

IRG Technology, Media and Telecommunications and Life Sciences Weekly Market Review



Week of 30 March - 5 April 2003

Contents

Equity Market Indicators	2
Technology, Media, Telecommunications and Life Sciences Market Activity	3
Weekly Highlights	4
International	4
Japan	5
Korea	6
China	7
Taiwan	7
Singapore / Malaysia	8
Hong Kong	8
United States / Canada	9
Europe	10
Other Economic Data	11
Currency Exchange Rates	11
Fixed Income Prices and Yields	11

This document is provided for information purposes only, and constitutes neither investment advice nor the recommendation to purchase or sell securities of the companies named in this document. IRG Limited, f/k/a iReality Group Limited, and its affiliated companies, make no representation as to the accuracy or completeness of the information contained in this document.

IRG Technology, Media and Telecommunications and Life Sciences Weekly Market Review



Week of 30 March - 5 April 2003

Equity Market Indicators					
Index	Closing Level (4/7/2003)	% Change 1 Week Ago	% Change 1/1/2002	% Change 1/1/2003	% Change 2002 Low
S&P 500	878.85	1.8%	-23.9%	-0.1%	12.8%
Dow Jones Industrial Avg.	8,277.15	1.6%	-17.8%	-0.8%	13.1%
Dow Jones Tech. Index	234.84	4.6%	-30.4%	2.3%	28.5%
Dow Jones Telecom. Index	142.72	5.3%	-31.6%	-3.5%	20.6%
NASDAQ Composite	1,383.51	1.0%	-30.1%	3.6%	25.4%
The Street.com Net	93.16	-0.4%	-52.4%	8.8%	50.8%
Japan Nikkei 225	8,249.98	3.5%	-24.1%	-3.8%	-2.8%
Japan TOPIX	810.58	2.9%	-23.1%	-3.9%	-2.5%
Korea KOSPI Composite	585.90	9.4%	-19.2%	-6.6%	-4.5%
Korea Kosdaq	41.12	8.9%	-44.8%	-7.3%	-9.8%
Taiwan Stock Exchange	4,575.83	5.9%	-18.3%	2.8%	16.9%
Singapore Straits Times	1,340.28	5.7%	-17.6%	-0.1%	-1.3%
Hong Kong Hang Seng	8,962.21	3.8%	-21.0%	-3.9%	-0.4%
Hong Kong GEM	112.16	3.6%	-46.1%	1.6%	3.6%
China Shanghai (A-Share)	1,584.36	0.3%	-5.5%	11.6%	15.3%
China Shenzhen (A-Share)	445.59	-0.3%	-9.1%	8.7%	14.8%
China Shanghai (B-Share)	123.74	1.0%	-26.8%	9.0%	11.1%
China Shenzhen (B-Share)	211.37	4.1%	-19.2%	13.0%	15.1%

IRG Technology, Media and Telecommunications and Life Sciences Weekly Market Review



Week of 30 March - 5 April 2003

Technology, Media, Telecommunications and Life Sciences Market Activity

NASDAQ/NYSE TMT and Life Sciences IPO Filings

File Date	Issuer	Industry Sector	Size (\$MM)	Description	Book-Runner	Co-Manager
N/A						

NASDAQ/NYSE Equity Markets: TMT and Life Sciences IPO Pricing

Pricing Date	Issuer (Exchange)	Description	Size (US\$MM)	Offer Price	Price on 3/28/03	% Change From Offer
N/A						

Asian Equity Markets: TMT and Life Sciences IPO Pricing

Pricing Date	Issuer (Exchange)	Description	Size (US\$MM)	Offer Price	Price on 4/7/03	% Change From Offer
4/3/03	Powertech Technology Inc [6239.tt] (Gretai)	Tests, packages and assembles integrated circuits.	\$4.1	NT\$15	NT\$16.3	8.7%

IRG Technology, Media and Telecommunications and Life Sciences Weekly Market Review



Week of 30 March - 5 April 2003

Weekly Highlights

International

Life Sciences

- **Gilead Sciences to begin offering its AIDS drug at cost** to 68 of the world's least-developed countries, echoing similar programs at other large pharmaceutical makers. Gilead will offer Viread to "qualified" AIDS-treatment facilities throughout Africa and 15 other poor countries for \$1.30 a once-daily pill, or \$475 a year. In the U.S., Viread normally costs roughly \$4,300 a year.

Mobile / Wireless

- **Gartner says Wi-Fi technology lacks a viable business model in Asia.** However, the Wireless Broadband Alliance, billed as the first and largest of its kind, has rolled out Wi-Fi services in more than 8,600 locations across the nations in the alliance and aims to raise the number to more than 20,000 by December.

Semiconductors

- **World-wide semiconductor sales were \$11.8 billion in February**, rising from \$10 billion a year earlier but falling 3.3% from January as demand softened in the personal computer, wireless and consumer markets. The Semiconductor Industry Association said that a seasonally flat first quarter has been further hurt this year by geopolitical uncertainty.

Hardware

- **AMD and Fujitsu to broaden their collaboration on a popular memory-chip technology**, setting up a 7,000-employee company that AMD will lead. Under the MOU, the new venture will integrate the two companies' operations in flash memory, a variety of chip used to store data in cellular phones and other mobile products. AMD will own 60% of the venture, while Fujitsu will hold 40%.

Information Technology

- **IBM Japan and Toshiba to cooperate in the development of autonomic computer technology** that automatically prevents glitches in information systems. In the first of several joint projects planned, IBM Japan and Toshiba intend to develop software that automates the operation and maintenance of several servers. Use of the software could result in cost savings of about 1 billion yen.
- **Nihon Unisys teams up with Indian SI and administration firm Mascot Systems** to start an application software outsourcing service. Mascot Systems develops and maintains applications and is also strong in evaluating and analyzing corporate usage trends. As such, it will provide development and administration services suited to the business environment.
- **Hong Kong and Singapore offer Asia's friendliest environments for Internet-based business**, reflecting their governments' strong support for electronic commerce, according to the EIU. The lower rankings of other Asian countries were a reminder of how telecommunications monopolies, the absence of state-led initiatives and poverty can hold back an economy from leveraging e-commerce.

IRG Technology, Media and Telecommunications and Life Sciences Weekly Market Review



Week of 30 March - 5 April 2003

Japan

Telecommunications

- **AT&T could owe NTT DoCoMo \$3.6 billion if AT&T Wireless Services fails to offer 3G** wireless service in four U.S. cities by the end of next year as planned. The debt would occur only if AT&T Wireless wasn't able to pay the \$3.6 billion itself, AT&T said in its annual report to the U.S. Securities and Exchange Commission.
- **Japan Telecom fiber-optic network control technology promises to create a new trend** in large-volume telecom service. The new technology makes it possible to rent by the hour the right to use bandwidth for telecommunications. The service is expected to start as early as next year, acting as another factor putting downward pressure on telecom rates.

Mobile / Wireless

- **NTT DoCoMo selling a mobile phone that is worn around the wrist** and snaps off to become a regular handset. Dubbed the "Wristomo," the watch opens up to become a phone, and users can talk while wearing it like Dick Tracy, the comic-book hero that made its debut in the 1930s. The Wristomo, made by Seiko Instruments, weighs four ounces including batteries.
- **Posts and Telecommunications Ministry to enable cell phone communications** in over 90% of the areas where it is currently difficult to use mobile handsets because they are beyond the range of transmitting equipment. In some rural and depopulated districts, cell phones cannot be used because there is no infrastructure to relay the phone signals.
- **Sales of NTT DoCoMo FOMA 3G phones through the end of March came to 329,000 units**, surpassing the company's goal. By the end of February, sales of FOMA handsets totaled 191,500 units, making it doubtful whether the company would be able to reach its March-end goal of 320,000 units. But sales of the new P2102V, which debuted March 15, have been very strong.
- **NTT DoCoMo and others to debut advanced camera-equipped handsets** featuring charge coupled devices boasting more than 1 million pixels. The cameras in these phones will have a resolution four times better than that of current models and equal to low-end digital cameras. DoCoMo will in mid-May debut a phone with a 1.23-million-pixel camera under its 505 series.
- **KDDI to open research institute dedicated to advanced mobile communications technology**, including one related to 4G mobile phones capable of transmitting data at fiber-optic speeds. The telecom company plans to solicit rival NTT DoCoMo and a Chinese university to join the studies, with a view to making their technology the global standard.

Hardware

- **Sharp lifts forecasts for group operating profit for the year ended March 31**, citing brisk sales of its core electronics products such as camera-equipped mobile phones and liquid-crystal-display televisions, as well as chip and LCD devices. The Japanese consumer-electronics maker expects a group operating profit of ¥99 billion (\$825 million) for the year, up from its previous estimate of a ¥90 billion profit.
- **Tokyo Electron expects to post a net loss for the second year in a row** due to restructuring costs, losses on its securities holdings and a decline in the value of its inventory assets. Tokyo Electron, the world's second-biggest producer of chip-making equipment behind the Netherlands' ASML Holdings NV, also said it will cut its global work force by 10%, or 1,000 staff, in the current fiscal year.

IRG Technology, Media and Telecommunications and Life Sciences Weekly Market Review



Week of 30 March - 5 April 2003

- **H-P Japan to release a PC server later this month** that costs less than most desktop PCs. The cheapest model in the tc2120 series of PC servers will be priced below 70,000 yen. This model will sport a Celeron microprocessor. The other two models in the series will have Pentium-4 microprocessors. HP Japan will target the machines at smaller businesses and enterprises.

Information Technology

- **IBM Japan establishes new marketing department dedicated to Linux-based computer systems.** Although corporate Japan remains as cautious as ever about IT investments, IBM Japan anticipates growing demand for Linux-based systems because they are relatively inexpensive to build. The fact that IBM Japan is now putting its weight behind Linux is expected to have a significant impact here.

Korea

Telecommunications

- **KTF may offer joint-project proposal to SK Telecom to share W-CDMA 3G networks.** KTF will formally contact SK Telecom over the issue, its Chief Executive Nam Joong-soo told reporters yesterday. The proposal comes after both SK Telecom and KTF investors expressed skepticism over the envisioned infrastructure build-up plans.

Mobile / Wireless

- **Ministry of Information and Communication considering cutting LM (land-to-mobile) charge** by 5 per cent within the first half of this year. The information ministry said that it is now working on the LM rate cut proposal after it received positive reviews from the economic policy coordination meeting last week.
- **Intelligent Microsystem Center (IMC) develops a wristwatch-style PDA** with company-developed technology. The company will present the PDA at a trade fair at the Convention and Exhibition Center (COEX) in Samseong-dong, southern Seoul, for a two-day run. The PDA consists of three parts: a micro-batteries equipped main part, a stylus input device, and a head-mounted display (HMD).
- **LG Electronics supplying rotational camera-mounted GPRS color phone sets** to an Italian communications company called "Wind." The high-tech GPRS G8000 model camera phone features a high-performance 110,000-pixel camera and 65,000-color TFD-LCD screen that stores moving images. It is also fitted with a 40-poly sound-source chip, which can support various multimedia functions.

Internet

- **South Korea has the highest Internet usage rate in East Asia**, outpacing Japan, China and Taiwan, the state-run Electronics and Telecommunications Research Institute (ETRI) said in a report. The ETRI report said that Korea has an Internet usage rate of 51.1 per cent, followed by Japan (45.5 per cent) and Taiwan (34.9 per cent).

Semiconductors

- **U.S. claims South Korea unfairly subsidized memory-chip imports**, singling out Hynix Semiconductor Inc. for what could be heavy tariffs. The agency estimated the net subsidy rate for Hynix's chip imports at 57.37 per cent, a number that indicates the additional duties that the company will pay if the Commerce Department and International Trade Commission uphold the initial finding.

IRG Technology, Media and Telecommunications and Life Sciences Weekly Market Review



Week of 30 March - 5 April 2003

- **Overseas shipments of memory DRAM semiconductors fell by as much as 30 per cent** in February, clouding the outlook for this year's exports, a trade report said yesterday. According to the Korea Semiconductor Industry Association, the nation's exports of DRAM memory chips in February plummeted by 30.3 per cent from the previous month to \$332 million.

China

Telecommunications

- **Shanghai-listed arm of China Unicom to issue the mainland's largest corporate bond.** China United plans to undertake a third phase of CDMA network expansion in the second half of this year. Brokerages have expressed concerns over an expected fall in average revenue per user for CDMA following the launch of pre-paid services, as well as the high cost of handset subsidies.
- **Nokia merges its four joint ventures in China to streamline operations,** paving the way for production of CDMA handsets for Asian markets. The move was mainly an administrative one, with production continuing at the four locations of the joint ventures founded in the mid-1990s with local Chinese partners, while new headquarters would be set up in Beijing.

Software

- **China's packaged software market grew 19.5 per cent last year** to generate sales of almost \$2 billion with a further tripling expected within five years. It is the lowest growth rate posted in China but improved business conditions would see the market grow at a compound annual rate of 25.8 per cent from now to 2007, IDC said in a report.
- **Sun Microsystems postpones one of its biggest annual events in China** - the SunNetwork Asia Conference and Pavilion. Preparations for the fair, scheduled for the coming weekend at the Shanghai International Convention Centre, had been under way for several months. The event would have seen the largest gathering of top Sun executives in China.

Information Technology

- **China's WTO entry expected to spur a boom in IT outsourcing services** in both Hong Kong and the mainland. HP's managed services division, HP Services offers outsourcing as a way for multinational corporations to set up their business quickly and without considerable initial capital investment. EDS, IBM, Fujitsu and PCCW are also increasingly looking to capitalize on the growth north of the border.

Taiwan

Telecommunications

- **Taiwan's government to offer 500 million shares in Chunghwa Telecom to local investors** from April 10 after it failed last month to sell 100 million shares, betting investors will be attracted by an imminent dividend. Taiwan will offer the stake, valued at NT\$27 billion at the stock's closing price of NT\$54 yesterday, between April 10 and April 16, the Taiwan Stock Exchange said.

IRG Technology, Media and Telecommunications and Life Sciences Weekly Market Review



Week of 30 March - 5 April 2003

Semiconductors

- **Advanced Semiconductor Engineering receives Taiwan government approval to invest \$15 million** in a diode plant in China. Taiwan approved the application to build a plant producing light-emitting diodes, which convert electricity to light and are used in digital displays, Advanced Semiconductor said.
- **IBM to make a next-generation graphics chip for Nvidia**, winning business away from Nvidia's long-time partner, TSMC. U.S.-based Nvidia had previously contracted only TSMC, the world's largest contract chip manufacturer, to produce the graphics chips used in Microsoft's Xbox game console, personal computers, laptops and workstations.

Singapore / Malaysia

Telecommunications

- **Telekom Malaysia considering the purchase of a stake in Excelcomindo Pratama** to help expand business in the region, chief executive Mohamad Khir Abdul Rahman said. In December last year, Telekom lost to Singapore Technologies Telemedia in a bid for 42 per cent of Indonesian Satellite (Indosat), the main international call operator and owner of the second-biggest cell-phone company.

Hong Kong

Mobile / Wireless

- **Motorola signs contract to upgrade the force's communications infrastructure.** The \$69 million deal with the Hong Kong Police Force is expected to give the police one of Asia's most advanced command-and-control communications systems. Mr Cryer last week led a demonstration of features of the 3G Command and Control Communications (CC3) system to be deployed by the police next year.

Venture Capital / Investments

- **Hutchison Whampoa sells \$1 billion in 10-year bonds in hours.** Hutchison had to offer a yield that was far higher than equally rated American industrial companies to get bond fund managers to take up the issue. The coupon offered by Hutchison compares with an average spread of 110 basis points over Treasuries for U.S. industrial companies with a similar single-A rating.

Hardware

- **Varitronix International to reserve cash for possible acquisitions.** Chairman Chang Chu-cheng said last week that Varitronix could require a cash reserve. The LCD maker has not made any acquisitions since listing in 1991. Varitronix had HK\$716 million in cash, accounting for about half of the company's market value. Varitronix announced a 157 per cent profit surge to HK\$111 million last year.

Information Technology

- **Van Shung Chong Holdings the first customer in Asia to implement Oracle E-Business Suite** on Linux. The company hopes to save more than 50 per cent of its annual IT budget by running its business-critical Oracle applications on Linux. The new Oracle E-Business Suite replaced several legacy systems running on PCs and Unix servers.

IRG Technology, Media and Telecommunications and Life Sciences Weekly Market Review



Week of 30 March - 5 April 2003

United States / Canada

Life Sciences

- **FDA defends decision to clamp down on imports of prescription drugs from Canada** in response to accusations by lawmakers that the agency is scaring seniors who are trying to get more affordable medicine. Members of the recently formed House Subcommittee on Human Rights and Wellness said the FDA should find a way to allow safe importation of drugs from Canada.

Software

- **Microsoft agrees to a government request for minor changes in its Windows** to make it easier for consumers to use software from rival companies to browse Web pages, listen to music and send instant messages. Windows will now have a more prominent icon for a program that allows customers to make such changes. It also will include instructions describing exactly how to make those changes.

Internet

- **Yahoo enhances technology to insert information directly into search results.** For instance, if a consumer types "New York weather" or "DVD players" into the search-query box, Yahoo will return weather symbols and information about the forecast for New York or specific DVD product data and pictures at the top of the search results.
- **InfoSpace to further reduce headcount by 115 positions** under its restructuring plan to streamline operations and become profitable. The wireless and Internet software company said it will have about 475 employees after the most recent cuts. Last October, InfoSpace eliminated 90 jobs.

Venture Capital / Investments

- **Dow Jones Composite Internet Index rose 11% in the quarter ended March 31**, outpacing a rise in the Nasdaq Composite Index, which gained less than 1%. Although there are far fewer Internet stocks these days and several Web firms are profitable, complete sanity hasn't necessarily been restored to the sector. Analysts and investors say price-to-earnings ratios for some stocks are lofty.
- **Only one IPO in the first quarter of 2003 from a venture-backed company.** That company, subprime mortgage lender Accredited Home Lenders, raised \$77.2 million in an IPO in February. Venture firms Enterprise Partners and Crosspoint Ventures had provided funding to the company prior to the IPO. That marks a sharp drop from even the fourth quarter's paltry four deals.

Hardware

- **Eastman Kodak picks a former H-P vice president to be its No. 2 executive.** The photography company is naming Antonio M. Perez as president and chief operating officer, a post that has been vacant since the departure of Patricia Russo in early 2002. After just eight months at Kodak, Ms. Russo resigned to take the top job at Lucent Technologies Inc.
- **Gateway acknowledges it inflated combined 2000 and 2001 revenue by almost \$500 million.** The Poway, Calif., personal-computer maker said it will reduce its reported 2000 sales by \$340 million and its 2001 sales by \$130 million in a coming financial filing with the SEC. It would be the second time that the company has restated its 2000 results. Revenue was inflated in five quarters beginning in early 2000.
- **Dell to push PC technologies and practices into corporate server, storage and services markets.** Dell last year said it expects to reach goal of \$60 billion in annual revenue within several years. It

IRG Technology, Media and Telecommunications and Life Sciences Weekly Market Review



Week of 30 March - 5 April 2003

reported revenue of \$35.4 billion for the year ended Jan. 31. The switch by corporate buyers to Intel, Microsoft and open-source software such as Linux is critical for Dell as the PC market continues to sag.

Media, Entertainment and Gaming

- **AOL may need to once again restate revenue at its beleaguered America Online unit.** The SEC, which last year began investigating the accounting treatment of America Online's advertising transactions, believes at least some portion of \$400 million in advertising purchased by Bertelsmann AG since 2001 shouldn't have been accounted as revenue, according to an AOL securities filing.

Information Technology

- **Computer Sciences Corp. shares drop on accounting concerns.** According to Sanford Bernstein analyst Rod Bourgeois, CSC's outsourcing contract cost capitalization activity has risen more than 80% over the past two years. In capitalizing these costs, CSC is able to spread them out over the life of a contract, which is often several years.
- **EDS to pay its new chairman and CEO a package that includes a \$1 million annual salary,** the potential to own more than one million shares and a bonus of as much as \$1.35 million. The company gave Michael H. Jordan 40,500 shares that vest in one year and 150,000 restricted shares that vest in 2006. He also received options to purchase one million EDS shares at prices from \$15.58 to \$20.25.

Europe

Telecommunications

- **SBC Communications drops out of auction process for Hughes satellite-broadcasting unit.** The departure of SBC could clear the field for an uncontested bid by News Corp., long viewed as the most likely buyer. Hughes is a unit of General Motors Corp. SBC shares jumped on the news, rising \$1.32, or 6.6%, to \$21.38 in 4 p.m. New York Stock Exchange composite trading last Tuesday.
- **Vodafone to face more competition** from phone operators in Germany, Spain and Italy, who are set to agree to a wireless pact in their battle for lucrative business clients. The mobile units of Deutsche Telekom, Telefonica and Telecom Italia will announce the alliance as they aim to provide business clients with better services abroad and fill gaps in their networks.

Mobile / Wireless

- **British mobile phone firm mmO2 has held informal talks with KPN over a possible merger.** The two firms have held exploratory talks over the past two months on creating a £7.5 billion pan-European wireless giant but nothing is currently being discussed. KPN said on Tuesday it would be interested in buying mmO2's German unit, O2, but there were no bid talks.

IRG Technology, Media and Telecommunications and Life Sciences Weekly Market Review



Week of 30 March - 5 April 2003

Other Economic Data

Currency Exchange Rates						
Currency	Units	Current Rate (on 4/7/03)	% Change 1 Week Ago	% Change 1/1/2002	% Change 1/1/ 2003	% Change Last 12 Mth.
Japanese yen	¥/US\$	120.8000	-2.2%	-8.2%	-1.7%	9.0%
Hong Kong dollar	HK\$/ US\$	7.7994	0.0%	0.0%	0.0%	0.0%
Chinese renmenbi	RMB/ US\$	8.2772	0.0%	0.0%	0.0%	0.0%
Singapore dollar	S\$/ US\$	1.7845	-1.1%	-3.4%	-2.8%	2.8%
South Korean won	KRW/ US\$	1257.6000	-0.3%	-4.3%	-5.7%	5.3%
New Taiwan dollar	NT\$/ US\$	34.8425	-0.3%	-0.4%	-0.6%	0.1%
Australian dollar	US\$/A\$	0.5940	-1.7%	16.6%	5.8%	12.4%
New Zealand dollar	US\$/NZ\$	0.5347	-3.7%	28.5%	1.9%	23.0%
Philippine peso	PHP/ US\$	53.2500	0.5%	3.1%	0.7%	-4.2%
Euro	US\$/€	1.0567	-3.1%	18.8%	0.8%	20.8%
British pound	US\$/£	1.5486	-2.1%	6.6%	-3.8%	8.3%

Fixed Income Prices and Yields

Note	Currency	Current (on 4/7/03)		1 Week Ago		4 Weeks Ago	
		Price	Yield	Price	Yield	Price	Yield
US 30-year	US\$	105.2031	5.03%	108.5156	4.82%	110.6875	4.69%
Japan 30-year	¥	122.3300	1.14%	122.6030	1.14%	120.0525	1.24%
Hong Kong 10-year	HK\$	121.6187	3.81%	122.4026	3.70%	123.0727	3.62%
China (10/2027)	US\$	136.9768	4.90%	142.0085	4.62%	119.4101	5.98%
Singapore 10-year	S\$	117.3500	2.03%	118.9072	1.83%	118.8650	1.85%
South Korea 10-year	US\$	120.8738	4.21%	120.4274	4.32%	121.8135	4.09%
Australia 15-year	A\$	107.4930	5.52%	109.0990	5.32%	110.7050	5.14%
New Zealand (07/2009)	NZ\$	105.4999	5.93%	106.2568	5.80%	107.5213	5.58%
Philippines 20-year	PHP	133.2778	13.50%	133.1526	13.52%	131.6102	13.69%
India 20-year	INR	144.7076	6.36%	140.9940	6.65%	137.0791	6.96%
UK 30-year	£	93.0600	4.68%	95.7747	4.51%	98.5271	4.34%
Germany 30-year	€	107.7100	4.98%	110.2442	4.82%	113.5478	4.62%

This document is provided for information purposes only, and constitutes neither investment advice nor the recommendation to purchase or sell securities of the companies named in this document. IRG Limited, and its affiliated companies, make no representation as to the accuracy or completeness of the information contained in this document.