

By Fax (25985509/25376720) and Post

Mr Gregory So, GBS, JP
Secretary for Commerce and Economic Development
Commerce and Economic Development Bureau
21/F, West Wing, Central Government Offices
2 Tim Mei Avenue
Tamar
Hong Kong

Mr Ambrose Ho
Chairman, Communications Authority
Office of the Communications Authority
29/F, Wu Chung House
213 Queen's Road East
Wanchai
Hong Kong

15 December 2016

Dear Messrs So and Ho,

Radio Spectrum in Hong Kong

In this letter, Hong Kong Telecommunications (HKT) Limited (“HKT”) wishes to set out certain matters with which it is deeply concerned as a leader in the Hong Kong mobile telecommunications industry.

Why are we writing this letter?

The CEDB and OFCA say that they have initiated a public consultation exercise for the renewal of the mobile operators' 2G spectrum¹ given that their licences expire in 2020. We are concerned that:

1. The Consultation Paper is superficial and no steps have been taken to really tell the Hong Kong public what the outcome of the Government's proposals will be other than the substantial financial enrichment to the Government's consolidated revenue. The Government has not told the public the substantial negative impact its spectrum proposals and policies will have on consumers. HKT asked Policy 21 to survey the Hong Kong public and found that:

- Almost 90% of respondents were not aware of the public consultation;
- Over 90% of respondents did not know about the Government's proposals to raise the mobile operators' charges for using the spectrum;
- Over 70% of the respondents said the Government did not need to increase its revenues by raising spectrum prices;
- Over 70% of the respondents objected to an increase in the MTR/Tunnels/Mobile Licence/Administration fee in the event that the Government raised spectrum prices; and
- Of the few respondents (17%) that did not mind a fee increase, over 80% indicated they were only willing to accept an increase of less than HK\$10 per month.

¹ Consultation Paper on *Arrangements for the Frequency Spectrum in the 900 MHz and 1800 MHz Bands upon Expiry of the Existing Assignments for Public Mobile Telecommunications Services and the Spectrum Utilisation Fee* issued on 3 February 2016 jointly by the Commerce and Economic Development Bureau (Communications and Creative Industries Branch) (“CEDB”) and the Office of the Communications Authority (“OFCA”) (the “Consultation Paper”).

An Executive Summary of Policy 21's report is attached.

The Hong Kong community deserves better, i.e. all stakeholders, including the general public, need an open and transparent process to ensure that outcomes balance the needs of all stakeholders and not simply ensure that the Government is a winner through raising the maximum amount of money from spectrum allocations;

2. The Telecommunications Ordinance (“**Ordinance**”) states that the Communications Authority has a duty to “promote the efficient allocation and use of the radio spectrum”. The Ordinance’s direction can be reflected in innovation, investment, service quality and competition, all resulting in consumer benefits. It is obvious that the policy intent is much more nuanced and more broadly based than simply maximizing monetary returns to the Government’s consolidated revenue via the assignment of spectrum. Yet, at no point in the Consultation Paper does the Government address releasing more spectrum for 5G and Internet of Things (“**IoT**”) services, or seriously look at what approaches would ensure service quality, maximize investment and innovation, promote competition or retain Hong Kong as a leading regional services-based economy. Nor does the Consultation Paper look at global best practices and global benchmarks.

Telecommunications is the essential infrastructure that underpins the Government’s policy of developing the so-called Pillar Sectors. How can telecommunications maximize consumer welfare if Government policy works against the interests of consumers and the economy? What consumers and the economy require are high quality and innovative telecommunications services which are affordable (i.e. at low cost), stimulate the Information Economy, create jobs and assist both startups in areas such as FinTech and established businesses in our services-based economy. Not releasing new spectrum and then renewing spectrum already in use based on the highest price (and not a thorough review and analysis of all the Government’s policy objectives) smacks of administrative convenience and laziness rather than the high standards expected of the Government; again Hong Kong deserves better;

3. The Government has not been keeping up with telecommunications policies overseas. Whereas most leading economies have taken a facilitative role to mobile services (and one has to look no further than China to see massive innovation on mobile services and a policy environment that will ensure that China is in the driving seat in 5G developments globally), in Hong Kong, we have become too comatose and complacent in sticking to regulatory prescriptions that have served us well but are now rapidly becoming obsolete. We cannot lead by sitting on our hands; again Hong Kong deserves better; and
4. The net effect of the Government's proposals is to create a false market in spectrum. The Government is the sole supplier of spectrum into the market yet it will not, and does not, give to the market any roadmap for the opening up of new spectrum bands - indeed, the Government says there is "no spectrum available for release". Therefore the Government manipulates supply and creates a supply bottleneck. On the other side, demand is rising rapidly. Who would dare tell Hong Kong consumers and Hong Kong's business users to stop using mobile services? Indeed, mobile services are at the heart of Hong Kong's digital transformation and even Government departments are flocking to utilise this technology.

An unnecessarily supply-constrained market with rampant demand-side pressure and the added pressure on mobile operators to renew their spectrum to serve their existing customers and remain in business creates a pressure-cooker environment. The Government has a monopoly on the supply and pricing of spectrum because the Government has sole discretion to make spectrum available and to set reserve prices. When the Government uses (or abuses) that discretion to limit spectrum availability and charge the highest spectrum prices in the world, one can only conclude that there is a false market for spectrum in Hong Kong.

Not to put too fine a point on it, the spectrum market in Hong Kong is even worse than the land supply market in Hong Kong because there is only a primary market in spectrum and there is no secondary market because spectrum trading is not allowed and spectrum cannot change hands. Obviously, without a secondary market and without a roadmap for releasing any new spectrum the Government has no price signals other than the prices the Government itself set at the last auction - in effect, the Government can arbitrarily keep leveraging up the price of spectrum because there are no objective market-based price signals. If the Government were subject to the Competition Ordinance, it would be found to be abusing its dominant position in refusing to supply more spectrum and also guilty of extracting monopoly rents from consumers. This is a great outcome for Government but is it the right outcome for Hong Kong and mobile service users?

Spectrum Supply

Radio spectrum is a critical resource for mobile service providers in Hong Kong. Without spectrum, mobile operators cannot invest, innovate, provide new services or even maintain service quality for existing services. Making sufficient spectrum available to mobile service providers is therefore a precondition for the successful development of the mobile industry in Hong Kong.

In recent years, Hong Kong has experienced a boom in demand for mobile data services and this growth is set to continue. According to OFCA's statistics, there has been a more than ten-fold increase in the volume of mobile data traffic between 2010 and 2015, with monthly mobile data usage per customer rising from 296 MBytes in December 2010 to 1.4 GBytes in December 2015. This trend is global and has been foreseen by studies released by international organizations and other stakeholders (e.g. the ITU, Cisco). Unfortunately, the spectrum supply in Hong Kong has not been able to keep pace with the demand. This carries severe consequences.

Without sufficient spectrum, the development of more advanced 4G, 5G and IoT services will be hindered. Hong Kong mobile operators already lag behind their counterparts in Asia and the rest of the world in terms of access to spectrum. Further, OFCA's most recent three year Spectrum Release Plan shows no new spectrum is scheduled to be released. Thus, while other developed markets will be releasing hundreds and even thousands of MHz of new capacity to meet 5G and IoT demand, no new spectrum will be released in Hong Kong. Mobile users in Hong Kong will become "third class citizens" in the world of mobile technology and development.

What can the Government do to help?

The answer is simple: Accelerate the release of any available spectrum. HKT previously wrote to the Secretary for Commerce and Economic Development and the Director-General of Communications to bring this matter to their attention. HKT also identified available spectrum that could be released. The response received, however, was less than satisfactory. Despite the urgency of the situation, there is no proactive attempt being made by the Government to identify and free up inefficiently/under-utilized frequency bands. This is evident from the Spectrum Release Plans for 2015-2017 and 2016-

2018 issued by OFCA which clearly show that there is “**no spectrum available for release**” (emphasis added). That just cannot be right. When other Governments (including China) are making new spectrum available and are even prepared to clear spectrum bands of their current users in order to make more spectrum available for mobile services, why is the Government here content to say there is “no spectrum available for release”? Surely it is the Government's duty to make spectrum available by releasing unused spectrum and pro-actively clearing spectrum by managing away inefficient users of spectrum and putting it in the hands of the most intensive and most highly valued use, i.e. mobile services and the forthcoming IoT services. Other Governments across the globe (including China) have made these policy decisions yet the Hong Kong Government is still dragging its feet.

While we have been told that the Government has initiated a consultancy study to “evaluate the future demand and supply of spectrum in Hong Kong” and that some 35 MHz of spectrum is readily available for the provision of mobile services, there is no sense of urgency behind the study nor has the timeline for completion of the exercise been made transparent to stakeholders in the mobile industry. Worse still, the very limited 35 MHz of frequency which the Government suggests can be readily released to the mobile operators lies in bands which are not particularly usable. To be clear, we need hundreds of MHz of capacity and we need it now. We have already identified this capacity to the Government and it is the same capacity that other regulators around the world have made available to their mobile operators (and consumers).

The ITU predicts that 1340-1960 MHz of mobile spectrum will be required to provide mobile services by 2020, but only 552 MHz has so far been released for mobile use in Hong Kong per OFCA records. On the other hand, other countries have recognized that vast amounts of spectrum are needed to develop future mobile services such as 5G and IoT. These governments have already released (or are planning to release) more spectrum to the mobile industry and are forging ahead in the development of advanced mobile telecommunications services. For instance:

- China has already outlined its plans to trial 5G services in major cities in the near future with the intention of full roll out in 2020.
- The USA has identified 11 GHz of capacity that will be released for 5G and IoT.
- In the UK, around 662 MHz of spectrum has been released for mobile services and this will be increased by another 190 MHz after the release of the 2300 MHz and 3500 MHz bands.
- Many other markets have announced new spectrum release plans and 5G trials.

Hong Kong is in danger of being left behind unless the Government acts immediately and expedites the release of new spectrum to the mobile industry.

Spectrum Trading

Spectrum trading is a market driven mechanism to allow operators to buy and sell mobile spectrum to efficiently meet market demands as they arise, without having to await spectrum auctions which occur perhaps once every three or four years.

Spectrum trading is a matter which has been discussed in the industry since the mid-1990's with the formation of the then OFTA and was subsequently (in 2006) subject to substantial investigation. Per the Government's Radio Spectrum Policy Framework issued in April 2007 (“**Spectrum Policy Framework**”), there was general support from the industry for the introduction of spectrum trading, and the Government was inclined to introduce spectrum trading in the future, subject to a feasibility study and resolution of various implementation issues. There is no opposition to spectrum trading

from any quarter - the issues holding up the introduction of spectrum trading are solely administrative and have already been addressed in many markets.

In 2009, the Government engaged a consultant to study the feasibility of spectrum trading in Hong Kong, and the consultant concluded that spectrum trading should be introduced. That was seven years ago. Yet, today, spectrum trading has still not been implemented. There is no reason to delay this well accepted and efficiency enhancing mechanism.

In reply to a recent enquiry by HKT, the Government stated that since more than six years have lapsed since the last consultancy study was commissioned, and there have been substantial changes in the mobile telecommunications market during this period, it was preparing to conduct a further consultancy study on the latest market situation in Hong Kong and the overseas experience with a view to re-visiting the various issues relating to the implementation of a spectrum trading regime in Hong Kong. It is hoped that this study would be completed in 2017, but six years of inaction followed by another study does not give the industry much confidence.

We are disappointed with the lack of progress that has been made by the Government on this issue for the past six years. It is also disappointing that no explanation has been given by the Government as to what exactly has been done in this area in the last six years or what its plans and timetable are for this new consultancy study. To an innocent bystander, it would appear that the Government has simply neglected this whole matter for six years. It is time for the Government to act; another study on global best practices merely wastes time and resources, particularly when:

- Most other major developed markets² have long adopted spectrum trading (even less developed regulatory regimes, such as India, already allow spectrum trading). Even the Government, in its consultation paper on Proposed Spectrum Policy Framework (25 October 2006) acknowledged that many other countries had already introduced spectrum trading i.e. we were already behind other markets 10 years ago and we have fallen further behind since.
- The benefits which led the Government to support spectrum trading back in 2007 (efficient use of spectrum, stimulate growth and innovation) are at least as relevant today (and are probably even more relevant) as they were then.
- The implementation issues identified by the Government (e.g. licensing arrangements, treatment of financial gains from trading, measures to prevent anti-competitive practices) are neither difficult to manage nor burdensome.
- Spectrum trading is wholly consistent with Section 32G of the Telecommunications Ordinance which requires the CA to promote the efficient allocation and use of spectrum.

The telecommunications operators pay substantial fees to fund the Communications Authority and OFCA - indeed OFCA is a Trading Fund that not only covers all of its own costs from the industry but it makes a profit every year and it pays a handsome dividend to the Government every year. It is more than disappointing that the Government doesn't serve well its "customers" (i.e. the operators that pay all of its regulatory costs including the wages of the staff of OFCA). Spectrum trading is not a contentious issue - there is a consensus to adopt it; but the CEDB/OFCA drag their feet and choose not to put in place the administrative framework. This is not good enough when the Government is proposing to unilaterally force higher spectrum costs on the industry. It is inexcusable that the Government has not allowed a secondary market in spectrum, hence the Government is urged to implement spectrum trading without further delay.

² Such as North America, Europe, UK, Australia, Malaysia, Singapore, Taiwan.

Spectrum Prices

In addition to the shortage of spectrum in Hong Kong, mobile operators have to cope with a charging system that no longer reflects global best practices:

- For new spectrum, most markets (including Hong Kong) adopt an auction approach. However, the prices charged by the Hong Kong Government for use of the spectrum (usually for an assignment period of 15 years) are multiples above what other Governments charge. This excessive pricing applies to both charges set as the reserve price within an auction as well as charges for spectrum renewed under a right-of-first-refusal basis.
- For spectrum coming up for renewal, the Hong Kong Government treats this spectrum as if it were new spectrum as per above. Yet, other major markets have recognized the utility of an expectation of renewal with no high charges (e.g. the USA which renews existing spectrum assignments without new charges) or the utility of unlimited licence terms (e.g. the UK). Ensuring the continuity of spectrum allocations best enables continued service quality and encourages greater network investment, which in turn spurs innovation and meeting user requirements. With 5G and IoT trials now beginning and substantial roll outs expected with 2-3 years, Hong Kong is simply standing flat footed as to spectrum supply and charging to the detriment of users.

Since the Spectrum Policy Framework was released, the major spectrum assignments have been decided via auction. The minimum reserve prices (on a HK\$ per MHz basis) set by the Government for the past spectrum auctions in Hong Kong have increased dramatically over the years:

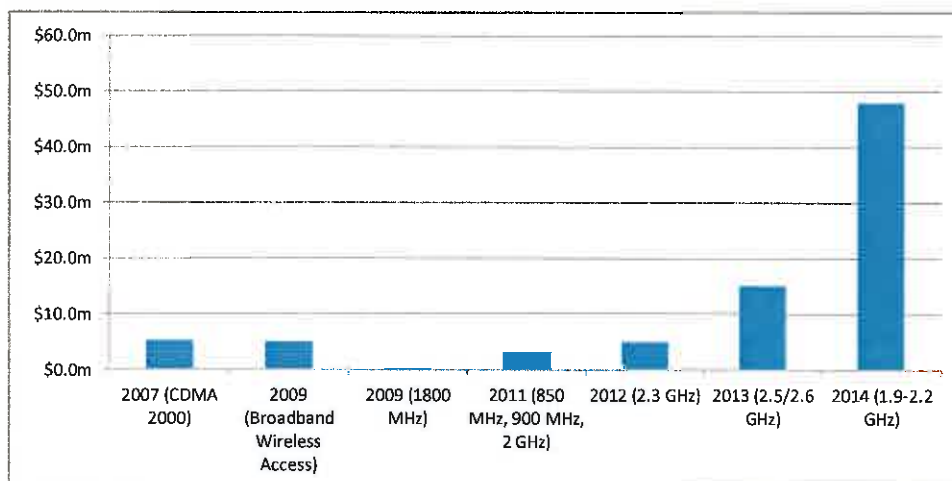


Figure 1: Minimum reserve prices (HK\$ per MHz) for past spectrum auctions in Hong Kong

There is no logical explanation why the auction reserve prices need to be so high. If, by the Government's own reasoning, there is competitive demand for the spectrum, the price of the spectrum will naturally increase via the bidding process.

Unfortunately, the current framework adopted by the Government has resulted in Hong Kong producing potentially the highest prices in the world for the 900 MHz and 1800 MHz band if the proposals in the Consultation Paper are to be adopted. A study carried out by consulting firm,

HKT - a PCCW Group member

Network Strategies, found that the proposed prices for the 900 MHz and 1800 MHz bands for the forthcoming spectrum renewal exercise to be “very high in comparison with international benchmarks”:

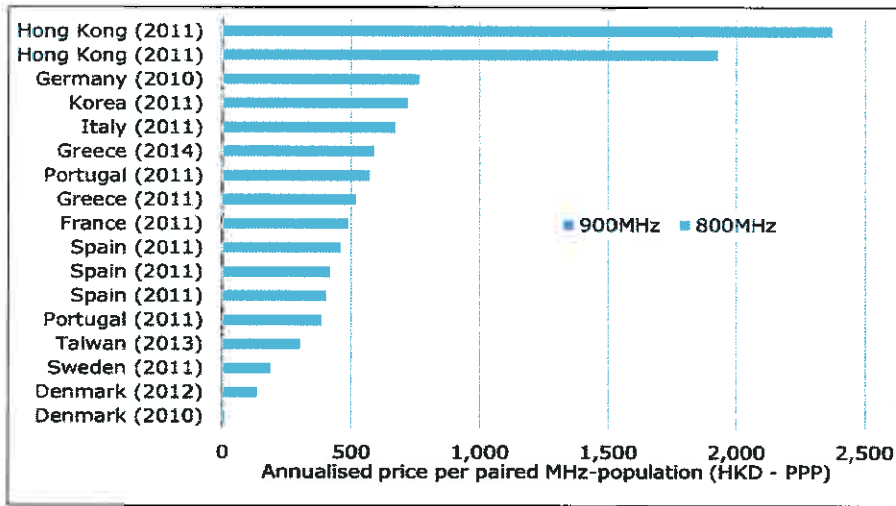


Figure 2: Benchmark prices for spectrum in the 800/900 MHz band taken from presentation by Network Strategies on *Spectrum in Hong Kong: what is the optimal price?* (28 November 2016)

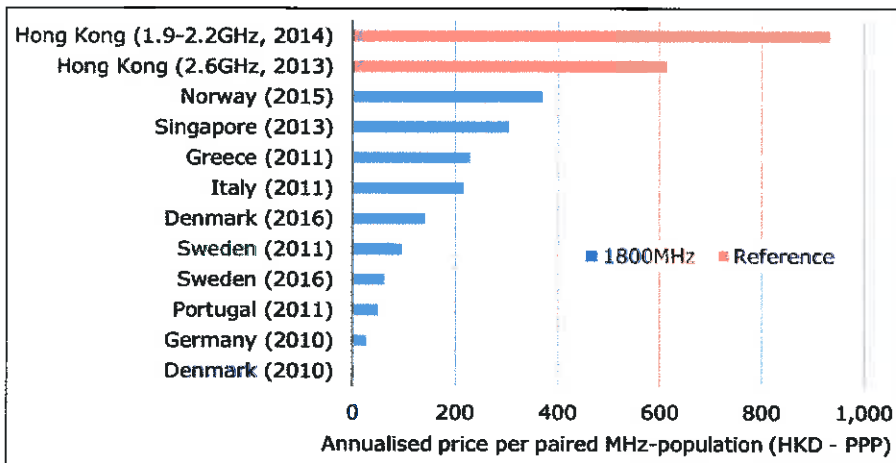


Figure 3: Benchmark prices for spectrum in the 1800 MHz band taken from presentation by Network Strategies on *Spectrum in Hong Kong: what is the optimal price?* (28 November 2016)

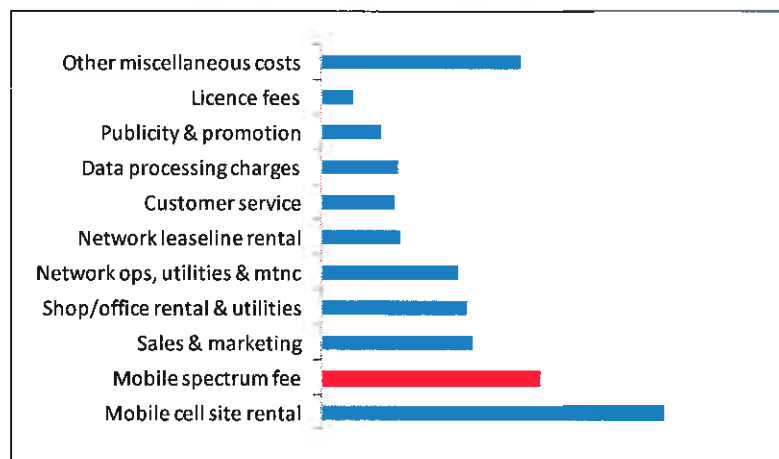
High minimum reserve prices, coupled with the uncertainty in Hong Kong over future new spectrum releases (which creates an artificial scarcity) and the lack of spectrum trading, forces operators to bid for spectrum for fear of not being able to retain sufficient spectrum resources to maintain their existing service levels. This leads to excessively high final prices for the auctioned spectrum. The prices paid in Hong Kong are not “market prices” but instead, reflect the Government’s approach to limit spectrum supply (i.e. drip feed spectrum into the market), to create uncertainty as to future spectrum releases, and then to reap monopoly rents.

Mobile services are used by all Hong Kong residents. Indeed, per OFCA’s statistics, there are more than two SIM cards in use per resident. Accordingly, artificially high spectrum fees are tantamount to a regressive tax on users. It also stifles investment, innovation and will ultimately lead to higher prices for the consumer as the mobile operator seeks to recover its costs. If the Government proceeds with the artificially high spectrum prices it has proposed in the Consultation Paper, HKT estimates that this will require mobile operators to increase their MTR/Tunnels/Mobile Licence/Administration fee (“Admin Fee”) by at least HK\$12 per month per subscriber, i.e. taking the current HK\$18 per month charge to over HK\$30 per month. Mobile retail prices in Hong Kong are amongst the lowest in the world because the Hong Kong market is hyper-competitive and the operators shave their margins to compete - therefore any increase in the operator's costs need to be passed on to users via the Admin Fee and the spectrum fees are such a major component of an operator's input costs that increases in spectrum costs must be passed on to users - this follows as surely as day follows night.

This kind of spectrum reassignment method for both new and renewal spectrum is outdated and not in line with practices in the more advanced regulatory regimes. For instance, in the UK, perpetual spectrum licences are granted and more of an administrative assignment approach is adopted, such that there is no fixed assignment term for use of the spectrum or assignment terms are automatically renewed, and mobile operators simply pay an annual licence fee for continued use of the assigned frequency bands. Similarly, in the USA, there is a very strong expectation of licence renewal. There are no fees associated with spectrum renewals; the benefits flow to users; no regressive tax is imposed. This produces continuity, and ensures service quality, innovation, investment and competition.

It is also time the Government consider moving away from charging for spectrum on a per MHz basis, particularly in the light of future mobile developments whereby IoT services will likely consume vast amounts of spectrum and the retail charging basis may change. Continuing to levy upfront one off Spectrum Utilization Fees (“SUF”) for fixed assignment periods based on a per MHz basis will result in huge fees becoming payable, which will create a significant financial liability for the mobile industry and ultimately stifle innovation. This is also entirely unnecessary considering the substantial budget surpluses currently earned by the Government.

Lastly, the Government is entirely misguided when it suggests that the SUF paid by the mobile operators is insignificant and only amounts to 3-4% of the mobile network operators’ overall operating expenditure. By HKT’s own calculations, the SUF accounted for around 14% of its mobile operating costs in 2015 and will further rise if the Government proceeds with its proposed spectrum pricing under the Consultation Paper. Indeed, these are not trivial costs and exceed all of HKT’s major mobile operating expenses (other than payments for mobile cell site rental):



HKT - a PCCW Group member



Figure 4: HKT's SUF payments relative to mobile operating expenses for the year ended 31 December 2015

In addition, the Government's decision to change from annual SUFs to charging a one-time up-front fee for spectrum has now led to the Internal Revenue Department (“**IRD**”) disallowing spectrum fees as a tax-deductible cost of business. Operators now face a triple burden: (i) in Hong Kong, operators pay the highest cost in the world for spectrum; (ii) the Government insists that the payment is cash-up-front therefore the operators have to borrow billions of dollars to pay the Government and then they have to pay interest on these borrowings; and (iii) the IRD no longer allows spectrum costs to be tax-deductible costs of doing business. On every score the Government is the winner and the operators are losers - which means that ultimately Hong Kong consumers are the losers as operators will have no option but to pass these excessive Government charges onto consumers via a substantial increase in the Admin Fee.

Conclusion

All of these issues affect the mobile operators' ability to meet consumer demand, including 5G and IoT. Until the Government fully addresses and resolves the above matters, the mobile industry will underperform and users, as well as the economy, will suffer. Hong Kong will not remain a prime commercial hub with a strong IT industry if more spectrum is not released at reasonable prices immediately and if spectrum renewals are seen as an opportunity to regressively tax consumers.

What Hong Kong needs is a forward-looking, accommodating and holistic approach to spectrum re-assignment exercises, not a scatter-gun spectrum auction that is purely designed to maximize Government revenues at the expense of the spectrum policy objectives, i.e. economically, socially and technically efficient use of spectrum to achieve maximum benefit for the community and to facilitate the introduction of advanced and innovative communications services in Hong Kong. Veering from these objectives will harm consumer interests and damage the development of Hong Kong's essential infrastructure for the Information Age.

Yours sincerely,



Alex Arena
Group Managing Director

Encl

Executive Summary on Mobile Service Opinion Survey

The Hong Kong Government is expected to launch a new round of consultation next year on the “Arrangements for the Frequency Spectrum in the 900 MHz and 1800 MHz Bands upon the Expiry of the Existing Assignments for Public Mobile Telecommunications Services and the Spectrum Utilization Fees”, which will affect 40% of the total amount of spectrum currently assigned. This exercise may have a direct impact on the development of the mobile communications industry in terms of investments, innovation, efficiency and service quality.

In November, HKT commissioned an independent research organization, Policy 21, to conduct a consumer survey to assess the public’s views on their awareness of the consultation, consumers’ views on the Government’s proposal to raise SUF and other related issues.

The survey successfully interviewed 1,019 persons between November 12 and 15.

Summary of the survey findings:

1. In respect of the awareness of the public consultation, 88.1% of the respondents indicated that they were not aware of the public consultation.
2. In respect of the Government’s proposal to raise the charge on the mobile operators for using the spectrum, 91.6% of the respondents were not aware of such proposal.
3. Furthermore, over 70.3% of the respondents said the Government did not need to increase its revenue by raising spectrum prices.
4. Mobile service users currently need to pay “MTR/Tunnels/Mobile License/Administration Fee” which is \$18 per month. Such a fee will likely increase in the event that the Government raises spectrum prices. 72.8% of the respondents said such a fee increase would be unacceptable (62.0%) or totally unacceptable (10.8%).
5. Of the 17.4% of the respondents who considered a fee increase acceptable, a great majority (84.7%) indicated they would only accept an increase of \$10 or less per month.

Appendix 1 Methodology of the survey

The target respondents of the survey were general public aged 16 or above who were living in Hong Kong at the time of the survey. 97% of the respondents were using Cantonese in the survey, 3% of the respondents were using English and Putonghua.

Quota sampling, based on gender and age, was applied in selection of the respondents so that the sample would be more representative of the target population. Quotas were given to the interviewers so that they could select the respective respondents.

The survey was conducted from November 12 to 15, 2016. Interviewers were assigned to the major traffic junctions and landmarks in 18 districts across Hong Kong. The interviews were conducted between 10:00am to 8:00pm during the period, including weekends.

A total of 1,019 interviews were successfully conducted. On average, one out of three persons responded to the interview. The interview generally took three to five minutes.

Demographic profile of respondents:

Gender	
Male	49.9%
Female	50.1%

Age Group	
16-29	33.4%
30-59	33.8%
60 or above	32.9%

Appendix 2

The following are the questions that lead to the findings reported above:

1. 請問你知不知道政府正就現有頻譜使用期屆滿後的安排及營運商應支付多少頻譜使用費而進行公眾諮詢？

Were you aware that the Government is consulting the public on how to allocate the spectrum to the mobile service providers after 2020/21, and the charge on the mobile service providers for using such spectrum?

- (1) 知道
Yes
- (2) 不知道
No

2. 請問你知不知道政府計劃向營運商收取更高的頻譜使用費嗎？

Are you aware that the Government is proposing to raise the charge on the mobile service providers for using such spectrum?

- (1) 知道
Yes
- (2) 不知道
No

3. 你認為政府有沒有需要透過調高頻譜費用來增加收入嗎？

Do you think the Government needs to increase its revenue by raising spectrum prices?

- (1) 需要
Yes
- (2) 不需要
No
- (3) 無所謂/沒有意見
Indifferent/ No opinion

4. 現時流動通訊用戶要繳付「港鐵/隧道/流動電訊牌照/行政費」，為每月\$18。如果政府增加頻譜使用費，上述費用很可能會相應提高，請問你會接受更高的費用嗎？

Currently, mobile phone users need to pay "MTR/Tunnels/Mobile License/ Administration Fee", which is \$18 per month. Such a fee will likely increase in the event that the government raises spectrum prices. Would you accept a fee increase?

- (1) 十分不接受
Totally unacceptable
- (2) 不接受
Unacceptable
- (3) 無所謂/沒有意見
Indifferent/ No opinion
- (4) 可接受
Acceptable
- (5) 十分接受
Totally acceptable

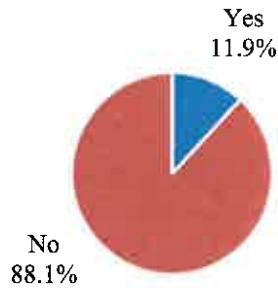
5. [如上題回答為 (4) 或 (5)] 請問你能接受的加幅是？

[If the response is (4) or (5) in the previous question] what fee increase would you accept?

- (1) 每月 10 元或以下
\$10 or less per month
- (2) 11 元至 20 元
\$11 to \$20
- (3) 21 元至 30 元
\$21 to \$30
- (4) 超過 30 元
Over \$30

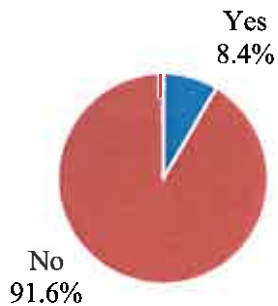
**Appendix 3
Detailed findings**

1. Awareness towards public consultation



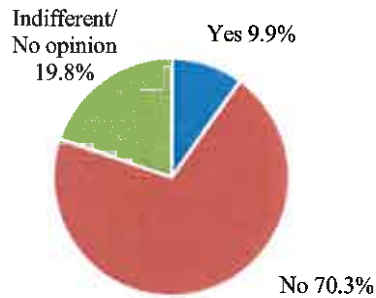
		Yes	No
Gender	Male	15.4%	84.6%
	Female	8.4%	91.6%
Age group	16-29	10.0%	90.0%
	30-59	16.6%	83.4%
	60 or above	9.0%	91.0%

2. Awareness of the Government proposal on charging



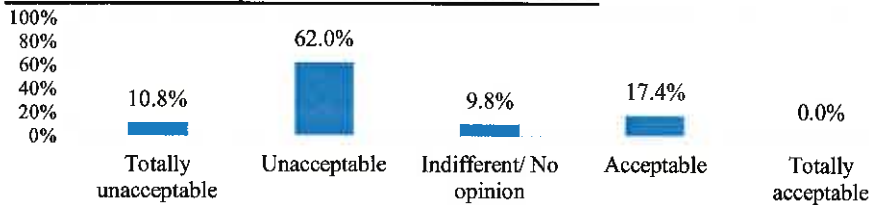
		Yes	No
Gender	Male	10.8%	89.2%
	Female	6.1%	93.9%
Age group	16-29	8.2%	91.8%
	30-59	11.0%	89.0%
	60 or above	6.0%	94.0%

3. Views on the needs of the Government to increase its revenue by raising spectrum prices



		Yes	No	Indifferent/No opinion
Gender	Male	11.4%	69.3%	19.3%
	Female	8.4%	71.2%	20.4%
Age group	16-29	7.6%	70.0%	22.4%
	30-59	11.9%	70.1%	18.0%
	60 or above	10.1%	70.7%	19.1%

4. The level of acceptance on the fee increase



		Totally unacceptable / unacceptable	Indifferent/No opinion	Totally acceptable / acceptable
Gender	Male	67.5%	12.0%	20.5%
	Female	78.1%	7.6%	14.3%
Age group	16-29	67.6%	9.4%	22.9%
	30-59	73.0%	8.4%	18.6%
	60 or above	77.9%	11.6%	10.4%

5. The level of acceptance on the fee increase – acceptable fee

