

The Current State of Telecommunications Competition in the Caribbean

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*The views expressed in this presentation are those
of the presenter and should not be ascribed to the
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Transition from Monopoly to Competition

- Presentation focuses on Trinidad & Tobago, Barbados, Guyana, Jamaica and six Eastern Caribbean (EC) countries.
- Mobile leading the transition.
- Guyana and Antigua & Barbuda were the first to introduced facilities based competition in mobile (1990s).

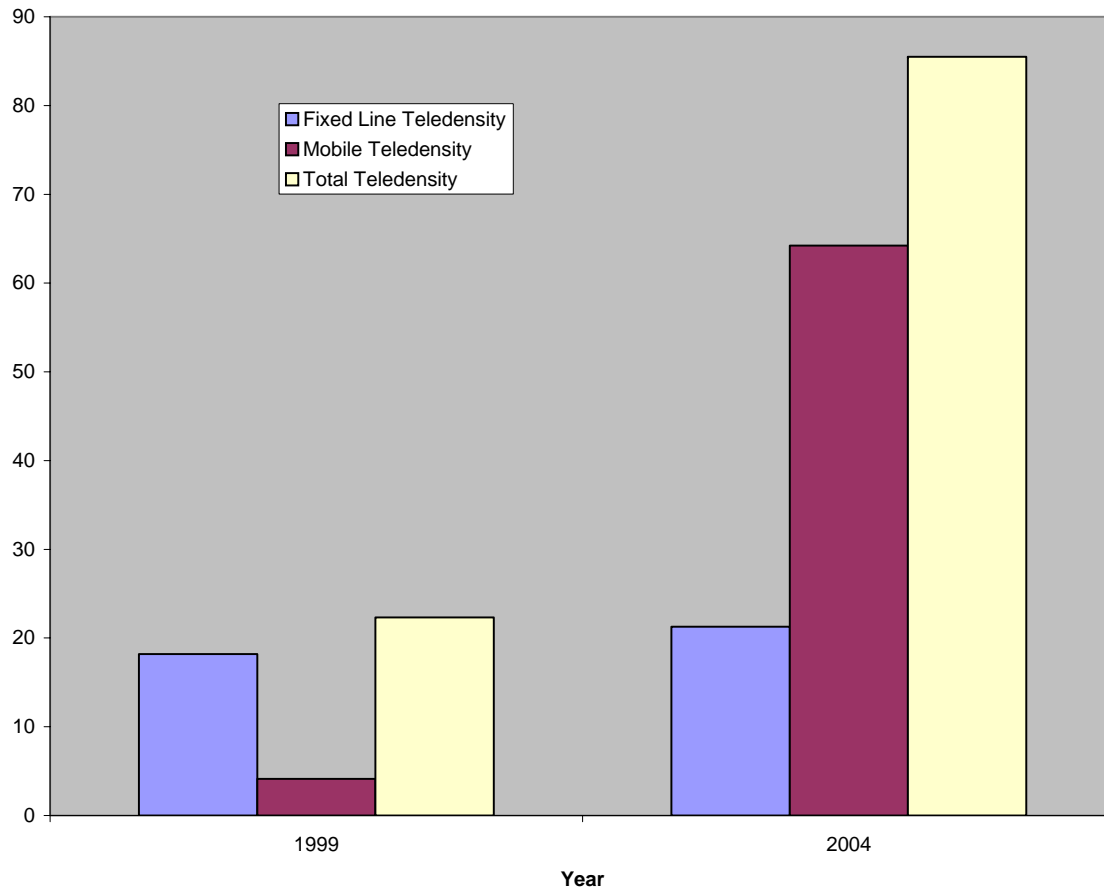
Mobile – Leading the Transition

- Followed by five ECTEL states, Barbados, Jamaica and Trinidad & Tobago.
- By December 2004 most countries have more than two mobile operators.
- Good for customers and regional economies.

Mobile – Leading the Transition

- Benefits to customers include lower prices, wider network coverage and per second billing.
- Number of mobile subscribers increased from 231,594 (1999) to 3,593,890 (Dec.2004).
- Figure 1 shows teledensity for the ten countries.

Figure 1: Telephone Teledensity



Mobile – Leading the Transition

- Exponential growth in access to voice telephony.
- Total teledensity increased from 22.32 per 100 inhabitants to 85.50 per 100 inhabitants.
- Mobile per 100 inhabitants went from 4.14 to 64.23.

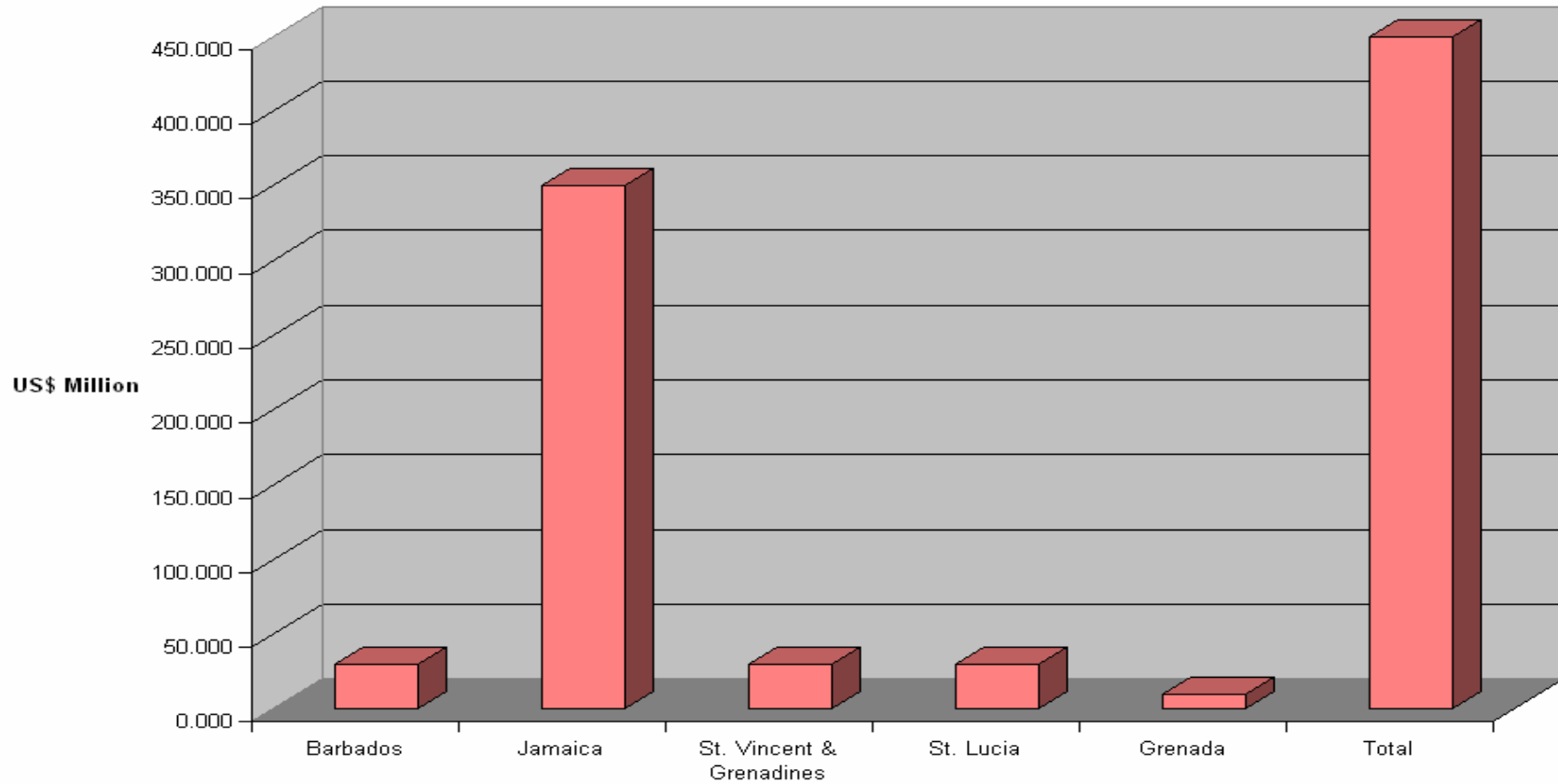
Mobile – Leading the Transition

- Five countries have mobile teledensity in excess of the group's total.
- Region has achieved high growth in access to voice telephony without universal service program.
- One benefit to regional economies is the additional tax revenues generated by the mobile sector

Mobile – Leading the Transition

- Capital spending on infrastructure development.
- Roll out of GSM/GPRS infrastructure by incumbents.
- Digicel's investment in five countries totaled more than \$400 million – Figure 2.

Figure 2: Digicel's Estimated Investments by Market



Challenges

- Need for regulation of mobile termination under Calling Party Pays.
- Roaming market is cartel-like in its dynamics.
- Early signs of consolidation as evidenced by Digicel's recent acquisition of Cingular's networks and customers.
- Possible effect will be to reduce the number of mobile operators in some countries to two

Cont'd

- Duopolistic environment ideal for collusive practices.
- These are very hard to detect and investigate.

Fixed Line Services

- Open to competition in five ECTEL states, Barbados and Jamaica.
- Marginal increase in capital spending due in part to low take-up of licenses.
- Incumbents reducing level of spending.
- One entrant in Jamaica, two in Dominica and one in Anguilla.
- But entrants posed no serious threat to incumbents.

International Voice Telephony

- Some markets are still legal monopolies (eg. Antigua & Barbuda, and Trinidad & Tobago)
- Steep drop in settlement rates after 1996-
Figure 3.
- Figure 4 compares prices for international calls.

Figure 3: Trends in Settlement Rates Between US and Caribbean Countries

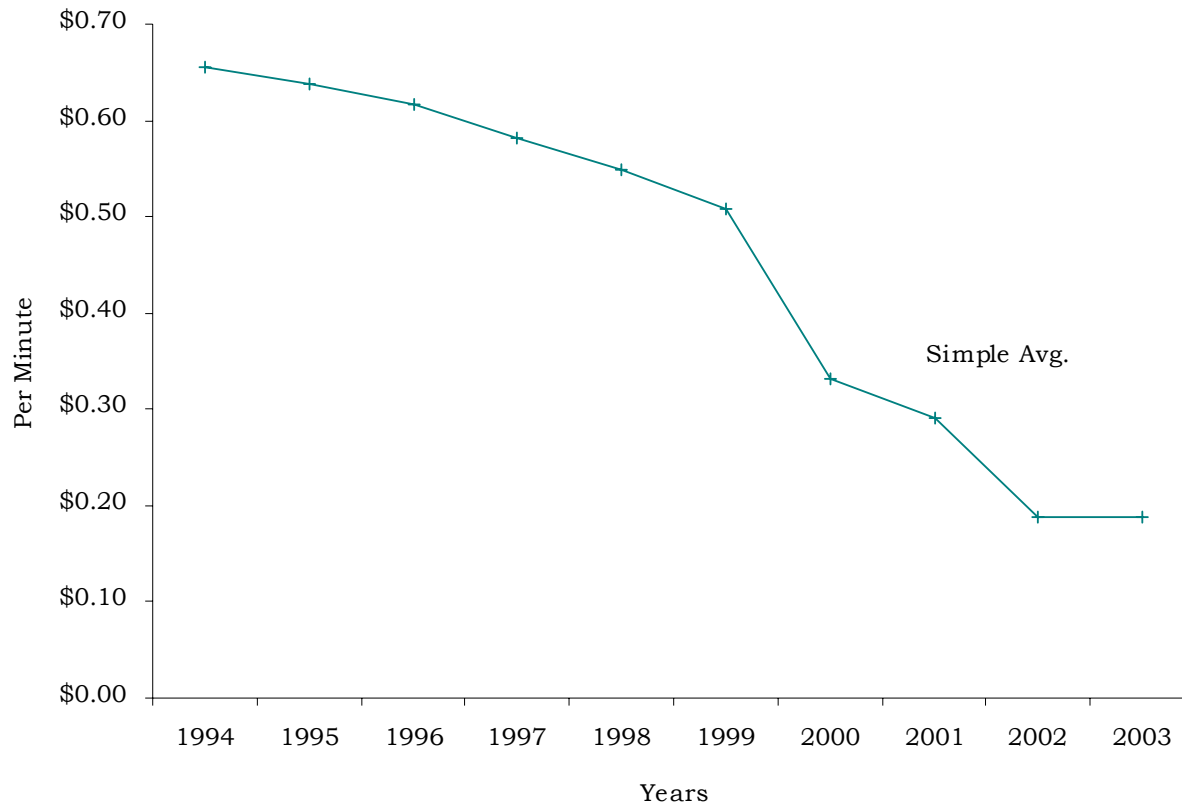
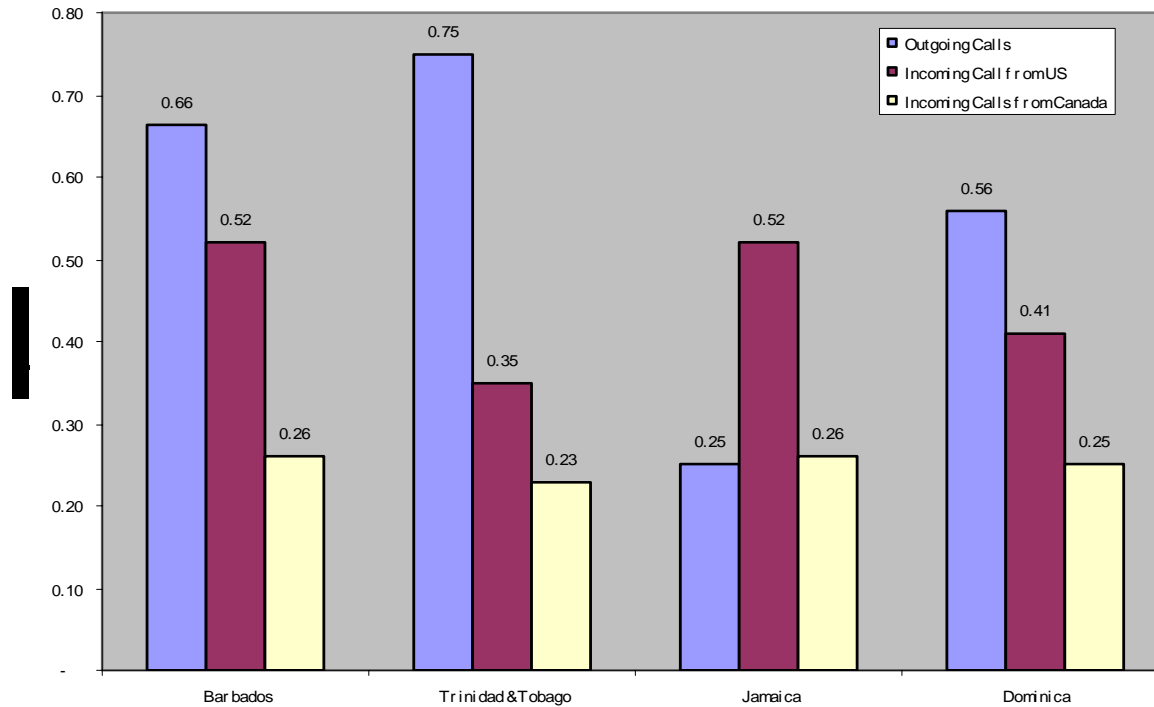


Figure 4: International Price Comparison



International Voice Telephony (Cont'd)

- Why is retail rates well above 'settlement rate'? Domestic operators in the Caribbean and the US have not passed on the full reduction in settlement rates to customers.
- In general retail prices are higher than originating prices in US and Canada.
- Originating prices in Canada are substantially lower than US.

Internet

- Market is open to competition in some countries – Table 4
- Most ISPs rely on incumbents for critical infrastructure (Cable companies tend to use their own infrastructure)
- Access to key infrastructure is prohibitively high in most Caribbean markets – Table 5

Table 4: Internet Market

Country	Market Structure
Antigua & Barbuda	Duopoly
Barbados	Competitive
Guyana	Competitive
OECS	Monopoly/Duopoly
Trinidad & Tobago	Competitive
Jamaica	Competitive

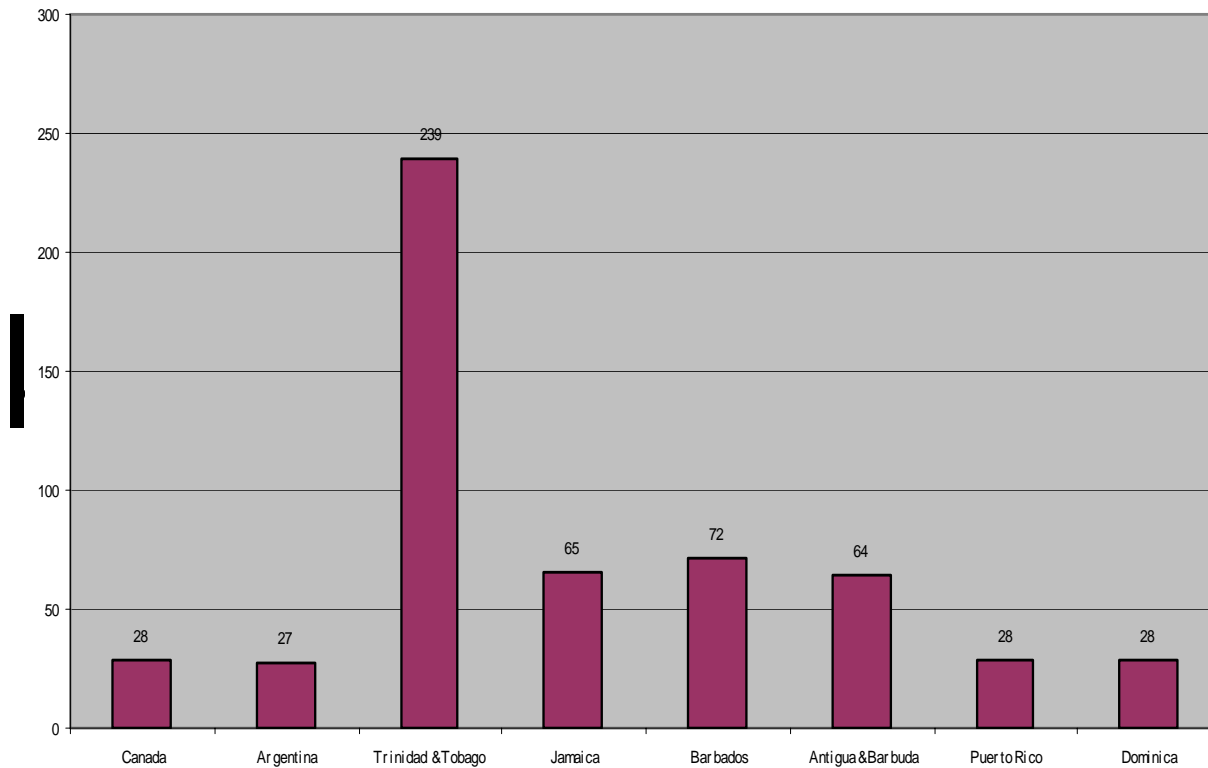
Table 5: International Leased Circuits

Route	Distance (Km)	Type/Speed	\$ Per Circuit	\$ Per Mbps
Puerto Rico-Miami	n/a	T1 / 1.544	1,500-5,000	972-3,238
Dominica-Miami	n/a	T1 / 1.544	10,000-30,000	6,478-19,430
T&T - Miami	2,602	T1 / 1.544	11,000	7,124
Kingston – Miami	932	T1 / 1.544	10,500	6,800
Barbados-Miami	2,584	T1 / 1.544	10,000	6,477

Internet (Cont'd)

- Based on Table 5 - Puerto Rico has the lowest prices for high speed circuits - six cable systems operating in competitive conditions.
- High prices for leased circuits translate into high prices for internet access.
- Puerto Rico has the lowest monthly rates for high speed internet access among regional economies – Figure 5.

Figure 5: Monthly Rates for High Speed Internet



Cont'd

- In some countries the monthly access rate exceeds weekly GDP and the national minimum wage.
- Until and unless there is more 'choice' on international routes in the retail ISP markets, basic access prices to the internet will remain high and service will be poor – i.e. not enough international capacity.
- ISPs must pay the 'full circuit' costs for access to the internet backbone in the US.

Way Forward

- Effective regulation of key bottleneck facilities.
- Strengthen regulatory framework by enacting modern competition legislation.
- Further liberalization of international infrastructure (eg submarine cable facilities).
- Focus Universal Service Fund primarily on internet access.

Way Forward (Cont'd)

- Positive correlation between internet access and exports (Clarke & Wallsten, 2004)
 - a 1% increase in the share of population with access to the internet, would increase the share of total exports/GDP by 1.4% and export to high income countries by 1.3%

Conclusion

- Significant disparity in the pace of telecommunications liberalization among regional economies.
- The region also lags other countries with respect to the benefits of telecommunications liberalization particularly with respect to rates for internet access.

Thank You