵⁸ London Business School, Risk Measurement Services, Vol 26 No 1, January- March 2004



Cable & Wireless Guernsey recognises that there is a positive relationship between the level of gearing and the value of the equity beta for a particular company. Since Cable & Wireless Guernsey has a lower gearing then it would be expected to have a lower equity beta. However, should Cable & Wireless Guernsey increase the level of gearing to 29% (the average in a sample of operators as detailed in Q22) then the resulting equity beta of 1.28 is still slightly below the average for integrated European telecoms operators. This would appear to give credence to the use of 1.047 with a 0% gearing.

In conclusion, Cable & Wireless Guernsey believes that the above evidence justifies its medium scenario beta estimate of 1.047 using the Barro model. Comparison with beta's calculated by Ogier, Rugam and Spicer for a number of European integrated operators and by LBS for UK telecommunication service companies show that the proposed beta for Cable & Wireless Guernsey is below the average beta of each sample.

Q21: Respondents are invited to comment on the Cable & Wireless Guernsey's assumptions and the OUR commentary or on the appropriate Cost of Debt.

The cost of debt is a function of the risk free rate and the company specific credit risk premium:

$$\text{Nominal after tax cost of debt} = (\text{risk free rate} + \text{credit risk premium}) * (1 - \text{tax rate})$$

Cable & Wireless Guernsey has commented on the appropriate risk free rate in its response to question 18 and refers the OUR to this when assessing the appropriate risk free rate in the cost of debt calculation. The remainder of Cable & Wireless Guernsey's response to this question will focus on the credit risk premium.

As Cable & Wireless Guernsey has no traded debt it is necessary to consider the spreads of bonds issued by other telecommunication organisations to assess the spread that debt commands. Cable & Wireless Guernsey believes a comparison against its parent company C&W plc provides the most accurate estimate of its own credit risk premium since Cable & Wireless Guernsey believes that its credit rating is unlikely to be above the credit rating of its parent C&W plc and is actually likely to be lower since:

- Cable & Wireless Guernsey is subject to an uncertain future particularly given the increasing and aggressive competition in both fixed and mobile services and the relative uncertainty over the regulatory environment. Hence it is a higher risk operation than C&W plc.
- Cable & Wireless Guernsey can be expected to have more difficulty raising finance since it has less access to the capital and debt markets than C&W plc primarily due to its smaller size. Also, Cable & Wireless Guernsey own less of its non-core assets than C&W plc (for example, Cable & Wireless Guernsey leases rather than owns its buildings) and therefore has less assets to sell should it need to raise finance.
- C&W plc has access to greater resources (e.g. management best practice, technical expertise, marketing expertise, regulatory expertise) that improves confidence in executing the business plan and managing problems that inevitably arise and thus make its business plan more predictable.
- C&W plc is more diversified - a downturn in either a product or geographic market may be offset by steady or improving results in another. Hence C&W plc is better able to survive market shocks.
- C&W plc's diversified portfolio means that if its core business requires additional finance then it can raise cash by disposing of non-core activities. For example, the press believes that C&W plc are currently looking to sale-leaseback UK properties to raise £200m and C&W plc also has the option to dispose of standalone operating companies.
- Cable & Wireless Guernsey may be expected to have a greater proportionate level of fixed outgoings (leases and fixed costs such as the submarine cable) than C&W plc. As such, Cable & Wireless Guernsey is more exposed in a downturn as it is more difficult to reduce its cash outgoings.
- Cable & Wireless Guernsey would have considerably more difficulty in raising finance as it has no access to debt and capital markets, no non-core operations or assets to sell.

Therefore, Cable & Wireless Guernsey believes that its credit risk premium will be at least as high, if not higher than that of C&W plc. In its low and medium cases Cable & Wireless Guernsey calculated the credit risk premium of C&W plc to be the difference between C&W plc corporate bonds and the UK 5 year gilts and this gave a risk free rate of 2.19%. In the high scenario, Cable & Wireless Guernsey used the difference on the day of calculating the WACC (7th May 2004) which lead to a higher rate of 2.54%. Cable & Wireless Guernsey has updated its analysis to include average rates for August. As can be seen in the table below, the credit risk premium has increased to 3.04%.

Term	Risk free rate Gilts	Indicative C&W funding rates				Margin vs Risk free rate
		Swap rates	C&W Credit	Fees	All in cost	
		Default Swaps				
5 year	4.96%	5.37%	2.57%	0.50%	8%	3.04%
10 year	5.04%	5.36%	3%	0.50%	8.86%	3.82%
15 year	5%	5.33%	3%	0.50%	8.83%	3.83%

As noted above, Cable & Wireless Guernsey believes that this is a conservative estimate of the credit risk premium since it can be expected that Cable & Wireless Guernsey will actually require a higher premium than C&W plc.

The OUR suggests it may be more reasonable to compare Cable & Wireless Guernsey against a sample of operators instead of C&W plc. Cable & Wireless Guernsey does not agree with this approach for the calculation of the credit rating. As can be seen in the table below, the credit rating varies greatly between telecommunications operators according to the individual characteristics of the operator. Whilst not a perfect comparator, Cable & Wireless Guernsey believes that the credit rating of C&W plc is likely to be more reflective of the credit rating of Cable & Wireless Guernsey than any other comparator. The current credit rating of C&W plc is as follows:

Moody's : Short Term (NP), Long Term (Ba3), Outlook (Neg)
 S&P : Short Term (B), Long Term (BB), Outlook (Neg)
 Fitch : Short Term (B), Long Term (BB+), Outlook (Neg)

On average, therefore, the credit rating of C&W plc is approximately B to BB. The following table shows that Sprint and Rogers Wireless who have similar (although slightly improved) credit ratings have a credit risk premium of 2.48% and 3.29%. Compared to these, Cable & Wireless Guernsey's proposed credit risk premium of 2.19% appears reasonable.

Corporate Debt Issuer	Credit Rating	Yield to Maturity	Risk-free yield to maturity	Debt Margin
Telstra	AA-	6.85%	5.97%	0.88%
Alltel	A	5.19%	4.42%	0.76%
Verizon	A	5.33%	4.43%	0.90%
Telefonica	A-	4.63%	4.07%	0.56%
BT Group	BBB+	5.97%	4.97%	1.00%
France Telecom	BBB	4.80%	3.92%	0.88%
Deutsche Telekom	BBB	4.66%	3.75%	0.91%
Cia de Telecomunicaciones de Chile	BBB	3.01%	2.09%	0.92%
TPSA	BBB	4.52%	3.47%	1.05%
CenturyTel	BBB	5.65%	4.43%	1.22%
AT&T	BBB	3.72%	2.52%	1.20%
Telus	BBB-	5.17%	3.44%	1.73%
Sprint	BBB-	6.91%	4.43%	2.48%
Rogers Wireless	BB	7.72%	4.43%	3.29%

Source: Ogier, Rugman and Spicer⁵⁹

It should be noted that any alteration in the cost of debt has no effect on the calculation of Cable & Wireless Guernsey's WACC if it calculated using Cable & Wireless Guernsey's actual 0% gearing. Only if it is decided that the WACC should be calculated using an optimal gearing, rather than the actual, will the cost of debt have an effect. Using a gearing of 10%, then a reduction in the credit risk premium from 2.19% to 1% only results in a minor reduction of the WACC by approximately 0.02%.

Q22: Respondents are invited to comment on the Cable & Wireless Guernsey's assumptions and the OUR commentary or on the appropriate Gearing.

Under the standard CAPM model, a company can potentially lower its overall cost of capital by increasing its gearing. This is because debt is generally cheaper than equity due to tax advantages of debt.

There are a number of methods that may be used to determine the debt equity structure. These are:

1. A ratio measured on the basis of book values: a ratio based on the company's accounting value of debt to equity
2. A ratio based on the current observed market values: a ratio of the market value of debt to equity
3. An optimal target ratio that a company decides to use for long-term financing of its investments

Under the first two measures, both Cable & Wireless Guernsey and C&W plc are observed to have no debt. Therefore the gearing ratio is 0%.

Cable & Wireless Guernsey does not have an optimal target ratio, so under measure 3 the gearing could also be assumed to be 0%. However, Cable & Wireless Guernsey has undertaken an analysis of the gearing rates of other firms and published information on this subject.

In the calls to mobile enquiry, the UK Competition Commission / Ofcom used the "optimal" gearing rates of 10% and 30% for low and high scenarios when calculating the applicable cost of capital⁶⁰. In its latest price control, Ofcom undertook an analysis of BT's actual and optimal gearing levels. Ofcom stated that whilst BT's gearing in its last financial accounts was 40% "*there are arguments to suggest that this is above the optimal level*" with current BT gearing at 35% and BT plans to reduce its gearing level to 30%.

⁵⁹ Source: Ogier, Rugman and Spicer :Page 109 The Real Cost of Capital, Ogier, Rugman and Spicer, published by Prentice Hall

⁶⁰ Section B.68 in Annex B of Statement on wholesale mobile voice call termination and confirmed in Section B.52 in Annex B of Statement on wholesale mobile voice call termination.

Cable & Wireless Guernsey has also analysed the gearing of a sample of other operators as of March 2004⁶¹. The gearing levels of these operators is presented in the following table:

	Net debt	Market Cap.	Gearing
BT Group	8268.431	15669.83	35%
C&W Plc	0	2876	0%
Deutsche Telekom	46576	61091.36	43%
Portugal Telecom	3215.6	13066.26	20%
Telefonica	21744.9	55062.29	28%
Telecom Italia	33070.68	52888.24	38%
Royal KPN	8311	13190.61	39%
		Average	29%

The average gearing levels for these operators is 29%. However, this is the average level and Cable & Wireless Guernsey does not have any information that may lead to the conclusion that the average rate is actually the optimal rate. Telecommunications debt of integrated operators has been particularly high recently and there has been discussion of these operators reducing these debt levels. Therefore, there is reason to believe that the optimal may be below 29%, but the actual level cannot be determined.

So, the choice is: (i) whether to use optimal or actual gearing; and (ii) if optimal gearing is used what is the applicable rate?

Cable & Wireless Guernsey believes that if the purpose of the calculation is to influence regulation to be implemented *solely* on Cable & Wireless Guernsey then it is more prudent to use the actual gearing ratio of Cable & Wireless Guernsey. This is particularly true in a price control, which is set on the basis of forecasted revenues and costs that can be expected to be a function of the actual gearing ratio, not the optimal ratio. That is, it can be assumed investors into Cable & Wireless Guernsey will base their expectations on the actual gearing level since neither Cable & Wireless Guernsey nor C&W plc has a stated optimal gearing level. Due to the nature of Cable & Wireless Guernsey financing and its cash balances it is unlikely that Cable & Wireless Guernsey will need to borrow money from the bank in the foreseeable future and therefore it is highly unlikely that Cable & Wireless Guernsey will have a positive gearing during the period of the price control for which the WACC is being calculated⁶².

However, should the calculation be used in regulation that applies to more than one operator then it may be prudent to use optimal gearing levels. The combination of using actual gearing for operator specific regulation and an “optimal” or market specific figures appears to have been the implicit approach that has been taken by Ofcom and a number of European regulators. For example, in the recent PPC price control of BT, Ofcom used a BT specific gearing. However in the calls to mobile enquiry, Ofcom recommended non-operator specific gearing levels of 10% and 30% to be used in the costing models to calculate the fixed to mobile termination charges

⁶¹ Net Debt and Market Capitalisation provided by JP Morgan based on March 2004. Gearing calculated using standard formula of debt / (debt + equity)

⁶² See note 2 in confidential appendix

for all four GSM operators. Since this WACC consultation is about a WACC that is being calculated solely for Cable & Wireless Guernsey for the purpose of a Cable & Wireless Guernsey specific price control then there is no solid argument for the use of a gearing rate that is representative of a number of operators or based on an industry optimal.

Finally, Cable & Wireless Guernsey reminds the OUR that any change in the gearing level used to calculate Cable & Wireless Guernsey's WACC should also be reflected in the calculation of the equity (levered) beta in which the gearing ratio is one of the variables used to move between a levered and unlevered beta.⁶³ This was recognised by Ofcom who decreased the value of BT's equity from 1.3 to 1.22 when adjusting BT's gearing from 35% to 30%. As noted under Q20, an increase in the gearing of Cable & Wireless Guernsey from 0% to 29% would require an increase in the value of equity beta from 1.047 to 1.28.

-- END --

⁶³ The transformation between levered and unlevered betas and the impact of the gearing ratio can be seen in the excel workbook submitted to the OUR by Cable & Wireless Guernsey in May 2004, along with our cost of capital submission.