Deutsche Bank

Telecom M&A

June 2015

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Key topic of discussion

An analysis of Overseas Telecom/Media M&A's

- History of Telecom/Media M&A
- Rational for Telecom/Media M&A
- Cost and Benefits of M&A
- Case Study #1: Verizon/Alltel merger
- Case Study #2: AOL/Time Warner merger
- Cross border M&A
- Cost and benefits of M&A

History of Telecom M&A

US$2.4 trillion in M&A deals since from 2001-2015

— Global telecom industry is driven by M&A's
  - —Nearly 12,000 deals since 2001 (according to Bloomberg)
  - —On average, M&A deals are US$206m in size
  - —Deal size can range from <US$100m to US$130bn
  - —Before 2010, deals are mostly intra-borders, developed markets

Major telecom deals since 2001

	Telecom M&A		**No.1**			
	US billion	#Deals	Target	Acquirer	Value (US$ bn)	PMT type
2001	142.1	1,080	Softbank Mobille Corp	Vodafone Group PLC	10.9	Cash
2002	96.9	964	8 Chinese phone networks	China Mobile Ltd	10.2	Cash and Stock
2003	102.8	855	Telecom Italia SpA/Old	Telecom Italia SpA	28.0	Cash or Stock
2004	220.5	968	New Cingular Wireless Services Inc	AT&T Mobility LLC	46.7	Cash
2005	277.4	1,004	Telefonica Europe PLC	Telefonica SA	31.1	Cash
2006	282.1	1,025	BellSouth Corp	AT&T Inc	83.1	Stock
2007	197.2	1,117	Alltel Corp	Multiple acquirers	27.1	Cash
2008	185.1	856	China Netcom Group Corp Hong Kong Ltd	China Unicom Hong Kong Ltd	29.3	Stock
2009	95.8	728	Joint Venture	Multiple acquirers	10.0	Undisclosed
2010	165.0	739	Carso Global Telecom SAB de CV	America Movil SAB de CV	25.6	Stock
2011	124.0	690	Tele Norte Leste Participacoes SA	Oi SA	17.2	Stock
2012	152.9	616	Sprint Communications Inc	SoftBank Corp	39.7	Cash
2013	248.4	578	Cellco Partnership	Verizon Communications Inc	130.0	Cash, Stock, and Debt
2014	138.9	476	Verizon Communications Inc	Shareholders	33.8	
2015 (YTD)	12.9	183	Tower portfolio rights	American Tower Corp	5.1	Cash

Source: Bloomberg Financials, Deutsche Bank estimates

Rationale for M&A in the telecom & media space

M&A is seen as alternative means for expansion for Telco operators

— Key motivation and drivers for global telecom M&A

1. Surplus of capital
2. Portfolio reshuffling
3. Search for operational efficiency
4. Search for technology
5. Search for spectrums
6. Strategic/Political acquisitions

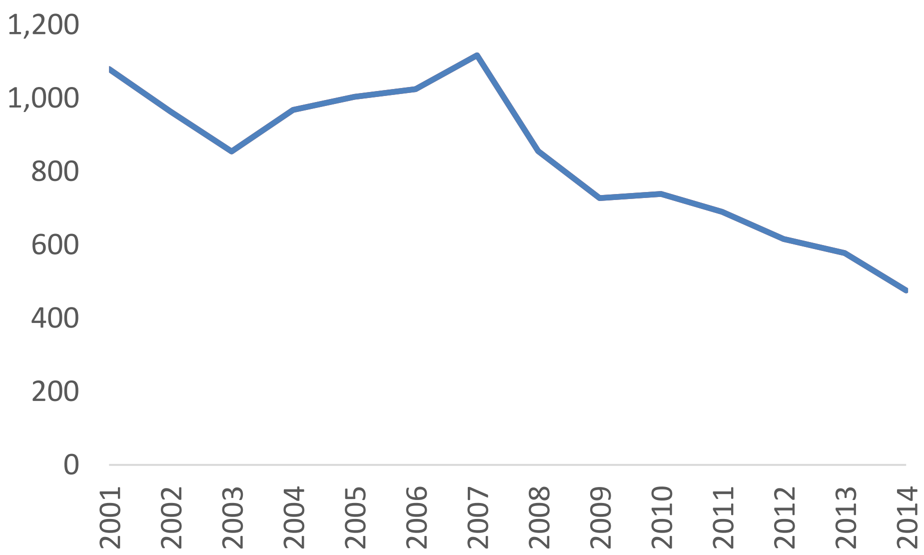
Source: Company data, Deutsche Bank estimates

Rationale: Surplus of Capital

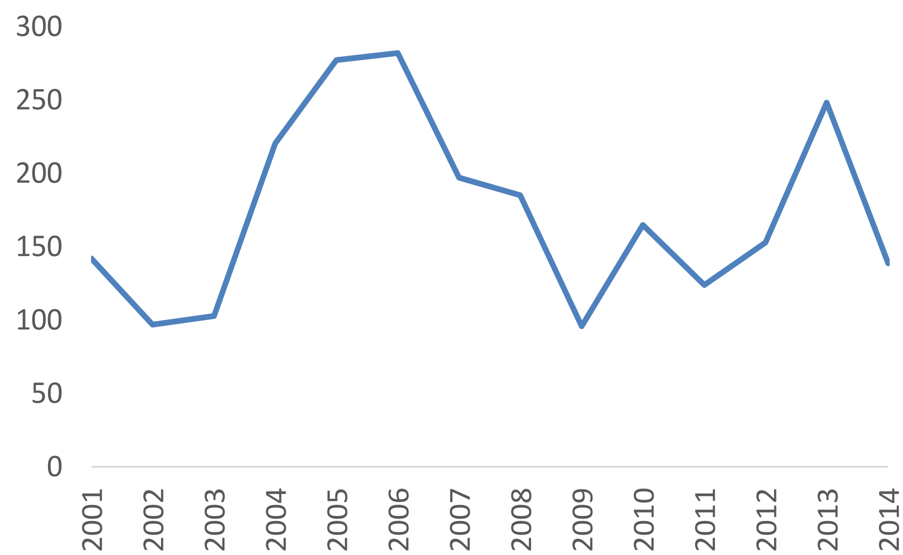
Excess cash is one of the driver of telecom M&A

- — Strong cash flow, Easy credit & low interest rate environment generates necessary condition for M&A
- — Global telecom M&A peaked in 2005, bottomed in 2009 and rising again in 2013-2014 (by value)

Global telecom M&A 2001-2014 by number of deals



Global telecom M&A 2001-2014 by value (US$ billions)



Source: Company data, Deutsche Bank estimates

Rationale: Portfolio reshuffling

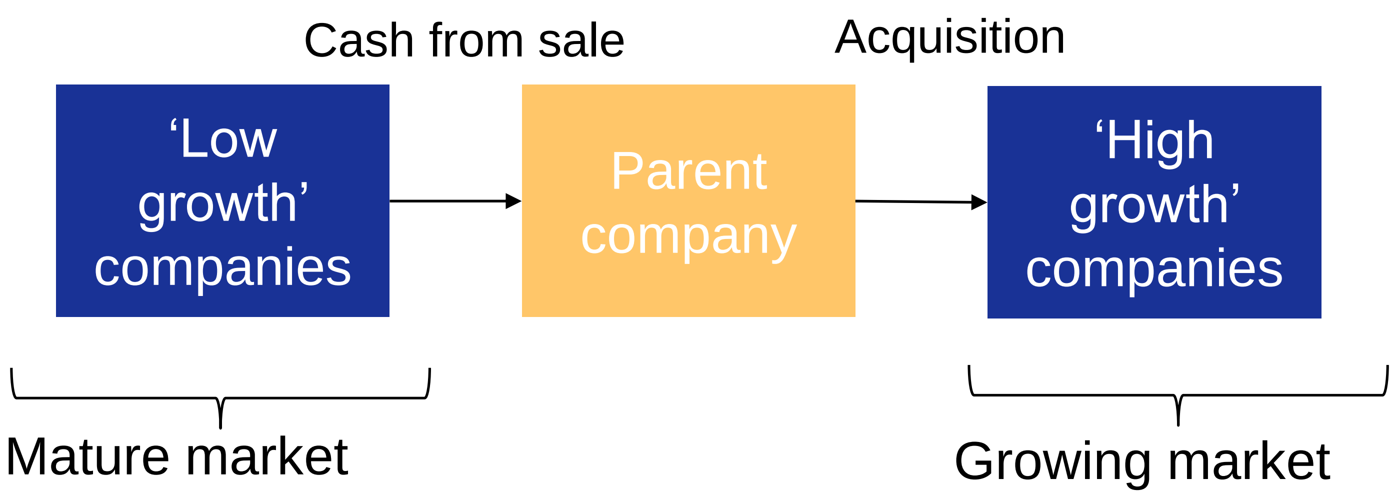
For global telecom conglomerates, it's a matter of shifting investment

— Selling in mature market to make acquisitions in growing market

— Example of portfolio reshuffling:

- France Telecom sale of Orange Switzerland and Austria to acquire telecom companies in Africa and Middle East
- Temasek sale of Bharti Airtel and Singtel in 2012

Sell low-growth telecom companies and use proceeds to buy high-growth companies



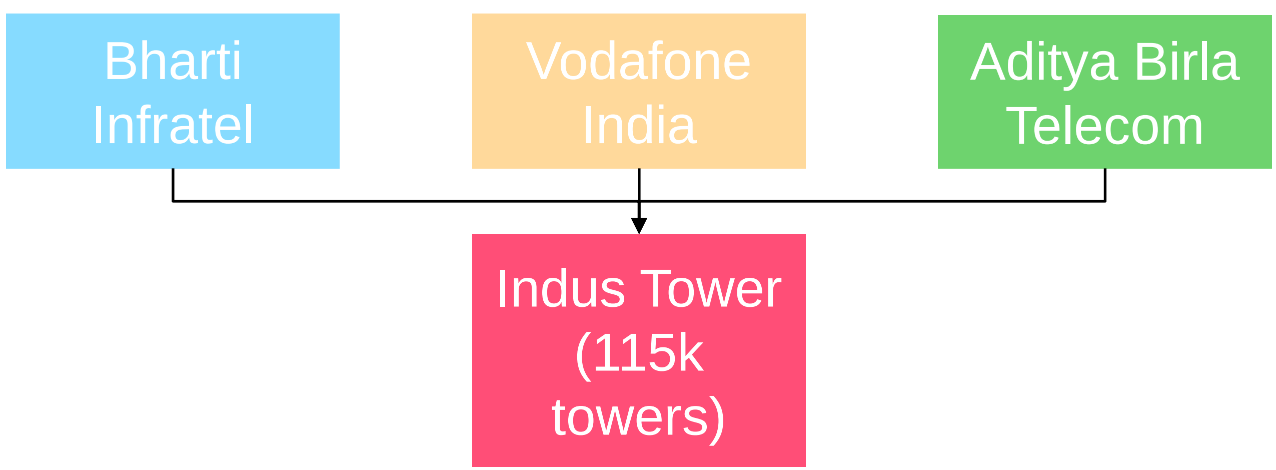
Source: Company data, Deutsche Bank estimates

Rationale: Search for Operational Efficiency

Sometimes merging just make sense…

- Reducing cost of technology by pooling resources
  - Typically involve merging passive infrastructure/network sharing
- Examples include:
  - Tower Bersama acquisitions in Indonesia
  - Creation of Indus Tower in India
  - Joint mobile operation by Telenor and TeliaSonera

Infrastructure sharing trend can also drive M&A of passive infrastructures in the industry



Source: Company data, Deutsche Bank estimates

Rationale: Search for Operational Efficiency

Sometimes merging just make sense…

— Tower Bersama was formed by merging 12 tower companies over a span of 13 years (average 1 acquisition per year!)

Tower Bersama

- PT United Towerindo
- PT Telenet Internusa
- PT Tower Bersama
- PT Triaka Bersama
- PT Batavia Towerindo
- PT Bali Telekom
- PT Prima Media Seler
- PT Solu Sindo
- PT Mitrayasa
- PT Towerindo
- PT Metric Solusi
- PT Tower One

Source: Company data, Deutsche Bank estimates

Rationale: Search for Technology

Better to acquire the technology than build everything from scratch

— Advancement in technology adoption drives operators to acquire ‘allied technology’

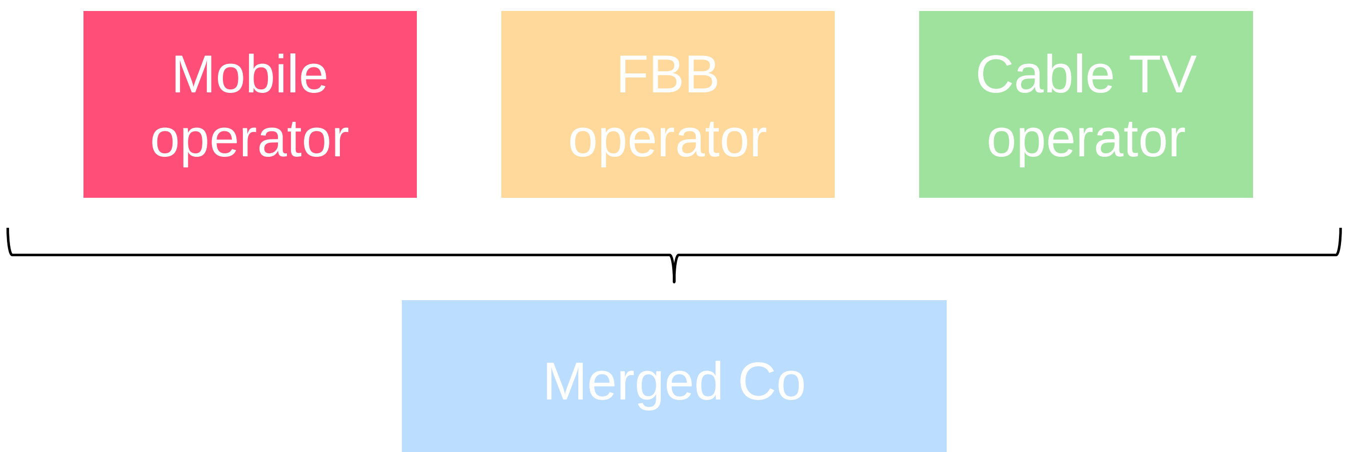
  —One example is Mobile, FBB and Cable TV

— Future allied technology M&A could extend to auto sector

— **For example**:

  —Verizon purchase of Hughes Telematics

Move to convergence forces operators to acquire ‘allied’ technology rather than build from scratch



Source: Company data, Deutsche Bank estimates

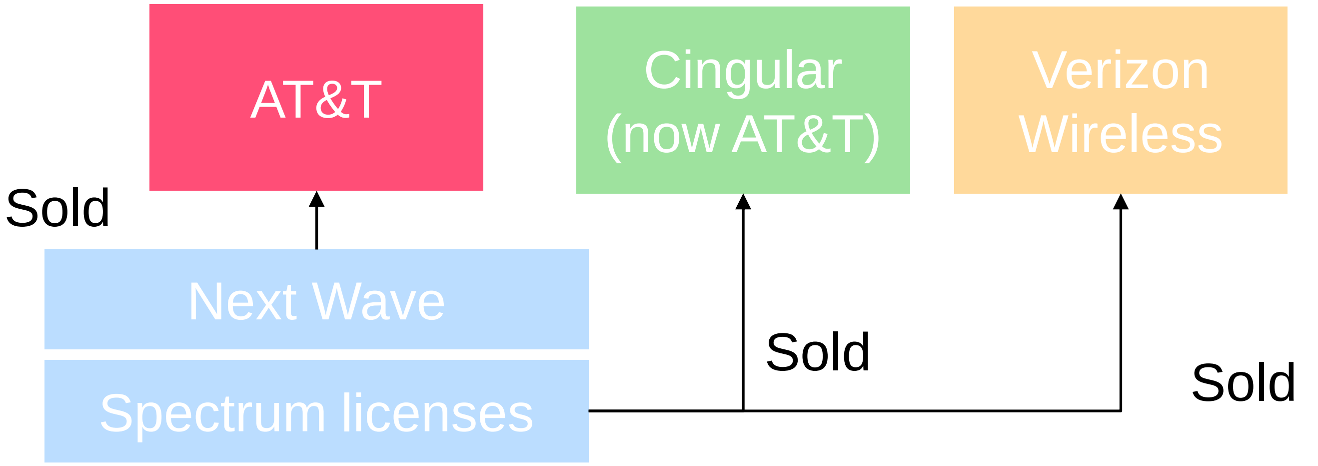
Rationale: Search for Spectrums

Spectrum scarcity could also drive acquisition

— **For example**:

- —Next Wave bid US$4.7bn for 184 Wireless licenses in 1996
- —Company filed for bankruptcy soon after making down payment
- —Some spectrums were sold to operators to repay debt
- —AT&T acquired NextWave’s 2.3GHz in 2012 for US$600m

Move to convergence forces operators to acquire ‘allied’ technology rather than build from scratch



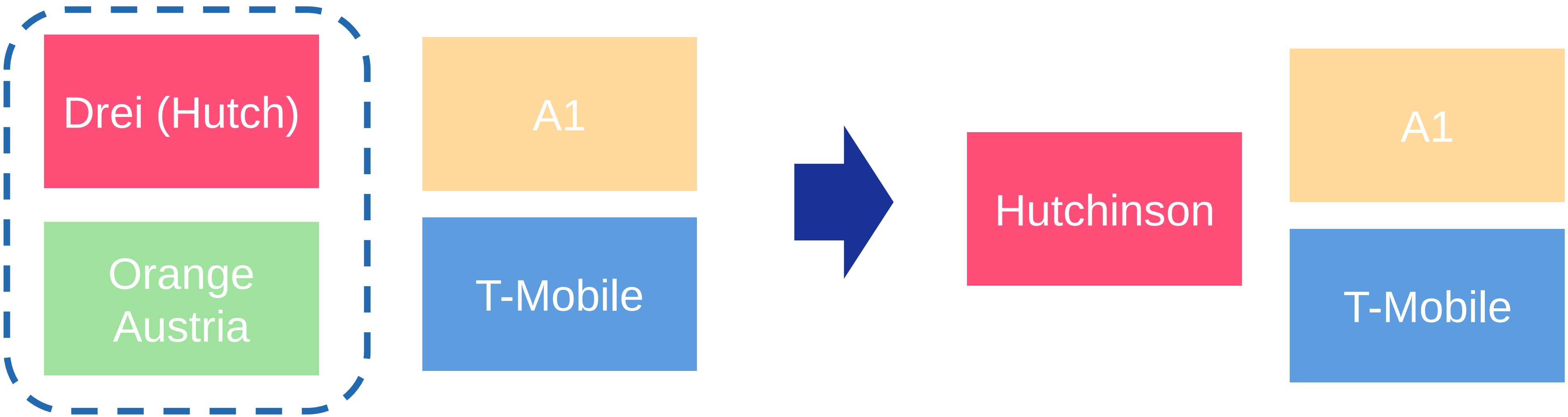
Source: Company data, Deutsche Bank estimates

Rationale: Strategic/Political acquisitions

Anti-competition motives could also drive M&A…

- Operators acquired each other to reduce competition
- For example, Hutch's acquisition of Orange Austria
- Deutsche Telekom acquisition of Telering Telekom raised concerns
  - EU threatened to block the deal in 2005
  - Solution was to sell transmission and frequency to competitors

Sometimes its better to buy out your competitor than compete wit them



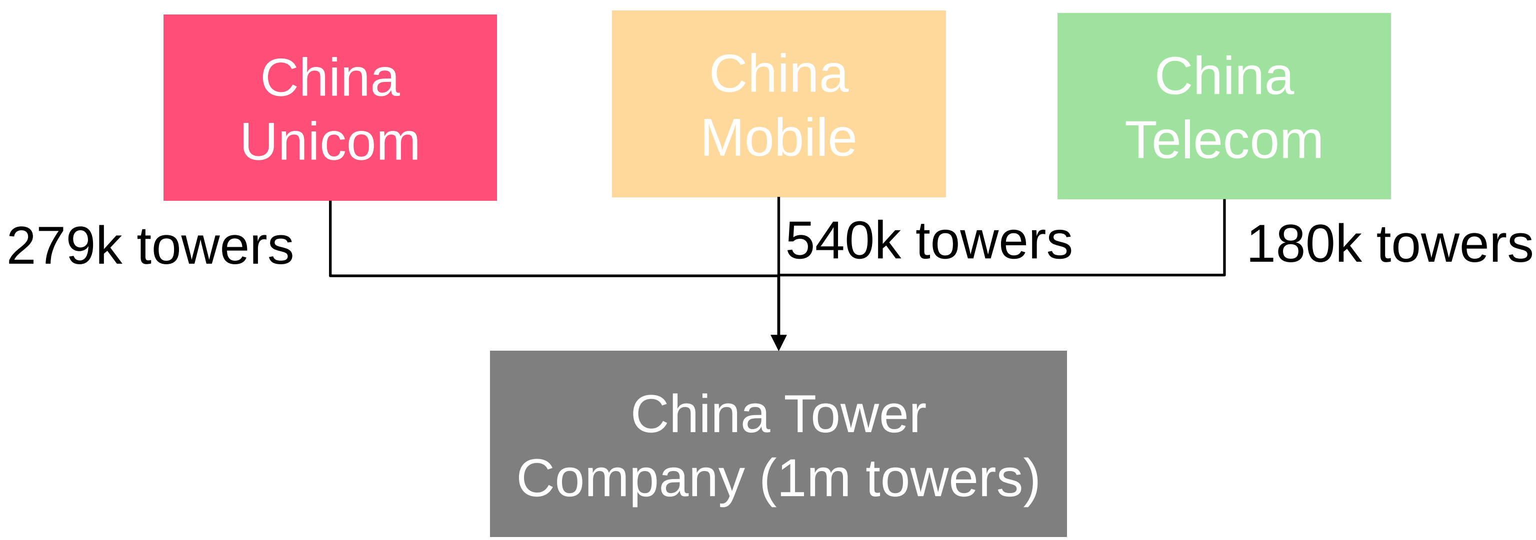
Source: Company data, Deutsche Bank estimates

Rationale: Strategic/Political acquisitions

…. Or increase government's control

— China's plan to merge its state owned SOE towers
  - —1m towers could be put under an Infra Co
  - —Injection from China Mobile, China Telecom and China Unicom
  - —Asset could be worth 148 billion yuan (US$24bn)

Chinese government plans to create the largest tower company in the world by forcing its SOE to inject towers



Source: Company data, Deutsche Bank estimates

Rationale: Strategic/Political acquisitions

And can sometimes result in massive regulatory hurdles…

- Nokia's bid for Alcatel-Lucent in April for 15.6bn euro
- Objective is to 'buy out' competitor in mobile communications equipment sales
  - The deal would consolidate market, leave only Ericsson, Nokia and Huawei as major competitors
- Deal has led to intervention by French government…
  - Concerns about job cuts on Alcatel side
  - Alcatel is considered 'national treasures'
- …And possibly nine other countries
  - US and Chinese govt approval process could delay the deal
  - Company expects to spend six months clearing regulatory hurdles

Source: Bloomberg Financials, Deutsche Bank estimates

Case Studies

Source: Company data, Deutsche Bank estimates

Case Study #1: Verizon-Alltel merger

Gradually Increasing scale to fight off competitors

— History of Verizon Wireless, the re-invented wireline company

- **1999** Bell Atlantic and Vodafone formed Verizon Wireless
- **2000** Bell Atlantic and GTE merge formed Verizon Communications, which owns 55% of Verizon Wireless
- **2003** Verizon Wireless became largest mobile operator in the US
- **2004** Verizon Wireless overtook by AT&T, which merged with Cingular
- **2005** Verizon Wireless merged with West Virginia Wireless
- **2007** Verizon Wireless merged with Rural Cellular Corporation
- **2008** Verizon Wireless merged with Alltell
- **2009** Verizon Wireless becomes largest operator in the US, again

— **Acquisition price**: US$5.9bn + US$22.2bn debt from Alltel

— A history of successful M&A (buying regional telecom operators in the States)

Source: Company data, Deutsche Bank estimates

Case Study #1: Verizon-Alltel merger

Alltel – struggling to survive in a ‘land of giants’

— History of Alltel, small Arkansas company

- **1943** Allied Telephone Company established in Arkansas, installing telephone poles and cabling
- **1983** Allied Telephone and Mid Continent Telphone merged
- **1985** Alltel launched first wireless operation in Charlotte, NC
- **2005** Alltel becomes wireless company
- **2007** Alltel sold itself to private equity firms
- **2008** Verizon Wireless merged with Alltel

— Services 34 states with 13 million subscribers, footprint cover largest area in the US

— Focus on small to medium size cities

— Has roaming agreements with Verizon and Sprint

Source: Company data, Deutsche Bank estimates

Case Study #1: Verizon-Alltel merger

A sensible deal = Win-Win for everyone

— Massive debt (US$22bn) problem plagued Alltel
  — Company was unable to roll out LTE
  — Interest expense increased 10x in 2008
— Verizon needed to catch up with AT&T
  — Verizon had the money, but not the customers
  — Improved negotiating position with vendors
— Strong synergies
  — Both companies use the same CDMA technology/EV-DO 3G
— Customers benefit
  — Alltel customers get access to 4G, save on roaming charge
  — Spectrum combination improve Verizom & Alltel user's experience
  — Cost savings reached US$1bn per year

Source: Company data, Deutsche Bank estimates

Case Study #2: AOL Time Warner Merger

A classic case of poorly thought out M&A

— History of AOL, US's biggest ISP (at one point)

- **1983** First established as Quantum Computer
- **1991** Company renamed as America Online
- **1992** Public offering
- **1994** Share price increased 50,000%
- **1995** subscribers reach 5m
- **2000** subscribers reached 30m

— **Provides**: Online service for people unfamiliar with computers

— **Products**: Portal, web browsers, instant messengers, online gaming, Video streaming

— Had *one* successful M&A (bought out its main competitor Compuserve in 1998)

Source: Company data, Deutsche Bank estimates

Case Study #2: AOL Time Warner Merger

A world apart: Time and Warner

— History of Time, US's oldest print media

- **1923** Time magazine published
- **1930** Life and Fortune magazines published
- **1953-1973** Sports Illustrated, Money, People magazines published
- **1970** Entered into cable TV market, created HBO
- **1989** Successful Merger with Warner
- **1996** Acquired Turner Broadcasting System (CNN, WTBS, TNT)

— History of Warner Brothers, US's oldest movie studio company

- **1923** Warner Brothers Pictures established
- **1928** Produced first full length film with sound
- **1929** Introduced color film
- **1969** Acquired by Kionney National Services
- **1989** Merged with Time

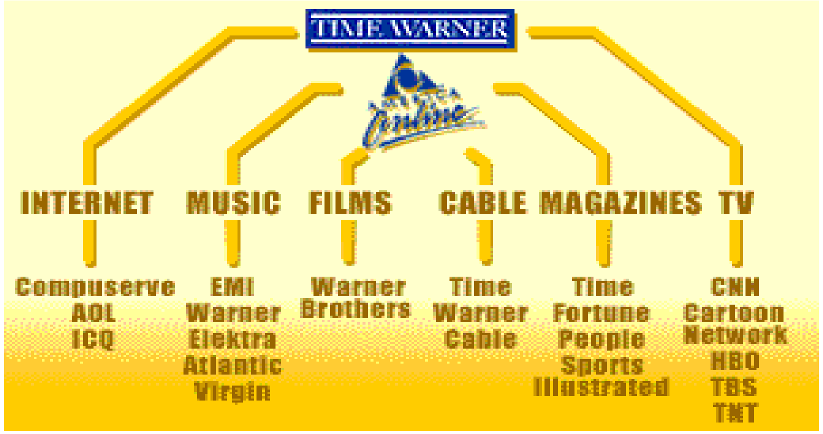
Source: Company data, Deutsche Bank estimates

Case Study #2: AOL Time Warner Merger

Problems emerged

- **M&A Rationale**: Time Warner taps into AOL customer base, AOL deliver online media to Time Warner subscribers
- Strong Culture Clash potential
- Not a merger of equal:
  - AOL paid US$183bn in stocks for Time Warner + US$17bn debt
  - In return AOL controlled 55% of Time Warner stake (despite controlling very little revenue base and asset itself)

AOL vs Time Warner



CORPORATE PROFILE

	AOL	Time Warner
Revenues	$6.9 billion	$27.3 billion
Net Income	$1.23 billion	$1.95 billion
Employees	15,000	69,700
Headquarters	Dulles, VA	New York, NY

Time Warner year ended Dec. 1999
AOL year ended June 1999
Source: Company reports.

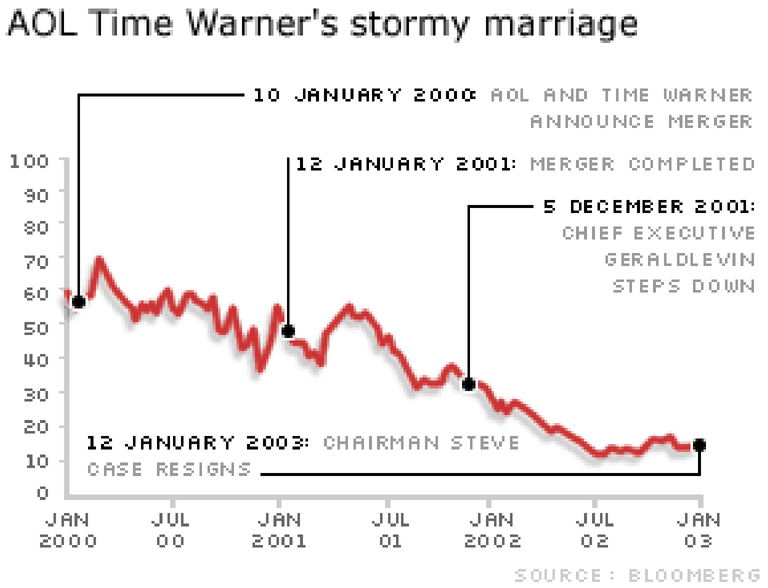
Source: Company data, Deutsche Bank estimates

Case Study #2: AOL Time Warner Merger

Merger disaster

- Dot com bubble burst / recession in 2001
- AOL saw US$99bn in good will write off in 2002
- Time Warner refused to cooperate with AOL, eliminating synergies possibilities
- AOL market capitalization fell from US$206bn to US$20bn
- Power struggle led to resignation of several top managements
- In 2009, Time Warner announced spin off of AOL

Timeline of merger disaster



Biggest loss of all time

TOP 5 ANNUAL CORPORATE LOSSES

COMPANY	YEAR	LOSS
AOL Time Warner	2002	$98.7B
JDS Uniphase	2001	$56.1B
General Motors	1992	$23.5B
Lucent	2001	$16.2B
NTL Inc.	2001	$14.2B

Sources: Reuters, CNN/Money and Standard & Poor's.

Cross border M&A

Rare, but rising

- 80% of telecom M&A's since 2000 are in-market, intra-border
  - Operators usually stick with the same market
  - Overseas acquisitions fraught with country specific-regulatory risks
- But there are examples of successful overseas acquisitions
  - Bharti Airtel US$10bn acquisition of Zain Africa in 2010
  - Zain is a Kuwaiti company with holdings in 17 countries
  - Bharti had very low debt (0.05x net D/E as of end 2010)
- Key operator's concerns with overseas M&A
  - Lack of knowledge of local industry, regulatory risks
  - Loss of focus
- Key attraction with overseas M&A
  - Exposure to high growth market
  - Economy of scale (in case of group acquisition)
  - Technology transfer synergy

Cost & Benefits of Telecom & Media M&A

Global telecom M&A have created many benefits to consumers

— Influx of new capital and knowledge previously unavailable in local markets

— Allows pooling of scarce resources (spectrum, towers)

— Accelerate technology adoption and convergence trends

— Net effect is improved customer experience and increase in shareholder’s value (in the case of ‘good M&A’)

Source: Company data, Deutsche Bank estimates

Cost & Benefits of Telecom & Media M&A

But there are also some downsides from bad M&A's…

- Overexpansion, resulting in destruction of capital
- Anti-competitive or even law-breaking activities
- Ultimately, users are rarely punished for bad M&A decisions
  - Biggest losers are shareholders of the merged Co
  - Failed M&As eventually unwind, return to original state
  - Let the market do its work…

Source: Company data, Deutsche Bank estimates

Q&A

Source: Company data, Deutsche Bank estimates

Appendix 1
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