

SECTION 6

How Can This Atlas Be Used?

This Atlas is meant to help countries find paths to prosperity. It does so, first, by developing a framework that clarifies what economic development requires, namely, the accumulation of productive knowledge and its use in both *more* and *more complex* industries. Second, The Atlas allows the user to identify development paths that make it easier to coordinate the accumulation of new productive capabilities with the development of the new industries that need them.

The Atlas does this by measuring several elements of the puzzle. It assesses the current state of productive knowledge in any given country, through the Economic Complexity Index. It measures how steep the way forward is, as captured by the Complexity Outlook Index. It describes where the country is in the product space, clarifying the diversification options a country faces. The Atlas describes the neighborhood each country finds itself in by pointing out which products are in the “adjacent possible”, how complex they are and how their development would unlock further opportunities. The country pages included in this Atlas provide a concise look at all these aspects and the Observatory of Economic Complexity permits a deeper exploration online.

This Atlas is, one may say, one more publication that calls

attention to an interpretation of the world that, according to the authors, is an important contribution to achieving some commonly shared goal. Other exemplars include freedom, human development, solvency, business environment, competitiveness, governance, educational quality, and many others.

Indexes generally do three things. They benchmark performance vis-à-vis the best achievers, provide intermediate targets on a path towards a longer-term goal, and offer a guide to action.

As a benchmark, the critical question is whether the index is able to adequately represent the information that it wants to capture. In this respect, in the Economic Complexity Index (ECI), countries improve by increasing the number and complexity of the products they successfully export. In the Complexity Outlook Index they improve by developing activities that are in parts of the product space that are more connected and that have more complex products. These indicators are based on real data and not on opinion surveys or *de jure* provisions that may not be important in practice. They have the limitations of the dataset they use: international trade data at a certain level of disaggregation that do not include tradable services or other activities that are not exported.

As an appropriate intermediate target on a path towards a longer-term goal, the question is whether improvements



in the indicator can be expected to lead to the ultimate goal. If the goal is to accelerate the pace of economic development, as captured by the growth in GDP per capita, then the Economic Complexity Index and the Complexity Outlook Index do a much better job than the World Economic Forum's Global Competitiveness Index or the World Bank's Governance, Financial Development or Education Indicators. The empirical evidence presented in this Atlas suggests that focusing on improving the complexity indicators is a more reliable way to achieve the ultimate goal of faster economic development.

As a guide to action, the question is whether countries can derive recommendations that can offer a clear plan of action to improve the intermediate target. In this respect, indexes differ greatly. At one extreme, the World Bank's Doing Business Index is based on the statutory requirements to perform certain functions. Countries can pretty much figure out which statutory changes will improve their performance on the intermediate target. If a country streamlines the procedure to register a business, it will perform better on the index at the next calculation. Whether this change will actually have any significant economic effect depends on the strength of the connection between the index and the ultimate goal.

On other questions though, such as improving educational quality, the mapping is not so clear. It is hard to know precisely which changes in current practice would be reflected in better performance. Should schools reduce class size, improve teacher training, increase nutritional assistance or implement standardized exams? Should a country trying to improve rule of law direct its resources to deploying more policemen in the streets, to revamp the judicial system, or to revise their gun laws?

It is important to understand the characteristics of the complexity indexes as guides to action. In the Economic Complexity Index (ECI), countries improve by increasing the number and complexity of the products they successfully export. In the Complexity Outlook Index they do better if they move closer to parts of the product space that are denser and that have more complex products. If they do so, they will find it easier to achieve subsequent increases in complexity and growth.

But how can countries achieve these changes? As a guide to action, the complexity indexes define the intermediate goals but not the actions that lead to them.

What a country needs to do to increase its complexity is highly specific to its context. The "adjacent possible" of each country is different and the missing productive capabili-

ties that limit movement to any new industry in the product space will also be country-specific. In some instances, the provision of better seeds could cause an agricultural revolution; improved infrastructure could open up new possibilities for light manufacturing; clarifying property rights and human subject regulations may allow for participation in pharmaceutical research; changing the responsiveness of training institutions to the needs of new sectors may unleash their growth. The list goes on. Whether improvements in any of these areas will trigger the desired outcomes in a particular country depends on the presence of the other complementary capabilities that are required for those industries to grow. Countries differ greatly in this dimension. The plan of action must, therefore, reflect this specificity.

The policy message for most countries is clear: create an environment where a greater diversity of productive activities can thrive, paying particular attention to activities that are relatively more complex or that open up more opportunities. Countries are more likely to succeed in this agenda if they understand the trade-offs between focusing on products that are close to their current set of productive capabilities vs. focusing on those that may be a bit further away but that offer opportunities for higher

complexity or for subsequent diversification and growth. Nearby products facilitate the identification and provision of missing capabilities, a task that becomes increasingly difficult as the target industry is further away. We therefore accompany our indexes with maps that help chart the opportunities and rewards available for each country. These are maps that are specific to each country and do not represent one-size-fits-all development advice.

These maps can also be used by firms that are searching for a new location or that are looking to diversify into other products. These maps carry information about the productive capabilities that are present in a given country and the degree to which these capabilities are relevant to support other industries.

A map does not tell people where to go, but it does help them determine their destination relative to their current location, and chart their journey towards it. A map empowers by describing opportunities that would not be obvious in the absence of it. If the secret to development is the accumulation of productive knowledge, at a societal rather than individual level, then the process necessarily requires the involvement of many explorers, not just a few planners. This is why the maps we provide in this Atlas are intended for everyone to use. ●

This is a section of [doi:10.7551/mitpress/9647.001.0001](https://doi.org/10.7551/mitpress/9647.001.0001)

The Atlas of Economic Complexity

Mapping Paths to Prosperity

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Citation:

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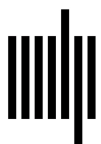
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DOI: 10.7551/mitpress/9647.001.0001

ISBN (electronic): 9780262317719

Publisher: The MIT Press

Published: 2014



The MIT Press

THE ATLAS OF ECONOMIC COMPLEXITY MAPPING PATHS TO PROSPERITY

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ACKNOWLEDGMENTS

The research on which this Atlas is based began around 2006 with the idea of the product space. In the original paper published in *Science* in 2007, we collaborated with Albert-Laszlo Barabasi and Bailey Klinger. The view of economic development of countries as a process of discovering which products a country can master, a process we called self-discovery, came from joint work with Dani Rodrik and later also with Jason Hwang. We explored different implications of the basic approach in papers with Dany Bahar, Bailey Klinger, Robert Lawrence, Francisco Rodriguez, Dani Rodrik, Charles Sabel, Rodrigo Wagner and Andrés Zahler. Throughout, we received significant feedback and advice from Lant Pritchett, Andrés Velasco and Adrian Wood. We would also like to thank Sarah Chung and Juan Jimenez for their contributions to the 2011 edition of *The Atlas*.

We want to thank the dedicated team that runs Harvard's Center for International Development (CID) for helping bring *The Atlas* to life: Marcela Escobari, Jennifer Gala, Andrea Carranza, Melissa Siegel, Victoria Whitney, Adriana Hoyos, Erinn Wattie and Anne Morriss. We are also indebted to the NeCSys team at the MIT Media Lab and to Sandy Sener. We thank the leadership at Harvard Kennedy School and the MIT Media Lab who were early enthusiasts of our work. The editorial design of this book was produced by Draft Diseño (www.draft.cl). We would like to especially acknowledge the contributions of Francisca Barros and Draft Diseño team.

2013 Center for International Development, Harvard University

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This book was printed and bound in Malaysia.

Library of Congress Cataloging-in-Publication Data.

The atlas of economic complexity: mapping paths to prosperity / edited by Ricardo Hausmann and César A. Hidalgo.

p. cm
Includes bibliographical references.

ISBN 978-0-262-52542-8 (pbk. : alk. paper)

1. Technological innovation—Economic aspects. 2. Industrial management—Economic aspects. 3. Economic development. 4. Gross domestic product. I. Hausmann, Ricardo. II. Hidalgo, César A. (Professor)

HC79.T4A85 2013

330.1—dc23

2013010258

10 9 8 7 6 5 4 3 2 1

