



# Can CGE models end poverty?

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Presumptuous title  
Presumptuous paper

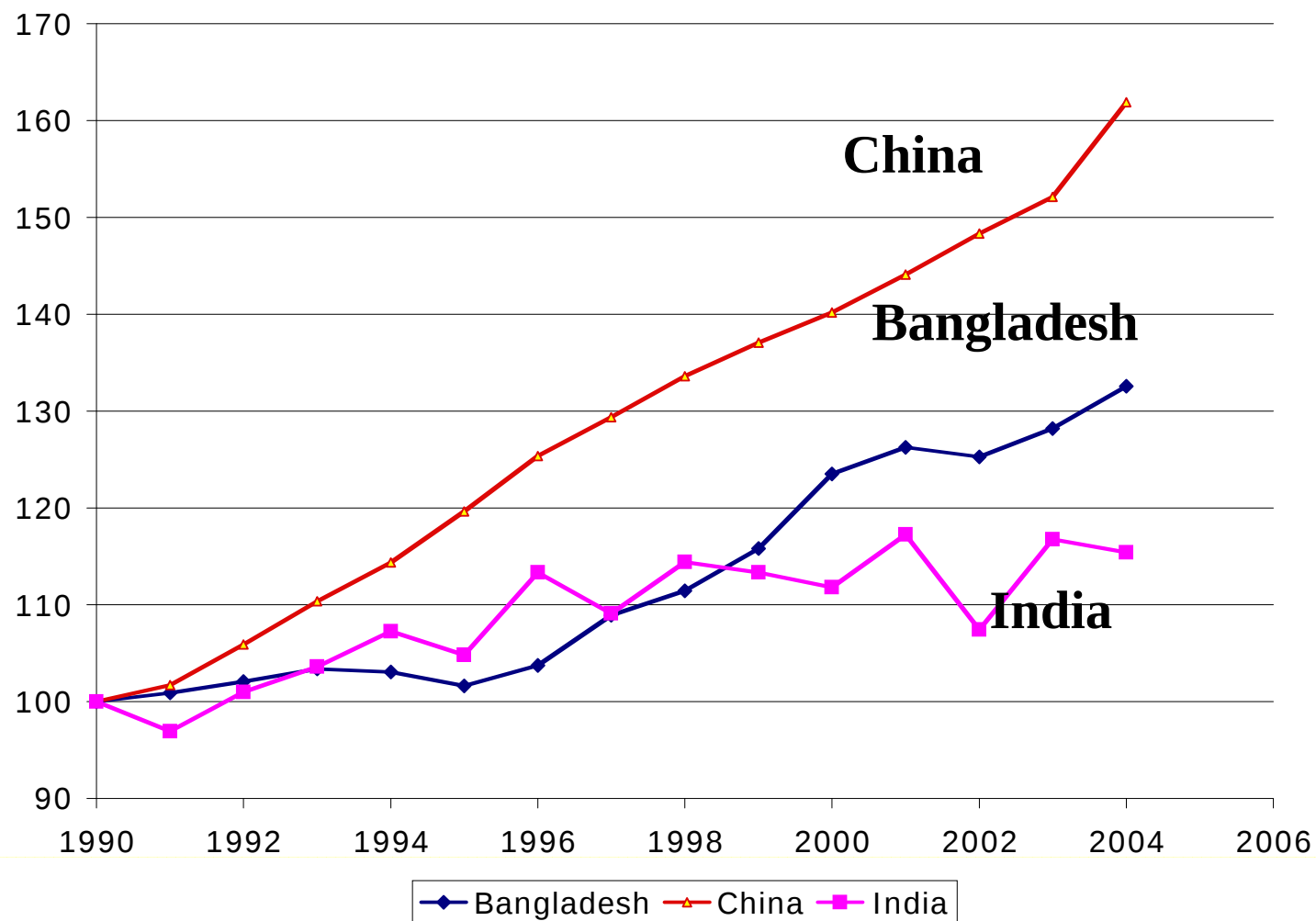
Development  
> as market failure

Development  
> as government failure

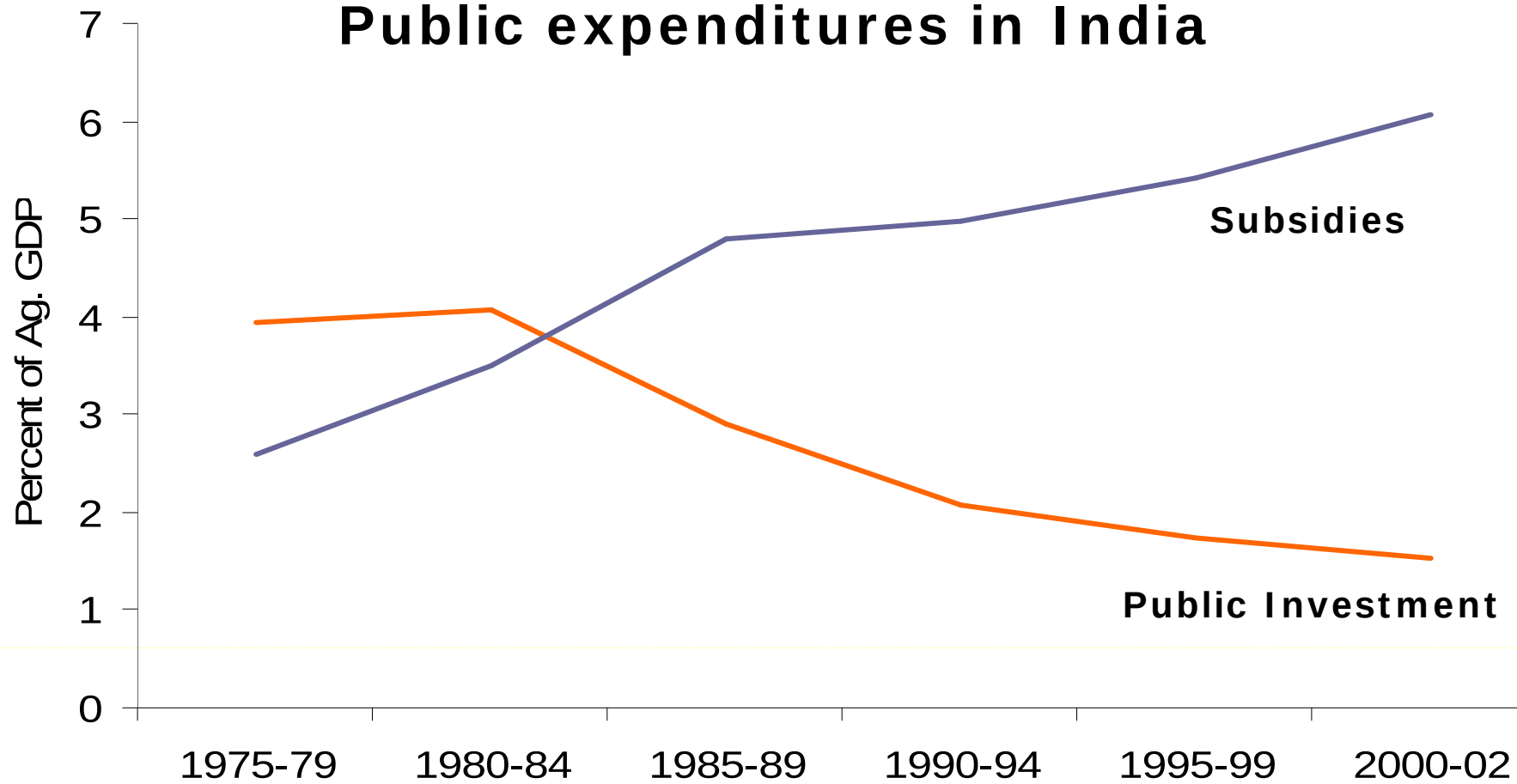
Development  
> as government failure

revisited

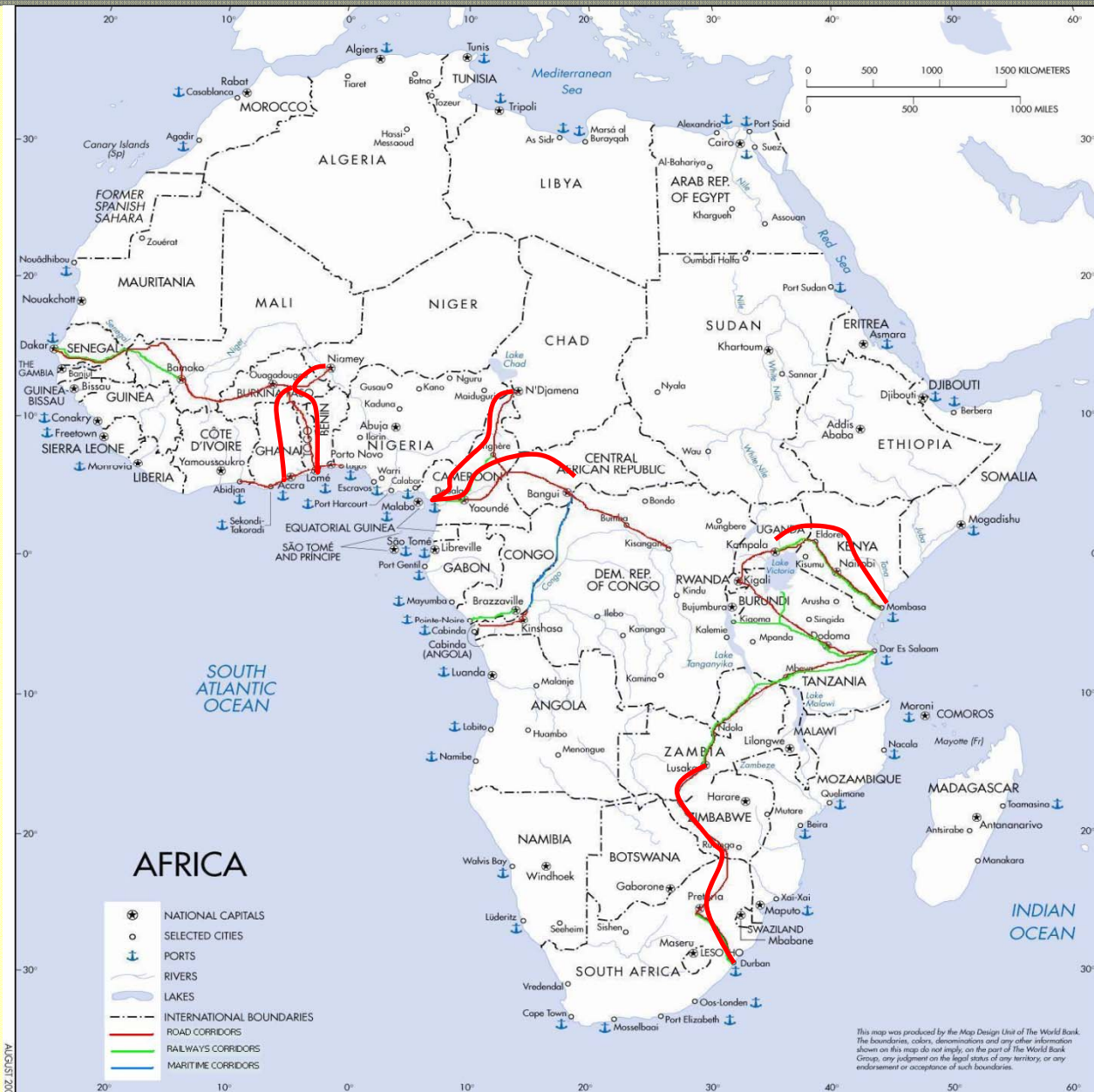
# Agriculture value added per worker, 1990=100



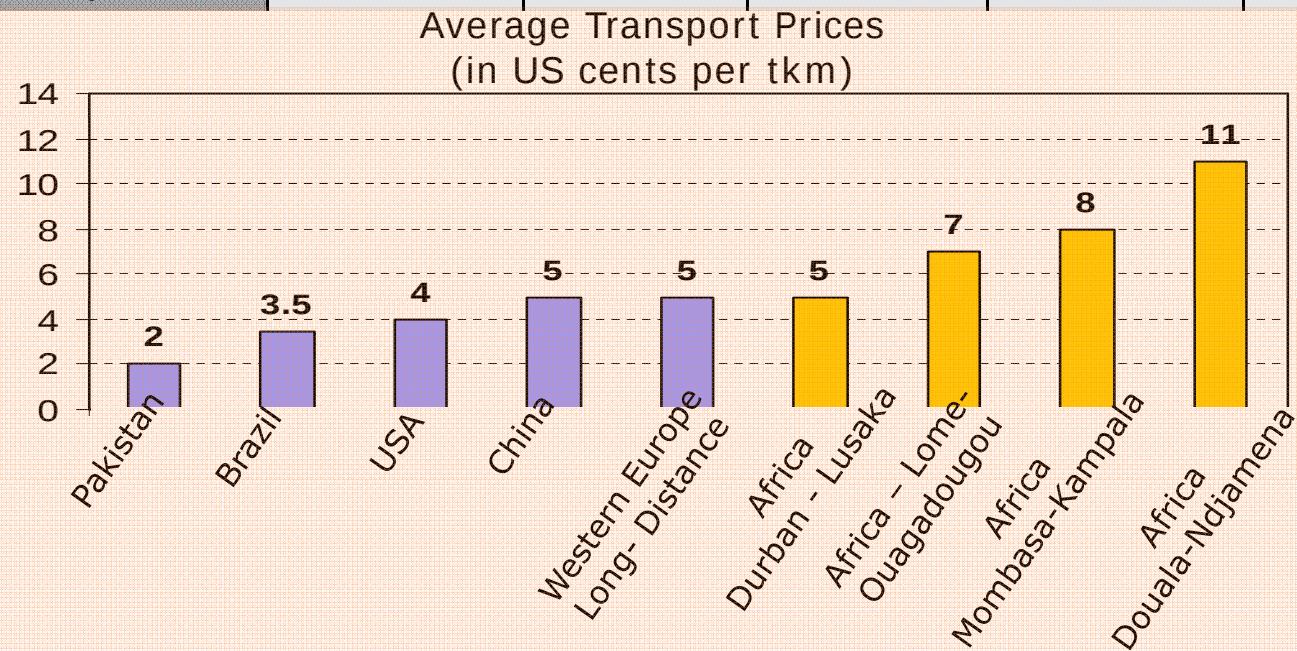
## Public expenditures in India



# Selected corridors of the study



|                                        | Central Africa | East Africa | West Africa | Southern Africa | France |
|----------------------------------------|----------------|-------------|-------------|-----------------|--------|
| Variable costs (USD per veh-km)        | 1.31           | 0.98        | 1.67        | 1.54            | 0.72   |
| Fixed costs (USD per veh-km)           | 0.57           | 0.35        | 0.62        | 0.34            | 0.87   |
| Total transport costs (USD per veh-km) | 1.88           | 1.33        | 2.29        | 1.88            | 1.59   |

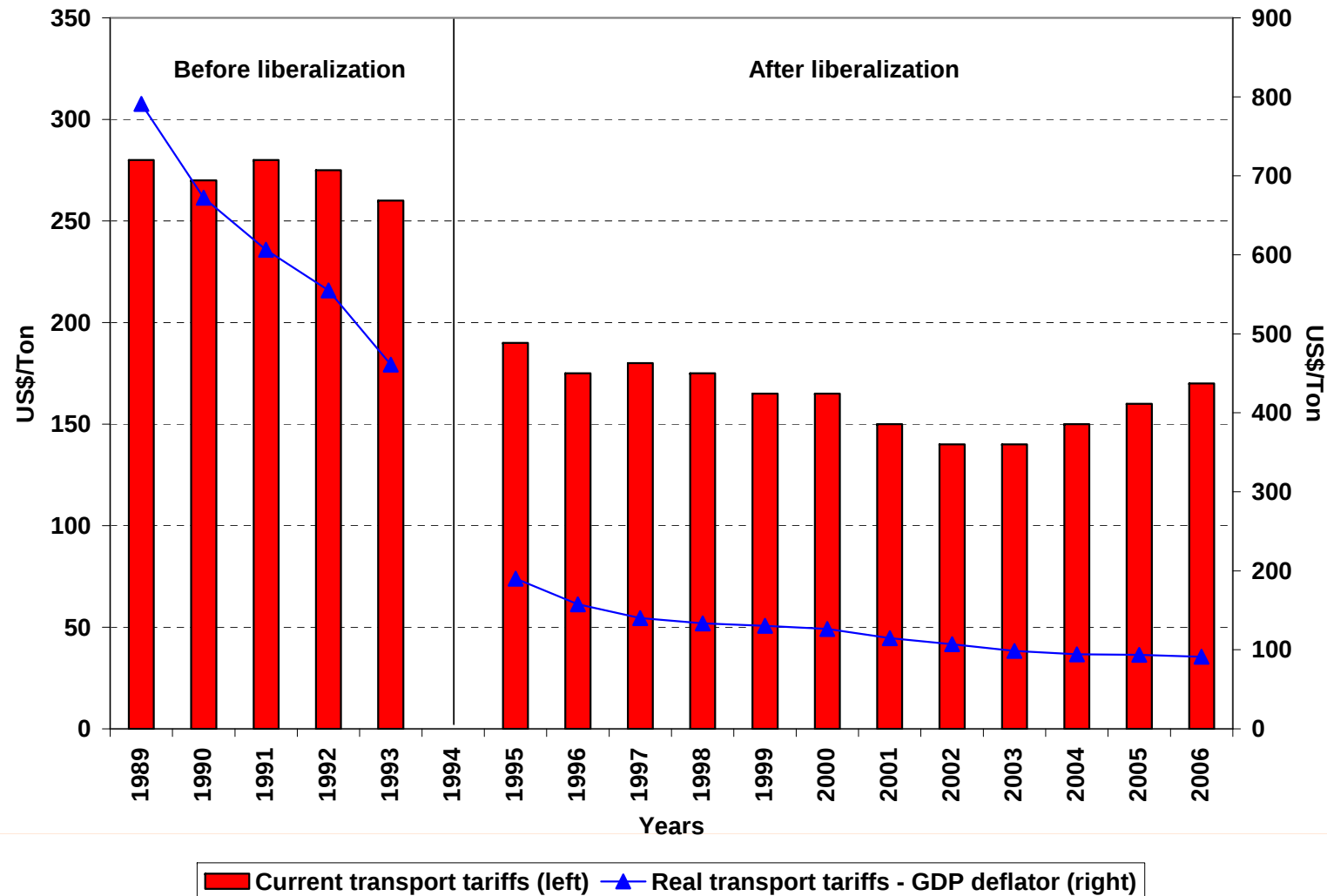


# Profit margins

| Corridor           | Gateway - Destination    | Price<br>(USD/ veh-km) | Variable<br>cost<br>(USD/veh- km) | Fixed cost<br>(USD/veh- km) | Average<br>yearly<br>mileage<br>(‘000) | Profit<br>margin<br>(%) |
|--------------------|--------------------------|------------------------|-----------------------------------|-----------------------------|----------------------------------------|-------------------------|
| West<br>Africa     | Tema/Accra - Ouagadougou | 3.53                   | 1.54                              | 0.66                        | 30-40                                  | 80%                     |
|                    | Tema/Accra - Bamako      | 3.93                   | 1.67                              | 0.62                        | 40-50                                  | 80%                     |
| Central<br>Africa  | Douala - N'Djaména       | 3.19                   | 1.31                              | 0.57                        | 60-70                                  | 73%                     |
|                    | Douala - Bangui          | 3.78                   | 1.21                              | 1.08                        | 50-60                                  | 83%                     |
|                    | Ngaoundéré - N'Djaména   | 5.37                   | 1.83                              | 0.73                        | 20-30                                  | 118%                    |
|                    | Ngaoundéré - Moundou     | 9.71                   | 2.49                              | 1.55                        | 10-20                                  | 163%                    |
| East<br>Africa     | Mombasa - Kampala        | 2.22                   | 0.98                              | 0.35                        | 130-140                                | 86%                     |
|                    | Mombasa - Nairobi        | 2.26                   | 0.83                              | 0.53                        | 90-100                                 | 66%                     |
| Southern<br>Africa | Lusaka - Johannesburg    | 2.32                   | 1.54                              | 0.34                        | 160-170                                | 18%                     |
|                    | Lusaka - Dar-es-Salaam   | 2.55                   | 1.34                              | 0.44                        | 160-170                                | 62%                     |

An interesting observation:  
On Central Africa corridor, trucks with lower average yearly mileage  
have the higher profit margins

# Example of the impact of market deregulation: The case of Rwanda



# Percentage of 7<sup>th</sup> grade students in Tanzania who CANNOT

- Read in Kiswahili at 2<sup>nd</sup> grade level: 20%
- Do a 2<sup>nd</sup> grade multiplication problem: 30%
- Read English: 50%

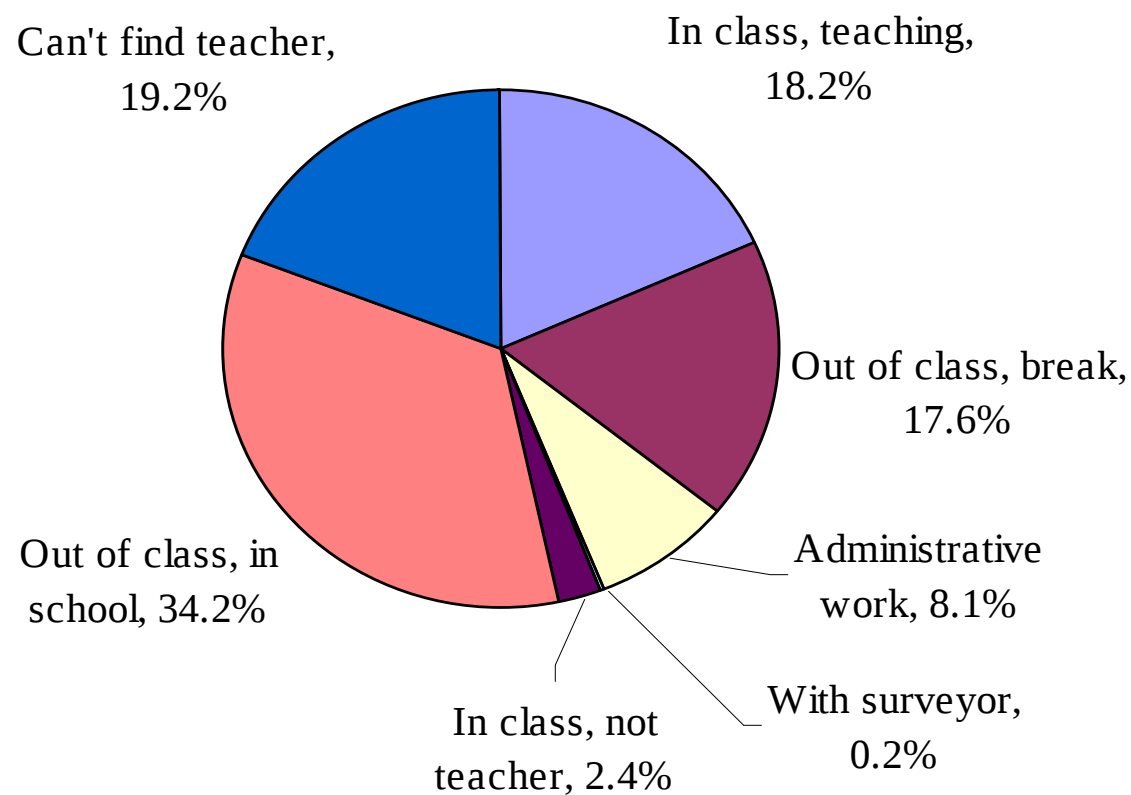


# Absence rate among teachers

| Country             | Rate<br>(percent) |
|---------------------|-------------------|
| Bangladesh          | 15                |
| Ecuador             | 14                |
| India               | 25                |
| Indonesia           | 19                |
| Papua New<br>Guinea | 15                |
| Peru                | 11                |
| Zambia              | 17                |
| Uganda              | 27                |



# Uganda: What enumerators found

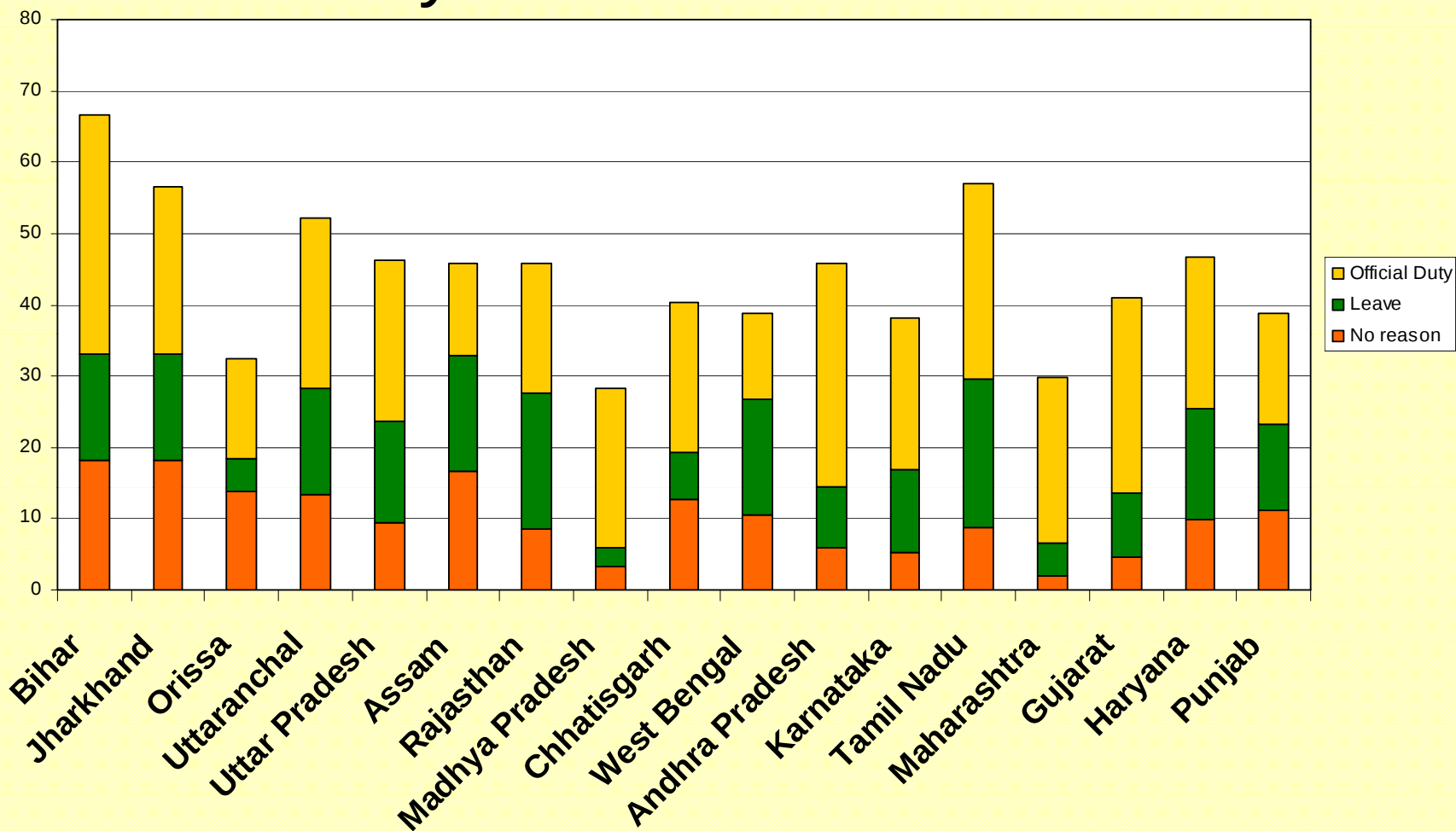


# Leakage of resources in health

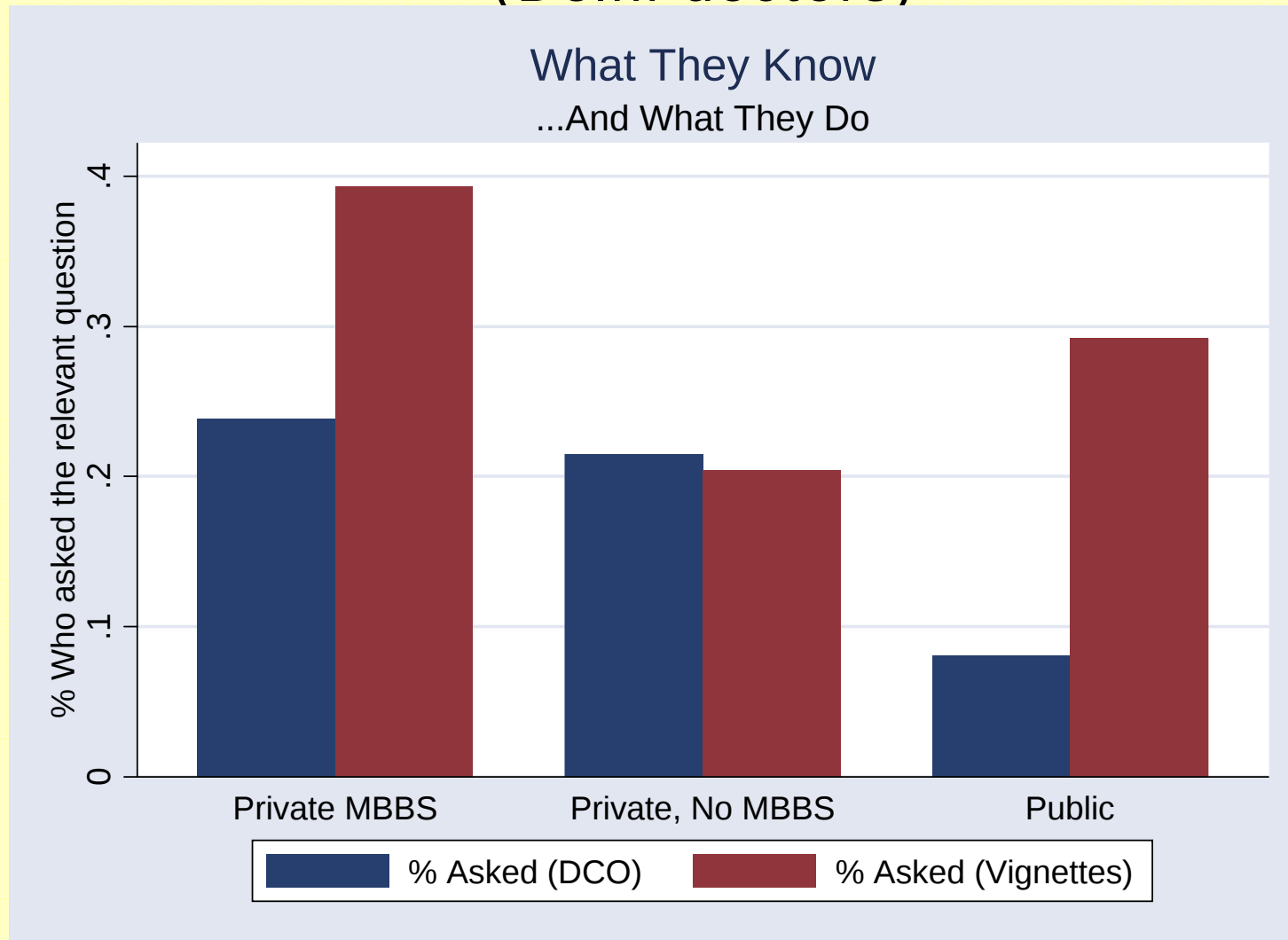
| Country (year)  | % of cash/in-kind resources leaked | Resource Category  |
|-----------------|------------------------------------|--------------------|
| Kenya (2004)    | 38                                 | Non-salary budget  |
| Tanzania (1991) | 41                                 | Non-salary budget  |
| Uganda (2000)   | 70                                 | Drugs and supplies |
| Ghana (2000)    | 80                                 | Non-salary budget  |
| Chad (2004)     | 99                                 | Non-salary budget  |

Source: Gauthier (2006)

# India 2003: Doctor absence from PHC's by state and reason



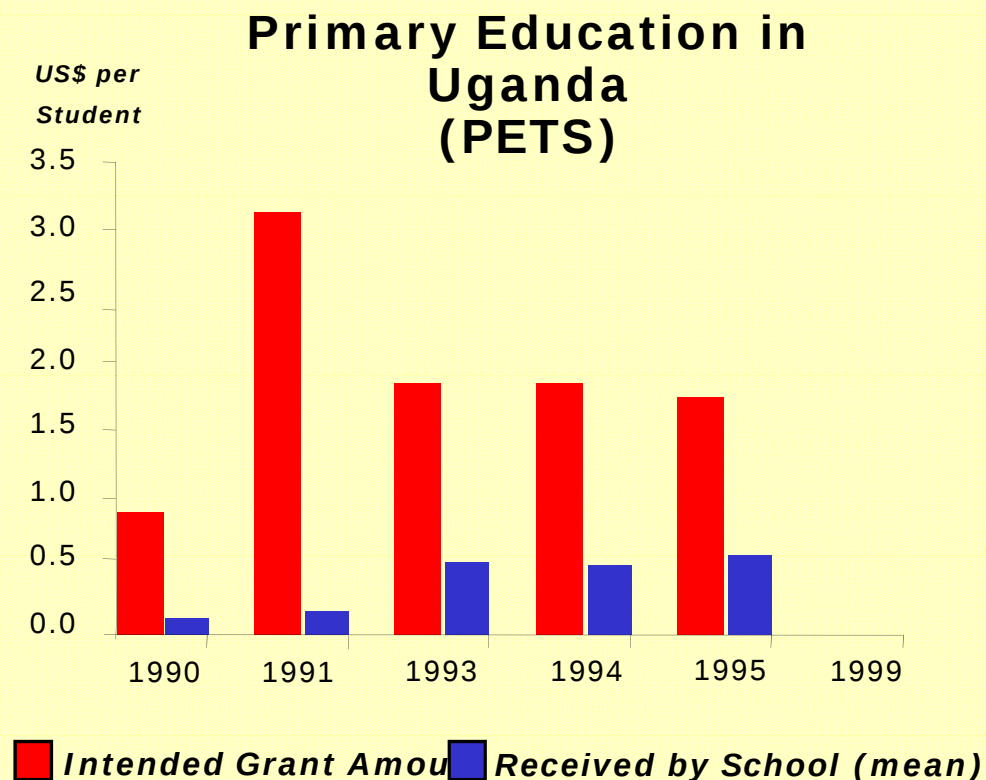
## Quality is low, even when present (Delhi doctors)



What they do is in blue, what they know is in red. MBBS doctors are (roughly) the equivalent of MDs in the US.

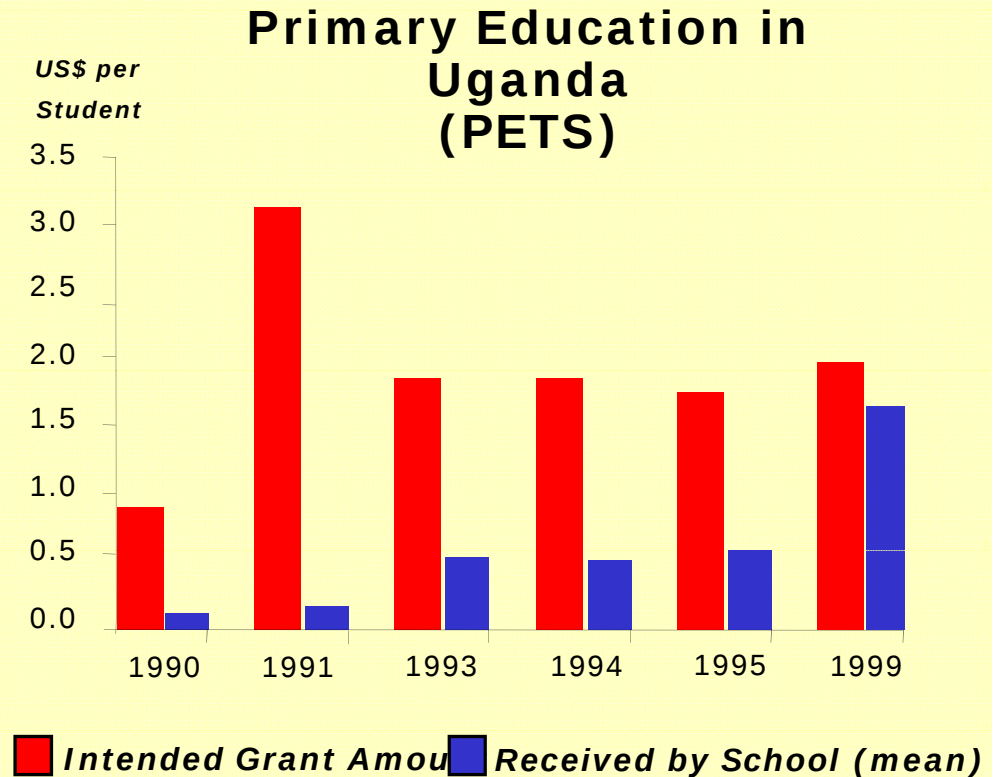
# Grants for Primary Education in Uganda

- In 1995, survey of 250 primary schools in 19 of 39 districts;*



# Grants for Primary Education in Uganda

- *In 1995, survey of 250 primary schools in 19 of 39 districts;*
- *Survey repeated in 1998 and 2000.*



# Conclusions

- Poverty due to market and government failures
- Market failures are (relatively) easy to fix
- Government failures are much harder
- CGE models can help solve *political market failures*