

ITU GSR-21 REGIONAL REGULATORY ROUNDTABLE AND REGIONAL ECONOMIC DIALOGUE FOR ASIA-PACIFIC (RRR-RED ASP-21)

Virtual meeting | 8-9 June 2021, 10:00 (+7 GMT)

THE IMPACT OF POLICIES, REGULATION, AND INSTITUTIONS ON ICT SECTOR PERFORMANCE

Dr. Raul L. Katz

Columbia Institute for Tele-Information



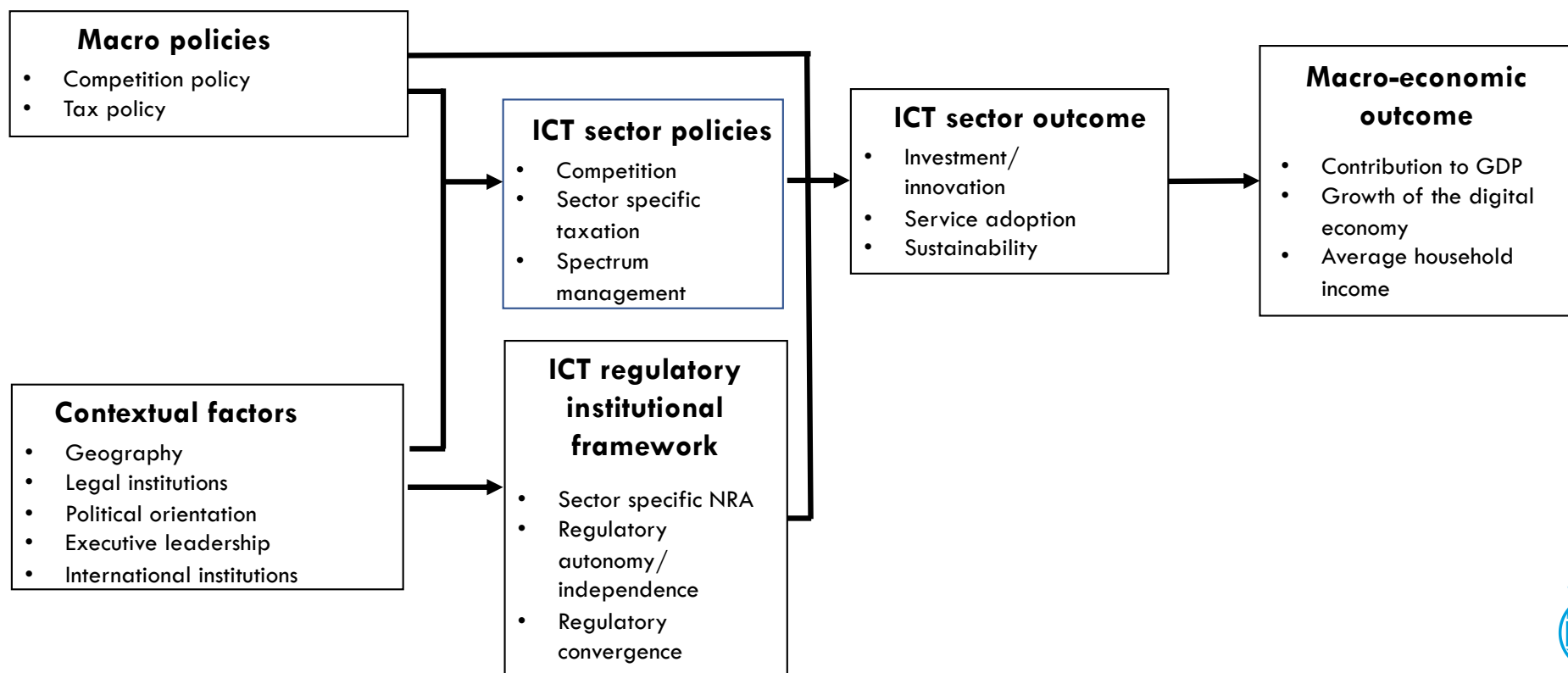
THIS STUDY USES ECONOMETRIC MODELS TO EXAMINE THE IMPACT OF REGULATION AND INSTITUTIONS ON THE PERFORMANCE OF THE ICT SECTOR AND ITS CONTRIBUTION TO THE ECONOMY

- What is the impact of government policies and regulation on the performance of the ICT sector, measured by capital investment, network deployment, service pricing, consumer demand, and ultimately impact on the economy?
- Is competition enough of an incentive to drive an improvement of sector performance?
- How long does it take for changes in regulation and policies to affect sector performance?

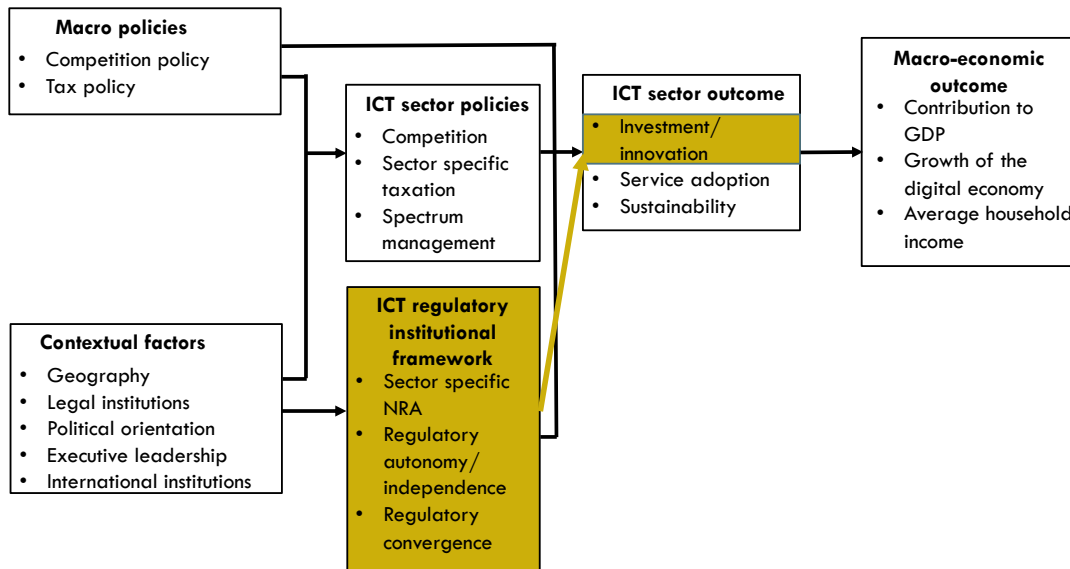
Models are built with data from 145 countries between 2008 and 2019 and comprise 50 initiatives of policy reforms and institutional characteristics as well as 13 indicators of ICT sector performance



OUR ANALYSIS OF EXISTING RESEARCH INDICATES THAT A RANGE OF CAUSAL LINKS TAKE PLACE BETWEEN THE POLICY AND REGULATORY CONTEXT AND MARKET OUTCOMES IN THE ICT SECTOR



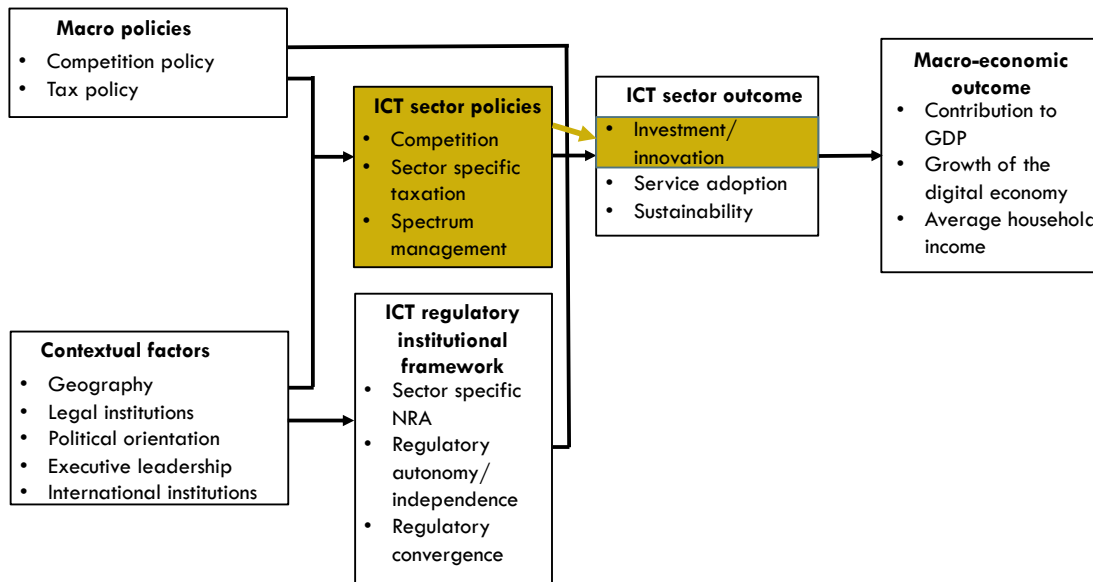
FIRST FINDING: THE REGULATORY INSTITUTIONAL FRAMEWORK IS LINKED TO A POSITIVE AND SIGNIFICANT INCREASE IN TELECOMMUNICATION INVESTMENT



Causal link	Effect
Regulatory Tracker comprised of all four scores	An increase of 10% in the Tracker score is associated with an increase of fixed and mobile investment of over 7%.
Regulatory authority (independence, accountability, and enforcement power) score	An increase of 10% in the score is associated with an increase of close to 8% in fixed and mobile investment.
Regulatory mandate (responsible for QoS, licensing, interconnection rates, spectrum, universal service, broadcasting, Internet, IT and consumer issues) score	An increase of 10% in the score is associated with an increase of close to 11% in fixed and mobile investment.
Regulatory regime (good practices in terms of licensing, interconnection, QoS, infrastructure sharing, access regulation, and number portability, among others) score	An increase of 10% in the score is associated with an increase of approximately 4% in fixed and mobile investment

Source: Katz, R. and Jung, J. (2021). *The impact of policies, regulation, and institutions on ICT sector performance*. ITU, International Telecommunication Union

SECOND FINDING: A REDUCTION IN TAXATION AND ADMINISTRATIVE BURDENS IS LINKED TO A SIGNIFICANT INCREASE OF CAPITAL INVESTMENT

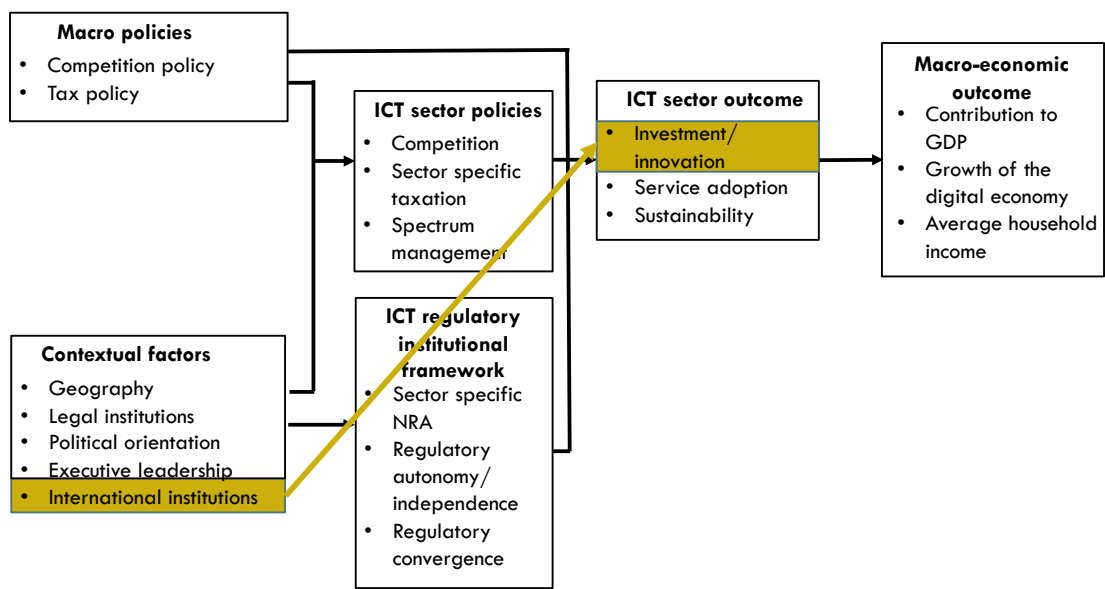


Causal link	Effect
Competition framework (competitive intensity in fixed, mobile, and broadband services, among others) score	An increase of 10% in the score is associated with an increase of close to 7% in fixed and mobile investment
Profit tax (non-sector specific)	A 50% reduction in profit tax affecting the business sector is associated with an increase of fixed and mobile investment of nearly 14%
Bureaucratic burden	A 50% reduction in administrative time required for doing business is linked to an increase in fixed and mobile investment of 17%

Source: Katz, R. and Jung, J. (2021). *The impact of policies, regulation, and institutions on ICT sector performance*. ITU, International Telecommunication Union



THIRD FINDING: BEING AFFILIATED TO INTERNATIONAL ORGANIZATIONS THAT PROMOTE SOUND REGULATIONS AND GOOD PRACTICES IS LINKED TO HIGHER TELECOMMUNICATION INVESTMENT

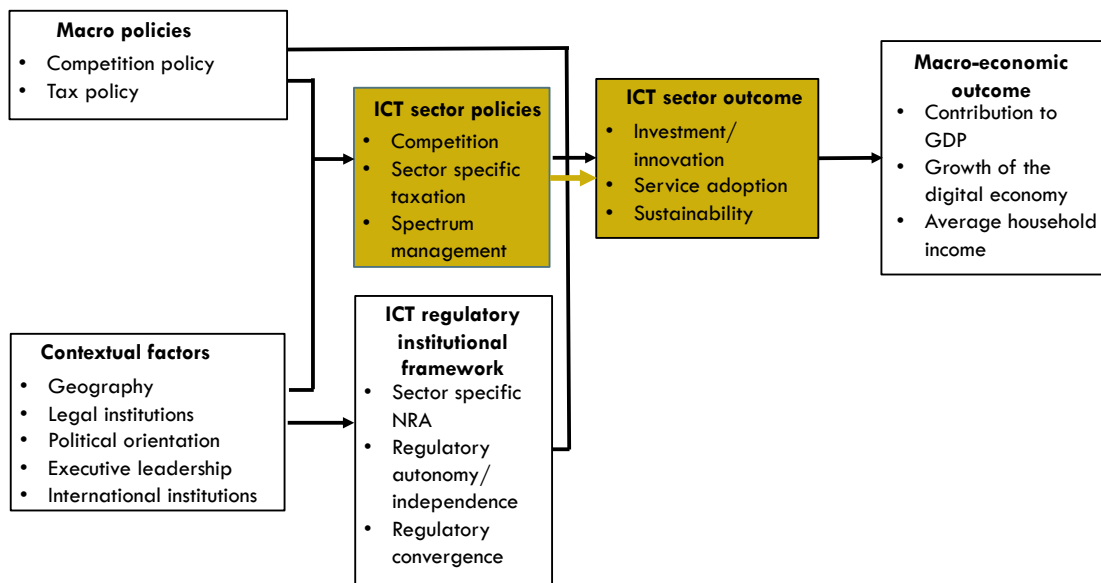


Causal link	Effect
OECD membership	OECD membership is associated with an increase in 36% in fixed and mobile investment
Five-year WTO membership	Countries with a five-year membership of WTO are associated with a 17.5% more fixed and mobile investment with respect to non-members

Source: Katz, R. and Jung, J. (2021). The impact of policies, regulation, and institutions on ICT sector performance. ITU, International Telecommunication Union



FOURTH FINDING: MOBILE ICT SECTOR POLICIES (TECHNOLOGY NEUTRALITY, SPECTRUM SHARING, AND NUMBER PORTABILITY) HAVE A POSITIVE AND SIGNIFICANT IMPACT ON INVESTMENT

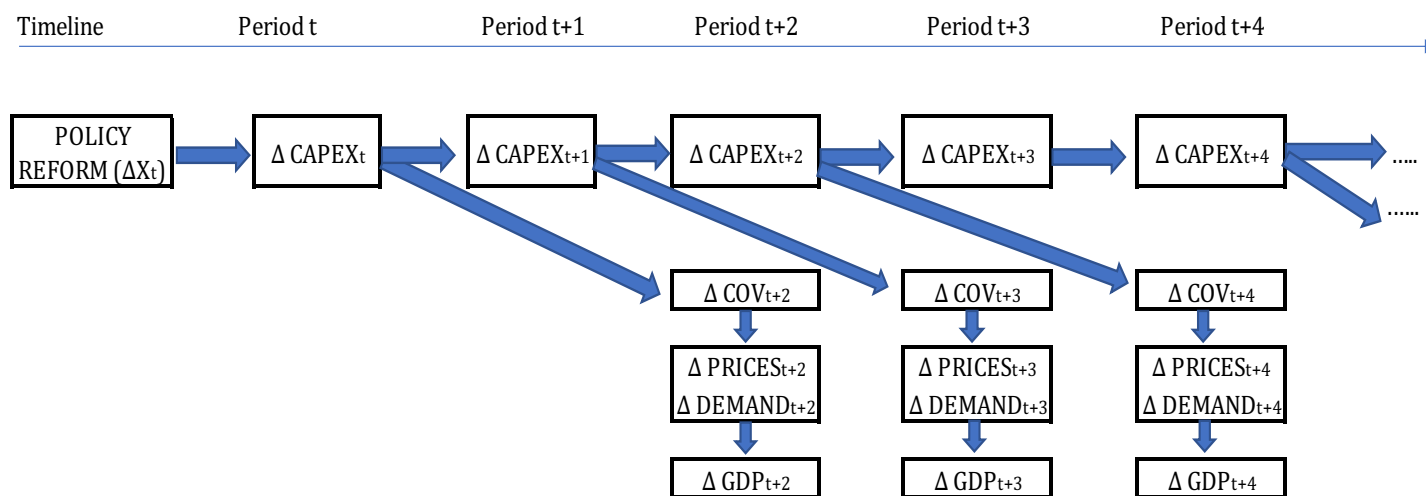


Causal link	Effect
Convergent technology neutral licenses	Moving from service and network specific to convergent licensing is associated with an increase of mobile investment of 10%, network coverage by over 9%, price reduction by over 5%, and mobile penetration by approximately 2% after two years.
Spectrum sharing agreements	The possibility of performing voluntary spectrum sharing agreements is associated with a 18% increase in mobile investment, network coverage by over 17%, price reduction by close to 10%, and mobile penetration by over 3% after two years.
Mobile number portability	The introduction of mobile portability has a positive effect of increasing mobile investment by close to 11%, network coverage by 11%, price reduction by approximately 6%, and mobile penetration by 2% after two years

Source: Katz, R. and Jung, J. (2021). *The impact of policies, regulation, and institutions on ICT sector performance*. ITU, International Telecommunication Union

GIVEN THE DYNAMIC NATURE OF CAUSALITY, THE POSITIVE IMPACT FROM POLICY AND INSTITUTIONAL REFORMS WILL TRANSLATE INTO FURTHER GAINS BEYOND A SINGLE TIME PERIOD

DYNAMIC ECONOMIC GAINS AFTER A POLICY REFORM IN PERIOD T



Source: Katz, R. and Jung, J. (2021). *The impact of policies, regulation, and institutions on ICT sector performance*. ITU, International Telecommunication Union.



THE RESULTS ARE POWERFUL IN TERMS OF INFORMING POLICY DECISIONS

- Regulators and Policy-makers alike should assess the quality of the institutional framework guiding industry operations and examine whether some of the policies found to be critical in promoting an improvement of performance are in place
- Even if they have been adopted, it is important to examine the policies in detail to determine how much they meet some of the international best practices



COLUMBIA INSTITUTE FOR TELE-INFORMATION

For further information please contact:

Raul Katz, raul.katz@teleadvs.com, +1 (845) 868-1653

Telecom Advisory Services LLC
139 West 82nd Street, Suite 6D
New York, New York 12581 USA

