



# Questions for Research on UIILs

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## Why is the World Bank Interested in UILs?


- Growth vital to reducing poverty
- Higher education can contribute to growth, metropolitan development and better quality of life
- Many countries in Asia, Eastern Europe and Latin America at the stage when knowledge/technology a key to growth
- Competition in assembled manufactured exports forcing countries to move upstream
- Lower income countries seeking knowledge intensive solutions to problems of agricultural/agro-industrial development and health



# What is the Role of the University? And is it Changing?

## ‘Traditional University’

- To produce an educated workforce; build skills needed by industry
- Conduct a small amount of research and episodically engage in consulting and technology development for industry



# What is the Role of the University? And is it Changing? (cont'd)

## ‘Entrepreneurial Research University’

- Actively focused on research and its commercialization through a variety of UILs
- Increasingly reliant on financing from commercial ventures

Does the entrepreneurial model have broad applicability or is it for just a select, few, elite universities?



## How Much Does University-based Research Contribute?

- To technological capability of SMEs
- To innovation by large firms
- To specific industries
- To the fund of useable technical knowledge as measured by patents
- To technology licensing and contracted research
- To the university's revenues
- To new startups and spin-offs

# What are the Implications of a Strategy Promoting Entrepreneurial Universities?

- For the national government with respect to size of research budgets and allocation across research institutes and universities
- For building university research capability and inducing spillovers
- For subnational governments in decentralized economic systems
- For the division of resources between basic and applied research
- For the development of national innovation systems more broadly

# What Might be the Implications of a Proactive Entrepreneurial Orientation for the University?

- For the university curriculum and provision of a broad-based education
- For faculty teaching requirements and faculty/student ratio
- For faculty/researcher salaries and tenure
- For undergraduate vs. graduate education



## How Might the Research University Affect Local Urban Development?

- Through direct impact on spending and employment
- By attracting firms
- Through spin-offs and startups
- By raising the technological bias and skill intensity of industry
- By raising the average education and income levels in the region and through this the quality of life



## What is the Growth Contribution of Universities Relative to Other Factors?

- Large firms (e.g., Lockheed and HP in Silicon Valley; IBM in the Research Triangle)
- Providers of business services (e.g., VCs)
- Breadth and diversity of urban industrial base
- Public research institutes
- Investment climate
- Infrastructure
- Social services/amenities

# What are the Dominant Trends in Developed Countries? What are the Lessons for Newly-industrializing Ones?

- Is university research going to increase in importance relative to corporate/public institute-based research
- Will public spending on research rise
- Will university-centered agglomerations become more competitive
- Will the attraction of China and India divert more research to Asia? Will this affect the flow of students and researchers
- Will MNCs move more of their research offshore to Asia



## The Big Policy Questions

- Is the (risk adjusted) cost of building a “world-class” research university and science park worth the investment in a European country? In an Asian country?
- Is the ‘traditional model’ of the university, with small modifications, still viable?