Pillars of Prosperity

The Political Economics of Development Clusters

Chapter 8: Lessons Learned

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Outline

1. What We Have Learned
   - Answers to the Three Main Questions
2. The Pillars of Prosperity Index
   - Defining the Index
   - Predicting the Index
3. Where Next?

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Answers to the Three Main Questions

1. What forces shape the building of different state capacities, and why do these capacities vary together?
2. What factors drive political violence in its different forms?
3. What explains the clustering of state institutions, violence, and income?

State capacities

- Complementarities key feature of theoretical framework
  - countries where incumbents have strong motives to invest, e.g., due to strong common interests or cohesive political institutions will see a joint expansion of the two dimensions of the state
  - stagnant institutions where incumbents have feeble motives to build the state
  - possibility of such common roots clearly come out in typology with common-interest, redistributive, and weak states

Political violence

- Roots of violence
  - some coincide with weak motives for investing in the state
  - resource rents or aid can trigger of violence when political institutions are non-cohesive
  - predictions come clearly out in typology with peace, repression and civil war

Development clusters

- How is it that income, institutions and violence may cluster?
  - they have some determinants in common
    recall the Anna Karenina matrix
  - a set of positive feedback loops between central outcomes raise the possibility of virtuous and vicious circles
  - cf. Myrdal's conception of development

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2 The Pillars of Prosperity Index
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3 Where Next?

The Pillars of Prosperity Index

- Earlier summary theoretical and abstract
  - alternative empirical and concrete approach
  - define index to highlight central outcomes in analysis
  - predict index to highlight central determinants
  - exercise is alternative to initial indexes of weak/fragile states with unclear distinctions between causes and symptoms
  - needs to be interpreted properly – a simple illustration, no more
- Which outcomes?
  - our analysis has stressed
    - ★ building of extractive and productive parts of the state
    - ★ (absence of) political violence
    - ★ income

Measurement

- Fiscal and legal capacity.
  - revenue share of income tax in 1999;
    have (IMF) data for 129 countries – denote by τ_i
  - Doing Business rank of contract enforcement in 2006;
    have (World Bank) data for 173 countries – π_i
- Absence of government repression and civil war
  - share of years 1976 (independence, if later)-2006 in civil war;
    have (ACD) data for 170 countries – c_i
  - share of years with repression (purges) 1976-2005;
    have (Banks) data for 195 countries – r_i
- Income
  - (log of) GDP per capita (constant international prices) in 2006;
    have (PWT) data for 186 countries – y_i

Weighting

- Any weighting scheme arbitrary
  - use equal weights
  - state capacity $s_i = \frac{\tau_i + \pi_i}{2}$
    - ★ if missing, set $s_i = \tau_i$ or $s_i = \pi_i$
  - peacefulness $p_i = 1 - \frac{r_i}{2} - c_i$
- Pillars of prosperity index for country i

$$pop_i = \frac{s_i + p_i + y_i}{3}.$$

  - again, allow one item to be missing

The resulting index – Figure 8.1, Table 8.1

- Availability
  - can be defined for 184 countries – show results for 150 countries where our predictive variables exist (most excluded countries are small island states)
- Display
  - ranking from bottom to top in table format
  - deciles in "heat map" format

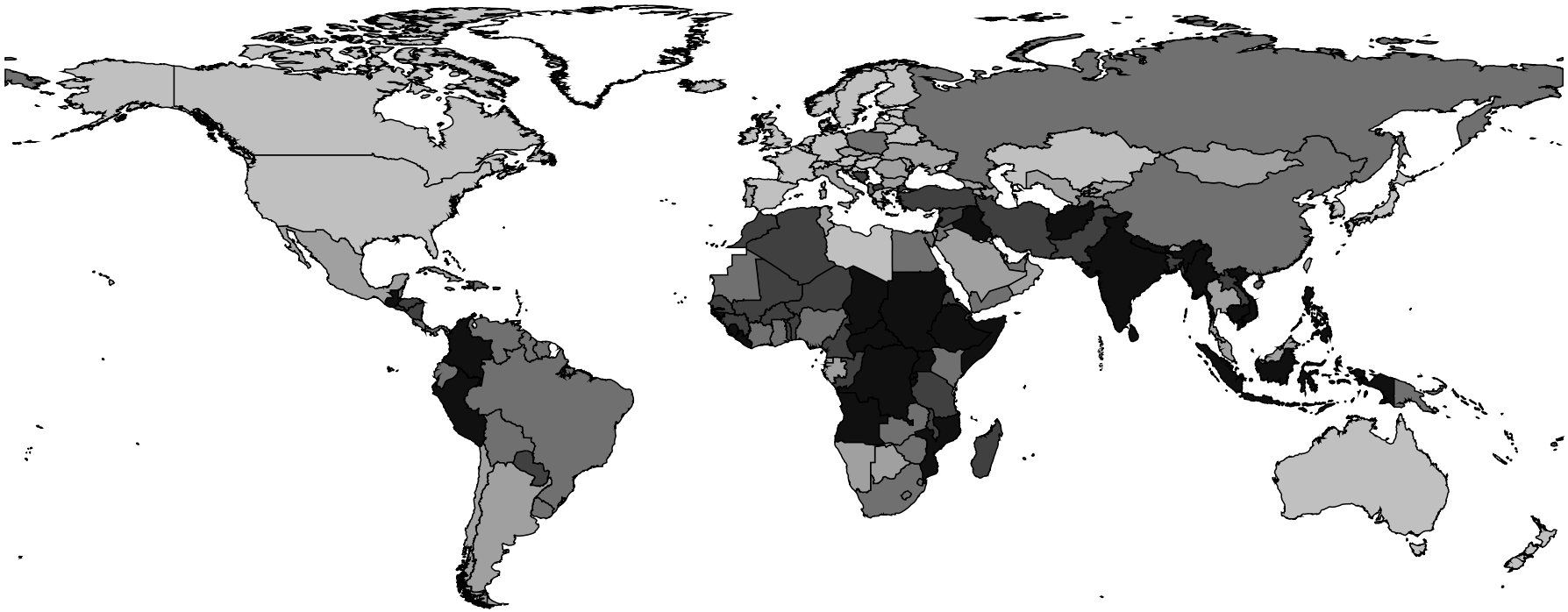


Figure 8.1 Pillars of Prosperity Index

Table: Table 8.1 Pillars of Prosperity Index and Components

country	Index Value	Peacefulness	State Capacity	Income
Zaire	0.010	N/A	0.017	0.004
Afghanistan	0.084	0.081	0.052	0.118
Sudan	0.204	0.194	0.092	0.326
India	0.236	0.065	0.216	0.426
Myanmar	0.240	0.032	0.447	N/A
Uganda	0.261	0.145	0.422	0.216
Somalia	0.263	0.484	N/A	0.042
Ethiopia	0.267	0.129	0.479	0.194
Angola	0.275	0.129	0.237	0.460
Burundi	0.298	0.516	0.278	0.100
Chad	0.303	0.323	0.232	0.354
Colombia	0.304	0.000	0.350	0.563
Mozambique	0.308	0.484	0.114	0.326
Liberia	0.315	0.629	N/A	0.000
Iraq	0.320	0.226	0.249	0.485
Cambodia	0.340	0.323	0.324	0.372
Guatemala	0.341	0.339	0.164	0.520
Philippines	0.356	0.000	0.603	0.464
Guinea-Bissau	0.375	0.919	0.116	0.089
Sri Lanka	0.386	0.290	0.351	0.516
Sierra Leone	0.386	0.677	0.189	0.293
Indonesia	0.403	0.226	0.495	0.490
Lebanon	0.412	0.516	0.150	0.569
Nepal	0.427	0.645	0.327	0.308
Peru	0.428	0.371	0.389	0.525

Table: Table 8.1 Pillars of Prosperity Index and Components (continued)

country	Index Value	Peacefulness	State Capacity	Income
Central African Republic	0.440	0.982	0.182	0.155
Rwanda	0.441	0.645	0.470	0.208
Vietnam	0.441	N/A	0.462	0.420
Morocco	0.450	0.548	0.299	0.504
Mali	0.465	0.968	0.192	0.234
Turkey	0.469	0.242	0.601	0.564
Bangladesh	0.472	0.984	0.094	0.339
El Salvador	0.476	0.565	0.361	0.504
Benin	0.480	1.000	0.192	0.248
Madagascar	0.485	1.000	0.295	0.159
Laos	0.487	0.968	0.162	0.331
Niger	0.495	1.000	0.325	0.159
Algeria	0.496	0.484	0.473	0.532
Togo	0.496	1.000	0.327	0.162
Cameroon	0.501	1.000	0.137	0.367
Burkina Faso	0.502	1.000	0.263	0.242
Pakistan	0.508	0.903	0.205	0.416
Haiti	0.510	0.952	0.314	0.266
Congo	0.511	0.903	0.205	0.425
Senegal	0.516	1.000	0.243	0.304
Lesotho	0.530	0.984	0.269	0.337
Djibouti	0.537	1.000	0.146	0.465
Malawi	0.541	0.984	0.408	0.230
Syria	0.543	0.871	0.369	0.389
Guinea	0.555	1.000	0.236	0.428

Table: Table 8.1 Pillars of Prosperity Index and Components (continued)

country	Index Value	Peacefulness	State Capacity	Income
Paraguay	0.556	0.984	0.209	0.474
Tanzania	0.557	1.000	0.504	0.166
Honduras	0.562	0.984	0.279	0.423
Eritrea	0.563	0.929	0.671	0.090
Nicaragua	0.566	0.645	0.723	0.329
Macedonia	0.566	N/A	0.590	0.543
Iran	0.566	0.532	0.549	0.617
Zimbabwe	0.582	0.855	0.574	0.318
Ivory Coast	0.584	1.000	0.416	0.337
Gambia	0.587	1.000	0.516	0.246
Tajikistan	0.590	0.625	0.780	0.366
Bolivia	0.592	1.000	0.345	0.432
Guyana	0.595	1.000	0.408	0.377
Ghana	0.595	0.968	0.550	0.269
Mauritania	0.600	1.000	0.457	0.344
Egypt	0.603	1.000	0.307	0.503
China	0.607	0.823	0.435	0.563
Kenya	0.612	0.984	0.531	0.321
Albania	0.623	0.968	0.434	0.467
Swaziland	0.623	1.000	0.309	0.560
Zambia	0.626	0.984	0.587	0.307
Jordan	0.628	1.000	0.396	0.486
Panama	0.628	1.000	0.296	0.589
Ecuador	0.629	0.952	0.417	0.519
Uruguay	0.635	0.984	0.266	0.654

Table: Table 8.1 Pillars of Prosperity Index and Components (continued)

country	Index Value	Peacefulness	State Capacity	Income
Dominican Republic	0.638	1.000	0.315	0.598
Brazil	0.639	1.000	0.312	0.605
Nigeria	0.640	0.968	0.620	0.333
South Africa	0.646	0.581	0.738	0.618
Venezuela	0.650	1.000	0.304	0.646
Papua New Guinea	0.657	1.000	0.642	0.330
Fiji	0.663	1.000	0.461	0.527
Costa Rica	0.665	1.000	0.353	0.643
Poland	0.667	0.968	0.358	0.675
Bahrain	0.667	1.000	0.201	0.800
Mauritius	0.672	1.000	0.276	0.739
Russia	0.673	0.498	0.861	0.659
Argentina	0.682	0.935	0.422	0.688
Namibia	0.691	1.000	0.541	0.530
Gabon	0.691	1.000	0.502	0.571
Chile	0.700	0.952	0.424	0.725
Azerbaijan	0.702	0.717	0.809	0.581
Moldova	0.703	1.000	0.688	0.421
Mongolia	0.704	0.984	0.769	0.359
Mexico	0.713	1.000	0.503	0.636
Uzbekistan	0.715	1.000	0.832	0.311
Israel	0.715	1.000	0.370	0.776
Bhutan	0.715	1.000	0.682	0.464
Trinidad & Tobago	0.721	1.000	0.378	0.784
Thailand	0.724	0.984	0.588	0.600

Table: Table 8.1 Pillars of Prosperity Index and Components (continued)

country	Index Value	Peacefulness	State Capacity	Income
Jamaica	0.728	0.984	0.616	0.584
Georgia	0.729	0.813	0.821	0.554
Saudi Arabia	0.732	1.000	0.445	0.752
Kyrgyzstan	0.736	1.000	0.786	0.423
Kuwait	0.738	1.000	0.327	0.888
Tunisia	0.755	1.000	0.654	0.611
Bulgaria	0.758	0.968	0.705	0.602
Italy	0.762	1.000	0.472	0.815
Romania	0.764	0.952	0.746	0.595
Slovenia	0.769	1.000	0.520	0.785
Malaysia	0.777	1.000	0.612	0.720
Botswana	0.785	1.000	0.759	0.595
Slovak Republic	0.790	1.000	0.665	0.706
Oman	0.803	1.000	0.631	0.777
Cuba	0.804	0.984	N/A	0.624
Czech Republic	0.810	1.000	0.676	0.755
Taiwan	0.814	1.000	0.647	0.795
Ukraine	0.819	1.000	0.855	0.603
Portugal	0.831	1.000	0.747	0.746
Armenia	0.832	1.000	0.902	0.593
Croatia	0.838	1.000	0.844	0.670
Germany	0.844	N/A	0.859	0.828
Kazakhstan	0.845	1.000	0.850	0.684
Greece	0.845	1.000	0.732	0.803
Belarus	0.849	1.000	0.798	0.750

Table: Table 8.1 Pillars of Prosperity Index and Components (continued)

country	Index Value	Peacefulness	State Capacity	Income
Libya	0.859	0.984	N/A	0.734
Spain	0.870	1.000	0.782	0.827
Estonia	0.870	1.000	0.890	0.721
Latvia	0.873	1.000	0.942	0.675
South Korea	0.873	0.935	0.908	0.775
New Zealand	0.873	1.000	0.829	0.789
Hungary	0.874	0.968	0.936	0.717
Singapore	0.874	1.000	0.738	0.884
United Kingdom	0.877	1.000	0.798	0.832
Austria	0.878	N/A	0.904	0.852
Lithuania	0.886	1.000	0.983	0.674
France	0.888	1.000	0.844	0.820
Ireland	0.889	1.000	0.787	0.881
Netherlands	0.891	1.000	0.829	0.845
Cyprus	0.892	1.000	N/A	0.784
United States	0.893	0.839	0.950	0.891
Belgium	0.905	0.984	0.890	0.842
Finland	0.907	1.000	0.888	0.831
Canada	0.908	1.000	0.869	0.856
Denmark	0.917	1.000	0.906	0.846
Japan	0.918	1.000	0.926	0.828
Australia	0.918	1.000	0.901	0.854
Norway	0.929	1.000	0.878	0.908
Switzerland	0.932	1.000	0.934	0.862
Sweden	0.936	1.000	0.972	0.837

Predicting the index

Figure 8.2, Tables 8.2 & 8.3

- Use same predictors as in **chapter 2** and **3**
  - independent variables that appear in Tables 2.2 and 3.2
    proxies for past parameters ϕ, θ, $(1-\iota)$, γ and legal origins
  - predict about 50% of variation in actual index
    worst prediction of peacefulness part
  - map display suggests that these determinants predict much of variation in the data
- Outliers
  - some stark underperformers and overperformers
  - India, China – catch up with "institution possibility frontier"
  - but also signs of incomplete theory: use selected case studies to look for prospective improvements – e.g., a role for leader quality

Table: Table 8.2 Predicting the Pillars of Prosperity Index

	(1) Index Value	(2) State-capacity subindex	(3) Income per capita	(4) Peacefulness subindex
Prevalence external war before 2000	0.249 (0.136)*	0.714 (0.237)***	0.39 (0.155)**	-.226 (0.272)
Average executive constraints before 2000	0.288 (0.064)***	0.304 (0.086)***	0.402 (0.064)***	0.113 (0.102)
Average nonopen executive recruitment before 2000	0.15 (0.078)*	0.159 (0.086)*	0.239 (0.089)***	0.023 (0.129)
Ethnic homogeneity	0.23 (0.058)***	0.091 (0.073)	0.312 (0.062)***	0.206 (0.101)**
English Legal Origin	0.042 (0.032)	0.085 (0.041)**	-.017 (0.037)	0.055 (0.058)
Scandinavian Legal Origin	0.166 (0.04)***	0.377 (0.058)***	0.094 (0.042)**	0.076 (0.061)
German Legal Origin	0.173 (0.039)***	0.362 (0.052)***	0.133 (0.052)**	0.099 (0.054)*
Socialist Legal Origin	0.087 (0.036)**	0.258 (0.047)***	0.006 (0.033)	0.047 (0.059)
Observations	150	145	150	147
R-sqaured	0.47	0.54	0.539	0.076

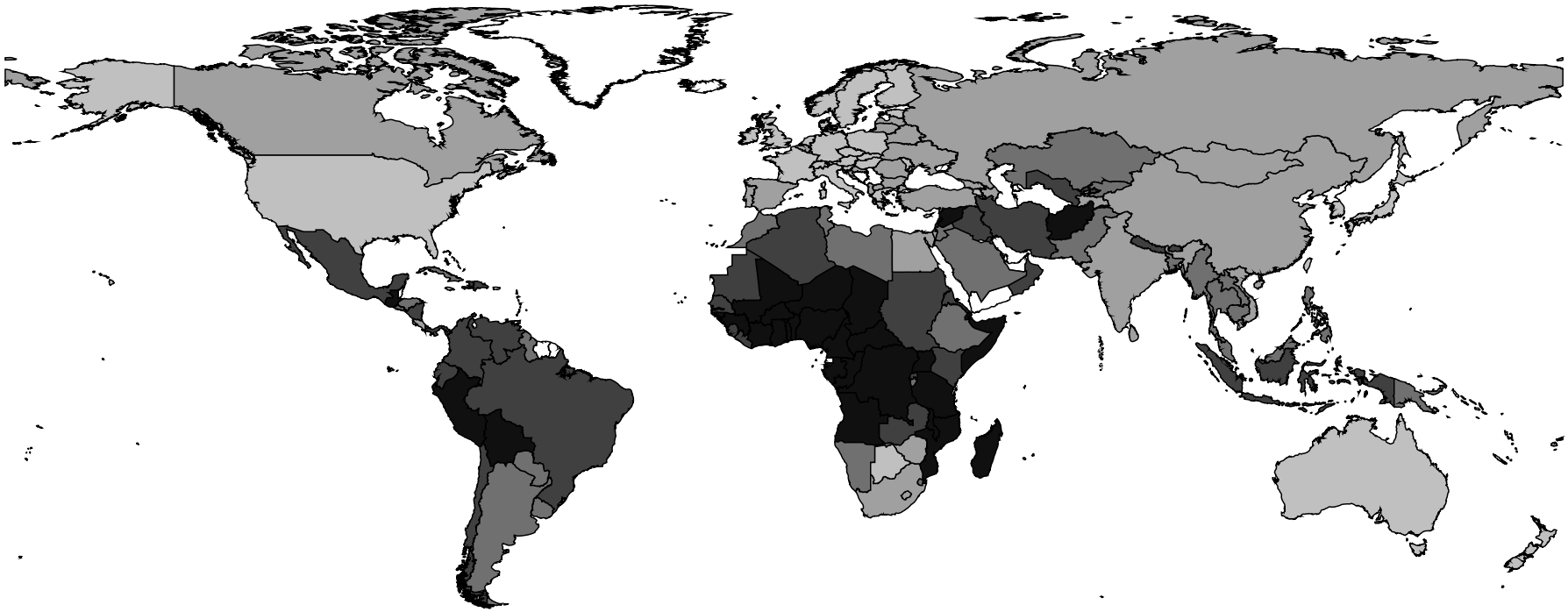


Figure 8.2 Predicted Pillars of Prosperity Index

Table: Table 8.3 Prediction errors on the Pillars of Prosperity Index

Country	Actual Rank	Predicted Rank	Actual minus predicted index value
Panel A: Largest underperformers (more than 50 steps off in ranking)			
India	4	93	-0.43
Myanmar	5	81	-0.39
Ethiopia	8	62	-0.31
Burundi	10	64	-0.28
Cambodia	16	88	-0.31
Philippines	18	87	-0.29
Sri Lanka	20	105	-0.32
Vietnam	28	115	-0.28
Turkey	31	96	-0.2
China	67	120	-0.13
Panel B: Largest overperformers (more than 50 steps off in ranking)			
Ivory Coast	59	6	0.17
Ghana	64	13	0.15
Nigeria	78	18	0.18
Gabon	90	4	0.29
Mexico	95	37	0.19
Kuwait	105	45	0.2
Oman	114	56	0.24
Kazakhstan	123	65	0.26
Singapore	133	74	0.27

Outline

1 What We Have Learned

2 The Pillars of Prosperity Index

3 Where Next?

Where Next?

- Model more carefully
  - simple models, but important to check theoretical robustness
    merge with traditional theories of growth and development
- Consider human capital
  - straightforward to introduce accumulation as physical capital
    more interesting to study consequences for politics and violence
- Disaggregate more
  - microeconomic and micropolitical foundations for economic and political reduced forms; microfoundations for violent behavior?
- Bridge micro and macro
  - to understand big picture in the data and come up with ideas for reform, have to view micro and macro approaches as complements

Where next (continued) ?

- Understand state legitimacy
  - norms of compliance and trust in the state important
    how do they interact with tangible institutions?
- Bring in social capital and identity
  - complementarity between state institutions and private networks
    can national identities which feed common interests be fostered?
- Deal with multiple countries
  - threats of war come from other similar interacting societies
    structural determinants of democratic peace?
- Distinguish centralized and decentralized states
  - models here of unitary states – can decentralization improve state performance? – raises questions about local state capacities

Where next (continued) ?

- Bridge theory and empirical work
  - more careful studies of state capacity building and political reform use theory as a guide, as in **chapter 4**
- Use theory and data to design case studies
  - well-specified theoretical models to search for exogenous variables; departures from statistical patterns to search for new mechanisms
- Understand the persistence of weak and violent states
  - how can one escape the lower left part of the Anna Karenina matrix? can foreign assistance in any form be helpful here?
  - probably, most important questions of all