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**Telecom's slow march towards commoditization continues despite new world of work and 5G deployments**



# Contacts

## Australia

Chris Bartlett  
Partner,  
PwC Strategy& Australia  
+61-414-835-935  
chris.bartlett@pwc.com

## Canada

Chris Mar  
Partner,  
PwC Strategy& Canada  
+1-416-6878-125  
christopher.mar@pwc.com

## China

Wilson Chow  
Partner,  
PwC China  
+86-138-2316-7701  
wilson.wy.chow@cn.pwc.com

## France

Pierre Péladeau  
Partner,  
PwC Strategy& France  
+33-6-8507-6239  
pierre.peladeau@pwc.com

## Germany

Dr. Florian Gröne  
Partner,  
PwC Strategy&  
Germany and USA  
+1-347-3460-457  
+49-170-223-8844  
florian.groene@pwc.com

Jens Niebuhr  
Partner,  
PwC Strategy& Germany  
+49-170-2238-195  
jens.niebuhr@pwc.com

## Japan

Naohide Nomura  
Partner,  
PwC Japan  
+88-4179-0328  
naohide.nomura@pwc.com

## Korea

Ho-Sung Han  
Partner,  
PwC Korea  
+82 10-6274-1972  
hosung.han@pwc.com

## Middle East

Jad Hajj  
Partner,  
PwC Strategy& Saudi Arabia  
+966-055-5398-482  
jad.hajj@pwc.com

## The Netherlands

Steven Pattheeuws  
Partner,  
PwC Strategy& Netherlands  
+31-6-2279-1964  
steven.pattheeuws@pwc.com

## UK

Russell Taylor  
Partner,  
PwC UK  
+44-7841-071-721  
russell.y.taylor@pwc.com

Andy Wisnia  
Partner,  
PwC Strategy& UK  
+44-0776-4902-804  
andy.wisnia@pwc.com

## United States

Matthew Duffey  
Principal,  
PwC USA  
+1-210-7482-378  
matthew.s.duffey@pwc.com

Dan Hays  
Principal,  
PwC Strategy& USA  
+1-240-3887-187  
dan.hays@pwc.com

# About the authors

**Dr. Florian Gröne** advises clients in the telecom, media and technology industries on strategy, transformation, growth, operating model evolution, M&A and ESG for Strategy&, PwC's strategy consulting business. He leads PwC's global telecom industry consulting practice. Currently based in Berlin, Germany he is a principal with PwC US.

**Udayan "UD" Gupta** is a thought leader in the telecommunications and technology industries for PwC Strategy&. Based in Seattle, he is a Director with PwC US. He helps clients evaluate disruption risks, and defend market standing and generate growth.

**Karin Antoun** is a Director with Strategy&, PwC's strategy consulting business. She is currently based in New York. She works with clients in the telecommunications and technology industries on strategy, transformation and growth.

**Kevin Liu** is a specialist in the areas of telecommunications, media, and technology. Based in New York, he is a manager with Strategy&, PwC's strategy consulting group.

**Theresa Schmidt** advises clients in the telecommunications and technology industries on designing and executing growth strategies, enhancing customer experience, and managing business and operating model transformations. She is based out of New York City and is a manager with PwC US.

Lukas Stolberg and Heiko Schneider, Strategy& Germany, and Harvard Law School JD candidate (and former PwC Strategy& US senior associate) Bettina Edelstein also contributed to this report.

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## EXECUTIVE SUMMARY

The lifestyle changes resulting from the Covid-19 pandemic, and the advent of 5G technology, have raised hopes that the global telecom industry could break out of its seemingly inexorable drift towards commoditization, in which all players gravitate towards equal market shares and provide completely indistinguishable and interchangeable products and services at identical prices. It could be argued that two separate developments have presented opportunities for first movers to distinguish themselves from their competition through more innovative offerings: first, the surge in demand for virtual services caused by lockdowns and the ensuing new world of work, characterized by much more widespread remote and digital collaboration between workers; and second, the potentially transformative use cases that have been made possible by 5G.

However, Strategy&'s latest annual analysis of commoditization in the industry across the world introduces a sharp dose of reality: the general trend observed over more than a decade remains unaltered, as participants have been found to deliver an increasingly similar performance in an ever more competitive marketplace. Overall commoditization levels in both global mobile and fixed telecoms have increased during the years 2019 to 2021 by three and one percentage points (3pp and 1pp) respectively, indicating that operators have by and large still not managed to move towards becoming providers of differentiated, value-added services.

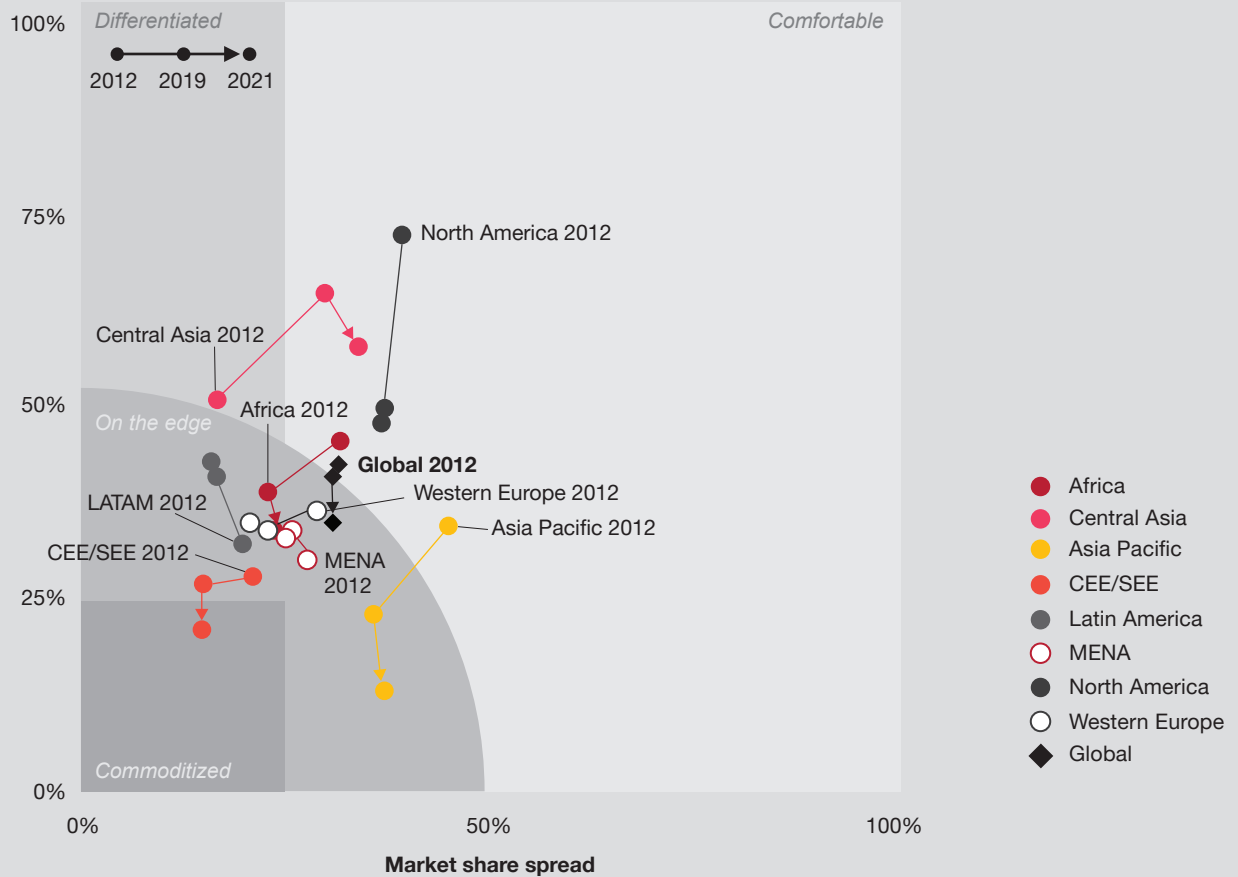
Notwithstanding this continued global direction of travel, our study did reveal specific exceptions. In mobile telecoms, the North American region bucked up the trend, with a 1pp decrease in commoditization. In fixed telecoms, the Western European and Latin American regions swam against the tide, with a 3pp and 4pp decrease in commoditization respectively. In both fixed and mobile telecoms, ARPU/ARPA (average revenue per user or average revenue per account) stabilized somewhat during the most recent two-year period when measured against longer time spans. Globally, ARPUs/ARPAs declined by 1% for both mobile and fixed telecoms in the years from 2019 to 2021, compared to a 3% decline for mobile telecoms from 2012 to 2021, and a 4% decline in fixed telecoms from 2016 to 2021 (see *Exhibit 1, page 4*).



## EXHIBIT 1

### Mobile commoditization by region 2012-2019-2021

#### ARPU spread



Source: Strategy& analysis

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## Study results: key highlights

We used two key factors to determine the level of commoditization within telecom markets throughout 58 countries across all meaningfully populated continents: the ARPU spread – the difference between the highest and lowest ARPUs/APRAs among the operators in a particular market; and the market share spread – the difference between the market shares of the largest and smallest players in that market. On this basis, we arrived at a Commoditization Index (CI) score for each country, an average of market share spread and ARPU spread. The goal was to establish whether certain players in a given market managed to create and sustain value and distance themselves from the crowd.

For mobile telecoms, we looked at commoditization trends over a ten-year period (2012-21), a six-year period (2016-21) and a three-year period (2019-21). For fixed markets, we examined seven-year (2015-21), six-year (2016-21) and three-year (2019-21) trends.<sup>1</sup> We can draw a number of conclusions from our latest study:

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### **Long-term global trends signal increasing commoditization**

On a global level, commoditization in both mobile and fixed telecoms increased within all the assessed time spans.

This was particularly true when gauged in the longer term. Over the ten-year and six-year periods, the global CI score for mobile telecoms went up by 4pp and 3pp respectively; over seven-year and six-year periods, the CI score for fixed telecoms increased by 4pp and 5pp respectively.

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### **Shifts in consumption patterns triggered by lockdowns offer some respite for fixed markets**

When we took the most recent two-year period in isolation, the 3pp increase in the global mobile CI score is similar to that revealed in the longer time windows. On a global level at least, increased demand for online services resulting from the Covid-19 pandemic and potential opportunities favored by 5G technology have not led to any discernible change in the trend towards commoditization.

In fixed telecoms, however, an increase of just 1pp in the global CI score revealed a slowdown in the rise of commoditization. Given the Covid-19 lockdowns and the resulting leap in demand for fixed broadband services due to the hugely expanded work-from-home economy, some easing of competitive pressure was to be expected as well-positioned and more adept operators reap the benefits.

However, we can also find the same result in fixed telecom markets with a different slant. Despite the lockdowns and the unprecedented homeworking boom, commoditization in fixed telecoms still increased.

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<sup>1</sup> The varying time spans for mobile and fixed telecoms are due to the relative completeness of data imparted by the underlying source.

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### 5G contributes to hiatus in North American mobile commoditization

In the period from 2019 to 2021, North America was the only region to record a decrease in commoditization in the mobile telecom industry. The region's CI score went down by 1pp and thereby arrested a steep rise in commoditization (its CI score has increased by 12pp when viewed over a nine-year timespan). This anomaly most likely arose due to the market environment in the United States, which accounts for the vast majority of the North American market population. The United States has witnessed both a comparatively extensive 5G rollout, and a merger between its third and fourth largest mobile operators, resulting in a new player that now stands to compete on more of an equal footing with the two other national providers.

Indeed, various operators in the United States have presented different value propositions and branding to customers, deriving from the advent of 5G technology. A wider spread of ARPU in the region, leading to the decrease in CI score, suggests that some of these offerings have been welcomed by customers. However, it is still too soon to establish whether this finding represents a short-term blip or the start of something more fundamental.

The rise in ARPU spread may simply be a temporary phenomenon often seen with the introduction of a new-generation network, with certain providers putting forward more convincing claims of improvement in speed and coverage than others. However, any long-term differentiation emanating from the implementation of 5G throughout the world will have to come from game-changing consumer use cases, involving such areas as FWA (fixed wireless access), the metaverse or edge gaming, that have not yet been deployed at scale or reached full maturity. In the future, it could be that operators implement these use cases with varying degrees of success due to first-mover advantage or their chosen 5G technology or spectrum, leading to a more sustainable spread in ARPU and hence a more long-term reversal of the trend towards commoditization (see *Exhibit 2, page 7*).

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### Western European and Latin American fixed markets defy commoditization trend

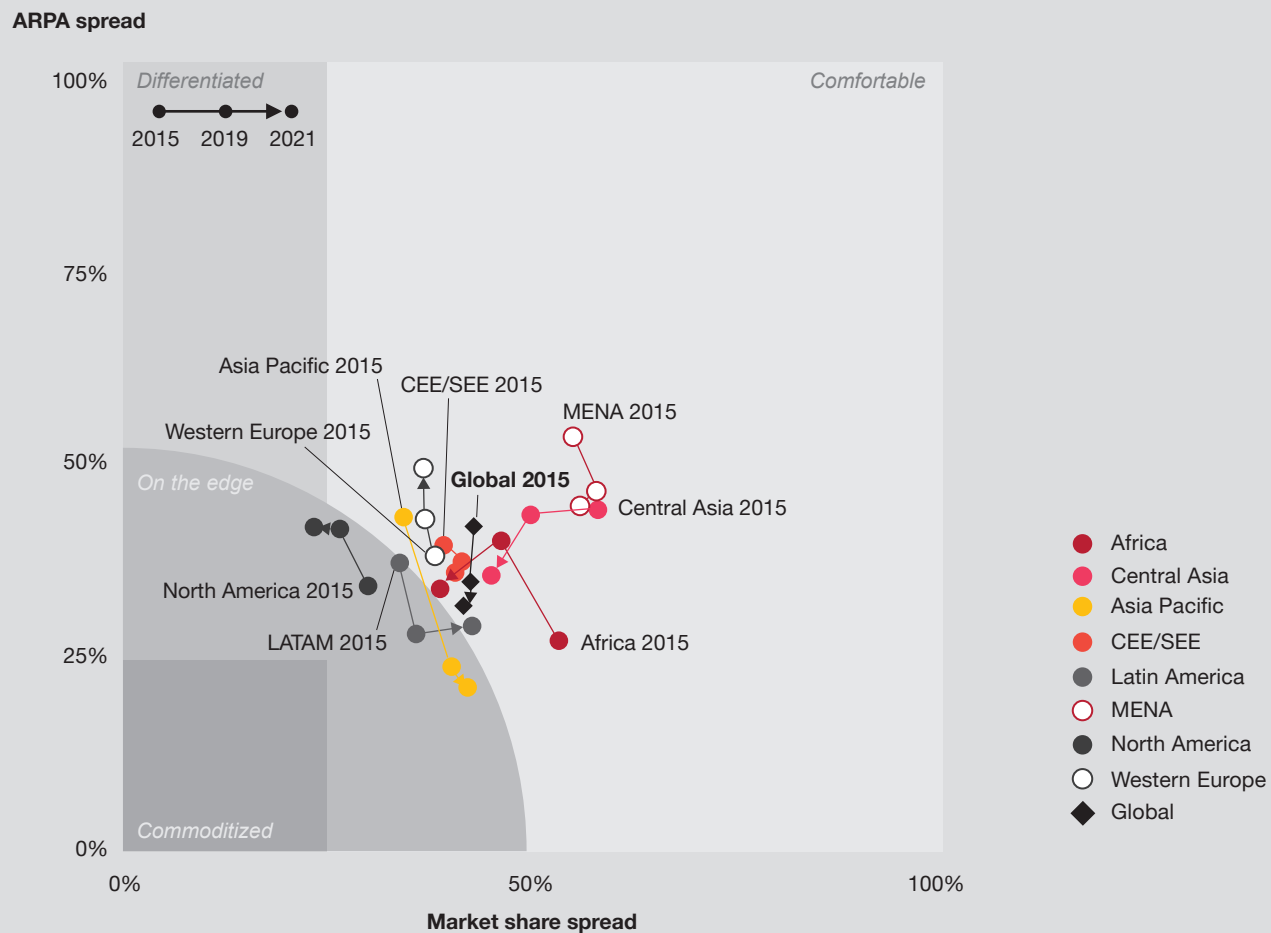
In the fixed telecom sector, the Western European and Latin American regions resisted the tide towards commoditization, showing a decrease in CI scores for both the five-year and two-year timeframes (2016-21 and 2019-21).

The reason for this decrease differs between the two regions. In the case of Western Europe, it can be put down to an increase in the ARPA spread coupled with a stable market spread. This combination is typically a manifestation of price wars in saturated markets, with companies racing to the bottom chasing the same customers, creating churn but ending up with similar net market shares.

In Latin America, on the other hand, the recent trend towards differentiation is primary a result of growing spreads in market share, a pattern associated with emerging markets when new players enter the fray.

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**EXHIBIT 2**  
**Fixed commoditization by region**  
 2015-2019-2021



Source: Strategy& analysis



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**Fierce competition characterizes fixed markets in Africa, Central Asia and Asia Pacific**

During the five-year period from 2016 to 2021, Africa, Central Asia and Asia Pacific were the regions to experience the largest increase in commoditization in fixed markets, rising by 16pp, 9pp and 8pp respectively. Competition became more intense as operators expanded their broadband coverage and fought it out for consumers in increasingly penetrated markets.

However, while the CI scores for both Africa and Central Asia both rose by 6pp in the most recent two-year period, the fixed market in Asia Pacific registered no movement in commoditization at all. This can be explained by the relative industry breakdown in the respective regions. In Asia Pacific, where the services industry plays a more prominent role in the economy, there was a huge shift to working from home, providing some impetus to fixed markets. Conversely, economies that mainly revolve around agriculture, manufacturing and raw materials could not afford to impose lockdowns, and telecom consumption to a large extent continued as before.

Despite the recent period of stabilization, the Asia Pacific region has the highest CI score (68%) for fixed markets. In mobile telecoms, that distinction went to the Central, Eastern and Southeastern European region (82%).

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**Increased demand due to pandemic leads to easing of pressure on ARPU/ARPA in more services-oriented economies**

Pressure on ARPU/ARPA has lifted somewhat over the recent period. In mobile telecoms, the regions of Asia Pacific, Western Europe and Central, Eastern and Southeastern Europe saw an increase in average regional ARPUs of 5%, 2% and 3% respectively during the years 2019 to 2021. This rise is likely to have resulted from an increase in demand from a workforce consigned to work remotely due to the Covid pandemic and thereby needing more connectivity. Mobile ARPU did decline in North America, but only by 1%, a slower decrease than when measured over the period 2016 to 2021. However, in more agrarian regions of the world such as Africa, Central Asia and Latin America, which have a lower proportion of white-collar workers, ARPU continued to decline at a rapid rate during this most recent two-year window.

Similar trends could be observed in fixed telecoms, with ARPA going up by 6% between 2019 and 2021 in Western Europe, contrasting with significant decreases in the Latin America, Middle East and North Africa, and Africa regions (7%, 5% and 4% respectively).

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## Prognosis: The impact of 5G and online work and shopping on future commoditization trends

If a widespread deployment of 5G were to be carried out on an upgraded infrastructure by all operators in a similar way, billions of capital investment could be spent and little differentiation achieved. In such a scenario, only first movers would derive an advantage, and only if 5G leads to a significant temporary differentiation that grants those players some uplift in market share. After holding on to this market share for a period, they would nevertheless start to lose business to competitors once the latter have attained a similar level of 5G capability.

On the other hand, 5G spectrum depth, capacity and engineering strategy may generate some persistent advantage. Indeed, if operators are able to turn 5G deployment into a network advantage that they can sustain, it would afford them differentiation and pricing power. Otherwise, widespread 5G deployment just leads to commoditization at a higher level of capability.

The COVID-19 crisis has also opened up the potential for differentiation. The shifts toward increased digital and data usage were already evident prior to 2020, but were then heavily reinforced by the pandemic and the resulting lockdowns. The work-from-home economy and greater digital consumption have now become more permanent phenomena, apparent from the significant acceleration of digitization of commerce, payments, mobility and other aspects of everyday life. A gap between supply and demand for connected digital services and solutions has emerged as a consequence. Those operators able to break out of the 'vanilla broadband' category altogether and shift part of their value creation to enabling different need states of digital life more broadly across work, home, play, education, mobility and beyond, will be able to create new bundles and greater customer stickiness, and hence reverse the commoditization trend.



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At the same time, 5G offers the promise of bandwidth parity between mobile and fixed telecoms, while customers are shifting their focus towards use cases and applications. This development could blur the lines between fixed and mobile telecoms, and ultimately force the two sectors to merge into a hybrid connectivity services that integrate multiple types of networks, moving towards an era of connectivity abundance in some of the more advanced markets. Private 5G campuses, cities or business networks will only accelerate this trend. This anticipated trend is defined within the industry as convergence, in which operators deliver genuinely differentiated use cases built on top of a basic data service, delivered either wirelessly or through cables. In the United States, Fixed Wireless Access (FWA) offers a step in this direction. By entering the home broadband market, the mobile operators responded to cable operators offering mobile services a few years ago. While both incursions are not going to disrupt either market, both are statements of intent towards more integrated/converged capabilities and offerings across both mobile and fixed telecoms.

Convergence is viewed differently in Europe, where convergence has become almost a model strategy for national carriers. Combining fixed and mobile capability is said to be key to maintaining a viable business, while remaining as a mobile-only or fixed-only player is seen as a losing formula unless providers are able to maintain a value edge on grounds of radical simplicity and leanest cost structures.

Pure convergence use-cases, where the distinction between mobile or fixed connectivity becomes irrelevant, are still only theoretical at this stage, and are far from being realized. By the time they are fully mature, it could be that a whole host of operators have established the necessary capabilities to take advantage, leaving the global telecom market to continue being predominantly defined by price competition for similar products and services. There is much to play for in the coming years.

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Overall commoditization levels in both global mobile and fixed telecoms have increased during the years 2019 to 2021 by three and one percentage points (3pp and 1pp) respectively, indicating that operators have by and large still not managed to reverse this trend and move towards becoming providers of differentiated, value-added services.”

## Appendix: Exhibits

**EXHIBIT 3**  
**CI Score & CAGR, Americas**

Americas		Mobile					Fixed				
CI Score & CAGR		CI Score			CI CAGR		CI Score			CI CAGR	
Region	Country	2012	2019	2021	9-Yr (2012- 2021)	2-Yr (2019- 2021)	2015	2019	2021	9-Yr (2012- 2021)	2-Yr (2019- 2021)
North America	Canada	0,55	0,67	0,66	2,0%	-0,5%	0,75	0,75	0,74	-0,2%	-0,7%
	Mexico	0,26	0,44	0,46	6,5%	3,1%	0,50	0,53	0,65	4,4%	11,5%
	United States	0,49	0,62	0,59	2,1%	-2,1%	0,73	0,70	0,67	-1,5%	-1,9%
North America Subtotal		0,44	0,57	0,56	2,9%	-0,9%	0,68	0,66	0,67	-0,1%	1,1%
Latin America	Argentina	0,92	0,88	0,79	-1,7%	-5,6%	0,83	0,55	0,53	-7,0%	-1,5%
	Brazil	0,80	0,71	0,73	-1,0%	1,5%	0,65	0,73	0,67	0,6%	-4,2%
	Chile	0,53	0,59	0,57	1,0%	-1,2%	0,70	0,72	0,68	-0,5%	-2,7%
	Colombia	0,53	0,67	0,67	2,7%	0,3%	0,56	0,64	0,63	2,2%	-0,8%
	Peru	0,53	0,57	0,61	1,4%	2,9%	0,43	0,53	0,55	4,0%	1,4%
Latin America Subtotal		0,74	0,71	0,71	-0,4%	0,2%	0,64	0,68	0,64	-0,1%	-3,0%
America Subtotal		0,56	0,63	0,63	1,2%	-0,4%	0,66	0,67	0,66	-0,1%	-0,6%

Note: Sub-region and region data is calculated as population-weighted averages of the data for the countries analyzed within those sub-regions and regions.  
Source: Strategy& analysis

**EXHIBIT 4**  
**CI Score & CAGR, EMEA**

<b>EMEA</b>		<b>Mobile</b>					<b>Fixed</b>				
CI Score & CAGR		CI Score			CI CAGR		CI Score			CI CAGR	
Region	Country	2012	2019	2021	9-Yr (2012- 2021)	2-Yr (2019- 2021)	2015	2019	2021	9-Yr (2012- 2021)	2-Yr (2019- 2021)
<b>CEE / SEE</b>	Austria	0,67	0,79	0,84	2,6%	3,1%	0,64	0,65	0,62	-0,4%	-2,1%
	Bulgaria	0,79	0,92	0,98	2,4%	3,2%	0,63	0,71	0,72	2,3%	0,7%
	Croatia	0,78	0,73	0,74	-0,5%	0,9%	0,63	0,64	0,67	1,0%	1,9%
	Czech Republic	0,97	0,89	0,84	-1,6%	-2,6%	0,59	0,60	0,63	0,9%	1,9%
	Hungary	0,86	0,84	0,86	0,0%	1,1%	0,65	0,66	0,66	0,4%	0,0%
	Poland	0,86	0,75	0,82	-0,5%	4,5%	0,61	0,61	0,62	0,3%	0,6%
	Romania	0,46	0,70	0,70	4,9%	0,4%	0,50	0,47	0,51	0,5%	4,6%
	Serbia	0,56	0,85	0,88	5,1%	1,6%	0,63	0,56	0,48	-4,4%	-7,4%
	Slovakia	0,71	0,78	0,81	1,3%	1,9%	0,78	0,69	0,68	-2,2%	-0,8%
	Slovenia	0,69	0,69	0,73	0,6%	3,1%	0,74	0,75	0,75	0,2%	0,3%
	Ukraine	0,45	0,66	0,64	4,1%	-1,0%	0,63	0,49	0,44	-5,7%	-4,7%
<b>CEE / SEE Subtotal</b>		0,66	0,75	0,77	1,6%	1,4%	0,62	0,57	0,56	-1,5%	-0,8%
<b>Western Europe</b>	Belgium	0,70	0,72	0,76	0,9%	3,0%	0,64	0,72	0,70	1,4%	-1,5%
	Denmark	0,74	0,81	0,88	2,0%	4,5%	0,50	0,51	0,62	3,7%	10,1%
	France	0,50	0,65	0,68	3,4%	2,3%	0,60	0,66	0,70	2,6%	3,0%
	Germany	0,77	0,83	0,77	0,0%	-3,4%	0,61	0,69	0,69	1,9%	-0,2%
	Ireland	0,75	0,63	0,61	-2,3%	-2,0%	0,47	0,51	0,52	1,6%	1,1%
	Italy	0,75	0,65	0,70	-0,8%	3,7%	0,62	0,54	0,33	-9,9%	-21,4%
	Netherlands	0,81	0,87	0,78	-0,3%	-4,8%	0,64	0,52	0,50	-4,2%	-2,6%
	Norway	0,67	0,65	0,67	0,1%	2,0%	0,56	0,59	0,58	0,8%	-0,9%

Note: Sub-region and region data is calculated as population-weighted averages of the data for the countries analyzed within those sub-regions and regions.  
Source: Strategy& analysis



EMEA		Mobile					Fixed				
CI Score & CAGR		CI Score			CI CAGR		CI Score			CI CAGR	
Region	Country	2012	2019	2021	9-Yr (2012- 2021)	2-Yr (2019- 2021)	2015	2019	2021	9-Yr (2012- 2021)	2-Yr (2019- 2021)
Western Europe	Portugal	0,83	0,81	0,87	0,6%	3,9%	0,66	0,68	0,68	0,4%	-0,4%
	Spain	0,74	0,65	0,68	-0,9%	2,7%	0,66	0,55	0,55	-3,0%	0,3%
	Sweden	0,71	0,78	0,80	1,4%	1,8%	0,48	0,62	0,55	2,4%	-5,8%
	Switzerland	0,65	0,71	0,75	1,7%	2,6%	0,59	0,45	0,50	-2,5%	5,8%
	United Kingdom	0,79	0,75	0,79	-0,1%	2,5%	0,56	0,53	0,58	0,4%	3,9%
Western Europe Subtotal		0.72	0.73	0.74	0.3%	0.9%	0.60	0.60	0.58	-0.7%	-1-5%
MENA	Egypt	0,73	0,57	0,57	-2,8%	0,0%	0,46	0,56	0,59	4,4%	3,4%
	Iraq	0,66	0,68	0,72	0,8%	2,4%	0,30	0,29	0,31	0,9%	3,6%
	Israel	0,79	0,77	0,84	0,7%	4,6%	0,61	0,55	0,57	-1,2%	1,4%
	Kuwait	0,75	0,77	0,77	0,3%	0,2%	0,81	0,78	0,67	-3,0%	-7,3%
	Oman	0,81	0,83	0,86	0,7%	1,9%	0,74	0,58	0,57	-4,3%	-1,1%
	Qatar	0,69	0,76	0,77	1,3%	0,8%	0,40	0,34	0,18	-12,6%	-26,9%
	Saudi Arabia	0,64	0,61	0,57	-1,3%	-3,3%	0,44	0,51	0,55	3,8%	4,1%
	Turkey	0,64	0,85	0,84	3,0%	-0,6%	0,38	0,38	0,36	-1,1%	-2,3%
	United Arab Emirates	0,88	0,86	0,87	-0,2%	0,6%	0,55	0,60	0,68	3,7%	6,2%
MENA Subtotal		0.70	0.69	0.69	0.0%	0.0%	0.43	0.47	0.48	1.9%	1.7%
Africa	Algeria	0,72	0,82	0,77	0,8%	-3,1%	0,50	0,24	0,34	-6,3%	18,0%
	South Africa	0,52	0,72	0,76	4,3%	3,2%	0,49	0,61	0,62	4,1%	0,9%
	Sudan	0,63	0,53	0,58	-1,0%	4,7%	0,84	0,83	0,95	2,0%	7,0%
Africa Subtotal		0.61	0.69	0.71	1.6%	1.4%	0.60	0.57	0.63	1.0%	5.9%
EMEA Subtotal		0.69	0.71	0.73	0.6%	0.8%	0.55	0.55	0.56	0.1%	0.6%

Note: Sub-region and region data is calculated as population-weighted averages of the data for the countries analyzed within those sub-regions and regions.  
Source: Strategy& analysis

**EXHIBIT 5**  
**CI Score & CAGR, Asia**

Asia		Mobile					Fixed				
CI Score & CAGR		CI Score			CI CAGR		CI Score			CI CAGR	
Region	Country	2012	2019	2021	9-Yr (2012- 2021)	2-Yr (2019- 2021)	2015	2019	2021	9-Yr (2012- 2021)	2-Yr (2019- 2021)
Asia Pacific	Australia	0,85	0,74	0,79	-0,9%	3,3%	0,75	0,62	0,77	0,5%	11,7%
	China	0,60	0,71	0,78	3,0%	4,6%	0,68	0,71	0,74	1,4%	1,7%
	Hong Kong	0,57	0,71	0,74	3,0%	1,7%	0,46	0,69	0,63	5,4%	-4,5%
	Indonesia	0,38	0,59	0,66	6,2%	5,5%	0,30	0,52	0,48	8,1%	-4,1%
	Japan	0,79	0,63	0,62	-2,8%	-1,2%	0,59	0,75	0,68	2,4%	-4,4%
	Malaysia	0,82	0,83	0,90	1,1%	4,1%	0,48	0,55	0,56	2,6%	0,9%
	Philippines	0,73	0,86	0,91	2,4%	2,5%	0,41	0,56	0,47	2,2%	-8,3%
	Singapore	0,64	0,75	0,87	3,4%	7,6%	0,70	0,67	0,69	-0,3%	1,6%
	South Korea	0,75	0,81	0,87	1,7%	3,8%	0,75	0,79	0,80	1,0%	0,1%
	Taiwan	0,67	0,64	0,62	-0,8%	-1,5%	0,44	0,52	0,47	1,0%	-4,7%
	Thailand	0,53	0,69	0,69	3,0%	0,5%	0,61	0,68	0,67	1,7%	-0,5%
Asia Pacific Subtotal		0.60	0.70	0.76	2.7%	4,1%	0.61	0.68	0.68	1.9%	0.3%
Western Europe	India	0,65	0,45	0,47	-3,5%	2,0%	0,50	0,56	0,64	4,3%	6,8%
	Pakistan	0,83	0,76	0,72	-1,6%	-2,7%	0,28	0,27	0,30	1,4%	6,1%
	Russia	0,54	0,86	0,92	6,2%	3,4%	0,68	0,66	0,63	-1,3%	-1,8%
Central Asia Subtotal		0.66	0.53	0.54	-2.2%	1.3%	0.48	0.53	0.59	3.5%	5.9%
Asia Subtotal		0.63	0.62	0.66	0.6%	3.0%	0.55	0.61	0.64	2.6%	2.5%

Note: Sub-region and region data is calculated as population-weighted averages of the data for the countries analyzed within those sub-regions and regions.  
Source: Strategy& analysis

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