Global trends in telecom development

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Seminar on Tariffs, St Petersburg

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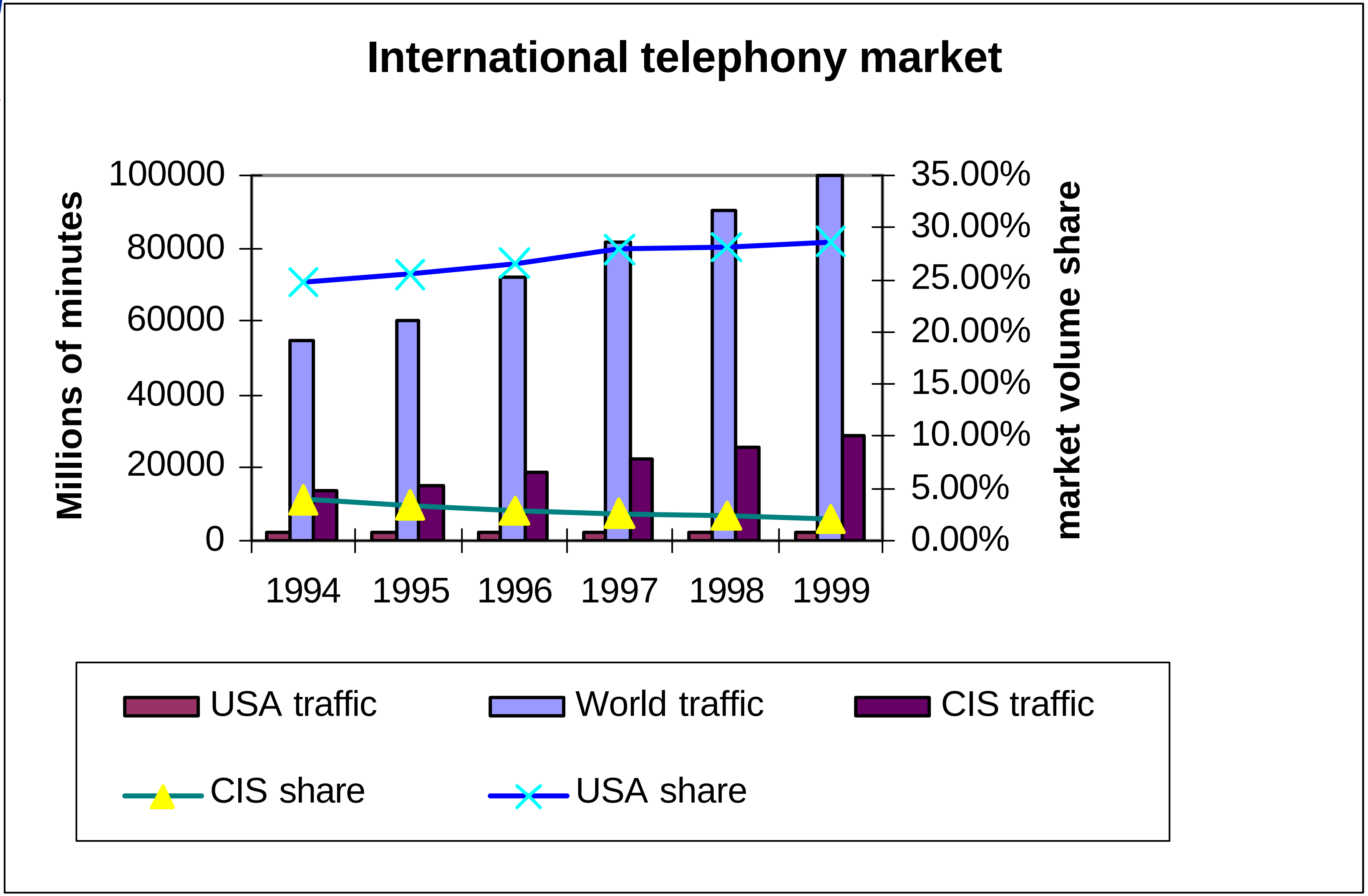
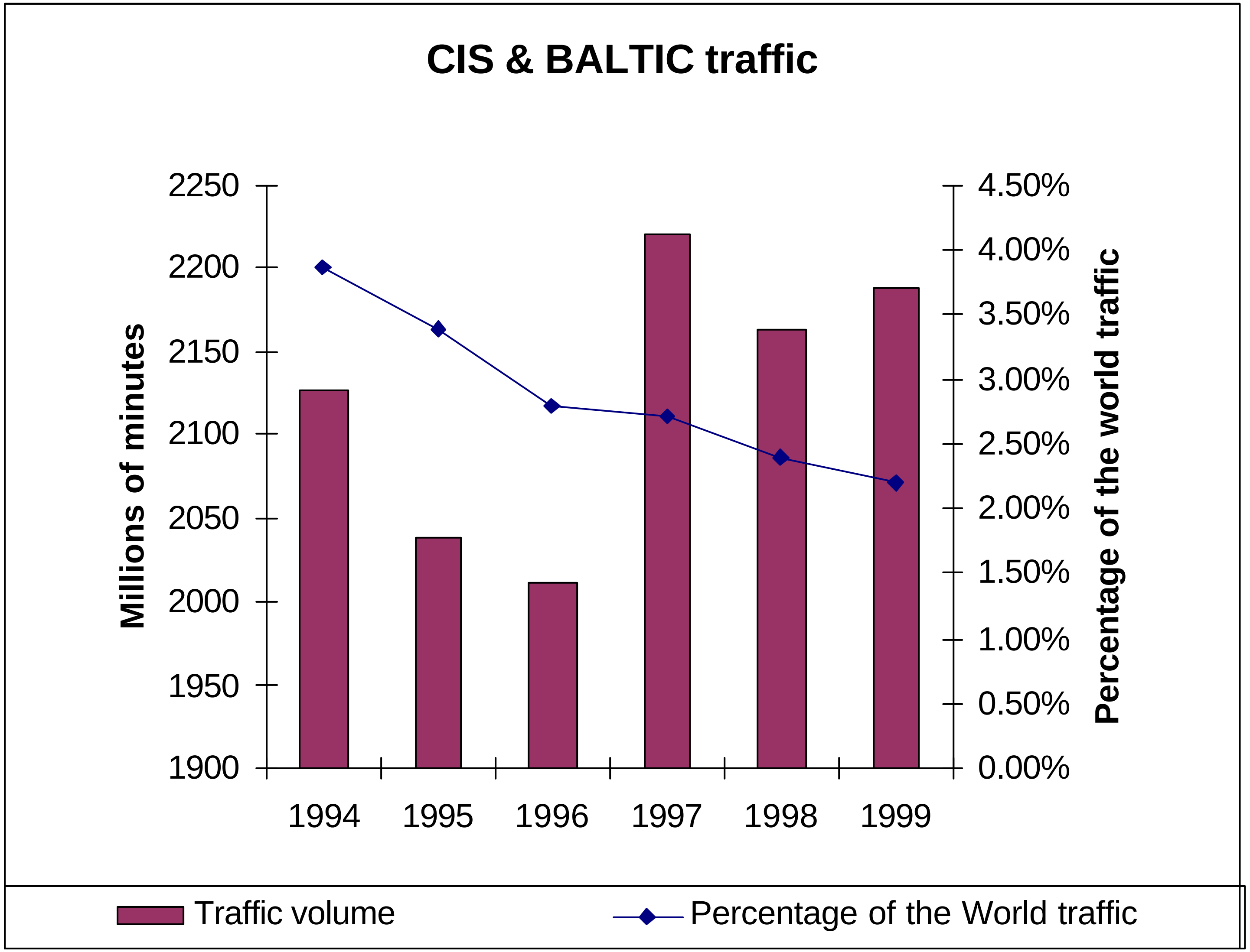


Source: ITU & Telegeography “Direction of Traffic”



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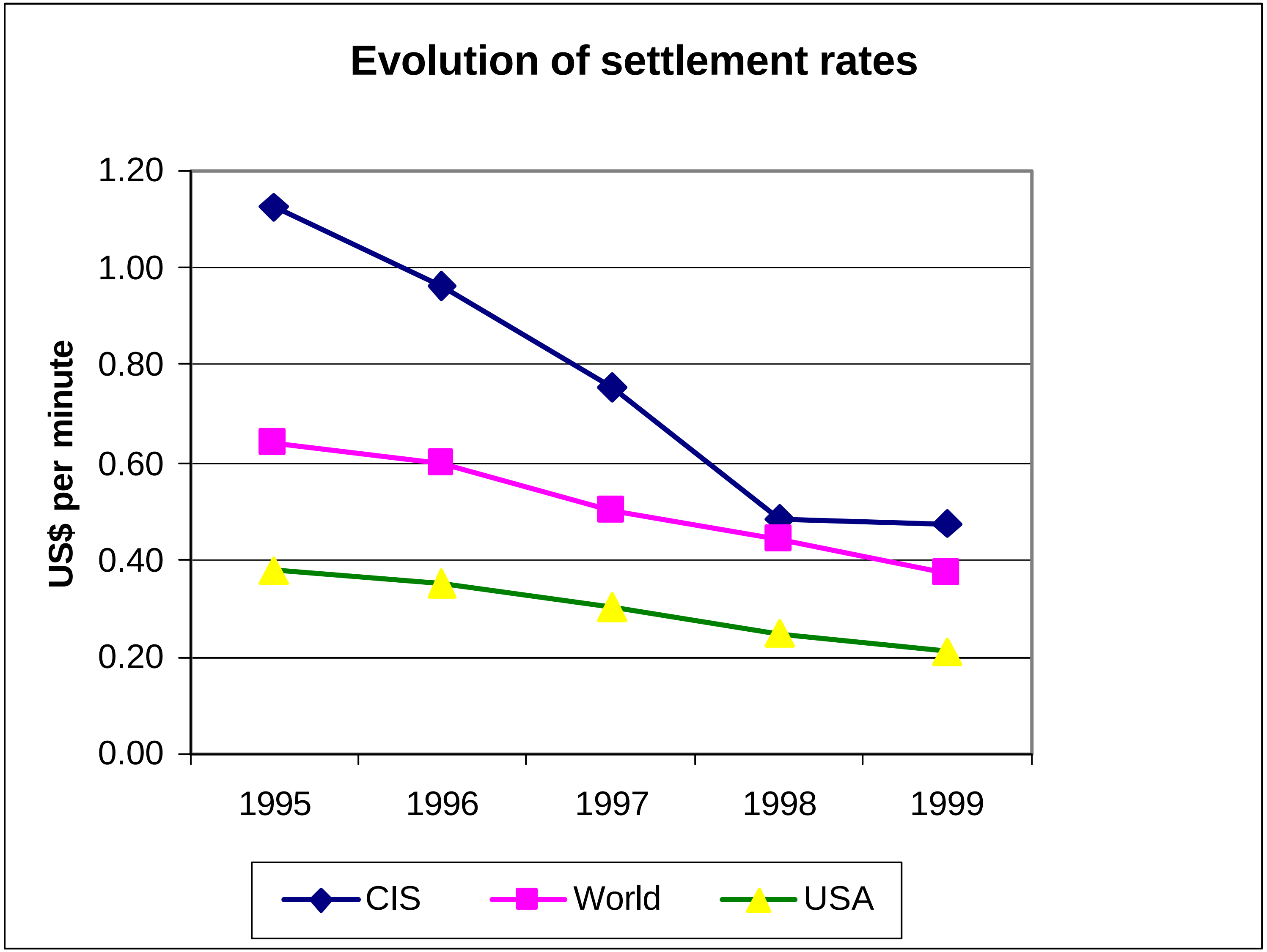

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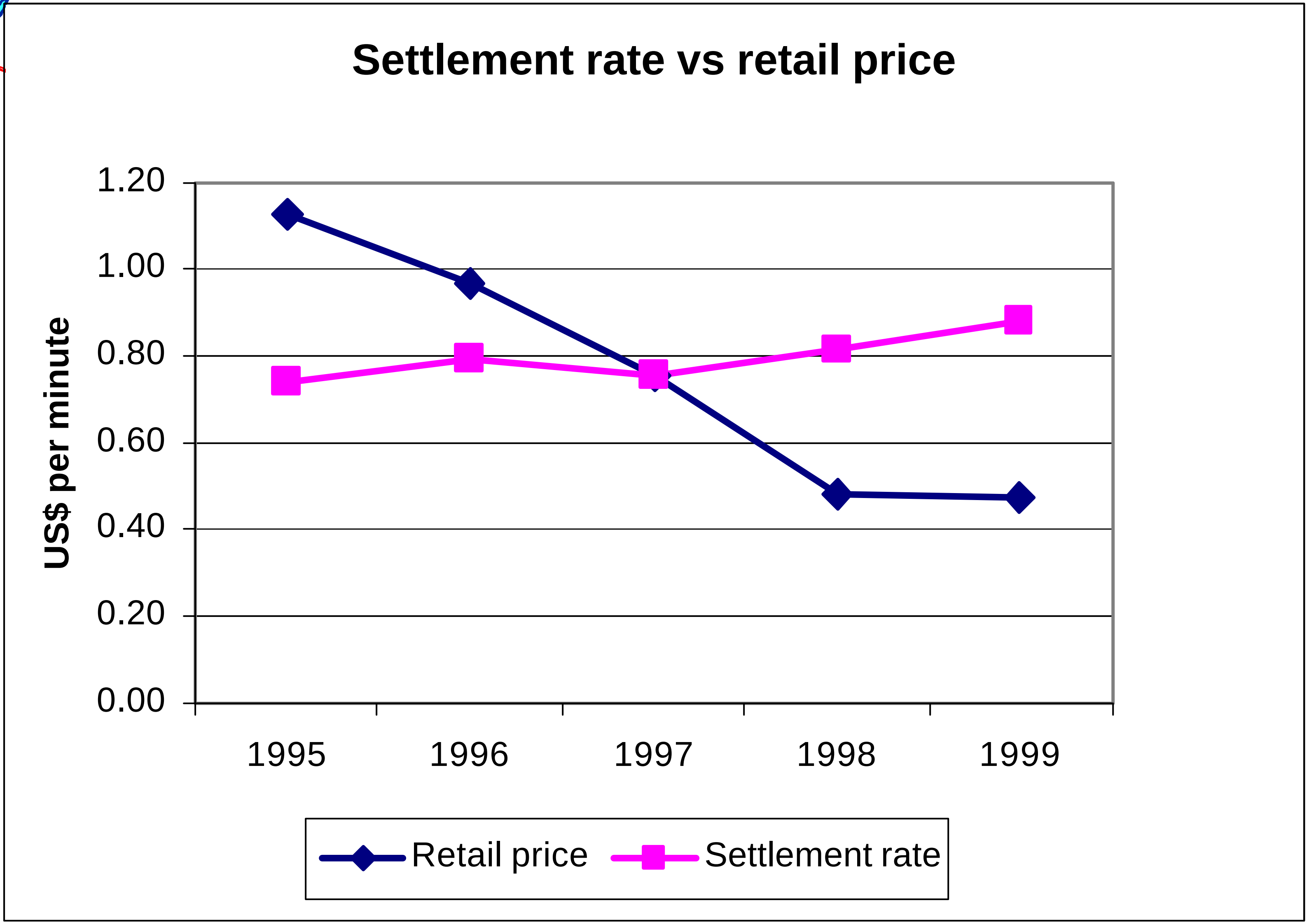
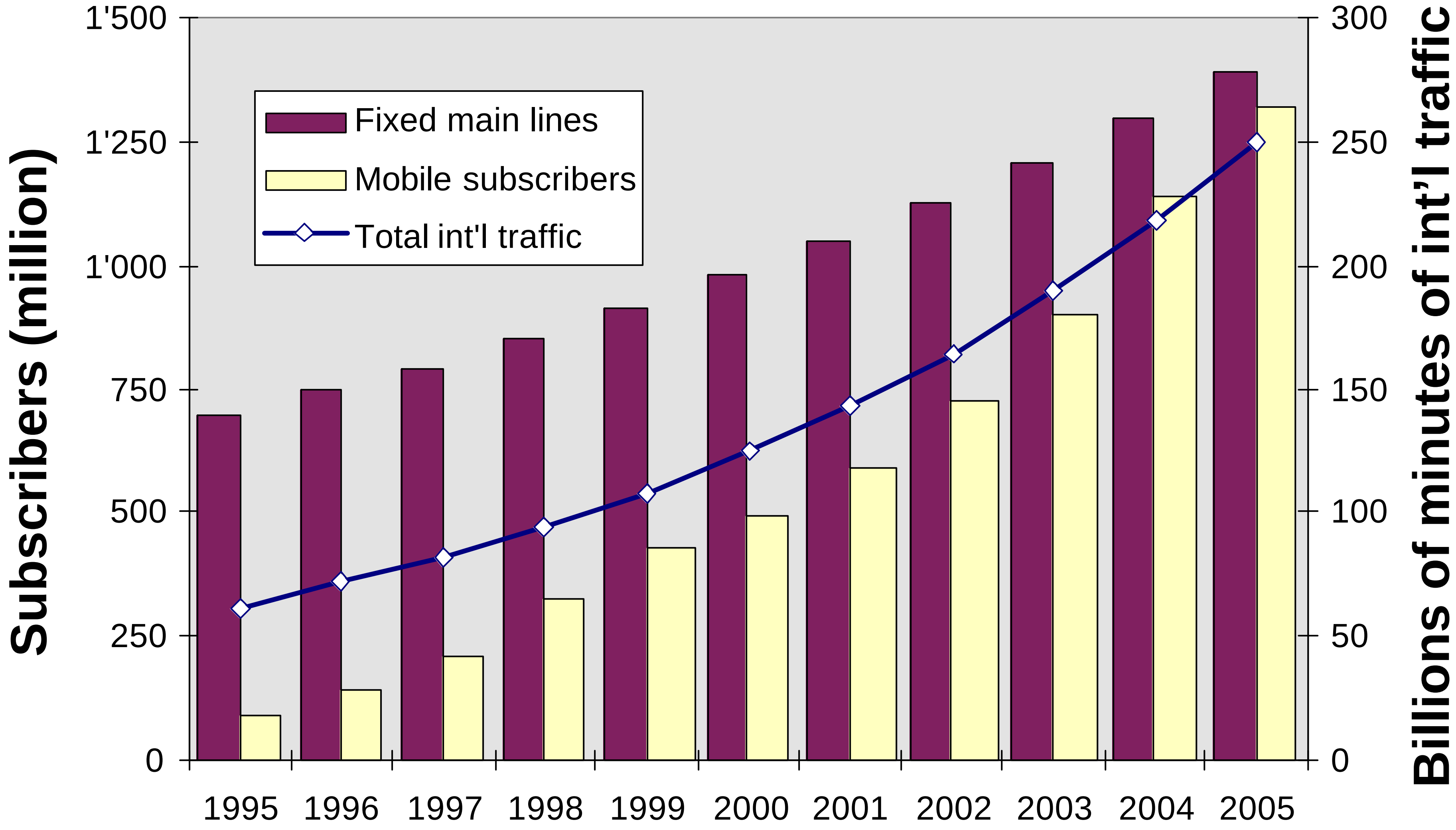


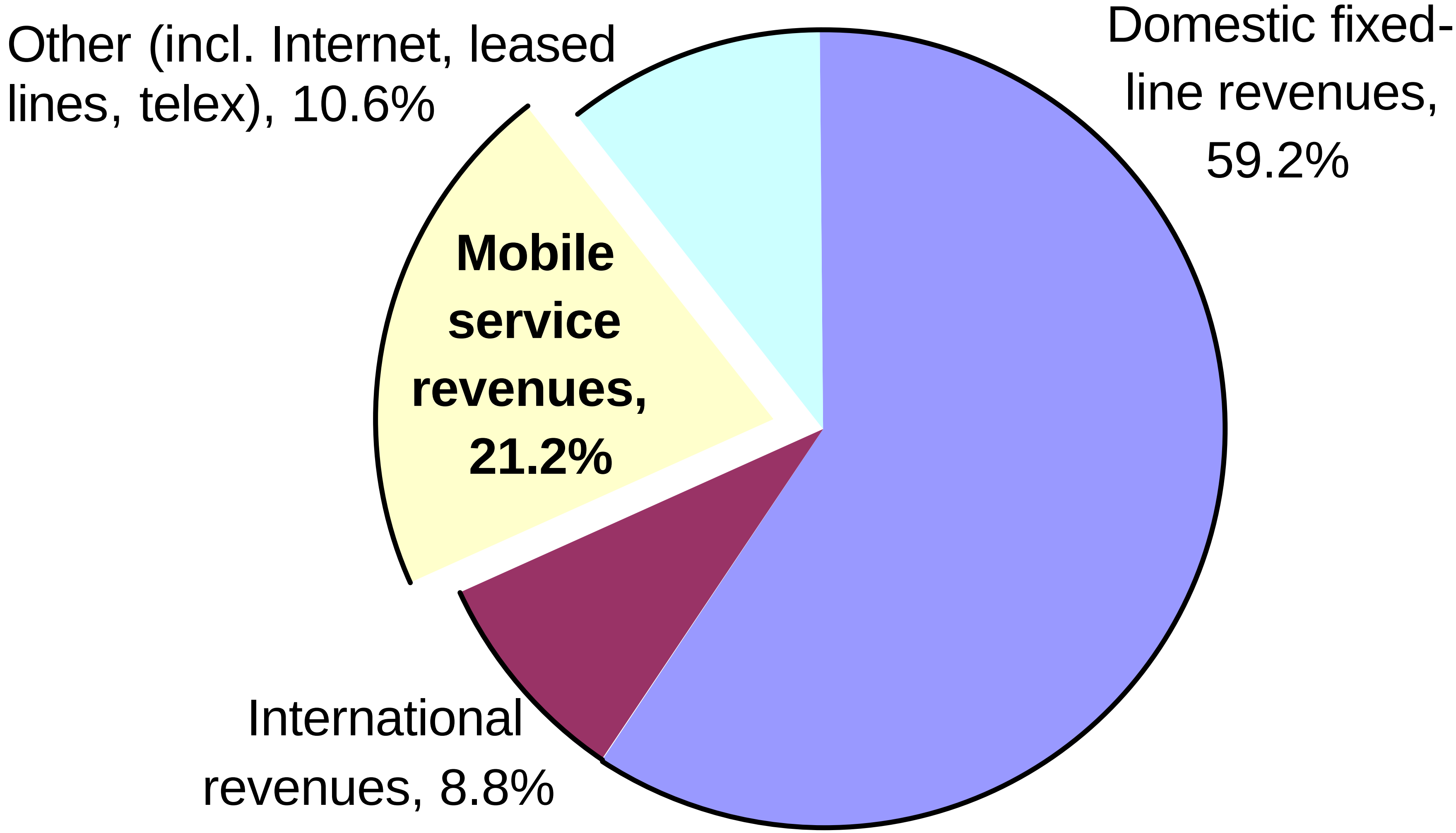
Source: ITU & Telegeography “Direction of Traffic”

Projection of growth trends, fixed and cellular subscribers and int'l traffic, 1995-2005



Source: ITU.

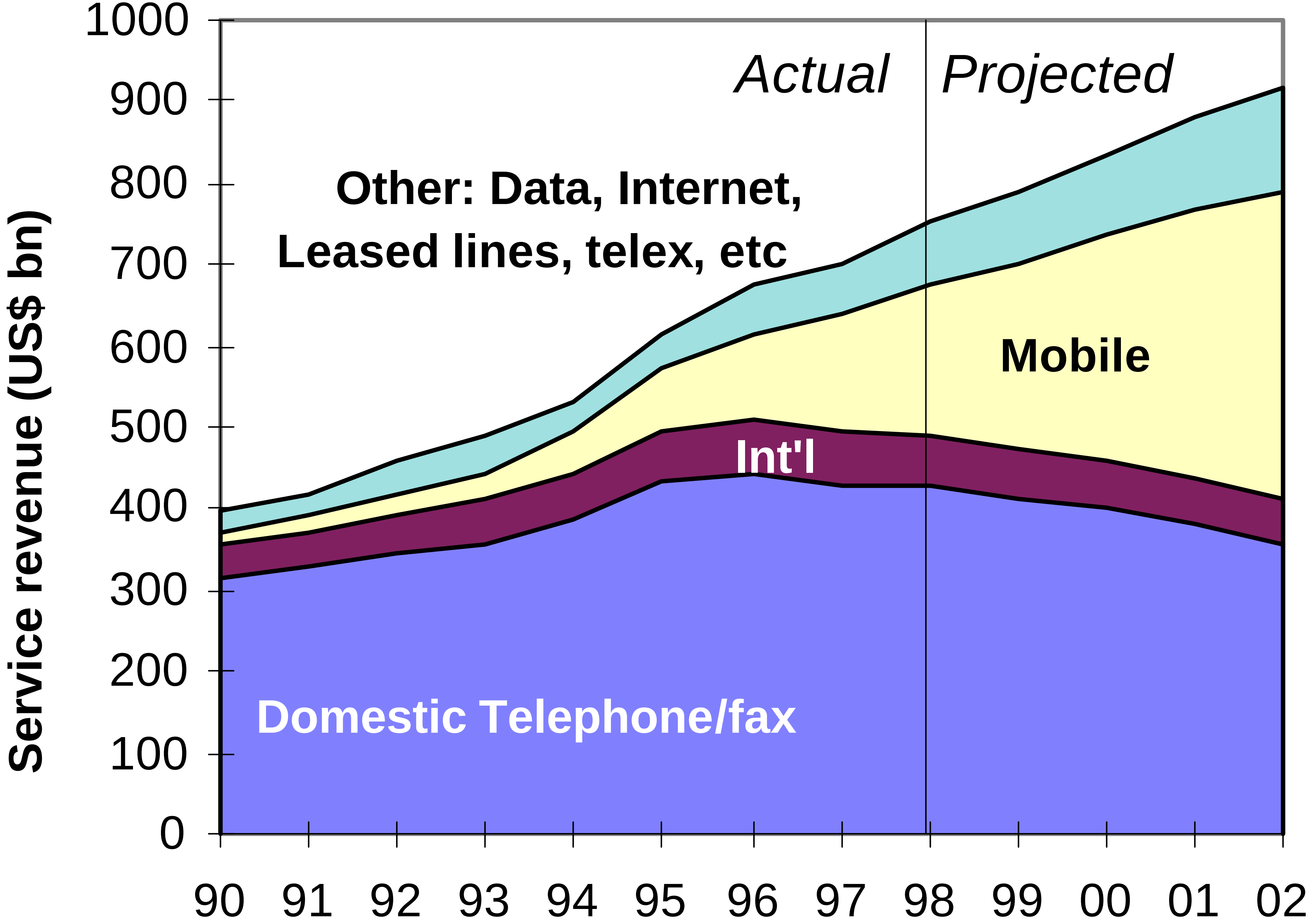
The changing pie: Global telecom service revenue, 1998



1998 Telecom service revenue. Total = US$724b

Source: ITU "World Telecommunication Development Report 1999: Mobile cellular" (forthcoming)

Projection of revenue growth (US$bn)

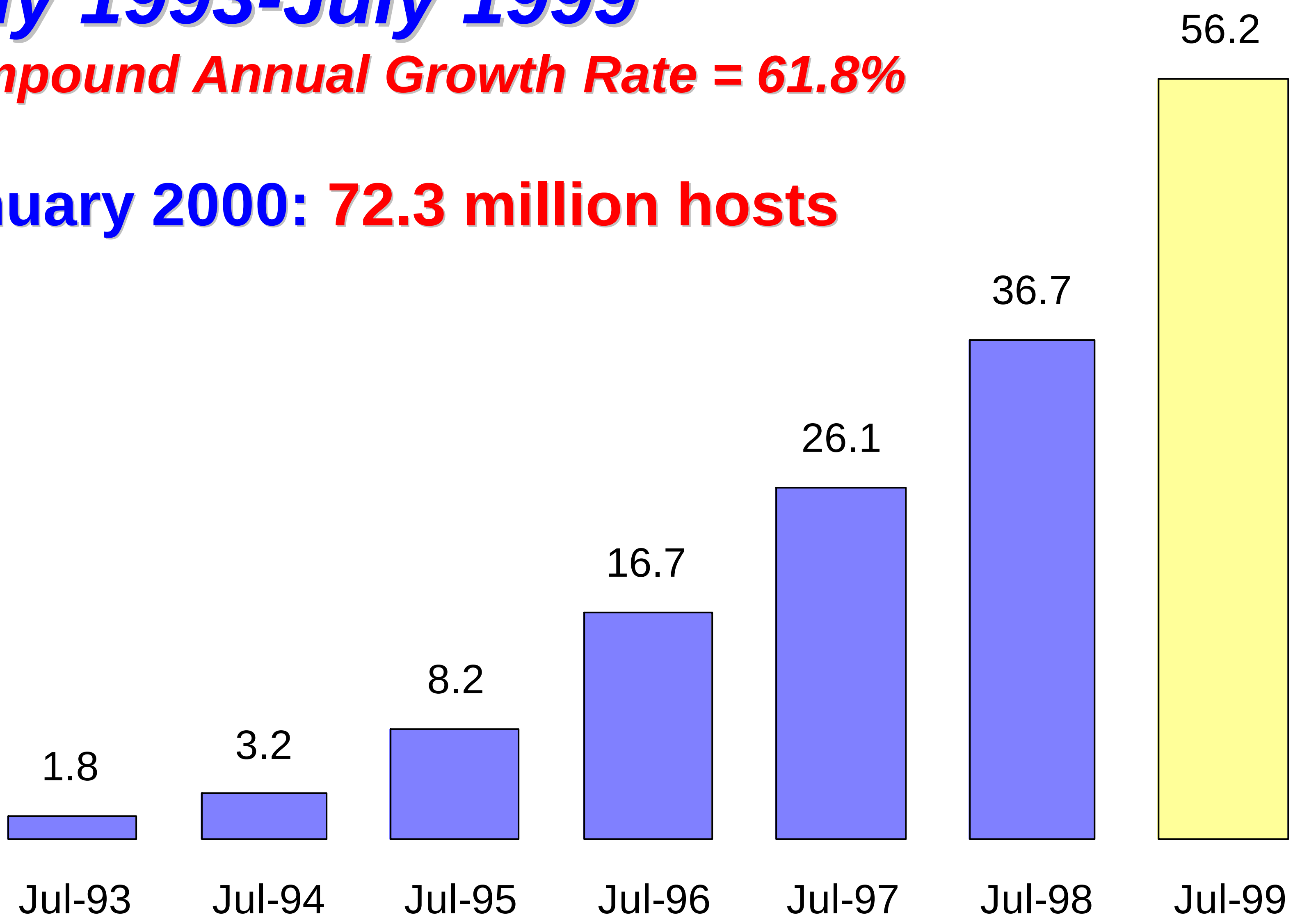


Source: ITU.

Internet hosts (million)
July 1993-July 1999

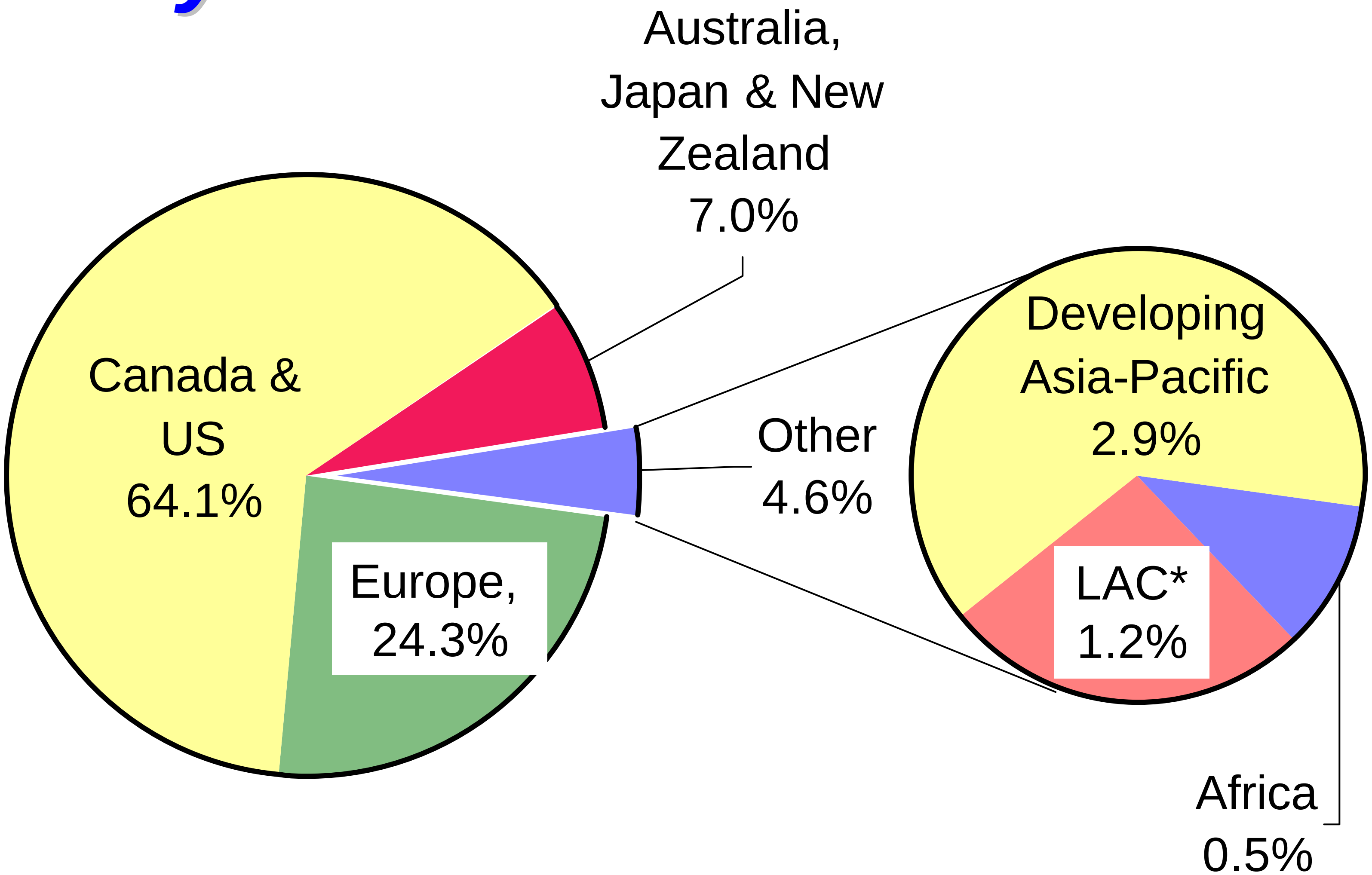
Compound Annual Growth Rate = 61.8%

January 2000: 72.3 million hosts



Source: ITU "Challenges to the Network: Internet for Development, 1999", Network Wizards.

Distribution of Internet hosts, January 1998

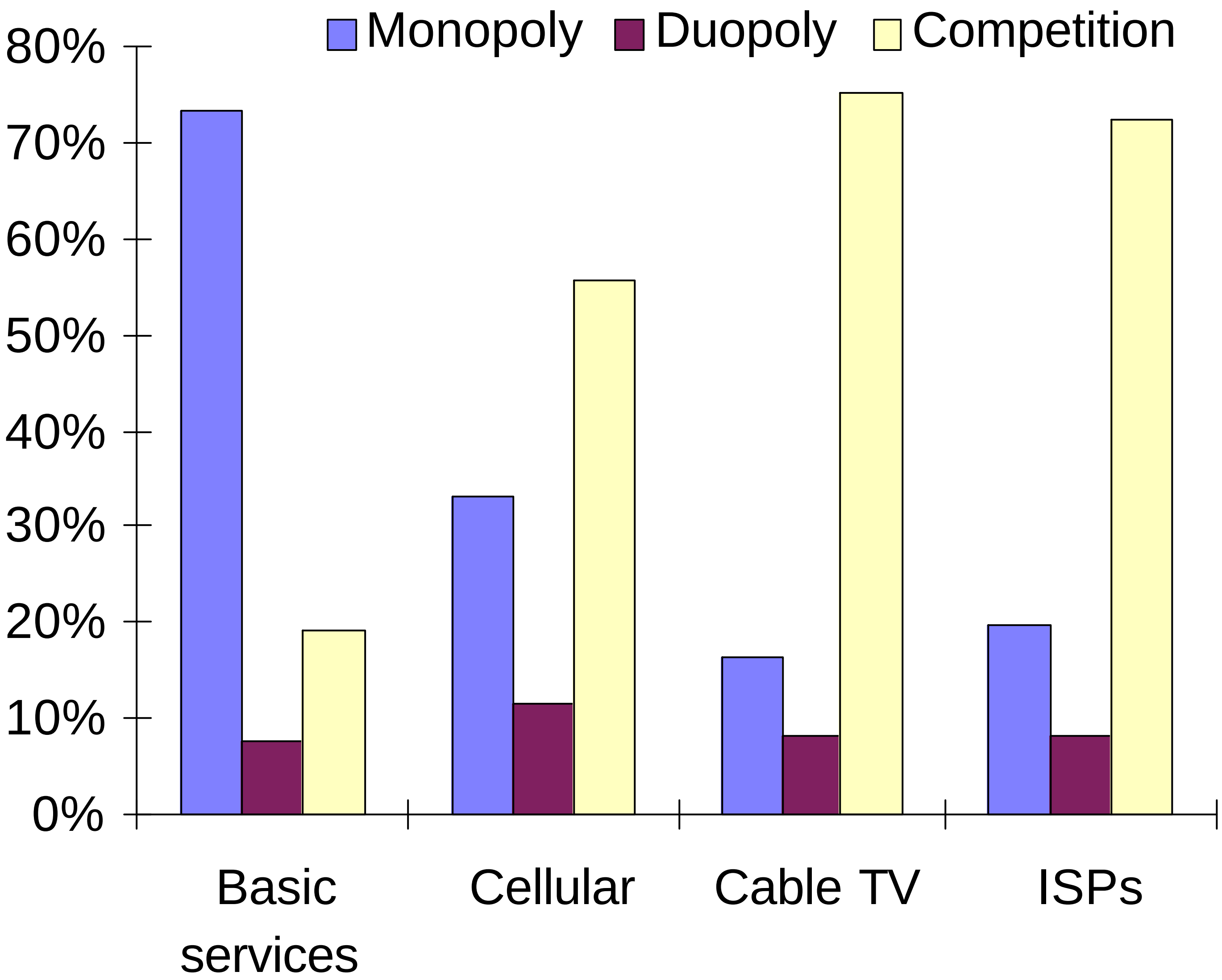


Source: ITU "Challenges to the Network: Internet for development, 1999".

The state of the market

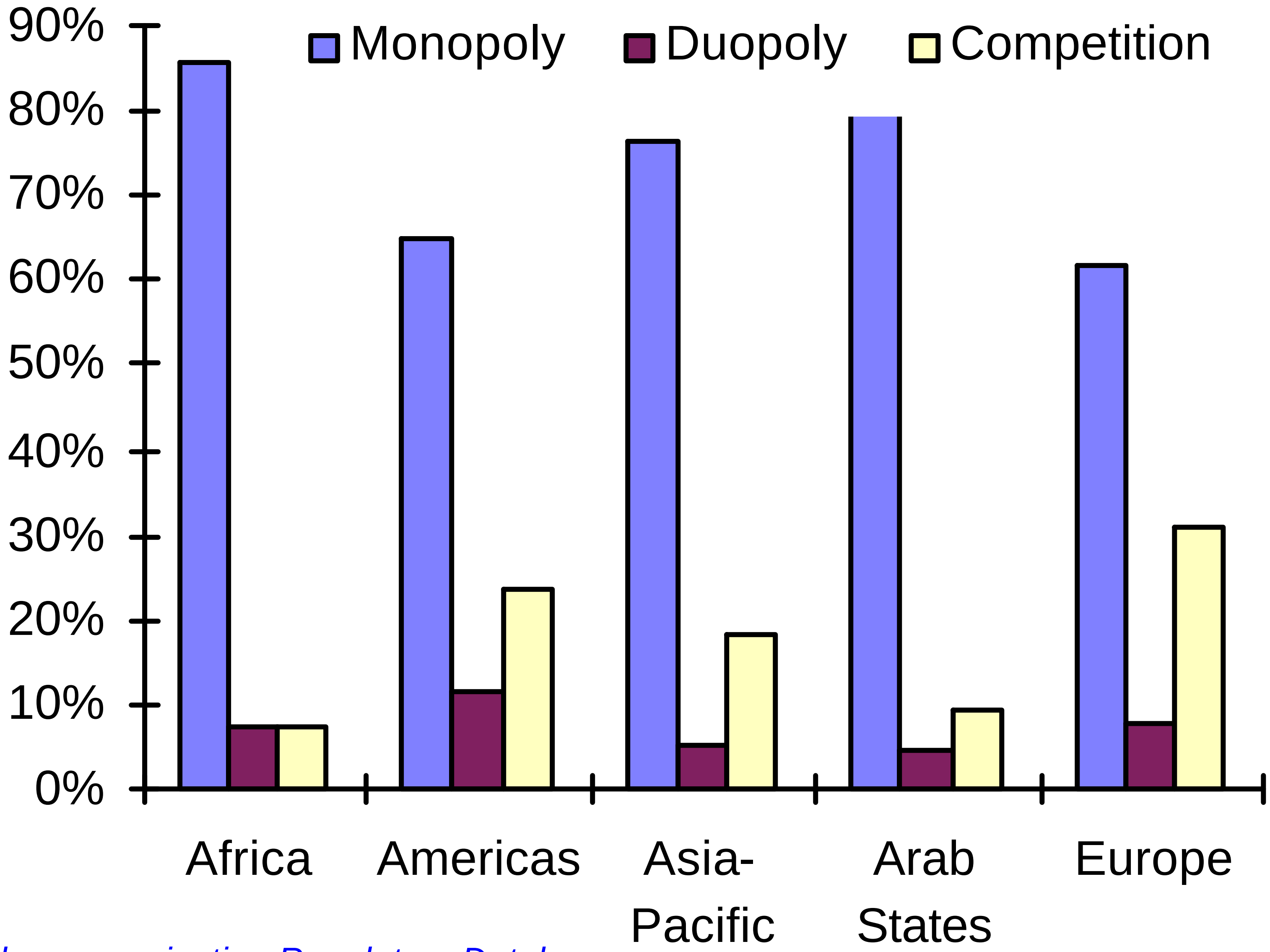
- Increasing competition
  - ⇨ Around two-thirds of telecom subscribers now have a choice of operator
  - ⇨ More than 99 per cent of mobile and Internet subscribers now have a choice of operator
- Dominantly private-ownership
  - ⇨ 19 out of top 20 top public telecom operators are partially or fully private-owned
  - ⇨ Of the top 20 mobile operators, 16 are fully-private, 3 are partially private, 1 is state-owned
- Independent regulators
  - ⇨ There are currently 89 independent regulators (only 12 in 1990)

Degree of competition by service, 1999 (ITU Member States)



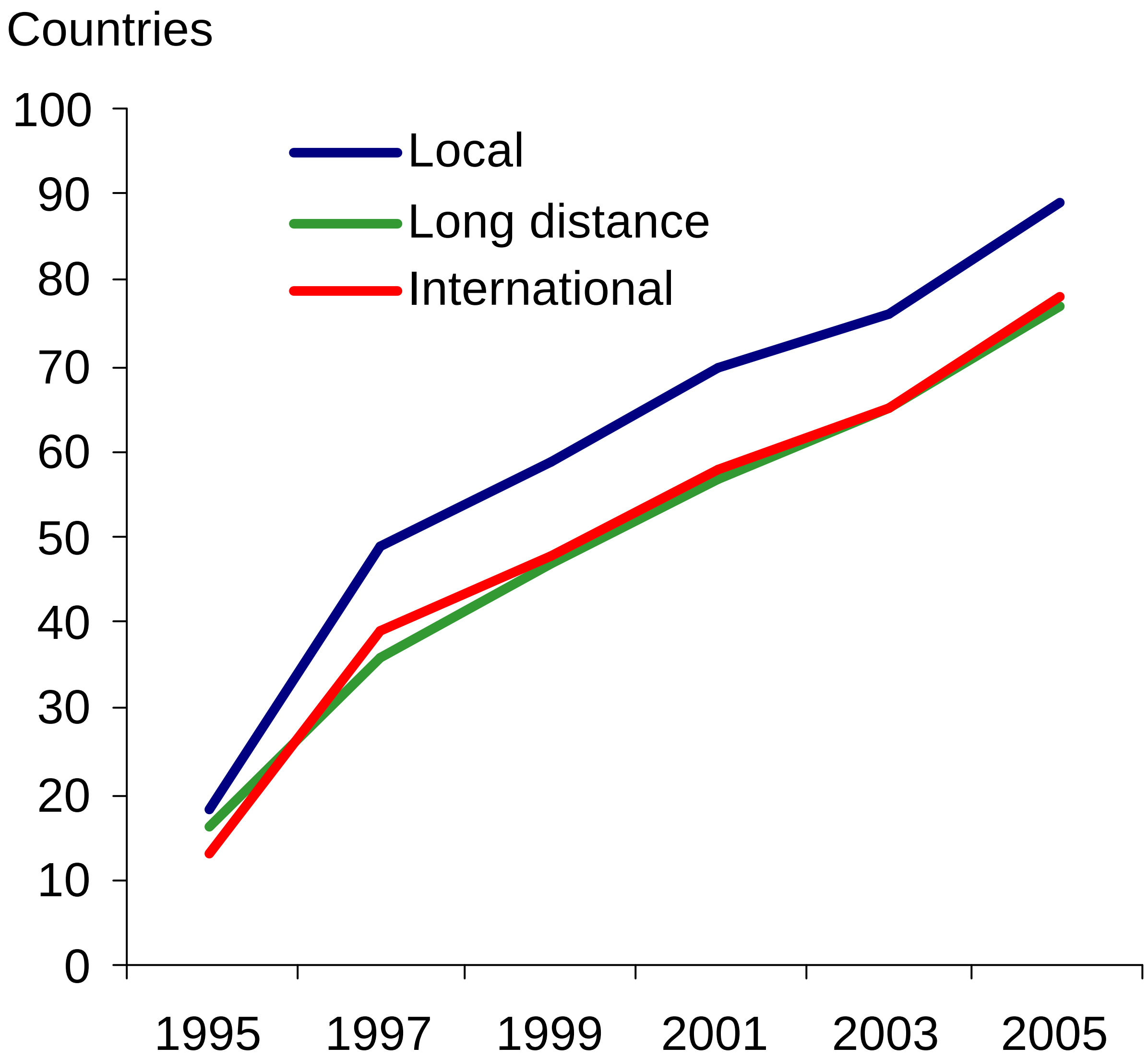
Source: ITU Telecommunication Regulatory Database.

Degree of competition in basic services, 1999, by region



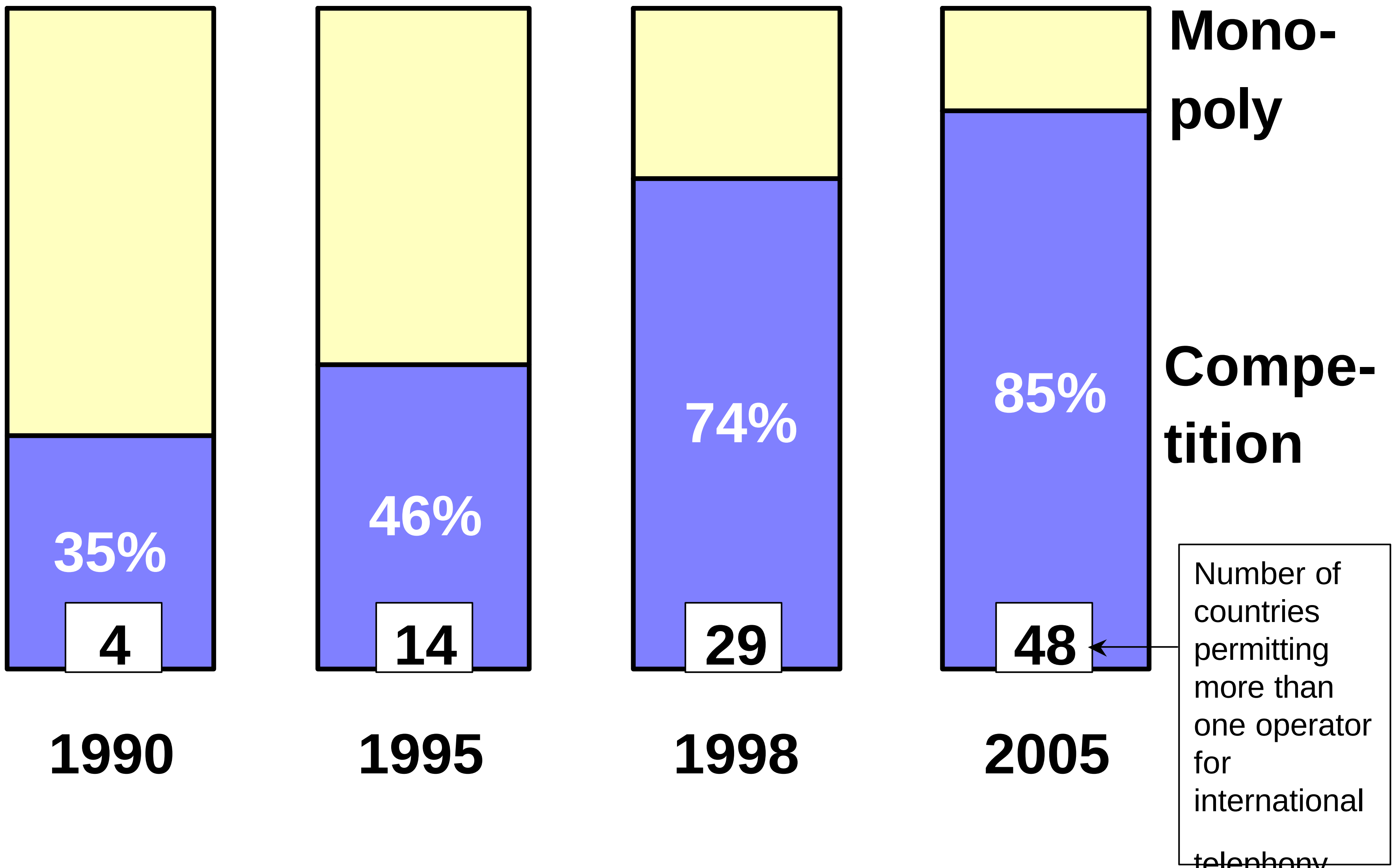
Source: ITU Telecommunication Regulatory Database.

Increasing competition:
By no. of countries, by service, 1995-2005



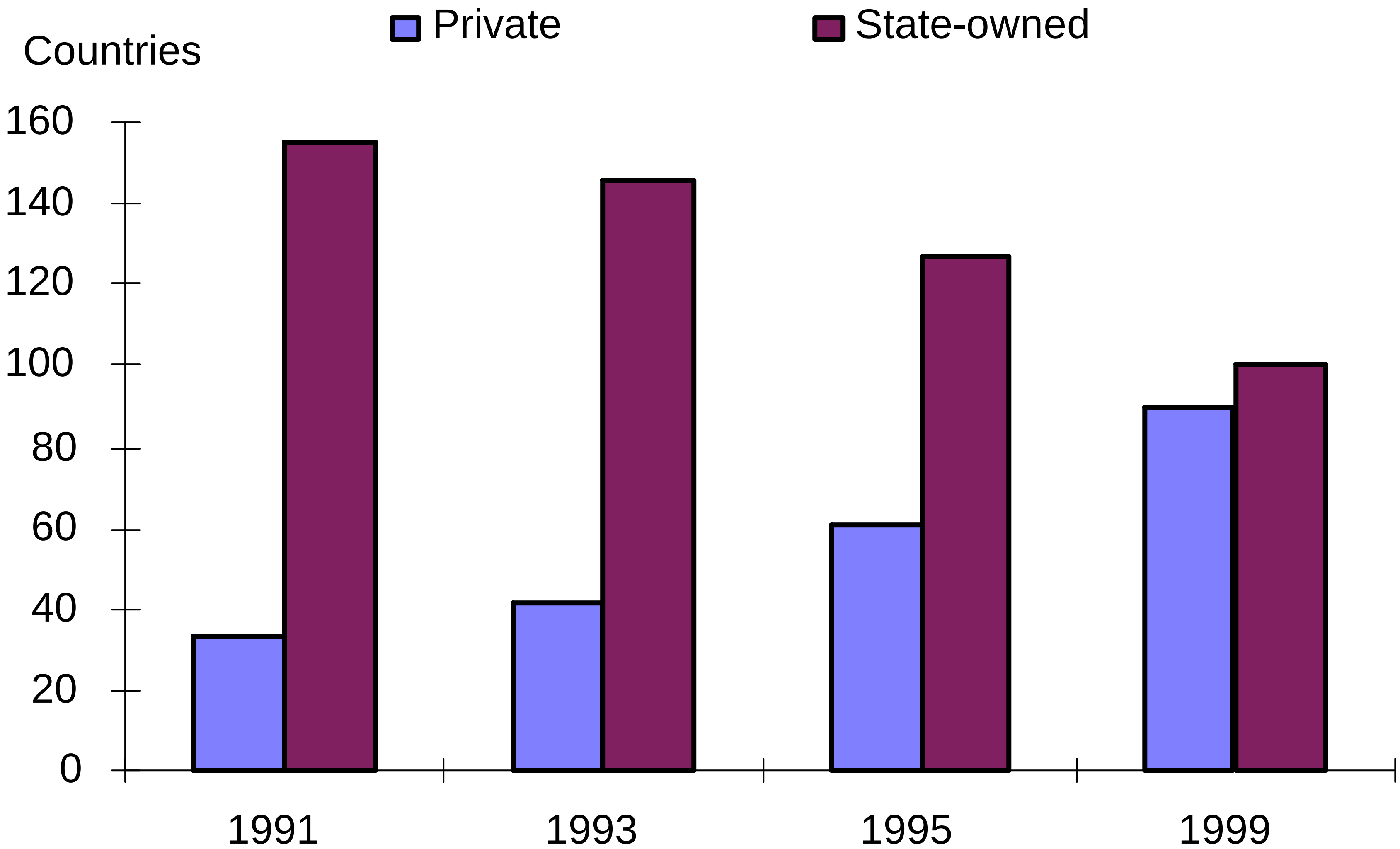
Source: ITU Telecommunication Regulatory Database.

Percentage of outgoing international traffic open to competition



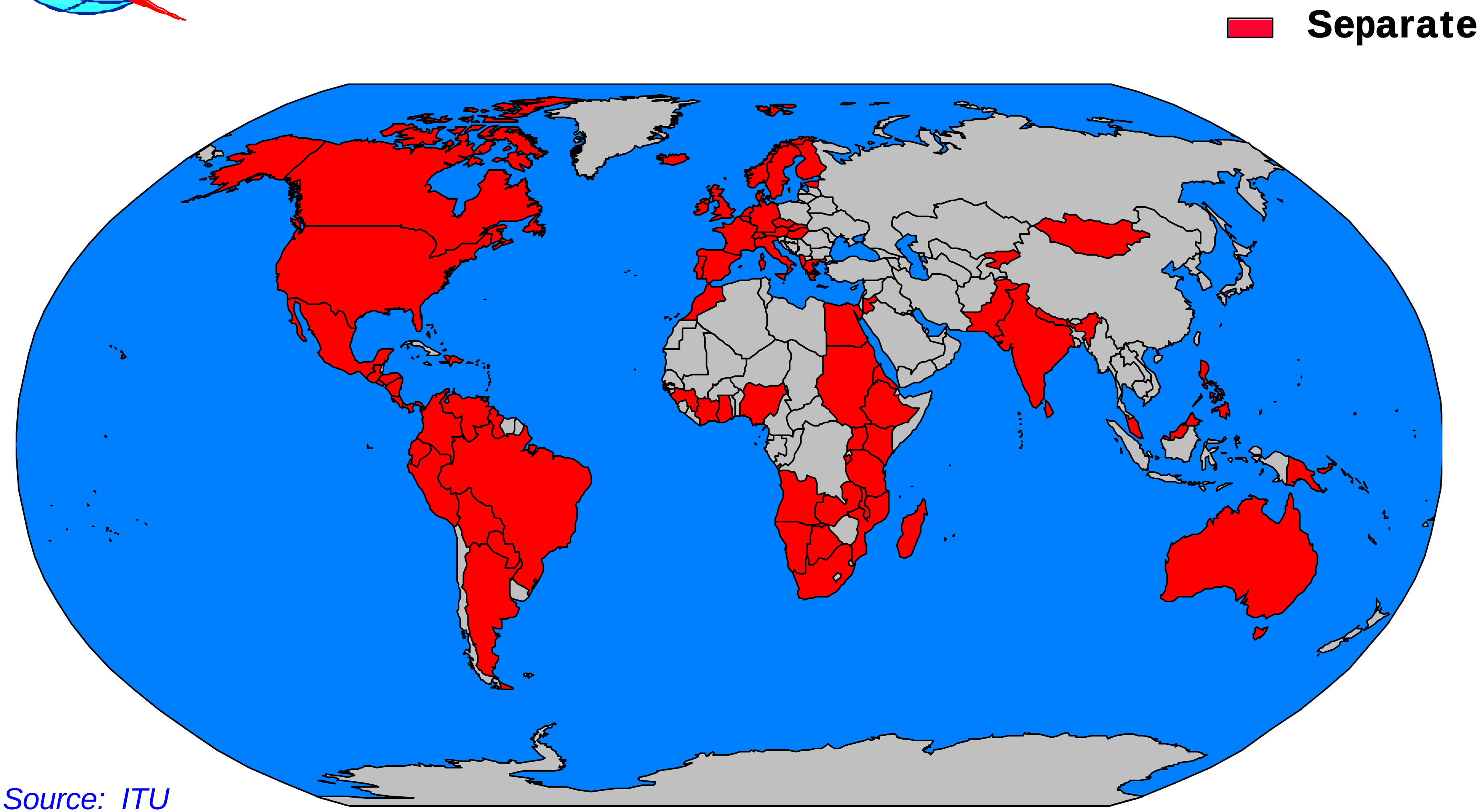
Note: Analysis is based on WTO Basic Telecommunications Commitments and thus presents a minimum level of traffic likely to be open to competitive service provision. *Source:* ITU, WTO.

Ownership status of the incumbent



Source: ITU Telecommunication Regulatory Database.

Separate regulatory bodies, worldwide, 1998



Source: ITU Telecom Regulatory Database.

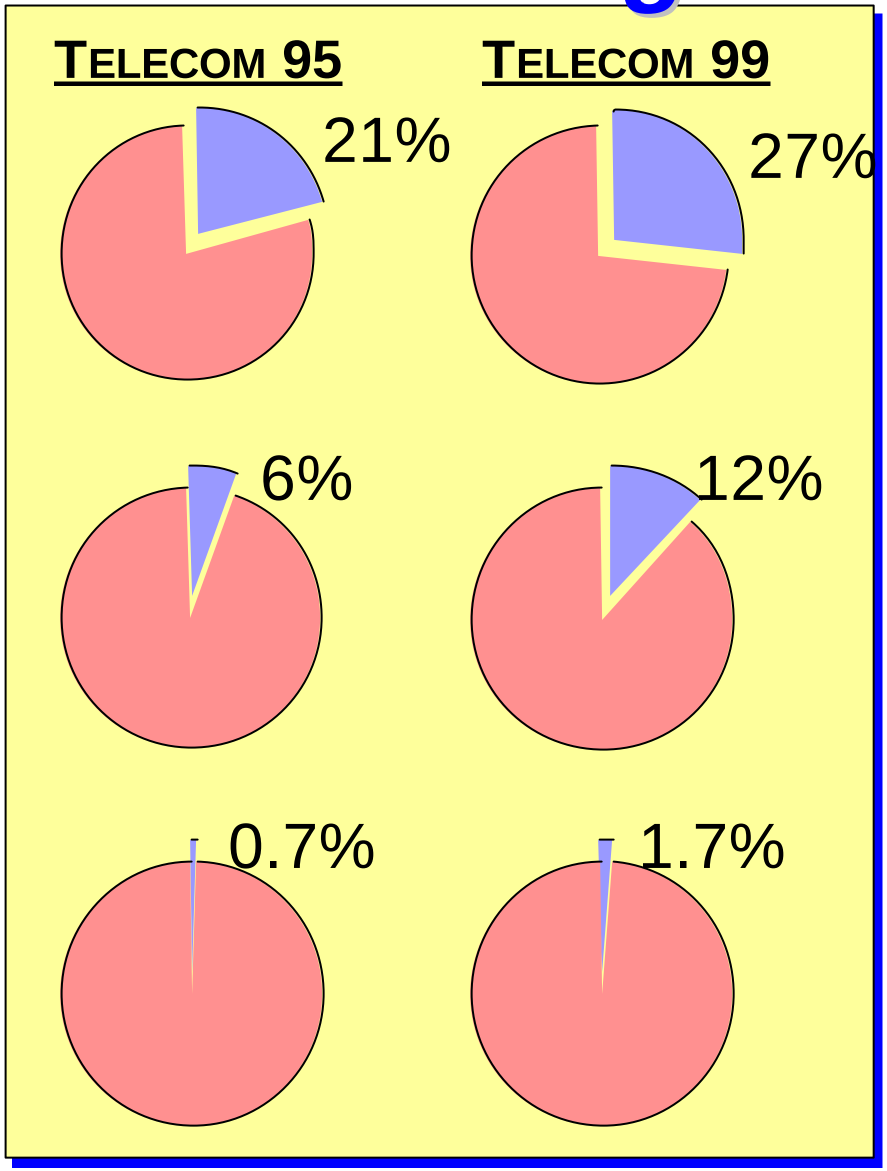
The development gap is shrinking, but also shifting

Share of low and lower-middle income countries in:

Telephone main lines

Mobile subscribers

Internet host computers



Source: ITU World Telecommunication Indicators Database.

Forecasting
Projecting forward current trends

- By 2005, there could be:
  - ⇨ 1.4 billion telephone lines
  - ⇨ 1.3 billion cellular telephone subscribers
  - ⇨ 500-750 million Internet users
- These could account for:
  - ⇨ 250 billion minutes of int'l voice/fax traffic
  - ⇨ 2.5 trillion minutes of total voice/fax traffic
  - ⇨ 1'000'000 Gigabits (1 Petabit) per second of Internet traffic
  - ⇨ Services market of around US$1.1 trillion
  - ⇨ Equipment market of around US$400 billion

Forecasting
Identifying discontinuities

- **By 2001, less than 10% of int'l traffic will use accounting rate system**
  - ⇨ **Domestic interconnect fees will be dominant mode**
- **Major price cuts in international calls early in decade**
  - ⇨ **Availability of new infrastructures**
  - ⇨ **Impact of Internet pricing model (distance and duration independent)**
- **Mobiles exceed fixed-line phones worldwide by 2006/07**
  - ⇨ **Introduction of "third generation" mobiles after 2001**
  - ⇨ **Generational shift, as new users reject fixed-lines**

The int'l telecoms market in 2005: Some educated guesses

- The premium of an international call over a domestic call (currently >300%) will be <20%
  - ⇨ Internet-like pricing structure
- Traffic flows will be dictated by a small number of hubs connected to multiple fat pipes
  - ⇨ Major hubs in New York, London and Hong Kong?
- Major alliances will own a smaller share of the market as infrastructure owners resell capacity
  - ⇨ Market significantly bigger by volume, but only slightly bigger by revenue
- Telecom development gap will shift
  - ⇨ Gap between middle income countries and LDCs

Key policy issues to be tackled

- **Interconnection**
  - ⇨ **How to manage the transition to a multi-player environment?**
- **Internet**
  - ⇨ **Who really sets the rules? Who really gets benefits?**
- **International settlements**
  - ⇨ **How to transition to a cost-oriented system while providing a "soft-landing" for developing countries?**
- **International infrastructures**
  - ⇨ **How to ensure equal access at competitive rates?**
- **Investment**
  - ⇨ **How to increase investment, esp in LDCs?**