

Lowest Cost Frontier

Transparent pricing for every type of customer

Johannes M. Bauer

Michigan State University

LIRNEasia@five

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Background

- Advanced ICT increasingly resembles a highly interconnected ecosystem
- Effective regulation in part has to adapt to changes in industry performance
- Meaningful yet simple tools are needed to cope with heterogeneity of services, prices
- Low Cost Frontier was developed to overcome some of these challenges

Problem of heterogeneity

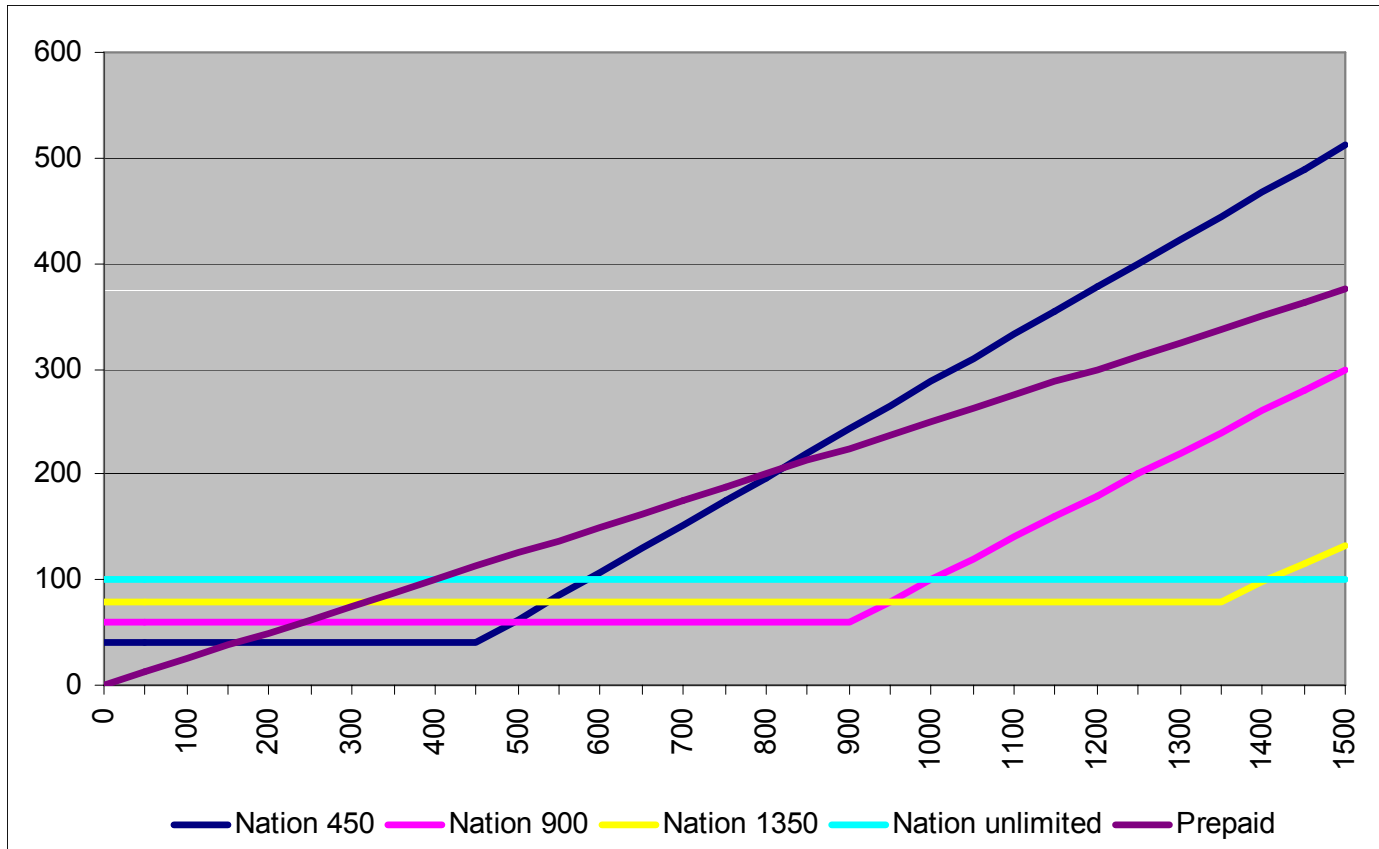
- Differentiation of networks and services
 - Technology
 - Capacity, speed, reliability
 - Adoption rates
- Differentiation of business practices
 - Pricing (prepaid, multi-part, ...)
 - Bundling of services
- Differences in economic, political, socio-cultural conditions across nations
- Differences in patterns and paths of sector evolution

Low Cost Frontier (LCF)

- Basic assumptions and objective
 - Overall rational users that respond to options
 - Flexibility to choose between plans
 - Only limited flexibility to shift times of calls
- Metric design
 - Minimal expenditure for varying usage levels
 - $LCF = \min E(U)$, for $0 < U \leq 2000$
 - E ... expenditure
 - U ... minutes of use
 - Conventions re complementary and ancillary services
- Flexibility (pre-, post paid, calling patterns, ...)

AT&T mobile voice plans

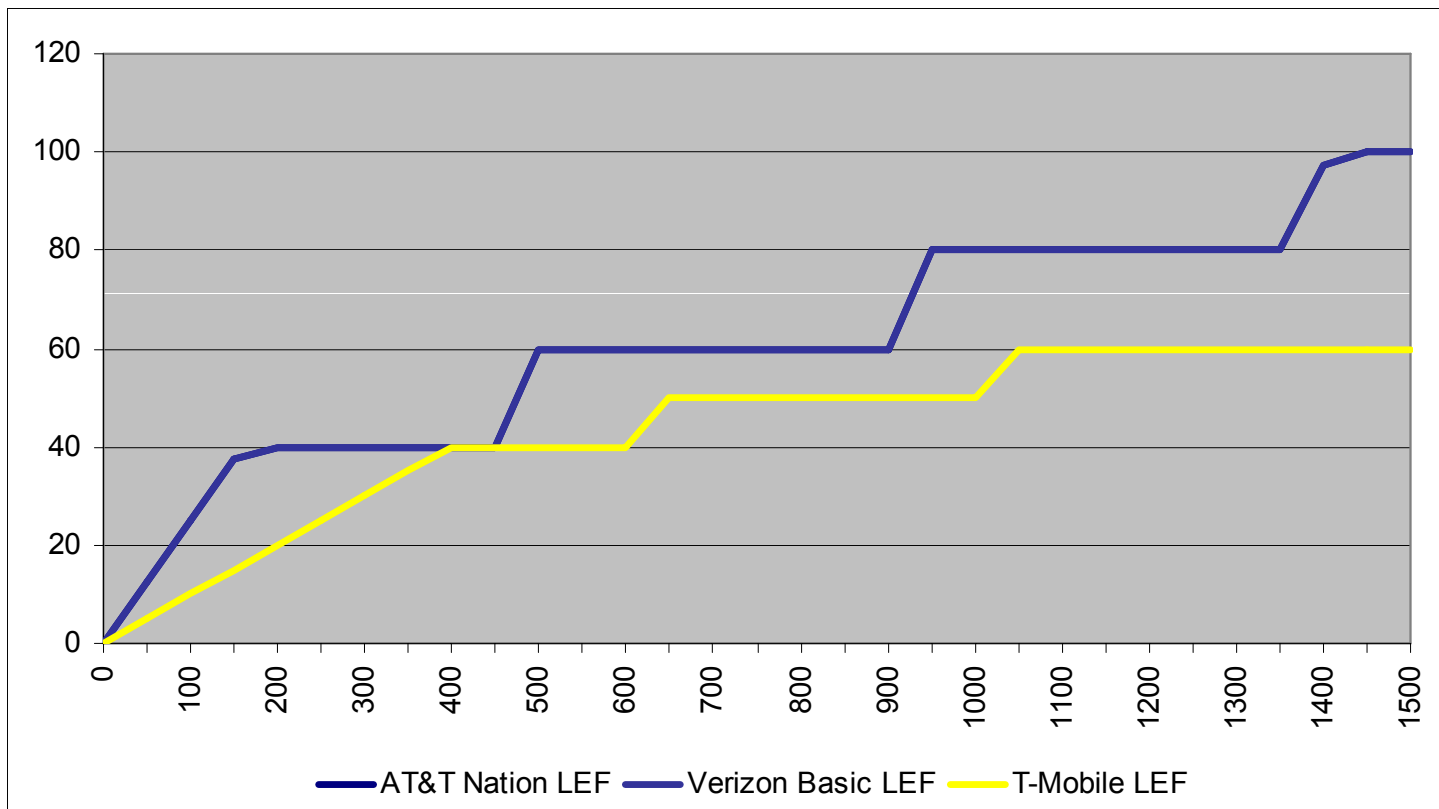
(Total expenditure in US\$ by minutes of paid use, 2009)



Source: <http://www.wireless.att.com/cell-phone-service/cell-phone-plans/individual-cell-phone-plans.jsp>, own calculations

Mobile voice plan comparison

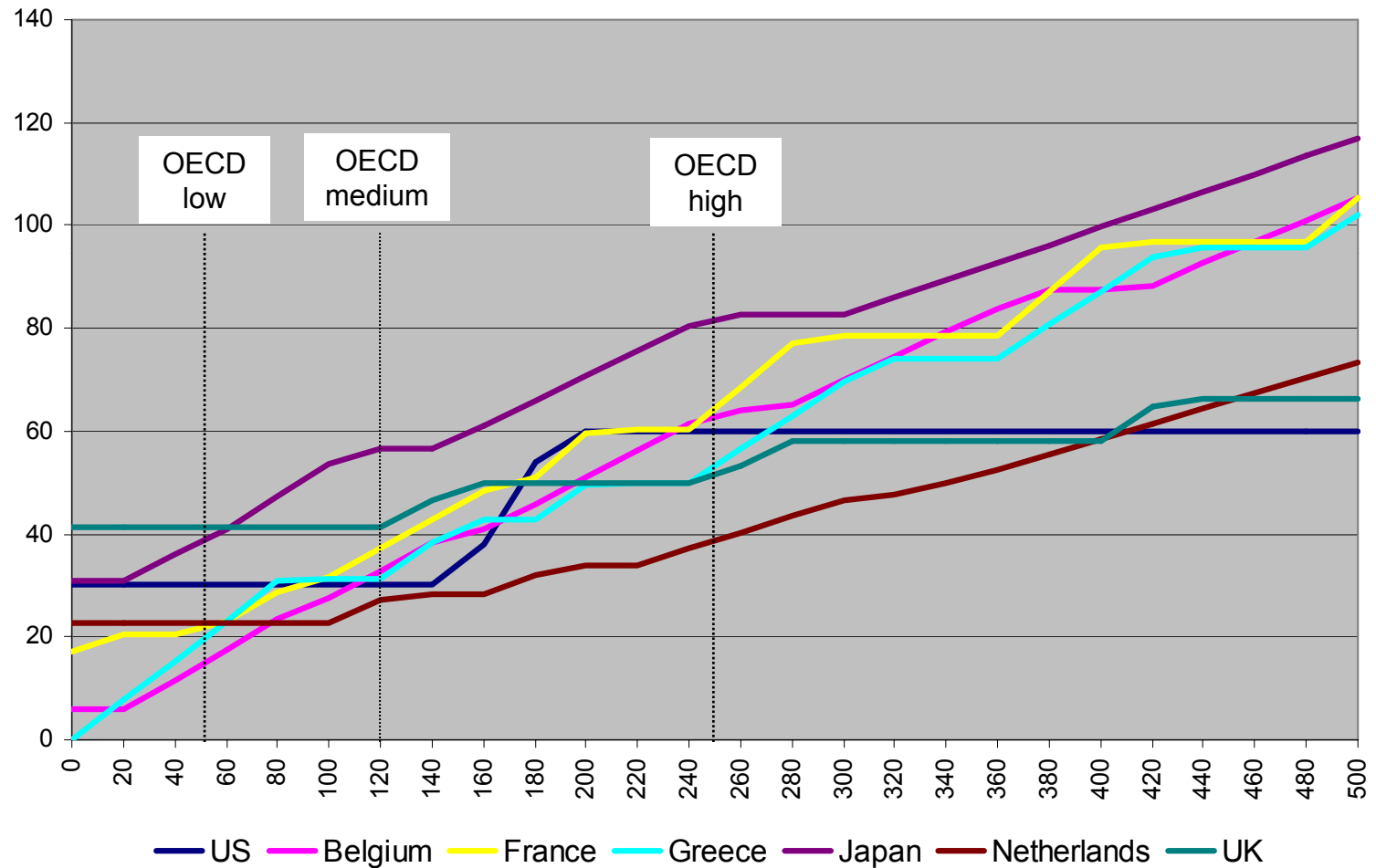
(Lowest Cost Frontier (LCF) in US\$, 2009)



Source: Bauer-Kim, 2009 for LCF methodology

Cross-national example

(≤ 500 min, US\$ PPP, post-paid, 2007)



Advantages & complications

- Advantages

- Overcomes challenges posed by differentiated pricing
- Provides broad picture of state of market
- Can be defined for many settings (mobile, broadband, ...)
- Information readily available

- Complications

- Periods of zero incremental cost (free use) difficult to accommodate
- Quality differentiation requires conventions re complementary and ancillary services
- Bundling of services creates additional complications