International Experiences with Zero-Rating practices

Constitutional Court of Colombia, Oficio N° OPC-169/22
Thomas Lohninger (epicenter.works), 18. November 2022

Types of relevant offerings

- Sub-internet offer *

- Zero-rating against payment (sponsored data)

- Zero-rating of individual applications

- Zero-rating of classes of applications

- Zero-rating that is application agnostic

* CRC Resolution 3502 Article 9 is based on the provision that the court examines
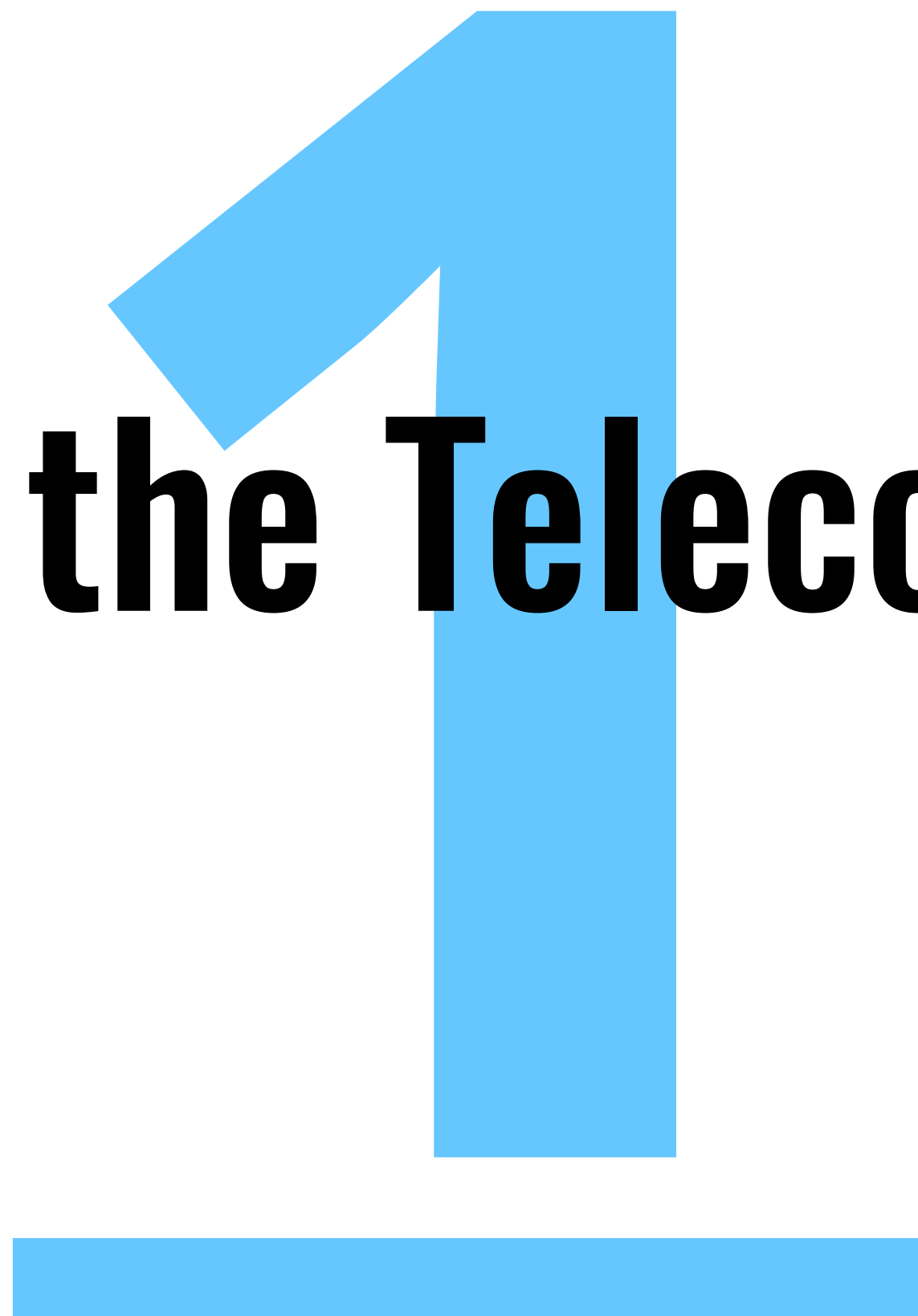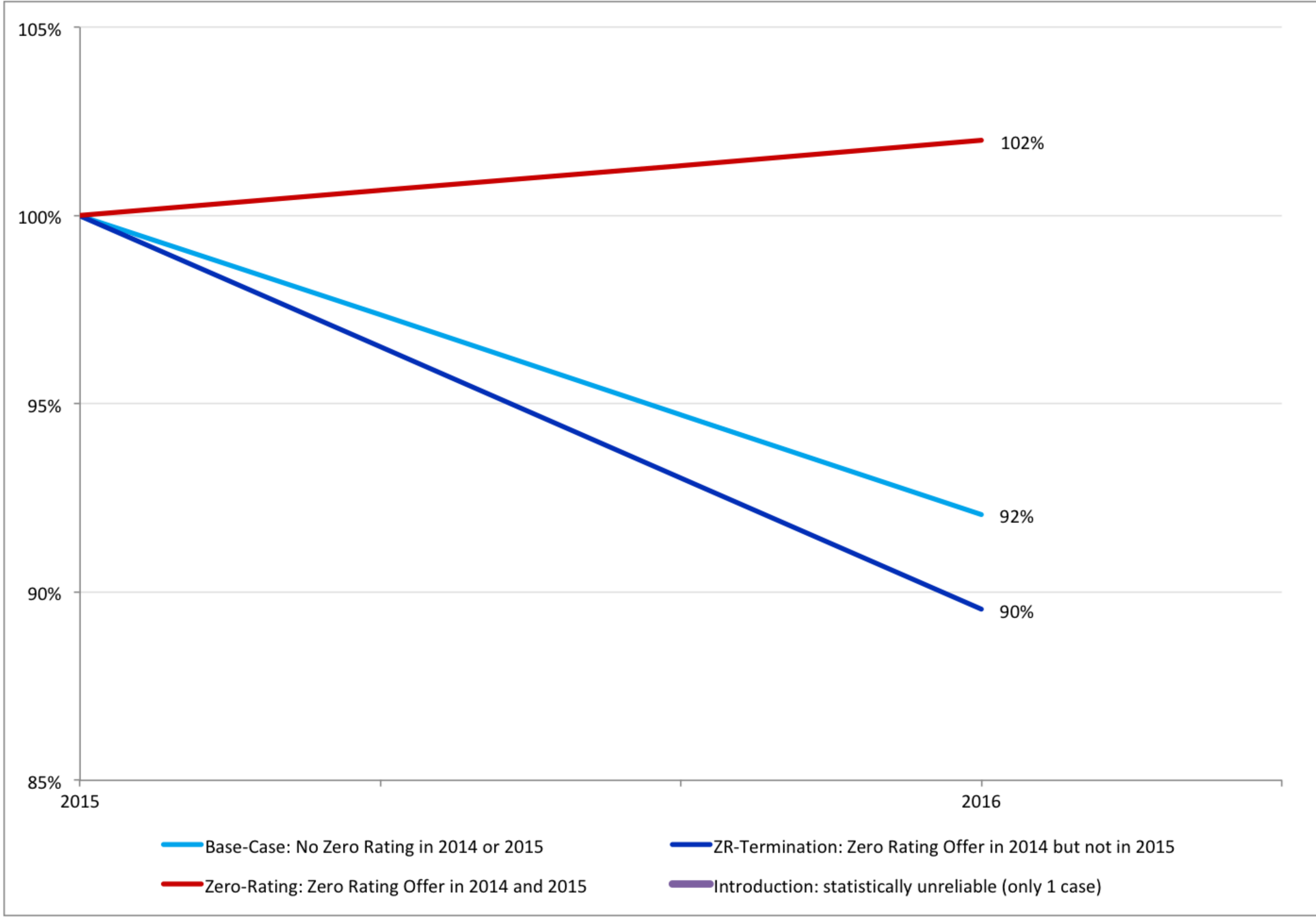
✅ = allowed, ❌ = prohibited, 〰 = case-by-case

	Colombia	India	EU*	Canada	USA**	California & Washington
Sub-internet	✅	❌	❌	❌	✅	❌
Sponsored data	✅	❌	❌	❌	✅	❌
Individual applications	✅	❌	❌	❌	✅	❌
Classes of Applications	✅	❌	❌	❌	✅	〰
Application-agnostic	✅	✅	✅	✅	✅	✅

* post judgements of the European Court of Justice C-854/19, C-5/20 and C-34/20
** post Donald Trump repeal of the 2015 FCC Open Internet Order

Impact on the Telecom Market

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		102%
		92%
		90%

Legend:

— Base-Case: No Zero Rating in 2014 or 2015   — ZR-Termination: Zero Rating Offer in 2014 but not in 2015

— Zero-Rating: Zero Rating Offer in 2014 and 2015   — Introduction: statistically unreliable (only 1 case)
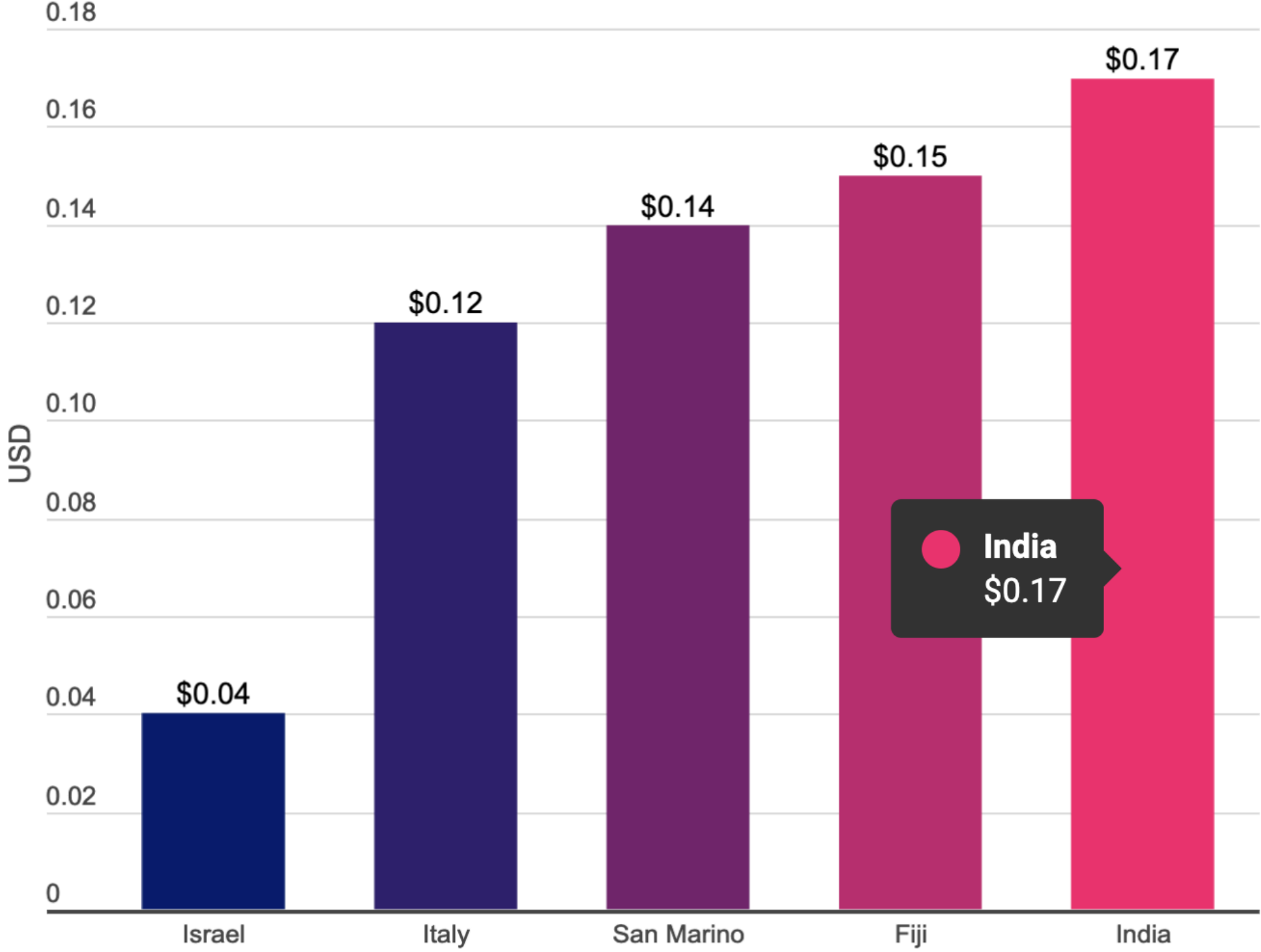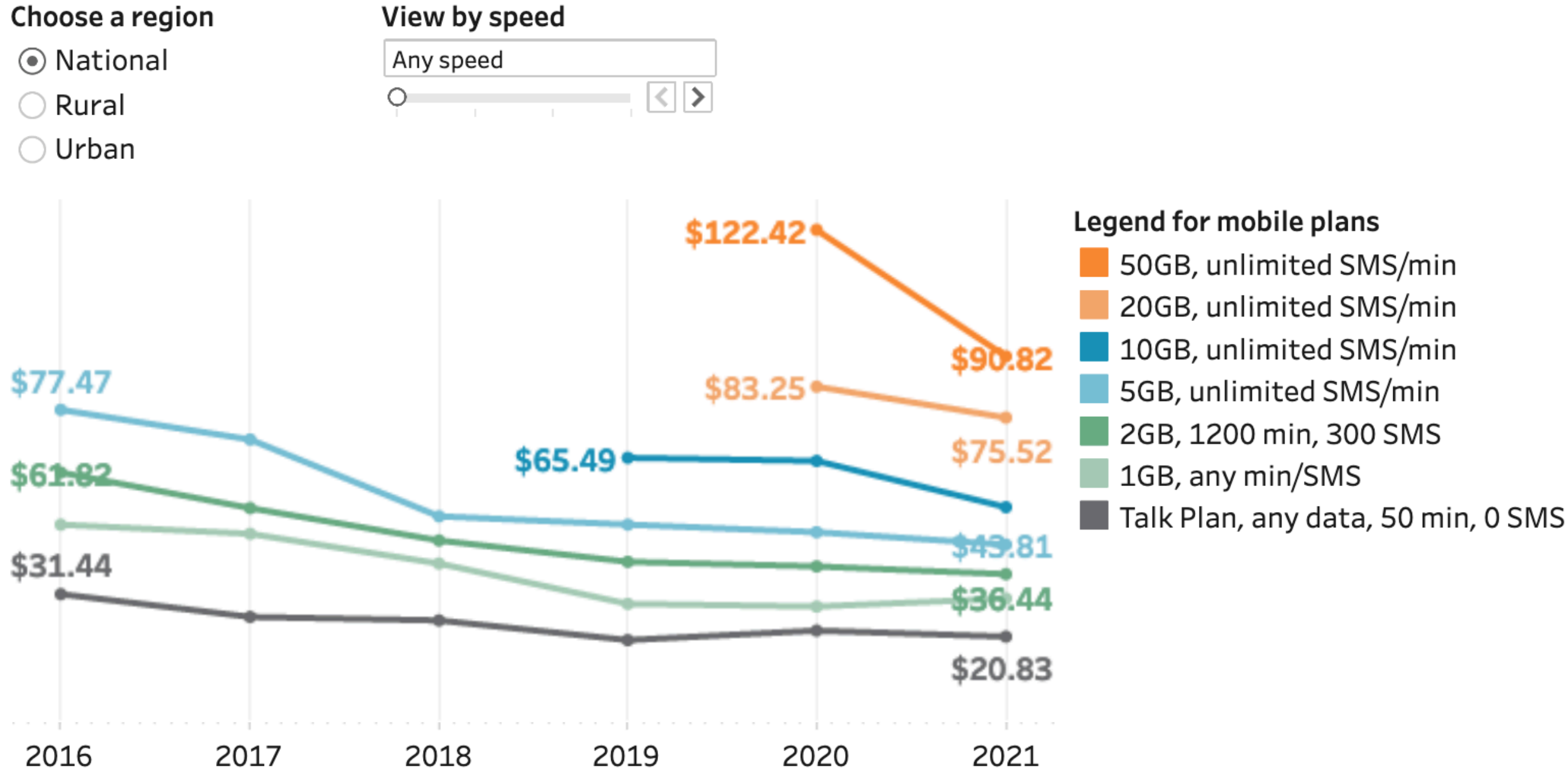
Zero-rating keeps data volumes artificially low and prices high

Prohibiting zero-rating correlates with lower prices for data volume

Least expensive

Canada

Choose a region
- ● National
- ○ Rural
- ○ Urban

View by speed
Any speed

Legend for mobile plans
- 50GB, unlimited SMS/min
- 20GB, unlimited SMS/min
- 10GB, unlimited SMS/min
- 5GB, unlimited SMS/min
- 2GB, 1200 min, 300 SMS
- 1GB, any min/SMS
- Talk Plan, any data, 50 min, 0 SMS

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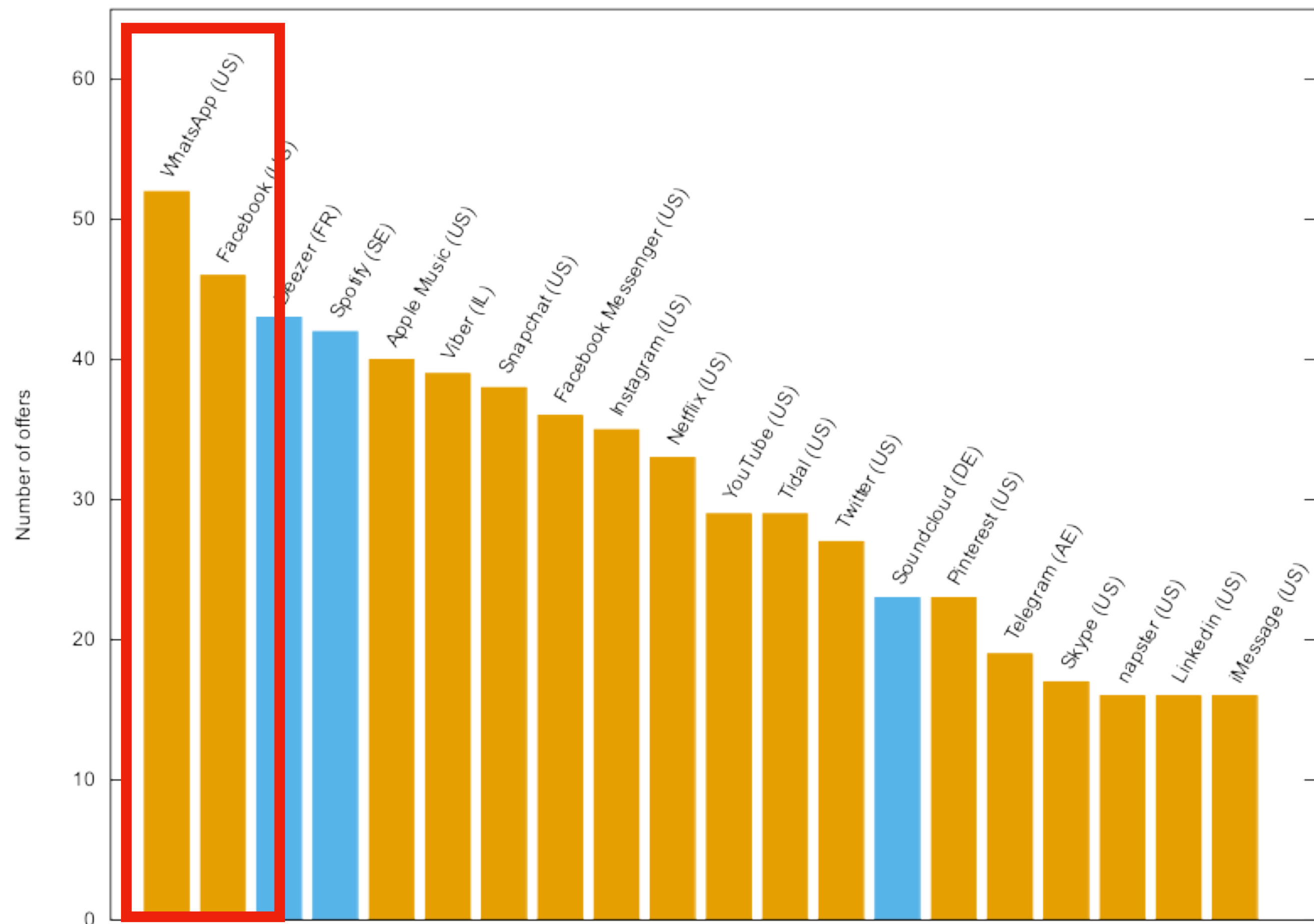# Prohibiting zero-rating is good for the affordability of the internet

"[...] Further, the evidence on the record does not suggest that any future differential pricing practices in Canada will be implemented in a manner that improves the adoption of Internet access services or their affordability. **The Commission is not persuaded that differential pricing practices would improve access to the Internet or affordability in the Canadian market.**"

CRTC 2017-104, paragraph 70

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Impact on the Application Market

US Internet Companies benefit

Top 20 Zero-Rated Apps in the EEA

Number of offers (bar chart): WhatsApp (US), Facebook (US), Deezer (FR), Spotify (SE), Apple Music (US), Viber (IL), Snapchat (US), Facebook Messenger (US), Instagram (US), Netflix (US), YouTube (US), Tidal (US), Twitter (US), Soundcloud (DE), Pinterest (US), Telegram (AE), Skype (US), napster (US), Linkedin (US), iMessage (US)

Aplicaciones incluidas en la oferta	Claro	eTb	Movistar	tigo	WOM	Total Pospago
f, whatsapp	-	1	-	1	1	3
f, whatsapp, instagram	-	-	-	3	2	5
f, whatsapp, twitter	4	1	-	-	-	5
f, whatsapp, instagram, twitter	-	1	-	-	-	1
f, whatsapp, twitter, waze	-	-	1	-	-	1
f, whatsapp, instagram, twitter, waze	-	5	1	-	-	6
f, whatsapp, instagram, twitter, waze, tiktok	-	-	1	-	-	1
Total general	**4**	**8**	**3**	**4**	**3**	**22**

Tabla 4. Tipos de planes con zero rating o navegación adicional para aplicaciones en modalidad pospago

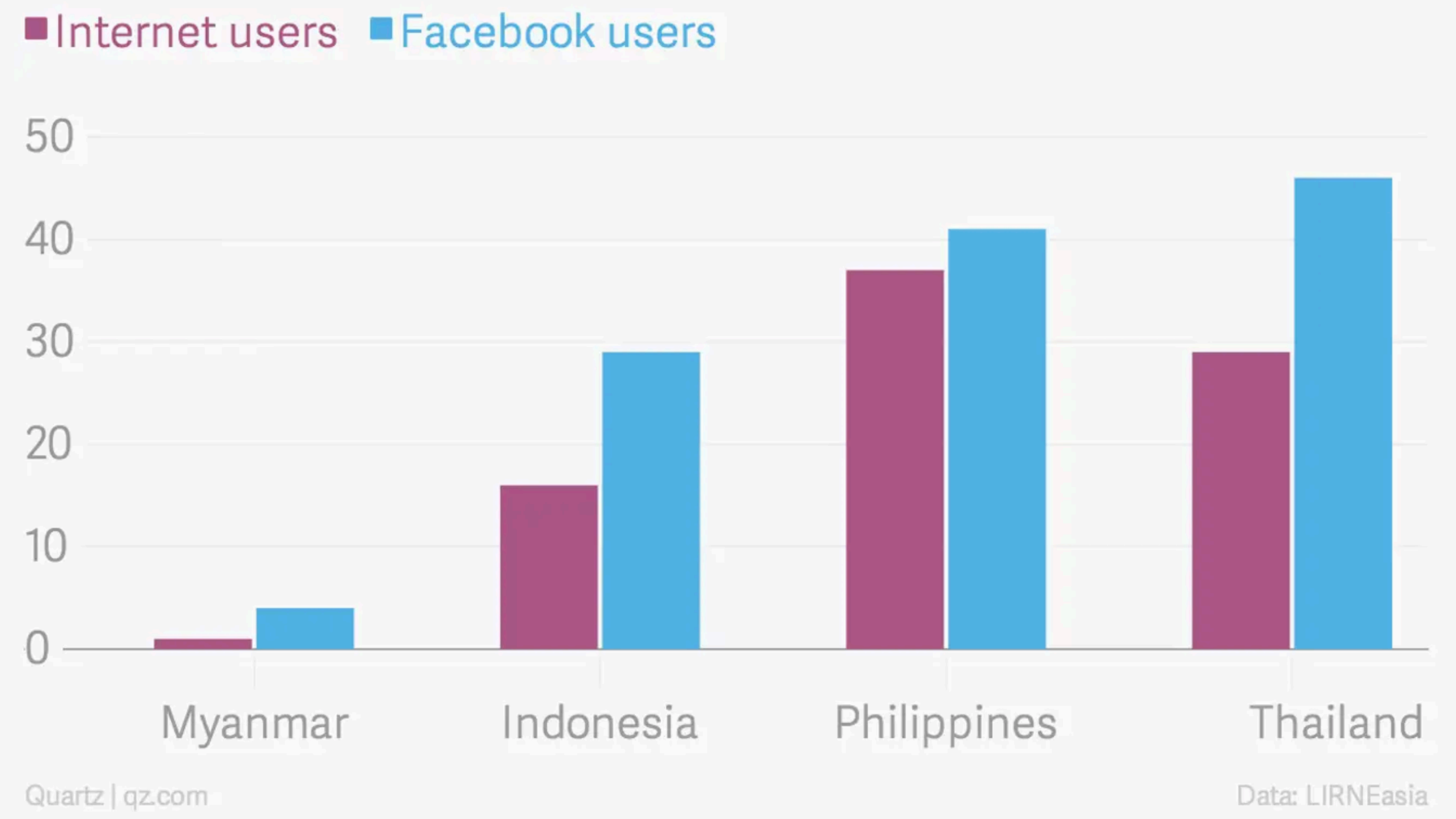| Aplicaciones incluidas en la oferta según empaquetado	Buenofon	Claro	eTb	móvil éxito	Movistar	tigo	Virgin mobile	WOM	Total Prepago
Sólo navegación	-	4	-	-	3	1	6	-	**14**
f	-	-	-	-	-	-	2	-	2
whatsapp	-	1	-	-	3	-	-	-	4
f, whatsapp	-	-	-	-	-	1	2	-	3
f, whatsapp, twitter	-	3	-	-	-	-	-	-	3
tiktok	-	-	-	-	-	-	2	-	2
Sólo voz	-	-	-	-	-	-	2	-	**2**
f, whatsapp	-	-	-	-	-	-	2	-	2
Voz, SMS, Datos	6	8	5	6	13	7	12	3	**60**
f, whatsapp	6	-	-	6	-	7	10	3	32
f, whatsapp, youtube	-	-	-	-	-	-	2	-	2
f, whatsapp, twitter	-	8	-	-	1	-	-	-	9*
f, whatsapp, twitter, waze	-	-	5	-	12	-	-	-	17
Total general	**6**	**12**	**5**	**6**	**16**	**8**	**18**	**3**	**76**

Tabla 5. Tipos de planes con zero rating o navegación adicional para aplicaciones en modalidad prepago

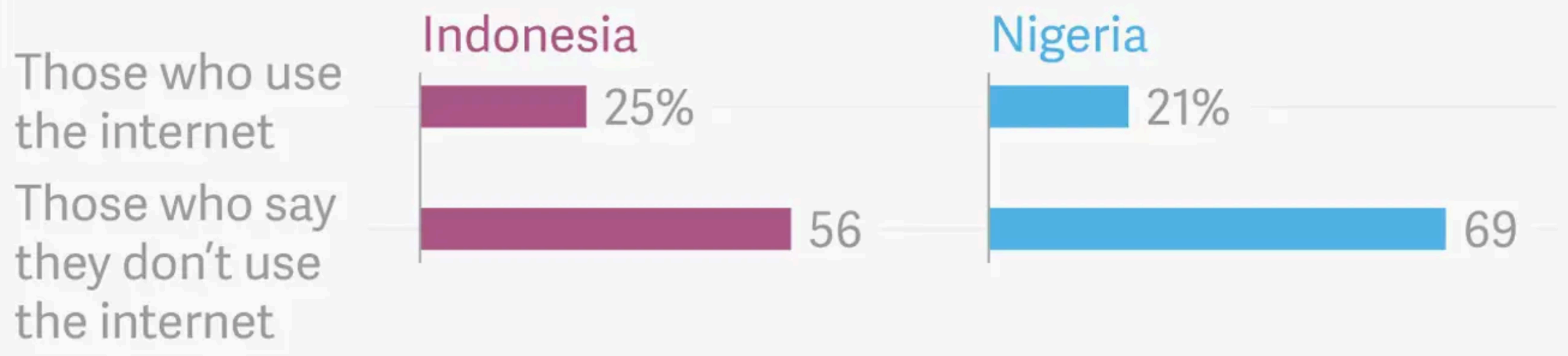# Steps to become a zero-rated App

1. Identify zero-rating offer

2. Understand technical and commercial conditions

3. Apply to the program, if possible

4. Sign contract and accept risk of penalties

5. Ongoing obligation to keep your service identifiable

How often do apps and services participate in differential pricing programs?

Internet users ■ **Facebook users** ■

| | 50 | 40 | 30 | 20 | 10 | 0 |

Myanmar   Indonesia   Philippines   Thailand

Quartz | qz.com   Data: LIRNEasia
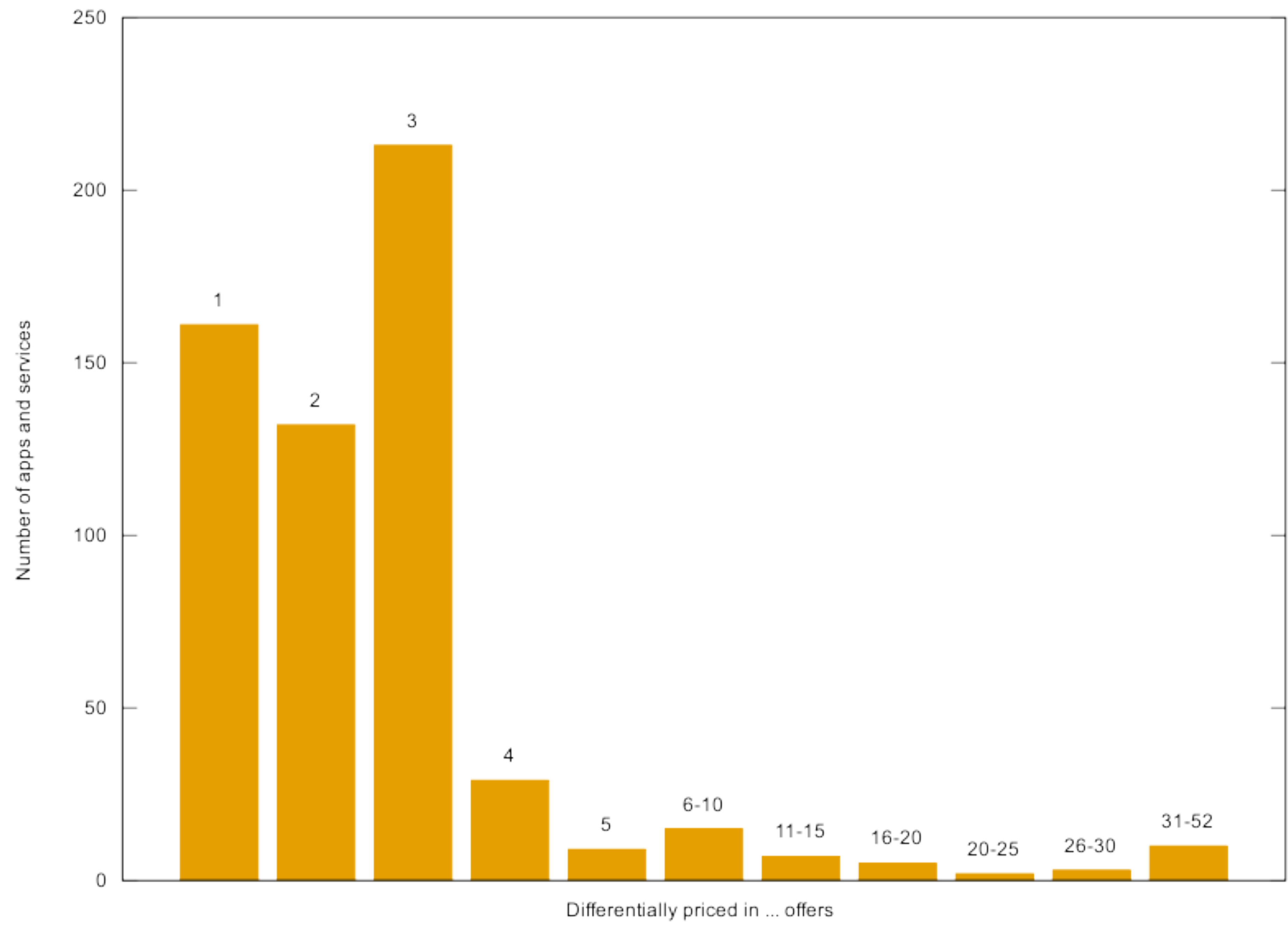
Facebook users who say they never follow a link out of Facebook

	Indonesia	Nigeria
Those who use the internet	25%	21%
Those who say they don't use the internet	56	69

Quartz | qz.com   n = 500 | Surveys conducted Dec. 2014 | Data: Geopoll survey, Quartz analysis

Impact on Data Protection

"Shall not monitor the specific content"

69.   In assessing traffic management measures, NRAs should ensure that such measures do not monitor the specific content (i.e. transport layer protocol payload).

70.   Conversely, traffic management measures that monitor aspects other than the specific content, i.e. the generic content, should be deemed to be allowed. Monitoring techniques used by ISPs which rely on the information contained in the IP packet header, and transport layer protocol header (e.g. TCP) may be deemed to be generic content, as opposed to the specific content provided by end-users themselves (such as text, pictures and video).

How to identify an application in transit?

- **IP-addresses**

- **Domain Names or URLs**

- **Server Name Identification (SNI)**

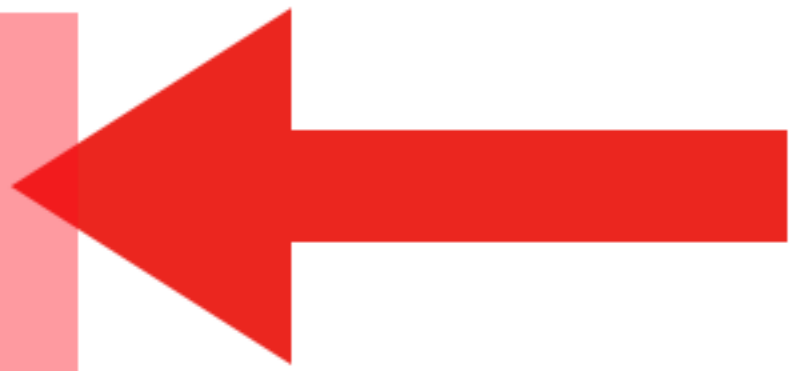| TCP/IP model	Protocols and services	OSI model
Application	HTTP, FTTP, Telnet, NTP, DHCP, PING	Application
		Presentation
		Session
Transport	TCP, UDP	Transport
Network	IP, ARP, ICMP, IGMP	Network
Network Interface	Ethernet	Data Link
		Physical
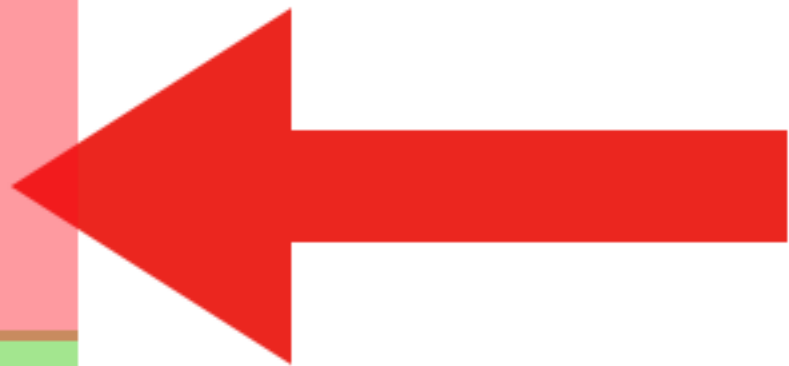
Zero-rating only classes of applications exaggerates data protection problems

Recommendations

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Recommendations

- Prohibit sub-internet offers, zero-rating of individual applications and classes of applications and sponsored data

  - **Data volume currently reserved for these offerings should be given to the users for the same price, but application-agnostic**

- Other encouraged application-agnostic forms of zero-rating

  - No data cap off-peak times (night time)

  - Low-bandwidth mode (~1,7 Mbit/s)