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Session OSI6 – Medicines Policy and Sustainability

**POLICY FRAMEWORK FOR TIERED PRICING
TO IMPROVE ACCESS AND AFFORDABILITY OF
MEDICINES IN LOW AND MIDDLE INCOME
COUNTRIES**

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Introduction: Study Objective & Acknowledgments

Study Objective, Design & Sponsorship

Objective

- Develop a global framework for differential pricing that improves access and affordability of medicines
- Achieve greater equity in health (today), while preserving incentives for research and development of new and innovative medicines (tomorrow)

Design

- Conceptual framework for differential pricing and market segmentation at both global and country level
- Model based on a multi-dimensional approach; Key parameters:
 - Socio-economic status and national income level (e.g. GDP)
 - Health systems development and out-of-pocket expenditure
 - Reward of medical innovation thru product value assessment

Study Objective, Design & Sponsorship

Sponsorship

- Author received financial support from Johnson and Johnson (J&J) Pharmaceuticals division

Publication

- Study results presented to an academic advisory panel and J&J's Global Market Access Team
- Submission for publication: 2nd H 2011

Contact

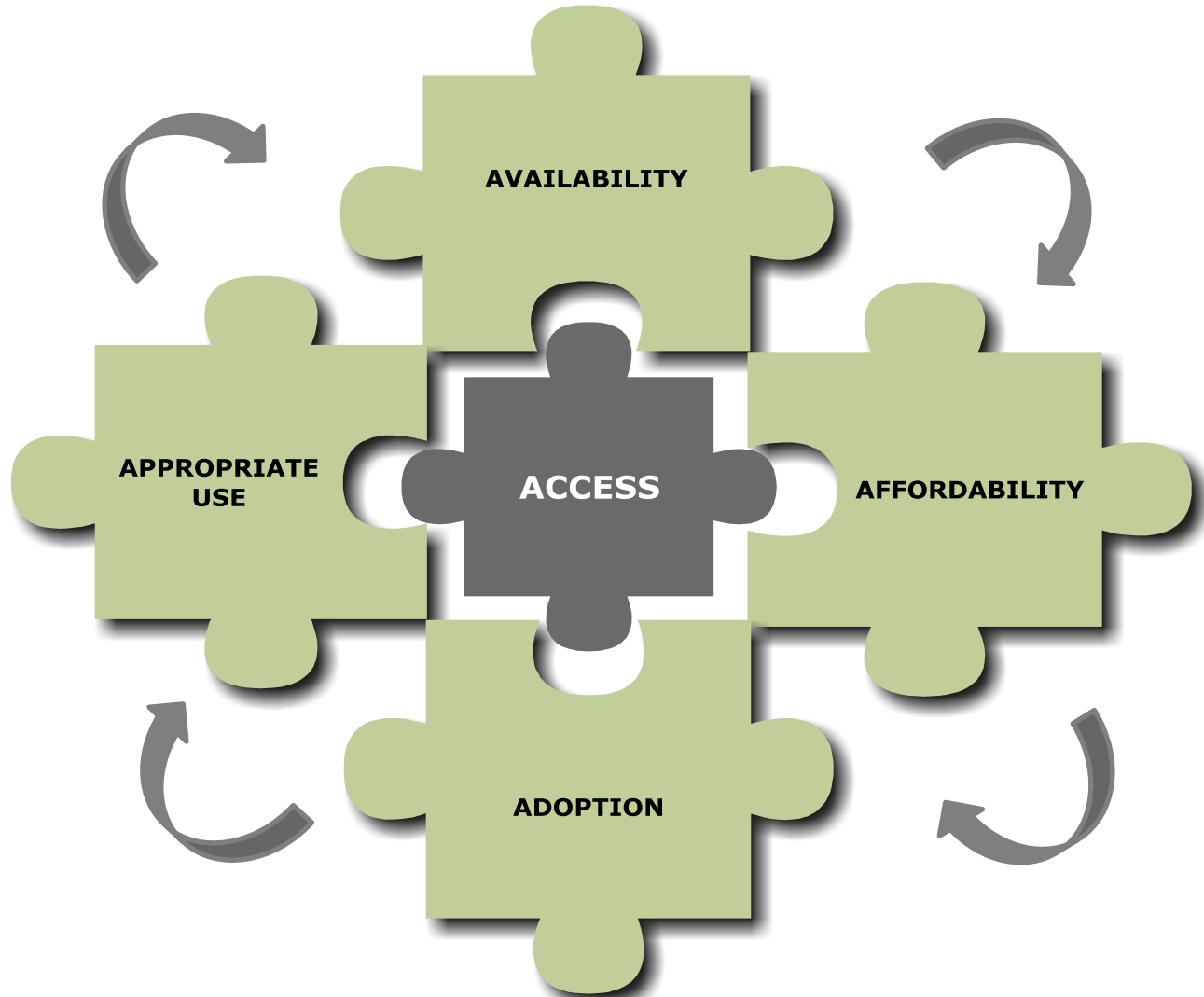
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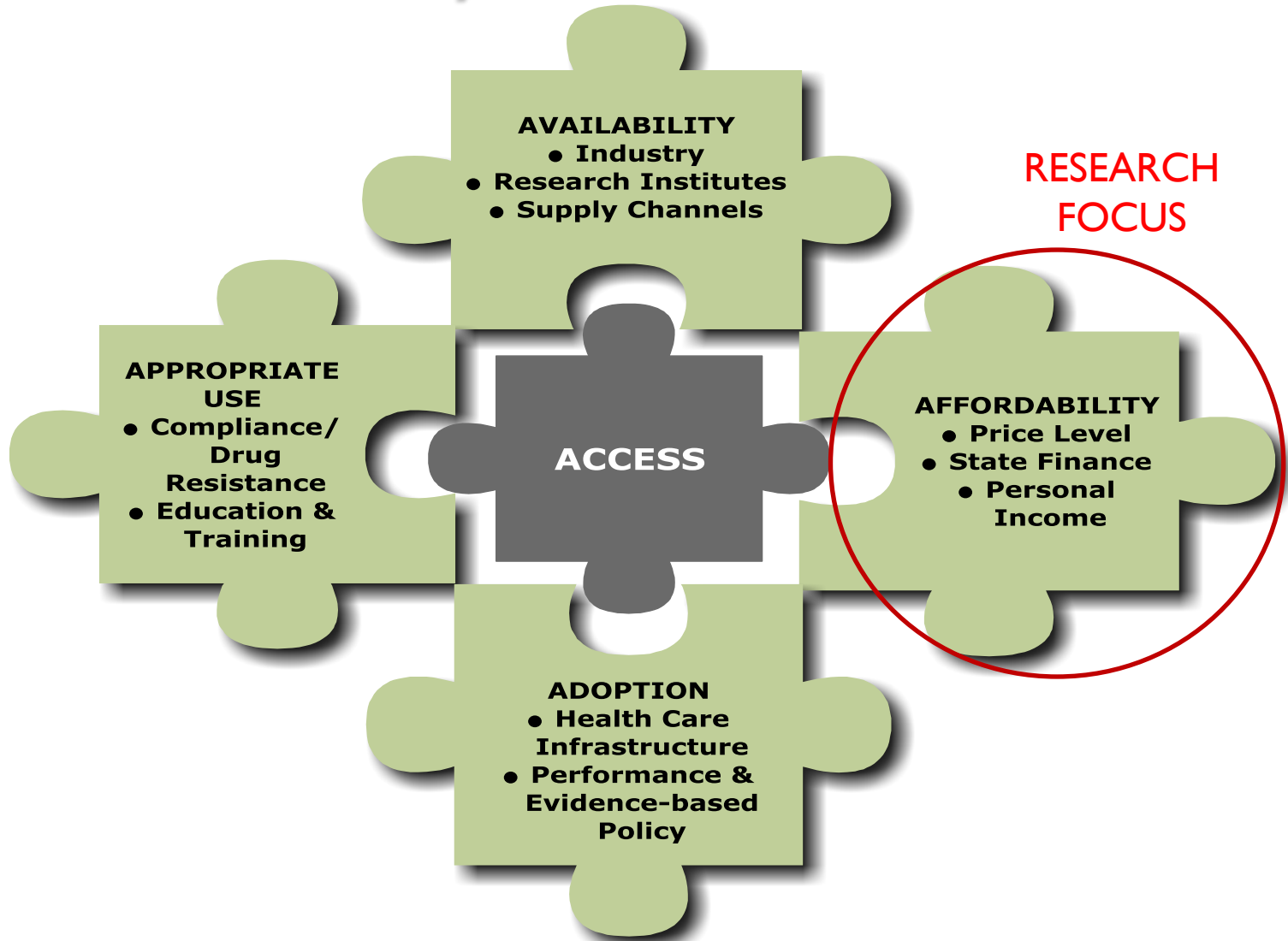
Part I

Differential Pricing in the Context of
Access to Medicines

Access to Medicines: Four Key Dimensions - 4 A's



Access to Medicines: Four Key Dimensions - 4 A's



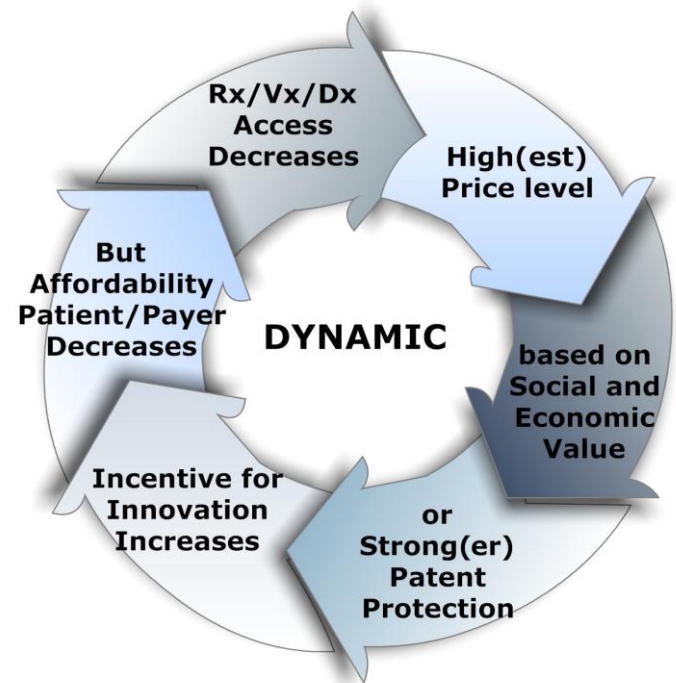
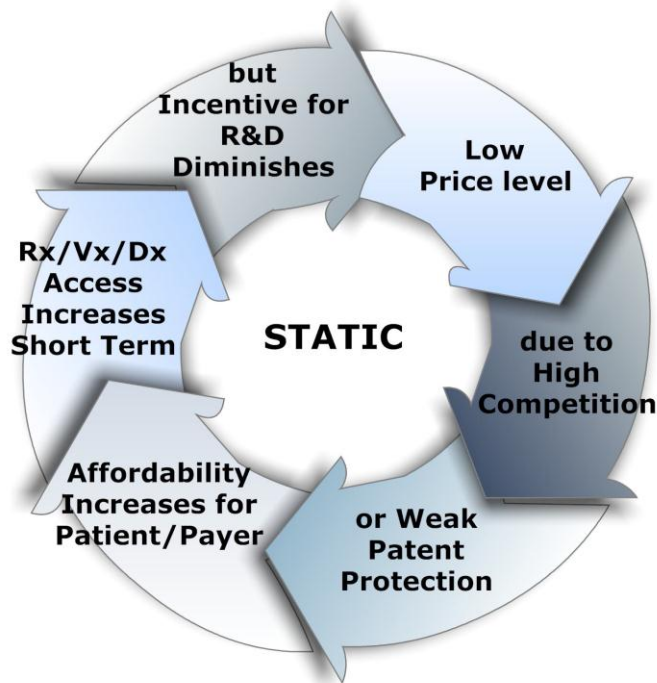
Reconciling Market Access and Pharmaceutical Innovation

In Search of **A Sustainable Solution**

Access to medicines implies striving towards better access to medicines ***available today*** as well as to medicines that might be ***available tomorrow***.

Reconciling Market Access and Pharmaceutical Innovation

Optimizing
Static (short-term) & Dynamic (long-term)
Efficiency



Differential & Equitable Pricing

Adapting pharmaceutical prices to the purchasing power of consumers in different geographical or socio-economic segments

DIFFERENTIAL PRICING

Differential or tiered pricing is a commercial practice to adjust prices to assure availability of products in different countries or market segments with uneven buying power

GLOBAL
BUSINESS

EQUITABLE PRICING

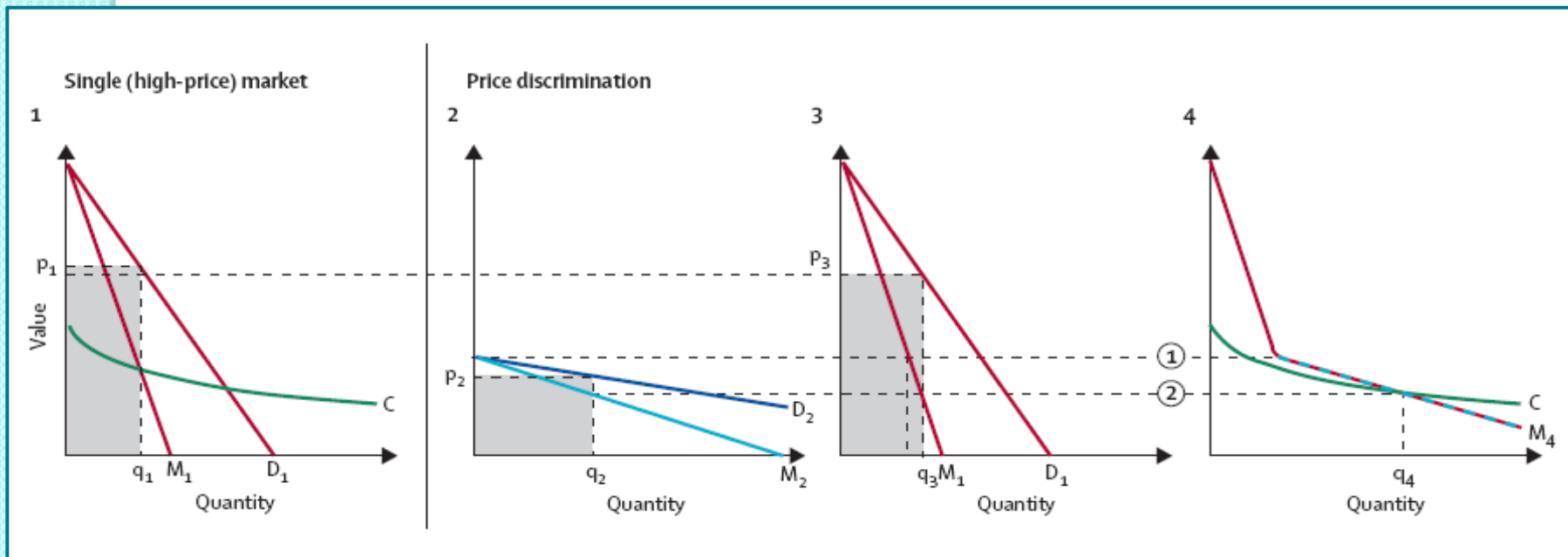
Equitable pricing is a welfare economics and social development driven pricing mechanism intended to lower financial barriers to essential product access

SOCIAL
WELFARE

WIN-WIN

Differential Pricing for Pharmaceuticals

- Pharmaceuticals characterized by high fixed costs (R&D); fixed costs absorbed by richer segment
- Profit maximizing strategy if markets can be segregated - no 'leakage' possible between market segments
- Industry wary of experimenting with lowering prices in low-income markets due to fear of eroding profit margins in higher income countries

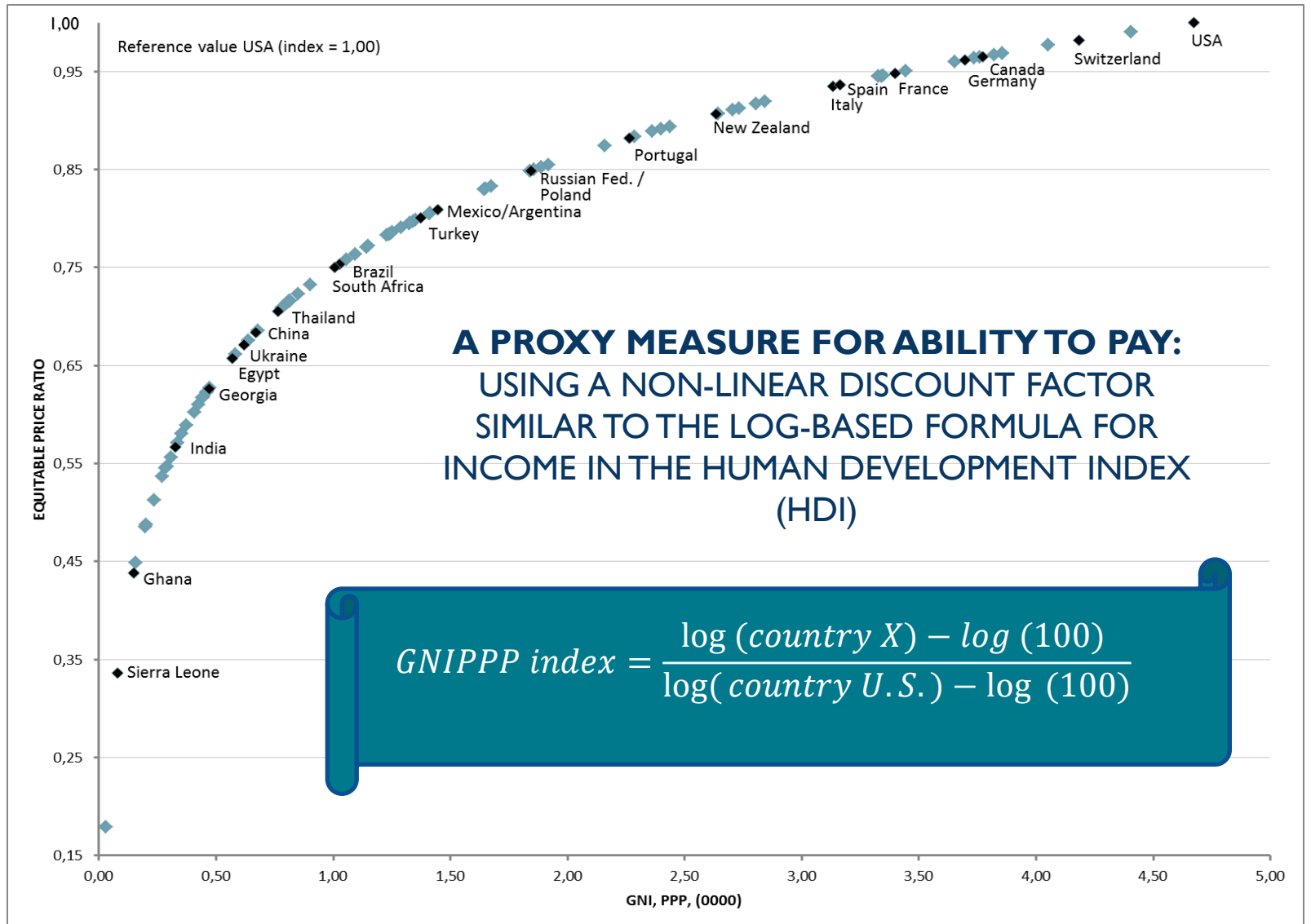




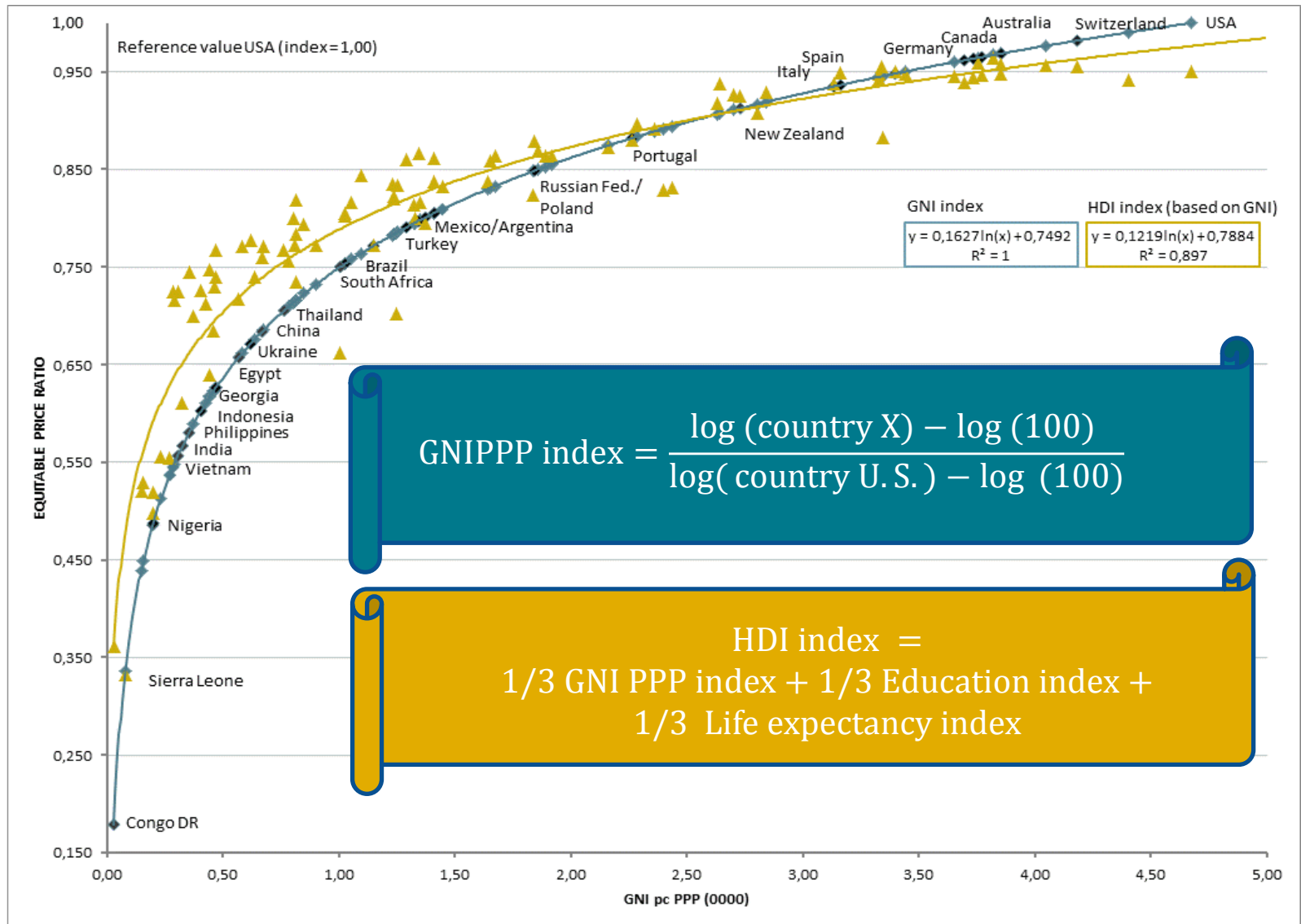
Part II

Building A Framework for Differential Pricing

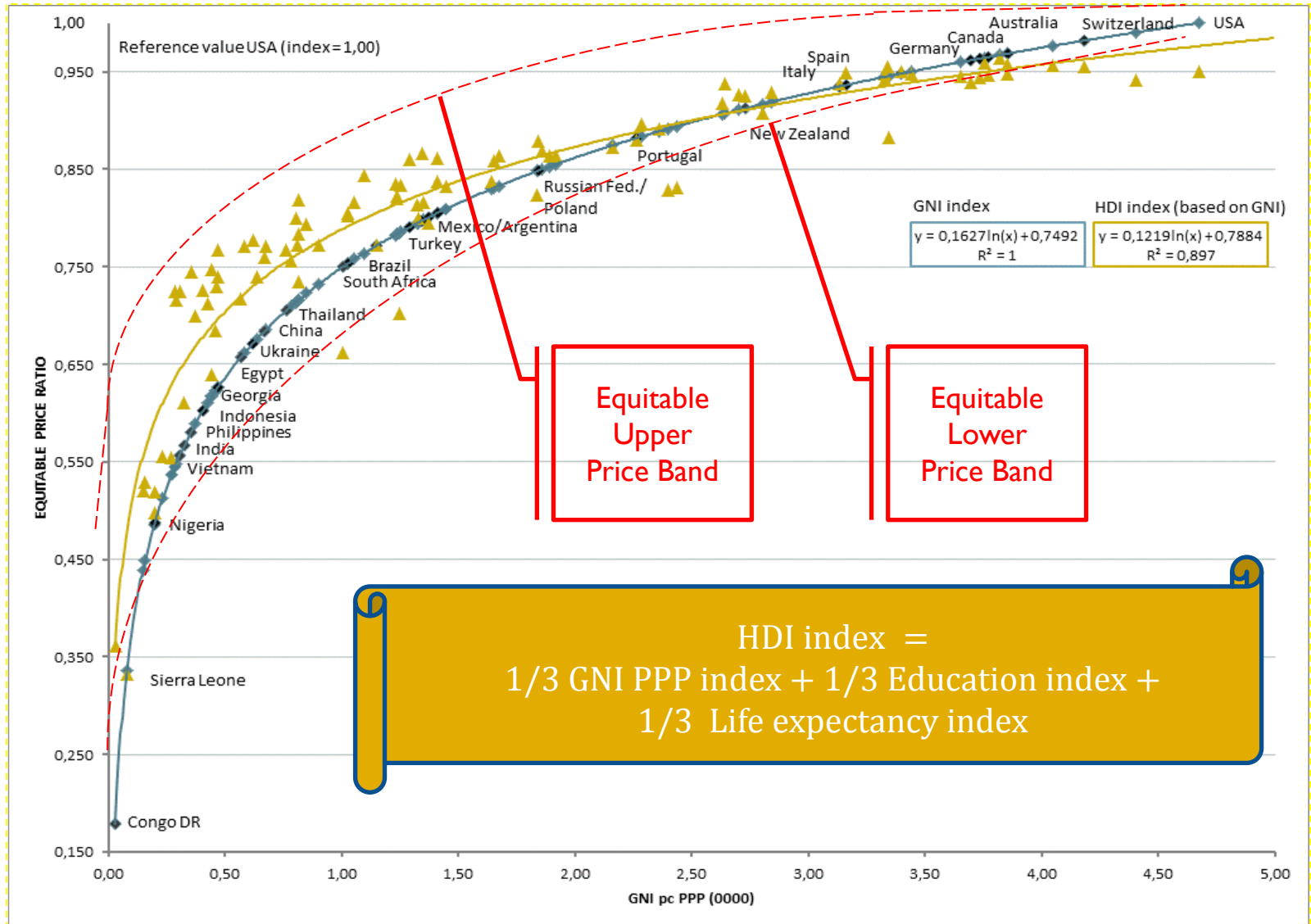
Simulation Based on National Income Using Non-Linear Calibration



Simulation Based on National Income Adjusted for Human Development Index



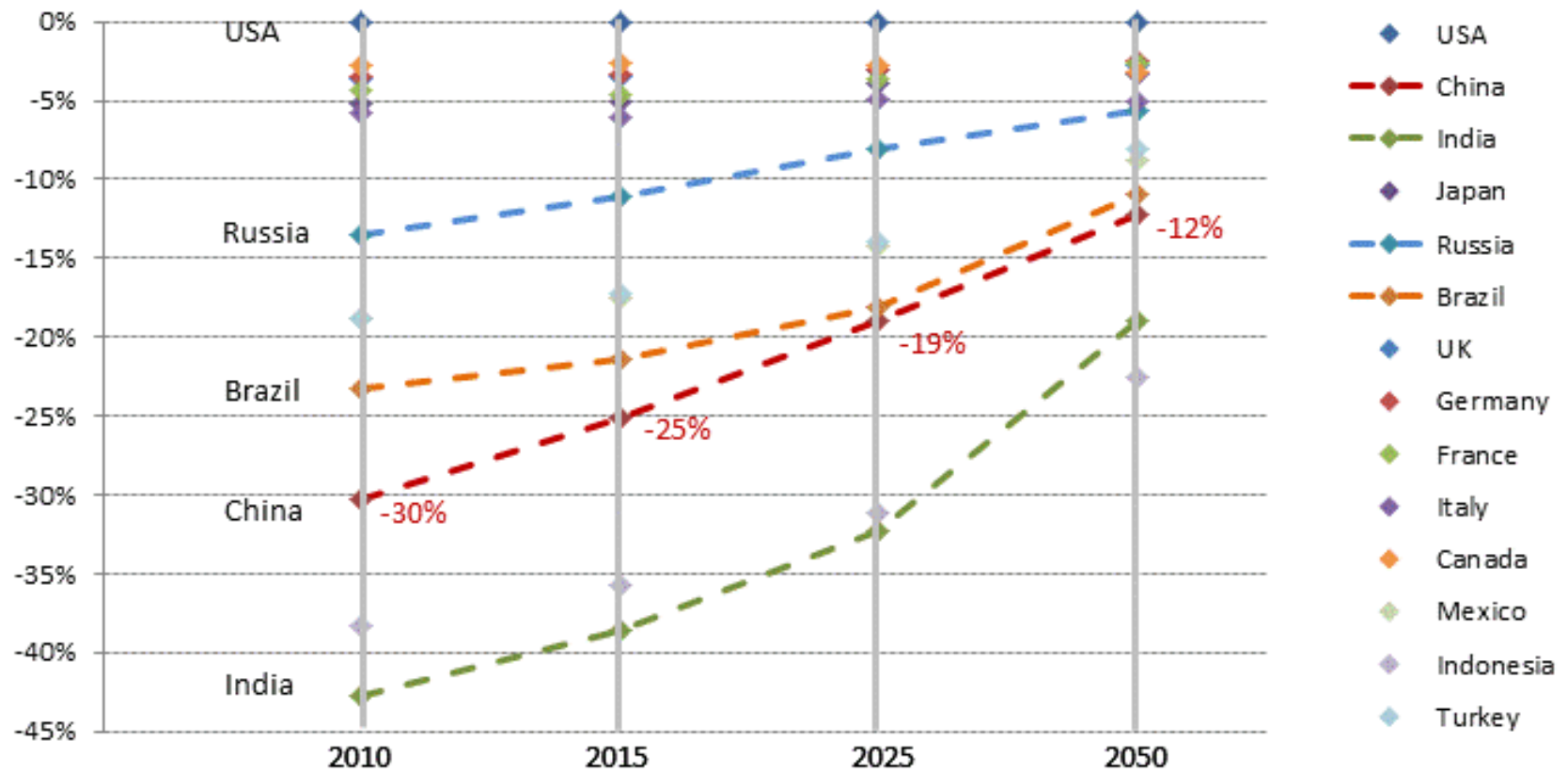
Simulation Based on National Income Adjusted for Human Development Index



Simulation Based on National Income

Convergence of Wealth Over Time in Emerging Economies

Trend of Equitable Discounts in period 2010-2050



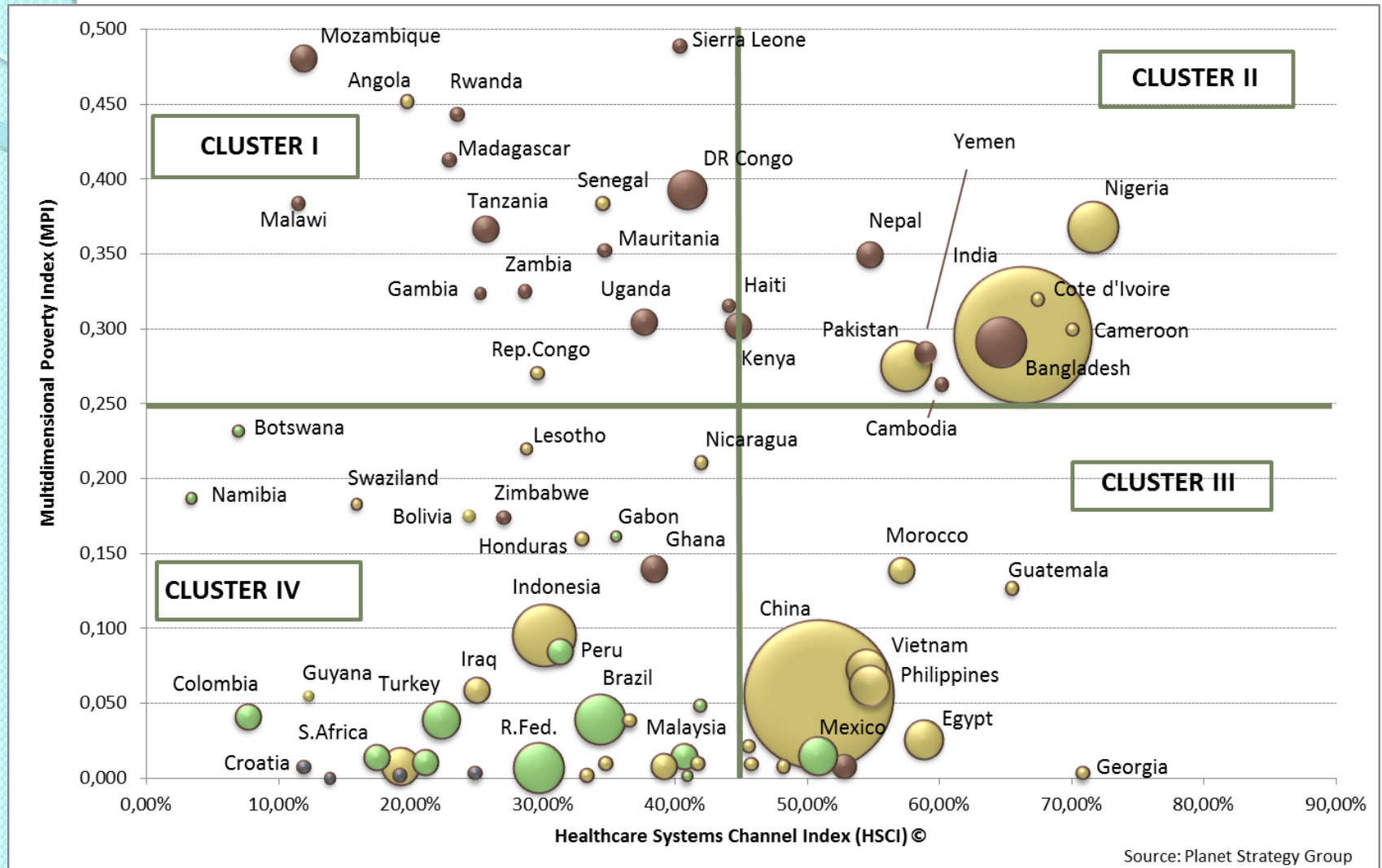


Part III

Opportunities for
Intra-Country Equitable Pricing

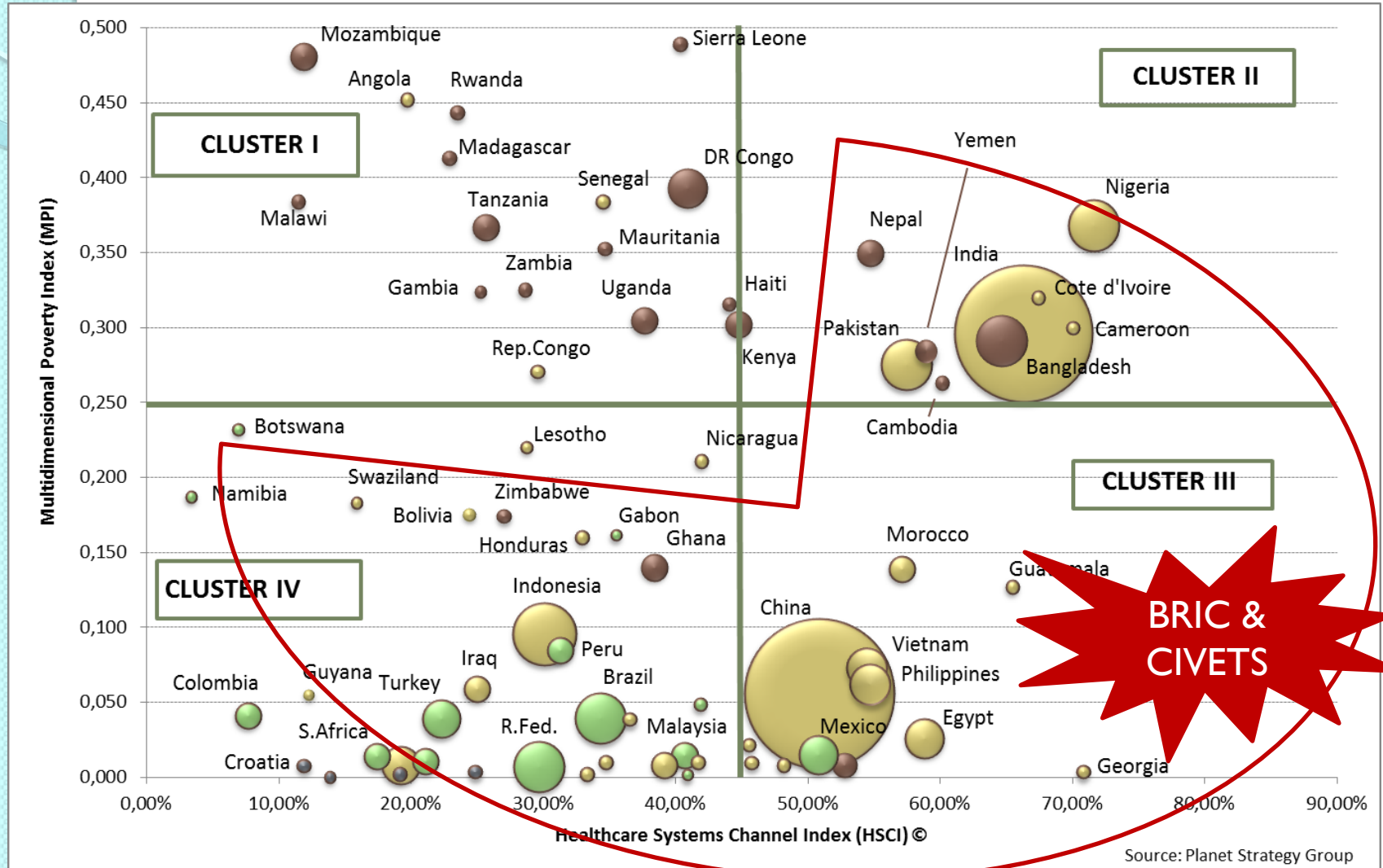
Two-Dimensional Mapping

Focus on Low- and Middle Income Countries




Legend: ● Low income ● Lower-middle income ● Upper-middle income ● High income

High Opportunity for Tiered Pricing Focus on Low- and Middle Income Countries

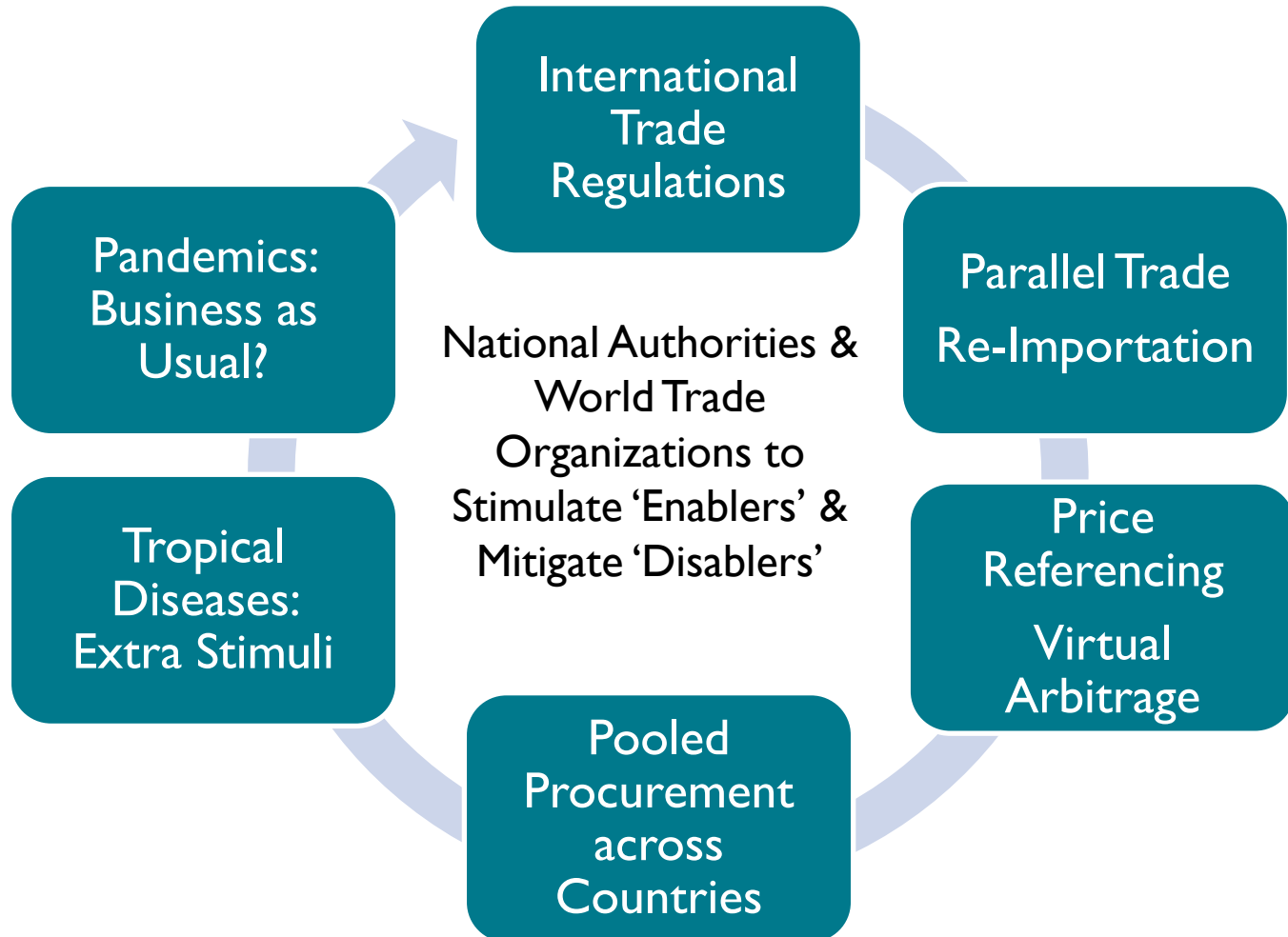


Legend: ● Low income ● Lower-middle income ● Upper-middle income ● High income



Part IV
**Creating an Enabling Environment
for Differential Pricing**

Creating an Enabling Environment for Differential Pricing



Conclusions

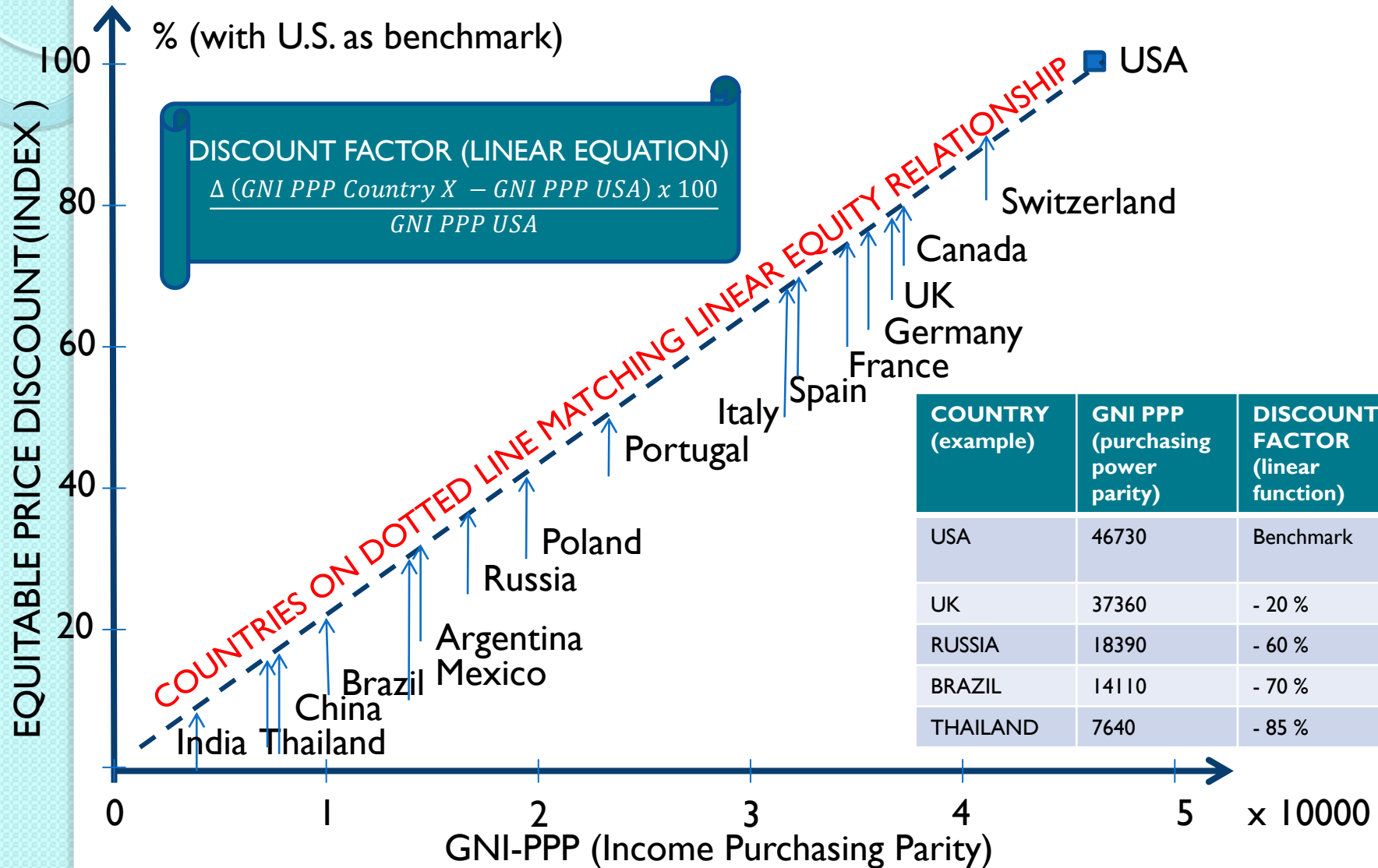
- Adapting prices of pharmaceuticals to the purchasing power of consumers in different geographical or socio-economic segments provides an effective way to improve the access to and affordability of life-saving medicines.
- A differential pricing framework facilitates better and faster access to medicines (today) while preserving incentives for research and development of new medicines addressing unmet medical needs (tomorrow).
- Governments of industrialized and developing countries - together with supra-national agencies - should create an enabling environment by endorsing public policies that facilitate implementation of differential pricing.



BACK UP SLIDES
Additional Comprehensive Slides

Simulation Based on National Income

Using Simple Linear Calibration



Two-Dimensional Mapping

Focus on Low- and Middle Income Countries

THE MULTIDIMENSIONAL POVERTY INDEX (MPI)

Enables identification of concomitant deprivation within households, and the clustering of deprivations in different countries.

$$\text{MPI} = A \times H$$

H= Headcount or proportion of the population who are poor (incidence)

A = Average proportion of weighted indications (health, sanitation, education) in which households are deprived (intensity)

THE HEALTHCARE SYSTEMS CHANNEL INDEX (HSCI)

Out-of-pocket health care expenditure as % of total health expenditure. Measure of how poorly health systems are developed.

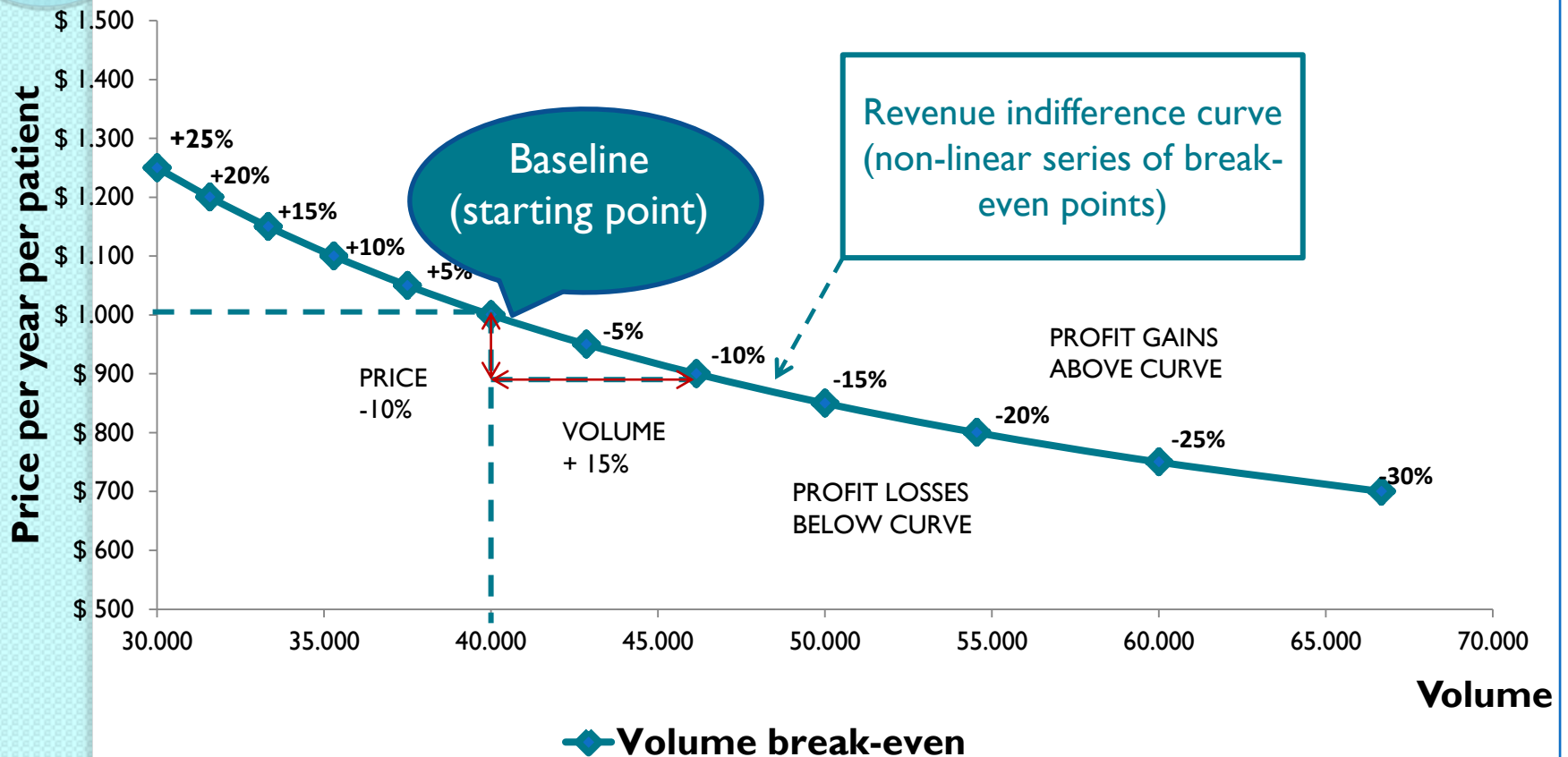
$$\text{HSCI} = P \times O$$

P= Private expenditure (as % of total health care expenditure)

O = Out-of-pocket health care expenditure (as % of private expenditure)

Optimizing the “Price/Volume” Relationship

Plotting price per treatment against volume (# patients/citizens)



Conclusions (1/2)

- Adapting prices of pharmaceuticals to the purchasing power of consumers in different geographical or socio-economic segments provides an effective way to improve the access to and affordability of life-saving medicines.
- A differential pricing framework facilitates better and faster access to medicines (today) while preserving incentives for research and development of new medicines addressing unmet medical needs (tomorrow).
- Whereas value-based pricing remains the cornerstone for pricing and reimbursement in high income markets, additionally applying tiered pricing and price/volume trade-offs in developing countries and emerging economies facilitates inclusion of underserved populations in the public health care system.

Conclusions (2/2)

- Price tiers between countries with different income levels – and the associated theoretical discount levels that may be applied from a societal and equity perspective – can be computed using a non-linear decision analytic model.
- The degree to which the model offers a solution to the access and affordability problem depends on:
 - the social and macro-economic development status of a particular country/region,
 - the disease incidence and the value of a particular medicine in its therapeutic class,
 - the extent to which inter-country and intra-country market segmentation can be applied.
- Governments of industrialized and developing countries - together with supra-national agencies - should create an enabling environment by endorsing public policies that facilitate implementation of differential pricing.