Consumers in developing countries hit hard by spectrum prices

New research from GSMA Intelligence shows spectrum prices are much higher in developing countries than in developed countries when income is taken into account. The high prices are linked to more expensive, lower quality mobile broadband services. It appears that government policy is a key factor in the high prices, sometimes driven by short-term needs to pay off national debt.

Final spectrum prices in developing countries are substantially higher when income is taken into account:

- Reserve prices in developing countries were more than 5x those of developed countries.
- Final spectrum prices in developing markets were more than 3x those of developed countries.

Spectrum prices in developing countries are substantially higher when income is taken into account.

What are the repercussions of high spectrum prices for consumers and businesses?

- Slower speeds
- More expensive services
- Poorer coverage

What are the repercussions of high spectrum prices for consumers and businesses?
Connecting everyone becomes impossible without better policy decisions on spectrum. For far too long, the success of spectrum auctions has been judged on how much revenue can be raised rather than the economic and social benefits of connecting people.

- Brett Tarnutzer, Head of Spectrum, GSMA.

**Four ways governments and regulators are driving up spectrum prices:**

<table>
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<tr>
<th>Setting very high reserve prices for spectrum auctions</th>
<th>Limiting the supply of spectrum which forces operators to overpay</th>
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<tr>
<td>Not publishing a spectrum roadmap so operators don’t know when they will have access to more spectrum</td>
<td>Poor award rules such as auction formats which limit price discovery</td>
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**Case studies**

<table>
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<th>Country</th>
<th>Description</th>
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<tr>
<td>Jamaica</td>
<td>Delays in the assignment of 4G bands, as well as higher than average final spectrum prices, are associated with significantly lower 4G coverage and market penetration in Jamaica than the average in the Caribbean.</td>
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<tr>
<td>Moldova</td>
<td>At the end of 2012, Moldova had one of the lowest 4G coverage levels in Europe - only 16%. However, assigning sufficient amounts of spectrum at affordable prices helped Moldova reach 98% 4G population coverage in 2018.</td>
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**Why this matters**

Better spectrum pricing policies are needed in developing countries to improve the economic and social welfare of billions of people that remain unconnected to mobile broadband services. A focus on short-term revenues from spectrum awards is making it harder to deliver better and more affordable services to more consumers. There is simply less room for network investments to improve mobile speeds and coverage. This is limiting the growth of the digital economy. As a result, eradicating poverty, delivering better healthcare and education, and achieving financial inclusion and gender equality becomes even more challenging.

**A recipe for success**

- Set modest reserve prices and annual fees, and rely on the market to set prices
- License spectrum as soon as it is needed, and avoid artificial spectrum scarcity
- Avoid measures which increase risks for operators
- Publish long-term spectrum award plans that prioritise welfare benefits over state revenues

The GSMA’s ‘Spectrum Pricing in Developing Countries’ report is based on analysis done by GSMAi covering 1,000 spectrum assignments across 102 countries (including 60 developing and 42 developed countries) from 2010 through 2017.

**Read more**

The GSMA’s spectrum team has done extensive analysis linking spectrum pricing and its impact on the quality and cost of mobile services. A global report was followed by deep dives in Latin America, Europe and developing countries. There is also a public policy position. All the content can be found at: [www.gsma.com/spectrum/effective-spectrum-pricing/](http://www.gsma.com/spectrum/effective-spectrum-pricing/).

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