

**MEMO**

To: IEICI  
From: APCO Worldwide  
Date: 4/27/2010  
Re: Electronics Industry Updates

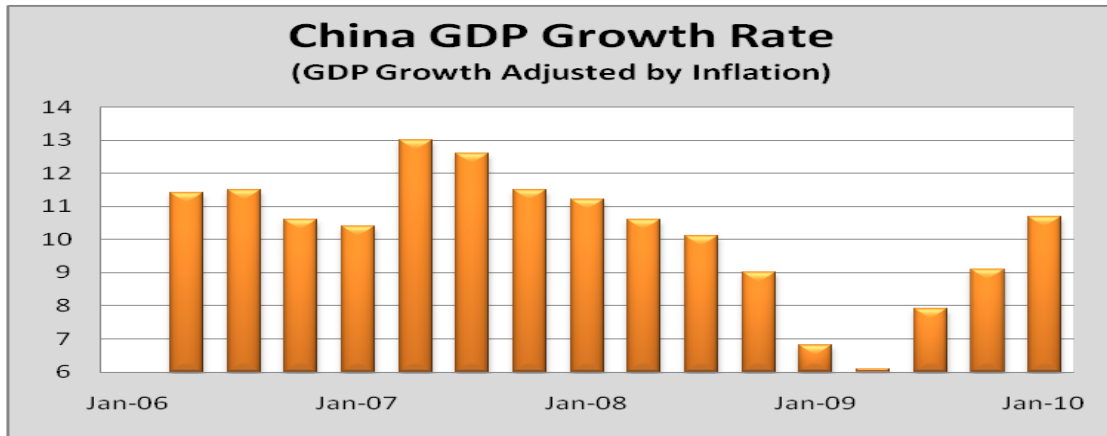
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**1. CURRENT DEVELOPMENT**

**1.1 OVERVIEW**

The Chinese government announced that its economy (GDP) expanded by 8.7 percent in 2009, and 11.9 percent in the first quarter of 2010. This continuous rapid economic development is also demonstrated by the strong driving force of the growth - China's electronics industry. In 2009, the ratio of China's consumer electronics of total purchasing revenue is close to 15%. Just behind the ratio of North America 22% and Western Europe 16%. The US Consumer Electronics Association predicted that the ratio of consumer electronics market of Asian countries and regions dominated by China to world total will increase from 34% to 36% in 2010, while that of the United States will decrease from 24% to 19% in 2010.

**Chart One: China GDP Growth Rate**



Source: National Bureau of Statistics

**1.2 CONSUMER ELECTRONICS PRODUCTION OUTPUT**

In response to the global financial crisis, China's government came up with an RMB 4 Trillion stimulus package plan aimed at replacing an exports driven market with domestic demands for both consumption and investment. In the electronics industry, China implemented several stimulus policies to boost domestic demands, such as the "household appliance to the countryside" program<sup>1</sup> and the "household

<sup>1</sup> More details of the "household appliance to the countryside" program can be found on page seven.

appliance replacement” program, which aim to accelerate the development of whole sets of consumer electronic products, in addition to updating semi conductors, chips and software.

In 2009, the sales revenue of electronics products reached RMB 5.1305 trillion, constituting a 0.1 percent increase in comparison to 2008; profit reached RMB 179.1 billion, which shows a 5.2 percent increase year on year. The table below shows the specific outputs of major electronic products in China in 2009.

**Table 1: Total Output of Electronic Products (2009)**

Product	Unit	Output	Growth Rate
Mobile Phone	Million sets	619.25	10.7%
Color TV	Million sets	98.99	9.6%
Computer	Million sets	182.15	33.3%
Digital Camera	Million sets	80.26	-1.7%
Integrate Circuit (IC)	Billion pieces	41.4	-0.7%

The export of electronic products reached USD 457.2 billion, representing a 12.5 percent decrease, and the import was USD 314.7 billion, which shows a 13.5 percent decrease.

### **1.3 CONSUMER ELECTRONICS’ MANUFACTURING SECTOR CONTRIBUTION**

Although the total sales revenue increased slightly and exports and imports decreased, the electronic sector still contributed 10 percent to the sales revenue of the manufacturing sector.








**Table 2: Electronics Contribution to Manufacturing Sector**

	2009	2008
Electronic related percentage of total industrial revenue	10%	12%
Electronic related percentage of total industrial profit	6%	5.6%
Electronic related percentage of total industrial export and import	35%	34.5%

### 1.4 CHINESE CONSUMER ELECTRONICS' GLOBAL CONTRIBUTION

China has become one of the leading manufacturers of electronic products. The table below shows the percentage of world market share enjoyed by Chinese electronics manufacturers in 2008 and 2009.

Percentage of world market share enjoyed by Chinese manufacturers in 2008 & 2009

Item	2009	2008
 Computers (182 million sets)	<b>60.9%</b>	<b>47%</b> Computers (147million)
 Mobile phones (619 million sets)	<b>49.9%</b>	<b>44.7%</b> Mobile phones (560 million)
 DVD Players	<b>85%</b>	<b>80%</b> DVD Players (150 million)
 MP3 Players (3.12 billion)		<b>85%</b>
 Digital Camera	<b>80%</b>	
 TV Sets (99 million)	<b>48.3%</b>	<b>43.9%</b> TV Sets (90 million)
 IC (\$28.3 billion)	<b>12.9%</b>	<b>12.2%</b> IC

### 1.5 POTENTIAL FOR FUTURE DEVELOPMENT

Although China made a significant contribution to the global manufacturing of consumer electronics around the world, much potential still exists for Chinese companies to develop. The table below shows the penetration rates of major electronics products in China, thereby indicating the development potential for electronic players. Penetration rates are still significantly lower than in developed countries.

Table 3: Popularization Status of Major Electronics in China

Item		2009	2008
<b>Mobile Phone Users</b>	Total users (million)	747.4	641.23
	Penetration rate	56.3%	48.5%
<b>Internet Users</b>	Total users (million)	384	298
	Penetration rate	28.9%	22.6%
<b>Computer</b>	Total (million sets)	220	180.56
	Per one hundred population	16.7	13.6
<b>TV</b>	Total (million sets)	560	518.4
	Per one hundred families	132	128.4

It is worth noting that the Chinese consumer electronics companies have developed faster than the foreign invested counterparts in 2009. The financial performance shown in table 4 is a positive signal for Israeli firms to approach Chinese firms. In addition, China firms aim to add value through technological upgrade rather than through value-added manufacturing or assembling. ***It is recommended that Israeli firms approach Chinese firms by leveraging their demands on advanced technologies.***

**Table 4 Annual Electronics Market Growth Rates (2009)**

	Chinese Firms	HK, Taiwan and Macau Invested Companies	Foreign Invested Companies
<b>Sale Revenue</b>	17.6%	-0.8%	-1.5%
<b>Profit</b>	48.4%	-27.4%	-25.1%
<b>Investment</b>	49.5%	-11.2%	-15.7%

## 2. NEW OPPORTUNITIES

### 2.1 NEW OPPORTUNITIES CREATED BY REGULATORY DEVELOPMENTS

▪ **China Decided to Accelerate Network Convergence and Triple Play**  
In the near future, the Chinese government plans to **interconnect the country's telecommunications, TV and radio networks – in addition to radio Internet** in order to boost the development of the information and cultural sectors. This should provide a boost for CE products serving as date an multimedia platforms.

Two stages of goals were set forth which could potentially pose a challenge as well:

- 2010-2012: Organize pilot projects in some sectors on two-way market access for both telecom enterprises and broadcast enterprise.
- 2013-2015: Sum up the experience and accelerate network convergence and triple play comprehensively.

In order to develop its network convergence, China's government will formulate supportive policies. For example, it will introduce preferential fiscal and taxation policies to promote R&D and industrialization of key technologies, basic technologies and other network convergence related technologies, as well as to add convergence products and services into the government procure list.

As such, opportunities for electronics and ICT industries are created by the network convergence plan and government incentives. It is recommended that Israeli electronics companies seek opportunities from the following products or sub-sectors, which are estimated to rapidly develop in the near future.

- **Internet and Intelligent TV.** Major Chinese home appliance companies including TCL, Skyworth, Changhong, Hisense and Tsinghua Tongfang began launching Internet TV during the second half of 2009. It is estimated that over seven million Internet TV sets, reaching a value of RMB 30 billion, will be sold in 2010, constituting a 500 percent increase. Meanwhile, Intelligent TV, which includes computer functions are also very popular in China. **Hisense is currently researching and developing Intelligent TV sets according to APCO's soft sounding with Hisense at the end of last year.**
- **Chips, head end devices and solutions.** These are relevant for digital TV and will rapidly develop in accordance with the development of network convergence.
- **Mobile multimedia, mobile TV and cable broadband.** These will similarly hasten the development of the network convergence plan.

▪ **“Internet of Things” a Hot Topic at 2010 NPC**

The “Internet of Things” (networking of objects) has been widely discussed and even referenced in the National People’s Congress 2010 Work Report. In an annual endeavor, China’s Premier WEN Jiabao delivered a work report to the National People’s Congress, which is largely a formality. Wen stated that **in order to “...foster emerging industries of strategic importance...(China) will accelerate R&D and use of the Internet of Things.”** Additionally, a number of NPC delegates including China Mobile CEO WANG Jianzhou recommended that China bolster funding for the promotion of sensor network applications.

According to domestic media reports, the **government plans to invest 3.86 trillion RMB before 2020 into research and development related to sensor network technology.** This includes components, systems integration, and data mining or analysis platforms needed to push forward Radio Frequency Identification (RFID) and sensor networks in China.

Hot on the heels of high level statements to promote sensor technology applications in China, experts and former government officials on March 9th of this year created the “China Network of Things United Standards Workgroup”, which is under the authority of the Ministry of Industry and Information Technology (MIIT). The aim of this workgroup is to formulate a series of standards covering all aspects of sensor technology, including a sub-set of guidelines for specific industrial applications. The head of the workgroup is former Ministry of Information Industry (MII) Director General ZHANG Qi, who has long been the dominant official in the area of near-field communications and sensor networks. She is currently the head of the “Gold-Card Office,” which is responsible for the planning related to China’s national ID card.

Key to this program is the cooperation and support from Chinese telecom operators, the objects need to be updated and equipped with the sensors. As such, **this program will bring huge opportunities for the technological update of home appliance and consumer electronics, given that these products are cited as the major objects to be equipped with sensors and connected with each other.** Meanwhile, demand of relevant chips and semi-conductors will also be increased to support the achievement of the Internet of Things.

▪ **China to Pilot 3D TV Shows in 2010**

Mr. DU Baichun, Deputy Director of Science and Technology Department of the State Administration of Radio, Film and Television (SARFT) recently announced that China would launch a trial broadcast of 3D TV shows in certain cities in 2010.

According to Du's statement, SARFT is preparing a standard for the country's 3D TV industrial chains, and its technological base is almost ready.

In addition to the government's promotion, the recent successes of 3D movies, such as *Avatar* and *Alice in Wonderland*, are attracting consumer electronics enterprises, which hope to profit from the 3D family entertainment sector. **Currently, most of the 3D TVs and DVDs in the Chinese market are promoted by the international consumer electronics enterprises including Sony, Sumsung, Panasonic and LG, and major Chinese companies such as TCL, Hisense and Haier.**

▪ **Energy Conservation and Emission Reduction is Hot in China**

Energy conservation and emission reduction technologies in products are greatly promoted by the Chinese government via regulations and subsidies. Therefore, almost all of the **large consumer electronics enterprises are developing and promoting high efficiency and low carbon products to meet government requirements and market demand, and receive government's subsidies.** There is no doubt that advanced technologies relating to energy conservation and environmental protection will be warmly welcomed by Chinese enterprises.

▪ **Expansion of the "Home Appliances to the Countryside" Program**

The Ministry of Finance (MOF), Ministry of Commerce (MOFCOM) and Ministry of Industry and Information Technology (MIIT) recently announced that the "household appliances to the countryside" program will be expanded. The "home appliance to the countryside" program was launched during the financial crisis period with an aim to increase use and upgrade of home appliances in rural areas and support home appliance manufacturers in surviving the difficult financial period.

Although this program cannot bring direct opportunities for Israeli electronics companies with advanced technologies, **major Chinese appliance enterprises, such as Haier, TCL, Changhong, Midea and Hisense are the major beneficiaries of the preferential policy due to the popularity of their brands,** and the ability of their product lines to launch quickly and satisfy the demands of the rural market.<sup>2</sup> As such, the financial performance of these companies was not influenced by the financial crisis. On the contrary, they have demonstrated very strong financial

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<sup>2</sup> According to the MOFCOM Home Appliance to the Countryside Information System, the registered home appliances sold to the countryside reached 31.75 million units by the end of November 2009, with total sales revenue of RMB 58.13 billion. The sales volume of refrigerators reached over 14.54 million units, color TV sets more than 6.86 million units, washing machines more than 4.30 million units, air conditioners 2.67 million sets, water heaters 830,000 units, microwave ovens 76,000 units and induction cookers 112,000 units.

performance and **have the capability to invest in R&D of new technologies and products.** For example, TCL suffered multiple losses prior to 2009, however, it made a profit in 2009 as a result of the “home appliance to the countryside” program. Since the second half of 2009, TCL placed extensive emphasis on the development of Internet TV and 3D TV.

## **2.1 NEW OPPORTUNITIES CREATED BY MARKET PREFERENCE**

### ▪ **Automotive Electronics Industry Grows with Auto Sales Boost in China**

China witnessed a 46 percent increase of automobile sales in 2009 and surpassed the US, to rank as the world’s largest automotive market. It is predicted that this trend will continue in 2010 is set to continue that trend, given that automotive manufacturers are slated to raise production by as much as 13 percent in order to cope with demand.

Israeli companies with electronic products or solutions which are applicable for the automotive industry would find this trend of much importance for their future growth.

### ▪ **MID Emerging as New Market Focus**

Mobile Internet Devices (known as “Netbooks” in China) have strongly hit the market to compete with mobile phones and laptops, based on the Atom processor from Intel. Concurrently the first generation of Ultra-mobile Personal Computer (UMPC) is available in the market.

### 3. SHENZHEN-BASED LEADING CONSUMER ELECTRONICS COMPANIES

Below are some companies that APCO may decide to target for meeting in Shenzhen

#### ▪ **The Creative Life (TCL)**

Established in 1981, TCL is one of the largest state-owned consumer electronics enterprises in China. Three companies are listed under the: TCL Corporation, TCL Multimedia Technology and TCL Communication Technology. In 2009, it recorded more than USD 6.27 billion in sales with a net profit of USD 68.61 million.

- The company has five product lines: color TV, audio & video, communications, home appliances and digital products.
- Multimedia business and home appliances account for 61.37% and 35.56% of sales respectively.
- 55.38% of sales are made to domestic customers, 44.62% go to the overseas market.
- Headquartered in Huizhou, Guangdong province, the company has a sales and marketing network throughout China and abroad.
- TCL has over 20 manufacturing and processing plants located in China, Poland, Mexico, Thailand and Vietnam, and over ten R&D centers in China, the United States, France and Singapore.
- TCL has an internal electronic procurement and bidding system.
- In 2010, TCL will focus on the multimedia and communication businesses. It will also strengthen the development of titanium and energy efficient air-conditioners
- [www.tcl.com](http://www.tcl.com)

#### ▪ **Skyworth Group**

Established in 1998 and listed in the Hong Kong Stock Exchange in 2000, Skyworth is one of the major Chinese manufacturers of consumer electronics, network and telecommunications products. In 2009, its sales revenue reached USD 3.36 billion and net profit was USD 146 million.

- The company's products include LCD TV, flat-panel TV, digital TV set top box, LCD modules, semi-conductors, automotive electronics, security electronics, mobile phones and other electronic products related to digital TV.
- Headquartered in Shenzhen, Skyworth owns more than ten subsidiaries in China, six R&D centers in China and the United States, and several manufacturing bases in China, Mexico and Russia.
- Skyworth is one of the top ten color TV manufactures in China with leading market shares in segmentation markets including LCD TV, flat-panel and digital TV set top box.
- In 2010, the company will continue to focus on the development of LCD products.
- [www.skyworth.com](http://www.skyworth.com)

▪ **ZTE Corporation**

Founded in 1985, ZTE is a comprehensive communications provider of products and services to over 140 countries and regions. In 2009, it reported an operating income of USD 8.8 billion with a net profit of USD 359 million.

- Products and services cover virtually all segments in the wireless, wired and terminal markets.
- ZTE has established partnerships with over 500 telecom operators and equipment manufacturers globally.
- It is one of China's leading mobile handset manufacturers and distributors.
- ZTE is a market leader in China's communications sector, claiming a major share of the domestic communications equipment market. It is currently the largest 3G network equipment provider, in China in cooperation with three largest telecom operators, China Mobile, China Telecom and China Unicom. The market share reached 35% in 2009.
- In 2009, 50.44% of sales are made to domestic customers, 49.56% go to the overseas market.
- In 2010, the company will maintain sound development in both domestic and overseas markets with a focus on the fields of 3G networks, optical communication equipments and terminal products such as mobile phones.
- [www.zte.com.cn](http://www.zte.com.cn)