

ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

Policies to Make the Most of Intellectual Property Protection (More than just another bright idea)

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(Views expressed do not necessarily reflect those of the OECD
or the governments of its member countries or GEM – Sciences Po)

Outline of Presentation

- Experience with IPR Reform 1990-2005
- Complementary Policies – Creating a Sound Basis for Business Development
- Conclusions



Experience with IPR reform: 1990 - 2005

IPR Reform:

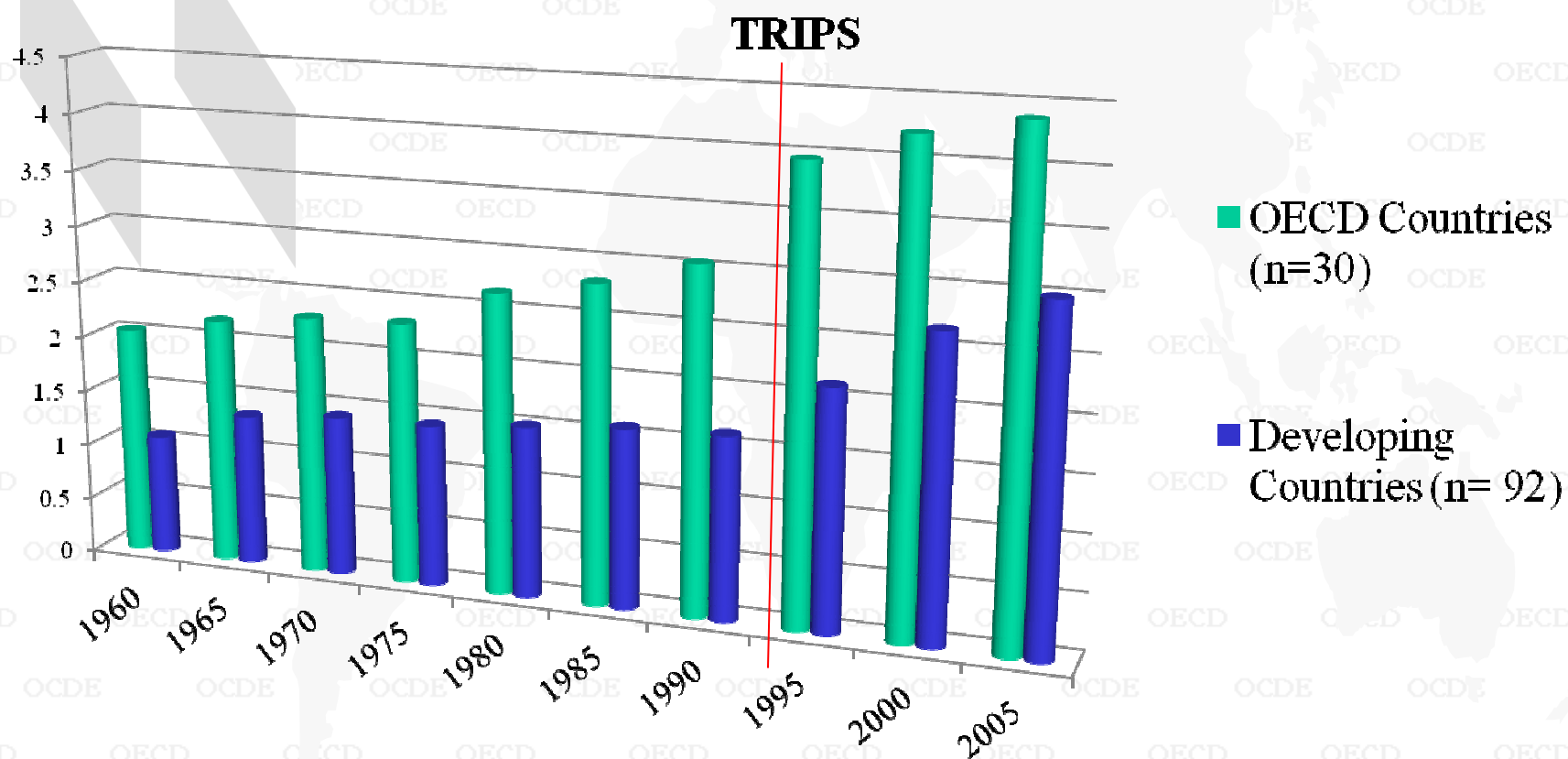
Why a special focus on IPRs?

- Intellectual property (IP) - say, a patent - can be made available **simultaneously & repeatedly** on a **non-exclusive basis** to multiple users; often **low marginal cost**
- Given the nature of IP, **innovators face a challenge to appropriate the economic benefits** of their ideas.
- Governments may grant appropriate IPR protection to assist innovators & **provide incentives for innovation & IP dissemination (both proprietary & open).**
- **Markets boost incentives to innovate:** international accords recognise IP holders' right to license, rent, assign
- **Counterfeits & piracy: fight abuse** that weakens incentives

OECD studies employing IPR indices

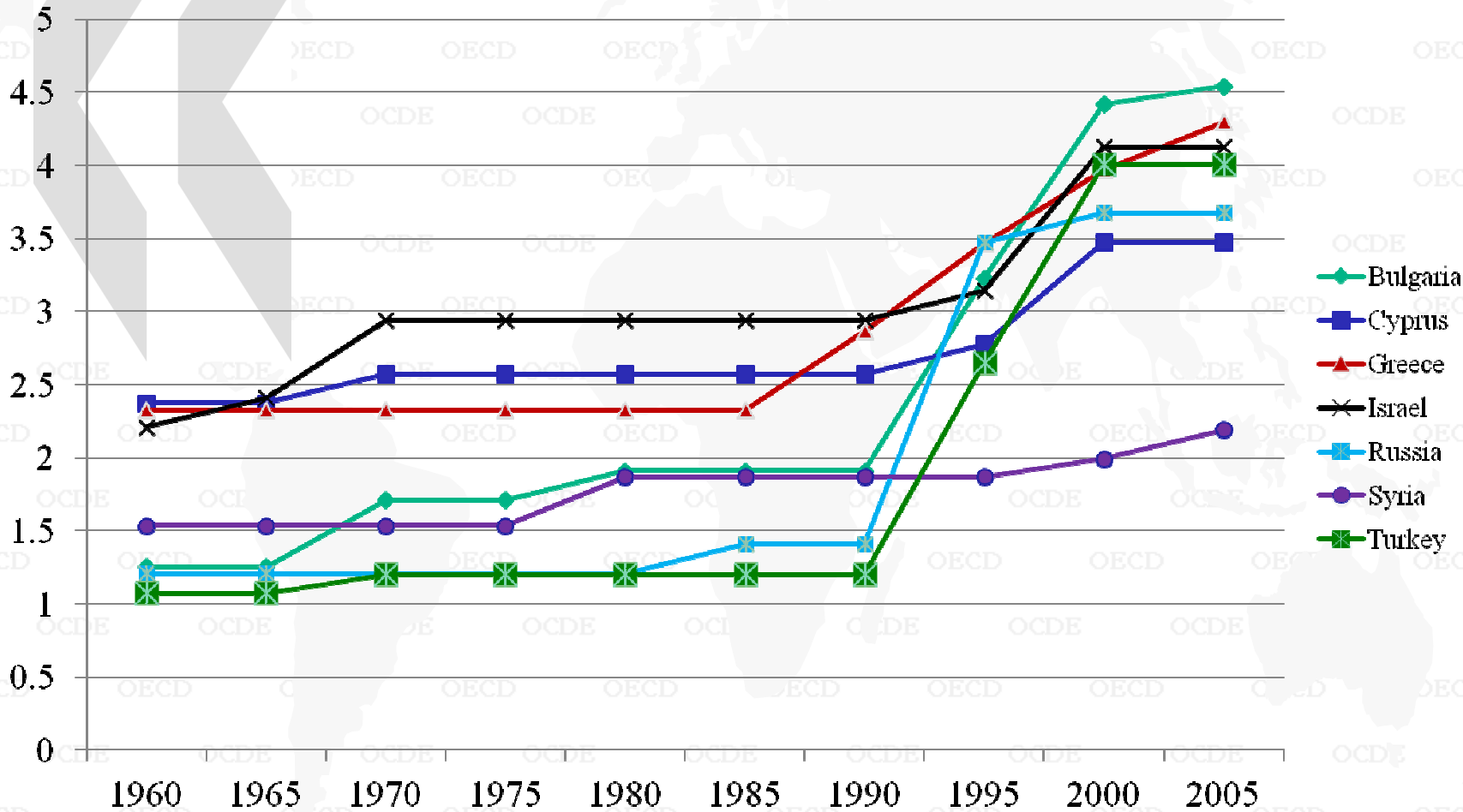
- Several OECD studies use indices to measure IPR strength, based on work done in co-operation with Walter Park, American University
- Patent Rights Index
 - membership in international treaties
 - coverage
 - restrictions on rights
 - enforcement provisions
 - duration of protection
- Similar indices exist for copyright and trademarks

Index of Patent Rights Based on laws on the Books (0 = weak, 5 = strong)



Source data: Walter Park, from Park and Lippoldt (2008)

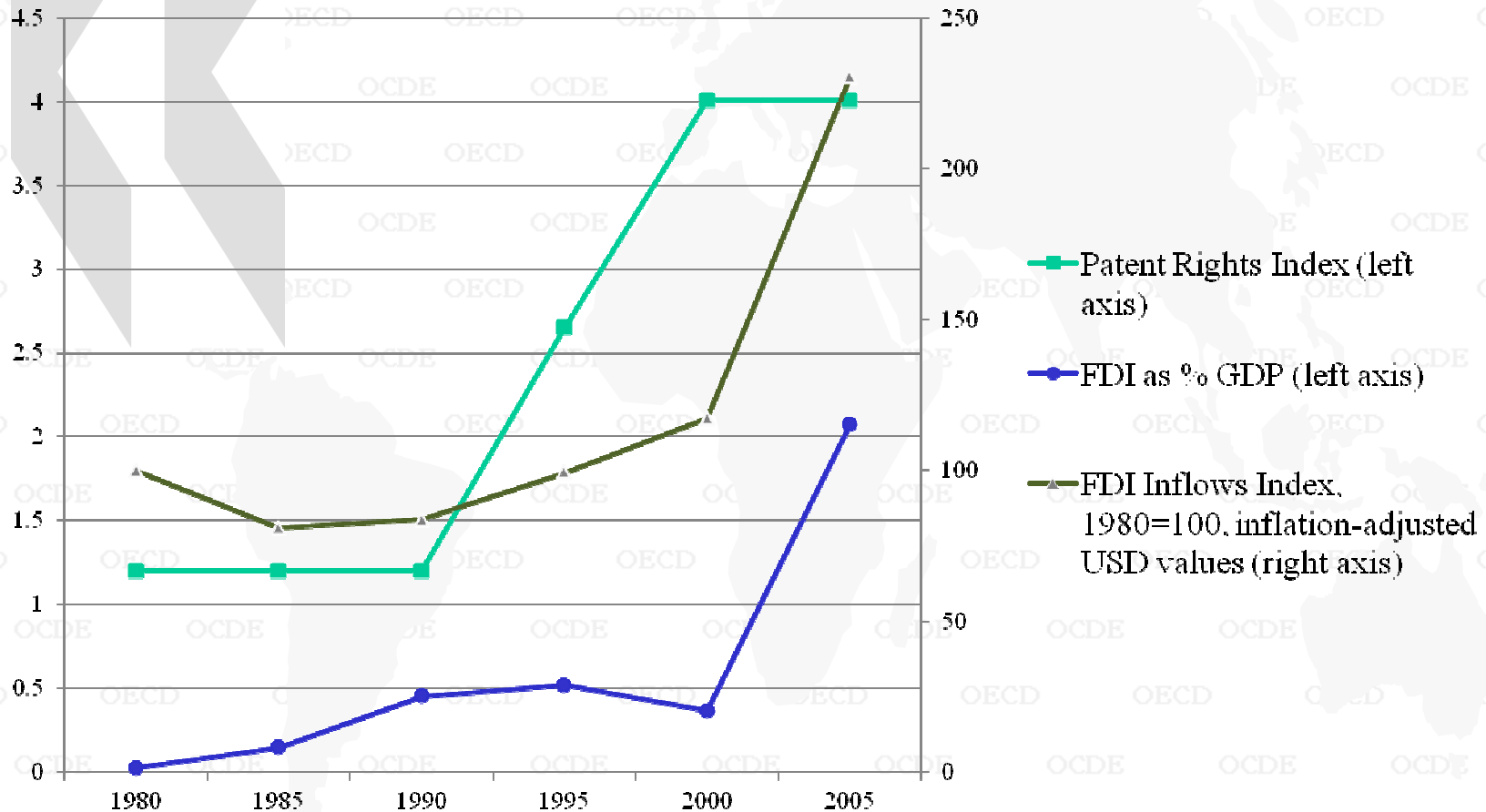
Index of Patent Rights: Neighbourhood of Turkey



NB, 2005 OECD avg = 4.4

Source data: Park and Lippoldt (2008)

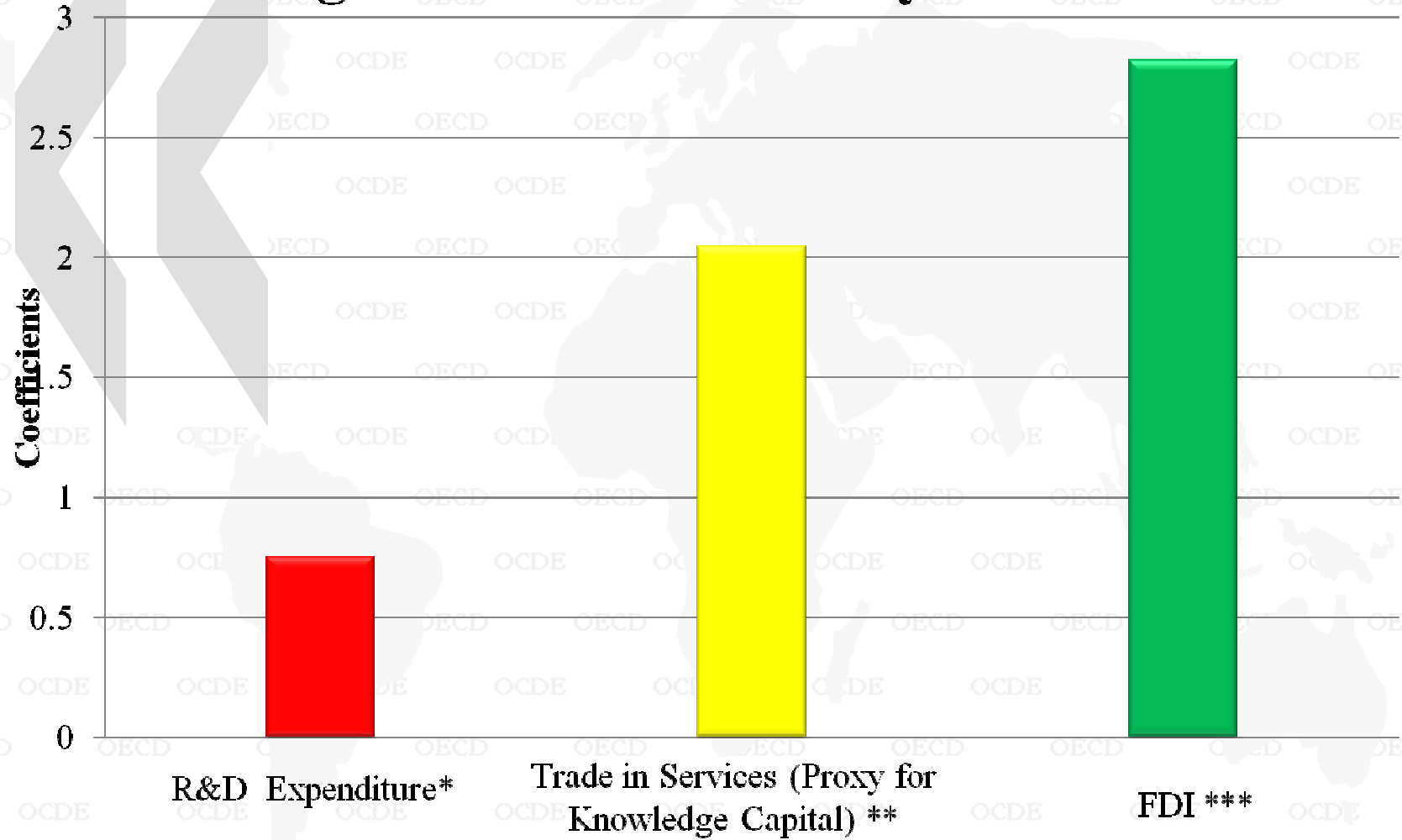
Turkey: Patent Rights Index & FDI



NB, 2005 OECD avg PRI = 4.4;
(2008)

Source data: Park and Lippoldt (2008) and World Bank WDI

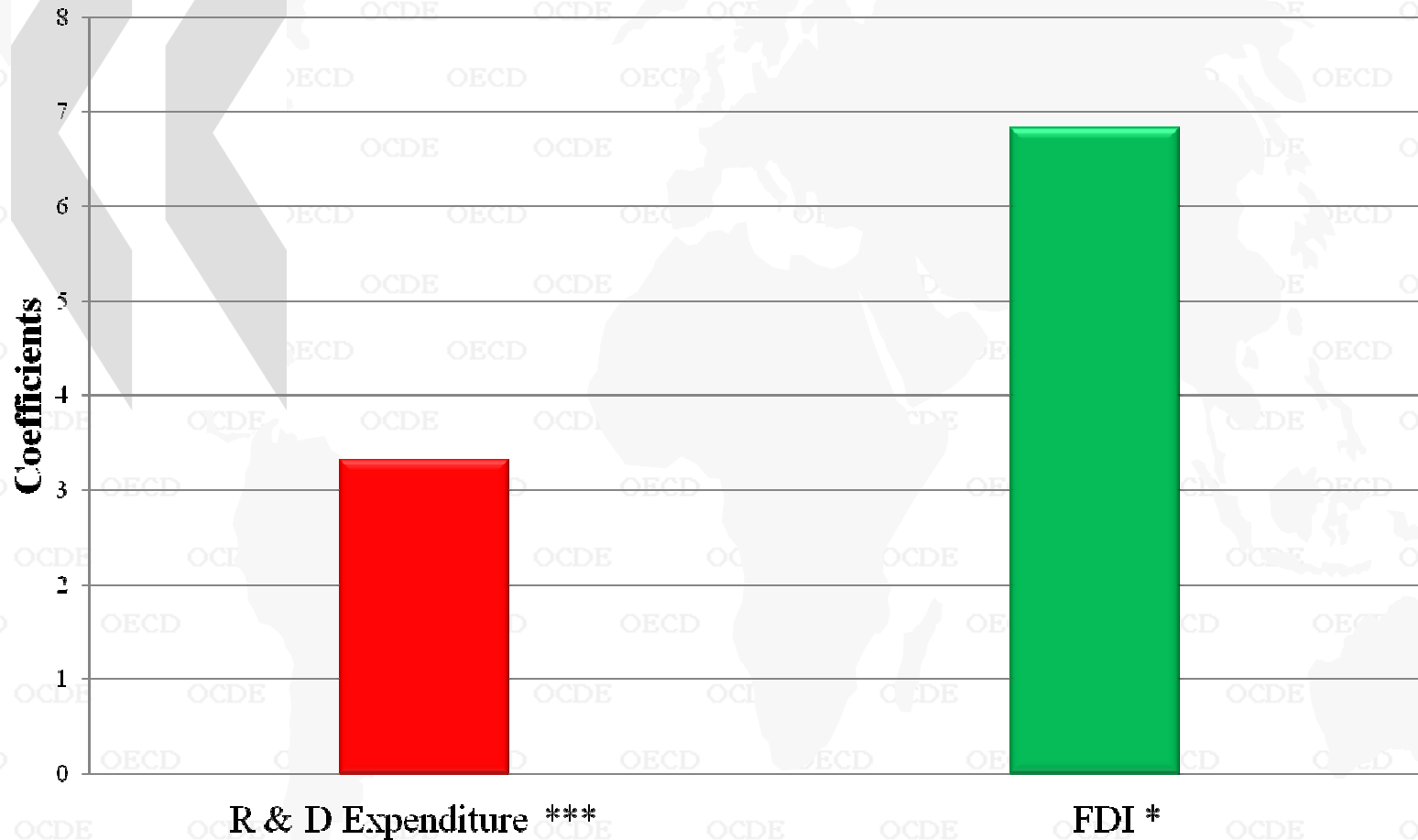
Relationship of a 1% change in the Patent Rights Index to other key indicators



Notes: variables entered in regression as natural logarithms
 Number of observations=113
 Standard Errors: *p<0.1 **p<0.05 *** p<0.01

Source: Cavazos, Lippoldt, and Senft (2010)

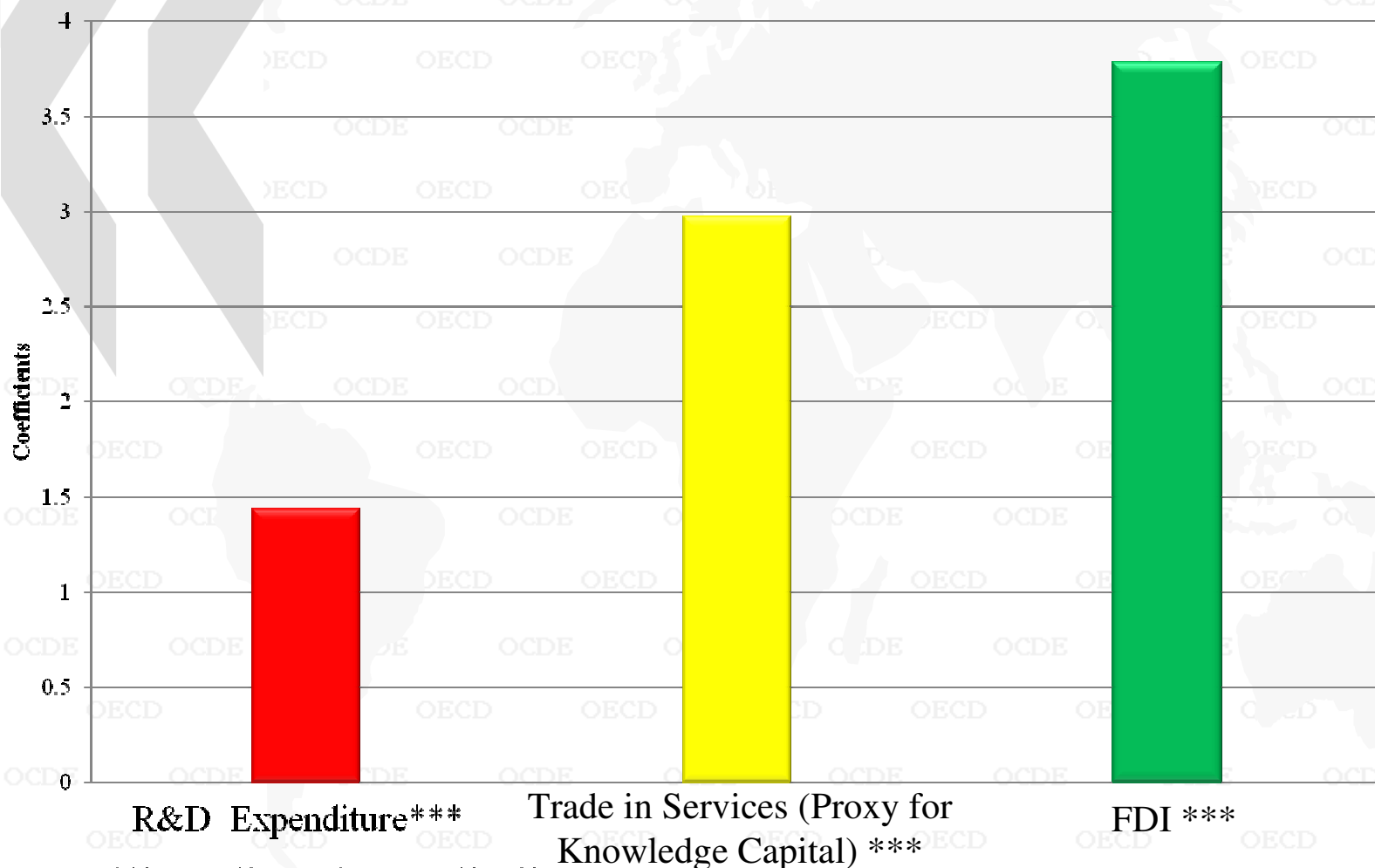
Relationship of a 1% change in the Copyright Index to other key indicators



Notes: variables entered in regression as natural logarithms
Number of observations: 108
Standard Errors: * $p < 0.1$ ** $p < 0.05$ *** $p < 0.01$

Source: Cavazos, Lippoldt, and Senft (2010)

Relationship of a 1% change in the Trademark Rights Index to other key indicators



Notes: variables entered in regression as natural logarithms

Number of observations: 92

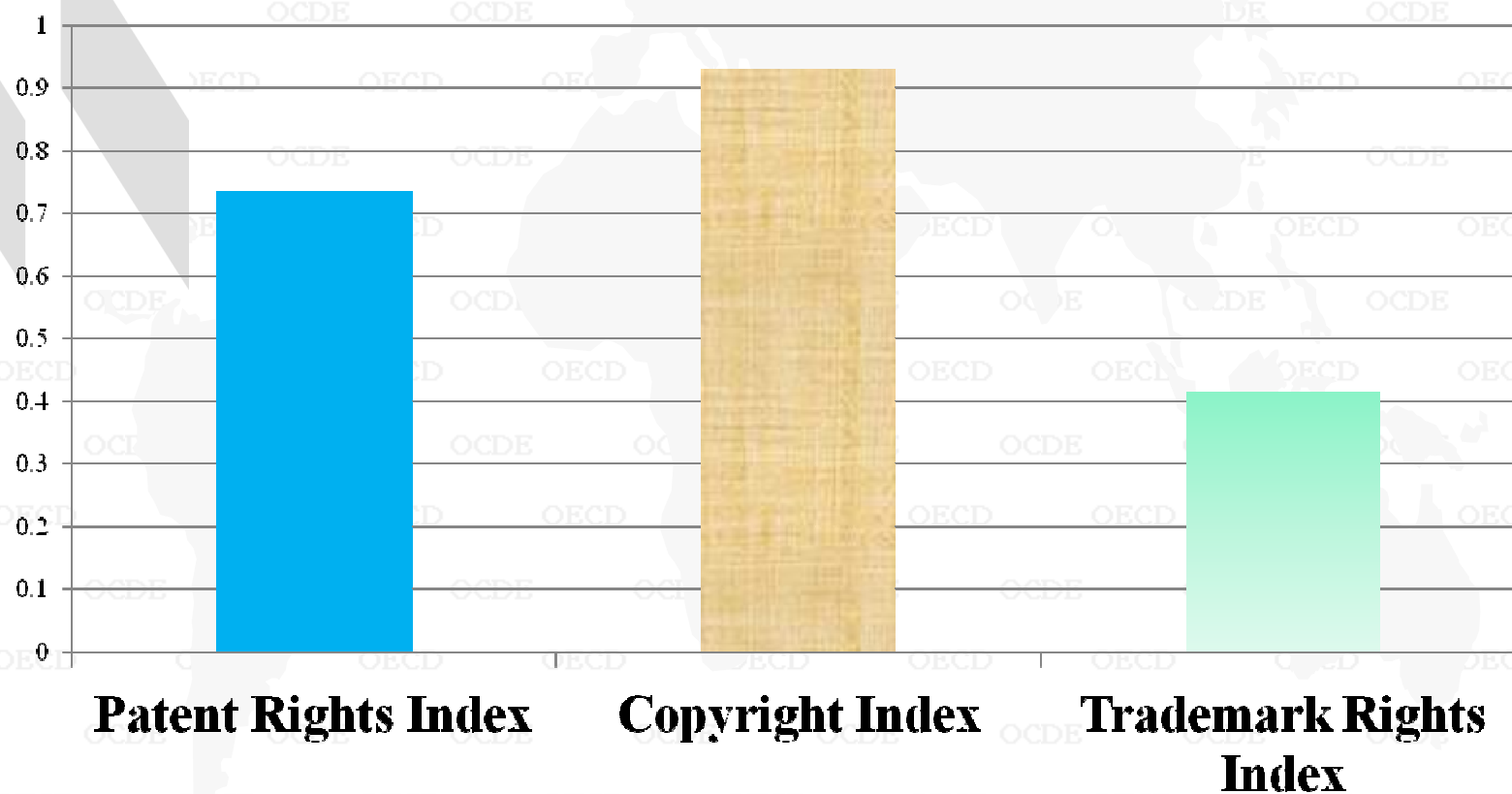
Standard Errors: * $p < 0.1$ ** $p < 0.05$ *** $p < 0.01$

Source: Cavazos, Lippoldt, and Senft (2010)

WB Technology Achievement Index 1990-2000

- Components:
 - Innovation (e.g., patents, journal articles)
 - Technological adaptive capacity (e.g., human capital)
 - Channels of technology diffusion (e.g., scale of licensing)
 - Diffusion of recent technologies (e.g., Internet users)
 - Diffusion of old technologies (e.g., electric consumption, tractors per 100 hectares)

Influence of 1% Change in IPR Protection on Technological Achievement, HICs, 1990-2000



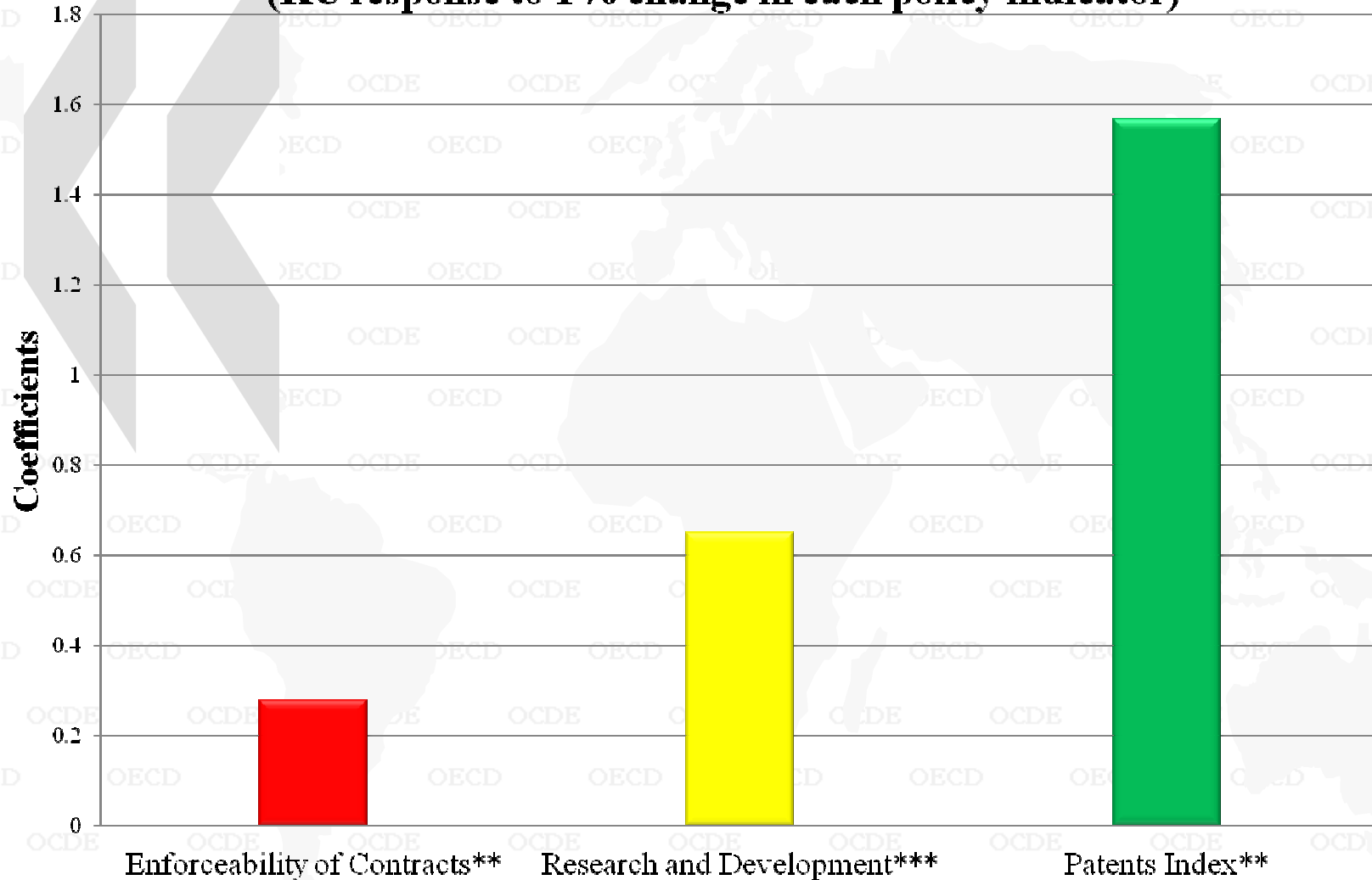
Source: Cavazos and Lippoldt (2010, forthcoming) from Conference on Productivity in East Asia, KPC, Seoul.



Complementary Policies – Creating a Sound Environment for Business Development

1990-2005

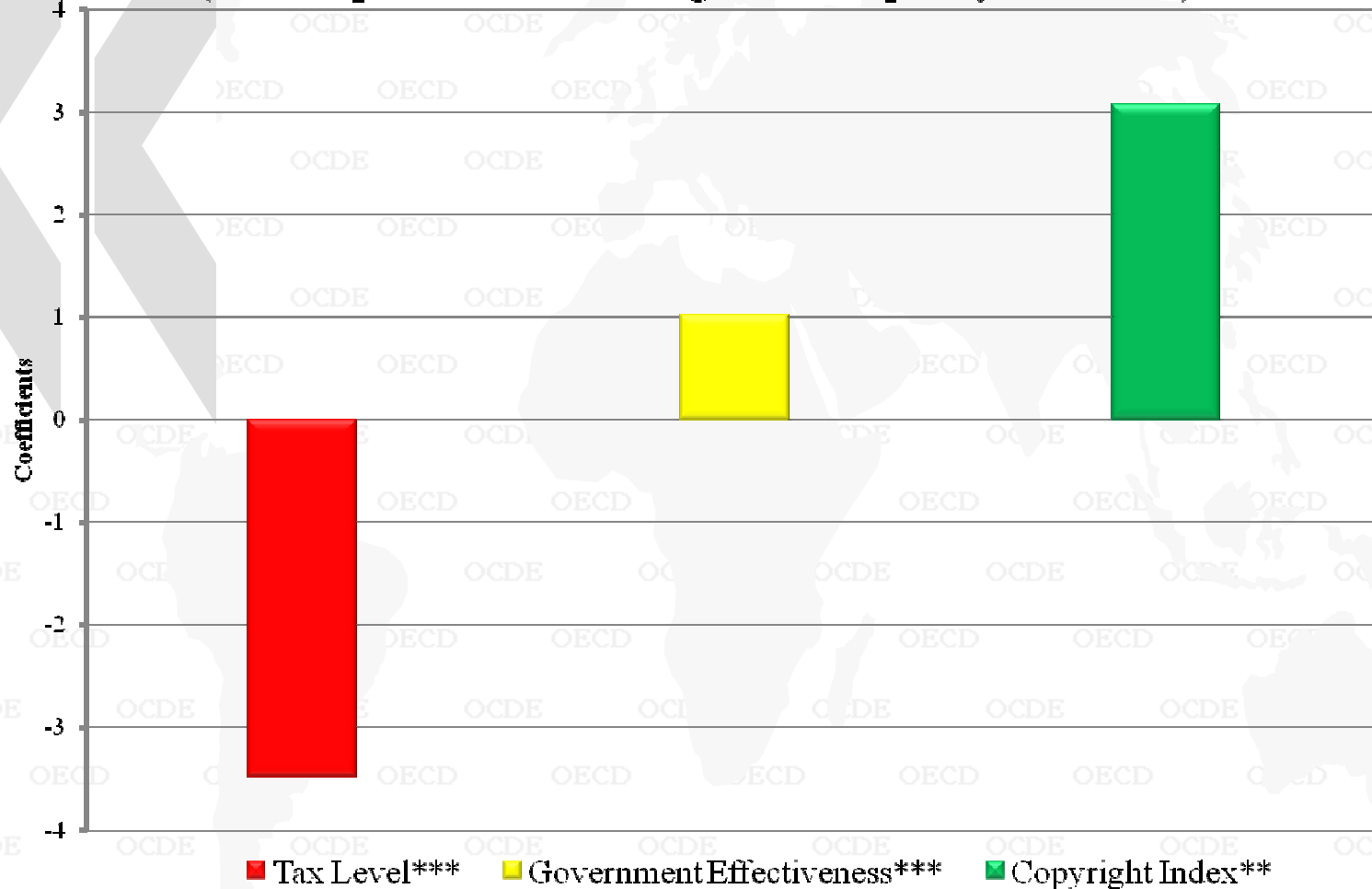
Complementary Policies for Knowledge Capital Development (KC response to 1% change in each policy indicator)



Notes: variables entered in regression as natural logarithms
 Number of observations: 87
 Standard Errors: *p<0.1 **p<0.05 *** p<0.01

Source: Cavazos, Lippoldt, and Senft (2019)

Complementary Policies for FDI Development (FDI response to 1% change in each policy indicator)



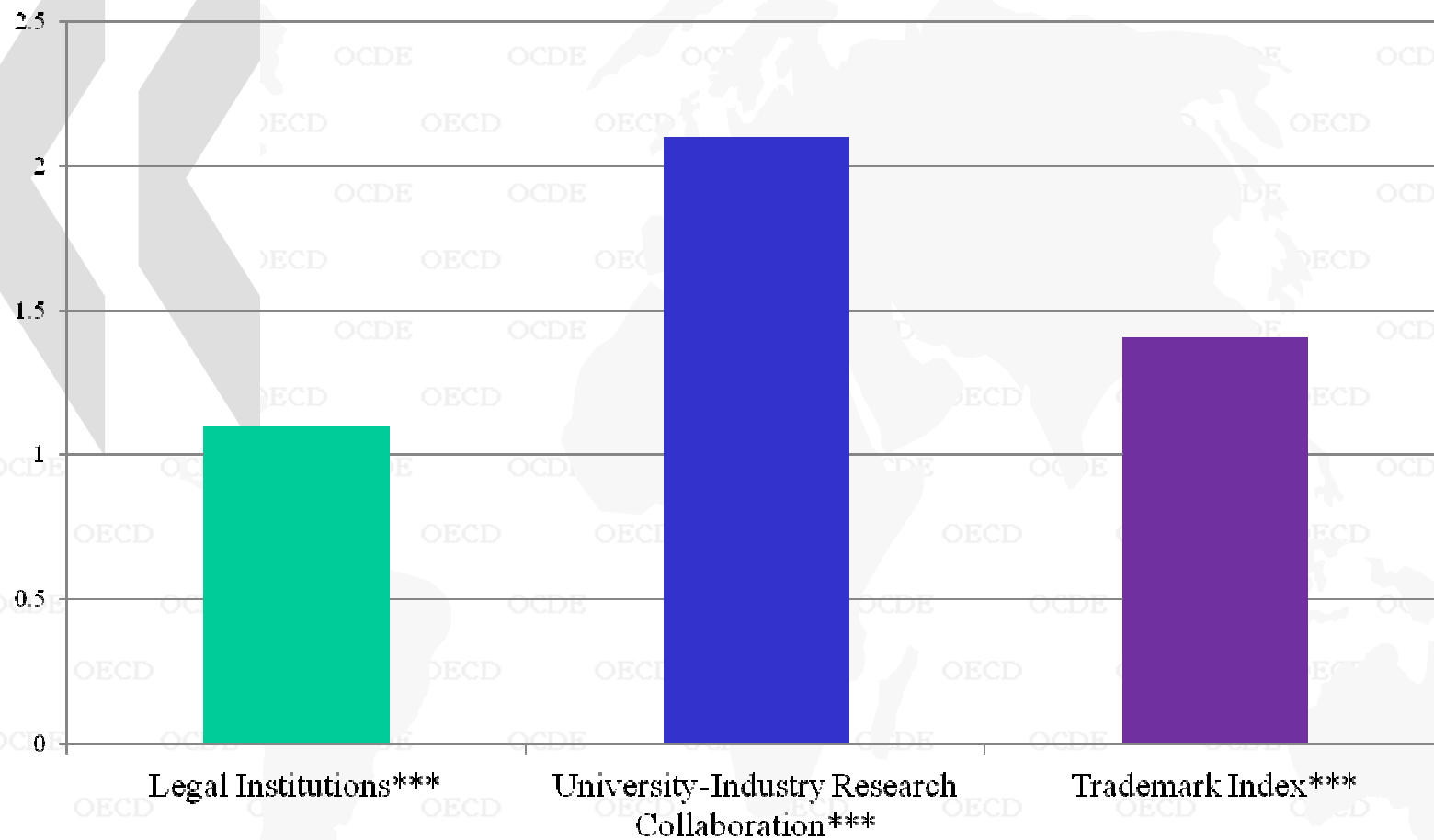
Notes: variables entered in regression as natural logarithms

Number of observations: 87

Standard Errors: * $p < 0.1$ ** $p < 0.05$ *** $p < 0.01$

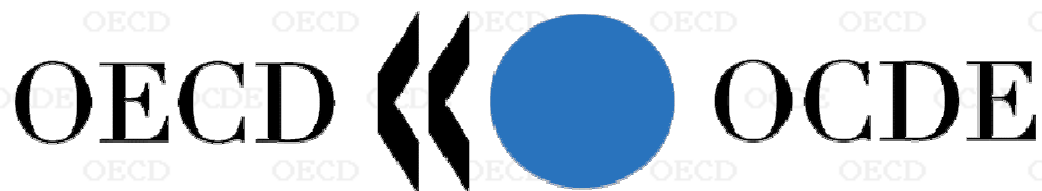
Source: Cavazos, Lippoldt, and Senft (2010)

Complementary Policies for R&D Expenditure (R&D response to 1% change in each policy indicator)



Notes: variables entered in regression as natural logarithms
 Number of observations: 87
 Standard Errors: *p<0.1 **p<0.05 *** p<0.01

Source: Cavazos, Lippoldt, and Senft (2010)



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Promoting FDI: Positive Policy Interactions

Policy Variable	Countries with Low Income per capita	Countries with Medium Income per capita	Countries with High Income per capita
FREE TRADE & PATENT PROTECTION		$\sqrt{\quad}^*$	
DOING BUSINESS & PATENT PROTECTION	$\sqrt{\quad}^{***}$		$\sqrt{\quad}^*$
PHYSICAL PROPERTY RIGHTS & PATENT PROTECTION	$\sqrt{\quad}^*$		
GOVERNMENT EFFECTIVENESS & PATENT PROTECTION	$\sqrt{\quad}^*$		

Standard Errors: *p<0.1 **p<0.05 *** p<0.01
 Source: Cavazos, Lippoldt, and Senft (2010)

Summing Up Various Analyses: List of Significant Policy Complements

- IPR protection: patents, copyright, trademarks
- Physical property rights
- Legal effectiveness; enforceability of contracts
- Tax levels
- Government effectiveness
- Free trade
- R&D expenditure
- University-Industry research collaboration

Conclusions

- An appropriate degree of IPR protection can *help* deliver R&D, knowledge capital, FDI & eventually technological achievement & productivity growth
- IPRs central to the ability of rights holders to capitalise on their innovation & for others to access IP; but complementary policies needed.
- Policies for sound business environment are key.
- Innovation is branching & dynamic – care required not to unduly constrain or prejudge technology, competition, entrepreneurship



Thank you for your attention.

<http://www.oecd.org/trade>