

## **COMMENTS ON CONSULTATION PAPER**

### **"Valuation and Reserve Price of Spectrum"**

The main question which I have focused on is the valuation of spectrum especially in the 1800 MHz band. There are various methods of valuation given in the consultation paper and each has its own merits and demerits. But there are some basic principles which need to be kept in mind before deciding the pricing.

- a) Method used should inherently be logical**
- b) Maintaining price parity with other LSAs for same frequency discovered in recent auction**
- c) Maintaining price parity with same LSA for other frequency (800 MHz) discovered in recent auction**

The various methods and the analysis of each follows:

#### **Critique of different methods:**

**a) Using 3G prices as the base for valuation**

Comparing the 3G band and 900, 1800 or 800 MHz was akin to comparing apples and oranges. The auction was conducted for the first time and large number of players participated in it. Also changed industry conditions (Paras 3.23, 3.26 in consultation paper) and weakened overall economic conditions imply that 2010 3G prices as the base for valuation would not be appropriate.

**b) LSA-wise approach versus Pan-India approach**

While it is agreed that LSA-wise approach is better as the demand and supply conditions of spectrum and telecommunication differ across LSAs, the method of valuation should still be the same and not capricious. For eg., if a multiple regression is used for valuation, then the factors chosen for regression should be the same for all LSAs, though the coefficients could differ among clusters of LSAs having similar characteristics. Price determination in few LSAs in the recent auction can be used as a base for others taking into account the differences in the markets.

**c) Prices from past auctions appropriately indexed**

With complete change in business paradigm over the years, using past auctions for indexation to determine prices is fraught with huge risks.

**d) Estimation of Valuation in four unsold areas based on sale price in 18 areas**

While this method seems pretty robust as it uses recent spectrum price discovered in November 2012/March 2013 auctions, there are various issues which need to be seen before relying on the numbers oozing from various regressions. This has been challenged on

#### **Maintaining price parity with other LSAs for same frequency discovered in recent auction**

Let us take the case of Rajasthan which was unsold in the last auction with a reserve price of 37.6 cr/MHz. All single-variable regression and multiple-variable regression prices come out to be far above

the reserve price with most multiple-variable regression giving valuation above 100 cr/MHz. This clearly shows that this methodology is flawed even after showing a 'R squared' of above 80% and that there are LSA-specific factors which dominate the pricing.

On the other hand, the prices of Delhi and Mumbai through the regression analysis come out to be far less than the reserve price and needs to be analysed why this is so. The contention as to why this methodology is flawed comes from the fact that Tamil Nadu and Andhra were sold at 306 cr and 286 cr per block respectively in the auction while the price through the multiple regressions come to be far less than even these. **Now, it is clear from all past auctions of any kind of spectrum that Delhi and Mumbai circles have been valued at a far higher price than Tamil Nadu and Andhra Pradesh.** This clearly shows the futility of the multiple regression analysis despite being supposedly based on recent prices. There can clearly be no justification for such low valuations of Delhi and Mumbai LSAs and if there is, it needs to be clearly enunciated. A well-reasoned price justifying it in comparison to prices with respect to other LSAs of same category should be there.

### **Maintaining price parity with same LSAs for other frequency discovered in recent auction**

In its recommendations on "Auction of Spectrum" dated 23rd April 2012, TRAI recommended that all spectrum to be assigned through the auction process in future shall be liberalised. In other words, spectrum in any band can be used for deploying any services in any technology. This implies there has to be a link between the prices of 800 and 1800 MHz.

Since the 800 MHz bands have been sold in auctions in March 2013 for Delhi and Karnataka circles, these discovered prices can provide an anchor to the 1800 MHz price. It can be argued that real price discovery did not happen in the case of 800 MHz because of it being sold at the reserve price and the presence of a trapped bidder i.e. Sistema Shyam which had to bid to stay in business. While this argument is true on the face of it, there is still a large amount of information embedded in the price at which 800 MHz spectrum was sold.

1. Firstly, Sistema has bid only in 9 circles and has exited the business in others like Mumbai. Given it bought Delhi spectrum, it would have found it viable from a business perspective and would have found that this valuation would still lead to required returns. While we know that the required rate of return might be different for various companies, still the point that spectrum traded at a particular price shows that it is pretty **viable for a company to invest at that price.**
2. Secondly, **natural justice principles** imply that the reserve prices for forthcoming auction should not be lower than the recent auction determined prices. Para 3.88 of the paper mentions the same. It goes on to say that those who bought spectrum in 2012/13 auctions would have to face a comparative disadvantage vis a vis service providers who did not participate in the earlier auctions.
3. Thirdly, it **should not lead to "frequency arbitrage"**. Where ever both frequencies have been sold in the recent 2012/13 auction, there is some link between prices. Since, in case of Delhi 800 MHz spectrum was sold, its price provides an anchor to the price for 1800 MHz. In all LSAs where spectrum was sold in both frequencies, the ratio between price of 1800 MHz to 800 MHz was 1.538. On the other hand, in the case of Delhi and Karnataka, this ratio was just 1.07 taking the reserve price of 1800 MHz to the traded 800 MHz. If the price is further reduced, the question would be that if 1800 MHz can trade at substantially higher levels as compared to 800 MHz in 6 LSAs, why should it

trade at a multiple which is even lower than 1.07 in Delhi and Karnataka. Making it even cheaper would be against the interest of Sistema Shyam too which bought 800 MHz at 450 cr per block. The same argument can be made for Karnataka LSA also.

### **RECOMMENDATIONS**

Considering the above points, steep reduction in price to sell spectrum is not advisable. The reasons why it would not be fruitful are:

1. **No benefit to consumers:** The prices in the telecom industry have started rising of late and most prices are set by the few dominant firms in this oligopolistic market. Addition of a couple of operators would not increase competition in the industry. Hence, consumers would not be benefitted by reduction of price.
2. **Loss to exchequer:-** Any arbitrary reduction in price of 25-30% as has happened in recent times would be a huge loss to the exchequer. A 100 cr per MHz decrease in price below its perceived actual value (relative to other LSAs and 800 MHz), would lead to a loss of 3000 cr in Delhi and Mumbai circles alone.
3. **Against the principle of natural justice:-** A reduction in price would be against the natural justice when compared to the recent auction held in March 2013 in which spectrum was sold for 800 MHz and 1800 MHz frequencies. Passing on benefit of any spectrum price cut to those who won the auctions in March 2013 is one way to bring justice but it would be a further loss to the exchequer.
4. **Confidence of the industry:-** Arbitrary reduction in prices and not maintaining parity with prices discovered in recent auctions will hamper the confidence of the industry in future auctions and expectations could be built of such reduction of price changes in the future too. A collusive outcome where no-one participates in an auction so that the prices are reduced further could become a dominant strategy in future auctions.

A very considered view on valuation of spectrum is required rather than just a model-based approach to determine prices from a black-box.

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#### **Submitted by:**

Gagandeep Singh

Assistant DGFT, Indian Trade Service

*(The views expressed are personal and no way reflect the views of the department or the government)*