Reversal of Digital Divide in India

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Digital Divide & India

- *The term digital divide refers to the gap between those with regular, effective access to Digital and information technology, and those without this access.*
- *The potential benefit from the ICT revolution is well documented.*
- *While in-home Internet access is still a rarity in many villages, mobile phones are much more common.*

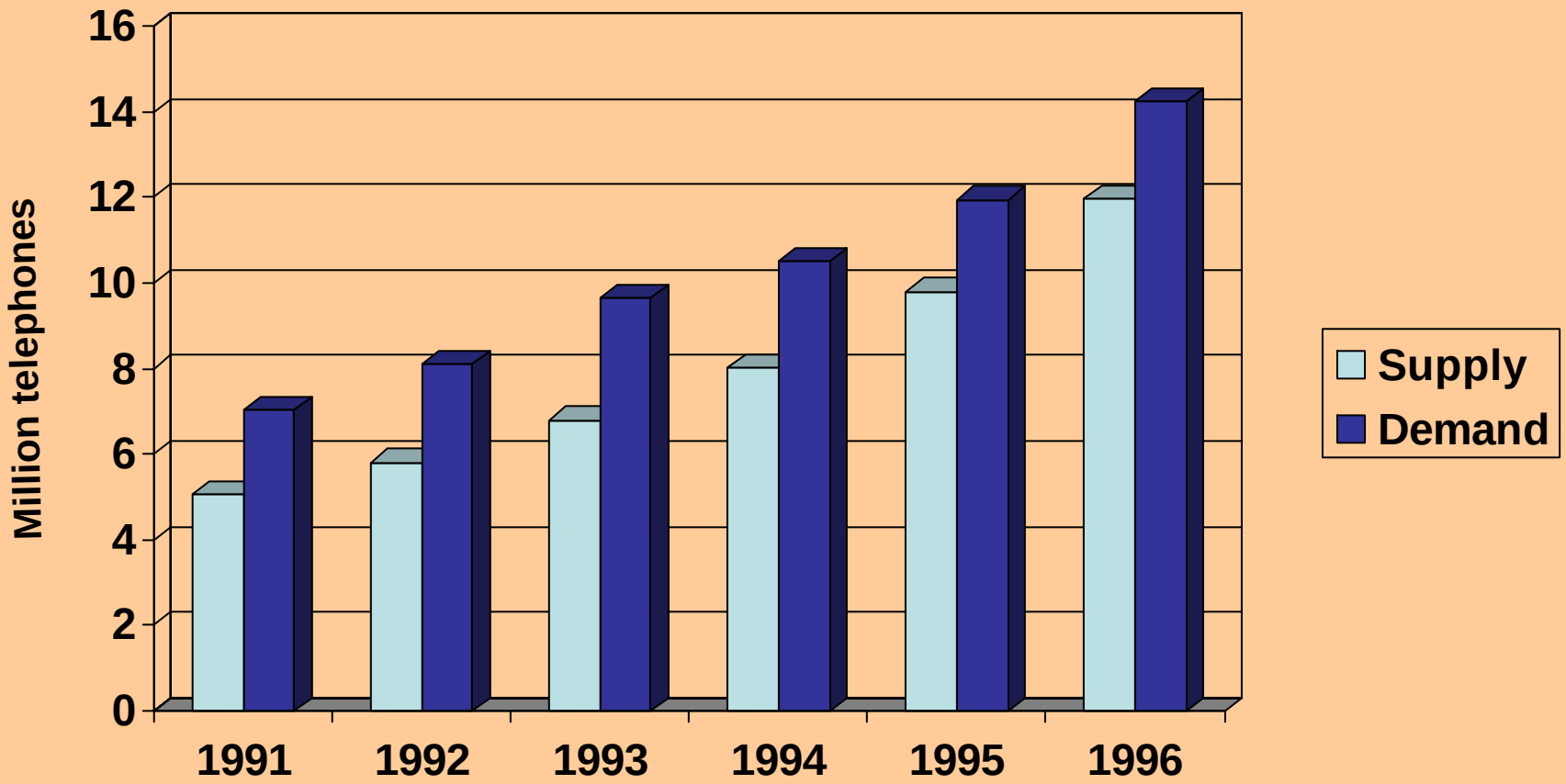
- *IT today contributes around 2 percent of India's GDP, but PC penetration is just about 6 per 1,000 people. Internet penetration, which was expected to give a fillip to PC penetration, has been able to reach just 1 percent of the population, with 10 million users. IT spending as a percentage of GDP is just 0.8 percent.*

Pre-Reforms status of Telecommunication

Status in 1994

- *0.8% teledensity – far below world average of 10% and other neighbouring countries.*
- *Total phones: 8 mn with a waiting list of 2.5 mn.*
- *Below 25% villages (1.7 lakhs) covered.*

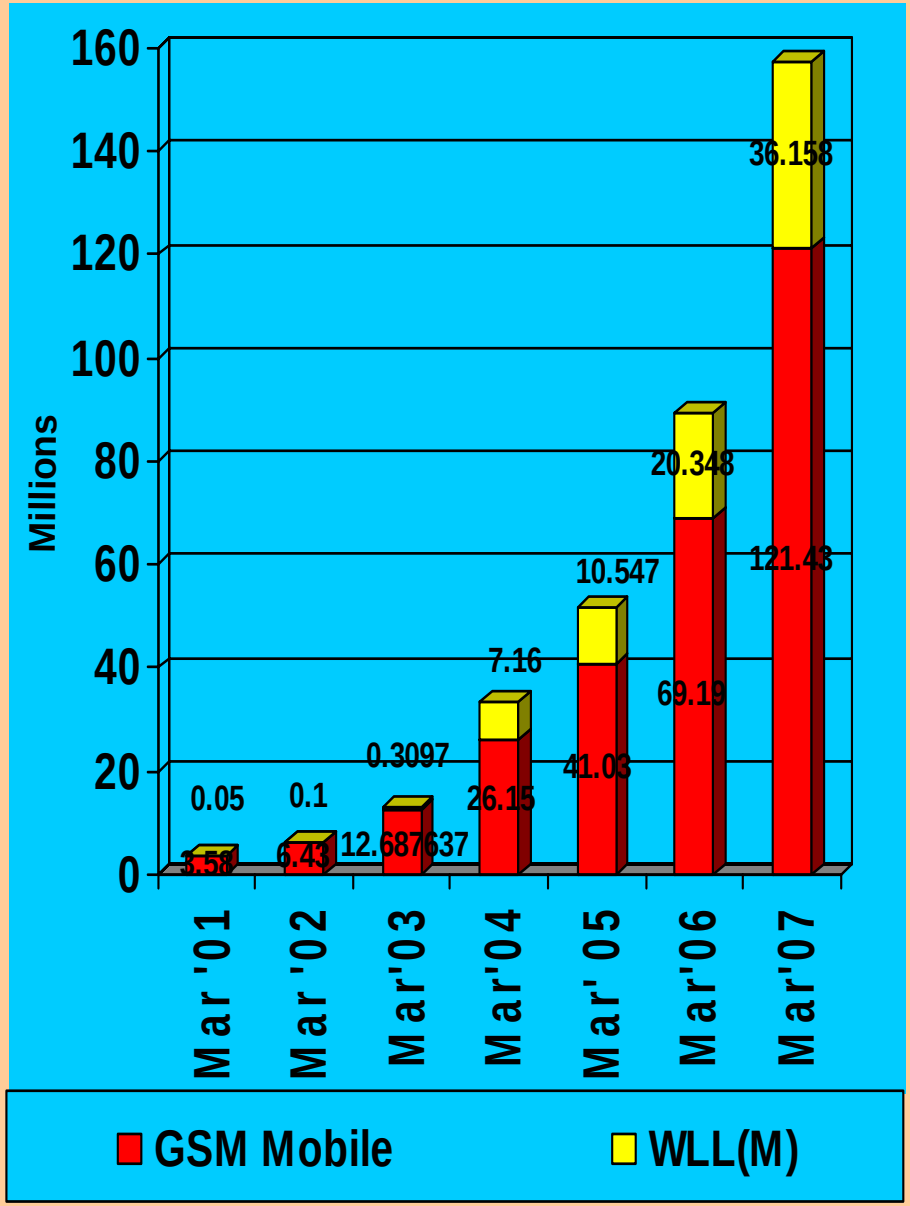
1991-96 : Pre-Reform scenario



Current Status: Hot Competition

- *As of now, Supply exceeds demand*
- *There are more than 20 companies providing Telecommunication services in one of the most competitive markets.*
- *These companies are now spending huge amount on Marketing & Branding.*

2001: Mobile revolution triggered

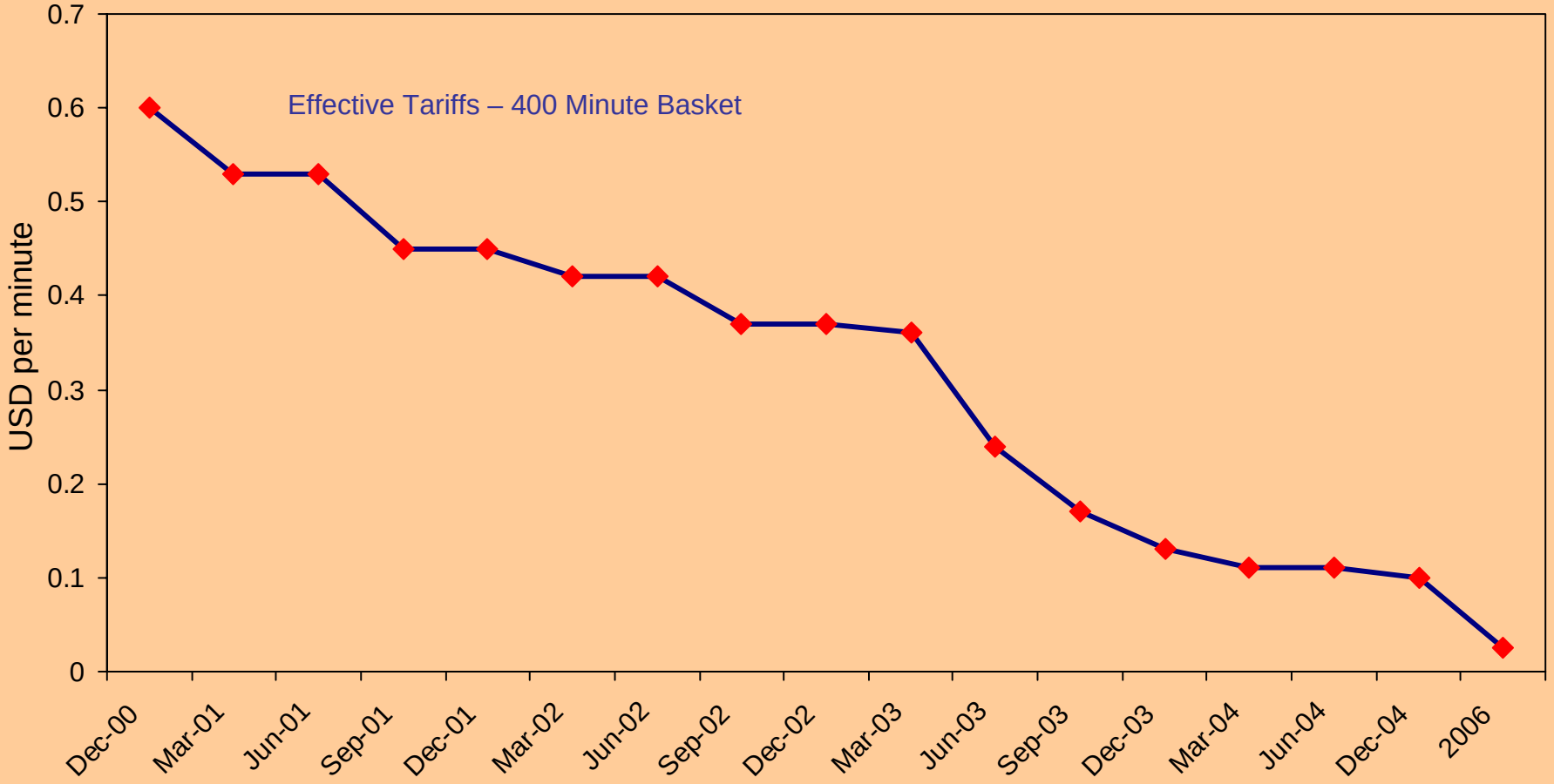


- *CDMA WLL(M) launched in limited manner in few circles.*
- *Tariff for GSM cellular mobiles reduced.*
- *Total Additions in FY 05-06 was 38 Million and in FY06-07 68 Million.*
- *Year to Year growth in FY 2006-07 was 76%.*

Reason: Low Affordability

- The Real Increase in Mobile is in Pre paid segment, which is pre-dominantly driven by people of lower income group. Affordability of mobile has increased as ARPU of prepaid has decreased from 375 to 335 in sept-06 in case of Pvt. Operators and 319 (mar-07)in case of BSNL
- Though the ARPU in case of post paid connection is higher at Rs.566(BSNL,Mar-07) more than 50% customers are below Rs.250 per month mark.

Continuously Improving Affordability

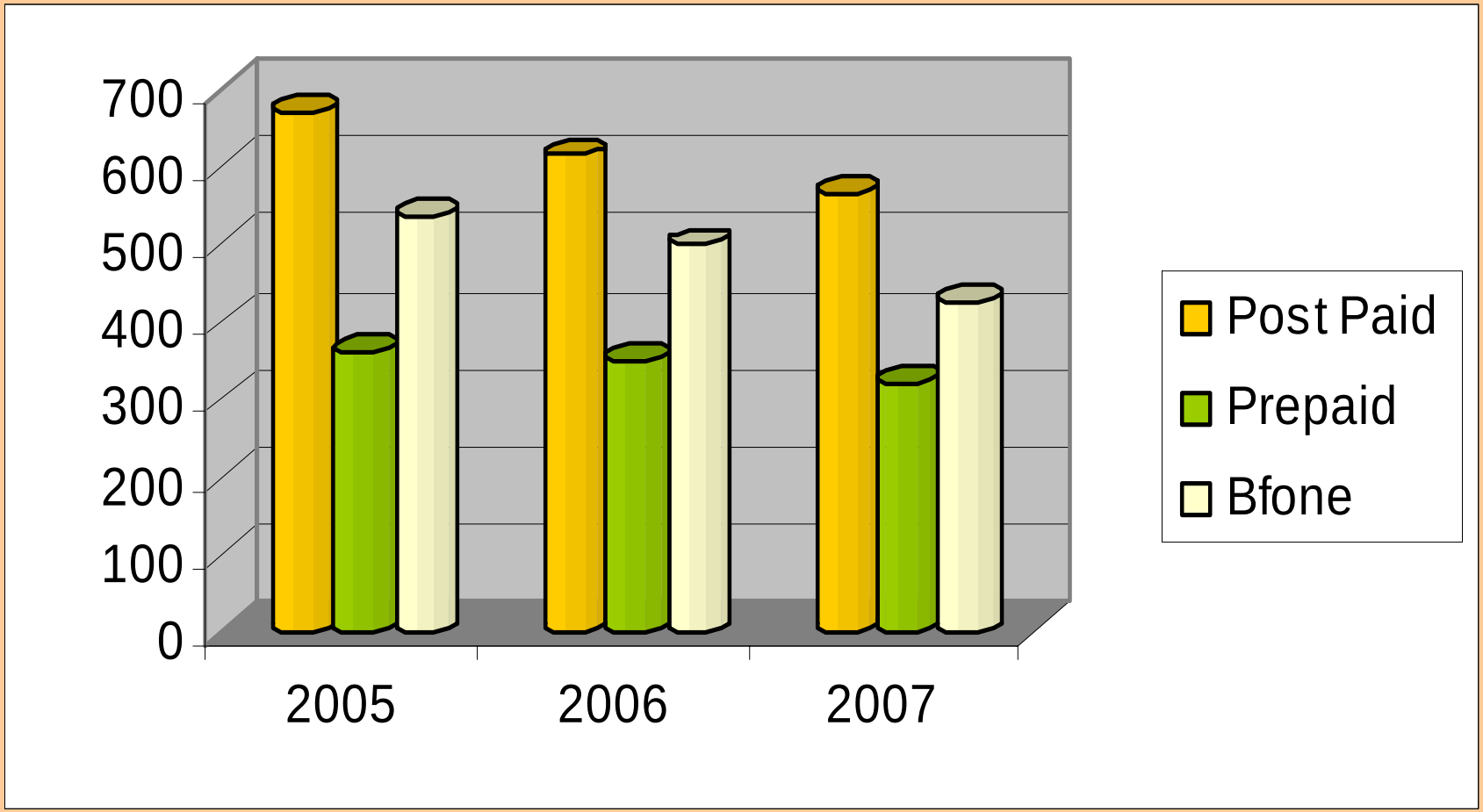


In last 3 years alone, effective local call cellular tariffs have plummeted by 80% from USD 0.6 / minute in December 2000 to USD 0.1 / minute in December 2004.

During 2005, tariffs have declined further by ~ 37% And Now under one India Plan STD calls @Re.1 per minute

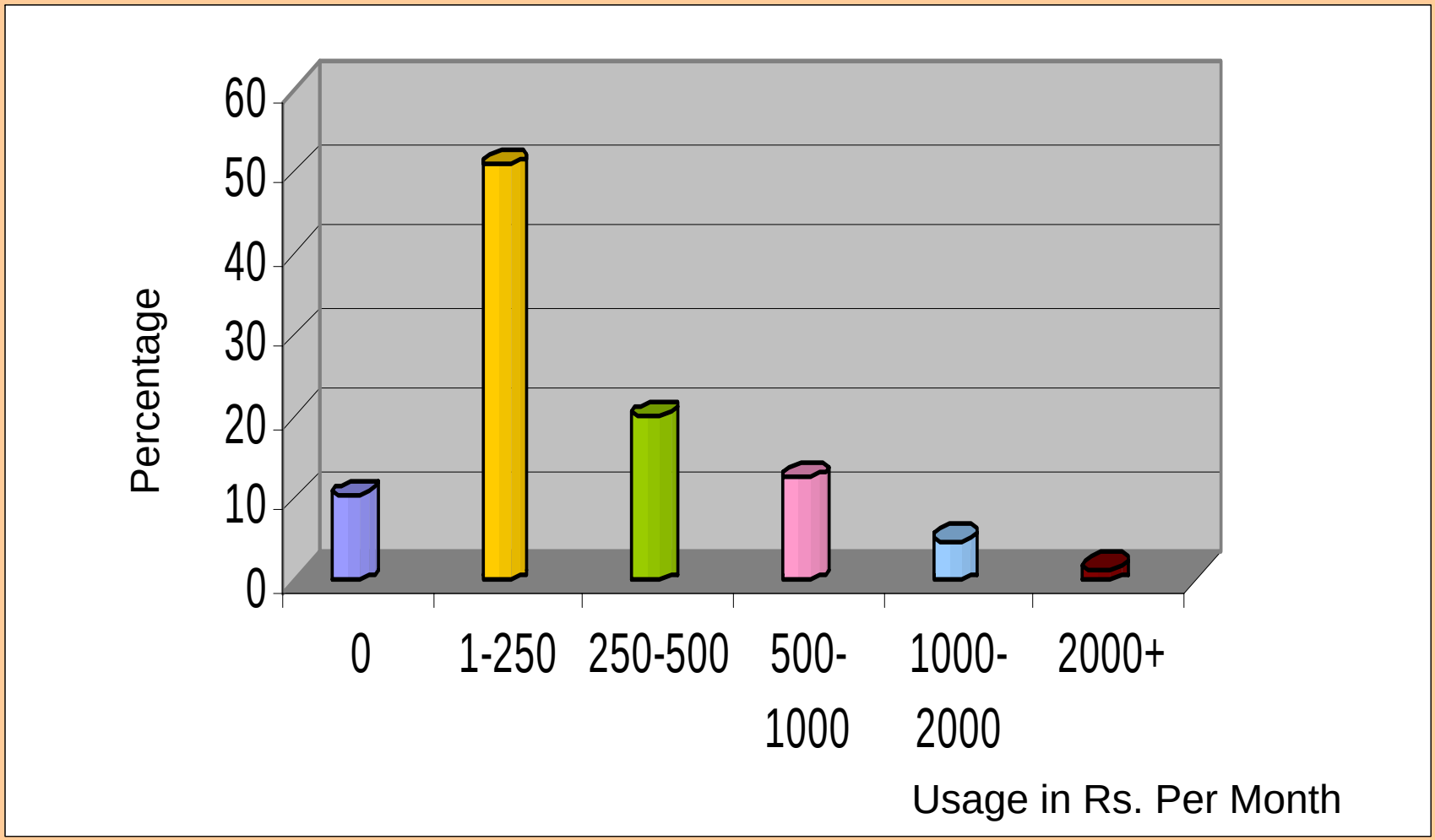
Source:TRAI Quarterly Performance Indicators, March 2005

Average Revenue per user (in Rs.)

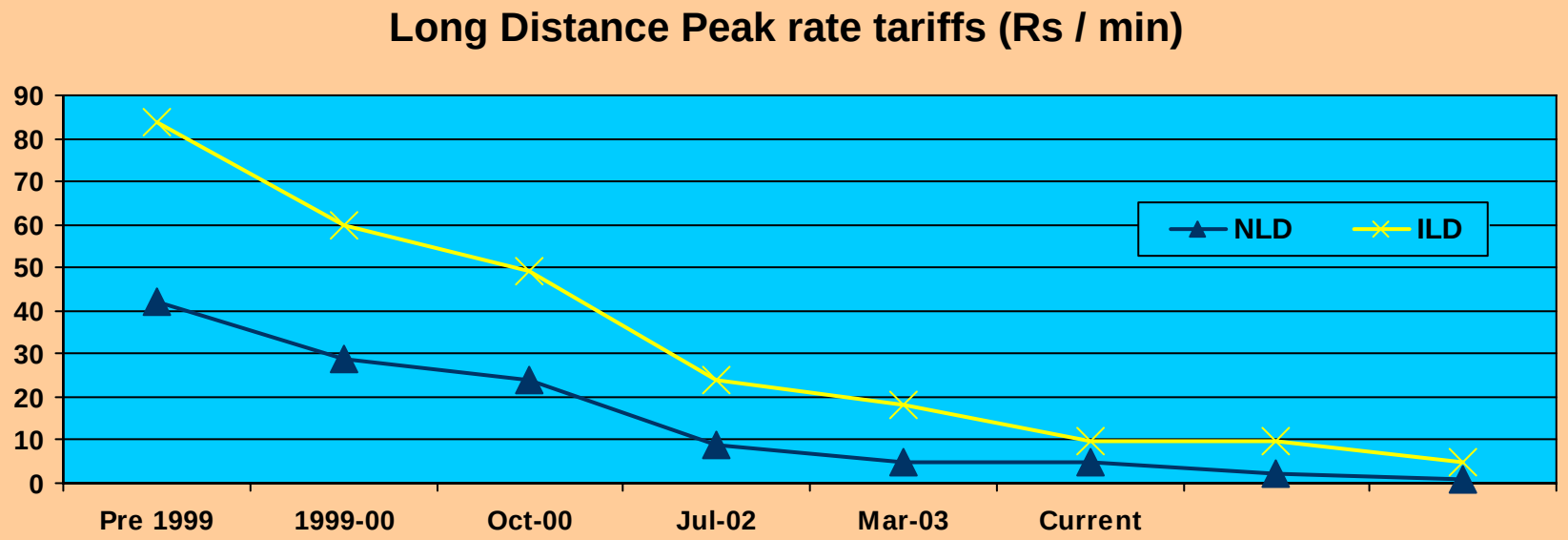


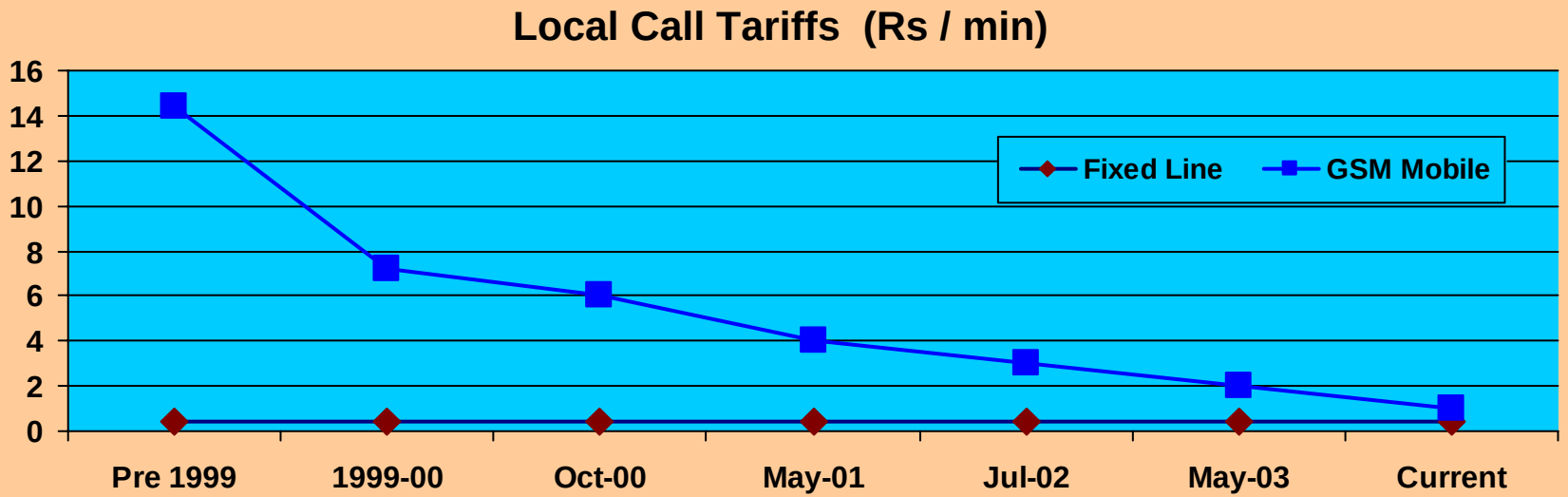
Decreasing ARPU shows more penetration among poorer class

Post-paid Billing Distribution

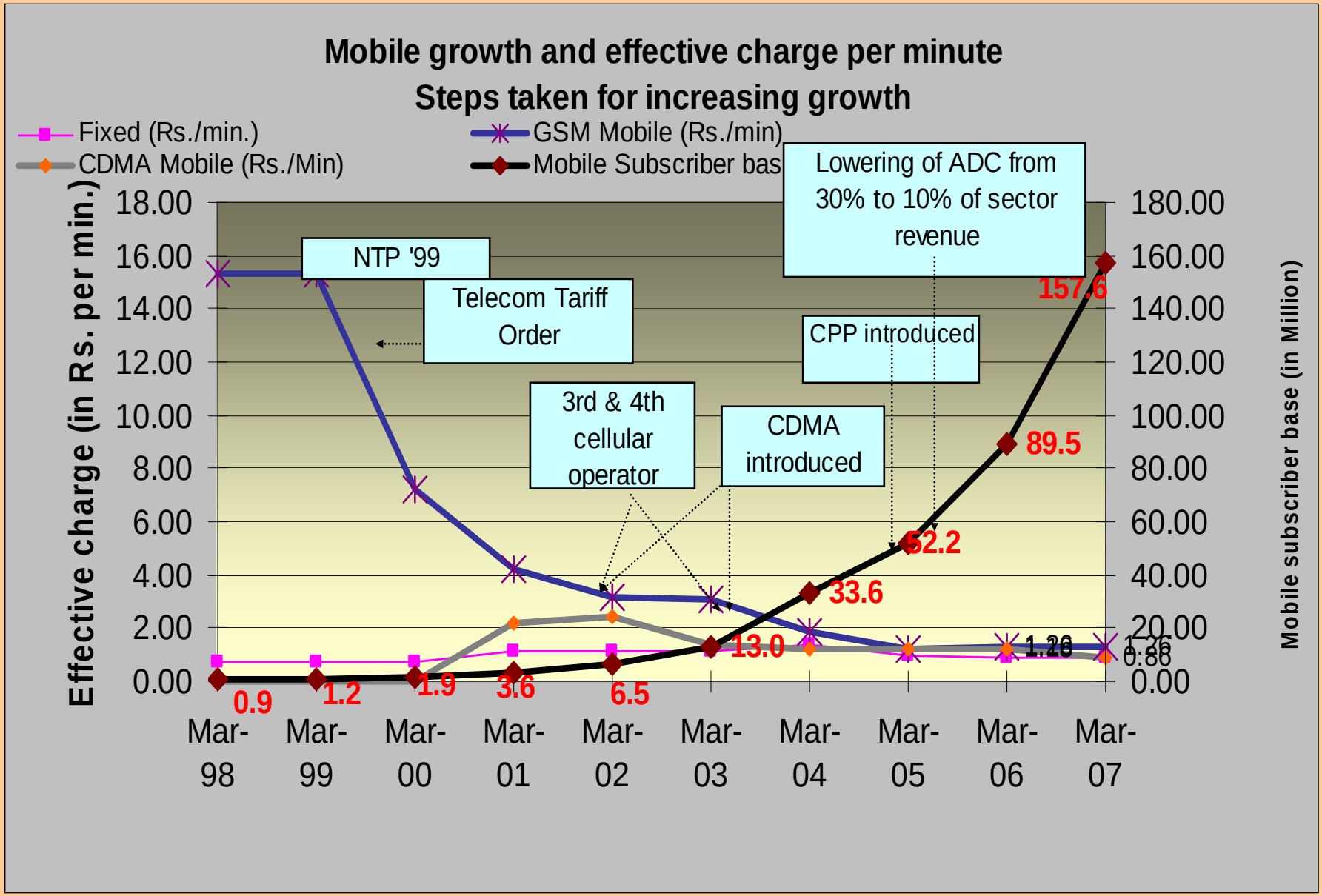


Increased competition leads to tariff reduction and affordable services





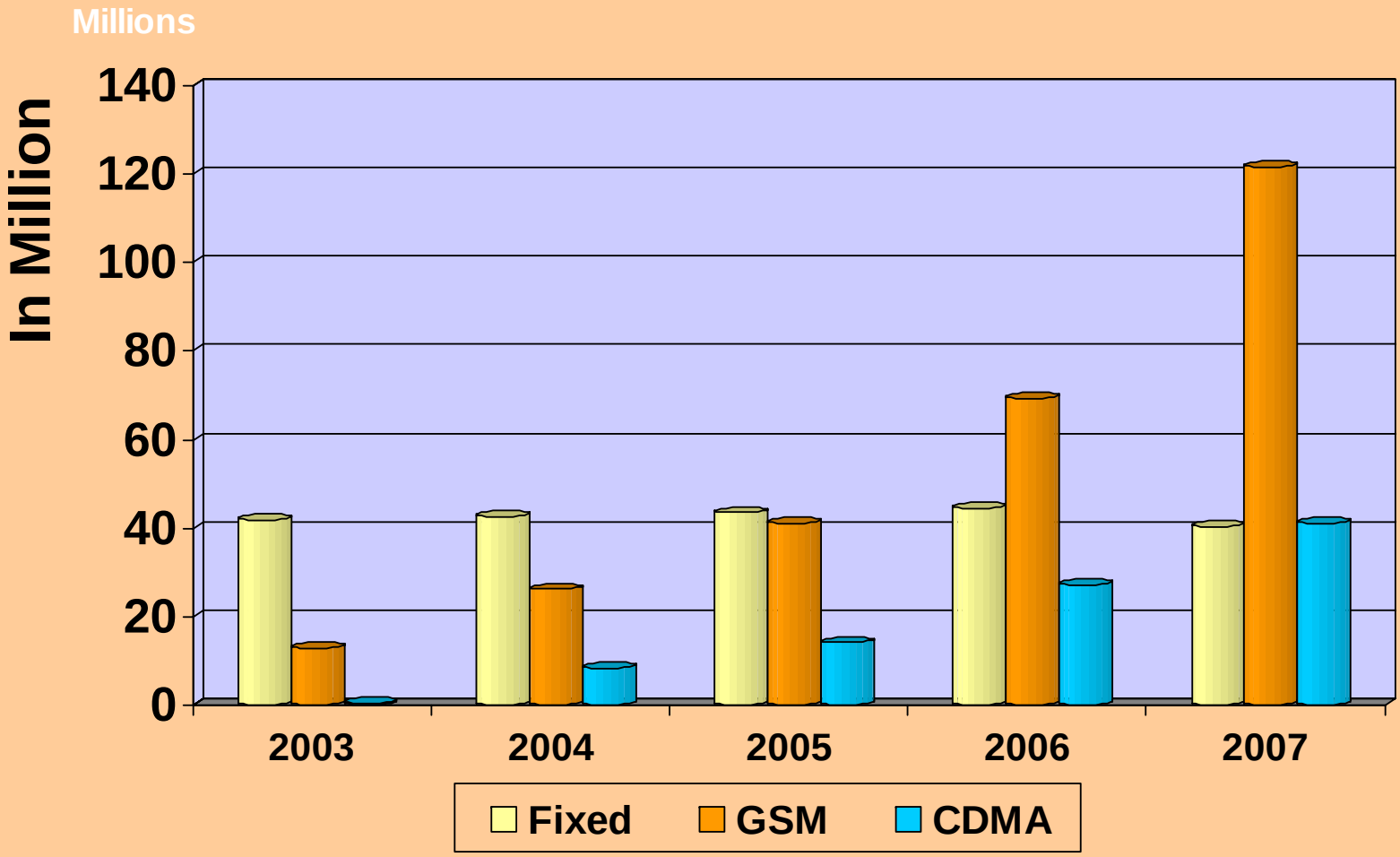
Convergence of Tariffs and Growth of mobile services



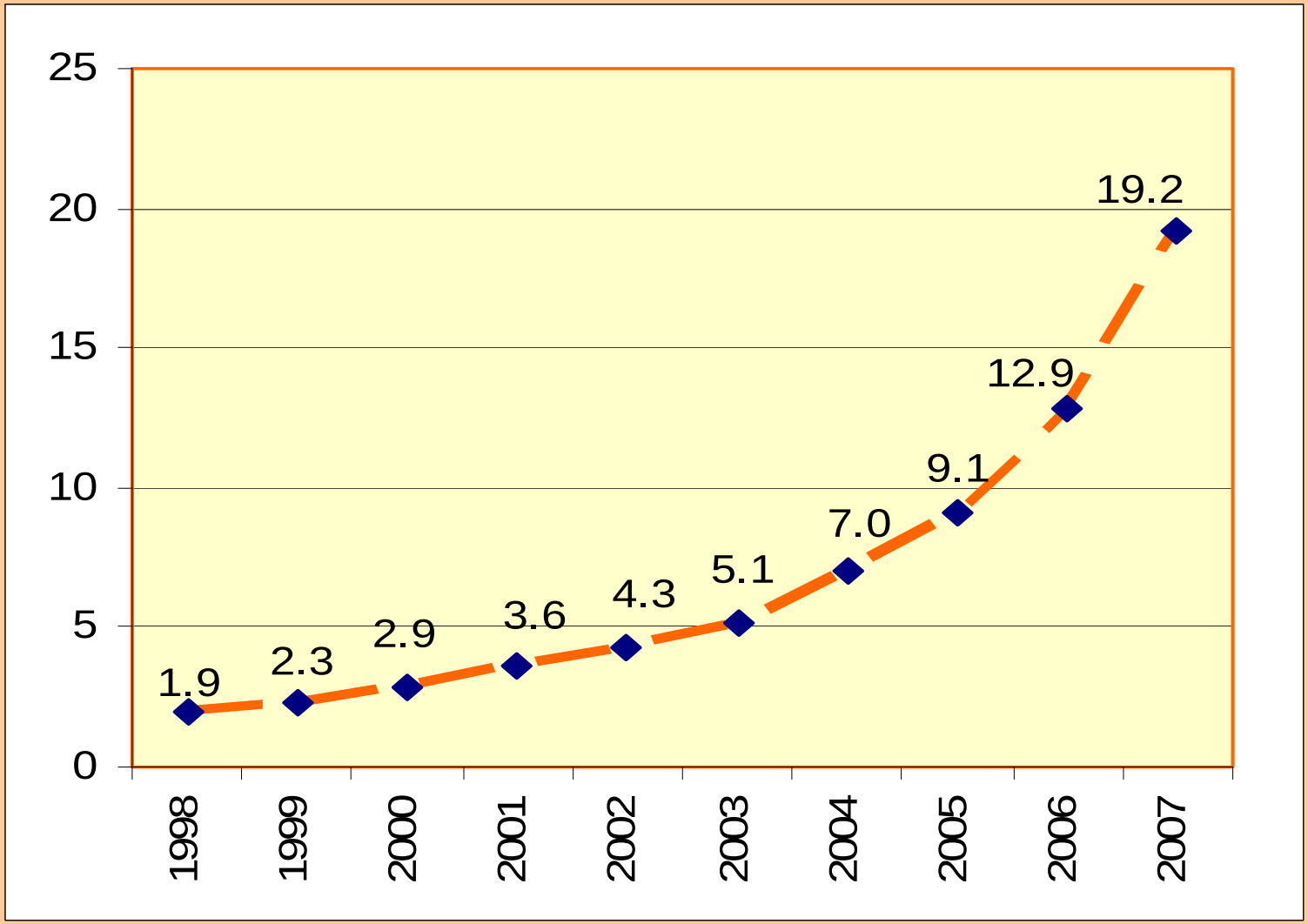
Growth drivers of mobile

- *Declining entry costs and falling tariffs have lowered the bar in terms of affordability coupled with branding and advertising.*
- *High percentage of population owning two-wheelers are prospective mobile telephone users.*
- *Middle class spends 6% of its income on telecom services.*
- *Lower middle group has developed vision for use of mobile for its economic benefit and ease.*
- *India lags behind other Asian economies (approx. 10 years) - therefore India is poised for growth.*

Trends : Fixed & Mobile



Teledensity in India



…….still a long way to go.

Mobile & Poor

- *There is fortune at the lower end of economic pyramid*
- *Lower income People generally use prepaid connection which is dearer in making calls. Per minute blended cost of a call is Rs.1.10 in Post paid connection while 1.33 in prepaid. It is like Reverse subsidization by poor.*
- *Telecom has demonstrated that exceptionally lower tariff can still create margins and a viable business model provided volume is large*

Mobile in Lower income People

- Mobile connection is growing at very high rate i.e. 156%, 55%,73% & 76% in last four year on year to year basis.
- This growth is driven by poorer consumers
- Economically lower-rung and small entrepreneurs have discovered new way to use information/communication to improve their business potential & RoI

Mobile>>>Prosperity, Comfort

- *Mobile gives them a lot of freedom in various ways*
- *A vegetable vendor uses it to know latest & lowest rate in different market*
- *A fisherman gets best bet for his daily catch on his mobile and Weather Alerts as well*
- *A poor villager in remote area saves himself the journey time and expenses, as he keeps in touch with his son working in a city.*
- *Petty contractors, worker use it keep in touch with potential customers and enhance their earning*
- *Students with small pocket allowances SMS each other to communicate in economically.*
- *Mobile is also very effective tool in Disaster Management.*

- Have the monetary gains of IT businesses been shared across the society? The answer is 'no'.
- But in case of Telecommunication, the answer is :Yes
- Fishermen in Kerala began about 2 years ago to carry mobile phones on board their small boats. Useful in emergencies, for fishing intelligence and to check which village along the beach bids the best for their catch. The idea is spreading. Similarly, farmers in several states use mobile phones and intranets to find the best prices for grains, milk and whatever else that went earlier through middlemen.
- According to the London Business School study, which looked at 92 countries, rich and poor, between 1980 and 2003, in a typical developing country, a rise of 10 mobile phones per 100 people boosts the rate of growth of GDP by 0.6 percentage points a year
- Already, these mobile phones seem to be generating big economic benefits

Impact on Economy and Future

- *Indian Telecom provided the backbone for thriving BPO and KPO sector as well as software export*
- *With R&D outsourcing coming to India, Telecom sector is again in focus to provide world class connectivity in cost effective way.*
- *Introduction of 3G is expected anytime, and growth in mobile segment may see a new height.*

Mobile in Disaster Management

- Mobile phones were used to spread the news about Gujarat Earthquake as all other channels were broken down.
- Use of SMS by Swedish government to citizens to pare down the list of who's missing and who's not in tsunami.
- After tsunami an small group of programmer developed “ARC”: the Alert Retrieval Cache. The idea is simple: a person sends a text message to a particular phone number and includes key words on a particular subject he or she wishes to address. The system then sends the SMS text, based on each subscriber's interests, to every phone number that subscribes to the system.
- Right now, a practical application would be a relief worker sending out an SMS because she needs access to more antibiotics. Using the names of those antibiotics as key words would then route the text message to people and organizations that might be a source for those antibiotics.

Digital Divide & ICT

IndiaBroadband 2007 Linking India

- The success story of Mobile Telephony is going to be repeated in Internet.
- Younger Population : More demand for Broadband for Education, Research, Chatting, Entertainment etc.
- Very low Broadband Tariff and aggressive policy by PSU Telcos.
- Discovery of Potential of ICT by Educated young Generation
- Advent of CIDA Project by BSNL (in M.P.),E-Choupal by ITC (in 6 states),N-Logue (in Tamil Nadu), humi Project (in Karnataka) Akshaya (Kerala) ,Drishti (M.P. & Delhi) Gyandoot (M.P,)
- Gyandoot is an intranet in Dhar district connecting rural cybercafes catering to the everyday needs of the masses.
- Initiation of e-governance in AP, Karnataka, Maharashtra

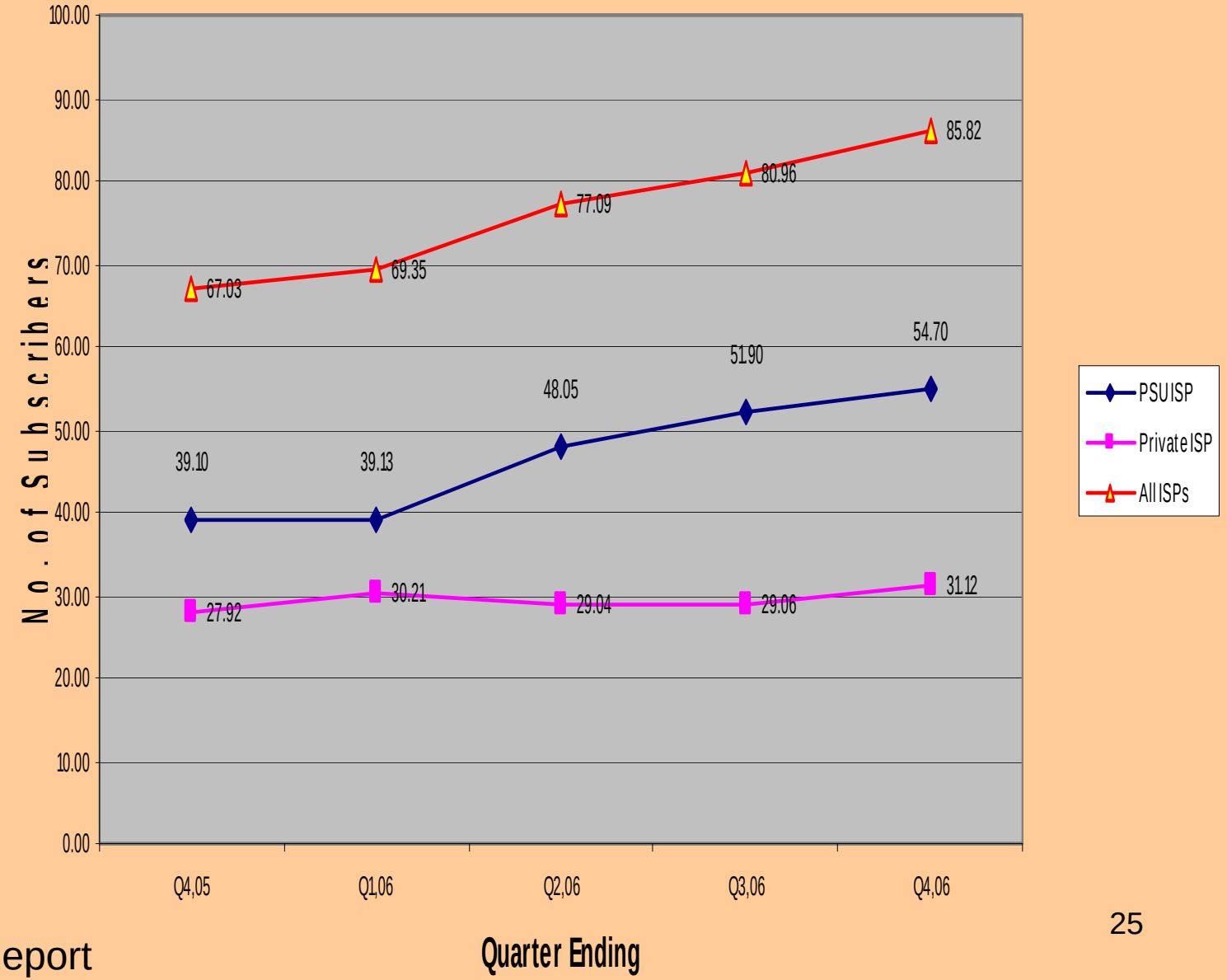
Gyandoot
We have turned the information highway

ICT in India

- N-Logue has wirelessly connected more than 50 villages in Tamil Nadu's from a server in Melur. The network was implemented by Sustainable Access in Rural India [SARI].
- Amul of Anand, Gujarat has setup- Dairy Information System Kiosk [DISK]. When done, the net will cover 70,000 village milk societies. Right now more than 2500 village level kiosks have been connected. Apart from milk accounts, the kiosks offer telephony, market intelligence, fund management, information on best practices, and innovations and downloadable forms a dairyman needs.
- Media Lab Asia [MLA] a joint venture between the Indian Government and MIT has established a 75 km WiFi corridor between Kanpur and Lucknow.

Internet

- *Internet Access : 8.6 Million as on Dec06, Quarterly Growth 6%*



Source: TRAI Report

Thank you

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