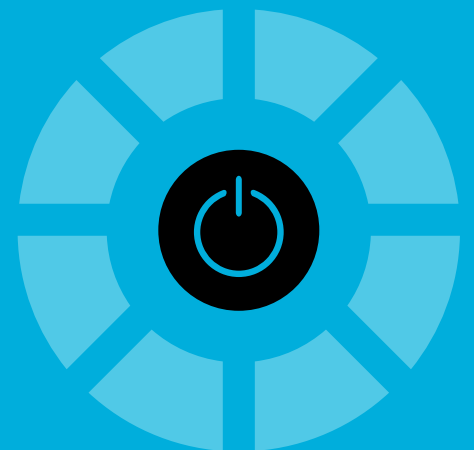


# **VIETNAM**

## **CONSUMER ELECTRONICS REPORT**

INCLUDES 5-YEAR FORECASTS TO 2014





# Vietnam Consumer Electronics Industry Report Q1 2010

Including 5-year industry forecasts by BMI

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## Part of BMI's Industry Report & Forecasts Series

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## Executive Summary

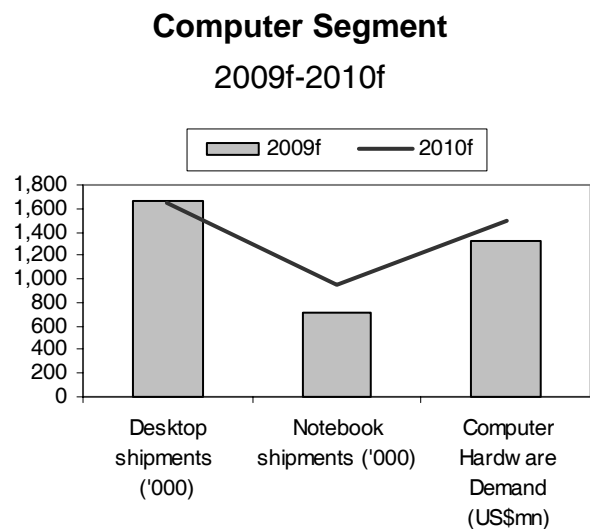
Vietnam's consumer electronics devices market, defined as the addressable computing devices, mobile handsets and video, audio and gaming products, is projected to be worth around US\$4.4bn in 2010. This is expected to increase to US\$6.8bn by 2014, driven by growing affordability of key products.

In H109 Vietnam retail demand appeared resilient in comparison to several other Asian markets. Retailers ran a series of promotions to combat the effects of the economic slowdown and slashed the prices of many products to boost demand.

The electronics devices market is forecast to grow at an overall CAGR of 13% through 2014. The vast and relatively underpenetrated rural market presents a significant growth opportunity as the government rolls out measures to boost rural incomes.

### Computers

Computers accounted for around 35% of Vietnam consumer electronics spending in 2009. **BMI** forecasts Vietnam domestic market computer hardware sales (including notebooks and accessories) of US\$1.5bn in 2010, up from US\$1.3bn in 2009. Computer hardware CAGR for the 2010-2014 period will be around 14%, with notebooks accounting for about 30% of shipments.

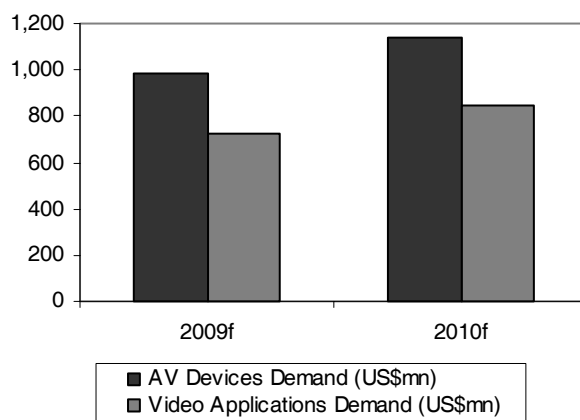


*e/f = BMI estimate/forecast. Source: BMI*

### AV Devices

AV devices accounted for around 26% of Vietnamese consumer electronics spending in 2009. Vietnam's domestic audio, video and gaming device market is forecast at US\$1.1bn in 2010. The market is expected to grow at a CAGR of 14% between 2010 and 2014 up to a value of US\$2.0bn at the end of the forecast period. Video applications account for around 76% of the total market.

### AV Segment 2009f-2010f

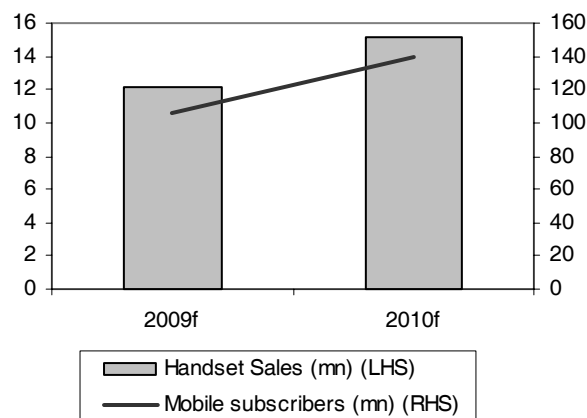


e/f = BMI estimate/forecast. Source: BMI

### Mobile Handsets

Vietnamese mobile handset sales accounted for around 39% of Vietnamese consumer electronics spending in 2009. Total Vietnamese market handset sales are expected to grow at a CAGR of 11% to US\$2.3bn in 2014, as mobile subscriber penetration soars towards 256%. The inaugural Vietnamese 3G mobile services launch by **VinaPhone** will provide a boost, but the market remains dominated by low-priced handsets.

### Mobile Handsets Demand 2008e-2009f



e/f = BMI estimate/forecast. Source: BMI

## SWOT Analysis

### Vietnam Consumer Electronics Market SWOT

- Strengths**
- The domestic market is entering a rapid growth phase, with trade liberalisation and growing affordability driving projected double-digit growth of key products such as LCD TV sets, notebook computers and mobile handsets
  - Low rates of penetration for key products such as computers and mobile phones
  - Rising incomes and GDP growth are increasing affordability, with a huge and relatively untapped market in the rural and suburban areas
  - Weak domestic industry with local vendors lacking brand identity and distribution network to compete with foreign vendors
- Weaknesses**
- Low incomes and huge digital inequalities mean high price sensitivity and low prices
  - Large 'grey' market for illegal products
  - Relatively low level of demand for higher-end products
  - Infrastructure deficiencies, with only a small number of Vietnamese houses capable of receiving broadband
  - Economic instability and high inflation deflating potential demand
- Opportunities**
- Steep cuts in import tariffs in 2009 for ASEAN products to between 0-5% will drive increases in demand for imported electronic products, with subscribers waiting to spend after the tariffs cuts
  - Rapid growth in mobile subscriptions, which will almost double, will drive booming mobile handset market, with most of the action in the sub-1 million dong bracket
  - LCD screen notebooks are forecast to grow at close to a triple-digit rate over the next year
  - Big opportunity for expansion in under-penetrated semi-urban and rural areas
- Threats**
- High inflation and global economic slowdown may affect business and consumer spending
  - Lack of political will for economic and social reform may delay market development
  - Relentless pressure for lower prices could erode margins

## Vietnam Electronics Industry SWOT

- Strengths**
- Low labour costs and a large emerging domestic market make Vietnam a potentially interesting location for global vendors
  - Rapid growth in the past few years, with electronics exports rising from just US\$166mn in 2002 to close to US\$2.5bn in 2008
  - Vietnam exports electronics products to nearly forty countries around the world, with growing trade with the EU, up 38.6% in the first five months of 2008, and total electronics exports expected to reach US\$9bn by 2012
  - Tariffs on components cut from 9.41% to 6.36% in 2009
  - Government support and incentives for investment particularly in semiconductors
- Weaknesses**
- IPR problem and piracy
  - Industry capabilities limited mainly to assembly, with domestic industry revenues only about US\$2.2bn in 2008
  - Lack of a parts or components industry capable of supporting profitable manufacture of finished goods
  - Domestic companies are small and lack technological abilities and management skills
  - Domestic consumer electronics market dominated by foreign brands, with few Vietnamese brands competitive in most product categories
- Opportunities**
- State and reforms to encourage more investment into the sector and encourage domestic investment in R&D
  - Vietnam is an emerging location for semiconductors, with the market worth around US\$5bn, and embedded software
- Threats**
- Slowdown in global computer and consumer electronics applications markets
  - Global vendors are closing fracturing facilities to focus on import
  - Government policy to stimulate the hardware sector having mixed results
  - Future progress will depend on government improvement in policy areas like IP protection, IT infrastructure and tariffs regime

## Vietnam Political SWOT

- Strengths**
- The Communist Party government appears committed to market-oriented reforms necessary to double 2000's GDP per capita by 2010, as targeted. The one-party system is generally conducive to short-term political stability
  - Relations with the US are generally improving, and Washington sees Hanoi as a potential geopolitical ally in South East Asia
- Weaknesses**
- Corruption among government officials poses a major threat to the legitimacy of the ruling Communist Party
  - There is increasing (albeit still limited) public dissatisfaction with the leadership's tight control over political dissent
- Opportunities**
- The government recognises the threat that corruption poses to its legitimacy, and has acted to clamp down on graft among party officials
  - Vietnam has allowed legislators to become more vocal in criticising government policies. This is opening up opportunities for more checks and balances within the one-party system
- Threats**
- The sharp slowdown in growth expected in 2009 is likely to weigh on public acceptance of the one-party system, and street demonstrations to protest economic conditions could easily develop into a full-on challenge of undemocratic rule
  - Although strong domestic control will ensure little change to Vietnam's political scene in the next few years, over the longer term, the one-party-state will probably be unsustainable
  - Relations with China have deteriorated over the past year due to Beijing's more assertive stance over disputed islands in the South China Sea and domestic criticism of a large Chinese investment into a bauxite mining project in the central highlands, which could potentially cause widescale environmental damage

**Vietnam Economics SWOT**

- Strengths**
- Vietnam has been one of the fastest-growing economies in Asia in recent years, with GDP growth averaging 7.6% annually between 2000 and 2007
  - The economic boom has lifted many Vietnamese out of poverty, with the official poverty rate in the country falling from 58% in 1993 to 20% in 2004
- Weaknesses**
- Vietnam still suffers from substantial trade, current account and fiscal deficits, leaving the economy vulnerable as the global economy enters into recession in 2009. The fiscal picture is clouded by considerable 'off-the-books' spending
  - The heavily managed and weak dong currency reduces incentives to improve quality of exports, and also serves to keep import costs high, thus contributing to inflationary pressures
- Opportunities**
- WTO membership has given Vietnam access to both foreign markets and capital, while making Vietnamese enterprises stronger through increased competition
  - The government will, in spite of the current macroeconomic woes, continue to move forward with market reforms, including privatisation of state-owned enterprises and liberalising the banking sector
  - Urbanisation will continue to be a long-term growth driver. The UN forecasts the urban population to rise from 29% of the population to more than 50% by the early 2040s
- Threats**
- Inflation and deficit concerns have caused some investors to re-assess their hitherto upbeat view of Vietnam. If the government focuses too much on stimulating growth and fails to root out inflationary pressure, it risks prolonging macroeconomic instability, which could lead to a potential crisis
  - Prolonged macroeconomic instability could prompt the authorities to put reforms on hold, as they struggle to stabilise the economy

**Vietnam Business Environment SWOT**

- **Strengths**
  - Vietnam has a large, skilled and low-cost workforce that has made the country attractive to foreign investors
  - Vietnam's location – its proximity to China and South East Asia and its good sea links – makes it a good base for foreign companies to export to the rest of Asia and beyond
- **Weaknesses**
  - Vietnam's infrastructure is still weak. Roads, railways and ports are inadequate to cope with the country's economic growth and links with the outside world
  - Vietnam remains one of the world's most corrupt countries. Its score in Transparency International's 2008 Corruption Perceptions Index was 2.7, placing it in 20th place in the Asia Pacific region
- **Opportunities**
  - Vietnam is increasingly attracting investment from key Asian economies, such as Japan, South Korea and Taiwan. This offers the possibility of the transfer of high-tech skills and know-how
  - Vietnam is pressing ahead with the privatisation of state-owned enterprises and the liberalisation of the banking sector. This should offer foreign investors new entry points
- **Threats**
  - Ongoing trade disputes with the US, and the general threat of American protectionism, which will remain a concern
  - Labour unrest remains a lingering threat. A failure by the authorities to boost skills levels could leave Vietnam a second-rate economy for an indefinite period

## Business Environment Ratings

BMI's Asia CE Business Environment Ratings compare the potential of a selection of the region's markets over our forecast period, through to 2014. The ratings reflect our market size and growth potential as well as our consideration of political and economic risks, market openness and risks associated specifically with government policies.

In 2009 the global economic slowdown had a marked but varied impact across Asian CE markets, with spending growth decelerating sharply in some states like Malaysia, but holding up relatively well in others like Australia.

Our table shows a correlation between GDP/capita and the business environment rating. The established markets of Australia, Hong Kong and Singapore retain the top three positions, while higher income markets Taiwan and South Korea occupy two of the remaining top-six spots, and the lower income markets of Indonesia, Vietnam and Pakistan prop up the table.

In the relatively mature markets of Australia, Hong Kong, Singapore, Taiwan and South Korea, an increasing demand for constant connectivity across multiple platforms is driving spending in a number of product categories, along with growing broadband penetration. Sophisticated consumers are willing to spend on upgrading in-home entertainment systems, while handset replacement rates are low. Vendors will look to new technologies and product innovation to support growth with products like LED TV sets, SLR cameras, and smartphones.

In most cases vendors in these markets were hopeful of a relatively strong end to 2009, after a year in which consumers retrenched due to economic uncertainty, rising unemployment and a negative wealth effect from the global slump in asset prices. Going forward, the popularity of lower price netbook computers will support growth in the notebook segment, as will an enhanced fixed and mobile telecoms operator focus on broadband revenues, and 3G handsets will also be a growth area.

In fourth-ranked China, the government's CNY4trn stimulus package seemed in H209 to have created a more positive consumer outlook, particularly given subsidies for electronics devices buyers in rural areas. Consumer electronics sales were boosted by strong spending during the extended National Day holiday week in early October. Regardless of short-term developments, the market potential is clear with growth driven by both the affluent east coast market, and the untapped rural hinterlands. The rural market will be an important source of future growth in the mobile handset and computer segments.

In eighth spot, the India market is considerably smaller, but by the same token, there is more untapped growth potential. There were signs in Q109 of a revival of demand in the PC market, while demand for

digital TV sets continued to grow, and handset manufacturers announced further expansion of local production. The India government has launched a number of measures to boost the local consumer electronics industry, including an extended waver on mobile handsets import duty. Key opportunities in this market include low-cost mobile handsets, colour TVs, set-top boxes and notebook computers.

The higher ranked South East Asian markets of Malaysia, Thailand and the Philippines all proved vulnerable in 2009 to the global economic stability. However, stimulus packages, for example in Thailand and Malaysia, boosted the spending power of rural residents and should help these consumer electronics markets rebound. PC penetration is still relatively low in these markets, representing an opportunity for vendors in the context of low-price PC initiatives. Penetration is also fairly low in product areas such as LCD TV sets and digital cameras, and the mobile phone market will be driven increasingly by replacement sales.

In our bottom-ranked markets of Indonesia, Vietnam and Pakistan, penetration of many consumer electronics devices is currently low. PC penetration is as low as 1.5% in Indonesia, for example, but the considerable potential of these markets is currently depressed. In Indonesia relevant factors include low incomes, a complex geography and poor IP protection. In Pakistan the issues include a large grey market, an unstable economic and security situation and weak distribution channels. In both markets growth will be driven, however, by growing affordability and more credit availability.

**Table: Regional Consumer Electronics Business Environment Ratings**

	Limits of Potential Returns			Risks to realisation of returns			CE BE Rating	Regional Ranking
	CE Market	Country Structure	Limits	Market Risks	Country Risk	Risks		
Australia	63	75	67	85	75	79	70.8	1
Singapore	57	73	62	85	88	87	69.7	2
Hong Kong	53	70	59	75	78	77	64.4	3
China	75	28	58	55	77	68	61.3	4
South Korea	55	43	51	70	70	70	56.5	5
Taiwan	52	40	48	70	81	77	56.3	6
Malaysia	53	45	50	70	59	63	54.3	7
India	58	13	42	60	61	61	47.8	8
Philippines	42	35	39	70	64	66	47.5	9
Thailand	45	23	37	55	73	66	45.6	10
Indonesia	47	25	39	60	52	55	44.0	11
<b>Vietnam</b>	<b>43</b>	<b>18</b>	<b>34</b>	<b>50</b>	<b>33</b>	<b>40</b>	<b>35.9</b>	<b>12</b>
Pakistan	33	15	27	40	45	43	31.8	13

Source: BMI. Scores out of 100, with 100 highest. The Consumer Electronics (CE) BE Rating is the principal rating. It is comprised of two sub-ratings 'Limits of Potential Returns' and 'Risks to realisation of returns', which have a 70% and 30% weighting, respectively. In turn, the 'Limits' Rating is comprised of Consumer Electronics Market and Country Structure, which have a 65% and 35% weighting, respectively, and are based upon growth/size of the CE industry (Market) and the broader economic/socio-demographic environment (Country). The 'Risks' rating is comprised of Market Risks and Country Risk, which have a 40% and 60% weighting, respectively, and are based on a subjective evaluation of barriers to entry and the regulatory environment (Market) and the industry's broader Country Risk exposure (Country), which is based on BMI's proprietary Country Risk Ratings. The ratings structure is aligned across the 16 Industries for which BMI provides Business Environment Ratings methodology and is designed to enable clients to consider each rating individually or as a composite, which the choice depending on their exposure to the industry in each particular state. For a list of the data/indicators used, please consult the appendix at the back of the report.

## Consumer Electronics Market

Vietnam's domestic consumer electronics devices market, defined to include computing devices, mobile handsets, and video audio and gaming products, was projected to be worth around US\$4.4bn in 2010, and this is expected to increase to US\$6.8bn by 2014, driven by growing affordability of key products.

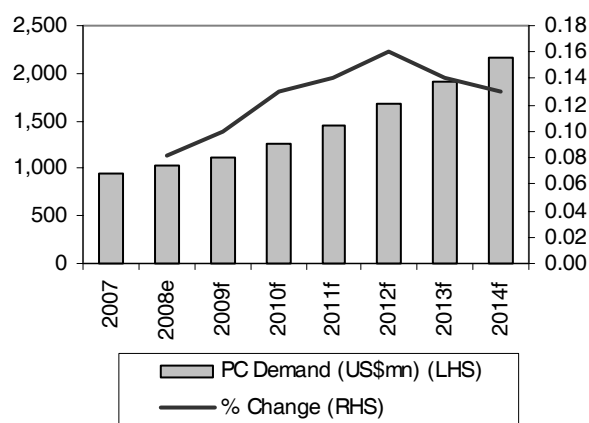
A reduction in tariffs on imported electronics products and components from January 2009 had an impact on the market. Some multinational vendors including **Sony** announced plans to roll back local assembly operations and switch to a more import-based strategy for the Vietnam market. Meanwhile, retailers launched a series of promotions to combat the economic downturn and cut prices of many products in a bid to stimulate demand.

### Computers

**BMI** projects that sales in Vietnam's computer hardware market will be worth around US\$1.5bn in 2010, up from an estimated US\$1.3bn in 2009. The main growth driver will be affordable notebooks, with various models of the smaller form factor netbooks selling well in H109.

In 2009 imports received a boost following cuts in import tariffs on finished electronic products. Despite the effects of the global economic crisis, the long-term fundamentals should support strong growth. PC penetration was around 9.6% in 2007 according to World Bank figures.

**Computer Demand**  
2007-2014f



e/f = BMI estimate/forecast. Source: BMI

Table: Computers – Demand

	2007	2008e	2009f	2010f	2011f	2012f	2013f	2014f
Domestic computer hardware sales (US\$mn)	1,110	1,200	1,320	1,492	1,700	1,972	2,249	2,541
PC sales revenues (US\$mn)	944	1,020	1,122	1,268	1,445	1,677	1,911	2,160
Desktop shipments ('000)	1,992	2,066	1,667	1,644	1,683	1,748	1,826	909
Notebook shipments ('000)	320	419	709	959	1,262	1,669	2,130	1,300

e/f = estimate/forecast. Source: BMI

Growth in 2009 was being driven by the consumer segment, with government and business spending having slowed due to the effects of the economic crisis. In contrast, Vietnamese retail sales posted an impressive 21.5% year-on-year (y-o-y) growth in January-April 2009, with local consumers apparently more optimistic than their peers in many other Asian economies.

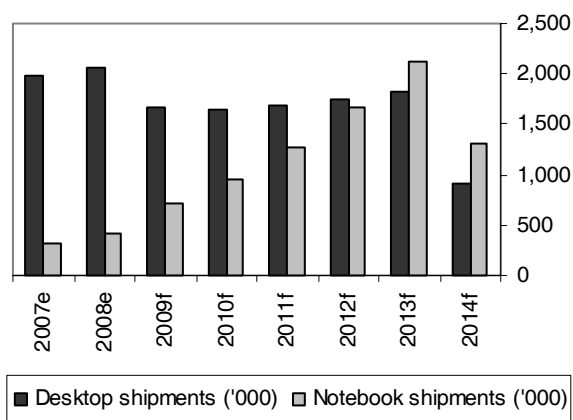
Going forward, however, government programmes are expected to make a significant contribution to computer sales. In August 2009 the Vietnamese government announced a national programme to supply 1mn computers at favourable prices to Vietnamese schools by 2011. Multinational IT vendors such as **Acer**, **Intel** and **Microsoft** were participating in the programme. Desktops will retail under the programme at around US\$161, or about half the usual price. The computers will come loaded with educational software and with broadband connections.

Laptop prices were expected to fall about 10-15% in 2009, boosting sales. In H109 the effects of recent cuts in duty were apparent in electronics retail stores, with leading brands of notebooks selling at notable discounts to their 2008 prices. In 2008 VAT on electronic products was raised from 5% to 10%, but that hike has now been reversed, and much of the benefits seemed to have been passed on to consumers. At local electronics and home appliance retail centres popular notebooks models by vendors such as **HP**, **Sony** and **Dell** were selling had been reduced by between about 7-12%.

The PC market had slowed to about 8% growth in 2008, with high interest and inflation rates and currency instability meaning that consumers and small and medium-sized enterprises (SMEs) cut back on spending to save money. However, sales showed some signs of recovery in H208, and growth is expected to be about 18% in 2009.

In H208, vendors turned the situation around with promotions for the back-to-school period, and new models which were launched to capitalise on the traditionally higher demand in the second half of the year. The biggest threat to continued growth was inflation, which peaked at around 27% in 2008 and made computer products less affordable. An easing of inflation, and cuts in tariffs in 2009, should see sales growth pick up again.

### Computers Shipments 2007-2014f



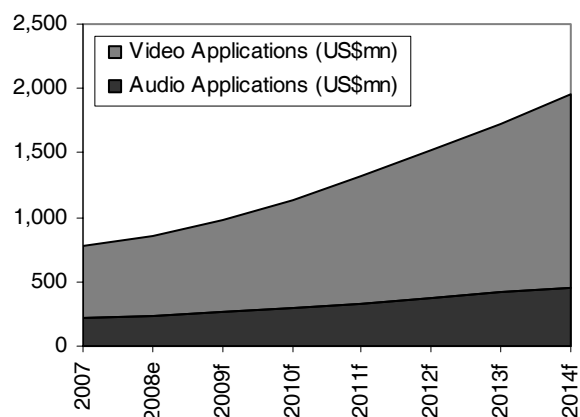
e/f = BMI estimate/forecast. Source: BMI

The main driver of sales is notebooks, for which the addressable market was estimated at around 700,000 units in 2009. Vendors and retailers reported double-digit growth for notebooks in the first half of the year. Notebooks were around 30% of sales, but should pass 50% within the forecast period. In particular LCD screen notebooks are forecast to grow at a close to triple-digit rate over the next year. Vendors are promoting small form-factor 'netbooks', and this segment had triple-digit growth in 2008. However, this segment will face strong competition from low-end notebooks with more features.

## AV

Vietnam's AV market is projected at around US\$1.1bn in 2010. The market is expected to grow at a CAGR of 14% between 2010 and 2014, to a value of US\$1.95bn in that year, driving by growing affordability thanks to steep import tariff cuts, as well as rising incomes and more flexible consumer financing.

### Audio & Video Device Demand 2007-2014f



e/f = BMI estimate/forecast. Source: BMI

In 2009 demand remained strong, despite the economic slowdown, boosted by government stimulus packages and frequent retail promotions. Many big retailers slashed prices to attract customers, with promotions like 'Big Sale Month' in Ho Chi Minh City seeing revenues soar by around 30%. LCD TV sets were one of the fastest-growing product areas.

Video applications account for more than 70% of the total market, and are expected to grow to nearly US\$1.5bn by 2014, driven particularly by fast growth in demand for LCD and Plasma TV sets, which accounted for as much as 40% of category sales in 2009. Gaming devices account for around 3% of total demand. The biggest area of untapped demand is the rural market, whose vast potential is largely ignored by many businesses. Despite the relatively low purchasing power of rural consumers, the rural market is thought to account for about 60% of rural trade, and a 2009 survey by market research firm TNS found that 95% of rural residents were ready to buy TV sets.

Table: AV – Demand

	2006	2007	2008e	2009f	2010f	2011f	2012f	2013f	2014f
Domestic AV devices sales (US\$mn)	650	780	860	980	1,137	1,319	1,517	1,730	1,954
– Video applications (US\$mn)	468	562	628	722	844	987	1,144	1,314	1,497
LCD & plasma TV sets (US\$mn)	150	202	251	325	388	484	595	710	808

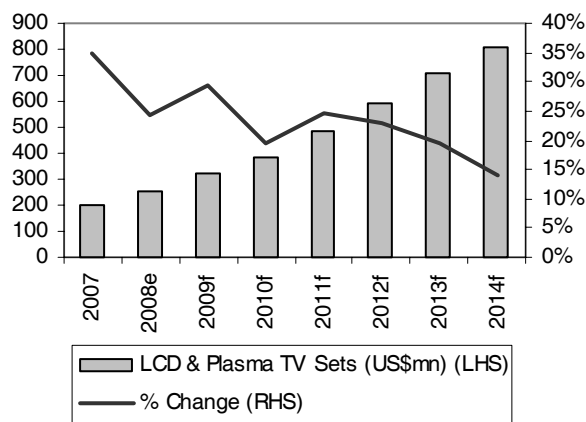
e/f = BMI estimate/forecast. Source: BMI

Sales of LCD TV sets received a boost in July 2009, when the Ministry of Finance (MoF) announced that it would cut import tariffs on LCD screens by two-thirds, to 1% from 3%. The move was intended to benefit local TV set manufacturers which import the screens, and the move was expected to feed through to lower prices in H209.

In early 2009, sales were up about 20% y-o-y during the Tet holiday season, a traditional purchasing peak. As in previous years, many employees spent their Tet bonuses on electronics products such as LCD sets, although there was evidence that because of the economic slowdown some households were choosing to buy less expensive items. Demand was flat after the Tet seasonable peak, and fearing that the economic situation could prolong stagnation, many retail outlets continued with Tet promotions of between VND500,000 and VND4mn. Others ran new promotions linked to festivals such as Valentine's Day, aimed mainly at younger people. Vendors were also getting involved, with Sony giving away mobile tickets and shirts in one offer. Vendors and retailers were wary about market prospects in 2009 because of the prospect that import tax reductions would lead to an excess of supply over demand. Prices of key products such as TV sets and digital cameras are expected to fall further in 2009.

Sales had slowed towards the end of 2008, as consumers anticipated lower prices in 2009 due to import tariffs cuts of between 0-5%. Electronics retailers responded by slashing prices, with reductions of up to 30%. The sales of LCD TVs at electronics stores in Ho Chi Minh City reportedly rose 20% in November on the back of the price cuts, with 32 inch, 37 inch and 42 inch sets from **Panasonic**, **Samsung** and Sony among the best sellers. Sales of LCD and Plasma TV sets were estimated at about US\$251mn in 2008, and this was expected to pass US\$800mn by 2014.

**LCD & Plasma TV Demand**  
2007-2014f



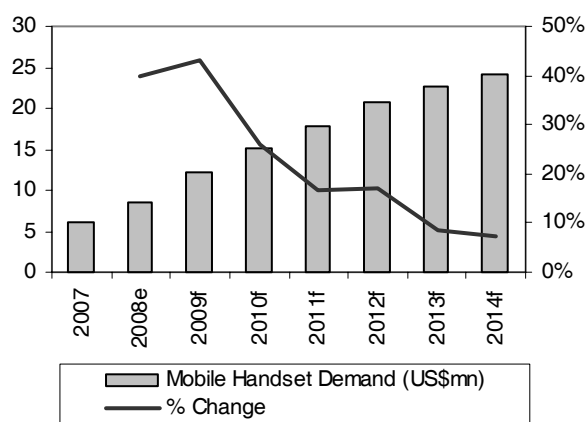
e/f = BMI estimate/forecast. Source: BMI

## Mobile Handsets

Vietnamese market mobile handset sales are projected by **BMI** at 15.2mn units in 2010. The addressable market is expected to grow at a CAGR of 12% to 24.2mn units in 2014, a rate of growth greater than that of giant neighbour China.

The underlying handset market driver is the fast growth rate of mobile subscribers. As of the end of 2008, we believe there were 69.1mn subscribers, with a penetration rate of 80%. This was expected to increase to 105.3mn subscribers and 120% penetration by the end of 2009. The rate of growth of the mobile sector has been impressive, despite the beginning of an economic downturn, not to mention other factors including the increase in mobile handset prices experienced in mid-2008, the suspension of **HT Mobile** (Vietnamobile)'s CDMA service, and registration of prepaid customers via text messages and websites. It should be remembered that the figures for the number of Vietnamese mobile customers are based on the assumption that the market contains a certain number of inactive prepaid users.

**Mobile Handset Demand**  
2007-2014f



e/f = BMI estimate/forecast. Source: BMI

Although Vietnam cannot escape the economic downturn, the mobile market was still expected to report double-digit growth of both handsets and revenues in 2009. Furthermore, the introduction of a seventh

mobile operator, **Gtel** in 2009, and the re-launch of HT Mobile as Vietnamobile, which will offer GSM services, will combine with the expected 3G licensing of no less than seven operators in order to maintain momentum across the sector.

**Table: Mobile Handsets – Demand**

	2006	2007	2008e	2009f	2010f	2011f	2012f	2013f	2014f
Mobile comms subscribers (mn)	18.1	35.8	69.1	105.3	139.3	172.5	198.9	222.3	237.9
3G subscribers (mn)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mobile penetration (%)	2140%	42%	80%	120%	156%	191%	217%	239%	256%
Domestic handset sales (US\$mn)	694	954	1,147	1,495	1,750	1,942	2,160	2,226	2,270
Domestic handset sales (mn)	3.4	6.0	8.4	12.1	15.2	17.8	20.8	22.6	24.2
– 3G handset sales (mn)	0.0	0.0	0.0	100.0	767.8	546.1	966.0	1,282.9	-762.7

e/f = BMI estimate/forecast. Source: BMI

The market is dominated by demand for low-cost phones, a segment that saw its share of total sales increase further in H109. Competition and growth in the telecoms market has been driven by rounds of mobile service tariff cuts, which have characterised recent operator strategies. As a result, revenues have grown at a slower rate than shipments. Further cuts may follow in the near future, possibly resulting in a price war.

Average handset prices fell dramatically to around US\$136 in 2008 from US\$158 in 2007, and continued to fall in 2009. The share of low-cost phones that retail at less than VND1mn is increasing. Mobile service providers are also driving the trend by providing service packages for lower income customers. Lower prices have also helped to drive the trend for people to buy more than one mobile phone. Lower mobile service prices are expected to stimulate the growth of dual SIM ownership, as mobile users increasingly take advantage of special offers. Low prices have also increased customer churn and led to a higher number of inactive prepaid users

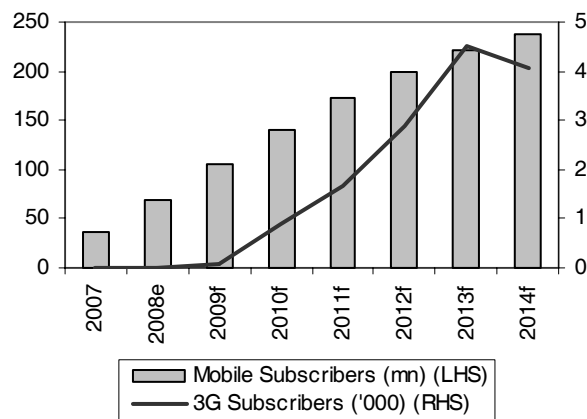
In 2009, high growth continued. Demand for mobile phones is growing fastest in provincial cities beyond the major hubs of Hanoi and Ho Chi Minh City. The investment in network expansion and improvement has had a positive impact on service quality and coverage in rural areas, where three-quarters of Vietnamese live. The market is dominated by the prepaid segment, with postpaid accounting for only about 10% of subscribers. However, operators were attempting to attract more postpaid users through

promotions. In 2009 **VinaPhone** was offering a free mobile handset for subscribers who spent an average of VND5mn a month for five months.

Vietnam has a high rate of mobile phone ownership compared with other countries in emerging Asia. According to research by Nielsen, 58% of urban residents, and 37% of suburbanites have a mobile phone. The figure for both Hanoi and Ho Chi Minh City is 74%. This compares with country figures of 46% for China and 30% for India. While most growth potential is in the rural areas, vendors will look for revenues growth to the growing demand among urban consumers for more sophisticated mobile services and handsets. In July 2009 Mobifone launched an email service over its GPRS platform which was available to enterprise and individual users through a partnership with Nokia.

## Mobile Subscribers

2007-2014f



e/f = BMI estimate/forecast. Source: BMI

Our forecast for Vietnamese 3G customer growth is based on the assumption that the first commercial deployments of 3G services will occur in 2008. In the early stages of 3G deployment, we do not expect consumer demand to be strong and envisage just 100,000 subscribers by the end of 2009. In 2009 VinaPhone became the first operator to officially launch 3G services in Vietnam. The services are available in thirteen major cities and provinces including Hanoi, Hai Phong, Quang Ninh, Thanh Hoa, Nghe An, Thua Thien Hue, Da Nang, Khanh Hoa, Ho Chi Minh City, Can Tho, Dong Nai, Binh Duong and Vung Tau.. A nationwide expansion was planned for 2010. The cost and availability of 3G-compatible handsets are expected to be the main obstacles to 3G growth in the early years of our forecast. However, the government has made 3G development a priority, and we believe that this will encourage stronger consumer demand in the latter years of our forecast.

## Consumer Electronics Industry

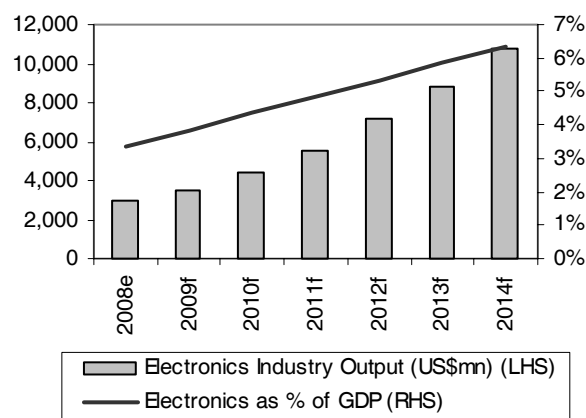
According to Vietnam's General Statistics Office, Vietnam has more than 100 enterprises specialising in manufacturing electronic products. Activities are limited for the most part to assembly, and most local enterprises are of small and medium scale. The industry lacks a support sector that would provide components, and as a result local companies find it difficult to achieve cost-competitiveness with foreign brands.

Vietnam's electronics industry output was estimated to be around US\$3.5bn in 2009, and was projected to increase at a CAGR of 26% to US\$8.8bn by 2013. As a proportion of GDP, electronics output is projected to grow from 4% in 2009 to around 6.3% by 2014. However, much will depend on the success of government efforts to reform tariffs and regulation structures to support the development of the local industry.

At a conference in July 2009, the government stated that it was determined to make Vietnam one of the world's leading IT producers within the next seven years. The government has set ambitious goals for IT turnover to reach 17-20% of the country's GDP by 2014, and 20-30% by 2020. This would imply a 35-40% growth rate. However, many commentators have criticised these targets as unrealistic. The Ministry of Education and Training (MoET) is now working on a plan to develop the required skilled human resource base to support this objective.

The government plans to spend around VDN900bn on IT training, in partnership with local universities. The IT sector as a whole, including software and IT services, achieved 49% average growth in 2008, with turnover of US\$4.74 bn. The sector employs around 30,000 people. Currently around 390 Vietnamese universities, colleges and vocational centres run courses on computer sciences, with an annual output of about 10,000 graduates, but work is still needed to raise standards.

**Vietnam Electronics Industry Output**  
2008-2014f



e/f = BMI estimate/forecast. Source: BMI

**Table: Electronics Output**

	2006	2007	2008e	2009f	2010f	2011f	2012f	2013f	2014f
Electronics industry output (US\$mn)	1,770	2,200	3,000	3,523	4,451	5,510	7,181	8,818	10,722
Electronics industry output as % of GDP	3%	3%	3%	4%	4%	5%	5%	6%	6%
Electronics exports (US\$mn)	1,606	1,880	2,300	2,070	2,174	2,478	2,934	3,485	4,120

*e/f = BMI estimate/forecast. Source: BMI*

**Exports**

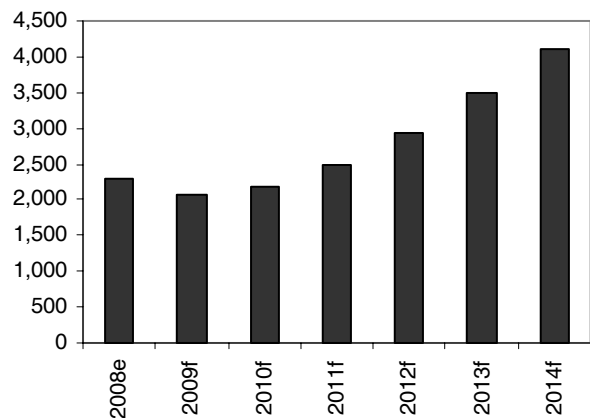
Electronics exports were forecast to be US\$2.1bn in 2009 and were projected to rise to US\$4.1bn by 2014. Electronics exports CAGR was forecast at about 14%, with the main products including computer and mobile phone parts, circuit boards and so on. In 2009 Vietnamese exports were hit by the global economic downturn, and fell 14% y-o-y in the first eight months of the year.

Electronics exports have increased steadily over recent years, from around US\$166mn in 2002, but remain at a small scale compared to many neighbouring countries. Vietnam exports to nearly forty countries around the world, with exports to the EU up 38.6% in the first five months of 2008.

Vietnam exports in the category of computer electrical goods and components were reported at around US\$147,000 in January 2009, rising to US\$216,000 in February.

The main destination countries were the US, Japan and Thailand. Meanwhile, imports in the same category were US\$170,000 in January 2009, rising to US\$216,000, with the main countries of origin being China, Japan and Malaysia.

**Electronics Exports (US\$mn)  
2008-2014f**



*e/f = BMI estimate/forecast. Source: BMI*

**Challenges**

The industry faced a critical challenge in 2009, as tariffs on electronics products imported from ASEAN countries were reduced to between 0-5%. This was as a result of Vietnam’s entry into the ASEAN Free Trade Area agreement (AFTA) in 2006, and World Trade Organization entry in January 2007. The

Vietnamese industry may now struggle to find a place in the global industry chain. Foreign investors have already started to close down manufacturing operations in Vietnam, finding it cheaper to import from other ASEAN countries such as Thailand and Malaysia.

By some assessments the local electronics industry has made little progress in the last 10 years, being limited mainly to assembly and packaging. Most Vietnamese brands, such as **VTB**, **Belco**, **Hanel** and **Tien Dat**, lack a distinct identity or wide distribution outside of remote rural areas. However, those companies that do manufacture will find it hard to compete with a wave of cheaper imports and some have already announced plans to switch to being mainly distributors for foreign-made products.

Many observers believe that the future for Vietnam's electronics industry lies in development of a part and components industry to supply the global industry, and also support the local companies. The government has outlined a plan to move local manufacturers away from simple assembly to research, design and manufacture. One area where the government has enjoyed success in recent years has been semiconductors, which has attracted increasing amounts of investment. However, the long term future of the industry will ultimately depend on the government's success in tackling such issues as IP protection, and logistics and ICT infrastructure.

## Computers

**Table: Computers – Production**

	2006	2007	2008e	2009f	2010f	2011f	2012f	2013f	2014f
Office, accounting & computing machinery manufacture (US\$mn)	1,000	1,166	1,473	1,504	1,682	1,867	2,205	2,476	2,774

*e/f = BMI estimate/forecast. Source: BMI*

Few computers are manufactured in Vietnam, with the market reliant on imports, which were around 1.4mn units in 2008. However, there is a sizable grey sector of second-hand and refurbished PCs, and illegal imports. These latter are aimed mainly at the household market, due to lower prices. In the first seven months of 2009, Vietnamese exports in the category Computers, Electronics and Spare Parts were down 3.7% y-o-y to US\$1.369bn, according to government figures. However imports in this category were also down 9.5% to US\$1.9bn.

## AV & Communications

**Table: Communications – Production**

	2006	2007	2008e	2009f	2010f	2011f	2012f	2013f	2014f
Radio & telecommunications equipment manufacture (US\$mn)	1,336	1,558	1,968	2,010	2,247	2,494	2,946	3,308	3,704

*e/f = BMI estimate/forecast. Source: BMI*

There are about 10 local companies assembling TV sets in Vietnam, but few are well known to consumers. Vietnamese TV set brands such as **Darling**, **Belco**, **Favi** and **SAM** target mainly low-income consumers in remote and rural areas where choices are limited. One of the more respected local brands is **Belco**, but even this company, which manufactures DVD players as well as flat screen TVs, distributes mainly in the suburbs, not in the heart of big cities.

These local brands are held back by the underdeveloped state of the electronics manufacturing industry in Vietnam, which is mainly about assembly. A lack of components means that it is almost impossible for local brands to compete on price with foreign brands. The reduction of tariffs on electronic products on components in January 2009 led to some multinationals switching to an import-based strategy for the market. It is also likely to have a significant impact on the viability of some local manufacturers. In Q109 troubled CRT producer **Orion-Hanel** filed for bankruptcy, becoming the second foreign-invested firm to cease production in Vietnam after **Sony**. The global downturn was also having an impact on local operations of some multinationals. **Panasonic** said in February 2009 that it would reduce its workforce of around 3000 workers in Vietnam, blaming dropping global demand for optic drives.

However, Vietnam also continues to attract new investment. In April 2009, **Samsung** announced that it was to start operations at a new handset factory it has built in Northern Vietnam. The plant, located in Yen Phony Industrial Park in Bac Ninh Province, will produce around 30mn handsets a year initially, with capacity gradually being raised to around 100mn units. Most of the factory's products will be exported, particularly to other Southeast Asian countries. Samsung's US\$670mn investment in the plant reflects its drive to improve price competitiveness, and its awareness of the growing market in South East Asia. Meanwhile, a subsidiary of **EMS** giant **Foxconn** received a licence in February for its US\$200mn facility to produce cell phones and spare parts in Northern Vietnam. The factory, belonging to **Effinville International Company**, will have a capacity of 89mn units a year, and will be located in the Binh Xuyen II Urban Industrial Zone. Foxconn had previously announced plans to invest US\$5bn in high-tech projects across Vietnam., and in 2007 the company opened a plant in Que Voc Ban Ninh to make camera modules, main boards and connectors. The new plant will produce **Nokia** phones, iPods, PlayStations,

and Sony laptops. Meanwhile, Foxconn will invest about US\$1bn in Ho Chi Minh City to make high-tech products and set up a new centre in the Thu Thiem urban area.

In June 2009 Samsung announced that it had shipped its first batch of 20,000 Vietnam-made cell phones abroad. Samsung's Vietnamese phone plant is one of seven the company has worldwide, and has a production capacity of 60mn cell phones a year. The plant is located at the Yen Phong I Industrial Estate in Bac Ninh province. Around 600 workers are employed at the plant, which uses materials and components from 32 suppliers, including 15 local ones. The first batch of handsets was exported to the United Arab Emirates, Thailand and Singapore.

## Industry Forecast Scenario

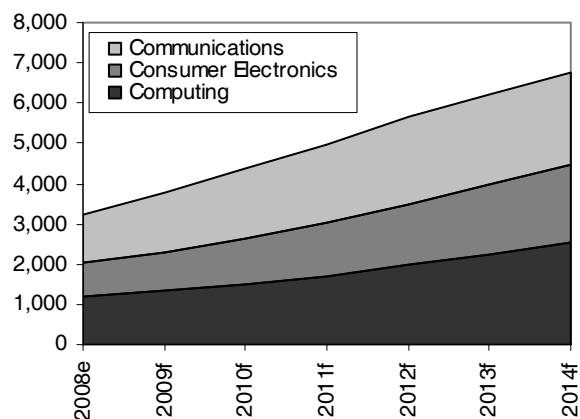
Vietnam's consumer electronics devices market, defined as the addressable computing devices, mobile handsets and video, audio and gaming products, is projected to be worth around US\$4.4bn in 2010. This is expected to increase to US\$6.8bn by 2014, driven by growing affordability of key products.

In H109, Vietnam retail demand appeared resilient in comparison to several other Asian markets, with 21.5% growth in the first four months of this year. PC market growth was being driven by consumer

segment demand for notebooks and netbooks, while sales of LCD TV sets received a boost when the Ministry of Finance (MoF) cut import tariffs on LCD screens by two-thirds. Demand for mobile handsets was also robust, driven by the growing popularity of low-cost brands.

The electronics devices market is forecast to grow at an overall CAGR of 13% through 2014, with key growth areas including low-priced handsets, notebook computers and LCD TV sets. The vast and relatively under-penetrated rural market presents a significant growth opportunity as the government rolls out measures to boost rural incomes.

**Consumer Electronics Demand**  
2008-2014f (US\$m)



e/f = BMI estimate/forecast. Source: BMI

**Table: Consumer Electronics Overview**

	2006	2007	2008e	2009f	2010f	2011f	2012f	2013f	2014f
Consumer electronics devices total demand (US\$m)	2,334	2,844	3,207	3,795	4,379	4,962	5,650	6,205	6,765
Computers (US\$m)	990	1,110	1,200	1,320	1,492	1,700	1,972	2,249	2,541
Video, audio & gaming (US\$m)	650	780	860	980	1,137	1,319	1,517	1,730	1,954
Communications (US\$m)	694	954	1,147	1,495	1,750	1,942	2,160	2,226	2,270

e/f = BMI estimate/forecast. Source: BMI

As of January 2009, tariffs on imported electronics products and components imported from other ASEAN countries were reduced to 0-5%. The new tariff regime in 2009 helped to stimulate new demand and led to a readjustment of multinational strategies for the Vietnam market. Meanwhile, retailers ran a series of promotions to combat the effects of the economic slowdown and slashed prices of many products to boost demand.

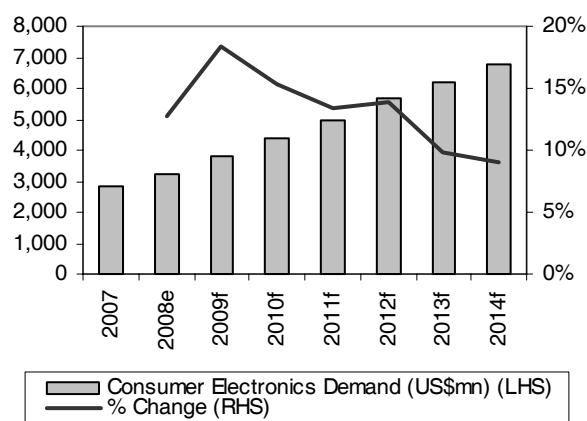
Mobile handsets accounted for the largest part of consumer electronics spending in 2009, at around 39%. The share of mobile handsets in overall consumer electronics spending will fall slightly due to the growing popularity of low-priced handset models, and a slowing rate of increase in mobile subscriber penetration. However, the introduction of a seventh mobile operator, **Gtel** in 2009, and the inaugural Vietnam 3G mobile services launch by **VinaPhone**, will maintain momentum across the sector.

Computers were the second largest consumer electronics spending category in 2009 at 35%. Spending on computer hardware will grow at a CAGR of 14% through 2014. The main growth driver will be affordable notebooks, with various models of the smaller form factor netbooks selling well in 2009.

The AV segment will account for around 26% of consumer electronics revenues over the forecast period. The main driver is video which will account from 77% of revenues in this segment by 2014, up from 74% in 2009.

Television will be the core product in this category, with demand for high-end LCD and Plasma TV sets nearly doubling by 2011.

**Consumer Electronics Demand**  
2007-2014f



e/f = BMI estimate/forecast. Source: BMI

## Industry Developments

### 3G Mobile Service Launch

Vietnam's Ministry of Information and Communications (MIC) has licensed operators to provide 3G services: VinaPhone, the military-owned mobile operator **Viettel**, **MobiFone** (which is also state-run) and a joint venture between **Hanoi Telecom** and **EVN Telecom**. In October 2009, VinaPhone became the first operator to officially launch 3G services in Vietnam. The services are available in 13 major cities and provinces including Hanoi, Hai Phong, Quang Ninh, Thanh Hoa, Nghe An, Thua Thien Hue, Da Nang,

Khanh Hoa, Ho Chi Minh City, Can Tho, Dong Nai, Binh Duong and Vung Tau. A nationwide expansion was planned for 2010.

### **Government PC Programmes**

Government ICT programmes are expected to boost PC sales. In August 2009, the Ministry of Education and Training launched a national programme to supply one million affordable computers to Vietnamese schools by 2011. The computers will come loaded with educational software and broadband connections. Multinational vendors **Acer**, **Intel** and **Microsoft** were participating in the programme. The desktops will sell for around US\$161 – about half the normal price.

Meanwhile, the roll-out of e-government infrastructure and services should also be a driver of PC sales during **BMI**'s forecast period. In September 2009, the government launched an e-procurement pilot system. The system will be used by the Hanoi People's Committee, the Electricity Group of Vietnam (EVN) and the **Telecommunications Post Group** in the initial trial phase from 2009-2011. In the second phase, from 2011-2015, the system will be gradually expanded to all public agencies and state-owned enterprises across all economic sectors.

### **Lower Import Tariffs**

Import taxes on electronic products and components were to be lowered from January 2009, in accordance with the government's commitments under the ASEAN Free Trade Area (AFTA) agreement, which Vietnam entered in 2006. Vietnam's admission into the WTO in January 2007 provided additional momentum for market liberalisation. As of January 2009, duty on complete build units (CBUs) electronic products from ASEAN countries have been reduced to 0-5%. Eligible products must have an ASEAN content of at least 40%. Meanwhile, the average import tax on components will also be reduced from 9.41% to 6.36%.

Meanwhile, another development set to reduce tariffs on some high-end electronic products was the Vietnam-Japan Economic Partnership agreement, which came into effect at the beginning of 2009. Under the agreement, import taxes on electronics goods imported directly from Japan have been reduced by between 2.5%-4.5%. The lower tariffs for AV products such as TV sets, laptops and cameras will be in force a 5-10 year period, with the tax reductions gradually being lowered year by year. Impact is likely to be limited as only around 1% of Japanese electronics products sold on the Japan market are directly imported from Japan. The majority are imported from Thailand, Malaysia and Singapore.

### **Impact On Local Manufacturing**

The tariff reductions are likely to have a significant effect on the development of the local market, and on that of Vietnam's electronics industry. Foreign manufactures such as Sony have already signalled their intentions to roll back or to cease their assembly operations in Vietnam, and to rely on imports from neighbouring ASEAN countries.

Meanwhile, local electronics producers are faced with a difficult situation. Due to a lack of a large scale parts and components industry in Vietnam, it is very difficult for local producers to compete on price with foreign manufacturer. Import taxes on components and other expenses continue to add to the problem. The government must decide how to react in this situation to promote the development of Vietnam's electronics industry, which after a history of about twenty years, is still mainly concerned with assembly.

#### **Government Electronics Industry Plan**

The Ministry of Industry and Trade is preparing a report which will outline a strategy to raise the technology level of Vietnam's manufacturing. The report will focus on six hi-tech industries, with the first being electronics-information technology. The government reportedly plans to set a target of increasing investment in scientific research for these industries to 3.5-5% of revenues by 2015 and 8%-10% by 2020. The current level is between 0.2-0.3% of revenues. Meanwhile, investment in technological upgrades will be raised from the current 8-10% to 10-15% by 2015 and 20% by 2020.

The government will also prioritise technology skills and training. The aim of the plan is to enable the high-tech sector to meet domestic demand while at the same time integrating Vietnam into the global electronics industry chain. The government has identified a number of barriers to high-tech development. These include slow progress in building high-tech industrial zones.

Another government policy which may boost demand for computers is a 2-year plan to enhance IT use by government agencies. The plan, outlined by Vietnam Prime Minister Nguyen Tan Dung, requires basic public services such as information exchange, sending and receiving documents, and making payments online, to be provided to citizens and enterprises. By 2010, about 50% of directives from central, municipal and province governments are to be published online, according to the target.

#### **Focus On Semiconductors**

One area where the government has had some success is in facilitating Vietnam's status as an emerging semiconductor hotspot in Asia Pacific. Recently the Ho Chi Minh City National University launched a manufacturing scheme for a microprocessor called SG 8V1, which was billed as the first of its kind in Vietnam. The University's IC R&D Centre (ICRDC) will oversee the VND12bn project to perfect the Sigma K3 chip for commercial production. According to ICRDC, the microprocessor will be priced 30% lower than similar chips from other countries. It is planned for the chip to have industrial applications in area such as electronic products and defence.

## Government Authority

<b>Government authority</b>	Ministry of Information and Communications (MIC)
<b>Minister</b>	Le Doan Hop

The Ministry of Information and Communications is the policy making and regulatory body in the fields of press, publishing; post; telecommunications and internet; transmission; radio frequency; information technology, electronics; broadcasting and national information infrastructure.

In the fields of electronics and IT, the ministry's specific functions include issuing policies and regulations on IT and electronics products, granting licences and organising government projects.

## Macroeconomic Forecast

### **Outlook Improved, But Still Clouds On Horizon**

***BMI View:** We have revised up our 2009 GDP growth forecast from 2.9% to 4.5% on the back of government-supported resilience in domestic demand and a slightly improved export outlook. However, the stimulus-driven performance in 2009 could come back to haunt Vietnam in 2010 as the government and central bank will need to rein in inflationary conditions. We are thus content with raising our 2010 GDP growth forecast from 5.0% to 5.5%.*

We have now revised up our 2009 GDP growth forecast for Vietnam from 2.9% to 4.5% on back of stronger-than-expected momentum in the domestic demand-driven service sector and a slightly improved outlook for Vietnam's commodity and low-cost manufactured exports. Nonetheless, the coming years will be difficult for the Vietnamese economy as policymakers battle a renewal of inflationary pressures. With global conditions likely to remain weak in 2010, we are content with raising our 2010 GDP growth forecast from 5.0% to 5.5%.

We have frequently warned about the risks the Vietnamese economy was facing as the world entered a synchronised economic downturn in 2008. This was mainly due to its high exposure to the US, Vietnam's main export market, and weaker domestic demand due to faltering real estate and stock markets as well as monetary tightening. Indeed, the Vietnamese economy slowed to 3.9% y-o-y in H109, after having posted GDP growth of 6.2% in 2008 – the weakest figure since 1999. The economic slowdown has been most severely felt in the manufacturing and construction sectors, which grew at their slowest rates since 1998 and 1999, respectively. The service sector has proved more resilient, but has still seen growth slow to 5.7% in H109 from 7.2% and 8.7% in 2008 and 2007, respectively. The slowdown has been particularly sharp in the sectors most directly related to private consumption, such as the hotel and restaurant sector, which contracted by 0.9% y-o-y in H109.

The silver lining is that the global slowdown has helped Vietnamese policymakers bring greater stability to the economy. Indeed, the rapid fall in global commodity prices through H208 has helped Hanoi bring down inflation from a 17-year high of 28.4% y-o-y in August 2008 to a five-year low of 3.3% in July 2009. Moreover, the trade deficit, which widened to a massive US\$15.2bn in the first seven months of 2008, has fallen by 78% to a considerably more manageable US\$3.4bn in the same period in 2009. This has mainly been due to a sharp slowdown in the imports of machinery and other input products, while Vietnam's commodity sectors (oil, rice, coffee etc) have offset falling prices by increasing volumes.

However, the greater stability achieved in H208 and H109 is now being partly undone by the government's economic policies which, given the risk of economic grievances turning into political protest, have been completely focused on stimulating growth since the last quarter of 2008. The most

effective policy has been the government's loan subsidy programme, initially launched in January to help primarily export-focused manufacturing firms access short-term credit for working capital requirements.

The extension of the programme in April to include other sectors of the economies and longer-term loans saw credit growth accelerate to 17.5% y-o-y in June and month-on-month inflation pick up to 0.5% in June and July, in line with our expectations of y-o-y inflation to rise to 7.3% by the end of 2009. This has seen the State Bank of Vietnam (SBV) becoming increasingly concerned about inflation and keeping its main base rate on hold at 7.00% since January. We now believe the SBV's next move will be to raise rates, most likely not before 2010, as consumer price inflation yet again starts approaching double digits.

However, we are not convinced that the higher momentum can be maintained over the remainder of 2009 and going into 2010. Indeed, we see clouds on the horizon for both the manufacturing and construction sectors. The former will need a sustained boost in external demand to see growth rise above the low single digits in 2009, which appears unlikely given global conditions. We are currently forecasting the manufacturing sector to grow by 2.0% for 2009 as a whole, after having posted a 1.1% y-o-y expansion in H109.

#### **Manufacturing Sector Set To Return To High Growth In 2011-2012**

We have pencilled in real growth in the manufacturing to increase to 5.3% in 2010, but acknowledge that this forecast is subject to upside risks if the nascent recovery in the global economy witnessed in H209 proves more resilient than expected. However, with the global economy only expected to expand by 1.9% in 2010, we believe it will not be until 2011, at the earliest, that the Vietnamese manufacturing sector will return to double-digit growth rates. The medium- to long-term outlook for Vietnam's manufacturing sector look better as we are confident that Vietnam can maintain the rapid increase in apparel exports to the US market, which has seen Vietnamese clothing shipments to the US more than double between 2004 and 2008.

Vietnam is now the second largest footwear supplier to US after China, as US retailers have sought to decrease their dependence on Chinese manufacturers. Moreover, the Vietnam-Japan Economic Partnership Agreement (VJEPA) and a potential free trade agreement (FTA) with the EU should help to strengthen Vietnam's share in these markets. The VJEPA became effective on July 1 2009 and we have already seen an increase in garment exports to Japan. The Swedish government has, according to Swedish Ambassador to Hanoi Rolf Bergman, set up an FTA with Vietnam as one of its top three priorities during its presidency of the EU in H209, with the negotiation process expected to be completed by October 2010.

We believe that the two agreements will decrease the manufacturing sector's dependence on US demand and thus lay the foundation for a continuation of double-digit export growth over our 10-year forecast period. We are, as a consequence, forecasting the Vietnamese manufacturing sector to grow at an average

rate of 10% over 2012-2018, meaning that the sector's share of overall output will increase from 25.4% in 2008 to 28.4% in 2018.

### **Construction Sector Still At Risk In Spite Of H109 Rebound**

Thus, while we are expecting the manufacturing sector to fare relatively well through the global economic downturn, we are more concerned about the construction sector, in spite of the rebound seen in H109, which saw y-o-y growth rise to 8.7% compared with flat reading in 2008. This is because we believe the real estate sector was given a short-term boost in H109 by looser lending conditions and we question if demand for real estate is sufficient to maintain growth in H209 and 2010.

Indeed, anecdotal evidence suggests that local lenders tightened lending policies on property loans in Q309 as the real estate market yet again started to falter. As such, we do not believe the construction sector will maintain its momentum in H209 and 2010. We are currently forecasting growth in the construction sector of 4.2% and 4.0% in 2009 and 2010, respectively, but acknowledge that heavy public investment in infrastructure and low-cost housing, as well as the presence of well capitalised and longer-term focused investors in the market, pose upside risks to these forecasts.

We are forecasting a more sustainable growth path for the service sector, which makes up roughly 38% of GDP. Growth in the sector slowed to 5.5% y-o-y in H109 after a 7.2% outturn in 2008. While we are forecasting growth of 7.6% in 2009 as the government increases public sector spending to cushion the economic downturn, we do not expect this momentum to be maintained into 2010 as the government will need to moderate spending due to concerns about inflation and the ballooning fiscal deficit. Accordingly, we are forecasting service sector growth of 6.8% in 2010. We believe the service sector will continue to grow in importance over our forecast period, growing at an average rate of 8.5% over 2011-2018, increasing the sectors share of GDP from 40.7% of GDP in 2009 to 44.7% in 2018.

Continued industrialisation and service sector development should help Vietnam return to annual GDP growth of around 8% once the repercussions of the global economic downturn in 2009 have been fully absorbed. Believing that this process will be accomplished over a period of years, we are forecasting Vietnam to grow by 6.8% and 7.7% in 2011 and 2012, respectively, before growth returning to approximately 8.0% in 2013.

**Table: Vietnam – Economic Activity**

	2005	2006	2007	2008	2009f	2010f	2011f	2012f	2013f
Nominal GDP, VNDbn <sup>2</sup>	839,211.3	974,266.2	1,144,014.6	1,478,695	1,735,499.8	1,933,694.7	2,146,050.9	2,401,091.1	2,696,157.3
Nominal GDP, US\$bn <sup>2</sup>	53.04	61.00	70.94	84.59	91.34	101.77	112.95	133.39	149.79
Real GDP growth, % change y-o-y <sup>2</sup>	8.4	8.2	8.5	6.2	4.5	5.5	6.8	7.7	8.0
GDP per capita, US\$ <sup>2</sup>	637	723	829	975	1,038	1,141	1,249	1,456	1,613
Population, mn <sup>3</sup>	83.2	84.4	85.6	86.8	88.0	89.2	90.4	91.6	92.8
Industrial production index, % y-o-y, ave <sup>1,4</sup>	17.7	17.7	16.3	14.6	6.0	10.0	12.0	14.0	14.0
Unemployment, % of labour force, eop <sup>4</sup>	5.3	4.8	4.6	5.0	5.5	5.5	5.0	4.5	4.0

Note: f = BMI forecast. <sup>1</sup> YTD. Source: <sup>2</sup> IMF (General Statistics Office). <sup>3</sup> IMF; <sup>4</sup> General Statistics Office

## Competitive Landscape

### Computers

- Vendors report successes with netbook products in Vietnam in H109
- Reduction of import tariffs from January 2009 has resulted in vendors like Sony switching to a more import-based strategy for the Vietnamese market

Multinational brands dominate the Vietnam PC market, with **HP** the top selling PC brand in 2008, ahead of **Acer** and **Lenovo**. Acer achieved second place in the market on the back of 50% revenues growth, moving past Lenovo. Other multinational vendors including **Dell**, **Toshiba** and **Asus** enjoyed triple-digit growth in the booming market.

HP's sales were boosted by government and education sector projects, as well as by its strategy to target the consumer segment. HP is also the leader in the printer segment, while Acer took a leading position in notebooks. Vendors including HP, Acer, Lenovo and Asus were also competing actively in the small form factor 'netbook' segment.

Vendors continued to roll out new models in 2009 in an attempt to stimulate the market. The popularity of the small form factor netbooks was a significant focus. In May 2009, **Intel** said that Vietnam was the leading consumer of its net-top product in the Asia Pacific region so far this year, with demand up some 400% compared with the last quarter of 2008. Intel expected total Vietnam net-top sales of 120,000 this year. In September 2008, Toshiba launched two new models from its Qosmio laptop line. Meanwhile, Dell rolled out new products for the market from its Inspiron line of laptops and desktops.

The reduction of import tariffs from January 2009 offered a boost to sales of high-end notebooks. **Sony** announced that it was starting to sell its VAIO notebook in Vietnam, as it started to shift to importing for domestic sales. Sony already has 180 distributors nationwide. Meanwhile, working with its partner **DigiWorld Corp**, Dell has launched a campaign to target the local consumer segment, which is fuelling much of current growth. The commercial PC segment grew more slowly in 2008 as SMEs cut spending on IT in response to the economic situation.

## Handsets

- Nokia and other vendors co-operate with operators to develop high-end handset segment
- Growing demand for low-cost handsets priced below VND1mn is a potential opportunity for local brands, but reduction of import tariffs will boost multinationals

**Nokia** was the leading handset vendor in the Vietnam market in 2009, ahead of rival brands such as **Samsung, LG, Sony Ericsson** and **Motorola**, as well as Chinese and local brands. However, 2009 saw the multinational vendors collectively lose market share to growing sales of smaller locally produced brands. Leading retailer **Gioi Di Dong** reported that the share of major brands like Nokia, Samsung and Sony Ericsson had shrunk from about 90% in 2007 to 70% in 2009.

According to retailer reports, many of the major brands lost 30-50% of their market shares in 2009. Nokia reportedly dropped from around 60% in 2008 to 40% in 2009, while in the same period Samsung dropped from 18% to 12% and Motorola and Sony Ericsson from around 6% to 3%. LG was the only major vendor to buck this trend, mirroring a strong global handset market performance in 2009 by increasing its local share to around 6% from 3%.

The main beneficiaries were local brands like **Q-Mobile, Wellcom, Malata, Bavapen, Mobile, MobiStar** and **F-Mobile**. Many local distributors have entered the original equipment manufacturer space by engaging in a customisation and repackaging of cheap Chinese mobile phones, which previously had a bad reputation in Vietnam due to perceived inferior quality and lack of service. Distributors place orders in China and order some additional components in Japan and South Korea. The locally produced phones are offered with three-year warranties and trial periods. Another leading mobile phone retailer, **Vien Thong A**, said in 2009 that these 'small brands' now account for up to 15% of its sales.

The main driver of this trend has been price, with around 70% of phones in the market now priced below VND2mn. In 2009, Q-Mobile was reported to have overtaken Samsung as the second highest-selling brand in the market, behind Nokia. Meanwhile, network operators have also entered the market with their own-brand handsets. These include **S-Fone's** Eco handset, **VinaPhone's** Alo and **Viettel's** VT handset brand.

Towards the end of 2008, Nokia moved to strengthen its position in the Vietnamese market by signing a new memorandum of co-operation with its main distributor in Vietnam, **FPT Corporation**. Hanoi-based FTP Corp is involved in mobile software development as well as mobile phone and computer distribution. Under the new agreement, which was to take effect by the end of 2009, FPT pledged to help Nokia expand its mobile phone distribution networks in Vietnam.

In 2009 multinational vendors were also co-operating with local operators to develop demand for higher-tier mobile services and handsets. In July 2009, Nokia launched a mobile email service in co-operation with local mobile operator **Mobifone** and software giant **Microsoft**. The package from Mobifone costs VND85,000 a month for enterprises with fewer than 30 users and VND100,000 for larger enterprises. Individual customers are also able to access the service, which is offered over Mobifone's GPRS platform. Incentives were offered, including 5% off Nokia cell phones. The reduction of import tariffs on electronic products from January 2009 was expected to strengthen the hold of multinational brands on the market. In May 2009, Viettel launched **Research In Motion's** BlackBerry Bold smartphone on the Vietnamese market.

Despite some high-end model launches, lower-tier handsets priced below VND2mn continued to dominate the market. A list of the top 10 best-selling models in 2008 for specialist retailer **Thegoididong** (Mobile World) supermarket revealed that all were priced in the sub-VND2mn range. Multinational brands dominated the rankings, with Nokia having six of the top 10 bestsellers. Despite the advance of 'small brands', low-end models like the Nokia 1200 and 1650, the Motorola W175 and the Samsung E1110 remained popular in 2009.

**Table: Mobile World Supermarket: Best-Selling Mobile Handset Models In Q208**

Rank	Model	Price
1	Nokia N110i	NA
2	Nokia 1200	519,000
3	Nokia 1208	679,000
4	Nokia N2626	929,000
5	Nokia 3110C	1,819,000
6	Nokia N6300	839,000
7	Samsung SS C140	NA
8	Samsung SS B100	649,000
9	LG KG195	1,380,000
10	Motorola W230i	959,000

Source: *Thegoididong, 2009*

Growing demand for low-cost handsets priced below VND1mn should give local companies a potential opportunity. The problem is that most local phone brands have to outsource processor manufacture to Chinese and Taiwanese manufacturers, which means that these Vietnamese brands have lacked the ability to customize their products for the Vietnamese market. Some brands are now attempting to rectify this.

**AbTel** and Q-mobile have integrated some Vietnamese contents and images into their mobile phones, with Q-Mobile's Z23 model containing a collection of photos of Vietnamese landscapes.

Meanwhile, Samsung was planning a major push in the Vietnamese market in 2009. The company announced that it would be starting production at its new handset factory in northern Vietnam, which will have planned initial output of 30,000 units, rising eventually to 100,000. In March 2009, Samsung selected Vietnam's **Phu Thai Group** as the new official distributor for its phones in Vietnam. Samsung wants to complement its investment in local production by expanding its distribution network and introducing new lines of high-end cell phones to the market.

### **AV Devices**

- Samsung is market leader for LCD TV sets and Panasonic for plasma TV sets; advancing strongly in H109
- In 2009, local CRT producer Orion-Hanel files for bankruptcy

Foreign brands dominate the video and audio segments in Vietnam. In H109, multinational vendors regarded Vietnam as a growth opportunity, due to the growth potential and resilience of the Vietnamese consumer in the current economic downturn, as well as tariff liberalisation. LG, Samsung and **Sony** were among vendors promoting new high-end consumer electronics products at the Saigon Computer Electronics World Expo in July 2009. LG and Sony launched new high-end LCD TV sets from their Scarlet and Bravia series, respectively, with Sony's full HD Bravia ZX1 having a screen thickness of just 9.9mm. Meanwhile, Samsung's product portfolio at the expo included a high definition camera with a memory of 240GB.

In the first two quarters of 2009, Samsung advanced strongly in the Vietnamese LCD TV set market. The company achieved a market share of at least one-third, more than 10% ahead of the nearest competitor, according to market research firm **GfK**. In May 2009, the company was attributed a 44% share of the LCD segment due to strong sales of its new product line of LED TV sets.

A survey of electronic brands in Vietnam in 2007 by sales found that Samsung was the leader among LCD TV sets and **Panasonic** for plasma TV sets. In total, LCD and plasma TVs accounted for 41% of audio-visual sales. **Canon** was the leader for digital cameras and LG the leader for audio home systems. Multinationals such as Samsung, LG, Panasonic and Sony have invested substantially in Vietnam and have wide distribution networks.

Meanwhile, domestic brands, mainly of TV sets, are weak and account for only about 10% of the market. The inability of the domestic electronics industry to supply components makes it difficult for companies like **Darling**, **Belco**, **Favi** and **SAM** to compete on level terms. Belco's 21-inch flat screen TVs are priced at over VND2mn per unit, which is 5-25% higher than comparable products from Samsung, LG and **TCL**. The same goes for other local vendors such as **East Asia Company** and **Chau Electronics**, whose TVs, DVD players and other products are also unable to compete with those of leading foreign vendors.

The cut in import tariffs from January 2009 will only exacerbate the plight of local companies. Some local manufactures may have to diversify into other product areas in order to survive. **Tan Binh Electronics Company** plans to move away from production of TV sets to other products such as refrigerators, or to provide electronics manufacturing services. **Nguyen Vinh**, a loudspeaker producer, has said that it will cease production altogether and shift to being a distributor of foreign-made products.

In early 2009, CRT producer **Orion-Hanel** finally filed for bankruptcy, after seeing its market undermined by the growing preference for LCD TV sets. Orion Hanel Picture Tube Company, set up in 1993 as a joint venture between South Korea's **Orion** and Vietnam's **Hanoi Electronics Company**, was one of the first electronics joint ventures in Vietnam. At one stage, the company had two factories for production of CRTs, with around 2,500 workers in Hanoi.

Meanwhile, in another sign of the times, Sony announced that it would end its TV joint venture with Tan Binh-based company **Viettronics** and switch solely to importing. Sony and other Japanese and South Korean companies started to assemble in Vietnam in the 1990s when import taxes were around 50%. However, most applied only for 10-year licences with the expectation that tariffs would fall after Vietnam's entry into ASEAN. In the event, these manufactures continued operations in Vietnam for a couple of years longer than expected due to some uncertainty about the prospects for imports.

Following the implementation of the ASEAN Free Trade Agreement in 2006 and WTO commitments in 2007, finished products can now be imported with only a 0-5% tax. This has led to Sony's decision to shut down its TV assembly plant in Vietnam, despite the fact that Sony's LCD TV sales in Vietnam soared 10 times in 2007 y-o-y. While Sony's decision has attracted most attention, other Japanese and South Korean companies are likely to follow.

Despite the boost to the market from lower tariffs, in early 2009, vendors were actively running promotions and planning new product launches to stimulate demand in face of the economic downturn. There was also a fear of oversupply due to a large increase in imported products. Meanwhile, the Japan-Vietnam Economic Agreement, reducing tariffs on AV devices directly imported from Japan, led some Japanese vendors to plan to introduce more high-end products to the market in 2009. Sony said that it planned to launch some of its latest models of TVs, digital cameras, digital movie cameras and computers in Vietnam this year.

## Semiconductor

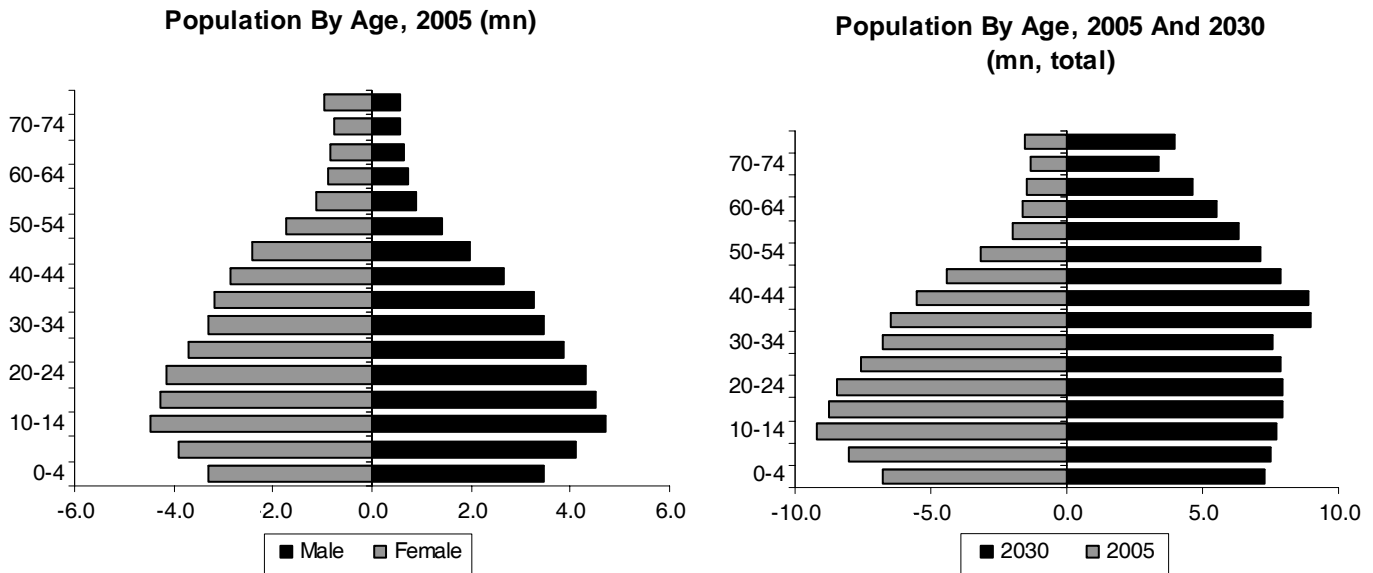
- Intel and NXP both rolling out US\$1bn investments in Vietnam, in semiconductor factory and assembly and test facility, respectively
- Vietnam emerging as an Asian semiconductor hotspot due to growing domestic market and government initiatives in support of local semiconductor industry

Vietnam has emerged as one of the most talked about semiconductor hotspots in the region in the past one to two years, due partly to a growing domestic market but in particular to government support for the semiconductor industry. In 2009, global semiconductor giants continued to invest in Vietnam despite the global downturn. Intel was building a US\$1bn semiconductor factory on the Hanoi Highway in Ho Chi Minh City. The plant is expected to employ around 4,000 when operational, with work having begun in 2008. Meanwhile, fellow semiconductor major player **NXP Semiconductors** announced it was building a large assembly and test site in Vietnam, with the facility due to be operational in 2009. The cost of this project was also estimated at around US\$1 bn. NXP has already opened a representative office in the country.

One of the main draws for NXP and other semiconductor players is the booming mobile handset market, which is expected to grow at a CAGR of 68% over the next few years, driven largely by the low-cost segment. NXP was reported to be negotiating with some Vietnamese partners to focus on manufacturing chips for low cost mobile phones which would retail at less than US\$30. NXP planned to introduce its first made-in-Vietnam mobile handsets in 2009 and to set up a mobile phone retail network in Vietnam. However, NXP's focus goes beyond mobile phones, to other semiconductor application segments like LCD TV sets and electrical products, with products being manufactured in Vietnam.

# Country Snapshot: Vietnam Demographic Data

## Section 1: Population



Source: UN Population Division

**Table: Demographic Indicators, 2005-2030**

	2005	2010f	2020f	2030f
Dependent population, % of total	34.1	29.9	30.4	31.2
Dependent population, total, '000	28,318	26,225	30,950	34,499
Active population, % of total	65.8	70.0	69.5	68.7
Active population, total, '000	54,650	61,263	70,706	75,927
Youth population*, % of total	28.8	25.0	23.4	20.3
Youth population*, total, '000	23,972	21,887	23,807	22,508
Pensionable population, % of total	5.2	4.9	7.0	10.8
Pensionable population, total, '000	4,346	4,338	7,143	11,991

f = forecast. \* Youth = under 15. Source: UN Population Division

**Table: Rural/Urban Breakdown, 2005-2030**

	2005	2010f	2020f	2030f
Urban population, % of total	26.7	29.4	34.7	41.8
Rural population, % of total	73.3	70.6	65.3	58.2
Urban population, total, '000	22,509	26,395	35,230	46,123
Rural population, total, '000	61,729	63,323	66,426	64,306
Total population, '000	84,238	89,718	101,656	110,429

*f = forecast. Source: UN Population Division*

## Section 2: Education And Healthcare

**Table: Education, 2002-2005**

	2002/03	2004/05
Gross enrolment, primary	98	93
Gross enrolment, secondary	73	75
Gross enrolment, tertiary	10	16
Adult literacy, male, %	na	93.9
Adult literacy, female, %	na	86.9

*Gross enrolment is the number of pupils enrolled in a given level of education regardless of age expressed as a percentage of the population in the theoretical age group for that level of education. na = not available. Source: UNESCO*

**Table: Vital Statistics, 2005-2030**

	2005	2010f	2020f	2030f
Life expectancy at birth, males (years)	68.4	69.9	74.2	75.8
Life expectancy at birth, females (years)	72.4	73.9	78.4	80.0

*Life expectancy estimated at 2005. f = forecast. Source: UNESCO*

## Section 3: Labour Market And Spending Power

Table: Employment Indicators, 1999-2004

	1999	2000	2001	2002	2003	2004
Employment, '000	38,120	38,368	39,000	40,162	41,176	42,316
– % change y-o-y	3.1	0.6	1.6	2.9	2.5	2.7
– male	19,029	19,292	19,744	20,356	20,959	21,649
– female	19,091	19,076	19,257	19,807	20,217	20,666
— female, % of total	50.0	49.7	49.3	49.3	49.1	48.8
Unemployment, '000	909	886	1,107	871	949	926
– male	439	468	458	398	402	410
– female	470	418	650	473	547	517
– unemployment rate, %	2.3	2.2	2.7	2.1	2.2	2.1

Source: ILO

Table: Consumer Expenditure, 2000-2012 (US\$)

	2000	2007e	2008f	2009f	2010f	2012f
Consumer expenditure per capita	110	265	301	368	386	427
Poorest 20%, expenditure per capita	49	119	136	166	174	192
Richest 20%, expenditure per capita	243	587	668	815	855	946
Richest 10%, expenditure per capita	316	763	868	1,060	1,112	1,230
Middle 60%, expenditure per capita	85	206	235	286	301	332
<b>Purchasing power parity</b>						
Consumer expenditure per capita	556	1,196	1,297	na	na	na
Poorest 20%, expenditure per capita	250	538	583	na	na	na
Richest 20%, expenditure per capita	1,231	2,649	2,872	na	na	na
Richest 10%, expenditure per capita	1,600	3,444	3,734	na	na	na
Middle 60%, expenditure per capita	433	931	1,009	na	na	na

e/f = BMI estimate/forecast. na = not available. Source: World Bank, country data; BMI calculation

## BMI Methodology

### How We Generate Our Industry Forecasts

BMI's industry forecasts are generated using the best-practice techniques of time-series modelling. The precise form of time-series model we use varies from industry to industry, in each case being determined, as per standard practice, by the prevailing features of the industry data being examined. For example, data for some industries may be particularly prone to seasonality, i.e. seasonal trends. In other industries, there may be pronounced non-linearity, whereby large recessions, for example, may occur more frequently than cyclical booms.

Our approach varies from industry to industry. Common to our analysis of every industry, however, is the use of vector autoregressions. Vector autoregressions allow us to forecast a variable using more than the variable's own history as explanatory information. For example, when forecasting oil prices, we can include information about oil consumption, supply and capacity.

When forecasting for some of our industry sub-component variables, however, using a variable's own history is often the most desirable method of analysis. Such single-variable analysis is called univariate modelling. We use the most common and versatile form of univariate models: the autoregressive moving average model (ARMA).

In some cases, ARMA techniques are inappropriate because there is insufficient historic data or data quality is poor. In such cases, we use either traditional decomposition methods or smoothing methods as a basis for analysis and forecasting.

It must be remembered that human intervention plays a necessary and desirable part in all of our industry forecasting techniques. Intimate knowledge of the data and industry ensures we spot structural breaks, anomalous data, turning points and seasonal features where a purely mechanical forecasting process would not.

## Electronics Industry

### Forecasts

There are a number of criteria that drive our forecasts for each industry variable.

IT and consumer electronics is complicated due to the fragmented nature of the market, with little transparency of vendor data and low apparent agreement between many sets of figures in terms of market definition, base and methodology. In addition, forecasts are naturally affected by consideration of a variety of internal and external political and economic factors.

Within best-practice techniques of time-series modelling, **BMI**'s quarterly updated forecasts are improved substantially by intimate knowledge of the prevailing features of each local market.

Individual variables taken into account in creating each forecast include:

- Economic context, and GDP and demographic trends;
- Technological developments, and diffusion rates;
- Underlying demand trends;
- Projected GDP share of industry;
- Maturity of market structure;
- Regulatory developments and government policies;
- Exogenous events.

Estimates for each industry segment are calculated using national statistics, where available, as well as trade association and company data, and **BMI**'s own macroeconomic and demographic forecasts.

## Sources

Sources used in electronics reports include national ministries, statistics agencies, and ICT regulatory bodies, national industry associations, officially released company results and figures, and international and national industry news agencies, and **BMI** international IT and electronics research.