



The Impact of Taxation on the Digital Economy

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Digital economy taxation entails multiple issues

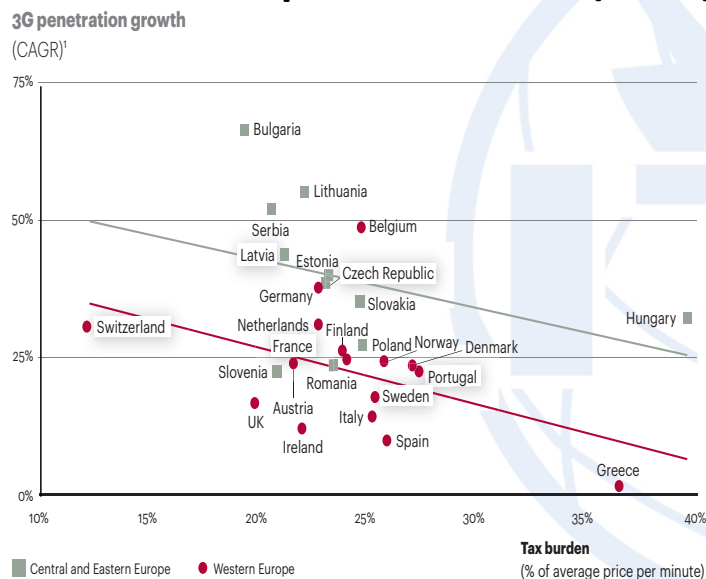
- Should governments tax mobile and broadband devices and services?
- What is the appropriate level of taxation imposed on capital equipment purchased by telecommunications operators?
- How should double taxation of international services be tackled?
- How should consumption of digital goods be taxed?
- Should the providers of digital platforms be taxed at the country location where revenues are generated?

Should governments tax mobile services and handsets?

- Countries follow four service and handset taxation approaches
 - Universalization: reduce taxes as much as possible to increase adoption
 - Protectionism: similar as above but substantial increase in service VAT
 - Sector distortion: include sector specific taxes
 - Tax maximization and sector distortion: high service and handset taxes to maximize government revenues
- The global average import duty rate for a PC is 2.1% ranging between 0% to 35%, while sales taxes can reach 27%
- Cumulative impact of duty, sales and specific taxes can have a 50% impact on price

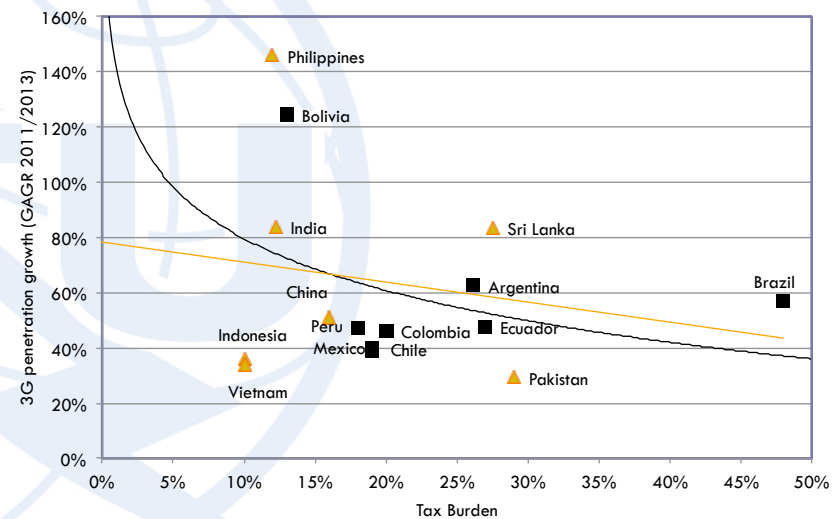
The higher the tax burden, the lower mobile adoption

Tax burden and 3G penetration in selected European countries (2013)



¹3G penetration growth as a percent of population when comparing the fourth quarters of 2009 and 2012

Tax burden and 3G penetration in selected Latin American and Asia Pacific countries (2013)



Source: Telecom Advisory Services analysis

- Tax exemptions generate more economic benefits and tax revenues than the losses incurred by the tax exemption

Should governments tax broadband services?

- Broadband penetration faces an affordability barrier
- In general, it is considered that a broadband consumption tax increases the cost of ownership, thereby reducing adoption
- Lower subscription prices triggered by tax reduction, imply higher demand

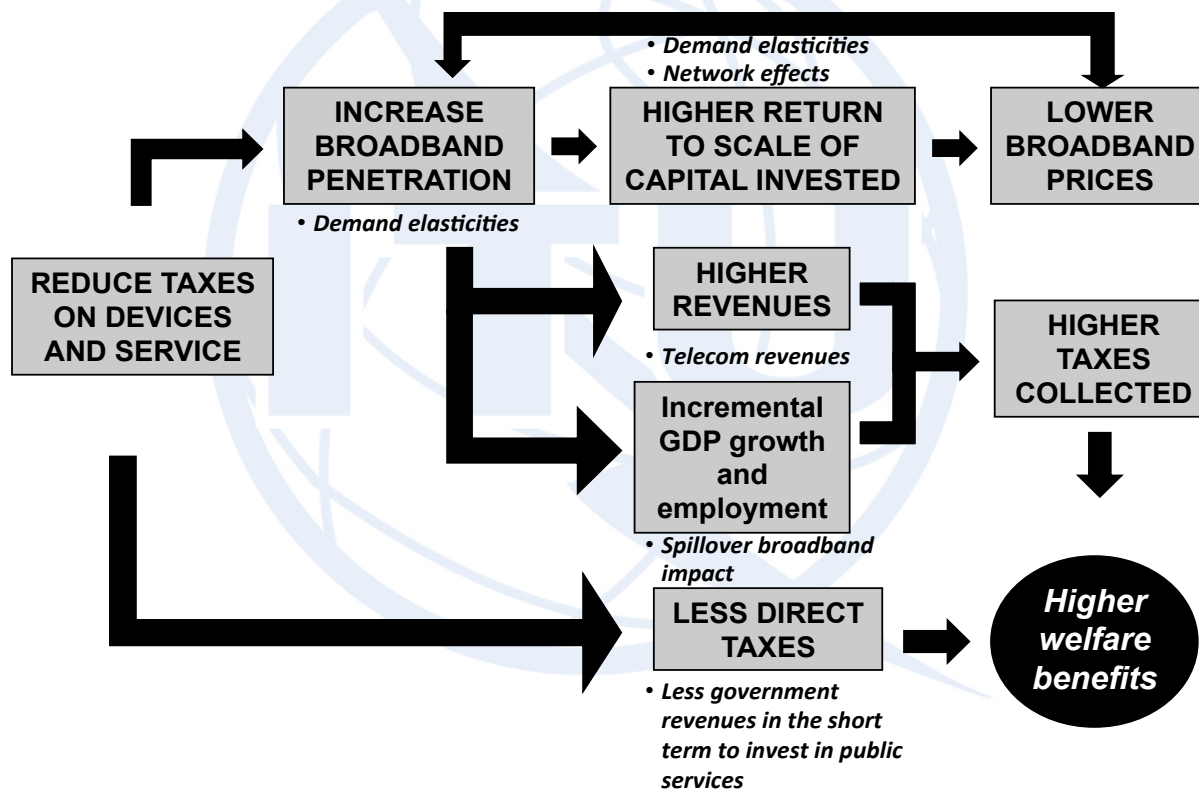
IMPACT ON FIXED BROADBAND PENETRATION OF PRICE REDUCTION

| Region | 2013 Household Penetration | 5% Price Reduction | 10% Price Reduction |
|----------------------|----------------------------|--------------------|---------------------|
| Sub - Saharan Africa | 3.12% | 3.62% | 4.11% |
| Americas | 54.87% | 57.79% | 60.70% |
| Arab States | 27.93% | 30.10% | 32.28% |
| Asia & Pacific | 31.05% | 33.35% | 35.65% |
| Europe | 72.02% | 75.13% | 78.24% |
| CIS | 36.94% | 39.44% | 41.94% |

Source: Estimates by the author based on ITU 2013 data

Lowering taxes on broadband triggers spillovers that are larger than the foregone taxes

VIRTUOUS CIRCLE OF TAX REDUCTION ON BROADBAND SERVICES AND DEVICES



Source: Telecom Advisory Services analysis

Should governments collect taxes on equipment purchased by broadband providers?

- Broadband service providers are imposed a range of taxes
 - Conventional corporate taxes (approximately 35% on gross profits)
 - Sales tax (up to 10%) and customs duty (up to 15%) on purchased equipment
 - Indirect taxes on CPE
 - Property taxes for physical assets (1.6% of assessment value)
- Sales taxes on purchased equipment have a negative impact on network deployment and, therefore, on broadband economic impact
- Accordingly, some governments have exempted ISPs from paying taxes on purchased equipment
 - Malaysia approved 100% tax allowances on “last mile” broadband equipment
 - 20 states in the US exempted sales tax from broadband equipment purchasing

Should production and consumption of digital goods be taxed?

- A country has a right to tax income by way of where the good is generated (source-based) or where it is being consumed (residency-based)
 - Digital advertising: determining the source of the income remains a critical taxation issue
 - E-commerce: a provider does not pay taxes in a country if it does not fulfill the “permanent establishment” condition
 - Video-streaming: some countries are moving to collect a tax on video-streaming services to protect local cable-TV industries
- Arguments for and against taxation of production and consumption of digital goods
 - Digital advertising: loss of tax revenues <-> erosion of spill-over
 - E-commerce: unfair advantage <-> enforcement difficulty
 - Sales tax on digital goods: cultural protectionism <-> lack of harmonization

Several dimensions of taxation asymmetry

- Asymmetry between industries
 - Within the digital sector, Internet firms have a 5 (Europe) to 7 (emerging countries) percentage points lower effective tax rate (ETR) than telecommunications operators
 - Global internet players have a lower ETR than telecommunications players
 - Telecommunications players are taxed more than other service players
- Double taxation of international telecommunications services
- Taxation of digital players with no physical presence
- The design of an efficient tax structure in the digital space needs to consider three requirements
 - Ensure proper collection of taxes for income generated at source
 - Avoid over taxation of digital activities when compared to other industries
 - Provide selective exemptions to facilitate investment in infrastructure and promote adoption by end-users

Maximizing impact on the digital economy

- Extensive evidence that digitization has impact on economic growth
- Taxation can have a detrimental impact on digitization growth
 - On consumption of digital goods
 - On equipment and other production inputs
- Taxation of digital goods and services should be approached preventing any erosion of their economic impact
- Balance short-term revenue generation and long term support of innovation and economic growth
 - Imposing “luxury taxes” on smartphones and tablets does not have any redistributive impact
 - Import duties have no clear impact in protecting domestic industries
 - Sector specific policies may be distortive