Advanced Data Analysis in Python: Computing the ProductSpace

# Advanced Data Analysis using Python

<https://notes.quantecon.org/submission/5b32e9b0b9eab00015b89f7d>

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In this notebook we demonstrate a few of the Python ecosystem tools that enable **research** in areas that can be difficult to do using traditional tools such as Stata that are typically fit-for-purpose tools.

The agility of a full programming language environment allows for a high degree of flexibility and the Python ecosystem provides a vast toolkit to remain productive.

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1. The Product Space Network (Hidalgo, 2007)
2. Quick introduction to Networks and Graphs
3. Replicate Product Space Proximity Measure
   * Compute Revealed Comparative Advantage and McpMcp matrices [**Tools: Pandas**](https://notes.quantecon.org/submission/5b32e9b0b9eab00015b89f7d) (786 Products, 200+ Countries, and 53 Years)
   * Compute Proximity Matrices (*ϕpp*′) and make this code run fast [**Tools: Pandas, Numpy, Numba, Dask**](https://notes.quantecon.org/submission/5b32e9b0b9eab00015b89f7d)
   * (Extension) Building Networks and Plotting Product Space Network Diagrams - albiet not as fancy [**Tools: NetworkX**](https://notes.quantecon.org/submission/5b32e9b0b9eab00015b89f7d)

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## 5.2.2 The product space methodology

<https://www.coursera.org/lecture/global-statistics/5-2-2-the-product-space-methodology-ADVv2>

De la lección

Export Potential Assessment (ITC)

This module focuses on trade indices developed by the International Trade Centre, the Export Potential Index (EDI) and the Product Diversification index (PDI).

Frictions often create a gap between what a country could export and what it does export to markets around the world. Trade advisers could better address these frictions and help firms realize greater exports if they knew exactly which products and markets offer best chances. During this week, you will learn about the Export Potential Assessment (EPI and PDI), which indicates products, sectors and markets for trade development activities for over 200 countries and 4,000 products. Based upon an assessment of the exporting country’s supply capacity, the target market’s demand and tariff conditions as well as the bilateral links between the exporting country and the target market, it provides a ranking of untapped opportunities.

[Mostrar menos](https://www.coursera.org/lecture/global-statistics/5-2-2-the-product-space-methodology-ADVv2)

[5.2.1 Overview of PDI, motivation and data treatment 5:27](https://www.coursera.org/lecture/global-statistics/5-2-1-overview-of-pdi-motivation-and-data-treatment-EfLVF)

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[5.2.3 Dimensions of the index: supply and demand sides, and results7:54](https://www.coursera.org/lecture/global-statistics/5-2-3-dimensions-of-the-index-supply-and-demand-sides-and-results-7HAFg)

[5.2.4 User perspective2:33](https://www.coursera.org/lecture/global-statistics/5-2-4-user-perspective-UKZSf)

<https://en.wikipedia.org/wiki/The_Product_Space#Source_data>

<https://briandew.wordpress.com/2016/06/15/trade-network-analysis-why-centrality-matters/>