STAFF REPORT

Assessment of Competition in the Mobile Telecommunications Market

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Public version

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I. BACKGROUND

1. On May 14, 2020, the Spectrum Management Authority ("SMA") requested that the Fair Trading Commission (FTC) conduct an assessment of competition within the Telecommunications sector.
2. The SMA made the request pursuant to its ongoing exercise to determine whether the Aggregate Spectrum Cap Policy ("Cap"), which is currently used as a measure to safeguard competition, should continue.
3. The Cap limits overall spectrum holdings of mobile operators to 120 MHz with respect to the 700 MHz, 850 MHz, 900 MHz, 1800 MHz, 1900 MHz and the 1700/2100 MHz (AWS) bands.
4. In conducting the assessment, the FTC benefitted from information provided by the SMA, the Office of Utilities Regulation (OUR), Digicel Jamaica Ltd ('Digicel'), and Cable and Wireless Jamaica Limited ('FLOW').

II. MOBILE SPECTRUM

5. Spectrum refers to radio frequencies, measured in Hertz (Hz), allocated to the mobile industry and other sectors for communication over airwaves. Mobile spectrum is a critical input for mobile telecommunications services. Mobile telecommunication services refer to telecommunication services delivered to a device that may be moved around freely rather than remain fixed in one location. Mobile telecommunication service providers compete primarily on their ability to deliver data at high speeds (capacity) over a given geographic region (coverage).
6. Spectrum bands have different characteristics and may be used for different purposes when maximizing efficiency. High bands spectrum (i.e., frequencies above 1 GHz) is best suited to meet the operator's need to build capacity.[1] Low bands spectrum (i.e., covers frequencies below 1 GHz) is best suited to meet an operator's need for wider geographic coverage.
7. The mix of the various spectrum bands assigned to a particular operator has significant implications for the cost of deploying mobile telecommunication services. FLOW advised the FTC that a single cell site that utilizes low band spectrum provides 15 to 20 times the coverage of a cell site that utilizes high bands such as 1.8 GHz. This means that the cost of offering a given coverage is significantly greater if fewer low band frequencies are utilized. Similarly, a 2015 IDB Report indicates that if the 800 MHz band requires 2,000 cell sites to provide given coverage in

[1] One MHz is equivalent to One Million Hz. Also, One GHz is equivalent to One Thousand MHz.

over a given geographic area, then the 1.8 GHz band would require 10,000 sites and the 2.6 GHz band would require 20,000 sites.[2]

III. ANALYTIC FRAMEWORK

8. The primary purpose of this study is to assess the extent of competition in the mobile telecommunications market in Jamaica. The analysis was conducted through a benchmarking exercise.

9. Step 1: The initial step in such an exercise was to identify appropriate benchmark—the ideal benchmark would be countries in which the telecommunications market are known to be competitive and the conditions of demand and supply are comparable to the test market (Jamaica) in all material respects.

10. Step 2: The next step was to identify the relevant metrics to be compared. Since the objective of the study is to assess the extent of competition in Jamaica, the metrics selected in this study are known to reflect the competitive environment in market.

11. Threats to competition may arise from three sources: (i) The conduct of a given market player acting unilaterally (unilateral conduct); (ii) The conduct of two or more market players coordinating their conduct (coordinated conduct); and (iii) The regulatory framework. The benchmarking exercise utilises metrics to account for threats to competition arising from these sources.

12. The Structure-Conduct-Performance paradigm in the economics literature maintains that competitive markets can be identified using either the structural characteristics or the observed performance of the market. Regarding structural characteristics, it has been demonstrated that the prospects for competition increases as markets become less concentrated or conditions of entry become easier. Accordingly, metrics such as *market concentration levels* and *conditions of entry* are therefore two useful metrics for the benchmarking exercise as they are useful measures of threat to competition arising from unilateral conduct.

13. Similarly, there are many structural characteristics which have been found to facilitate coordinated conduct ('collusion') in markets. This exercise describes key differences between the test market and the competitive benchmark regarding factors which are known to promote collusive conduct. Finally, the exercise identifies key distinctions between the test market and benchmark as they relate to the regulatory environment in which mobile telecommunication services are offered.

[2] Zaballos, Antonio Garcia and Nathalia Foditsch (2015). Spectrum Management: The Key Level for Achieving Universality.

14. Step 3: Data was then collected from the markets in Jamaica and the benchmark countries.

15. Step 4: Another important step in the analysis was to account for material differences in market conditions between Jamaica and the selected benchmark markets. To the extent that the benchmark and test markets differ in material respects, the appropriate adjustments were made when comparing the metrics.

16. Step 5: The final step was to conduct the analysis. In instances where the metric was found to be at least as favourable to competition in the test market as it is in the competitive benchmark, the analysis concluded that the test market is competitive; otherwise the result was described as being inconclusive.

IV. DESCRIPTION OF COMPETITIVE BENCHMARK

17. There may be many candidate competitive benchmarks for the mobile telecoms market in Jamaica—none, however is ideal. Among the most appropriate candidates, would be the countries located within Latin America and the Caribbean, which is comparable to Jamaica regarding population size, GDP, culture, etc. (demand conditions) as well as topography, regulatory framework, population density, etc. (supply conditions).

18. The FTC selected as the primary competitive benchmark, the telecommunications market in Jamaica, during a period in which the market was demonstrably competitive. The period chosen was August 2007 to June 2010 when two of the three market participants, Claro and Digicel, actively competed in the market.[3] [For a detailed description of this market, see FTC (2011), Investigation into the acquisition of Oceanic Digital (Jamaica) by Digicel Jamaica Limited, Case no. 6997-11: available at https://jftc.gov.jm/wp-content/uploads/2017/08/Case-No.-6997-Proposed-Acquisition-of-Claro-by-Digicel.pdf].

19. Claro entered Jamaica in August 2007 through the acquisition of Oceanic Digital Jamaica Limited. At that time, there were two other mobile telecommunication operators: Digicel, which had entered the market in 2001, and Cable and Wireless Jamaica Limited (now trading as FLOW), which was the statutory monopoly telecommunications provider up to 2000.

20. Subscribers benefited tremendously from the price competition between Claro and Digicel. Consumption of mobile voice services increased by 39 percent while consumers paid 2 percent less. Immediately before Claro's entry, Digicel was the significant market leader despite having relatively higher prices than LIME. Digicel responded almost immediately to Claro's entrance by reducing their effective tariffs. In particular, Digicel's average transaction prices for mobile voice services declined from [redacted] to [redacted] per minute during the period. Subscribers would have also

[3] The third operator was LIME, presently operating as FLOW.

benefitted from the technical innovation spurred by Claro's entry. Within twelve months of entering Jamaica, Claro became the first operator to offer 3G technology services in Jamaica; LIME rolled out 3G services eight months later in June 2009.

21. The present market in Jamaica differs from the competitive benchmark in a few materially significant respects. Firstly, there were three suppliers in the benchmark market, while there are only two suppliers in the test market. In general, this difference in the structural characteristics of the markets could reasonably be expected to alter the competitive dynamics in the market. Secondly, competitive dynamics in the benchmark market were driven by voice, while data is the main driver for competition in the test market. Thirdly, there are key differences in the regulatory framework which are likely to affect the prospects for fostering competition.

22. In the following section, the FTC discusses whether and the extent to which adjustments were required to account for these differences.

V. METRICS OF COMPETITION

23. In this section, the FTC examines key structural characteristics known to influence the opportunities and/or incentives for anticompetitive unilateral and coordinated conduct. The FTC also describes differences in the regulatory environment in the test and benchmark markets which impact the incentives and opportunities for competitive interaction.

A. Anticompetitive Unilateral Conduct

24. The Report now discusses the two main metrics for measuring the scope for anticompetitive unilateral conduct.

Market Concentration as a metric

25. Market concentration uses market share data to measure the extent to which a supplier faces competition from other suppliers in the market. Ceteris paribus, markets with higher levels of concentration, are presumed to be more susceptible to anticompetitive conduct than markets with lower levels of concentration. This presumption, however, could be rebutted by other market conditions. Market concentration level is determined based on the distribution of market share. Generally, the larger the market share controlled by any given supplier, the larger the market concentration level. Market share data must reflect the competitive dynamics of the market.

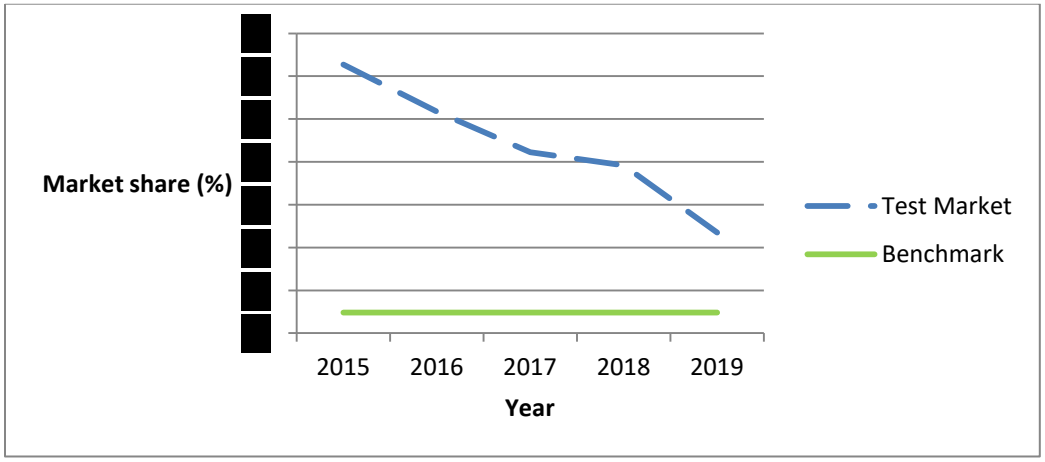
26. The Herfindahl-Hirschman Index (HHI) is one of the most widely used measures of market concentration. The HHI takes on a minimum value of 0 points (in the case of a perfectly

competitive market) and a maximum value of 10,000 points (in the case of a monopoly market). Based on US Horizontal Mergers guidelines, markets with an HHI below 1,500 points are considered to be unconcentrated and pose no concern for anticompetitive conduct. Markets with an HHI between 1,500 and 2,500 points are considered to be moderately concentrated. Markets with an HHI in excess of 2,500 points are considered to be highly concentrated and susceptible to anticompetitive conduct.

Discussion

27. Since 2015, there have been only two mobile telecommunications providers in Jamaica: Digicel and FLOW. Duopoly markets are always highly concentrated.

28. The market was most concentrated in 2015 when Digicel had an [redacted] percent market share based on broadband revenue. By 2019, Digicel's market share declined by 19 percentage points to [redacted] percent. The downward trend in the leader's market share is depicted in Figure 1 below.

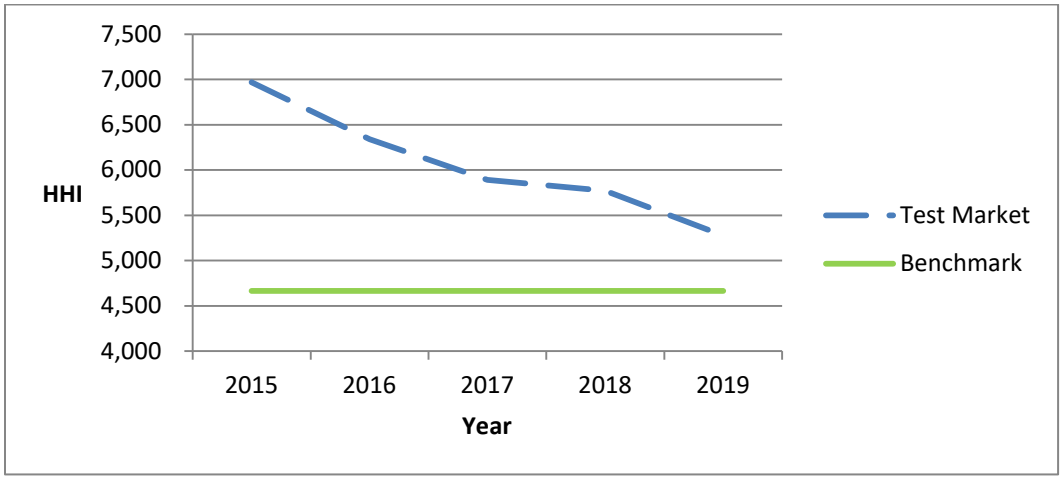


Source: OUR

Figure 1. Comparison of Market Leaders' Share of Market

29. Figure 1 shows that in 2015, the market leader's share in the test market was [redacted] percentage points greater than the market leader's share in the benchmark market. It is also evident, however, that the gap narrowed consistently throughout the period. By the end of 2019, the market leader's share was only [redacted] percentage points greater in the test market than it was in the competitive benchmark.

30. The FTC next examined the changes in the market concentration level based on the observed trends in market share. The change in market concentration level over the period is depicted below in Figure 2.



Source: OUR

Figure 2: Comparison of Market Concentration Levels

31. Figure 2 shows that in 2015, the market concentration level in the mobile telecoms market was just below 7,000 HHI points. This was 2,303 points higher than the competitive benchmark level (4,666 points). Consistent with the observed downward trend in market share, however, there was a corresponding decline in market concentration between 2015 and 2019. By the end of 2019, the market concentration level declined considerably to 5,277 points but was still a significant 611 points above the concentrated level observed in the competitive benchmark.

32. A direct comparison of concentration level would be misleading given the different number of suppliers in the test and benchmark markets. Markets with fewer suppliers will have higher concentration level even if they have identical levels of competition. Appropriate adjustments would therefore have to be made when using market concentration as a benchmark for competition. In particular, the greater the number of participants in a market, the lower the minimum possible value of the HHI. For example, in a duopoly market (such as the test market), the minimum value possible is 5,000 points. In contrast, in a three-operator market (such as the competitive benchmark), the minimum value possible is 3,333 points. To account for differences in the number of suppliers, the FTC utilised a relative measure of concentration rather than the absolute measure. In particular, the FTC compared the market concentration relative to the minimum possible concentration for the respective market. [4]

33. Based on this adjustment, the market concentration in the test market is only 277 points above its lowest possible level while in the competitive benchmark, the concentration level was as

[4] Additionally, the FTC compared the relative distance of the market concentration from their minimum possible concentration. Accordingly, market concentration in the benchmark market is approximately 40% above its minimum while it is 6% above minimum in the test market. This points to the same conclusion; that is, the test market is less concentrated.

much as 1,333 points above its lowest possible level. Based on this adjusted measure, the test market is less concentrated than the competitive benchmark.

34. *Based on market concentration level, conditions in the test market are at least as favourable to competition as conditions in the benchmark. The result of this test in respect of market concentration is that the mobile telecoms market in Jamaica is competitive.*

Conditions of Entry as a Metric

35. The ease of entry is the other metric used to assess the prospects for anticompetitive unilateral conduct in a market. Entry conditions are used to measure the extent to which competitive entry is likely to discipline attempts by incumbent suppliers to engage in anticompetitive conduct. Ceteris paribus, competitive entry is more likely to take place in markets in which entry is easy compared to markets which are not easy to enter.

36. Entry is considered easy if entry is likely, timely, and sufficient in scale and scope to discourage anticompetitive conduct. Entry is considered likely if it is profitable at current prices. Entry is considered timely if it occurs within two years of the implementation of anticompetitive conduct. Entry is deemed to be sufficient in scale and scope if entrants can accommodate the demand from consumers attempting to avoid the adverse effects of anticompetitive conduct.

37. Firstly, this section examines the requirements to secure a mobile telecommunications license; then it looks at the requirements for obtaining a spectrum license. In the first instance, it is useful to note that there are several market segments to which an entrant can enter the telecommunications market.

38. This assessment, however, focused on mobile telecommunications (voice and data) and the commensurate spectra associated with its provision. Accordingly, the Report assessed the ease with which service providers can enter the mobile telecoms market.

Telecommunications Licensing Requirements[5]

39. To secure a telecommunication license, applicants must provide the following:

    1. Company data inclusive of Certificate of Incorporation, Memorandum of Association and Articles of Association;
    2. Audited financial statements;

[5] "Application Requirements for Telecommunications Licences" (2018) Retrieved from http://www.our.org.jm/ourweb/sites/default/files/documents/sector_documents/application_requirements_for_telecommunications_licences_-_2018_mar_08_-_version_5.pdf

3. Details of the network the company intends to operate. Details include a network diagram, details of local arrangements for termination of calls for handing off to local carriers (where necessary); and

4. Fit and proper clearance – ensuring that all persons associated with the business meet the requirements of doing business according to the requirements of the license(s).

Spectrum Licensing Requirements[6]

40. Spectrum is a critical input into mobile telecoms operators' provision of services to its customers. The requirements for the licensing of spectrum under the regime includes:

a. Copies of relevant applications for telecoms license or having a telecommunications license pertaining to the provision of wireless broadband and mobile services;

b. Company data inclusive of Certificate of Incorporation, Memorandum of Association and Articles of Association;

c. Completion of the application form indicating the amount of spectrum required, network diagram, frequency channel plan, connection of points of presence plan, network rollout proposal, evidence of organization and technical competence, quality of service commitments, etc.;

d. Provision of a business plan, independent audited financial statements, estimated costs of construction, operation and other expenses, proof of finances to carry out said construction and cover expenses;

e. Fit and proper clearance – ensuring that all persons associated with the business meet the requirements of doing business according to the requirements of the license(s); and

f. Application processing fee of JMD 70,000, along with purchasing the spectrum they will need for use.

Discussion

41. The conditions of entry in the benchmark market were determined to be not easy due to the unavailable of adequate spectrum to facilitate the expansion of new entrant. This report next examines entry conditions in the test market.

Entry Conditions in the Test Market

[6] "Application for wireless broadband spectrum licence (2019) Retrieved from https://www.sma.gov.jm/wp-content/uploads/2019/06/APPLICATION-FOR-WIRELESS-BROADBAND-SPECTRUM-LICENCE.pdf

42. The recent history of entry in a market provides useful information about the likelihood of competitive entry. The most recent entry took place in 2015 when Symbiote Investments Limited (trading as Caricel) entered the market as the first Jamaican-owned mobile telecom provider.[7] It exited the market in 2019.

43. The FTC observed a downward trend in the revenues generated by Digicel and FLOW during Caricel's participation. The reduction in revenues generated by Digicel and FLOW could arise from the increased competitive threat posed by Caricel's entry as well as it could be reflecting a shift in consumption pattern away from mobile voice services toward the relatively cheaper mobile broadband services. The FTC was unable to identify the reason for the reduced revenue.

Timely

44. To deter or mitigate anticompetitive conduct, entrants must be able to enter the market quickly. Competition authorities generally consider as timely, only those committed entry alternatives that can be achieved within two years from initial planning to significant market impact.

45. A due diligence exercise is required by both the telecoms regulator (OUR) and the spectrum regulator (SMA). This exercise is to determine if the applicants are "fit" to transact mobile telecommunication business in Jamaica. These checks include legal proceedings against the applicant or its affiliates to see if either has been implicated. The due diligence phase of the exercise is conducted by the SMA to verify that the applicant's integrity, technical competence, financial ability is in keeping with its stipulations.

46. In the instance of securing a telecoms license, the applicant undergoes a waiting period of approximately twelve months – from submission of application with all required documentation to approval by the relevant Minister.[8] Providing that the applicant meets all requirements, the process of securing the spectrum license is usually completed within this twelve-month period. This process includes the application being approved by the Minister responsible for Telecommunications. After the applicant is granted the spectrum license, it will then be required to build out its network across the area it wishes to provide its services.

47. For an islandwide rollout, this process usually takes a minimum of twelve months.[9] The granting of the license, however, is the first major hurdle and signal of intent from the entrant that operation will commence in due course. The entrant is mandated by the SMA to use the

[7] Balford Henry, "Caricel- first Jamaican company to get mobile spectrum licence," The Jamaica Observer, Saturday, May 21, 2016.
[8] Meeting between SMA and FTC on June 15, 2020.
[9] Ibid.

spectrum it has been assigned, or it faces the prospects of losing it on account of misuse/non-use of a critical and scarce resource.

48. *Conclusion: Entry is timely, given that initiating mobile telecoms operations is likely to be completed within a two-year period. Additionally, the fact that potential entrants have passed the first hurdle of acquiring the license is a strong signal to incumbents that entry is imminent. Therefore alteration of behaviour could precede actual entry.*

Likely

49. Entry is likely if it is anticipated to be profitable by prospective entrants. Factors that reduce the opportunity for profitable entry include: (a) a decline in market demand; and (b) a reduction in the total number of subscribers accessible to new entrants. An example of subscribers being unavailable to new entrants would be when subscribers are locked into a given provider through the use of long term contracts. Since 2000, seven mobile telecommunications operators have participated in the market, five of which have exited.[10]

50. On the one hand, the capital required to start up a competitive mobile telecommunications business could be seen as a significant impediment to entry. In particular, access to the network infrastructure and the cost of operating and maintaining said structure is likely seen as prohibitive as well as the cost of spectrum, a critical input needed to operate in the market. Spectrum fees range between USD 27,840/MHz/year (1800 MHz) and USD 69,600/MHz/year (700 MHz).[11] Potential entrants could reduce the entry cost, however, by entering as a MVNO.

51. At the end of 2019, the revenues generated by Digicel and FLOW exceeded JMD [redacted] This represents a 7 per cent increase over the 2018 revenues but is an 8.6 percent decline from the five-year high of JMD [redacted] in 2015.

52. A slight dip followed the five-year high in 2015 in 2016, 2017, and 2018 before seeing a jump in 2019. On the contrary, the smaller of the two competitors as measured by revenue, FLOW, has seen a constant year on year increase in revenues, almost doubling (97.6 percent) its 2015 revenues of JMD [redacted] to JMD [redacted] in 2019. Digicel, the other competitor in the market, has seen a 29 percent reduction in revenue over the same period (JMD [redacted] to JMD [redacted] .

53. As such, the data reviewed suggest that the anticipated profit levels from entering the market would have been declining since 2015 and also suggest a progressively lower likelihood of entry

[10] Ibid.
[11] Emailed response to the FTC's request for information from the SMA dated July 27, 2020.

during 2015-2019. Other information received by the FTC, however, suggest that the observed reduction in revenue has not significantly reduced the anticipated profitability from entry. In particular, the OUR issued a Service Provider Carrier licence to Rock Mobile Limited effective June 2020.[12]

54. *Conclusion: Entry into the mobile telecoms market is likely.*

Sufficient

55. It is possible for an operator to profitably enter a market, in a timely manner, but still not sufficient to discourage anticompetitive behavior. This generally occurs if market conditions do not allow entrants to respond to consumers seeking to avoid price increases by the incumbents adequately.

56. The telecommunication market has three critical inputs for the provision of mobile services: spectrum, infrastructure, and expertise. The last two inputs are under the control of each market participant, but the first input is not.

57. Information received indicates that in determining the mechanism to assign the spectrum, the SMA relies on principles relating to demand and supply. Where there is no excess demand for the use of the spectrum, the "first-come, first-serve basis" is recommended; otherwise, whilst an auction is normally recommended. [13] In recent times, the assignment of spectrum has been through the FCFS basis. Regarding the availability of spectrum in the specific bands, the FTC notes that in the low bands- particularly the 850 MHz and 700 MHz bands, there is a limited amount of spectrum available.

58. Operators have expressed their view that the market in Jamaica could support no more than two operators. Observations of other jurisdictions indicated that the spectrum assignable in Jamaica should be able to support more than two operators. In fact, there were three mobile operators in Jamaica as recently as the period 2015-2019 when Symbiote, a MVNO, also participated in the market.

59. To this extent, that sufficient excess spectrum capacity exists in the market, and therefore market conditions are such that entrants would be able to attract and satisfy additional demand from subscribers seeking to avoid any unilateral price increase.

60. *Conclusion: Entry is easy in the market since it would be likely, timely and occur at a scale which would be sufficient to mitigate anticompetitive conduct.*

[12] See OUR website https://www.our.org.jm/ourweb/sectors/licensees-telecommunications-sector-2020-march (accessed October 30, 20120).

[13] Meeting between SMA and FTC on June 15, 2020

61. *The conclusion in this section is that the telecoms market is less susceptible to anticompetitive unilateral conduct than the competitive benchmark was and therefore the telecoms market in Jamaica is competitive.*

B. Anticompetitive Coordinated Conduct

62. The Report now discusses the metric used to measure the scope for anticompetitive coordinated conduct.

The Number of Suppliers as a Metric

63. There are many characteristics of a market which influence the incentives and/or opportunities for coordinated conduct, i.e. collusion.[14] This report focuses on the number of suppliers as this is the only facilitating device which differs between the test market and the competitive market.

64. In general, coordinated conduct becomes easier as the number of suppliers decreases in a market. In the competitive benchmark, there were three providers while there are only two providers in the test market. This means that coordination would be easier in the test market than it would have been in the competitive market. To be clear, the FTC has observed no evidence of coordinated conduct between the two telecoms operators in Jamaica.

65. *The conclusion in this section is that it would be easier for providers to engage in anticompetitive coordinated conduct in the telecoms market in Jamaica relative to the competitive benchmark and therefore the result of this test in respect of coordinated conduct is inconclusive.*

C. Regulatory Framework

66. The Report now discusses how differences in the regulatory framework influence the competitive environment.

67. In the competitive benchmark market, the FTC concluded that entry conditions were not easy. In particular, entry was considered to be timely but neither likely to happen nor of a sufficient scale to mitigate anticompetitive conduct; by way of comparison, this Report concludes that entry is sufficient presently in the telecoms market in Jamaica.

68. Several crucial regulatory interventions were important factors driving the improved entry conditions observed presently in the market in Jamaica, compared to the framework which existed in the competitive benchmark.

69. Firstly, reciprocal mobile termination rates (MTRs) introduced by the OUR in 2012 exposed the larger mobile provider (Digicel) to greater potential competition from smaller mobile networks. MTRs represent the amount that networks pay to terminate calls on a competing network.

[14] In competition law, factors which promote collusion are also known as facilitating devices.

70. In the competitive benchmark, MTRs were not reciprocal and provided a competitive advantage for the larger network.

71. The introduction of fixed and mobile number portability in June 2015 is another regulatory intervention that encourages competition. Number portability is crucial because it reduces the costs for subscribers to switch between operators and therefore promotes more intense competition from recent entrants.

72. The other changes in the regulatory framework were renewed attempts by the OUR to enhance competition by promoting infrastructure-sharing; in particular co-location and licensing mobile virtual network operators (MVNOs). In 2015, the OUR invited persons to apply for mobile services provider licences to companies that set up service utilising existing mobile networks.[15] The OUR disclosed plans to issue up to 12 licences to MVNOs but only one such licence was issued—which was issued to Symbiote Investments in 2016 but revoked in 2018.[16] Nonetheless, the response to the OUR's 2015 offer was an improvement over a similar offer in 2007 which failed to attract any application.

73. *Summary: The regulatory framework is more conducive to competition in Jamaica compared to the competitive benchmark. The result of the test in respect of the regulatory environment is that the telecoms market is competitive.*

The Overall Conclusion

74. The benchmarking exercise confirmed that the telecoms market in Jamaica is competitive with respect to the regulatory environment and unilateral conduct between existing providers; the exercise was inconclusive, however, with respect to the prospect for coordinated conduct.

75. The overall conclusion, therefore, is that while the telecoms market in Jamaica is competitive, the sustainability of this environment is fragile given that only two operators serve the market. Digicel's acquisition of Claro in 2011 significantly lessened competition in the telecoms market in Jamaica. Subsequent market events outline earlier in this section helped to direct the market placed along a trajectory of recovery. Based on the analysis presented in Section V, the recovery is almost complete as the market is just about as competitive presently as it was immediately prior to the acquisition. If policymakers are to maintain, if not consolidate, these gains, then policy must be implemented to facilitate competitive entry thereby limiting the scope for coordinated conduct.

[15] "New Mobile Licence Offer," Jamaica Observer, Tuesday, July 14, 2015. View at http://www.jamaicaobserver.com/business/New-mobile-licence-offer_19218810 (accessed: October 5, 2020)
[16] "OUR Auctioning up to 12 Mobile Licences, Targeting Virtual Operators," **The Gleaner**, Friday, July 3, 2015. View at http://jamaica-gleaner.com/article/business/20150705/our-auctioning-12-mobile-licences-targeting-virtual-operators (accessed: October 5, 2020)

76. In the next section, the Report explores the scope for the SMA to safeguard competition in the market going forward.

VI. THE SCOPE FOR SAFEGUARDING COMPETITION

77. In the previous sections, the analyses concluded that the mobile telecommunications market is competitive as it was likely not susceptible to unilateral anticompetitive conduct. The FTC notes that the market remains vulnerable to the vagaries of coordinated conduct. Concerns for anticompetitive effects arising from coordinated conduct nonetheless are tempered by the easy conditions of entry.

78. There is a concern, however, that the competitive environment presently observed in the market is fragile as the society transitions to the new normal occasioned by the COVID-19 pandemic. One consequence of the pandemic is a significant non-transitory increase in the demand for mobile telecommunication services. This means that mobile telecoms operators are likely to increase their derived demand for mobile spectrum in the immediate future. If the spectrum assignment is not carefully managed, there is a risk that conditions of entry may no longer be easy if the available spectrum—in quantum or frequency, become insufficient for competitive entry.

79. As managers of mobile spectrum, therefore, the SMA has a crucial role in safeguarding competition.

The Dual Use of Pricing & Spectrum Cap Policies in Promoting Competition

80. Prices and quotas are useful mechanisms for the distribution of an item in relatively limited supply. The use of a spectrum cap as a tool to safeguard competition has sound foundations in competition economics. Caps safeguard competition by preserving the opportunity for new entry. That is, caps promote competition by facilitating market contestability. Also, Caps promote competition by limiting the adverse competitive effects, which would be likely if one incumbent operator held a disproportionately large share of a scarce, crucial spectrum band.

81. In this regard, the FTC notes that the UK regulator, Ofcom, proposed the imposition of a Cap of 37% on the proportion of assignable mobile spectrum held by any mobile operator.[17]

[17] Sarah McBride (2019) "Ofcom Addresses Possible Competition Concerns by Limiting the Amount of Spectrum Operators Can Acquire in Auctions" Available at https://www.omdia.com/resources/product-content/ofcom-addresses-possible-competition-concerns-by-limiting-the-amount-of-spectrum-operators-can-acquire-in-auctions-glb005-000127 (Access: October 10, 2020)

82. An optimal policy must seek, however, to balance the need to preserve conditions for easy entry while allowing extant operators the space to meet the increased demand for mobile telecom services in the immediate future. To this end, policy must be flexible enough to accommodate situations where the assignment of additional spectrum to incumbent operators is indispensible to the preservation of competition.

83. The FTC notes that during a recent consultation exercise, both Digicel and Flow have expressed the view that the mobile telecoms market in Jamaica is unable to support more than two operators.

84. Reducing the price of spectrum would assist operators to expand their services. In this regard, the FTC notes a recent report proposing reduction in some of the spectrum licensing fees in Jamaica arising from a consultancy commissioned by the SMA. The proposed revision to the fees is reflected in SMA's consultation document [SMA (undated), Revision to Spectrum Pricing: A Consultation on Proposals for Spectrum Licence Fees for Recommendation to the MSET]. An evaluation of the proposed revision in spectrum fees is outside the scope of this study.

85. The FTC notes that to the extent that it is feasible, the SMA should consider reducing spectrum fees as this would promote the expansion of telecom services into areas not currently being served by any operator- especially with spectrum Cap imposed.

VII. SUMMARY & RECOMMENDATIONS

86. The main conclusion of this study is that the mobile telecommunication market is competitive. In the absence of the easy conditions of entry, the competition in this market would be highly susceptible to coordinated conduct.

87. The anticipated increased demand for mobile telecommunication services could make it more difficult for future entry to occur if the mobile spectrum is not properly managed.

88. The SMA, with oversight responsibility for the assignment of mobile spectrum, has a singular opportunity to safeguard the competition in the mobile telecommunication sector by striking the appropriate balancing between (i) preserving the ease at which entry of a third operator; and (ii) allowing incumbents to meet the increased demand for mobile telecommunication services.

89. Based on the above, the FTC recommends:

    a. Spectrum should be assigned to each operator in the customary manner up to the assignment of 33% of the assignable spectrum managed in Jamaica. Requests for assignment between 33% and 37% should be approved by the SMA on a case by case basis; and

    b. The Minister with responsibility for Telecommunications should consider implementing the recommended revisions to the pricing of spectrum in Jamaica.