



FAIR TRADING COMMISSION

INFORMATION PAPER

REVIEW OF PRICE CAP MECHANISM

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Section 1 – Introduction

PURPOSE OF PAPER

1. The primary objective of this paper is to inform the Respondents, Stakeholders and the general public of the issues surrounding the price cap review process up to this point. The Fair Trading Commission (“the Commission”) continues to gather information from the dominant service provider, Cable & Wireless (Barbados) Limited (Cable & Wireless) and interested parties to better inform its decision making during the review process.
2. This paper is divided into 4 sections. Section 1 provides general introduction and background information. Section 2 addresses issues which were previously ventilated by the Price Cap Review Consultation Paper document FTC/CON2007/01; this section consists of the summary of the responses to the consultation paper.
3. Section 3 presents summary information as submitted by Cable & Wireless on its financial and regulatory operations during the Price Cap period. Section 4 informs persons about the next step in the price cap review process and gives procedures and deadlines for submitting responses.

1.2 BACKGROUND INFORMATION

4. The price cap on telecommunications services came into force as a result of the FTC decision FTC/UR/2005/01. In this Decision, the Commission outlined the reasons for the move away from the Rate of

Return methodology to the Price Cap methodology to regulate the telecommunications sector. In accordance with its Decision the Fair Trading Commission was mandated to initiate the process of reviewing the Price Cap Mechanism nine months before the expiry of the Price Cap Plan.

5. As part of the review, the Commission issued its consultation paper on the price cap regime (FTC/CON2007/01) on September 19, 2007. Interested parties were invited to respond by October 26, 2007. The Commission received a total of eight (8) responses, these were:

- a) Barbados Association of Non-Governmental Organizations (BANGO).
- b) Barbados Consumers Research Organization (BARCRO).
- c) Caritel.
- d) Cable & Wireless (B'dos) Ltd.
- e) Digicel.
- f) Blue Communications Ltd.
- g) Ideas 4 Lease (BARBADOS) Ltd.
- h) Pubic Counsel

Section 2 - Summary of Responses

6. This section will provide a summary of the responses to the elements of the Price Cap Mechanism in the order presented in the Consultation Paper. Unless otherwise stated Respondents refer to parties who responded to the consultation paper excluding Cable & Wireless.

2.1 OBJECTIVES OF THE PRICE CAP MECHNISM

7. The Respondents to this section of the price cap review document have suggested that for the most part the objectives have not been achieved. Their position was based on the increased profits earned by Cable & Wireless (B'dos) Ltd. during the price cap period. The Respondents' inability to access relevant data was the reason given for the lack of thorough analysis. One Respondent did however use some data analysis to bolster their argument, by using data supplied from the financials of Cable Wireless (B'dos) Ltd.
8. In its response, Cable & Wireless was of the opinion that the price cap was able to meet its objectives. However, they indicated that competition could be fostered by a more effectively administered competition law regime.

2.2 SERVICE BASKETS

9. Respondents indicated general dissatisfaction with the number of Service Baskets. Most (including Cable & Wireless) were of the opinion that there were too many, and should be reduced to two.

Others believed that components within each Basket were not correctly allocated. Cable & Wireless indicated that all prices were subject to the constraints of market conditions and due to this they had considerable unused headroom from all Baskets except Basket 1.

2.2.1 Basket 1

10. Most Respondents had difficulty with Basket 1. The 7% escalator in this Basket attracted much criticism. Respondents were of the opinion that it was set at too high a level and by inference allowed Cable & Wireless significant revenue increase from its fixed line residential customers. These Respondents were of the opinion that domestic rates should not have been allowed to rise by 22.5 percent over the 3 years and 4 month period of the price cap.

11. In contrast, Cable Wireless indicated that inflation had wiped out any nominal gains they derived from the escalator in Basket 1. They were also of the opinion that residential fixed access was below cost. Cable & Wireless was of the opinion that Barbadians benefited significantly from the flat rate. They went on to state that no other provider would consider entering this market unless metered rates were approved for this segment of the market. They also stated that all other Baskets (except Basket 1) should be eliminated, and the existing rates should be used as the maximum rates going forward, so that consumers would not be subject to any higher rates than those currently existing.

2.2.2 Basket 2

12. Some Respondents suggested that the X factor was too low. The argument being advanced was that it gives the impression that the company is operating in a market that has to be subsidised. Concern

was also expressed about the level of pricing since it would have a negative impact on the small and micro business sector.

13. Cable & Wireless suggested different alternatives to the service Basket combinations. Various options were suggested, either eliminate Basket 1 and merge residential access with Basket 2 or alternatively, revise the escalator in Basket 1 and retain Basket 2 as it is presently constructed.

2.2.3 Basket 3

14. Similarly to the case for Basket 2 there was only one interested party that made any comment on the operation of this Basket. Again, the opinion was expressed that the X factor for this Basket was not at a high enough level. Since this Basket contained international telephone services, this Respondent suggested that rates in this area needed to be reduced at a faster rate.
15. Cable & Wireless suggested that Basket 3 be retained with some modifications to the regulatory reporting. This modification would see the inclusion of residential access. Basket 1 would be eliminated and Basket 2 retained in its current form.

2.2.4 Basket 4

16. One Respondent took issue with the Commission's assertion that competition existed for the services with respect to this Basket. However, the Respondent produced no analysis to support their contention that this was not the case.
17. Another service combination option suggested by Cable & Wireless was to maintain most of the look of the current structure but to adjust the existing reporting regime required for Basket 3.

2.3 LENGTH OF THE PRICE CAP PERIOD

18. One Respondent proposed that the second Price Cap should be for a minimum 4 years to a maximum 5 years to maximize the benefits of the price cap. Cable & Wireless suggests a period of no longer than three years, given the rapid changes in technology and expectations of competition from Voice over Internet Protocol (VoIP).

2.4 INFLATION (I) FACTOR

19. Most Respondents disagreed with the use of the retail price index as an estimator of inflation. Some argued that most of the components which account for domestic inflation are not part of the cost of Cable & Wireless's inputs. Caritel indicated that the main drivers for inflation in Barbados could be attributable to food, transportation and housing. Consequently, linking price increases to the retail price index offsets the benefits of any productivity gains. Some Respondents suggested some form of wholesale price index; others felt that some form of producer price index would better measure the cost factors which would capture the cost of inputs that Cable & Wireless uses in the delivery of its services. Cable & Wireless had no difficulty with using a retail price index which was representative of the change in the Company's input cost.

2.5 PRODUCTIVITY (X) FACTOR

20. Some Respondents were of the view that Cable & Wireless did not pass on productivity improvements to consumers by lowering prices. Some examined Cable & Wireless' financial statements and noted its

operating cost ratio as percentage of total assets declined since 2006. Others indicated that while there were some price reductions in international rates, domestic rates have increased. In addition, they indicated that the fall in international rates would have come about in spite of the price cap. This was in reference to the Federal Communications Commission's (U.S.A) decision to unilaterally reduce out-payments for overseas calls.

21. Cable Wireless had no difficulty with the methodology surrounding the determination of the X factor. However, Cable & Wireless suggested some changes to the Basket structure as discussed earlier under the service Baskets. This would allow for a smaller more simplified model to be used. Additionally, a simplified model would allow for the reduction in the number of X's to be calculated. In fact, a model may not be needed if this option is adopted to modify the escalator and set maximum prices. Also, Cable & Wireless intimated that if specific services are being provided below cost then it would be inappropriate to set a positive value for X.

2.6 EXOGENOUS (Z) FACTOR

22. None of the Respondents dealt with the Z factor to any significant extent. Cable & Wireless was of the opinion that while the Z factor was standard practice in price cap calculation, the Commission was unduly limiting with regards to the circumstances under which it contemplates the use of the Z factor. Cable & Wireless did not agree with the stance taken whereby the Commission would not apply a Z factor unless the exogenous event in question related to the telecommunications industry. Cable & Wireless indicated that changes to the tax regime

and adverse exchange rate movement could have a significant and disproportionate effect on the company's profitability.

2.7 CARRYOVER HEADROOM

23. Only Cable & Wireless commented on this issue. They had no difficulty in this regard; except to indicate that any future price cap should continue to allow for it as it gives greater price flexibility.

2.8 PRICE CAP MODEL (PCM)

24. Respondents for the most part had serious misgivings about the PCM. Many questioned its methodology and assumptions. Others suggested another alternative methodological basis, indicating they favored a Fisher's Ideal Price Index as opposed to the Laspeyres Price Index, on which the Price Cap Model is based.
25. Cable & Wireless' response relating to the price cap model, concerned the changes to the Baskets, the underestimation of inflation and the impact of competition. Inflation was three times that estimated by the model. Other issues highlighted were:
 - The effect of service substitution on service volume, given the growth in the mobile market
 - The commensurate effect as a constraint on prices.
 - The effect of VOIP on market competition.

2.9 DISCOUNTS AND PROMOTIONS

26. The Respondents who submitted views on this element were of the opinion that bundled offerings should not count toward the calculation of API (Actual Price Index). Some contended that it gave the dominant provider somewhat of an unfair advantage which could be construed as being uncompetitive in nature. Cable & Wireless agreed with the Commission's position on this issue.

2.10 ALTERNATIVE REGULATION

27. The opinion was expressed that the current price cap regime was a failure; based on the increase in the domestic residential rate over the Price Cap period. The opinion was also expressed that the Commission appeared to favour Cable & Wireless, given that the *"PCM parameters have been set contrary to all statutory provisions for exercising regulatory authority"*. Only one Respondent suggested the use of an alternative price cap model based on Fisher's Ideal Price Index. However, no additional information was submitted to support this idea.
28. Cable & Wireless suggest it may be appropriate to consider other forms of incentive regulation that are as not as stringent in monitoring. This was in view of the fact that Cable & Wireless believed that all the price cap regulated services with the exception of residential access have competitive constraints. They were also of the opinion that it is too early to abandon the price cap regime as they are methods which can be used to improve the performance of price cap regulation.

29. Digicel suggested that there should be two policy goals of price capping and Tariff rebalancing by having two Baskets. One being for the Price Cap services which would include only services and elements that were thought not to be subject to competition in the medium and long term and the other Basket (rebalancing) would contain most retail services. They were of the opinion that having two Baskets kept the issues separate and to be addressed by different mechanisms. In addition, Digicel stated that price capping of services for which close substitutes were made available by new entrant competitors amounts to a price capping of new entrants.

30. Caritel was of the opinion that the Commission should revisit its approach to regulating prices in Basket 1, and devise an appropriate methodology and formula to protect consumers from unjustified pricing which guarantees (by implication) the regulated company an unreasonable rate of return.

2.11 NOTIFICATION

31. Cable & Wireless commented that the Commission's proposal that Cable & Wireless advise it and the public 20 business days in advance of any price increase was appropriate.

32. In respect of price decreases, Cable & Wireless commented that it could provide the Commission with two day's notification of price decreases and the general public one day's notification. They indicated that in competitive markets it is common practice for price decreases to be given to the public without prior notice.

2.12 COMPLIANCE FILING

33. Cable & Wireless considered that the current compliance and monitoring arrangements are unduly burdensome and increased the cost of regulation to both Cable & Wireless and the Commission. They believed that a simplification of the service Basket structure would simplify the monitoring and compliance process.

2.13 REGULATORY MONITORING

34. Cable & Wireless believed that the requirement to submit semi-annual regulatory statements in addition to annual statements is an unnecessary burden and does not add sufficient value to the monitoring process to justify their continued submission.

Section 3 - Summary of Financial and Regulatory Information Submitted By Cable & Wireless (Barbados) Limited

35. An additional issue raised by the Respondents revolved around access to both financial information and trade information. Many of the Respondents were of the opinion that informed comment on the Price Cap Mechanism was circumscribed by a lack of financial information.
36. With the introduction of the Price Cap Mechanism, most information from Cable & Wireless has been received under confidential cover. Cable & Wireless is of the opinion that should this information become publicly available it could give its competitors an advantage in what is now a liberalised market.
37. Parties responding to the Consultation Paper were desirous of obtaining detailed financials on the Company's operations. The Commission is however providing some financial information submitted by Cable & Wireless. This summary information can be found at Table 1.
38. As part of the price cap review process the Commission will determine the validity and reliability of this and other financial information supplied by the company.

TABLE 1

CABLE & WIRELESS (BARBADOS) LIMITED			
STATEMENT OF PROFIT AND LOSS – REGULATED SERVICES			
FOR THE YEAR ENDED 31 ST MARCH 2005, 2006, 2007			
			BDS\$
	Regulated Services ended 2005	Regulated Services ended 2006	Regulated Services ended 2007
Gross Turnover	150,461,899	124,737,810	121,368,577
Net Revenue	137,258,933	106,946,234	102,230,616
Profit/(Loss) By Service	67,457,820	38,894,369	25,216,177

3.1 MARKET REPORT

39. Cable & Wireless is required under section 13.4 (a) of the Price Cap Mechanism Compliance Rules and Procedures to provide a report

“Outlining the extent to which specific competition related general economic and social developments in the industry have had an impact on its performance during the price cap period and are likely to do so.”

40. The remainder of this section reproduces a redacted report submitted by Cable & Wireless to the Commission. In this report the company provides an overview of the telecommunications market within the context of the review of the Price Cap. In addition, it outlines what occurred with respect to prices of its services during the price cap period for the regulated portions of its business including residential access, business access, value added and international services. The Commission as part of its review will be assessing the Barbados Telecommunications market in order to evaluate the claims made by Cable & Wireless.

**Non-Confidential Summary of Report on Market, and Economic Developments over
the period of the Price Cap**

Cable & Wireless (Barbados) Limited

**Report on Market, and Economic Developments over the
period of the Price Cap and the Impact on Price Cap**

Submitted in accordance

with the Price Cap Mechanism Compliance Rules and Procedures Document

No. FTC/UR/2005-02

October 2007

Non-Confidential Summary of Report on Market, and Economic Developments over the period of the Price Cap

Cable & Wireless (Barbados) Limited
Report on Market, and Economic Developments over the period of the Price Cap
and the Impact on Price Cap

Executive Summary

1. In accordance with provision 13.4a of the Price Cap Mechanism Compliance Rules and Procedures Document No. FTC/UR/2005-02 which requires Cable & Wireless (Barbados) Limited to file *“a report outlining the extent to which specific competition related, general economic and social developments in the industry have had an impact on its performance during the price cap period, and are likely to do so.”* Cable & Wireless filed a detailed report with the Commission in commercial confidence, this paper represents a non-confidential summary of that report.
2. Cable & Wireless (Barbados) Limited (“C&W”) provides an overview of the telecommunications market in Barbados within the context of the review of the price cap. In doing so, we demonstrate that the telecommunications market in Barbados performed well over the price cap period. Mobile and internet services expanded, providing Barbadians with a mobile penetration far above the Caribbean average. In addition, broadband prices have been declining at a rapid rate.
3. With respect to regulated services, C&W delivered lower prices than was anticipated during the development of the price cap, in terms of business access, value-added services and international services. With respect to residential access, the nominal price increases permitted under the price cap which were implemented by C&W in August of 2005, were largely erased on a real basis by inflation, with the price increases having no diminishing effect on demand. Fixed outgoing international voice service is inevitably decline as more mobile and VOIP have been taken up by customers.
4. Overall, in terms of the existing price cap, we believe that the Fair Trading Commission (“FTC”) can feel satisfied that it chose an appropriate scope for the regime: not overly broad, allowing competition to impose discipline on telecommunications prices and performance.
5. Also, looking back at the analytics that went into the formulation of the price cap, it is clear that the model employed by the FTC for forecasting volume for many of the regulated services was close to what actually materialised during the price cap period. However, it did under-estimate the growth of the mobile market and constraints on prices caused by the willingness of some consumers to substitute fixed for mobile services market, especially in the Small Medium Enterprise

Non-Confidential Summary of Report on Market, and Economic Developments over the period of the Price Cap

market. Avoiding the understatement of the influence of growing competition is an important lesson for any upcoming analysis in the price cap review.

6. Finally, it is obvious that the effective market constraints in the supply of the services that are currently subject to the price cap can only increase in the future. Access competition will continue to intensify, and the new and growing threats to traditional voice traffic services are the increasing penetration of broadband and services, like VOIP, which is enabled by broadband. Government has also clearly articulated a desire to implement policies to further stimulate competition in all sectors of the telecommunications market and there is every expectation that these will be implemented soon.

Non-Confidential Summary of Report on Market, and Economic Developments over the period of the Price Cap

I Introduction

7. A full confidential report has been submitted to the Commission in accordance with provision 13.4a of the Price Cap Mechanism Compliance Rules and Procedures Document No. FTC/UR/2005-02 which requires Cable & Wireless (Barbados) Limited to file *“a report outlining the extent to which specific competition related, general economic and social developments in the industry have had an impact on its performance during the price cap period, and are likely to do so.”* This paper represents a non-confidential summary of that report.
8. Cable & Wireless (Barbados) Limited (“C&W”) welcomes the opportunity to provide information on how the telecommunications landscape has changed over the period of the current price cap. This review is important for a number of reasons. Firstly, it will help determine how the market performed in general over the period, which will give a sense of whether the price cap regime helped, hindered or was neutral in developing the sector. Secondly, it will help determine how well the price cap model forecasted performance over the period and therewith provide lessons for modelling going forward. Thirdly, and perhaps most importantly it will assist in determining what kinds of regulatory controls if any, are necessary in today’s market.
9. The evidence indicates that the telecommunications market in Barbados performed well over the price cap period. We have seen mobile and Internet services expand, providing Barbados with mobile penetration far above the Caribbean average and broadband prices that have been declining at a rapid rate. With respect to regulated services, C&W delivered lower prices than anticipated in terms of business access, value-added services and international services. With respect to residential access, the nominal price increases permitted under the price cap and which were implemented by C&W in August of 2005, were largely erased on a real basis by inflation, with the price increases having no diminishing effect on demand. The story for fixed originated international voice service is one of inevitable decline as mobile and VOIP have gained strength.
10. Finally, this report will show that C&W faces effective market constraints in the supply of the services that are currently subject to the price cap, and that these constraints can only increase in the future. This means that it is indeed timely to consider whether price cap regulation in its current form is still the most appropriate or whether there is a more proportionate approach that could be adopted.
11. Whilst price cap regulation is recognised as being an effective form of regulation in the early days of liberalisation, it does result in a heavy burden on the regulated company, especially in relation to demonstrating compliance. For example, the

Non-Confidential Summary of Report on Market, and Economic Developments over the period of the Price Cap

need for the regulated firm to prepare and submit detailed filings and financial accounts, which then have to be checked by the regulator. The costs involved in such activities are high and will eventually need to be recovered from consumers, and it is important to ensure that the requirements are proportionate to the market.

II Prices of regulated services

12. A discussion of the price changes in regulated services should begin with a description of what has happened and is likely to be happening in the Barbados prices at the macro level. As the FTC’s Review of the Price Cap Mechanism, Consultation Document No. FTC/CON2007/01 (“the Consultation Document”) indicates (see reproduced below in Table 1), inflation in Barbados has been high in the recent past. We note that these rates correspond to an average annual inflation rate of 1.68% for the period expected by the FTC in the previous price cap modelling.

Table 1. Recent Growth in Consumer Prices in Barbados

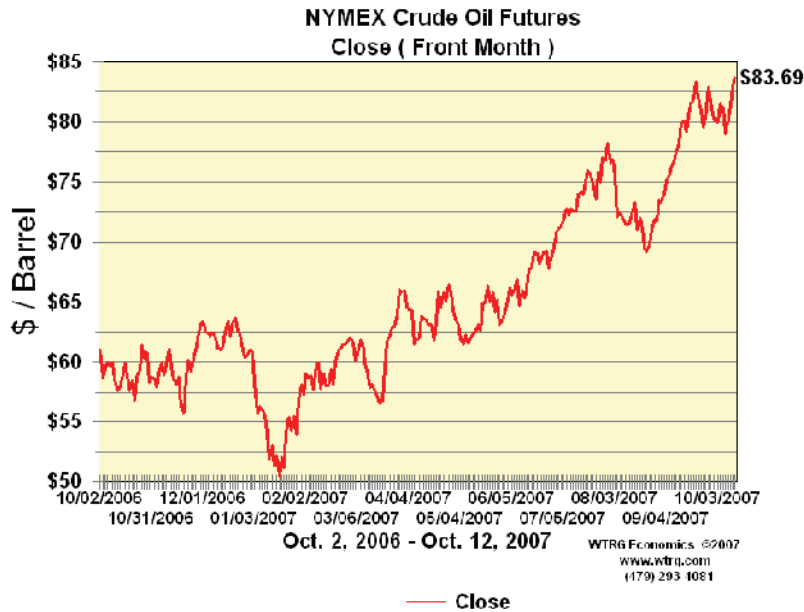
	Period 1 (quarter)	Period 2 (annual mid 04 to mid 05)	Period 3 (annual mid 05- mid 06)	Period 4 (annual mid 06-mid 07)
CPI	1.4%	2.9%	7%	6.2%

13. There was a forecast earlier this year that inflation may be coming down. The Central Bank of Barbados was anticipating a year-end 2007 rate of 5.5%. However, it wisely qualified that prediction by stating this was achievable “barring any negative shocks, as the pass-through effect of the deceleration in international oil prices is realised.”¹ At mid-year, as oil prices began to rise again, the bank became more circumspect.² Unfortunately, since mid-year, the price of oil has continued to rise (see picture below). It is therefore likely that this year the CPI growth will exceed 6%. This rate of inflation contrasts with that in the United States, which has seen a rate of around 3% over the past two years.

¹ The central bank of Barbados in its first quarter review on 30 April 2007, see, http://www.broadstreetnews.com/index.php?categoryid=38&p2_articleid=656. For a discussion of the role of oil in inflation, see for example, [http://www.ey.com/Global/assets.nsf/Caribbean/Barbados_Budget_05-06_-_Economic_Proposals/\\$file/Economic_Proposals_05-06.pdf](http://www.ey.com/Global/assets.nsf/Caribbean/Barbados_Budget_05-06_-_Economic_Proposals/$file/Economic_Proposals_05-06.pdf)

² <http://www.centralbank.org.bb/Publications/EconRevJul2007.pdf>

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14. The importance of these observations is twofold. Firstly, one of the assumptions in setting the cost of capital for C&W for the period of the price cap was that there would be no difference between the U.S. and Barbados inflation rates. The exposure of the higher inflation in Barbados was therefore not taken into account. Secondly, and more importantly for the purpose of this report, is that as a result of the inflation levels not only have prices for virtually all regulated services dropped in nominal terms, but the reduction is even sharper when compared to other goods and services in the economy.³

15. We next look at the prices of the individual service groups: residential access (Basket 1), business access and VAS (Basket 2) and international calling and leased lines (Basket 3). In each case, we look at the maximum allowable level of prices, i.e., the price cap index, over the course of the period, the level of nominal prices, i.e, the nominal API, and the actual inflation-adjusted level of prices, the real API.

16. With respect to the prices of residential access, or local fixed-line service, the nominal rise of 22.5% over the three and quarter year period, is in the order of only 3.5% in real terms. This is illustrated in Table 2 below. It is important to recall that C&W was not allowed a rate increase in the first period (quarter) of the current price cap. Thus it was beginning with a decline of 1.4% in real terms before the allowable nominal price increases even began. In period 2 C&W was

³ It is worth noting that wages and salaries have been increasing in Barbados by between 3% and 7.5% annually as well. See the Labour Digest 2006 ed., Barbados Employers' Confederation

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able to achieve a real increase, but all of period 3's increase was erased by the 7% inflation rate. Finally, the period 4's increase has been limited to under 1% in real terms.

Table 2: Basket 1 Price Cap Index and Average Price Index

	Period 0 (Start)	Period 1	Period 2	Period 3	Period 4
Nominal PCI	100	100	107	114.49	122.50
Nominal API	100	100	107	114.49	122.50
Real API	100	98.6	102.64	102.64	103.46

17. Business access and value-added services (basket 2) rates are 2-3% below their regulated maximum in nominal terms. In real terms, they can be expected to be at least 8% lower than they were 3 years ago.

Table 3: Basket 2 Price Cap Index and Average Price Index

	Period 0	Period 1	Period 2	Period 3	Period 4 [#]
Nominal PCI	100	0.9907	0.9779	1.0054	1.0256
Nominal API	100	0.9847	0.9768	0.9768	0.9768
Real API	100	0.9709	0.9428	0.8768	0.8224

[#] assuming constant nominal prices

18. International IDD and IPLC rates (basket 3) have dropped dramatically. They are 25% lower than their regulated maximum rates and edging towards half of what they were at the beginning of the period in nominal and real terms.

Table 4: Basket 3 Price Cap Index and Average Price Index

	Period 0	Period 1	Period 2	Period 3	Period 4 [#]
Nominal PCI	100	0.9661	0.8823	0.8420	0.7968
Nominal API	100	0.6368	0.6046	0.5809	0.5809
Real API	100	0.6279	0.6097	0.5670	0.5319

[#] assuming constant nominal prices

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III. Regulated Service Markets

19. The two major features of the telecommunications markets that may not have been readily foreseeable at the time of the setting of the fixed service price cap are i) the convergence of the fixed and mobile markets, and ii) the increased penetration of broadband and concomitant growth in VOIP services. Thus, to begin a discussion of regulated services we first touch on the unregulated markets for mobile and broadband services.
20. As we will see below, the price cap regime underestimated the impact of the mobile market on fixed services, and the potential for fixed-to-mobile substitution in particular. This underestimation is not surprising as the price cap was set only about one year after the mobile market was liberalised. Therefore, and much of the data that was used as inputs into the price cap model was from a period that spanned that liberalization in early 2004.
21. The extent to which consumers are prepared to consider mobile services as a substitute for, rather than complementary to, fixed services seems to be increasing in a number of countries. For example, a study⁴ from 2003 from the US noted that mobile service was a moderate substitute for fixed-line access and concluded that *“evolving usage patterns suggest that mobile and fixed services will become greater substitutes over time.”* It also noted that substitution would increase as the features offered by mobile services more and more replicate those offered in relation to fixed services.
22. A much more recent study⁵ by Zimmerman noted that between 2000 and 2003, the usage of wireless (mobile) services increased by 67% whereas the usage of wireline (fixed) services fell by 12%. It noted that wireless-only adoption was currently mainly limited to younger subscribers but that, over time, it expected that subscribers across all demographic groups would be more willing to abandon their fixed service altogether as the price of wireless services continues to drop and the quality and functionality improves.
23. At a recent conference on telecommunications development in the Caribbean, the degree of fixed-to-mobile substitution received special attention. An ITU representative clearly illustrated how, although a few years delayed from its advent in the developed world, fixed-to-mobile substitution appears to be more pronounced in the Caribbean than in other parts of the world. This is shown in the diagram below. In comparative terms, the impact in Barbados is likely still stronger as mobile penetration is much higher than the Caribbean average. Insight

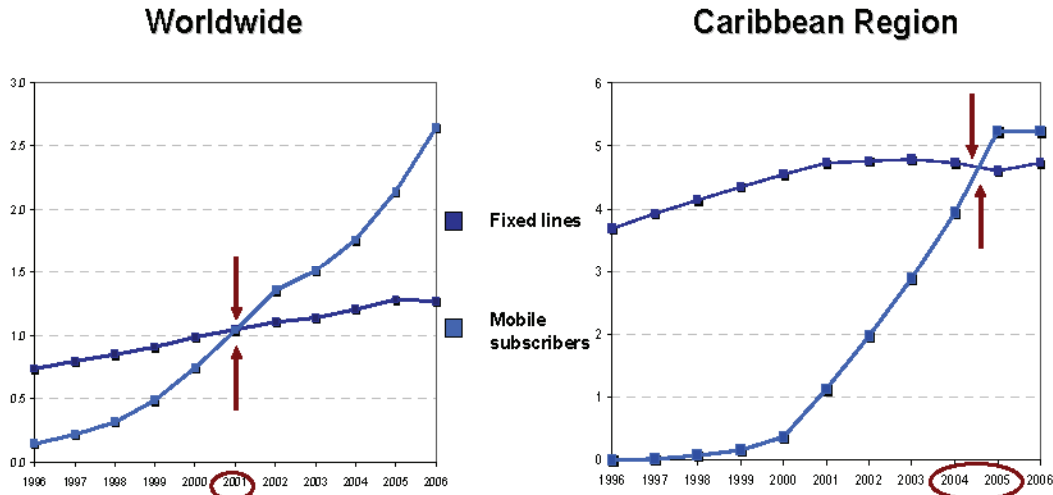
⁴ Going mobile: substitutability between fixed and mobile access, Mark Rodini, Michael R Ward, Glen A Worocho, Telecommunications Policy 27 (2003)

⁵ Recent developments in US wireline telecommunications, Paul R Zimmerman, Telecommunications Policy 31 (2007)

Non-Confidential Summary of Report on Market, and Economic Developments over the period of the Price Cap

Research Corporation reported wireless penetration in the Caribbean in 2007 at 40,3%, whereas penetration in Barbados has been estimated at 92%.

Fixed-mobile substitution



Source: ITU World Telecommunication/ICT Regulatory Database.

24. Of course, for C&W, this is not just a matter of abstract numbers. It is a commercial reality that influences the pricing and positioning of all our fixed line products.
25. Another trend that is beginning to impact strongly on the Barbados telecommunications is the IP transformation of the market. C&W is already confronted by the multiple challenges of a) prices and volumes of traditional services being chased down by customers switching to VOIP⁶ and the attendant irreversible declines in voice revenues, b) a requirement to invest heavily in IP technology to keep up with cost reductions ahead of such revenue declines and c) the inevitable need to embrace the broadband successors to traditional switched voice services.

⁶ The Insight Research Corporation, presentation at the ITU's *Caribbean Economics and Financing Workshop*, 10 september 2007.

Barbados Voice over Internet Protocol (VoIP) Policy, August 15 2007, provides for class licences to provide different levels of VoIP services. In addition it allows local customers to access VoIP service providers who do not operate from Barbados, are not licenced in Barbados, not registered as businesses, and in effect have no legal effect locally as businesses.

Non-Confidential Summary of Report on Market, and Economic Developments over the period of the Price Cap

26. In the remainder of this section we look at the market for the major regulated service categories over the price cap period and likely near-term developments.

Fixed access lines

27. By the end of the latest price cap period, July 2007, C&W had seen a 3.4% decline in the total subscriber base of business and residential lines, from the pre-price cap level in November 2004. Virtually all of the reduction is explained by a reduction in business lines, which we discuss below.

28. The FTC had forecasted growth in residential lines of 500-1000 annually. What in fact happened was stagnation in residential demand. We believe that residential line demand was constrained by the alternative offered by mobile service as well as some churn of second lines for dial-up internet as consumers moved to broadband.

29. We emphasise that there is no evidence that the increased rental price caused a negative impact on demand. As discussed above, the price of residential access has only increased by 3.5% in real terms. The continued line growth we believe is indicative of the fact that residential lines are still priced far below what consumers are in fact content to pay for access and local calling.

30. Indeed, it is worth demonstrating that the price for residential access in Barbados is still far below the price of the comparative service in other countries. In Table 5, we present the comparative total monthly bill for a residential local service consumption bundle of a) rental, b) 5 three-minute off-peak fixed local calls a day and c) 2 one-minute fixed-to-mobile calls per day.⁷ Local currencies were valued at their US\$ equivalence on October 8, 2007.

31. We note that the current undervaluation of the dollar vis-à-vis the euro somewhat distorts the picture. However, the monthly bill is remarkably similar internationally, ranging between 24 and 30 US dollars. Barbados therefore can be said to remain out of step with local service pricing.

⁷ The countries included in each region are as follows: North America-Canada, United States; Europe-Latvia, Turkey, Estonia, Malta, Lithuania, Romania, Slovakia, Slovenia, Bulgaria, Finland, Poland, Sweden, Hungary, Cyprus, Italy, Czech Republic, Iceland, Greece, France, Portugal, Spain, Denmark, UK, Belgium, Austria, Switzerland, Netherlands, Norway, Luxembourg, Germany and Ireland; Latin America-Argentina, Belize, Bolivia, Brazil, Ecuador, Colombia, Costa Rica, Guatemala, Mexico, Paraguay, Peru, Uruguay, El Salvador and Honduras; Caribbean- Puerto Rico, Dominican Republic, Cayman Islands, Eastern Caribbean (OECS) and Jamaica.

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Table 5. Residential Local service bill comparison in US\$

Region	Residential rental	Local Calling Charges	FTM Calling Charges	Total Monthly Bill
North America	24.66	0.00	0.00	24.66
Europe	16.24	16.50	39.60	72.34
Latin America	8.82	7.76	10.62	27.20
Other Caribbean	15.22	8.53	6.94	30.69
Barbados	16.75	0.00	0.00	16.75

Sources: Tarifica for European, Latin American and non-C&W Caribbean rates (where more than one residential plan was available, we examined the one that minimized expenditure at this consumption level); C&W for North American and C&W Caribbean rates.

32. It is significant that the extent of competition in Barbados for fixed access lines varies between the residential and business sector. As far as the residential sector is concerned, there has been little if any interest shown by competitors in competing directly by supplying fixed access lines. This is probably not too surprising given that C&W is currently obliged to offer a fixed access package with unlimited free domestic calls, which are provided on an unmetered basis. Any competitor would have to at least be able to offer the same package to consumers to encourage them to switch.⁸ Until such time as C&W is allowed to implement domestic calling charges and/or higher rentals for residential customers, it is unrealistic to expect there to be any interest by a competitor in providing a competing fixed residential domestic service as the demand will simply not be there for this competing service if consumers can continue to get unlimited calling within their existing fixed access service.
33. As far as the supply of business fixed access lines are concerned, however, C&W Barbados does face direct competition from TeleBarbados, which is expected to increase in the future. For example, C&W is aware that TeleBarbados has entered into a partnership with Illuminat⁹, a company that supplies PBXs and private telephone systems. This suggests that it will be increasing its efforts to attract more business customers in the future. TeleBarbados also acquired WAMCO which provided data services to the business market with the express intent of expanding its customer base in the market.
34. Looking into the future, this competition will increase and will increase irrespective of what happens with TeleBarbados. We have already discussed the competition that mobile gives to fixed services. The relevant economic market is,

⁸ Or offer substantially more functionality as the mobile service arguably does.

⁹ Nation News November 13 2006

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therefore, wider than fixed access lines. Other forms of access, such as mobile, represent substitutable services.

35. It is true that, one of the factors that has arguably limited the extent to which a household or business has been prepared to forego its fixed line in favour of “just mobile” is that fixed access has been needed in order to obtain broadband services. This is now changing very rapidly, however, as mobile operators are rolling out WiMax services that can support broadband services. Indeed, in October 2007 in the Cayman Islands, Digicel launched a completely wireless broadband service and early indications are that it has proved very popular. Anecdotal reports suggest that the service attracted over 300 new subscribers in just three days following launch. Such developments are likely to also impact Barbados, given that Digicel is also rolling out its WiMax service here.

Payphones

36. Table 8 below shows how the number of C&W payphone lines has steadily declined over the current price cap period, from 874 payphone lines as at November 2004 (when the last market review was undertaken) to 756 as at August 2007. This represents a decline of 14%, which is due to payphones being gradually decommissioned as their usage has fallen.

Table 8. Number of payphones in Barbados, 2004-2007

Nov 2004	874
March 2005	793
March 2006	763
March 2007	758
August 2007	756

37. The volumes of payphone calls has decreased year on year.
38. The extent to which C&W would have the ability to increase the price of payphone services were the price cap to be lifted would again be limited by the availability of substitutes, and in particular, the increasing use of mobiles by customers to make calls when away from the home or business base. In line with international trends, payphone usage in Barbados has decreased significantly as mobile penetration has increased. For example, a recent survey¹⁰ of European households reported that only 15% of households use public payphones, with the main reason for their use being reported as when their mobile phone is either out of battery or out of range. Such evidence is consistent with the view that, within Barbados, reliance on payphones for making telephone calls when away from the

¹⁰ Household survey: Telecoms and broadband access in Europe, Eurobarometer report published 25 August 2006,

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home or office base (and the customer's fixed line) has steadily diminished as a result of the increasing penetration and use of mobile phones.

39. Such developments have resulted in the lifting of detailed regulation on payphones in many parts of the world. For example, in the UK there is no longer any regulation placed on payphone charges, and this reflects the regulatory stance in the rest of the European Community. The European Commission (EC) did not include payphone services in its Relevant Markets Recommendation, which identified those markets that may require ex ante regulation. This meant that the individual National Regulatory Authorities (NRAs) were obliged to remove any existing ex ante regulation on payphone services, unless they could justify, using criteria set out by the EC, that national circumstances warranted such regulation.

Value Added Services

40. Value added services (VAS) cover items such as voicemail, call forwarding, three-way dialling, call waiting, SmartRing, Speed Calling, etc. Information from the price cap filings show that nominal prices have stayed constant throughout the price cap period, which means that real prices have fallen by 16.48%. It is difficult to pick out a general trend in terms of volumes for VAS as they are sold in different combinations and some combinations (such as speed call with 1 Smart Ring (Residential)) have seen increases in volumes every year, whilst other combinations (such as call wait, Speed Call, 1 Smart Ring (Residential)) have seen relatively flat volumes.
41. There are no significant direct competitors for fixed VAS but it is important to appreciate that fixed VAS are purchased as part of a bundle of services that includes the fixed access line. The customer will be interested in the overall price of this bundle and will compare this price to the price of similar bundles available from other means of access such as mobile. Any attempt to increase the price of the fixed access/VAS bundle would not be sustainable as this would merely encourage customers to switch to other forms of access that also offer bundles of VAS, and in particular, mobile/VAS bundles. This means that the relevant market for VAS services is likely to be wider than fixed VAS and should also include mobile VAS.

Fixed International Services

42. As discussed above, the prices for international fixed outbound has decreased more than modelled in the original price cap analysis. They were 31% lower than the regulated maximum rates in period 3. The greatest impact of competition has been with respect to outbound international traffic.

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43. C&W has changed its international daytime prices for major routes (USA, Canada, UK, Caribbean, rest of Europe) twice between March 2004 and April 2006 for both residential and business customers, with price reductions of between 41% and 58% in most of these routes. There were further price reductions for business customers only on these routes in July 2006 and May 2007, with price reductions typically between 51% and 81%.
44. Looking forward, the main competitive impact is expected to come from VoIP traffic. The Ministry has just published its VoIP policy¹¹, and experience from other jurisdictions shows that customers are very quick to take up VoIP services, whether or not the regulator considers the use of certain VoIP services legal.
45. The rapidly expanding use of VoIP has been noted in other jurisdictions. For example, a recent report by Telegeography¹² noted that as at the end of 2006 there were 15.6 million consumer VoIP lines in service in Europe, representing an almost threefold increase compared to 2005. By mid-2007, the number had increased to approximately 22 million households with Telegeography predicting this to reach 61 million by 2011, or 40% of all households.
46. A similar picture exists in the US, where Telegeography¹³ reports that the number of VoIP subscribers nearly doubled between mid-2006 and mid-2007, from 6.5 million to 11.8 million.
47. It is reasonable to expect a similar meteoric rise in the use of VoIP services in Barbados, especially now that the Ministry's recent policy announcement has legitimised the use of VoIP services, within specific parameters.

International Payphone Services

48. As with domestic payphone services, the prices of international payphone services will be constrained by the increasing use of mobile phones to make international calls, especially when Barbadian customers are away from their home or office base.
49. The volume of international payphone calls are relatively small and have only seen a very small increase over the price cap period. These numbers are driven more by tourist demand than domestic demand.

¹¹ See footnote 6

¹² European VoIP Research Service, Executive Summary, Telegeography Research, downloaded from www.telegeography.com/products/euro_voip/samples/Executive_Summary.pdf

¹³ US VoIP Research Service, Executive Summary, Telegeography Research, downloaded from www.telegeography.com/products/VoIP/pdf/USVoIP_Exec_Summ.pdf

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IPLCs

50. That C&W regards TeleBarbados as a competitive constraint with respect to IPLCs may be demonstrated by the fact that C&W has reduced the price of its IPLCs as its cost base has allowed. The IPLCs on the US route have decline between 63-92%, on Caribbean routes between 16-90% depending on circuit speed.

IV. Implications for the Price Cap Review

51. We believe that the detailed paper submitted to the Commission has demonstrated a number of significant features of C&W regulated service market that are relevant for the price cap review. Firstly, it demonstrates that the price cap regime did not hinder major advances in the sector. The fact that its scope was limited to certain fixed services allowed fair competition and robust growth in the mobile and internet markets. It also facilitated giving consumers more value for their dollar in telecommunications services, both regulated and unregulated.

52. Secondly, it has shown that the analysis that went into the development of that price cap regime, which was represented by the price cap model, was reasonable except that it underestimated the impact of competition on the fixed service market. In particular, it did not anticipate the boom in mobile international calling and feedback effect on inbound international traffic.

53. However, thirdly and most importantly, it has shown that the competitive landscape in Barbados has moved on over the time of the current price cap in such a way as to justify a lighter form of retail price regulation. C&W faces a number of market constraints on its services that should permit a more proportionate regime in the future. Our ideas on that topic are outlined in our response to the FTC's current price cap consultation No. FTC/CON2007/01.

54. Finally, in reviewing the precise form any future price cap regime for Barbados should take, it will also be necessary to consider the likely impact of the various policies that are currently being considered by the Barbados government. These policies include local loop unbundling (LLU), local number portability (LNP) and indirect access. If for whatever reason these policies are implemented, they are likely to have an impact on market development. Furthermore, the Government's VoIP policy that has now been implemented with the effect of VoIP being legalised in Barbados. Experience from elsewhere, including other parts of the Caribbean such as the Cayman Islands, shows that consumers will be quick to adopt the use of VoIP and this will act as a further competitive constraint on the prices of both domestic and international telephony services.

Section 4 – Review Process

41. The review of the price cap mechanism includes consideration of responses to public consultation as well as an assessment of the Company's regulatory and financial performance. The Commission has to make two decisions.

4.1 DECISIONS

42. First, the Commission will decide whether it will continue with the price cap regulation or employ another method of incentive regulation for regulating Cable & Wireless. It is expected that this Decision will be issued in early February 2008. This is in accordance with the Price Cap Compliance Rules Section 13.7 which states:

The Commission shall publish its determination at least 6 months before the end of the initial Price Cap Plan.

43. The first Decision will also identify elements of the current mechanism that will be revised.
44. The second Decision will be delivered after the Commission has held further discussions with the service provider and any interested parties who so request, on revision to the structure of the price cap plan or any other incentive regulation. This second decision will provide detailed information on the mechanism to be used to regulate the prices of the regulated services of Cable & Wireless and the associated rules and procedures.

4.2 RESPONSES TO THE INFORMATION PAPER

45. The Commission invites and encourages written responses on the matters discussed in this Information Paper from all interested parties including Cable & Wireless, other licensed operators, government ministries, non-governmental organisations (NGOS), consumer representatives, residential consumers, businesses and the academic community. Respondents who previously submitted a response to the consultation paper FTC/CON2007/01 may seek to revise or supplement their original response.
46. All written responses should be submitted to the Commission by Friday, January 18, 2008. The Commission is under no obligation to consider comments received after 4.00 p.m on this date.
47. Copies of the Information Paper can be collected between the hours of 9.00 a.m. and 4:00 p.m, Monday to Friday from the Commission's offices at the following address:

Fair Trading Commission
Manor Lodge
Lodge Hill
St Michael
BARBADOS

48. The Information Paper can also be downloaded from the Commission's website at <http://www.ftc.gov.bb>
49. Persons may submit their responses either written or in electronic format. Mailed or hand delivered responses should be addressed to the Chief Executive Officer at the above mailing address. Responses

can be faxed to the Commission at (246) 424-0300. Responses in electronic format may be prepared in either Word or PDF, attached to an e-mail cover letter and forwarded to info@ftc.gov.bb.

4.3 CONFIDENTIALITY

50. The Commission is of the view that the matters raised are largely of a general nature. The Commission expects to receive the views of a wide cross section of stakeholders and believes that views and comments received should be shared as far as possible with all respondents.
51. Respondents should therefore ensure that they indicate clearly to the Commission any response or part of a response that they consider to contain confidential commercially sensitive or proprietary information.

4.4 ANALYSIS OF RESPONSES

52. The Commission expects as in most consultations, to receive a range of conflicting views. In such circumstances, it would be impossible for the Commission to agree with all Respondents. Through its Decisions, the Commission will seek to explain the basis for its judgments and where it deems appropriate give the reasons why it agrees with certain opinions and disagrees with others. In the interests of transparency and accountability, the reasons will be set out and, where the Commission disagrees with major responses or points that were commonly made, it will in most circumstances, explain why.

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