



Spectrum Pricing and Economical Impact



High spectrum prices can impact consumers in two ways

- High reserves can lead to spectrum going unsold
 - Worryingly digital dividend spectrum has gone unsold in several countries
 - Lost consumer & economic benefits from unsold spectrum cannot be regained
- High final prices could lead to reduced network investment, higher consumer prices and lost consumer welfare benefits
- Growing amount of academic literature finds that operators may not always treat spectrum as a sunk cost





Day 4

Spectrum Pricing and Economical Impact



Economic theory predicts high prices could negatively impact consumers

1. Hold-up problem	 Spectrum awards are not one-off If firms believe their expected returns will be extracted in successive auctions, they will change their investment strategy
2. Internal financing constraints	 High prices may exhaust scarce, lower-cost internal funds Access to investment capital from multinational parents or external sources may be rationed in response to low profitability
3. Observed pricing decisions	 In sectors with naturally constrained competition, firms with high sunk costs may engage less in price competition Expensive licences may act as a signal for firms to set higher prices





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Best practice in mobile spectrum licensing

Authorities should limit conditions on the use of spectrum to those necessary to guarantee co-existence.

- Auctions can deliver strong social benefits as long as they are properly designed;
- A presumption of licence renewal encourages long-term network investment;
- High spectrum prices jeopardise the effective delivery of wireless services;
- Predictable and timely spectrum licensing encourages long-term network investment
- Licenses should be technology and service neutral







Spectrum scare resources

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- Spectrum licenses should be made technology and service neutral,
- Governments with particular policy objectives should consider regulation which supports commercial provision of widespread and affordable access before imposing conditions.
- When conditions are imposed, any related costs should be deducted from spectrum costs;
- Mobile licenses should have a minimum 20-year term to provide for sufficient certainty to support mobile network investment which has long pay-back periods, as well as presumption of renewal.







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Best practice spectrum pricing

- High spectrum prices can harm consumers through lower quality mobile broadband services
- Governments should priorities improved mobile broadband services
 - above revenue maximization -when awarding spectrum
- Set modest reserve prices and annual fees, and rely on the market to determine spectrum prices
- Auctions must be well designed and implemented to bean effective award mechanism
- There is no single best approach to estimating the value of spectrum and international benchmarks should be used with caution







Keys recommendations

- High spectrum prices can harm consumers through lower quality mobile broadband services;
- Governments should prioritize improved mobile broadband services – above revenue maximization – when awarding spectrum;
- Assign a sufficiently large amount of spectrum and publish future spectrum roadmaps to support high quality mobile services
- Update periodically the law and regulation of spectrum pricing in order to take in considerations futures technology and services;
- There is no single best approach to estimating the value of spectrum and international benchmarks should be used with caution.







- Spectrum pricing decisions should be made by an independent regulator
 or with the collaboration of external consultant.
- African governments should release more spectrum, to expand coverage, improve network quality and encourage investment and refarming;
- Expensive spectrum is detrimental for consumers; governments should ensure policies support affordable spectrum pricing;
- Regulatory body may acquired more tools and software for spectrum Management;







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