DTAG – DEFINING A WINNING POSITION FOR THE US BUSINESS MODEL

Consolidated contents

17.12.2015

As per workshop discussions

LIFE IS FOR SHARING.

DEFINING A WINNING POSITION FOR THE US BUSINESS MODEL

Context

DT has 2 large portfolio elements besides Germany and UK: TMUS and DTEU

- TMUS delivered strong performance over past 2 years[1] and drives DT's growth
- EU portfolio has been struggling[2] and recovery to stable business is uncertain

In consequence, TMUS gained more importance within DT (revenues and EBITDA) while the EU portfolio has lost in relevance

However, stability of TMUS business model in long-run unsure given its sub-scale position, competitive environment, and potential market changes

Objective

Create a deeper understanding of differences in US vs. DTEU portfolio market environment, structure and attractiveness

Identify major trends for the US that can disrupt current telco business models

Develop potential market "end-game" archetypes for the US

Outline options for TMUS to address key challenges in respective "end-game" archetypes (i.e., defining a winning position)

1 +20% revenue from Q2/13 to Q2/15, +34% total customers from Q2/13 to Q2/15
2 -8% revenue from Q2/13 to Q2/15
Source: DTAG

WORKSHOP PARTICIPANTS AT A GLANCE

DTAG

Thorsten Langheim
Head of Strategy & M&A DTAG

Peter Ewens
EVP Corporate Strategy T-Mobile US

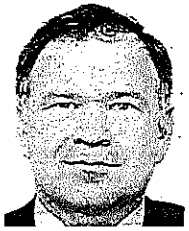
Roland Doll
VP European Affairs DTAG
(WS I only)

Matthias Budde
SVP Group Strategy & Transformation DTAG

Steffen Stern
VP Portfolio Strategy DTAG

Dr. Volker Stapper
VP Competition Law DTAG
(WS II only)

McKinsey



Peter Bisson
Director
(WS I and 1st half of WS II)

Ewan Duncan
Director

Source: Team analysis

LIFE IS FOR SHARING.

EXTENSIVE EXPERT INTERVIEWS CONDUCTED TO UNDERSTAND MARKET DYNAMICS

USA

Endre Holen
Macro trend perspective on US market

Brendan Gaffey
Macro trend perspective on US market

Stagg Newman
Regulatory expert (former CTO of FCC)

Satya Rao
Adjacencies and future business models

Joy Chen
Adjacencies and future business models

Ewan Duncan
Macro trend perspective on US market

Europe

Martin Wrulich
Spectrum scarcity, fixed to mobile trend

Lars Engel Nielsen
Macro trend perspective for EU, FMC deep dive

Tomas Calleja Mediano
Macro trend perspective on EU

Markus Meukel
Expert for eSIM and future business models

Source: Team analysis

TODAY, THE US TELCO MARKET IS MORE ATTRACTIVE THAN EUROPEAN PORTFOLIO MARKETS

	US	VS. DTEU Portfolio (excl. Germany and UK)
1 More favorable macroeconomic environment	▪ ~42 TEUR GDP/capita 2015, growing 3% p.a. 2012-20 ▪ 323mn population 2015, growing 1% p.a. 2012-20 ▪ 82% urban population 2015	▪ ~17 TEUR GDP/capita 2015, growing 3% p.a. 2012-20 ▪ 127mn population 2015, growing 0% p.a. 2012-20 ▪ 67% urban population 2015
2 Larger market with more attractive growth prospects	▪ ~397bn USD telco service revenues[1] in 2015 that are stagnating (i.e., ~zero growth till 2020) ▪ ~197bn USD video revenues[2] in 2015, with 3.1% growth p.a. till 2012-2020 ▪ 3.3% telco and video spend as percentage of GDP[3] 2015, declining -3% p.a. 2012-20	▪ ~37bn EUR telco service revenues[1] 2015, declining -3% p.a. 2012-20 ▪ ~9,3bn USD video revenues[2] in 2015, with 3.0% growth p.a. till 2012-2020 ▪ 2.1% telco and video spend as percentage of GDP[3] 2015, declining -5% p.a. 2012-20
3 Market with limited competition and different structure	▪ Limited fixed broadband overbuild ▪ No nationwide fixed broadband players ▪ Small role of MVNOs	▪ Fixed broadband overbuild more common ▪ Typically strong nationwide incumbents ▪ Significant MVNO market shares in Western Europe
4 More friendly regulatory environment fostering investments[4]	▪ Regulator with infrastructure focus ▪ Reliable and investment friendly spectrum awards ▪ Stable political environment	▪ Regulator with competition and consumer welfare focus ▪ Unreliable and CAPEX harming spectrum awards ▪ Political uncertainty in certain CEE markets
5 Customers show higher spend for telco services	▪ 36 EUR mobile market ARPU[5] Q2 2015 ▪ 71 EUR fixed market ARPU[5] Q2 2015	▪ 13 EUR weighted mobile market ARPU[5] Q2 2015 ▪ 31 EUR weighted fixed market ARPU[5] Q2 2015

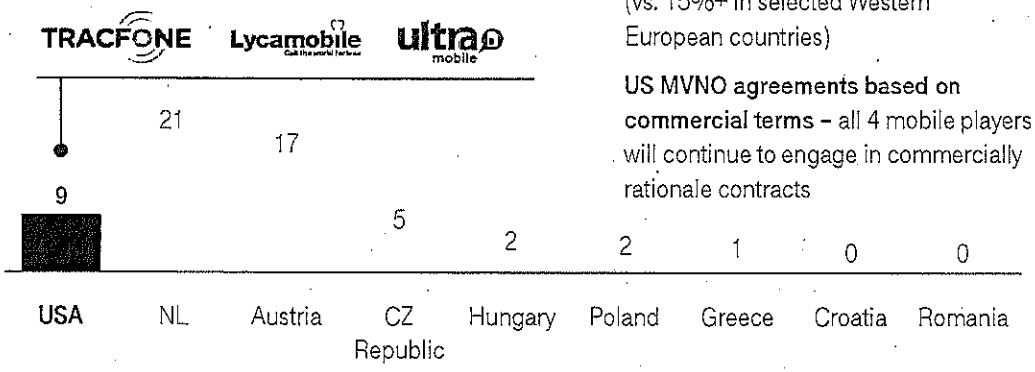
1 Fixed and mobile service revenues 2 Video (excl. HR, SK, MK, ME, AL for DTEU) includes PayTV, physical home video, OTT and TV advertising 3 Revenues (video, wireline, mobile)/GDP 4 Impact of Net Neutrality policies on investment friendliness yet to be seen 5 Compared to currently ~17 k USD net adjusted disposable household income for selected DTEU portfolio countries (average for HU, CZ, SK) vs. ~41k USD in US households
Source: Team Analysis, Analysis Mason, GMR, OECD

Details in appendix

1 NEW MOBILE ENTRANTS WILL NOT BECOME RELEVANT PLAYERS

Trend factuals – excerpt

MVNO subscriber market share
%, 2014



MVNOs currently with 9% market share[1] in the US telco market (vs. 15%+ in selected Western European countries)

US MVNO agreements based on commercial terms – all 4 mobile players will continue to engage in commercially rationale contracts

Regulation won't support access seeker business models as the FCC values infrastructure investments over competition.

– Expert interview

Telco is a nationwide scale game. Without regulatory and telco support it is almost impossible that new mobile entrants will be able to disrupt the industry.

– Expert interview

High degree of speculation in press regarding cable MVNOs – but they will generally not be a force

– Expert interview

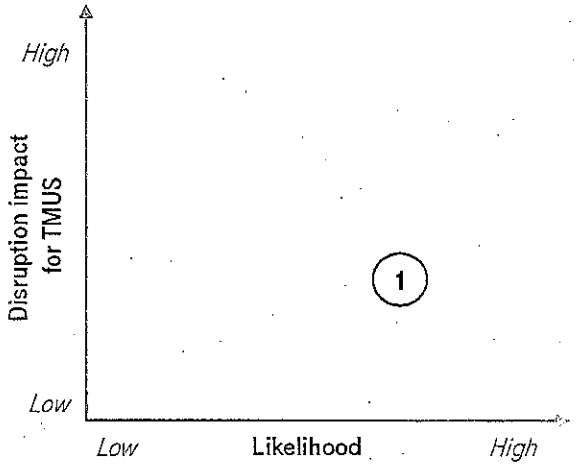
European regulation likely to continue favorable regulation for access seeker business models

1 GoogleFi just starting
Source: Team Analysis, Expert interviews, OVUM

"So What" for TMUS

Trend can be disregarded to define a wining position for TMUS

- Continuation of status quo bears no disruption potential for TMUS
- Emergence of MVNO entrants unlikely – however, if they would emerge it bears a disruption potential for TMUS

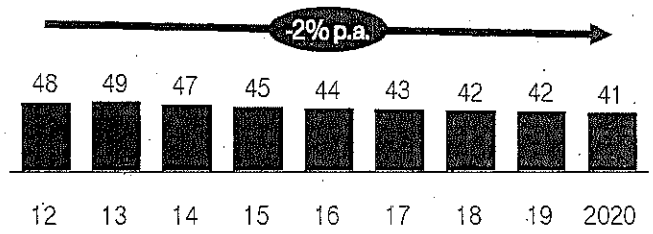


LIFE IS FOR SHARING.

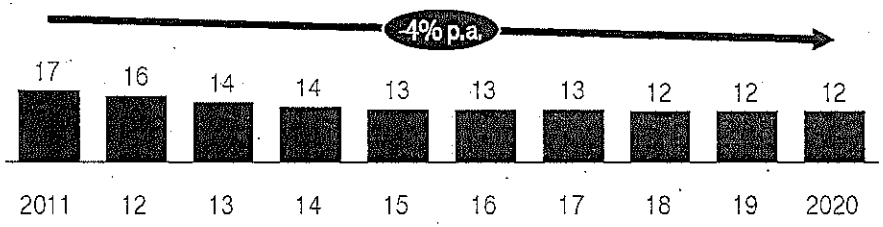
9 US ARPUS WILL REMAIN ON MUCH HIGHER LEVEL THAN IN EU PORTFOLIO COUNTRIES

Trend factuals – excerpt

US Mobile service ARPUs,
USD/month



DTEU portfolio mobile service ARPUs[2],
EUR/month



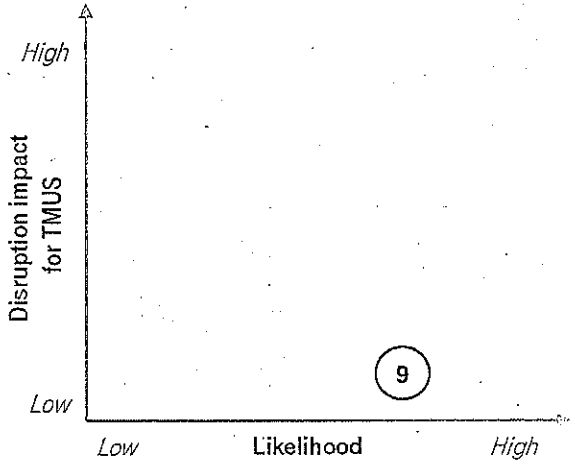
Future mobile ARPUs expected to stabilize at lower levels in DTEU portfolio countries

- Underlying driver for much higher US ARPUs is operator friendly US regulation that is expected to continue and lack of price sensitivity among consumers[2]
- MVNO deals and MNO pricing will remain rationale
- Despite slight decline in ARPU – ARPUs will remain at much higher level than in DTEU portfolio countries

"So What" for TMUS

Trend can be disregarded to define a wining position for TMUS

- Continuation of status quo bears no disruption potential for TMUS – US continues to be relatively more attractive than DTEU portfolio markets



1 Expert opinion that US consumers care more about bundles and features vs. low price offers 2 Weighted average based on the service revenues per country
Source: Team Analysis

LIFE IS FOR SHARING.

10 MOBILE/MOBILE AND FMC CONSOLIDATION COULD CHANGE TELCO MARKET STRUCTURE

Trend factuals – excerpt

Mobile

- TMUS + Sprint merger regarded as natural strategic move by all experts
- However, regulator unlikely to allow emergence of 3-player mobile market
  - Antitrust policy changing slowly as no direct political influence possible, any changes only likely in mid/long-term via changes in key personnel
  - Lobbying / media campaigns could help to influence decision
- Consolidation also unlikely under new Democratic administration and only slight improvements vs. today expected under Republican government
- Dish's massive spectrum could lead to mid-term spectrum deal

Fixed

- Cable players under limited consolidation pressure, since they are winning broadband market share from traditional telcos
- No FMC consolidation focus due to limited geographic footprint of individual cable players (no country wide FMC possible) and given prohibition of previous cable mergers
- Many experts eventually expect a Verizon Comcast merger
- However, "ego issue" of several large market players hinders consolidation (e.g. VZ, Comcast do not want to give up control, Cox Comm. "not for sale")

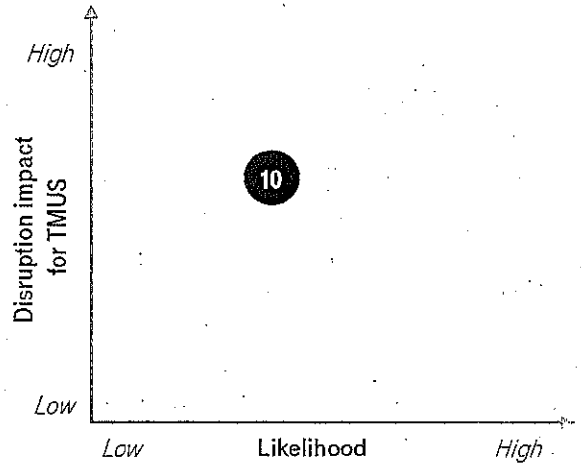
Video/ content

- Further consolidation of video services seen as likely (e.g. content player + telco), long term success of integrated business models needs to be proven
- Telcos will not end up as content owners and aggregation role difficult due to very fragmented content distribution rights

"So What" for TMUS

Trend is a relevant wild card – with clear disruption potential for TMUS

- Sprint merger as natural strategic step to obtain nationwide scale – however, regulatory approval on short-term regarded as unlikely
- Further FMC consolidation might reduce addressable market share for TMUS as mobile only player (if AT&T launches FMC offer and Verizon attempts to merge with Comcast)



Source: Team analysis, reports, expert interviews

LIFE IS FOR SHARING.

11 FURTHER LONG-TAIL CONSOLIDATION TO BE EXPECTED IN THE FIXED NET MARKET

Trend factuals – excerpt

Manifold recent consolidation (attempts) among large cablecos[1]

COMCAST / Time Warner Cable — Merger between Comcast (#1) and TWC (#2) prohibited

Charter / Time Warner Cable / bright house — Charter Comm. (#3) bought TWC (#2) and Bright House (#6)

altice / suddenlink / CABLEVISION — Altice bought CableVision (#5) and Suddenlink (#9)

Continued long-tail consolidation to be expected

- **Currently still over 400 cable providers in the US** (i.e., highly fragmented market)
- **Many cable providers are nationwide subscale:** 93% of the cable providers operate in one state only and only 20 providers cover more than >1mn people

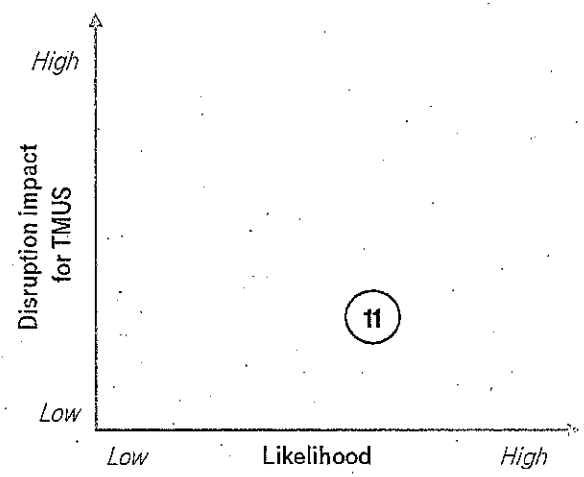
Everything below Comcast is in consolidation mode

– D. Goei, (CEO, Altice)

"So What" for TMUS

Trend can be disregarded to define a wining position for TMUS

- Continuation of status quo outside of Mobile market bears no disruption potential for TMUS



1 Ranking based on population covered in 2014
Source: Team Analysis, broadbandmap.com

LIFE IS FOR SHARING.

12 REGULATORY ENVIRONMENT REMAINS STABLE IN US AND EUROPE

Trend expectations – excerpt

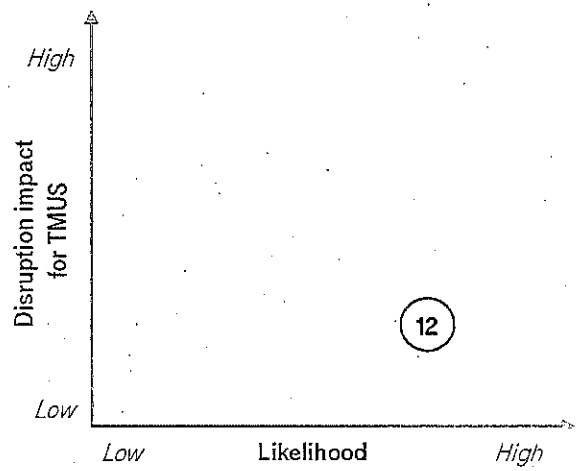
	US	VS. DTEU
Wholesale	▪ Still no mobile wholesale obligation, thus no new disruptive market entries (MVNOs) ▪ No fixed wholesale regulation expected, thus no new market entries by access seekers (e.g., ULL)	▪ MVNO obligations will likely remain ▪ Fixed access regulation might become more lax but significant improvements yet to be seen
Consolidation	▪ 4->3 merger not expected in the short term ▪ Major cable consolidation rather unlikely given TWC-Comcast prohibition ▪ Cross-sector consolidation will likely get approval	▪ 4 player mobile markets will remain key objective of EU competition policy ▪ No change regarding approach towards FMC consolidation
	See trend 10 for further details	
Services regulation	▪ Services regulation will remain rather lax, but potential increases in regulatory tendencies e.g. in consumer protection, net neutrality	▪ Current high level of regulatory intervention on telcos, application to OTTs seen as likely in the future
Political environment	▪ Overall environment is stable, slight improvements possible with new Republican administration	▪ Overall environment mixed[1]; Regulation expected to remain more intrusive than US

Source: Team Analysis; 1) currently difficult to assess how far investment environment can be improved.

"So What" for TMUS

Stable trend, thus no disruption expected for TMUS – can be disregarded for archetype building

- Continuation of status quo bears no disruption potential for TMUS
- Monitoring of situation and active lobbying for mobile-mobile consolidation



LIFE IS FOR SHARING.

WRAP UP – US CONTINUES TO BE AN ATTRACTIVE MARKET DESPITE POTENTIAL WILD CARD TRENDS

1. **US continues to have more favorable macroeconomic environment** vs. DTEU portfolio countries ☑
2. **US continues to be the larger market with relatively more attractive growth** vs. DTEU portfolio countries ☑
3. **US continues to have less competitive market structure** (e.g., no access seeker business model) vs. DTEU portfolio countries ☑
4. **US continues to have more operator friendly regulatory environment** (i.e., to foster infrastructure invests[1]) vs. DTEU portfolio countries ☑
5. **US customers will continue to have higher spend for telco services** (e.g., US mobile ARPUs will remain ~ 22 EUR higher than in DTEU portfolio countries) ☑

1 Impact of Net Neutrality policies on investment friendliness yet to be seen. EU might slightly improve.
Source: DTAG, Team Analysis

CONTENTS

US MARKET IS AND WILL CONTINUE TO BE MORE ATTRACTIVE THAN DTEU PORTFOLIO MARKETS

US market structure is and will be different vs. EU[1]

- No nationwide fixed net players

Competition is and will remain lower than in EU

- Less consumer choice for fixed BB/TV

No major shifts in regulatory policy expected

- US regulation more investment friendly[2] – EU might slightly improve
- But, there won't be a full "reversion to the mean"
- In US, large domestic players key beneficiaries

US ARPUs will remain significantly higher than in EU

- Though no increase expected
- ... and also CAPEX levels significantly higher

Even disruptive market trends will not change the picture

1 EU refers to DTEU portfolio countries
2 Impact of Net Neutrality policies on investment friendliness yet to be seen
Source: DTAG, Team Analysis

Details in appendix

LIFE IS FOR SHARING.

CONTENTS

FOR DISCUSSION

TMUS TO CONTINUE ORGANIC GROWTH TILL 2018 – PLAY TOWARDS SPRINT AND (THEN) CABLE MERGER

TMUS STRATEGY SCHEMATIC OVER TIME

Event may alter market structure Deep dive to follow

Phase I – Continue organic growth[1]

TMUS EV, FCF, Revenues development after plan

- Will we achieve our planning?
- How long can we grow organically?
- Will competition put TMUS under pressure?
- How to become most attractive 2018+ merger target/partner?
- **How to ensure that TMUS executes portfolio options before growth stops?**

Phase II – Participate in market consolidation

1. **4>3 merger** Sprint
   Preferred – *get Sprint to obtain necessary scale*
2. **(Subsequent) cable merger** COMCAST Charter bright house
   Preferred – *ideally after Sprint merger, else stand-alone*
3. **Alternate mergers** américa móvil Altice
   Stand-alone exit option – *if none of above feasible*
4. **Organic #3 in mobile** T-Mobile
   Last resort (might be unavoidable?!) – *if none of above feasible (sustainability questionable)*

Define strategy towards Dish –
Watch out for competitors' interest in Dish

2016 — 2017 — 2018+

Election outcome — Sprint bank-ruptcy? — AT&T FMC? — Cablecos going mobile?

1 Under derived assumption that competitive dynamics will keep the market structure fairly stable
Source: Team Analysis

LIFE IS FOR SHARING.

PHASE II: SPRINT AND COMCAST MOST LIKELY MERGER PARTNERS – BUT THERE MIGHT ALSO BE NO ONE?

FOR DISCUSSION

Potential TMUS end-games		Key strategic rationale(s)	Strategic or regulatory barrier(s)	Deal likelihood (Low / High)
1 4>3 mobile merger	Sprint	▪ **Sprint on verge of bankruptcy** (would love to merge) ▪ **Clear scale gain and synergy potential for TMUS** to own ~30% of mobile market (at scale with AT&T, VZ)	▪ **Likelihood of approval will not increase substantially in case of bankruptcy** (Analysts: even with Republican administration only <50% probability[1]) ▪ Potential burdensome CFIUS process?	
2 (Sub-sequent) cable merger	COMCAST	▪ **Move into mobile might be only natural option for Comcast to grow,** as preferred Comcast moves (i.e., wire-line and content) are unlikely to get regulatory approval ▪ Bring **video content onto mobile** (i.e., linear/OTT)	▪ **Likely no significant regulatory barriers**[2] ▪ **If move into content gets regulatory approval,** it will be more likely than move into mobile (see appendix) ▪ **No nationwide fixed net** – limited FMC potential	
	Charter / Time Warner Cable / brighthouse	▪ **Potential move into mobile as adjacency play** (e.g., eyeball increase, mobile video, cost synergies)	▪ **Less likely than Comcast** due to lower TMUS footprint overbuild (FMC ability) and weaker financials	
3 Alternate mergers	América Móvil	▪ **Creation of one North American service market** and synergy potentials with existing verticals ▪ **Return to execution of core business model** vs. current MVNO play (TracFone)	▪ **Likely no regulatory barriers** ▪ **Potentially cheaper and better acquisition candidates** around the globe	
	Altice	▪ **Move into mobile could be an opportunistic adjacency play** for Altice	▪ **Altice currently small cable player in US** (<4mn TV and broadband subs) ▪ **Greater priority for Altice to acquire wireline** ▪ **Sprint better fit** for Altice's lean turnaround playbook	
4 Organic #3 in mobile	T-Mobile	▪ **No merger optionality** can be exercised (due to barriers)	▪ **2018+ sustainability questionable** (to be investigated)	

Most merger optionalities with low deal likelihood – details in appendix

1 Lobbying campaign needed
2 Unless Comcast becomes WiFi/MVNO entrant; FCC likely to raise concerns regarding vertical integration (i.e., mobile video) - moreover, FMC M&A untested in US
Source: Team Analysis, Expert interviews

FOR DISCUSSION

PHASE I: TMUS PLAYBOOK TILL 2018

Action path till eoy 2017

Continue Uncarrier growth

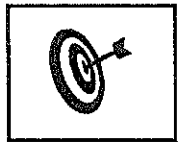
- **Continue Uncarrier growth** in B2C according to plan[1] or above
- **Explore** further **growth adjacencies** (e.g., B2B, IoT, M2M, mobile video)

Secure sufficient spectrum

- Bid in next **incentive auction**
- Define **strategy towards Dish** spectrum (i.e., what is the right acquisition price?) – Hypothesis: Dish currently a distraction – wait until their negotiation power is weakened
- Continue **network densification as needed**

Pave way for market consolidation

- **Continue value strategy** to keep 4>3 merger optionality
- **Strengthen lobbying** for 4>3 merger (i.e., win "right" people in D.C., media campaign)
- **Don't overplay offending consolidation stakeholders** (FCC, DOJ, AT&T, VZ, merger partners and Unions will be important in future deal-making)



Become attractive consolidation target for 2018+

- **Show openness to consolidate**
  - Signal TMUS interest in Sprint and position Sprint as difficult asset for cablecos[2]
  - Signal TMUS interest in (subsequent[3]) cable merger and advertise superiority over VZ
- **Invest in assets and activities that complement a cableco merger** (i.e., large and valuable customer base, network strength, ad and mobile video capabilities)
- **Consider MVNO cableco deal** to establish long-term partnerships?

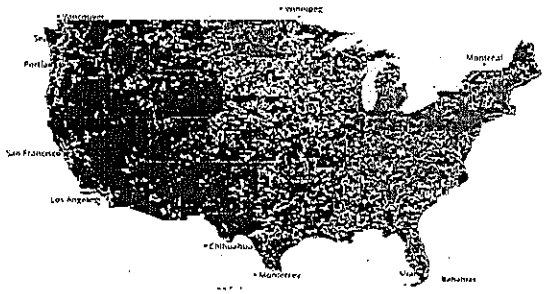
1 Customer, revenue, EBITDA, FCF and EV growth 2 Especially for Comcast, Charter Group and Altice 3 After TMUS + Sprint merger if feasible
Source: Team Analysis, Expert interviews

3 US IS A MARKET WITH FEWER COMPETITION VS. DTEU AND DIFFERENT MARKET STRUCTURE

NOT EXHAUSTIVE

US

Area with at least 2 broadband[1] providers — *Area with 1 or no broadband provider*



VS.

DTEU portfolio

Fixed

- **No nationwide broadband players** – high geographical fragmentation
- **Limited FMC** ability
- **Limited overbuild** for broadband
- **Cable key** broadband technology

- **Strong nationwide incumbent(s)** typical
- **FMC as typical** value proposition
- **Broadband overbuilt** more common
- **No dominating technology** for broadband

Mobile

- **2 main players** (i.e., from 4 nationwide operators 2 are nationwide subscale)
- **MVNOs not significant** in terms of market share

- **Incumbent and at least 2 further** operators common
- **MVNOs with significant** market shares in Western Europe

1 According to the National Broadband Map defined as a two-way data transmission with advertised speeds of at least 768 kilobits per second (kbps) downstream and at least 200 kbps upstream
Source: DTAG, Team Analysis. Broadband.gov

EXCERPT

4 US MARKET WITH MORE FRIENDLY REGULATORY AND POLITICAL ENVIRONMENT (1/2)

	US	DTEU
Overall policy objectives	US regulation **aims at fostering investment** *Additional focus on consumer welfare and competition also observable*[1]	EU regulation **aims at enhancing competition and securing consumer welfare** *Kroes announcement of 2012, recommendation on costing methodologies and non-discrimination, and comments by Oettinger show willingness to improve invest climate*
Access seeker Business	**No regulated wholesale access** ▪ No obligation to offer fixed wholesale access ▪ No obligation to offer MVNO access – MVNOs on commercial terms only	**Strict regulated wholesale access obligations** enable and protect access seeker business models (e.g., ULL based like 1&1, MVNO like Drillisch, etc.)
Spectrum awards	**Reliable and investment friendly spectrum awards** ▪ Transparent and reliable auction designs ▪ Spectrum ownership enables long-term invest perspective ▪ Spectrum awarded regionally ▪ Better secondary market for spectrum ▪ Significant spectrum allocation for mobile (e.g. 600MHz auction in 2016)	**Unreliable and investment harming spectrum awards** ▪ Intransparent and non-harmonized auction designs maximizing state proceeds ▪ No spectrum ownership - limited license durations create investment uncertainties and "extortion potential" in future auctions

1 US Telco industry complaints about fines above 100mUSD
Source: DTAG, Team Analysis

EXCERPT

4 US MARKET WITH MORE FRIENDLY REGULATORY AND POLITICAL ENVIRONMENT (2/2)

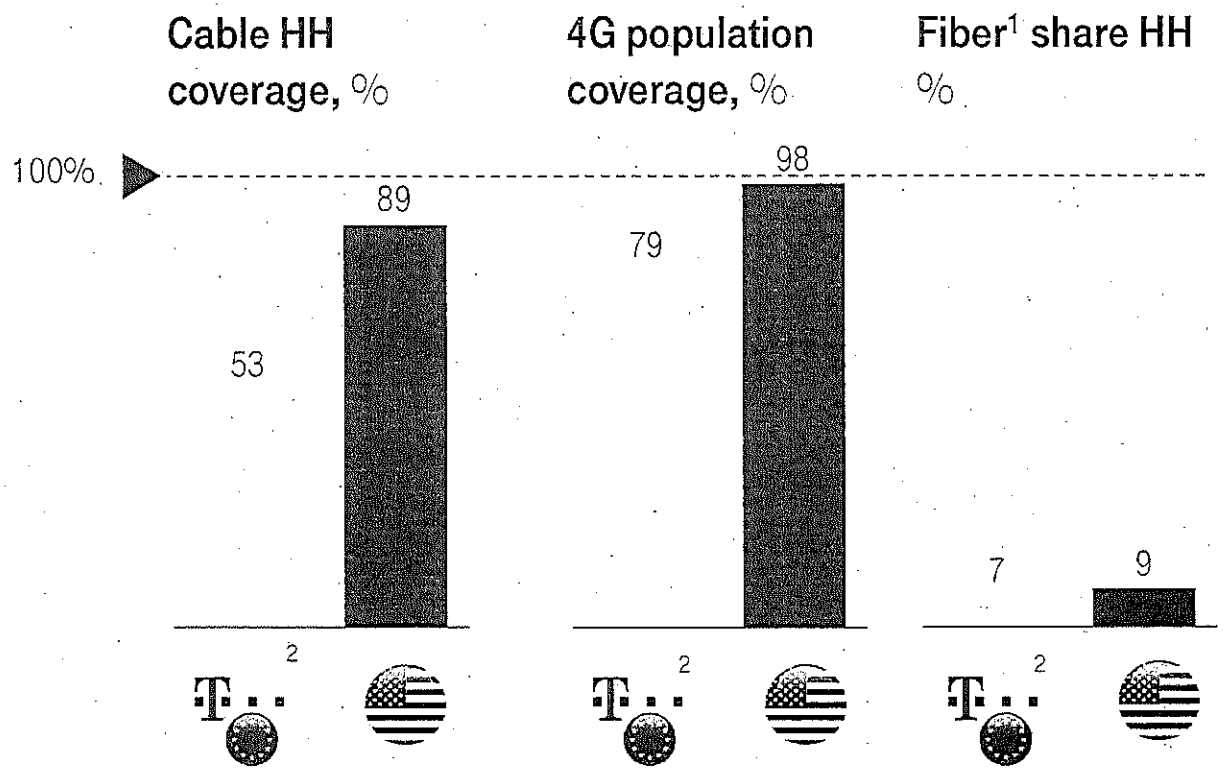
	US	DTEU

Services regulation	**Lax consumer protection, net neutrality allows zero-rating**
	▪ Very relaxed consumer protection and data privacy policy
	▪ Net Neutrality covers fixed and mobile operators (excl. B2B)
	  ▪ Allows for zero-rating[1]
	  ▪ "Specialized services" possible and could be prioritized[2]
	▪ Policy driven by case law ("wait-and-see intervention")
		Strict consumer protection, net neutrality allows zero-rating
		▪ Very strict consumer protection and data privacy policy
		▪ Net Neutrality requirements for all operators (mobile, fixed)
		  ▪ Allows for zero-rating[1]
		  ▪ Specialized services" possible and could be prioritized[2]
		▪ Policy driven by coordinat. approach amongst regulators

Market consolidation	**Large scale in-market consolidation currently not allowed** ▪ Little support for 4>3 mobile consolidation ▪ Large scale cable consolidation was put on hold ▪ FMC/Video consolidation likely to receive clearance ▪ MVNO competition not considered (e.g. TracFone)	**Significant further in-market consolidation questionable** ▪ 4->3 mobile consolidation becoming more difficult, unless structural remedies can be offered ▪ FMC consolidation so far approved with no (GTS) / light remedies (Belgium) ▪ Commission with intense focus on keeping up competition
Political environment	**Overall rather stable political environment** ▪ No sudden regulatory measures for political purposes or to close budget gaps (exception: FCC's net neutrality decision) ▪ Changes in political powers do not lead to major alterations ▪ Enables long-term investment perspectives	**High political uncertainty in some CEE** ▪ Special taxes, excessive fees etc. (e.g. HU, ROM) ▪ Nationalistic attitudes and critical towards foreign ownership ▪ Investment environment largely dependent on political parties in power ▪ Compliance issues in several CEE countries

1 Zero-rating as long as non-discrimination of other similar services, e.g. video; however no throttling or prioritization of services allowed, e.g. video vs. rest of traffic internet traffic (such as high-quality VoIP, IPTV) and can be treated differently; definition of "specialized services" not yet finalized in both regions
2 Special services are considered as not being regular
Source: DTAG, Team Analysis

4 REGULATORY INCENTIVES FORCED A BETTER INFRASTRUCTURE IN US THAN IN DTEU COUNTRIES



1 2014 share of broadband subs with FTTB/H technology as of total number of broadband subs
2 Household/ population based weighted average for DT Europe footprint countries without Albania, Macedonia and Montenegro
Source: Digital Agenda – European Union, broadbandmap.gov, press, AT&T, TeleGeography, team analysis

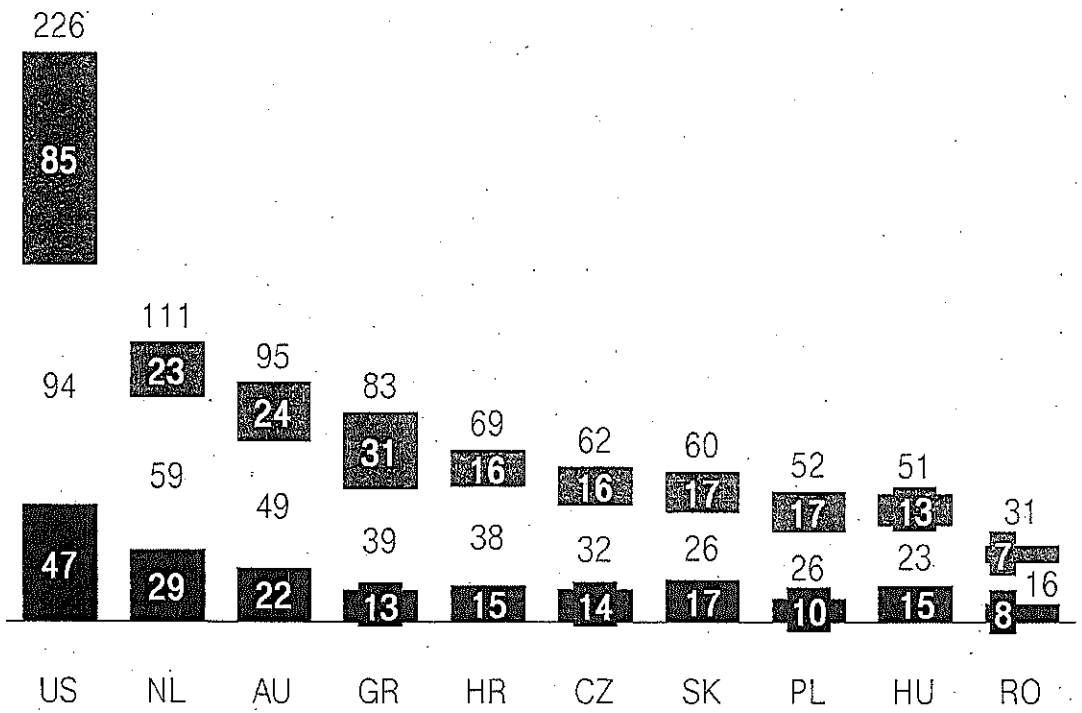
LIFE IS FOR SHARING.

5 US CUSTOMERS SHOW HIGHER SPEND FOR TELCO SERVICES

Pay-TV[1]
Fixed[2]
Mobile[3]

Market ARPUs 2014

USD/month



US mobile ARPUs on average around 3x higher than in DTEU footprint countries

US fixed ARPUs on average more than 2.5x higher than in DTEU footprint countries

US Pay-TV ARPUs on average more than 4x higher than in DTEU footprint countries

1 Includes subscription and on-demand revenue via cable, satellite, IPTV and DTT (excl. TV advertising) 2 Based on Mason data 3 Based on DTAG internal estimates
Source: DTAG, Team Analysis

LIFE IS FOR SHARING.

APPENDIX

Workshop I

- Current DTAG position in US vs. European portfolio countries
- Today's market attractiveness of US vs. European portfolio countries
- Key trends shaping the future of the US telco market

Workshop II

- Workshop I recap
- Future competitive dynamics
- **So what for TMUS to define a winning position**

FOR DISCUSSION

1 TMUS + SPRINT MERGER AS PREFERRED MOVE, BUT REGULATORY APPROVAL IS DIFFICULT

Sprint

KEY PARAMETERS AT A GLANCE

Deep dive to follow

a Strategic rationale?

- **Sprint on verge of bankruptcy** (would love to merge)
- **Clear scale gain and synergy potential for TMUS to own ~30% of mobile market** (at scale with AT&T, VZ)

b Combined network effects?

- **188 MHz additional** spectrum – 14MHz in the most attractive low band segment
- **Complimentary coverage** in select US regions

c Regulatory barriers?

- **Regulator will unlikely approve 4>3 mobile merger** (even with Republican administration)
- **Even in case of bankruptcy regulatory approval might be unlikely** (Analysts: also under Republican administration potentially only <50% probability for that)

d Key Do's and Don'ts to realize TMUS + Sprint merger

- ✓ **Strengthen lobbying** activities for 4>3 merger with the "right" people in Washington
- ✓ **Position Sprint as difficult merger asset** towards AT&T, VZ, and cablecos
- ✓ **Continue value strategy** (to keep optionality for 4>3 merger)
- ✗ **Do not overplay offending consolidation stakeholders**[1]
- ✗ Do not follow Sprint in price wars or irrational MVNO deals (sustain ARPUs)

e Sprint is a target to many

at&t · Charter / bright house · verizon · COMCAST

f Deal likelihood

- **PRO:** Market structure calls for consolidation, 4>3 in the interest of all mobile players
- **CON:** Regulatory approval for 4>3 merger difficult

○ Low
● High

"So What" for TMUS

Preferred merger – ideally prior to subsequent cable merger

Continue value strategy to keep optionality for 4>3 merger

Avoid that anyone else gets them (signal Sprint as difficult target to cablecos)

Strengthen lobbying activities for 4>3 merger with the "right" people in Washington

1 FCC, DOJ, Unions, AT&T, VZ
Source: Team Analysis, Analyst reports, Capital IQ

LIFE IS FOR SHARING.

FOR DISCUSSION

1C REGULATORY APPROVAL AS KEY BARRIER FOR TMUS + SPRINT MERGER

Sprint

Near term regulatory approval for 4>3 mobile merger seems highly unlikely ....

> It's going to be hard for someone to make a persuasive case that reducing 4 firms to 3 is actually going to improve competition for the benefit of American consumers.
>
> *- William Baer, DOJ*

> We must protect competition where it exists. Our goal should be to ask how competition can best serve the public.
>
> *- Tom Wheeler, FCC*

> Were [the deal] somehow approved, there would be numerous conditions attached, such as the divestiture of spectrum/other assets and imposition of a wholesale mandate that would bleed off a portion of the financial benefits.
>
> *- UBS*

... however, various levers for TMUS to lobby for 4>3 mobile-merger exist

- **Strengthen lobbying** activities for 4>3 merger with the "right" people in Washington
- **Don't overplay offending consolidation stakeholders** (FCC, DOJ, AT&T, VZ, merger partners and Unions will be important in future deal-making)
- **Strong commitment to provide mandatory wholesale at competitive rates** could help – additional structural remedies likely to be required

Risk: *Bears the danger to reduce ARPUs and make TMUS less attractive for further merger optionalities*

Source: Press Analysis, DTAG, Team analysis

FOR DISCUSSION

1C EVEN IN CASE OF SPRINT BANKRUPTCY – FCC MAY NOT ALLOW FOR 4>3 MERGER

Sprint

Current Sprint situation at a glance + **Outlook for the next ~12 months** = **2 potential outcomes by eoy 2016**

Financial distress

- Low EBIT margins (~6% in 2014, ~2% in 2015)
- ~4.5bn USD cash burn rate expected for 2015
- Debt of 2.5bn matures in 12/2016 (currently no Source for refinancing)

Turnaround initiative started

- 2.5bn USD cost-cutting program started in Q2/2015
- Aggressive pricing (i.e., unlimited plan for 60 vs. 80 USD for TMUS)

Continued support from Softbank expected

- ...to see whether turnaround initiative shows measurable success
- ...to wait for presidential elections (even though 4>3 approval remains unlikely under Republican administration, it is worthwhile a wait)

Outcome 1 – Sprint turnaround fails and bankruptcy is unavoidable

- Likelihood of approval will not increase substantially in case of bankruptcy[1] (Analysts: even with Republican administration only <50% probability)
- If allowed – mobile players most likely purchasers (as operational synergies are larger for MNOs vs. cablecos)

Outcome 2 – Turnaround shows success and Softbank continues financing

1 The failing firm defense is rarely invoked in court or before agencies. When it is, it is perceived as rarely successful
Source: Analyst reports, Team analysis.

FOR DISCUSSION

2 PREPARE FOR COMCAST BUYING TMUS AS 2018+ OPTIONALITY

KEY PARAMETERS AT A GLANCE

COMCAST

Deep dive to follow

a Strategic rationale for Comcast?

- Move into mobile might be only natural option to grow as preferred moves (i.e., wireline and content) are unlikely to get regulatory approval
- Several strategic advantages
  - Increase eyeballs
  - Bring video content onto mobile (i.e., linear/OTT)
  - FMC ability in select areas (but w/o massive discounts; i.e., broadband & mobile bundle for cord cutters)
  - Realize cost and network synergies through economies of scale
  - Fits with Wi-Fi first approach

b Combined network effects?

- ~90mn people with Comcast access in the states where TMUS has >70% coverage[1]
- ~59mn TMUS customers vs. ~22mn Comcast TV & ~23mn Broadband subscribers

c Regulatory barriers?

- Likely no significant regulatory barriers[2]

d Key Do's and Don'ts to dress TMUS for optionality?

- ✓ Bid for spectrum & continue densification
- ✓ Increase customer base (i.e., especially younger, video affine demographics)
- ✓ Signal Sprint as difficult asset for Comcast and signal interest to merge with Comcast subsequent to potential TMUS + Sprint merger
- ✗ Don't enter into fixed (i.e., wholebuy, FMS) without thinking through what it means for Comcast merger

e Alternate brides for Comcast?

Sprint — If still existent and stabilized

verizon — Pending FCC approval (i.e., largest fixed/mobile player, vertical integration)

f Deal likelihood?

- PRO: Strategic rationale (see section a)
- CON: No wireless experience, only small growth in wireless, limited FMC ability, likely to explore alternate adjacencies if at all feasible (i.e., wireline and content)

Low
High

"So What" for TMUS

Preferred merger – ideally after Sprint merger, else stand-alone

Be attractive bride by investing in network strength and growth of subscriber base

Avoid Comcast + Sprint or VZ merger (signal Sprint as difficult target)

Signal merger interest with Comcast (i.e., à la "you can get a merged TMUS + Sprint")

1 Percent of the population with T-Mobile wireless access in that geography
2 FCC likely to raise concerns if Comcast becomes WiFi/MVNO entrant and regarding vertical integration (i.e., mobile video)
Source: Team Analysis, Analyst reports, Capital IQ, Broadbandnow.com

LIFE IS FOR SHARING.

FOR DISCUSSION

2 PREPARE FOR CHARTER GROUP MERGER AS 2018+ OPTIONALITY

KEY PARAMETERS AT A GLANCE

Charter | bright house | Time Warner Cable

Deep dive to follow

a Strategic rationale for Charter Group?

- Potential move into mobile as adjacency play
- Several strategic advantages
  - Increase eyeballs
  - Bring video content onto mobile (i.e., linear/OTT)
  - FMC ability in select areas (but w/o massive discounts; i.e., broadband & mobile bundle for cord cutters)
  - Realize cost and network synergies through economies of scale
  - Fits with Wi-Fi first approach

b Combined network effects?

- ~80mn people with Charter Group access in the states where TMUS has a >70% coverage[1]
- ~59mn TMUS customers vs. ~17mn Charter Group TV & ~20mn Broadband subscribers

c Regulatory barriers?

- Likely no significant regulatory barriers[2]

d Key Do's and Don'ts to dress TMUS for optionality

- ✓ Increase customer base (i.e., especially younger, video affine demographics)
- ✓ Bid for spectrum & continue densification
- ✓ Signal Sprint as difficult asset for Charter Group and show interest in (subsequent) Charter deal
- ✗ Don't enter into fixed (i.e., wholebuy, FMS) without thinking through what it means for Charter merger

e Alternate brides for Charter group?

Sprint — If still existent and significantly stabilized

verizon — Pending FCC approval (i.e., largest fixed/mobile player, vertical integration)

f Deal likelihood?

- PRO: Strategic rationale (see section a)
- CON: Occupied with post-merger efforts for next 1-3 years, financially torn, higher synergies with fixed players (i.e., CenturyLink, Frontier), no wireless experience, limited FMC ability

○ Low
● High

"So What" for TMUS

Preferred merger – if possible after Sprint merger, else stand-alone

Be attractive bride by investing in network strength and growth of subscriber base

Avoid Charter + Sprint or VZ merger (signal Sprint as difficult target)

Signal merger interest with Charter (i.e., à la "you can get a merged TMUS + Sprint")

1 Percent of the population with T-Mobile wireless access in that geography
2 FCC likely to raise concerns if Charter Group becomes WiFi/MVNO entrant and regarding vertical integration (i.e., mobile video)
Source: Team Analysis, Analyst reports, Capital IQ, Broadbandnow.com, Broadbandmap.gov

LIFE IS FOR SHARING.

FOR DISCUSSION

2D STRONG NETWORK TOGETHER WITH SUB + FCF GROWTH KEY TO DRESS FOR CABLECOS

COMCAST

Charter

Time Warner Cable

Do's

- **Invest in a strong network** (i.e., acquire spectrum, increase densification, engage in WiFi offloading)
- **Increase customer base** – focus especially on the younger, video affine demographics that consume significant amounts of mobile video
- **Further strengthen P&L and balance sheet** – to allow TMUS enter into merger negotiations from a position of strength
- **Consider creation of mobile-only video content** (i.e. short form) that could be integrated in cablecos OTT offering
- Safeguard and further **expand "sexy and innovative" T-Mobile image**
- Try to **establish/acquire attractive mobile ad-technology** that is feasible for both mobile and cable players

VS

Don'ts

- **Don't decrease prices and ARPU levels too much** for the sake of customer growth / as reaction to Sprint
- **Don't experiment with offers that could increase churn** of existing customer base
- **Don't duplicate "innovative capabilities"** that are already present at cablecos but lacking at TMUS
- **Don't enter the wireline domain**[1], i.e., own build-out, commercial whole-buy, FMS – might make cable moves more difficult and a financial benefit unlikely

1 Without having a long-term strategy that includes a consolidation plan
Source: Team Analysis, Expert interviews

LIFE IS FOR SHARING.

FOR DISCUSSION

3 PREPARE FOR AMERICA MOVIL MERGER AS 2018+ OPTIONALITY

KEY PARAMETERS AT A GLANCE

américa móvil

a Strategic rationale for America Movil?

- **Become full-fletched US MNO** (execution of AM's core business model)
- **Several strategic advantages**
  - **Increased eyeballs** (>83mn mobile subs)
  - **Creation of one North American mobile service market** (US, Mexico)
  - **Realization of cost synergies** through economies of scale and MVNO->MNO transition

b Combined network effects?

- **25.7mn mobile subscribers in US** via MVNO TracFone
- **Merged company could have >100mn mobile subscribers** by 2019[1]

c Regulatory barriers?

- **No regulatory barriers expected** (i.e., merged company would be smaller than AT&T or VZ)

d Key Do's and Don'ts to dress TMUS for optionality?

- ✓ Increase customer base
- ✓ Bid for spectrum & continue densification
- ✓ Signal Sprint as difficult asset for AM
- ✓ Signal merger interest to AM
- ✓ Ensure that any potential MVNO deal is long-term beneficial to TMUS
- ✗ Don't engage in price war (sustain ARPUs)

e Alternate brides for AM?

Sprint — If still existent and significantly stabilized

f Deal likelihood?

Low / High

- **PRO:** Strategic rationale (see section a)
- **CON:** Potentially better investment opportunities in other core markets (i.e., LATAM)

"So What" for TMUS

Potential stand-alone exit option – if Comcast merger not feasible

Avoid AM + Sprint merger (signal Sprint as difficult target)

Signal merger interest with AM (ideally subsequent to Sprint merger)

Be an attractive bride (enhance network and grow subs)

1 TMUS subscriber base forecasted to be ~76mn by 2019
Source: Team Analysis, Analyst reports, Capital IQ, Broadbandnow.com

T LIFE IS FOR SHARING.

FOR DISCUSSION

altice

3 PREPARE FOR ALTICE MERGER AS 2018+ OPTIONALITY

KEY PARAMETERS AT A GLANCE

a Strategic rationale for Altice?

- Move into mobile could be an opportunistic adjacency play for Altice (much like a PE player)

b Combined network effects?

- ~16.9mn people with Altice access in the states where TMUS has a >70% coverage[1]
- ~59mn TMUS customers vs. ~3.5mn Altice TV (of which about 2.5mn in NY) and ~4mn broadband subscribers

c Regulatory barrier?

- No regulatory barriers expected (i.e., due to wireline vs. wireless presence)

d Key Do's and Don'ts to dress TMUS for optionality

- ✓ Bid for spectrum & continue densification
- ✓ Increase customer base
- ✓ Signal Sprint turnaround as too challenging for Altice (given no wireless experience nor relevant synergies)
- ✓ Ensure that any potential MVNO deal is long-term beneficial to TMUS
- ✗ Don't engage in price war (sustain ARPUs)

e Potential alternate Altice targets

Sprint — If still existent and stabilized

f Deal likelihood?

- UNLIKELY: Higher synergies with fixed players (i.e., Centurylink, Frontier), Sprint much better fit for their lean turnaround playbook

Low
High

"So What" for TMUS

Be attractive bride by investing in network strength and growth of subscriber base

Avoid Altice + Sprint merger (signal Sprint as too challenging to turn around)

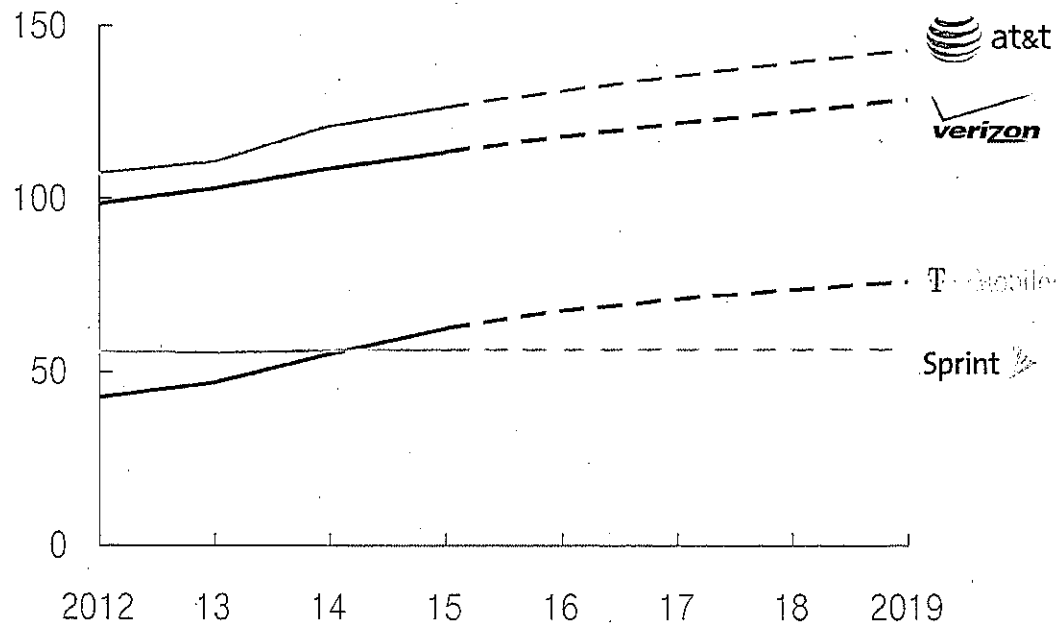
1 Percent of the population with T-Mobile wireless access in that geography
Source: Team Analysis, Analyst reports, Capital IQ, Broadbandnow.com

LIFE IS FOR SHARING.

4 TMUS EXPECTED TO GROW ORGANICALLY TO ~76MN CUSTOMERS BY 2019

Customer development 2012-19[1] of 4 major mobile players

Mn



CAGR 2015-19 ~%

3
3
5
0

iPF predicts ~76mn TMUS customers by 2019 (4.9% 2015-19 growth p.a., adding ~4.1mn customers annually)

TMUS expected to be a **strong 3rd player by 2019**

1 TMUS based on iPF 16-19, AT&T and VZ based on overall market growth except for TMUS, Sprint assumed to be flat
Source: iPF, Team Analysis

5 DON'TS TO MAINTAIN 2018+ MERGER OPTIONS

FOR DISCUSSION

- **Don't enter into MVNO deal that could complicate consolidation**
  (Deals should increase TMUS value)
- **Don't trigger a price war in the US market**
  (Stable ARPUs base drives attractiveness & valuation)
- **Don't overplay offending consolidation stakeholders**
  (FCC, DOJ, AT&T, VZ, merger partners and Unions will be important in future deal-making)
- **Don't invest in asset heavy media**, i.e., content rights or production
  (Lack of scale for TMUS and unlikely return on capital)
- **Don't enter the wireline domain**[1], i.e., own build-out, whole-buy, FMS
  (Might make cable moves more difficult + financial benefit unlikely)

Key partner merger options

Sprint

COMCAST

Charter Time Warner Cable bright house

américa móvil

altice

1 Without having a long-term strategy that includes a consolidation plan
Source: Team Analysis

LIFE IS FOR SHARING.