

*State of the telco industry  
in Southeast Asia  
Focus: Vietnam*

2011

# ***Making waves:***

Southeast Asia series  
Spotlight: Vietnam



## ACKNOWLEDGEMENT

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## PREAMBLE

“Making waves” is a new telco publication series on the Southeast Asia region. This is a PwC SEAPEN Region<sup>1</sup> led initiative. It aims to provide overviews of the emerging telco markets in this region as well as insights on the challenges and opportunities faced. We hope readers will find this a valuable read.

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<sup>1</sup>PwC SEAPEN Region comprises Malaysia, Thailand, Vietnam, Cambodia and Laos. Over 3000 people across these five countries share knowledge, resources and experience to best serve our clients' needs across the region.

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## Foreword

As the global economic axis shifts to Asia and emerging economies, telco operators are now looking beyond traditional geographies for new sources of growth.

In this publication, we take a look at the state of the telco industry in the emerging markets of Vietnam, Cambodia and Laos, and the more developed markets in Malaysia and Thailand. With these countries strategically located between the Asian dynamos, China and India, strong and varied growth opportunities are plenty.

A stylized, handwritten signature in black ink, consisting of several vertical strokes and a horizontal base.

Irvin Menezes  
Partner  
PwC Malaysia

Vietnam, one of Asia's fastest growing economies, offers attractive long-term prospects for investors. Its high investment rate, low economic base, large and young population provide an expanding base of consumers for telco services.

Our spotlight on Vietnam, looks into the prospects and challenges facing the country's developing telco sector and how operators can transform themselves through customer focus, simpler solutions and strategic collaborations to stay ahead of the competition.

We hope this publication offers fresh insights into the region's telco opportunities and challenges.

A handwritten signature in black ink, featuring a cursive style with a prominent 'S' and 'G'.

Stephen Gaskill  
Partner, Advisory Services  
PwC Vietnam



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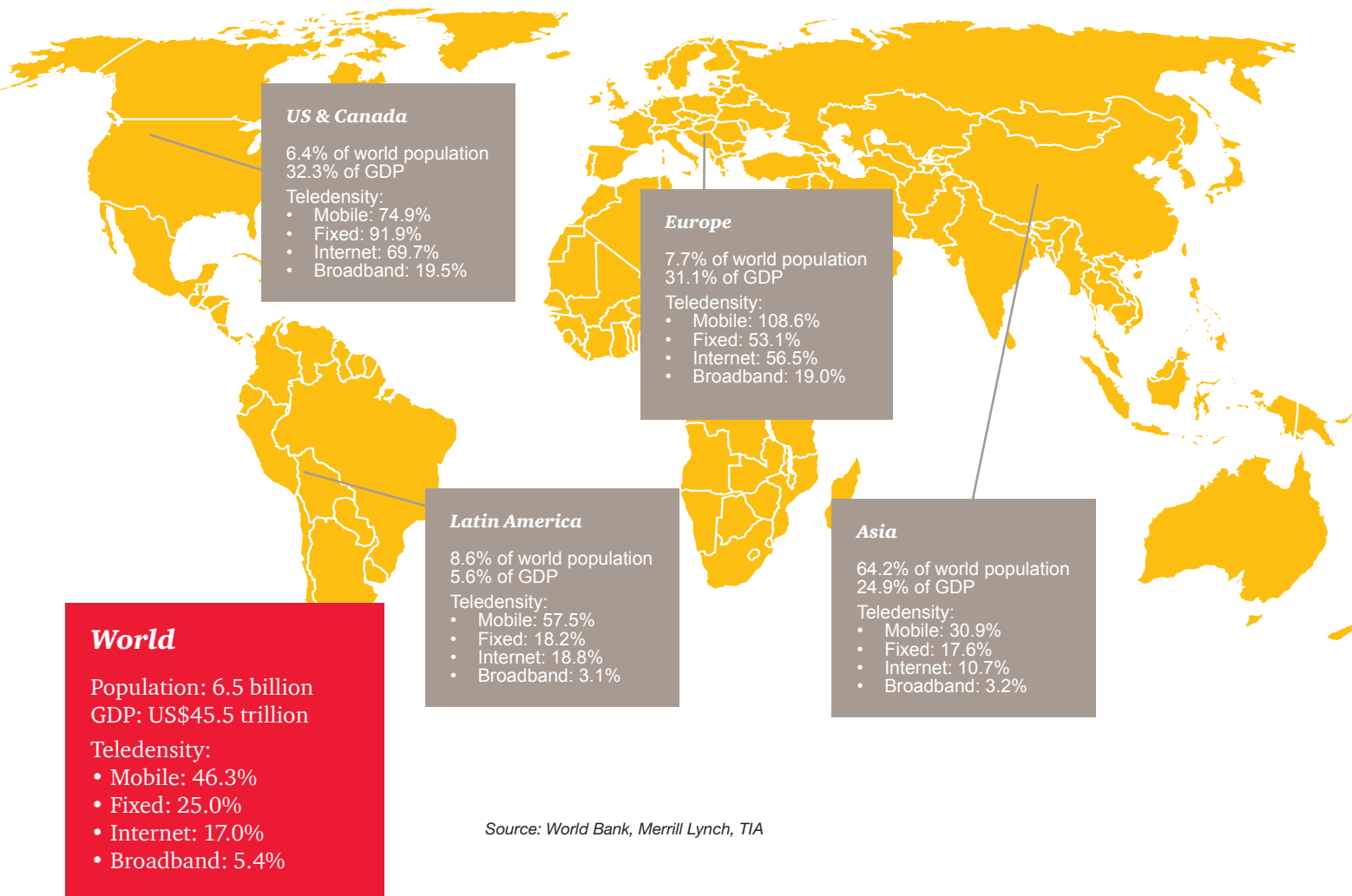
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## ***Global, Asia and Southeast Asia telco overview***

# Global telco market

Global and regional telco players are positioning themselves to capitalise on the growth of the international marketplace. With the strong growth in the variety of high speed telco products including high speed broadband (HSBB) and wireless services, telco revenues is estimated to reach US\$3 trillion in 2010 based on a projected compound annual growth rate (CAGR) of 9.7%.

Chart 1: Global and regional telco market, 2010 - strong and buoyant with multi-product expansion



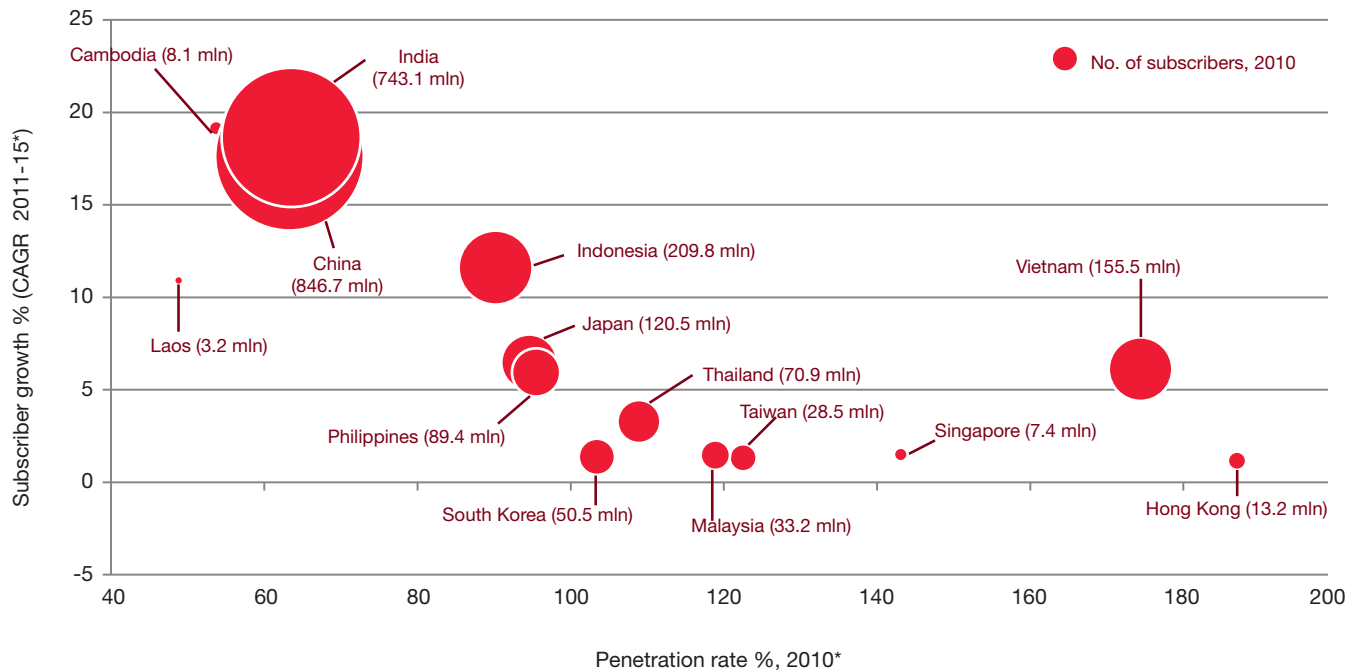




## Asia's telco markets

There is a broad mix of developing and mature telco sectors across Asia. Key growth markets include China, India and Indonesia, with a forecast subscriber CAGR of 10% to 18% between 2011 and 2015.

Chart 2: Asia's mobile subscriber prospects - China, India and Indonesia to power telco growth



\* Estimate/forecast  
Source: BMI



Although developing countries offer better growth prospects, operators here face intense competition, with low tariffs and high market saturation, especially in urban centres.

In contrast, developed and mature telco markets provide higher average revenue per unit (ARPU) and a more stable environment for telco players to operate in.

**Chart 3: Comparative position of Asia's telco market – developed telco markets have better industry environmental rating**

Regional rank	Country	Telco risk ratings 2011 <sup>1</sup>	Country	Mobile penetration 2010 <sup>2</sup> (%)	Country	Mobile ARPU 2010 <sup>2</sup> (US\$)	Country	Broadband penetration 2010 <sup>2</sup> (%)
1	Japan	76.3	Hong Kong	187.0	Japan	61.4	Singapore	154.1
2	Singapore	71.9	Vietnam	174.4	Singapore	36.9	Taiwan	95.0
3	South Korea	71.7	Singapore	143.1	South Korea	33.1	South Korea	35.4
5	Hong Kong	68.5	Taiwan	122.5	Taiwan	23.9	Hong Kong	30.9
6	Malaysia	65.5	Malaysia	118.9	Hong Kong	22.9	Japan	26.6
7	Taiwan	64.5	Thailand	108.9	Malaysia	16.4	Malaysia	13.8
8	India	61.0	South Korea	103.4	China	8.6	China	9.6
9	China	58.3	Philippines	95.5	Thailand	7.6	Philippines	4.9
10	Indonesia	51.0	Japan	94.6	Philippines	7.4	Vietnam	4.2
12	Philippines	48.9	Indonesia	90.2	Laos	5.6	Thailand	4.2
13	Laos	48.1	India	63.5	Vietnam	5.0	Indonesia	1.5
14	Cambodia	47.5	China	63.3	Cambodia	4.1	India	1.0
16	Thailand	44.5	Cambodia	53.7	Indonesia	3.8	Cambodia	0.7
17	Vietnam	42.2	Laos	48.8	India	2.1	Laos	0.2

<sup>1</sup> BMI Telco Risk Rating System - Evaluation of industry specific dangers (regulatory and competitive issues) and those emanating from the state's political/economic profile that call into question the likelihood of anticipated returns being released over the assessed time period.

<sup>2</sup> Estimate/forecast

Source: BMI

## Southeast Asia's telco markets

Developing countries such as Cambodia, Indonesia, and Laos have higher growth potential in mobile and Internet services. Although the mobile penetration rate is high for most Southeast Asian countries, opportunities lie in migrating prepaid subscribers to postpaid services and moving up to value-add 3G and 4G services, like in Malaysia.

Chart 4: Key economic and telco indicators of Southeast Asia's market, 2010

Country	Cambodia	Indonesia	Laos	Malaysia	Philippines	Singapore	Thailand	Vietnam
Population (mln)	14.3	234.4	6.4	28.3	94.0	5.2	63.9	88.3
GDP (US\$ bln)	12.0	706.7	6.0	238.0	188.7	222.7	318.9	103.6
Per capita (US\$)	814	3,015	984	8,423	2,007	43,117	4,992	1,174
Growth (%)	6.0	6.1	7.7	7.2	7.3	14.5	7.8	6.8
Inflation (%)	4.0	5.1	5.4	1.7	3.8	2.8	3.3	9.2
Telco market, 2010 estimates								
Mobile								
Subscribers (mln)	8.1	209.8	3.2	33.2	89.4	7.4	70.9	155.5
Penetration (%)	53.7	90.2	48.8	118.9	95.5	143.1	108.9	174.4
Growth (2011-15)f (%)	19.1	11.6	10.9	1.5	5.9	1.5	3.3	6.1
Fixed-line								
Subscribers (mln)	>0.1	37.9	0.1	4.4	4.1	2.0	7.0	16.1
Penetration (%)	0.3	15.7	1.8	15.8	4.4	38.6	10.7	18.1
Growth (2011-15)f (%)	1.1	8.2	6.6	-0.6	0.3	0.1	-3.0	-1.1
Internet								
Users (mln)	0.2	61.0	0.4	16.5	6.3	3.9	20.0	27.1
Penetration (%)	1.0	26.2	5.5	59.3	6.8	76.5	30.7	30.4
Growth (2011-15)f (%)	33.4	18.6	9.3	0.7	7.1	2.5	2.4	3.8

f – Forecast  
Source: IMF & BMI

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## ***Country telco briefs***

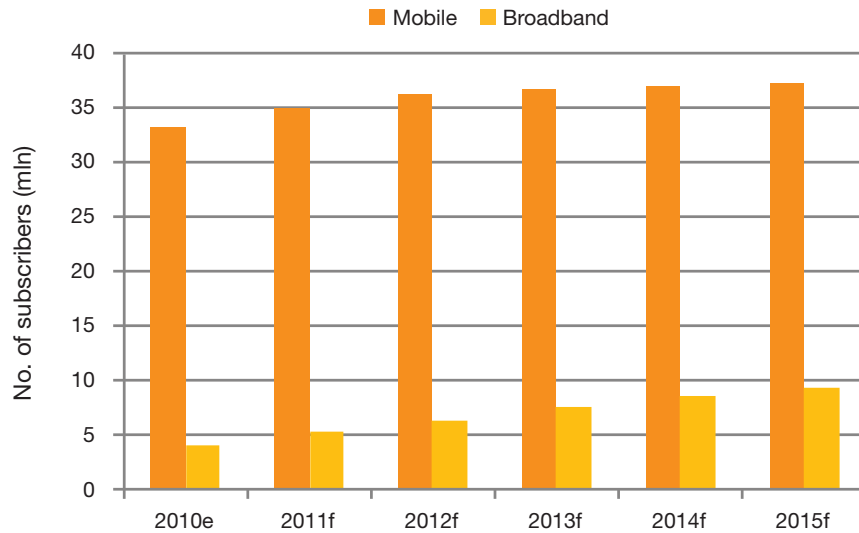
Malaysia, Thailand, Vietnam,  
Cambodia and Laos

# Malaysia

## Rapid broadband growth anticipated, multiple plays

Chart 5: Malaysia mobile and broadband subscribers

2011-15 CAGR for mobile: 1.5%; and broadband: 16.2%



e – Estimate  
Source: BMI

f – Forecast

### Overview

- One of the most mature telco markets in Southeast Asia, with mobile penetration rate of 118.9% in 2010.
- Competitive market, dominated by prepaid sector.
- Mobile broadband and HSBB to grow non-voice/data rich services.
- Key players: Maxis, Celcom (owned by Axiata), Digi (controlled by Telenor), and Telekom Malaysia.

### Opportunities

- Data hungry customers (smartphones and tablets users) to drive industry growth.
- Smart devices expected to grow 35% in 2011. International Data Corporation (IDC) estimates that 26% of all phones shipped last year were smartphones with estimated growth of 35% in 2011.
- Shift in demand from traditional voice services to data and media rich services.
- Rapid broadband growth anticipated, led by HSBB and mobile broadband.
- Cost savings from network sharing agreements between mobile operators.

### Threats

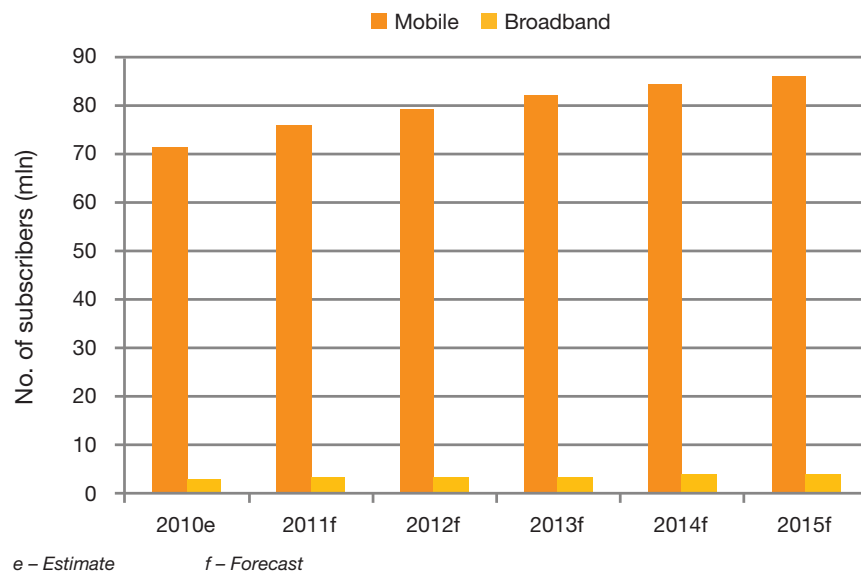
- Intense competition due to market saturation as mobile penetration is close to 120%.
- Entry of new players and products such as YTL Communications Bhd's YES 4G, new foreign stakeholders in wireless and mobile operators, Green Packet Bhd and U Mobile Sdn Bhd, and increased presence of mobile virtual network operators (MVNOs).

# Thailand

## Revitalisation of wireless services, strengthening regulations

Chart 6: Thailand mobile and broadband subscribers

2011-15 CAGR for mobile: 3.3%; and broadband: 3.6%



### Overview

- Mature and competitive telco market, with mobile penetration rate of 108.9% in 2010.
- Operators face price pressures, dominated by prepaid sector.
- Operators focusing on
  - smart phones and tablets to acquire and retain existing customers and stimulate data usage; and
  - service quality due to launch of mobile number portability.
- Telco players adopting converged services model e.g. providing combination of mobile, WiFi, and other telco services.
- Key players: TrueMove, Advance Info Services and Total Access Communication.

### Opportunities

- Commercial 3G launch expected to help mobile operators increase revenue from higher data usage and mobile broadband service.
- Collaboration with device manufacturers to drive data usage and acquire new customers.

### Threats

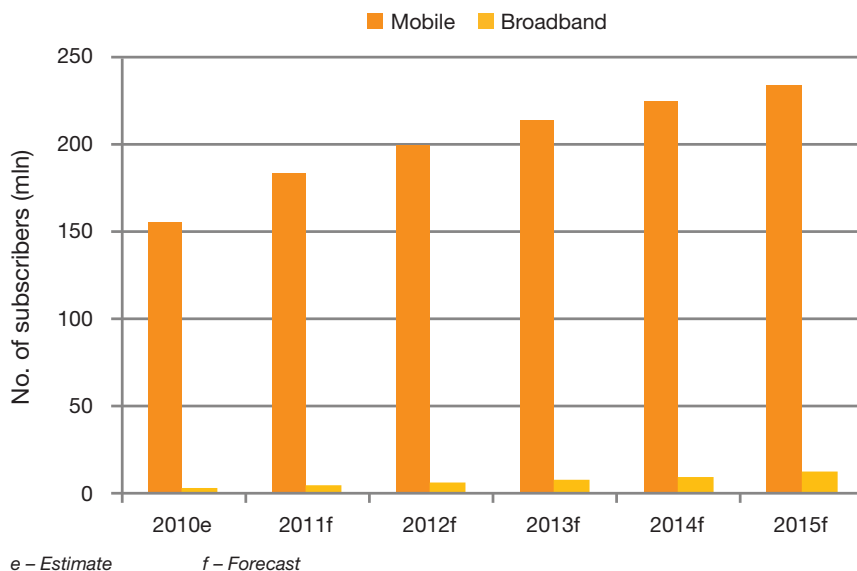
- Highly competitive and mature mobile sector, with a penetration of more than 100% in 2010.
- Dominance of prepaid subscribers with low ARPU and high churn.
- Regulatory environment has not had a sustained period of consistent policy e.g. delay in issuing 3G and WiMAX licenses.
- Political risk and instability deters current and future investors.

## Vietnam

### Urban saturation, high rural and broadband potential

Chart 7: Vietnam mobile and broadband subscribers

2011-15 CAGR for mobile: 6.1%; and broadband: 27.7%



#### Overview

- Mature telco market especially in urban areas. Rural parts, which make up 70% of the population, are relatively untapped.
- Competitive market, facing price pressure, dominated by prepaid sector, with one of the lowest mobile ARPU in Southeast Asia.
- Looking to grow 3G and broadband subscribers.
- Key players: Viettel and Vietnam Posts and Telecommunications (VNPT), which owns VinaPhone and MobiFone.

#### Opportunities

- Rising income and cheaper phones and IT devices are making telco services more affordable.
- Data and media rich content from broadband, 3G and WiMAX services are expected to shape the sector in the coming years.
- Untapped rural market with limited mobile and fixed line access.
- Market liberalisation, non-network operators (including foreign players) can provide telco services through partnership with existing network operators.

#### Threats

- Saturated mobile market, with a penetration rate of 174.4% in 2010 - subscriber growth to slow to 6.1% p.a. over the next five years (2011-2015).
- Price sensitive customers with low ARPU (US\$5 per month) due to low income level, with GDP per capita of US\$1,174 in 2010.
- Competitive telco market with large number of players (nine or more) across all sub-sectors – mobile, fixed-line, Internet, broadband and WiMAX.

# Cambodia and Laos

Low penetration, high growth potential

## Cambodia overview

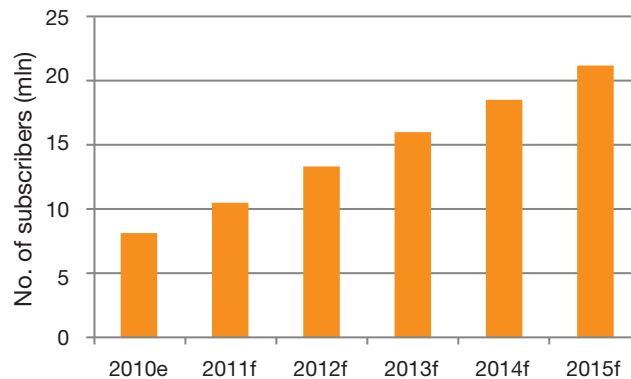
- Competitive and saturated mobile market, with nine operators and declining ARPU (US\$4 per month in 2010).
- Low mobile penetration rate of 54% in 2010, providing potential room for growth.
- Large 3G base, with about 2.2 million 3G customers in 2010, equivalent to 53.7% of total mobile users.
- Attracting interest from foreign telco operators e.g. France Telecom and Indonesia's Telkom.

## Laos overview

- Fewer mobile players, with only four operators.
- Increased competition due to market expansion by foreign operator, i.e. Vietnam's Viettel.
- Low and declining ARPU (US\$5.60 per month in 2010).
- Low mobile penetration rate of 49% in 2010, providing potential room for growth.
- Smaller telco market potential, less than half the size of Cambodia's population.

Chart 8: Cambodia mobile subscribers

2011-15 CAGR for mobile: 19.1%

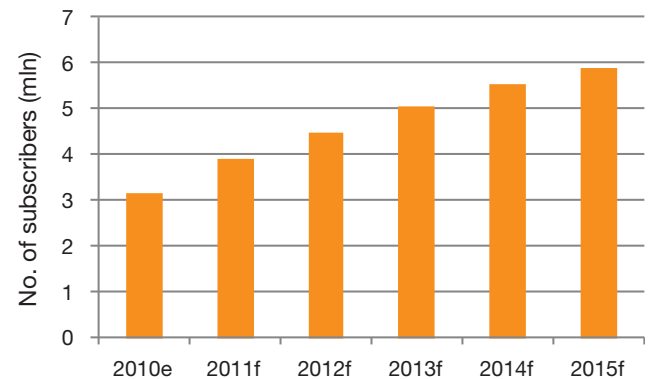


e – Estimate  
Source: BMI

f – Forecast

Chart 9: Laos mobile subscribers

2011-15 CAGR for mobile: 10.9%



e – Estimate  
Source: BMI

f – Forecast





## ***Spotlight: Vietnam***

1. Economic prospects
2. Telco environment
3. Next change



# *Vietnam*

Regarded by many as the new Asian Tiger, Vietnam has attracted many multinational corporations (MNCs) including those which see the need to diversify operations away from China. Vietnam's 88.3 million strong population boasts of a large and young workforce that has also seen an increase of disposable income in recent years.

Starting from a low economic base since the early 1990s, Vietnam's economy grew strongly and rapidly before the financial crisis. Since then, the economy has rebounded and is expected to grow by 6.8% in 2011. With economic reforms and growing affluence, Vietnam is one of the key emerging economies in the medium and long term.

## 2010 snapshot



Land area	331,051 sq km
Population	88.3 mln
GDP	US\$103.6 bln
GDP per capita	US\$1,174
GDP growth	6.8%
Inflation	9.2%
Foreign direct investment (FDI)	US\$9.1 bln
Position	<ul style="list-style-type: none"> <li>• 6th rank for Preferred Location for FDI (UNCTAD, 2009-11)</li> <li>• 78th rank for Ease of Doing Business (World Bank, 2011)</li> <li>• 59th position in WEF Global Competitiveness Index (2010-11)</li> </ul>
Country credit risk rating	<ul style="list-style-type: none"> <li>• S&amp;P: BB</li> <li>• Moody's: B1</li> </ul>

### Telco market, 2010 estimates

	No. subscribers (mln)	Growth	Penetration rate
Mobile	155.5	40.4%	174.4%
Fixed-line	16.1	-10.8%	18.1%
Internet	27.1	19.1%	30.4%
Broadband	3.8	26.7%	4.2%

Source: Various sources

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## **Economic prospects**

### **Strong growth outlook**

#### **High growth potential, both GDP and population**

Vietnam continues to be on the radar of global and regional FDI investors as reflected in highly encouraging economic projections and FDI data. Vietnam has catapulted into the top 10 countries with highest potential growth in the world – its expected strong investments, exports, GDP growth rates, and large and young populace are among the driving factors.

In PwC's "The World in 2050" report, which explored the potential growth of the G20 and selected emerging countries from 2009 to 2050, Vietnam emerged with the highest projected growth of 8.8% p.a., surpassing countries such as India and China (see chart 12). Medium-term, over 2011-15, Vietnam's economic growth is expected to average 7.2% p.a., underpinned by strong demand in consumption, domestic and foreign investments, and exports.

Despite high inflation and deficit concerns, growth for 2011 is expected to remain strong at 7.0%. Inflation is projected to increase to 14.3% before slowing to an average rate of 7.8% p.a. between 2012 and 2015.

#### **Strong FDI prospects**

UNCTAD reports that Vietnam is among the top 10 target countries for FDI from 2010 to 2012<sup>1</sup>. FDI disbursements in 2010 rose by 10% to US\$11 billion due to a combination of factors, including the global economic recovery, attractive government measures to attract FDI and the country's competitively priced workforce<sup>2</sup>. Prominent MNCs making investments in recent years include:

- Intel, which opened a US\$1 billion assembly and testing plant in Ho Chi Minh City (HCMC) in 2010.
- Nokia, which announced plans to build a €200 million (US\$283 million) hand-set manufacturing plant in Hanoi.

#### **Addressing economic challenges**

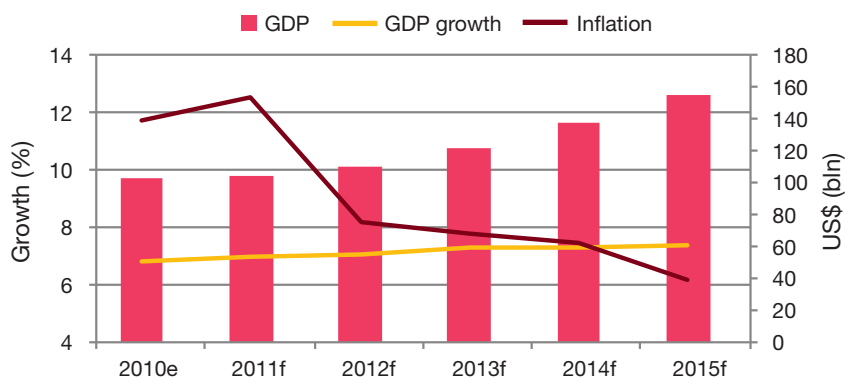
Underlying Vietnam's strong growth prospects, its economy faces the threat of high inflation and budget deficits, as well as a sizeable trade deficit and currency volatilities. For stable and sustainable growth, the Vietnamese government has increased interest rates for inter-bank loans and took measures to reduce credit growth and public spending. It has also devalued the Vietnam Dong (VND) by 9.3% in February 2011.

<sup>1</sup> Vietnam was ranked top 8 priority host economies for FDI for the 2010-2012 period in UNCTAD's *World Investment Prospects Survey 2010-2012*, September 2010

<sup>2</sup> Average monthly pay in 2009 for Shenzhen in China was US\$235, compared with monthly manufacturing wages of US\$100 in HCMC and US\$104 in Hanoi. (Source: Japan External Trade Organization)



Chart 10: Steady GDP growth with slower inflation



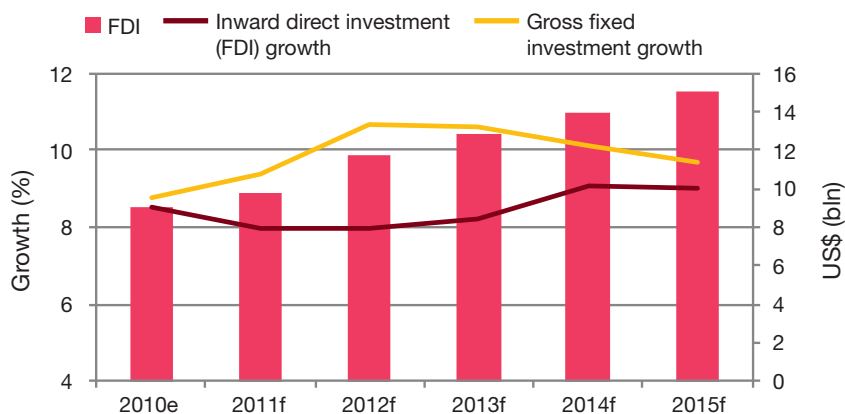
e – Estimate f – Forecast  
Source: EIU ViewsWire

Chart 12: Top 10 countries with the highest growth potential, 2009-2050

Country	Average annual real GDP growth (2009-2050)
1. Vietnam	8.8%
2. India	8.1%
3. Nigeria	7.9%
4. China	5.9%
5. Indonesia	5.8%
6. Turkey	5.1%
7. South Africa	5.0%
8. Saudi Arabia	5.0%
9. Argentina	4.9%
10. Mexico	4.7%

Source: PwC, The World in 2050, 2011

Chart 11: Strong investments and FDI inflow



e – Estimate f – Forecast  
Source: EIU ViewsWire

## ***Telco environment***



***Between 2008 and 2010, industry revenue and mobile subscribers more than doubled to US\$10.3 billion and 155.5 million, respectively.***

Vietnam's telco industry has experienced tremendous growth over the last two years. Between 2008 and 2010, industry revenue and mobile subscribers more than doubled to US\$10.3 billion and 155.5 million, respectively.

Growth, however, is expected to slow over the next five years as Vietnam's telco industry begins to transition to a mature market. The country has the highest mobile penetration rate in the region, reaching 174.4% in 2010, up from 79.6% in 2008.

This brings a new set of challenges to Vietnam's telco operators as they search for new growth avenues besides focusing on market penetration. This includes increasing usage, up selling (e.g. moving customers from pre-paid to post-paid), and increasing data/media rich services.



# 1. Vietnam's telco sector

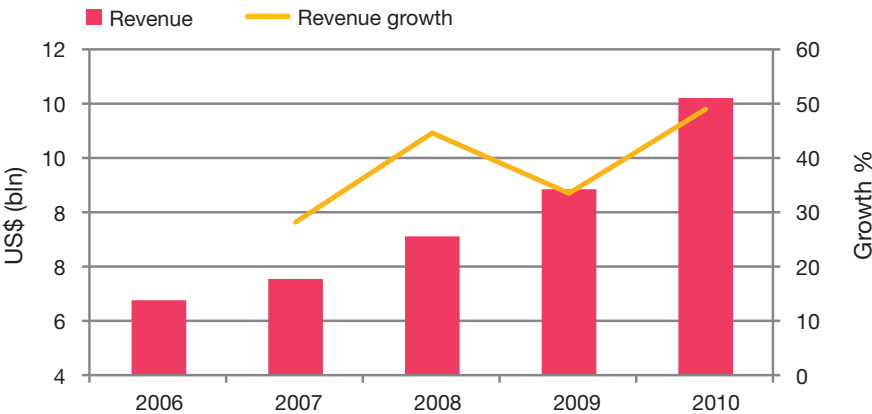
## Vibrant telco sector with expanding consumer base

Vietnam's strong socio-economic fundamentals are driving income and consumption growth, and providing an expanding base of consumers for telco services. In 2010, Vietnam's telco sector achieved an average annual growth of 30% to 40% and is expected to earn VND200 trillion (US\$10 billion) in revenue.

Vietnam's telco sector is a significant contributor to the economy, accounting for around 6% of the country's GDP.

Chart 13: Vietnam's telco sector experiencing strong double digit growth

Telco industry revenue and growth, 2006-2010



Source: Vietnam Ministry of Information and Communications

## Factors driving Vietnam's telco services industry

- GDP growth (2011-2015): 7.2% p.a.
- Young population (2009): 66% of population between 15 and 59 years old
- High rate of urbanisation: Close to one million rural urban migrants per year (2010: only 30% of the population lived in cities)
- Strong consumption growth: Retail sales reached close to VND1.2 trillion in 2009 from just VND200 billion in 2000 or a CAGR of 22%

Source: BMI & CapitalLand

***Vietnam's telco market is saturated with a mobile penetration rate of 174.4% in 2010.***

### ***Anticipated trends***

Mobile phone services will continue to contribute to most of the revenues of local telco companies. Mobile internet and value-added services (VAS) brought by 3G, WiMAX and 4G are expected to shape Vietnam's telco sector in the coming years.

Over 2011 to 2013, MobiFone, VinaPhone, Viettel and EVN Telecom-Hanoi Telecom will invest more than VND33 trillion (US\$1.73 billion) in their 3G networks, with a total of 30,000 base transceiver stations.

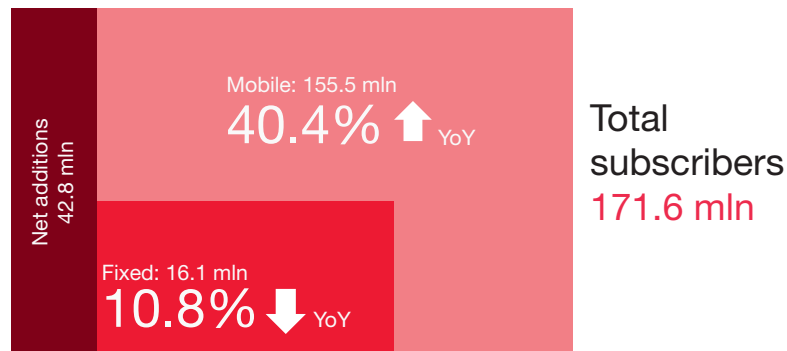
### ***Competitive and saturated market***

Vietnam has 11 network infrastructure enterprises and 81 internet service providers. Despite the rapid market growth over the last 10 years, market players face stiff price competition in their bid to capture market share and economies of scale.

Vietnam's telco market is saturated with a mobile penetration rate of 174.4% in 2010. Telco operators also need to compete on low ARPU with multiple players. As a result, Vietnam has one of the lowest telco business environment rankings in Asia, as indicated by Business Monitor International (BMI) (see Chart 3).

**Chart 14: Vietnam's telco sector driven by mobile**

*Vietnam's mobile and fixed line subscriber growth, 2010 estimate*



Source: BMI



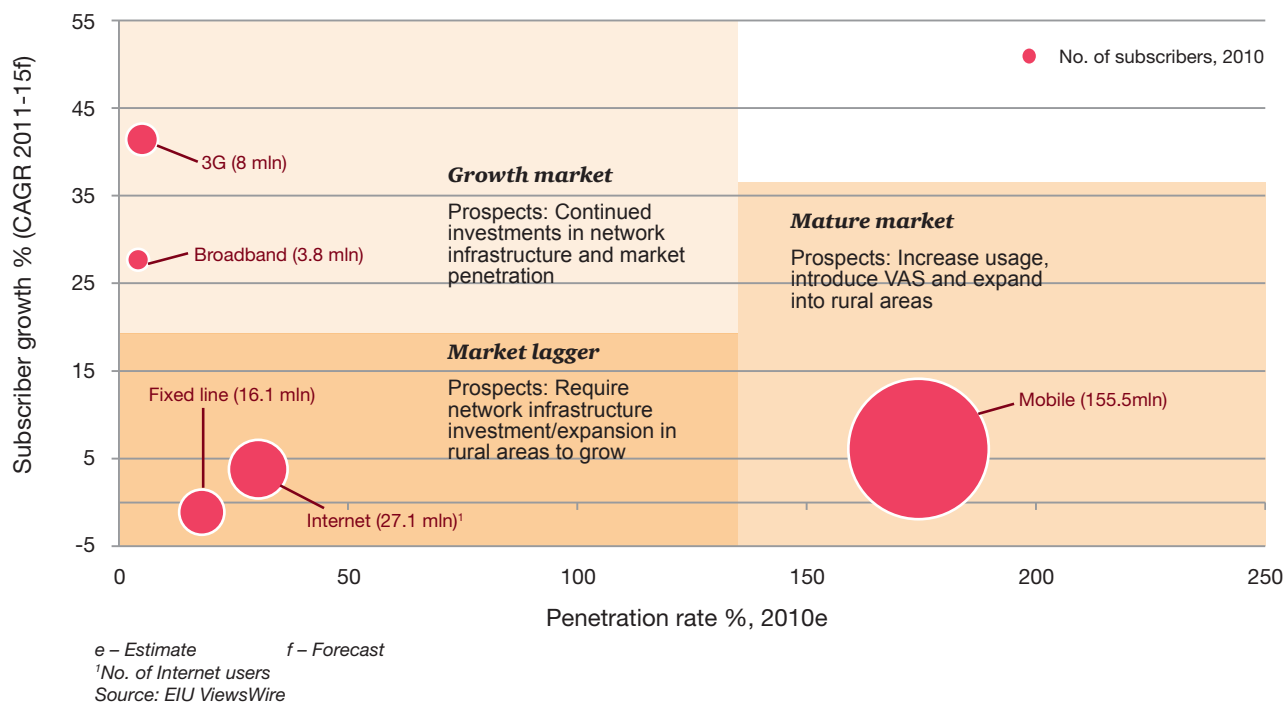
Chart 15: Analysis of Vietnam's telco sub-sectors

	<b>Mobile</b> Large, saturated and competitive	<b>Fixed-line</b> Stalled growth
<b>Market size</b>	<b>Large</b> 155.5 mln subscribers (2010)	<b>Small</b> 16.1 mln subscribers in 2010, hampered by poor infrastructure network and competitive pricing from mobile providers
<b>Competition</b>	<b>Intense</b> Saturated market (penetration rate est. of 174.4% in 2010)  <b>Low tariff rate</b> ARPU of US\$5 per month in 2010 due to competitive market, price sensitive and low value customers - prepaid subscribers account for about 90% of the market	<b>Stiff</b> Competition from mobile operators
<b>Growth</b>	<b>Moderate</b> Subscriber growth of 6.1% p.a. (2011-15)	<b>Flat</b> Subscribers expected to remain relatively unchanged between 2011 and 2015
<b>Market players</b>	<b>Crowded</b> Nine mobile operators, but dominated by two state-owned players i.e. VNPT (which owns two mobile operators, VinaPhone and MobiFone) and Viettel. VNPT and Viettel customers account for 88% of total mobile subscribers	<b>Crowded</b> Eight fixed-line operators, however, dominated by three players i.e. state-owned, VNPT and Viettel, and private operator EVN Telecom
<b>Prospects</b>	<b>3G and rural market</b> <ul style="list-style-type: none"> <li>Strong 3G subscriber growth, averaging 8 mln p.a. over 2011–15 due to aggressive promotional offers to attract customers</li> <li>Rural market remains relatively untapped, which accounts for 70% of the country's population</li> </ul>	<b>Rural market and fixed wireless</b> <ul style="list-style-type: none"> <li>Rural market relatively untapped</li> <li>Operators investing in fixed wireless services based on CDMA and GSM networks. They offer a cost effective way to service low income rural areas as they ride on mobile networks</li> </ul>

	Internet Reaching urban saturation	Broadband Small, with high growth potential
<b>Market size</b>	<b>Moderate</b> 27.1 mln Internet users in 2010	<b>Very small</b> 3.8 mln subscribers in 2010 due to slow take-up. Challenges faced: <ul style="list-style-type: none"> <li>• High price of broadband services</li> <li>• Weak and inconsistent fixed-line infrastructure, and</li> <li>• Competitive pricing of 3G mobile internet</li> </ul>
<b>Competition</b>	<b>High</b> Saturated urban market, while access/ infrastructure network in rural market is limited	<b>High</b> Major Vietnamese mobile and fixed-line operators are competing to grow this area as mobile and fixed-line sector growth is slowed by market saturation
<b>Growth</b>	<b>High but slowing</b> Forecast Internet user growth of 3.8% p.a. for 2011 to 2015, down from 19.1% estimated for 2010 as penetration approaches saturation in major cities and towns	<b>Strong double digit</b> Forecast subscriber CAGR of 27.7% between 2011 and 2015, provided by investments to upgrade and increase broadband capacity, expansion of international Internet bandwidth and WiMAX network
<b>Market players</b>	<b>Crowded</b> There are 12 licensed Internet service providers in Vietnam and six internet exchange providers, dominated by VNPT, Viettel and EVN Telecom	<b>Crowded</b> Fixed-line and 3G operators competing for the broadband market, dominated by three players i.e. state-owned, VNPT and Viettel, and privately-owned FPT Telecom
<b>Prospects</b>	<b>Rural market</b> Future growth of the rural market will depend on the pace of Internet infrastructure development in the rural areas	<b>Increase market penetration</b> To provide for double digit subscriber growth

Source: BMI and PwC analysis

Chart 16: Relative position of Vietnam's telco market



### Growth opportunities

The competitive pressures and challenges facing Vietnam are similar to other telco markets in the region. Countries with low ARPU and high penetration rate still have opportunities to grow both revenues and margins. The potential growth opportunities for Vietnam's telco industry include:

- Mobile internet (3G), broadband and VAS provided through high speed Internet access.
- Semi-rural and rural markets, which remain relatively untapped and account for 70% of the country's population.
- Outsourcing IT, telco networks and call service centres can help reduce capital expenditure and provide cost savings.
- Collaborations between telco operators, telco and IT device suppliers, content developers, content aggregators and users can provide new sources for VAS.
- Collaborations between telco operators especially in rolling out new 3G and rural telco networks can help reduce capital outlays and operating costs, and speed up the roll-out of telco networks.

## 2. Market players

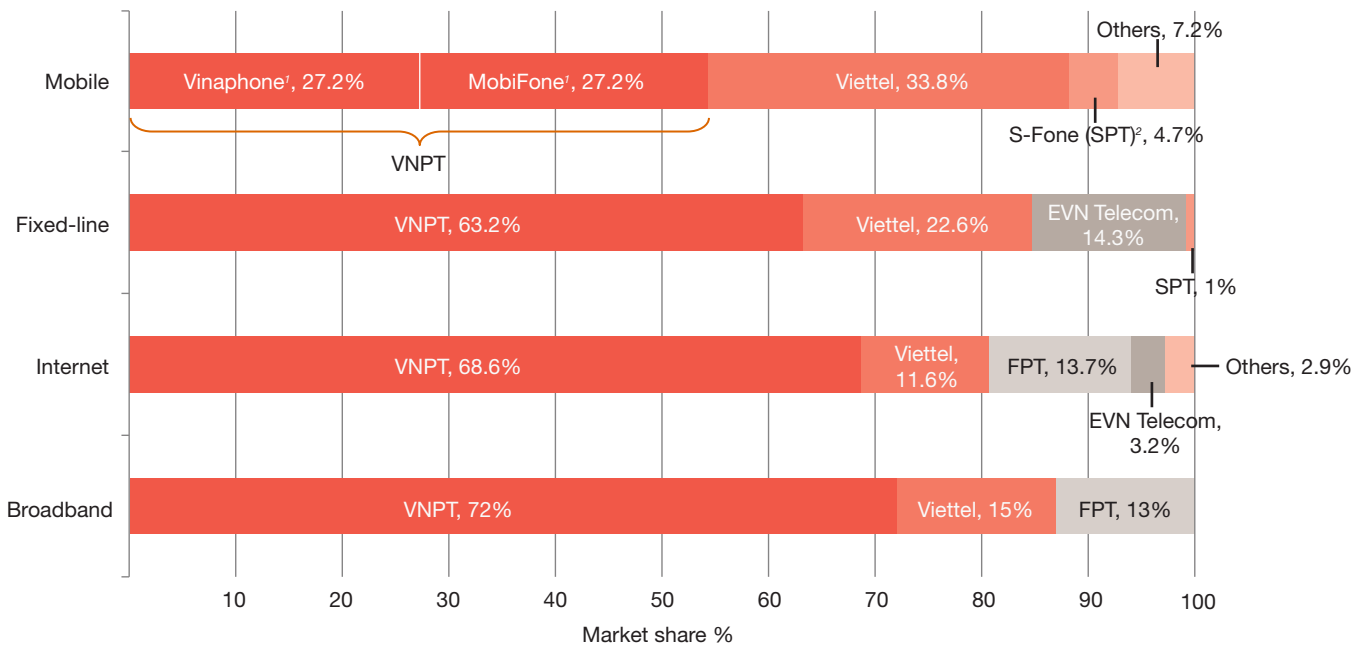
### Crowded market, dominated by two telcos

Vietnam’s telco market is dominated by two state-owned operators, VNPT and Viettel. Jointly, they control more than 80% of the market in each of the telco sub-sectors (see Chart 17).

This oligopoly situation makes it difficult for smaller players to compete as they lack the market scale or volume to compete effectively on low ARPU and narrow margins.

Chart 17: Vietnam’s telco sector dominated by VNPT and Viettel

Telco sector market share, 2009



<sup>1</sup>VNPT owns mobile operator Vinaphone and MobiFone

<sup>2</sup>SPT - Saigon Post and Telecommunication Corporation controls S-Fone

Source: Vietnam Ministry of Information and Communications



Chart 18: Shareholdings of key telco players

Company name	Brand name	Ownership	Market
VNPT	-	Government	Local, long-distance and international telephony, data, Internet
Vietnam Telecom Services	VinaPhone	VNPT	Mobile
Vietnam Mobile Telecom Services	MobiFone	VNPT	Mobile
Viettel	Viettel	Ministry of Defence	Mobile, local telephony
S-Fone	S-Fone	SPT (government) <sup>1</sup>	Mobile
EVN Telecom	E-mobile, E-com	Electricity of Vietnam (government)	Mobile, local, long-distance and international telephony, data, Internet
Hanoi Telecom	HT Mobile	Government	Mobile
FPT Telecom	-	The Corporation for Financing and Promoting Technology (government)	Broadband and WiMAX

<sup>1</sup>S-Fone operation is managed by a JV between SPT and South Korean SK Telecom  
Source: BMI

**State-owned telcos and IPOs**

All key telco players in Vietnam are state-owned (see chart 18). There were earlier plans to list some players such as MobiFone back in 2009. However, due to the financial crisis, the listing was deferred. Other operators targeted for initial public offering (IPO) include VinaPhone and EVN Telecom.

The listing of mobile operators could see entry of foreign partners such as Vodafone and France Telecom. Both have expressed interest in a strategic stake in MobiFone.

Please refer to Appendix for profiles of Vietnam’s major telco operators.

Chart 19: Vietnam key telco players product segments

	Mobile	3G	Fixed-line	Internet <sup>3</sup>	Broadband/ WiMAX
VNPT <sup>1</sup>			✓	✓	✓
- Vinaphone	✓	✓			
- MobiFone	✓	✓			
Viettel	✓	✓	✓	✓	✓
SPT <sup>2</sup>	✓		✓	✓	✓
EVN Telecom	✓	✓ <sup>4</sup>	✓	✓	✓
Hanoi Telecom	✓				
FPT Telecom			✓	✓	✓
GTel Mobile	✓		✓		
Indochina Telecom	✓				✓
Vietnam Multimedia Corporation (VTC) <sup>5</sup>	✓	✓ <sup>6</sup>			✓
CMC Telecom			✓	✓	✓

<sup>1</sup> VNPT operates its mobile operations through MobiFone and VinaPhone

<sup>2</sup> SPT operates its mobile operations through S-Fone

<sup>3</sup> Currently there are 12 licensed ISPs in Vietnam and six internet exchange providers

<sup>4</sup> EVN Telecom and Hanoi Telecom partnered to launch 3G services in 2009

<sup>5</sup> VTC is a subsidiary of VNPT

<sup>6</sup> VTC shares wireless frequency bands with EVN Telecom to operate its 3G services

## Industry consolidation

The competitive telco environment is showing signs of consolidation. In 2010, EVN Telecom was targeted for acquisition by FPT Telecom. The deal was subsequently withdrawn due to rising investment cost and interest rates.

EVN Telecom also seeks to share 2G and 3G networks with other mobile operators to help cut cost and capital expenditure. It has earlier partnered with Hanoi Telecom to launch 3G services in 2009.

VNPT, which owns both MobiFone and VinaPhone mobile operators, could be forced to merge the two operators or sell its stakes in one of them following government moves to restrict institutions or individuals from controlling more than one operator in the same telco market in a bid to foster competition in the industry.

### 3. Regulatory environment

#### ***Telco industry policy***

The government, through its telco policy, is undertaking significant structural and institutional reforms to achieve sustainable national growth and development. The policy backs aggressive development of modern telco infrastructure and services to match the achievements and performance levels of Vietnam's regional neighbours.

The policy is formally set out in a decision of the Prime Minister, Decision No.158/QĐ-TTg of October 18, 2001, ratifying Vietnam Post and Telecommunications' development strategy until 2010 and orientation until 2020.

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#### **Telco policy objectives**

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1. To build up and further develop the national information infrastructure with modern technologies.
2. To provide society and consumers with modern, diversified and abundant telco services in all parts of the country.
3. To increase the share of this sector in Vietnam's GDP and employment growth.

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#### **Key telco policy strategies:**

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- Speeding up the development of the Ordinance on Posts and Telecommunications.
- Developing specific policies and measures to boost competition.
- Implementing the Vietnam – U.S. Bilateral Trade Agreement.
- Renewing the charge rate policy in line with competitive market conditions.
- Effectively managing the radio frequency spectrum, numbering systems, zone and domain names, and addresses.
- Promoting productivity, quality, and efficiency within business enterprises.
- Creating policies for network development in rural and remote areas.
- Encouraging FDI, compliance with World Trade Organisation entry commitments.
- Promoting international co-operation in service development.

**Regulator**

The regulation of Vietnam’s telco industry is under the responsibility of the Ministry of Information and Communications (MIC). The key functions and responsibilities of MIC includes:

- Regulating the press, publishing, posts, telco, Internet, broadcasting and TV, and IT industries.
- Drafting laws, ordinances, regulations, strategies and development plans for the industries it regulates.
- Issuing telco related licences and permits.
- Assigning and allocating national radio frequency spectrum.
- Setting consumer tariffs for telco services and interconnection charges between operators.

Chart 20: MIC telco-related functions

Main function	Sub-functions
Economic planning	<ul style="list-style-type: none"><li>• Develop national plans and strategies for the telco and Internet sectors</li><li>• Develop radio frequency spectrum plans</li></ul>
Legal documentation	<ul style="list-style-type: none"><li>• Draft laws, ordinances and policies on telco</li><li>• Issue decisions, directives and circulars to implement laws and regulations</li><li>• Issue regulations, rules and technical standards</li></ul>
Supervision	<ul style="list-style-type: none"><li>• Issue and revoke telco licences and permits</li><li>• Allocate, control and monitor radio frequency spectrum and radio equipment</li><li>• Regulate telco investment terms and conditions</li><li>• Regulate telco and Internet services, quality and tariffs</li><li>• Regulate numbering resources, codes, domain names and addresses in the telco and Internet sectors</li><li>• Regulate access to, and the interconnection between public and private telco networks</li></ul>
International relations	<ul style="list-style-type: none"><li>• Conduct international co-operation activities in telco</li><li>• Manage international treaties on telco and radio frequency</li></ul>

Source: MIC and BMI

## Recent developments

### **Potential for more foreign JVs**

The MIC has allowed a number of local telco companies to enter into collaborations with foreign partners to provide a wide range of communication services.

For non facilities-based services (i.e. fixed or mobile voice telephony services with no network infrastructure) the foreign capital contribution to their joint ventures (JVs) must not exceed 51% of the legal capital.

Foreign companies can raise their capital up to 65% only if they have passed the initial three-year investing period in Vietnam with a capital contribution of up to 51%.

FDI in local telco companies, however, is limited to 30%.

Some large foreign partners will be permitted to independently provide virtual private network services and value-added telco services using the network infrastructure of a local operator. Currently, foreign partners who want to provide such services must select Vietnamese partners and contribute up to 70% of capital in the JV.



### **4G testing**

In September 2010, MIC granted 4G trial licences to five mobile operators - VNPT, Viettel Telecom, FPT Telecom, CMC Telecom and Vietnam Multimedia Corporation - to test Long Term Evolution (LTE) technology.

The operators have been given a year to conduct tests and will be expected to participate in an auction for the frequencies and licences.

### **Market competitive structure**

In 2010, the MIC approved a proposal submitted by the top three mobile operators (Viettel, MobiFone and VinaPhone) to reduce tariffs by up to 15%. The average cost of a call will fall from VND1,200 (US\$0.063) to VND1,000 (US\$0.052) per minute.

The MIC is also studying the possibility of Mobile Number Portability, with a set of guidelines expected to be released in 2011. Mobile phone operators may no longer own particular prefixes, and the policy could reduce the quantity of idle or discarded numbers.



### ***Vietnam's 10-year ICT plan***

In the “Master Plan to make Vietnam become an advanced country in ICT in 2020”, the government aims to establish a world-class ICT sector, contributing 8% to 10% of the GDP.

The ICT 2020 targets are:

- Advance to the top 10 countries in terms of providing software outsourcing and digital content services.
- Up to 80% of enterprises and social organisations will employ IT in their operations.
- Develop some strong telco companies.
- Provide wide-band mobile communications to up to 85% of residents.

To reach that goal, the government is upgrading its telco infrastructure, and developing the ICT market along with high-quality human resources to meet the demands for greater sophistication and international integration. The government will mobilise a total of US\$8.5 billion (VND163.8 trillion) to develop the ICT sector under the Master Plan.

### **Vietnam ICT sector statistics**

- Revenue: US\$14.7 billion (2009)
- Export: US\$6.5 billion (2009)
- Accounts for 6.7% of GDP (2010)
- Growth of between 20% to 25% p.a. over 2001-2010
- Around 70% of Vietnam's ICT activity is in the electronics and hardware industry
- Other key ICT activities: IT application, software and digital content
- Around 4,000 ICT companies, employing about 486,000 people (2009)



Chart 21: Vietnam 10-year ICT Master Plan (2010-2020) targets

	2010-2015	2016-2020
Total investments	US\$8.5 bln	
	US\$3.2 bln	US\$5.3 bln
Ranking list of the International Telecommunication Union	70	60
ICT industry contributions to the country's GDP	17-20%	20-30%
Coverage of broadband Internet services to communes and wards nationwide, fibre optic cables radio and TV broadcast technologies in five big cities	70%	90%
Nationwide households telephone coverage	100%	100%
Households with computers and access to broadband Internet services	20-30%	70-80%
Households with TV sets	90%	100%
Complete building of ICT infrastructure	Urban Areas	Village Areas
Software outsourcing destinations and digital content producers	Top 20	Top 10

Source: The Vietnam Nation



## Waves of change

Greater customer focus, simpler solutions and strategic collaborations

Chart 22: Competitive pressures facing Vietnam's telco market



Source: PwC analysis

The competitive landscape facing Vietnam telco operators is not unique to them. However, the country-specific issues create significant pressures on them to transform their business and organisational models. Vietnam's mobile telco market is characterised by:

- Generic product offerings
- Low ARPUs with the bulk of usage being basic telco services (voice)
- Continued pressure on tariffs (recent agreement concluded to lower tariffs by 15% in 2010)
- Network saturation<sup>1</sup> (poor voice quality), and
- Saturated market (penetration rate at 174.4% in 2010).

There is a need for telco operators to reassess their strategic marketing options and manage their capital and operating expenditure in view of the current low ARPU/tariffs.

<sup>1</sup>Dramatic growth in mobile subscribers has resulted in network saturation i.e. congestion in the radio interface/congestion in the Radio Network Controller as well as the core network

To stay competitive telco operators need to:

1. Differentiate through greater customer centricity
2. Move towards simplicity, i.e. streamline complex organisation structure, technology, resources and customer services

3. Collaborate with competitors and other complementary service providers

These provide the basis of transformation to differentiate, add value, generate revenue and reduce cost.

**Chart 23: Transformation of telco business model to drive revenue and lower cost**

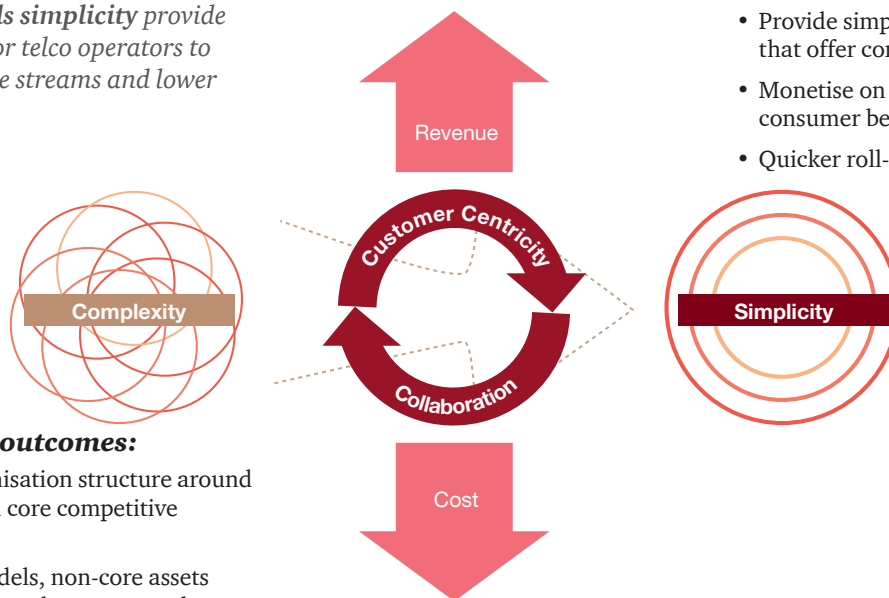
*Customer focus, collaboration and a move towards simplicity provide opportunities for telco operators to improve revenue streams and lower operating costs.*

**Customer outcomes:**

- Provide simple, value-add services that offer convenience
- Monetise on changing/emerging consumer behavior
- Quicker roll-out of innovative services

**Operational outcomes:**

- Simplify organisation structure around customers and core competitive advantages
- Asset light models, non-core assets and resources can be outsourced or shared
- Leverage on third party resources and capabilities through collaboration



Source: PwC analysis

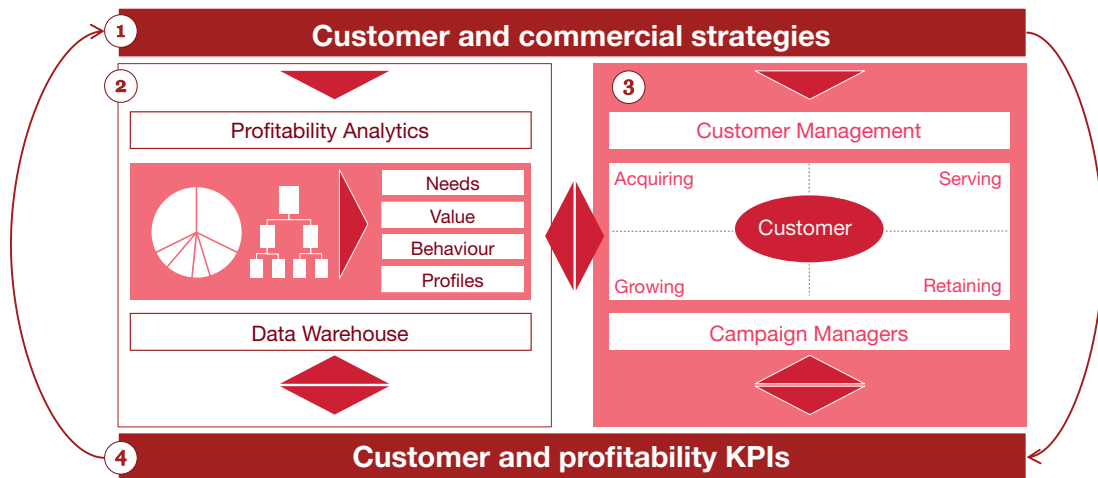
### Customer centricity

Vietnam telco operators have been competing on the basis of price to protect and gain market share. With prospects of further reduction in mobile tariffs and a low industry ARPU, competing on price alone will not provide sustainable returns.

Their future growth and success lies in understanding customers' needs and their communication patterns. Information on customers can lead to more personalised experiences, which offer differentiation and open up new revenue opportunities.

In order to successfully manage the transition to customer centricity, telco operators need to be able to measure and manage the real profitability of the customer. This needs to be operationalised such that it becomes an integral part of their decision making.

Chart 24: Customer value management



- Profitability is at the centre of an organisation (2)
- Customer and profitability KPIs (4) are aligned with the customer and commercial strategies (1)
- Effective and efficient capturing and analysis of information in suitable data warehouse environment (2);
- It is critical that insights from profitability are used to shape-up processes, value chain and channels that affect customer experience (3)

Source: PwC analysis



### ***Move towards simplicity***

The competitive and low ARPU environment in Vietnam requires telco operators to minimise duplications and internal competition to conserve resources and focus on servicing customers.

The key to achieving this lies in keeping services and operations simple. This can be accomplished by:

- Increasing collaboration and integration between internal units and product groups to operate holistically with the same objectives. They shouldn't operate in silos or have competing objectives.
- Focusing on core competitive advantages such as brand and customer management, and outsourcing or sharing non-core assets and resources such as IT, network infrastructure and customer service call centres.



### ***Exploring collaborations***

Declining ARPU and the high cost of rolling out network infrastructure like 3G and in rural areas makes it unfeasible for Vietnam telco operators to own all the elements of the network infrastructure.

For Vietnam, collaboration among telco operators offers opportunities to:

- Reduce capital and operating expenditure, via sharing network infrastructure to achieve an asset-light model, and
- Roll out and introduce 3G services and mobile networks in rural areas faster.

The move by MIC to allow local telco companies to collaborate with foreign partners<sup>1</sup> offers opportunities for existing network operators to increase network utilisation (i.e. through leasing network capacity) and allows foreign partners<sup>1</sup> to increase market access and penetration.

<sup>1</sup>Foreign partners are allowed to own up to 51% in the partnership to provide non facilities-based services i.e. offer fixed or mobile services with no network infrastructure



### ***Fast forward***

Looking ahead, Vietnam's telco industry faces significant challenges but also brings a new set of opportunities for operators.

Amid rising margin pressures, the ability to raise finance for capital investment is a key concern. Operators can differentiate themselves by developing a value management strategy which focuses on customers and profitability. Placing customers at the heart of their business will allow operators to make more effective investment decisions which have the most impact on customer needs.



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## ***PwC telco capabilities***

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## *Getting the right fit*

### ***Navigating through challenges***

Telco companies are facing new frontiers, with decreasing growth rates and lower voice ARPU. On the other hand, smartphones, high-speed connections, and multimedia rich contents are driving mobile data volume, but not data revenues.

Many telco companies are finding that their operating models are too complex to address the shift in telco environment from voice to data and VAS.

To remain competitive and build value from these new frontiers, operators need to focus on getting the right fit or business model for the future. This means a thorough evaluation of their entire business with the sole purpose of simplifying the operating model, focusing on the customer and stripping out unnecessary complexity and cost. The evaluation begins with a firm understanding of the organisation's business, customers, and external environment.

### ***Customising solutions***

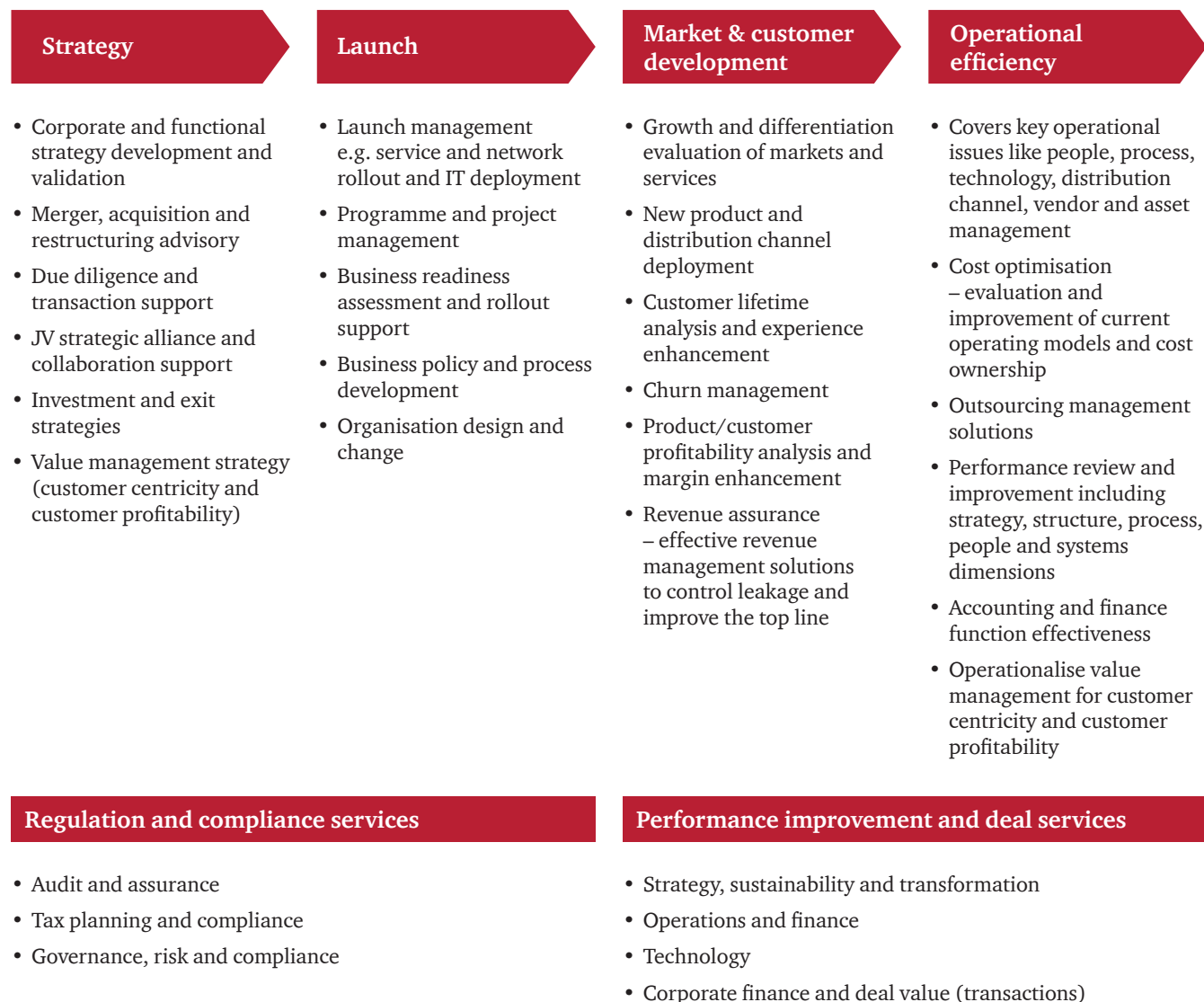
At PwC, we recognise that telco companies are subjected to rapid changes. We work to bring value solutions by working with you and sharing our experience and subject matter knowledge.

We have a dedicated regional telco practice spanning five countries in emerging Southeast Asia - Malaysia, Thailand, Vietnam, Cambodia and Laos - to pull resources and experience to best serve your needs.

Today, our telco practice is a multi-disciplinary team comprising over 200 dedicated professionals. We have expanded our service offerings to include areas beyond audit and tax, looking at a whole range of business issues, while taking into consideration industry risks and challenges. The diagram on the next page depicts some of our key service offerings.



## Breadth and depth of our service capabilities



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## *Appendix and glossary*

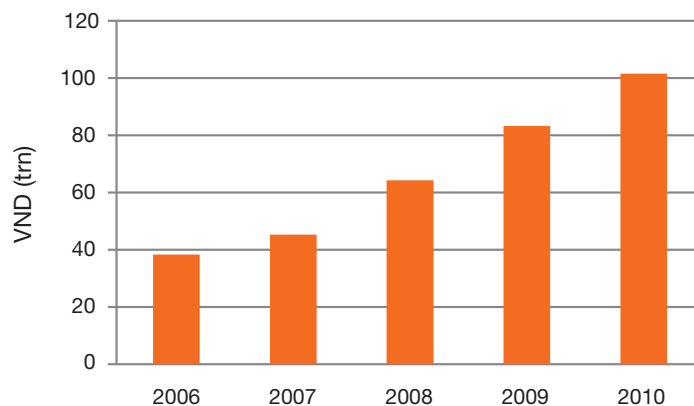
Appendix - Profile of Vietnam's major telco operators:

- VNPT
- Viettel
- MobiFone
- VinaPhone

Glossary

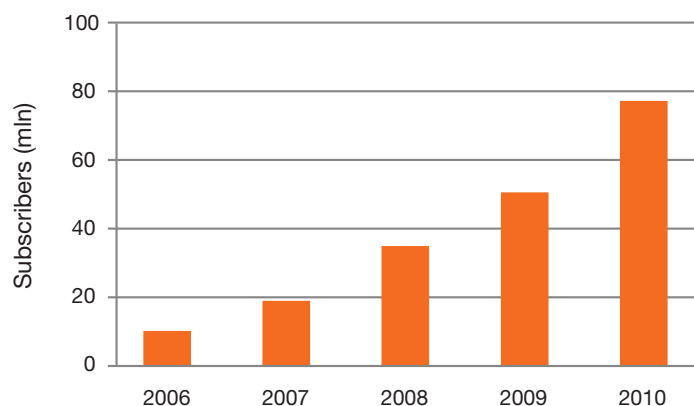
# VNPT

## VNPT turnover



Source: BMI

## VNPT mobile subscriber base



Source: BMI

## Background

- Wholly owned by the government and the country's main telco service provider.
- Operates the national core telco network in 63 cities and provincial areas.
- Dominant fixed-line, Internet and broadband operator, with more than 60% market share.
- Controls 54% of total mobile subscription, through two leading mobile operators: MobiFone and VinaPhone.

## Investment and strategy

Investing heavily in mobile, broadband and VAS.

### Mobile

- Looks to list its mobile units i.e. MobiFone and subsequently VinaPhone to provide new capital for investments.
- Seek strategic foreign partners to provide new skills set from its mobile units listing.
- Continue to expand mobile network coverage.
- Engage in price war with major rival, Viettel.
- Invest and expand 3G services and market penetration.
- Licence to conduct trials on 4G LTE network to bid for subsequent auction of 4G licence.
- Tie-up with Russian Alltech Telecom to provide broadband Internet services based on 4G/LTE network.

### Broadband

- Upgrade and expand broadband bandwidth and network, including WiMAX, to meet growing subscriber base.
- Launched broadband satellite services in 2010. Investing in second telco satellite to add capacity for Internet services.

### Fixed line

- Continue rural expansion to grow fixed-line subscriber base.

### Corporate data services

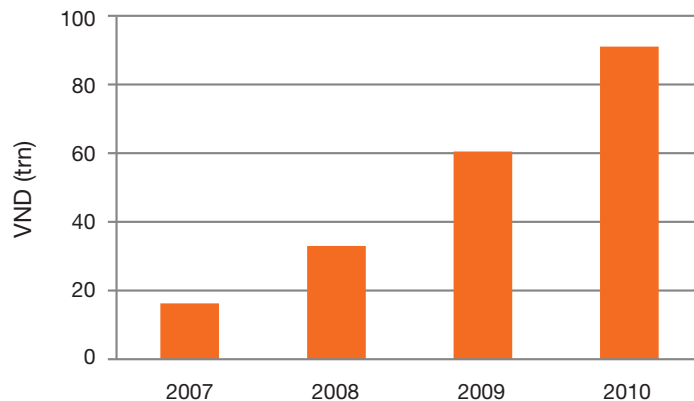
- JV with NTT Communications to provide premium data centre to MNCs.
- Partner with Cable & Wireless to provide virtual private network (VPN) services.

### Merger/disposal

- May have to merge both its mobile units or sell one of them due to a new regulation that limits institutions or individuals controlling more than one operator in the same telco market.

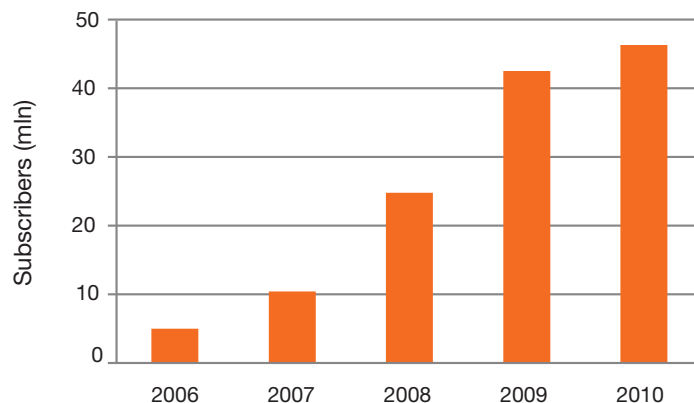
# Viettel

## Viettel turnover



Source: BMI

## Viettel mobile subscriber base



Source: BMI

## Background

- Wholly owned by the Ministry of Defense and a major mobile, fixed line and Internet provider in Vietnam.
- Mobile market leader, with 33.8% market share. Around 70% of its subscribers are from the rural region.
- Second largest fixed line and broadband operator, with 22% and 12% market share, respectively.
- Won the most attractive charge packages in Vietnam Mobile Awards 2010.

## Investment and strategy

Focus on low tariff, mobile data and overseas expansion.

### Mobile

- Undertake network investments and improve service quality and tariffs.
- Engage in price war with major rival VNPT (MobiFone and VinaPhone).
- Increase revenue from mobile data services through smartphones.

### Broadband

- Expand cable and wireless broadband and fibre-optic network.
- Expand 3G mobile internet services, through reducing fees, service charges, and offering promotions.

### Fixed-line

- Continue rural expansion to grow fixed-line subscriber base.
- Focus on home phone subscribers in rural regions and enhancing base transceiver stations.

### Corporate data services

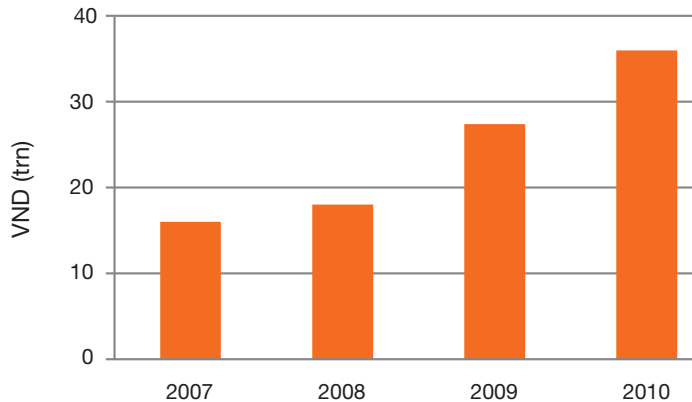
- JV with Taiwan's Chunghwa Telecom to set-up Internet data centre.

### Overseas expansion

- Expand overseas through strategic investments and acquisitions.
- Already active in Cambodia and Laos and aims to expand its reach into 15 countries by 2015 e.g. Haiti, Bangladesh, Myanmar and African countries.

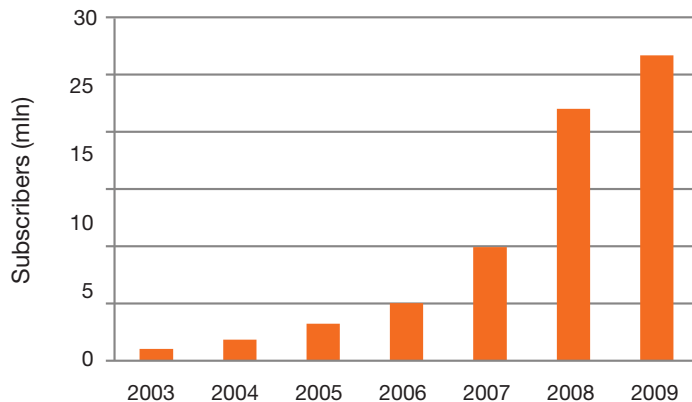
## MobiFone

### MobiFone turnover



Source: BMI

### MobiFone mobile subscriber base



Source: BMI

### Background

- Vietnam Mobile Telecom Services, a VNPT subsidiary, operates the MobiFone cellular telephone brand.
- Share second-largest mobile position with VinaPhone, with 27% market share. Also one of four 3G licence operators.
- Was the first and largest mobile provider in Vietnam, before being taken over by Viettel.
- Won the most favourite mobile network title in Vietnam Mobile Awards 2010.

### Investment and strategy

Lower voice tariff, expand VAS, build network reach, and possible IPO.

### Mobile

- Reducing mobile tariff rates and charges to protect market share and grow customer base.
- Look to VAS to strengthen non-voice service portfolio.
- Launching 3G network nationwide, offering discounts, promotion package and lower fees to attract customers.
- Deferred IPO listing in 2009 due to financial crisis.
- Continued interest from Vodafone and France Telecom to acquire a strategic stake in MobiFone.

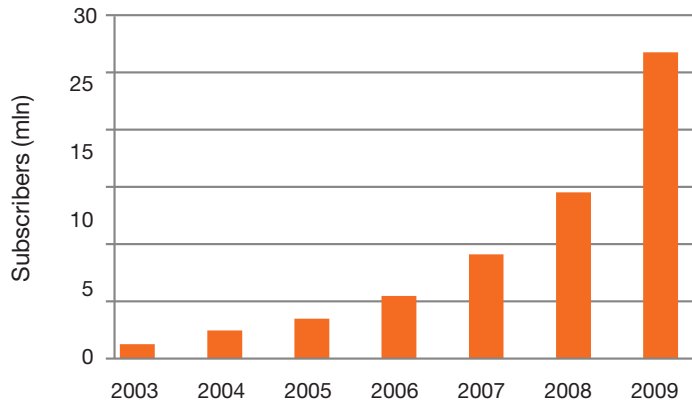
### Merger/disposal

- MobiFone may be merged with VinaPhone or sold by VNPT due to a new regulation that limits institutions or individuals controlling more than one operator in the same telco market.



# VinaPhone

## VinaPhone mobile subscriber base



Source: BMI

### Background

- Vietnam Telecom Services Company, a VNPT subsidiary, operates the VinaPhone cellular telephone brand.
- Shares second-largest mobile position with MobiFone, with 27% market share.
- First operator to launch 3G services and claims to have the largest 3G subscriber base.
- Won the best 3G network title in Vietnam Mobile Awards 2010.
- Achieved a turnover of VND28.172 trillion in 2010.

### Investment and strategy

Competitive tariff, expand 3G and VAS.

### Mobile

- Offer competitive tariffs and promotion to protect and grow subscriber base.
- Improve overall network service quality and coverage.
- Rollout and expand 3G networks.
- Expand VAS portfolio to encourage non-voice spending.
- Possible IPO in the footsteps of MobiFone.

### Merger/disposal

- VinaPhone may be merged with MobiFone or sold by VNPT due to a new regulation that limits institutions or individuals owning more than one operator in the same telco market.

# Glossary

Abbreviation	Full Term	Abbreviation	Full Term
3G / 4G	Third/fourth generation mobile phone standards and technology	IPO	Initial public offering
ARPU	Average revenue per user	ISP	Internet Service Provider
B2B	Business-to-business transaction	JV	Joint venture
B2C	Business-to-customer transaction	LTE	Long Term Evolution (4G)
BMI	Business Monitor International	MIC	Ministry of Information and Communication
BU	Business unit	MNC	Multinational corporation
CAGR	Compound annual growth rate	MVNO	Mobile virtual network operator
CDMA	Code division multiple access	SPT	Saigon Post and Telecommunication Corporation
FDI	Foreign direct investment	UNCTAD	United Nations Conference on Trade and Development
GDP	Gross domestic product	VAS	Value added services
GSM	Global system for mobile communications	VND	Vietnam Dong
HCMC	Ho Chi Minh City	VNPT	Vietnam Posts and Telecommunications
HSBB	High speed broadband	WEF	World Economic Forum
ICT	Information and communication technology	WiMAX	Worldwide Interoperability for Microwave Access
IDC	International Data Corporation		





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