

# **The development of the economic system in the long run: From political to market capitalism**

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## Abstract:

The paper analyzes how the organization of the private sector changes with development. A key change is the decline of the triplet of political capitalism, state capture and crony capitalism. It describes an economic system where political insiders use their power to acquire rent. It means collusion, corruption, and coercion, and it is roughly proportional to the corruption index. The enemy of the triplet is democracy with opposition, media, and legal system. The triplet requires insiders to have some control over these enemies. Development causes political capitalism to be replaced by market capitalism. The various indices for these institutions are strongly intercorrelated as they have similar transitions. That is, they have a distinct long-run relation to income. Development changes poor authoritarian countries with political capitalism and corruption to wealthy democracies with market capitalism and honesty.

Keywords: Political capitalism, state capture, crony capitalism, corruption, democracy.

JEL: H1, K2, P51.

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## 1. Introduction: Political and market capitalism

The paper asks how the economic system of countries changes with development in a cross-country/long-run perspective. It concentrates on the market sector, i.e., the ‘private’ sector producing goods and services to be sold on the market. A key distinction is between political and market capitalism. Political capitalism means that political insiders use their power to restrict competition and create rents, while market capitalism means that firms are in fair competition.<sup>4</sup> All countries have a mixture of the two, but the share of political capitalism decreases, while the share of market capitalism increases with development.

Political capitalism is part of a family of related concepts: state capture, crony capitalism, kleptocracy, and stationary banditry. They harm efficiency, but the main effect is the redistribution to political insiders from the rest of the population, which it dislikes. This explains why the five related terms are increasingly derogatory. The Appendix shows that (at least) the first three form a triplet that is hard to distinguish in practice, even when they may differ conceptually. The Appendix discusses the definitions of the triplet.

**S**, the **state capture** index (from Kaufmann 2024) is an attempt to measure the triplet. The paper uses four additional variables listed in bold below. The first is **y**, **income** which is the natural logarithm to *gdp*, the real GDP/GNI per capita in PPP prices (from Maddison Project). The remaining three are institutional indices.

Economic theory predicts that market capitalism with perfect competition is optimal as regards efficiency – with well-known qualifications. An attempt to measure the closeness to this ideal is **E**, the **economic freedom** index (from Fraser Institute). If the measures for the two kinds of capitalism were perfect, they should have a correlation of -1. However, institutional indices are imperfect, and the *E* and *S* indices are not constructed to be alternatives. Furthermore, *S* is a relative index with values around a constant international level, while *E* is an absolute index with international trends, but even then, the *S* and *E* indices have a correlation -0.7 (see Table 4). This is substantial but still allows the effects of the two variables to differ.

The key mechanism whereby political insiders make money is by giving monopolies to ‘friends’, who may pay for the favor, so a mutually profitable collusion can be built. Monopoly takes many forms such as tariffs or rigged auctions – it normally generates profit for the monopolist. To the extent it happens openly, and by a published law, it may be legal. However,

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<sup>4</sup> Some of the firms in the market may be public. However, managers of public firms easily become political insiders. Thus, it is assumed that the firms are private, with strictly limited political power.

it often has a secret and illegal part, which is corruption and coercion, giving a large positive correlation between  $S$  and  $T$ , the **corruption** index (from Transparency International).

Collusion, corruption, and coercion may be exposed by the media and opposition and punished by the legal system. Thus, the triplet thrives better in authoritarian systems where the insiders have some control over these enemies. In such systems it is tempting for the ruler to collude with business and become seriously rich.<sup>5</sup> This explains the large (negative) correlation of  $S$  and  $V$ , the **democracy** index (polyarchy from V-Dem project).

Table 1 gives a normative classification of outcomes for the institutional variables. This classification seems to tally with the one of most people. The conclusion in section 6 discusses the normative aspects of the analysis.

Table 1. Normative classifying of values for four institutional indices

| Institution Variable | Economic system |                    |                  | Political system |
|----------------------|-----------------|--------------------|------------------|------------------|
|                      | $S$ , triplet   | $E$ , econ freedom | $T$ , corruption | $V$ , democracy  |
| Bad outcome          | High            | Low                | High             | Low              |
| Good outcome         | Low             | High               | Low              | High             |

The four institutional indices ( $E$ ,  $S$ ,  $T$ ,  $V$ ) are imperfect approximations to theoretical concepts. They are compiled independently, cover large country samples, and are suitable for comparative work, but they differ in scale, timing, and conceptual scope. The paper therefore uses them asymmetrically:  $S$  is the focal measure of the triplet, while  $E$ ,  $T$ , and  $V$  are used to locate  $S$  within a wider institutional setting. The analysis focuses on broad common patterns in the long run rather than on precise point estimates. For that reason, the empirical analysis is deliberately descriptive and cautious in its claims about causality. The kernel tools are used to reveal common trends in country groups, to compare sequencing patterns, and to discipline interpretations. They have causal interpretations but are not formal tests.

The paper makes two contributions. (i) It introduces the state-capture index into comparative institutional analysis. (ii) It uses that index to show that long-run development is associated with a gradual shift from discretionary rent allocation toward more general, market-oriented, and politically accountable rule systems.

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<sup>5</sup> Some authoritarian strongmen care for power only, but most become rich. It is a problem for the strongman to keep his loot if he is deposed, hence the demand for safe heavens abroad.

Section 2 is a brief introduction to transition theory and the kernel technique used to reveal transitions. Section 3 reports some descriptive statistics. Section 4 looks at the relation of the  $S$  index – and the  $E$ ,  $T$  and  $V$  indices – to income, while section 5 considers the relation of  $S$  to the other three institutional indices, and section 6 concludes. The Appendix surveys variables, sources, and the definitions of the triplets. The second section of the references lists two background notes – B(2025) and B(2026) – that document claims in the paper.

## 2. Transition theory and the kernel tool <sup>6</sup>

Researchers trying to generalize economic history (such as Maddison (2001) and Galor (2011)) find that the economy has two basic steady states: a traditional and a modern, which are connected by a transition lasting 1-2 centuries. All Socio-economic variables have transitions. They give distinct underlying curves: For increasing level variables they look as , which in the first difference becomes , where the horizontal axis is income. For a decreasing variable the curves are mirror images relative to the income axis.

The shape of the transition curves follows from the two (or more) sector growth models where the modern sector starts as a few high-productivity islands in the sea of traditional low productivity. The islands gradually grow until the whole economy is modernized. At the beginning, where the economy diverges from the traditional steady state, the modern sector has a small weight in the economy, so growth is low. At the end all sectors are modernized and the growth becomes moderate. In the middle there is a growth premium from the movement of production factors to the modern sector, see Gundlach and Paldam (2020) for empirical and formal demonstrations. Transition theory takes income as a proxy for the mechanics of growth.

### 2.1 *Transition of institutions and the problems of confluence and causality*

In the short run institutions often depend upon political reforms we like to see as exogenous. However, in the long-run perspective institutions have transitions that appear as strong common trends depending on income. This makes them endogenous. Figure 4 below shows that the four institutional indices,  $E$ ,  $S$ ,  $T$  and  $V$  have amazingly similar transitions, looking like other transitions such as the demographic and agricultural ones. This gives an underlying confluence in the series. It explains the multicollinearity problems in the growth regressions literature. The

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<sup>6</sup> This section builds on Paldam (2021), discussing theory and methods, and analyzes the transitions in  $V$ ,  $T$  and  $E$ .

confluence makes it difficult to sort out causality. Macro variables aggregate many primary indicators which are likely to have different causal links, so we must be modest and look for the main causal directions.

Transition theory claims *equivalence*: long time-series and wide cross-country samples tell the same story. A transition is a time series process over centuries, but such long time-series are rare. As transitions are a general process for all countries, they also appear in cross-country samples covering countries in a wide income range. Both  $V$  and  $y$  are available over more than two centuries confirming equivalence, *ibid*. The data for  $E$ ,  $S$ , and  $T$  are much shorter. In addition, the relative series,  $S$  and  $T$ , are constant over time. With short or constant data transitions can only be identified in cross-country data.

## 2.2 The tool of kernel regressions on unified panel data – revealing general patterns

Figures 3, 4, 6, 7, and 8 below are kernel regressions on unified data. That is, the panel  $X_{it}$  is stacked over countries, giving a vector  $X_j$ , with many elements, in no natural order. A kernel regression analyzes two vectors  $X_j$  and  $Y_j$ . The kernel regression  $X = K^X(Y, bw)$  starts by ordering  $X_j$  and  $Y_j$  by  $Y$ . Then it calculates a smooth MA-process on  $X$  with a constant bandwidth,  $bw$ , which has to be estimated. Fortunately, it is easy as the kernel-curves vary in a predictable and smooth way to  $bw$ . The ‘best’ curve is normally robust to a substantial range of  $bws$ . The program used (`lpoly` in `stata`) gives an estimate in this range.

The sorting scrambles the countries, so this method detects common long-run trends in the data. On the figures the kernel is the bold, black curve. It is surrounded by thin 95% confidence intervals. If they are narrow, the observations scatter randomly around the curve. This is normally the case if OPEC countries are omitted, so they require special treatment, *ibid*.

Kernel curves assume no functional form and no economic theory. An economic theory claims a causal structure and predicts its form.<sup>7</sup> Hence, it is a test of a theory if a curve with the form predicted can be drawn within the confidence intervals of the kernel. It is a strong test if the confidence intervals are narrow and the theoretical prediction is distinct. Thus, a kernel curve may support – even strongly support – a theory, and the causality it claims.

Transition theory claims that causality is from income to institutions, i.e.,  $y \rightarrow X$ , where  $X = E, S, T, V$ . However, the primacy-of-institutions school claims the reverse causality as the name indicates, i.e.,  $X \rightarrow y$ . Transition theory is estimated by the kernel  $X = K^X(y, bw)$ , while

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<sup>7</sup> The NGOs compiling the indices are normally fighting for a cause: Transparency international claims that corruption is not only morally bad, but it also causes low growth. The Fraser institute claims that economic freedom is not only morally good, but it also causes high income, etc.

the primacy-of-institutions is estimated by the kernel  $y = K^y(X, bw)$ . Such pairs may look different, due to the sorting. It may be obvious that one is the *obverse*, looking as it should by its theory, and the other is the *reverse* that does not look like anything. It may just be a weak reflection of the obverse; see Figure 3 below. In this case the kernel-pair provides evidence for the obverse theory. However, section 5 shows three cases where both kernels in the pair look equally good; this suggests simultaneity.

### 3. The S index: a measure of the triplet

The key variable in this paper is *S*. It is assumed that it measures the triplet defined in Table 2. There are, of course, always political insiders, but in countries where *S* is low they do not include businesspeople, and insiders live by official salaries and pensions that make them well off but not rich, and they do not need to escape abroad when they lose power.

Table 2. A two-step definition of the triplet of political capitalism, state capture and crony capitalism

|  |
|--|
| Political insiders are politicians, administrators, and businessmen with some power over the political system. |
| The triplet means that a part of GNI is acquired by political insiders using their power.                      |

#### 3.1. Some descriptive statistics. Relative and absolute indices

The *S* index covers the 25 years since 1997, every third year until 2021, for 171 countries. Thus, the *S* data have  $9 \times 171 = 1,539$  observations. The OPEC group of 18 countries are deleted at present as they are analyzed elsewhere, *ibid*. Some countries miss observations for one of the other indices. The **Main** sample is balanced with 1,051 observations for five series (*E*, *S*, *T*, *V*, and *y*), and 137 countries.

*S* uses a percentage score ]0,100[. The index is calibrated so that the cross-country average is 50 and its standard deviation is 1.87 every year.<sup>8</sup> Hence, the index shows relative

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<sup>8</sup> Kaufmann (2024), presenting the index, does not dwell on this issue, but just writes on p. 13 that ‘averages were then normalized and converted to range from 0 (low capture) to 100 (high).’

country differences, but international trends cannot be analyzed. From 1997 to 2021, real GDP per capita in the world doubled, so there would surely have been trends if the measure allowed. How such trends may look can be assessed from Figure 5 below. While the  $S$  and the  $T$  indices are relative measures,<sup>9</sup>  $E$ ,  $V$ , and  $y$  are absolute measures with international trends over time.

Figure 1 shows the distribution of the 1,539 observations for  $S$ . The graph singles out the West as the black bars. It is compared with the distribution of the 1,514 observations for  $E$ . The two distributions have some symmetry, but while the  $S$ -distribution is rather flat, the  $E$ -distribution looks more normal, with a tail to the left. Table 3 shows averages for  $S$  for the major country groups. By far the lowest average is for the West, while the highest average is for the OPEC countries.

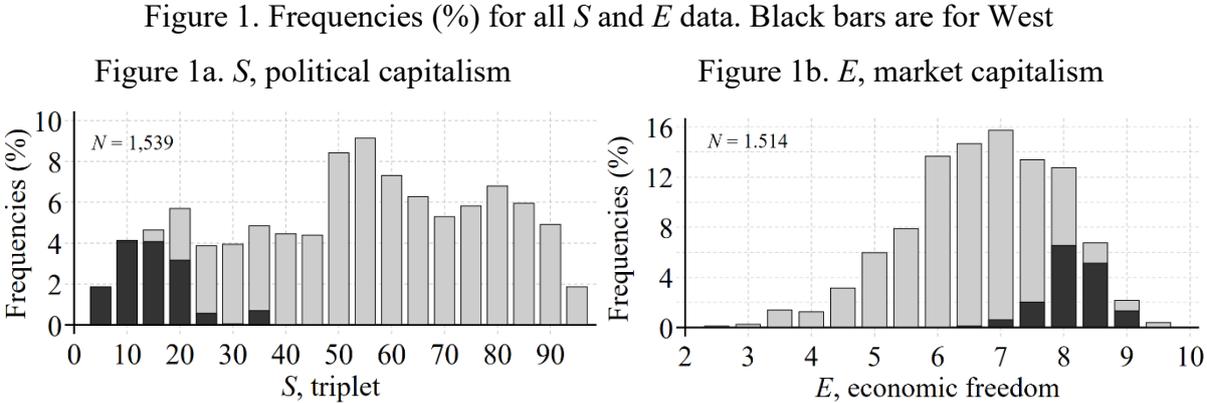


Table 3. Average  $S$  index in the main country groups

| Group          | Counts |       | $S$ , state capture<br>Av (std) | Outlier in group |              | $y$ , income<br>Av (std) |
|----------------|--------|-------|---------------------------------|------------------|--------------|--------------------------|
|                | $N$    | $N_c$ |                                 | Low              | High         |                          |
| Africa SS      | 423    | 47    | 61.5 (17.8)                     | Cabo Verde       | Eq. Guinea   | 7.71 (0.89)              |
| Asia           | 252    | 28    | 51.7 (19.9)                     | Japan            | North Korea  | 8.97 (0.90)              |
| Latin America  | 216    | 24    | 52.6 (19.0)                     | Uruguay          | Haiti        | 9.09 (0.44)              |
| MENA           | 162    | 18    | 65.3 (14.5)                     | Tunisia          | Syria        | 9.66 (0.98)              |
| Post-socialist | 261    | 29    | 50.3 (23.4)                     | Slovenia         | Turkmenistan | 9.35 (0.64)              |
| West           | 225    | 25    | 12.1 (6.8)                      | Netherlands      | Israel/USA   | 10.52 (0.30)             |
| OPEC           | 162    | 18    | 67.3 (13.6)                     | Kuwait           | Eq. Guinea   | 9.69 (1.02)              |

$N$  is number of observations;  $N_c$  is the number of countries:  $N = 9N_c$ . OPEC countries are also in one of the groups – mostly in MENA. In the West, Israel and USA have large military-industrial complexes and hence relatively high  $S$  scores. Eq. Guinea is Equatorial Guinea.

### 3.2. The correlations of the five variables, and some regressions

This section uses the Main sample. Table 4 reports pairwise correlations between the five

<sup>9</sup> The calibration of the  $T$  index has changed, so stationarity is not perfect, but it is trendless, see B(2025).

variables. Panel A uses the unified data that combines time-series and cross-country effects. They are separated into Panel B for the cross-country effects, and Panel C for the time-series effects. The correlations in Panel A and B are large and almost the same, so the pattern in Panel A is explained by the between-counties variation that in transition theory represents the long run. The time series results in Panel C are much smaller. However, the time span is only 25 years. The results should converge to Panel B in the long run. It is more than 100 years, *ibid*.

Table 4. The correlation between the five variables

| Index<br><i>S</i> | Measuring<br>Triplet       | Type<br>Relative | Panel A: Unified data |          |                           |          |          |          |
|-------------------|----------------------------|------------------|-----------------------|----------|---------------------------|----------|----------|----------|
|                   |                            |                  | <i>S</i>              | <i>E</i> | <i>T</i>                  | <i>V</i> |          |          |
| <i>E</i>          | Market capitalism          | Relative         | -0.70                 |          |                           |          |          |          |
| <i>T</i>          | Corruption                 | Absolute         | 0.84                  | -0.77    |                           |          |          |          |
| <i>V</i>          | Democracy                  | Absolute         | -0.84                 | 0.66     | -0.67                     |          |          |          |
| <i>y</i>          | Income                     | Absolute         | -0.68                 | 0.76     | -0.77                     | 0.62     |          |          |
| Index             | Panel B: Between-countries |                  |                       |          | Panel C: Within-countries |          |          |          |
|                   | <i>S</i>                   | <i>E</i>         | <i>T</i>              | <i>V</i> | <i>S</i>                  | <i>E</i> | <i>T</i> | <i>V</i> |
| <i>E</i>          | -0.71                      |                  |                       |          | -0.05                     |          |          |          |
| <i>T</i>          | 0.84                       | -0.77            |                       |          | 0.10                      | -0.32    |          |          |
| <i>V</i>          | -0.82                      | 0.64             | -0.66                 |          | -0.43                     | 0.10     | -0.04    |          |
| <i>y</i>          | -0.69                      | 0.77             | -0.78                 | 0.61     | -0.07                     | 0.39     | -0.28    | 0.06     |

Section A is for all observations with data for all four variables. Section B reports averages of correlations calculated independently for each of the 9 years. Section C gives averages calculated independently for all 131 countries with more than five observations. The data for OPEC are analyzed in Paldam and Saadaoui (2025).

Table 5. Explaining the *S* variable with/without FE, fixed effects for countries

| Eq | Constant   | <i>E</i>     | <i>T</i>   | <i>V</i>     | <i>y</i>     | FE  | R <sup>2</sup> adj | Net of 1<br>R <sup>2</sup> |
|----|------------|--------------|------------|--------------|--------------|-----|--------------------|----------------------------|
| 1  | 70.77 (17) |              |            |              |              | Yes | 0.945              |                            |
| 2a | 149.8 (45) | -15.67 (-32) |            |              |              | No  | 0.496              | -0.449                     |
| 2b | 75.61 (16) | -1.23 (-2.6) |            |              |              | Yes | 0.945              | 0.001                      |
| 3a | -9.32 (8)  |              | 9.76 (51)  |              |              | No  | 0.712              | -0.233                     |
| 3b | 50.01 (11) |              | 2.56 (8)   |              |              | Yes | 0.948              | 0.003                      |
| 4a | 93.7 (88)  |              |            | -83.72 (-50) |              | No  | 0.706              | -0.239                     |
| 4b | 86.39 (31) |              |            | -61.39 (-33) |              | Yes | 0.975              | 0.030                      |
| 5a | 173.4 (40) |              |            |              | -14.12 (-30) | No  | 0.466              | -0.479                     |
| 5b | 77.16 (11) |              |            |              | -1.22 (-1.5) | Yes | 0.945              | 0.000                      |
| 6a | 27.96 (6)  | 6.38 (25)    | 0.83 (1.8) | -51.07 (-30) | 0.65 (1.5)   | No  | 0.849              | -0.096                     |
| 6b | 59.20 (9)  | 2.15 (8)     | 0.30 (0.9) | -59.90 (-33) | 1.64 (2.5)   | Yes | 0.976              | 0.032                      |

OLS regressions, unified data,  $N = 1,051$ . Eq is equation. Parentheses hold t-ratios rounded to the nearest integer if  $t > 5$ . Net R<sup>2</sup> is the difference between the R<sup>2</sup> adj in the row and in row 1. It shows what FE cannot explain.

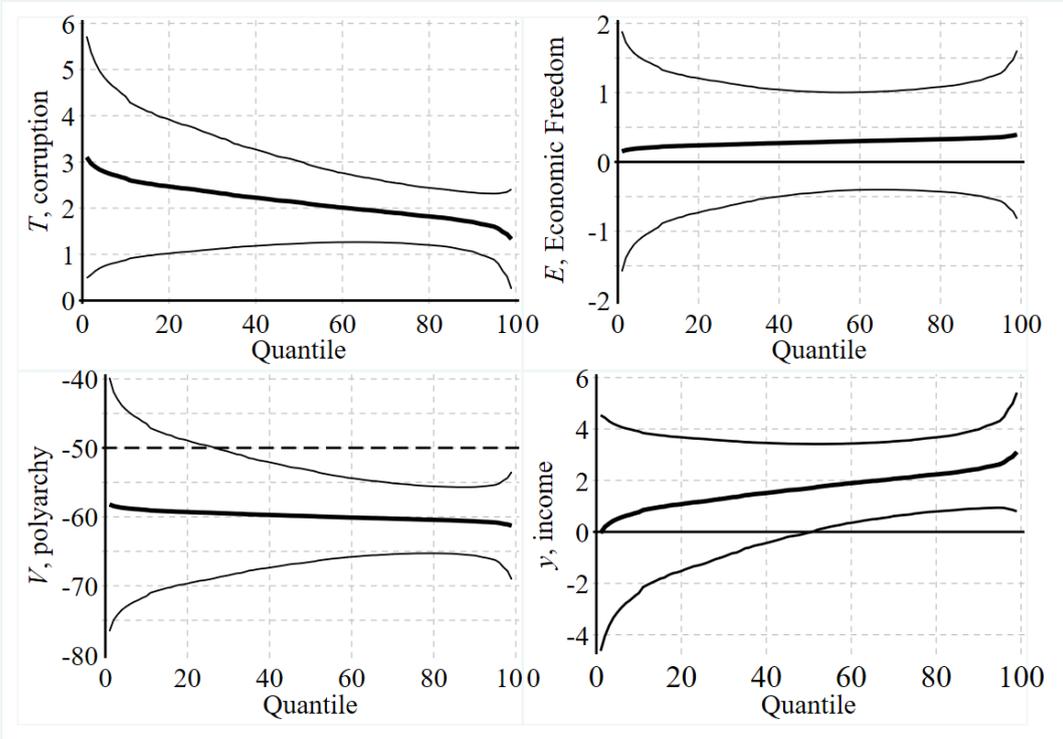
Table 5 compares regressions without and with FE, fixed effects for countries. The fixed effects catch the cross-country differences, and thus the long run. The first row in the table is for fixed effects alone. They explain 94.5% of the variation. When one of the four variables is

added,  $R^2$  increases marginally from 0.001 to 0.032. Thus, the cross-country differences explain nearly everything. Another sign that tallies with this interpretation is that the FE makes the nice coefficient on income in (5a) disappear in (5b). The relative income differences change little over the 25 years.

3.3 *An alternative estimate using panel quantile regressions with fixed effects*

The analysis in Table 5 is extended by the panel analysis of Figure 2, which explains  $S$  by each of the variables:  $T$ ,  $E$ ,  $V$ , and  $y$  and fixed effects using the estimator of Rios-Avila (2020).

Figure 2. Asymmetries in explaining the S-variable for state capture



The medians (50% quartile) on the four graphs are close to the result with FE in Table 5, as they should. The slopes give additional information. The 95% confidence intervals indicate that the coefficients are significantly different from zero, except for  $E$  and for the lowest quantiles of  $y$ . The two graphs on the left-hand side are both significant at all quantiles. The curves estimated have negative slopes, but they are not significant. The two graphs on the right-hand side are more dubious, as they are mostly insignificant.

### 3.4 The small effect of population size

The paper uses country as a unit and disregards country-size. Table 6 shows a few experiments with the effect of country size measured by the log to population in 1000.

Table 6. Explaining  $S$  by  $Pop$ , population, for all  $N = 1,449$  observations

|   | Constant    | $Pop$      | $y$          | OPEC         | Africa      | West         | FE  | R <sup>2</sup> adj |
|---|-------------|------------|--------------|--------------|-------------|--------------|-----|--------------------|
| 1 | 19.64 (3.0) | 1.85 (4.6) |              |              |             |              | No  | 0.014              |
| 2 | 133.3 (19)  | 1.13 (3.6) | -11.31 (-26) |              |             |              | No  | 0.331              |
| 3 | 70.37 (3.7) | 0.48 (0.4) | -0.67 (-1.0) |              |             |              | Yes | 0.946              |
| 4 | 21.21 (4.3) | 1.93 (7)   |              | 13.11 (9)    | 7.29 (6)    | -40.02 (-29) | No  | 0.475              |
| 5 | 143.2 (19)  | 0.72 (2.7) | -11.23 (-20) | 24.18 (1.7)  | -10.31 (-8) | -24.54 (-17) | No  | 0.587              |
| 6 | 70.37 (3.7) | 0.48 (0.4) | -0.67 (-1.0) | -7.12 (-1.1) | 2.67 (1.1)  | -48.21 (-13) | Yes | 0.946              |

See Table 5. OPEC, Africa, and West are binary dummies.  $Pop$  is the natural logarithm to the population/1000. FE is fixed effects for countries.

The coefficient to  $Pop$  is mostly significant, but it contributes only about 0.01-0.02 points to the R<sup>2</sup> adj, and it vanishes when FE for countries is included. Thus, the analysis shows that it is unproblematic to use the country as a unit.

The relative sizes of country income and population have changed little over 25 years, so the FE's are correlated to both  $Pop$  and  $y$ . West is the only explanatory variable remaining significant in regression (6) that includes fixed effects. Thus, there may be a positive effect – small countries have slightly more market capitalism than large countries. In other words, there is more competition in the markets of small countries. This is due to the stronger globalization in small countries.

## 4. The transitions in the four institutional indices

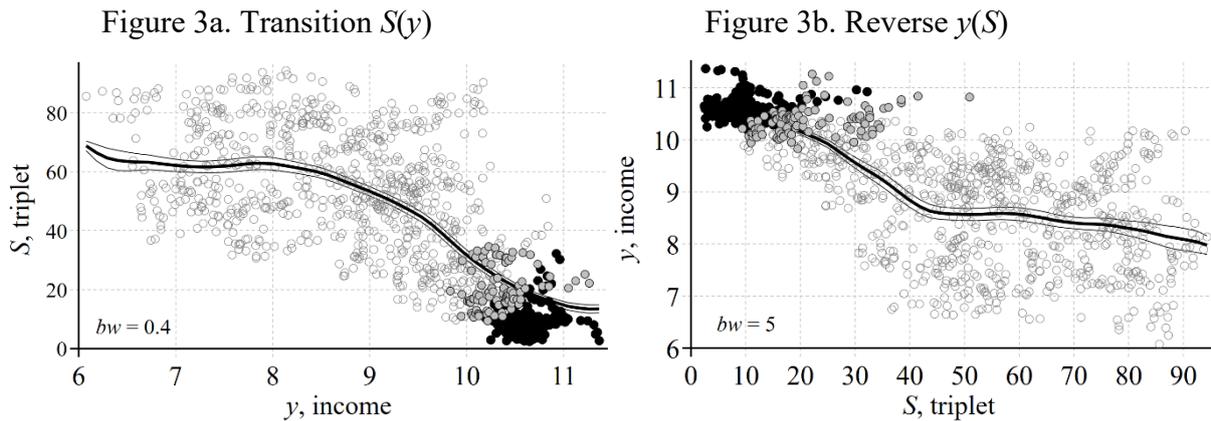
The main sample is mainly limited by the S-variable. More observations are available for  $E$ ,  $T$ ,  $V$  and  $y$ . They are analyzed elsewhere, *ibid*, confirming the robustness of the transitions  $E(y)$ ,  $T(y)$  and  $V(y)$  shown. However, the transition  $S(y)$  is new. As it looks very much like the other transitions, it is likely that it is equally robust.

#### 4.1. The transition in the $S$ index

The  $(S, y)$  kernel pair is shown in Figure 3. It is assessed that Figure 3a is the obverse kernel and Figure 3b is the reverse, giving a weak reflection. Figure 3a shows a typical transition curve. The point scatter shows that it is overlaid with a great deal of fuzziness in the short run. The figure shows a late transition, as further analyzed in the next section. When the observations for the OPEC countries are included, they stand out to the northeast on Figure 3a and to the southwest on Figure 3b, *ibid.*

Table 7. Legend to Figure 3

|                            |  |
|----------------------------|--|
| Black circles<br>Old West  | Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Iceland, Ireland, Luxembourg, Netherlands, New Zealand, Norway, Sweden, Switzerland, UK, USA |
| Gray circles<br>Convergers | (1) New West: Cyprus, Greece, Italy, Israel, Malta, Portugal, Spain. (2) East Asia: Japan, Hong Kong, Singapore, South Korea, Taiwan                                 |
| Hollow circles             | Others   |



$N = 1,051$ . The bold kernel curves are surrounded by 95% confidence intervals, as in Figures 6 to 8.

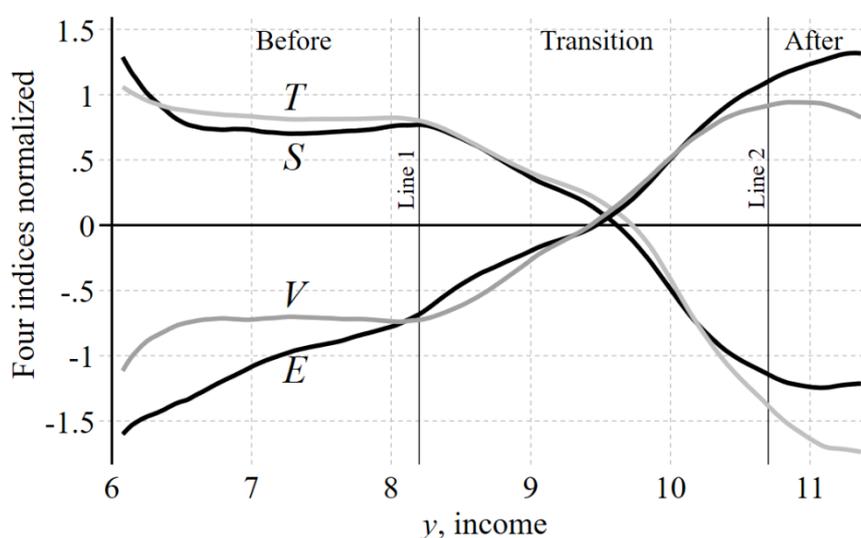
#### 4.2. The transition in the nexus of the four institutional series: $S$ , $T$ , $E$ , and $V$

Figure 4 compares the transition in four indices: The triplet from Figure 3a, corruption, economic freedom, and democracy; see B(2026) for more detail. The data for each index is normalized to average zero and standard deviation one. The series change by two standard deviations when income moves from  $y = 8$  to 11. The movements are all in the direction of increasing welfare, as per Table 1.

The transition curves for  $S$ ,  $T$ , and  $V$  are so similar that it suggests simultaneity, as will

be confirmed in section 5.<sup>10</sup> The period ‘before’ to the left of Line 1 covers the low income and most of the lower middle-income range, while the area to the right of Line 2 is well into the range of high-income countries. Thus, the transition of institutions –  $T$ ,  $S$ , and  $V$  – only starts when development is well under way, and the convergence to the modern level only ends when countries have been high income countries for some time. The conclusion is that development *precedes* institutional change.<sup>11</sup> To obtain the full societal changes caused by development, it is not only important to be wealthy, but also to have been wealthy for some time, such as three to four decades.

Figure 4. Comparing the transition in the four institutional indices



$N = 1,051$  and  $bw = 0.3$ . The series are normalized to average zero and standard deviation one. The 95% confidence intervals for  $S$  are shown in Figure 3a. The other three transitions have similarly narrow confidence intervals.

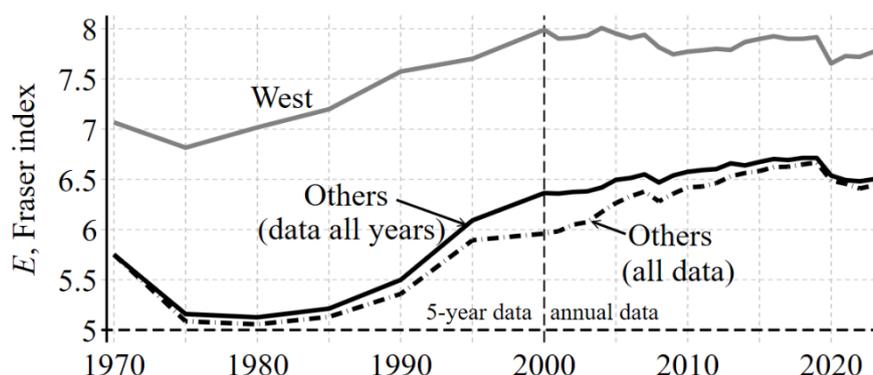
The only institutional variable that differs is  $E$ , economic freedom. It moves much like the other three indices after Line 1, but it increases before, when the other indices are flat. This helps to explain why the correlation between  $S$  and  $E$  is only  $-0.70$  in Table 4.

One may speculate that the colluding groups of political insiders that give high values for the  $S$  and  $T$  indices will only be broken when democracy and the associated goods of a free press and an independent legal system have been working for some time – the calculation in Table 4 suggests that 25 years are some of the way only.

<sup>10</sup> With more data the transition in the  $T$ -index bends after  $y = 10$  to become flat like the  $S$  and  $V$  curves, *ibid*.

<sup>11</sup> Countries as Portugal, South Korea, Spain, and Taiwan had substantial economic development before they democratized.

Figure 5. The development of the  $E$  index of economic freedom 1970 to 2023



#### 4.3 A brief historical note on the path of the triplet

Certain historical factors gave high values for the triplets in the LDCs from 1960-90. The big freedom wave in Africa was around 1960. After the big wave many ex-colonies wanted economic independence as well. That is, they wanted national control over industry, banking and trade, notably foreign trade. This gave political leaders control over the economy and made many politicians rich, see, e.g., Harden (1992).

In addition, there were widespread beliefs in the infant industry argument and hence in the import substitution industrialization throughout the LDC world. This caused a further increase in the political element in the economic system, and large-scale rent seeking. These policies peaked in the 1980s, when it became increasingly clear that protection did not lead to competitive firms but rather to consolidated inefficiency.

Figure 5 shows these trends by the  $E$  index. It was at its lowest in 1975/85. Then it turned upward, and from the late 1980s many countries – notably LDCs – became more market-oriented. The wave became weaker after 2000, and there has been a little backsliding in 2019/21 in connection with the Covid crisis. Still most countries have some kind of capitalist system, but much of the capitalism is political capitalism. This even applies to countries as China, Laos, and Vietnam that, in principle, are socialist.

It is likely that if the  $S$  index had been designed to include trends, it would have looked like a reversed version of Figure 5. This would surely increase the negative correlation between the  $S$  and the  $E$  indices. However, the  $E$  index has the strongest movements before 1997, where the  $S$  index starts.

**5. Three strong relations:  $S(E)$ ,  $S(T)$ , and  $S(V)$**

Tables 5 and 6 showed that  $S$  is strongly connected to  $E$ ,  $T$  and  $V$ . The three connections are analyzed in Figures 6, 7, and 8, which show the kernels  $K^S(E, 0.4)$ ,  $K^S(T, 0.4)$ , and  $K^S(V, 0.4)$  estimated on the Main sample. The correlations from Panel A in Table 4 are reported on each graph. They use the format given in Tables 7 and 8. In the three cases, the kernel pairs are similar. This supports simultaneity, as suggested by the similar transitions shown by Figure 4.

The four institutional indices  $E$ ,  $S$ ,  $T$ , and  $V$  have 6 pairs of kernels. This section only report the three that contain  $S$ . The remaining three are reported in B(2026). The three graphs show the two groups of convergers; see Table 7. Transition theory predict that they are close to the old West.

*5.1. The relation between triplet and economic freedom*

Figure 6 shows that  $S$  and  $E$  are nicely correlated as discussed, but the correlation is far from perfect. As expected, the West is in the southeast corner. The reason the kernel curve turns upward at the end is the two libertarian countries Hong Kong and Singapore. But apart from them the two curves are rather similar indicating simultaneity.

Table 8. Legend to Figures 6-8. The countries are listed in Table 7

|                |                                     |
|----------------|-------------------------------------|
| Black circles  | Old West                            |
| Light gray     | New West convergers                 |
| Dark gray      | East Asian convergers               |
| Circles        | Democracies: Japan, S Korea, Taiwan |
| Squares        | Authoritarian: Hong Kong, Singapore |
| Hollow circles | Others                              |

Figure 6. The relation of  $S$ , triplet and  $E$ , economic freedom

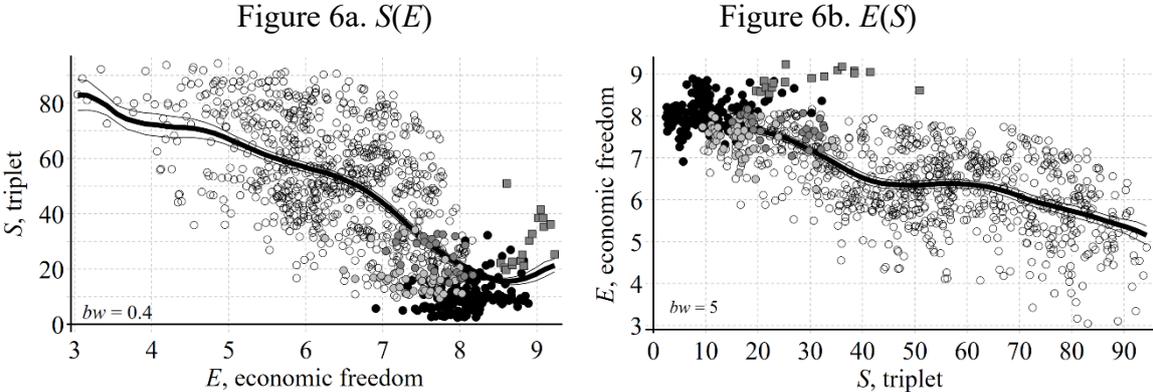


Figure 7. Explaining the triplets by corruption

Figure 7a.  $S(T)$

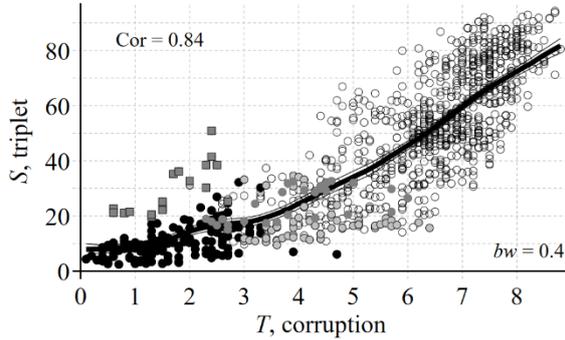
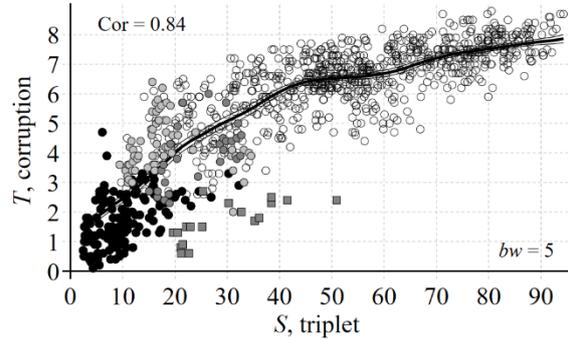


Figure 7b.  $T(S)$



### 5.2. The relation of the triplet and corruption

Figure 7 shows that the  $S(T)$ -relation is almost linear, while the  $T(S)$  relation bends a little more. Once again, the West has low values, especially for the  $S$  index. But the two curves are still rather symmetrical, indicating simultaneity.

### 5.3. The relation of the triplet and democracy

Figure 8 is almost the opposite of Figure 7. Now the  $V(S)$  curve is almost linear, while the  $S(V)$ , bends. Once again, Hong Kong and Singapore stand out, due to the political regime. As expected, the West is at the preferable end for high democracy and market capitalism.

All six graphs show that the New West countries of Southern Europe are converging to the old West, and so are the East Asian democracies. It is interesting to note the the two East Asian authoritarian countries does have the standard transition of corruption, but keeps relatively high values for the triplet index.

Figure 8. Explaining triplets by democracy

Figure 8a.  $S(V)$

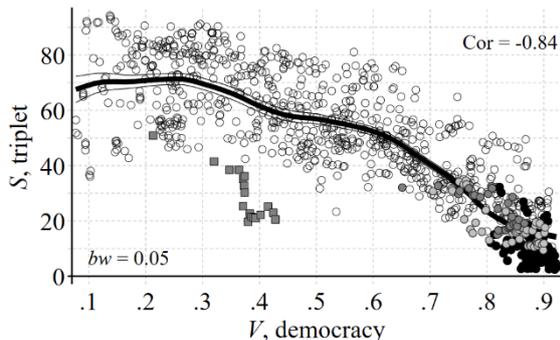
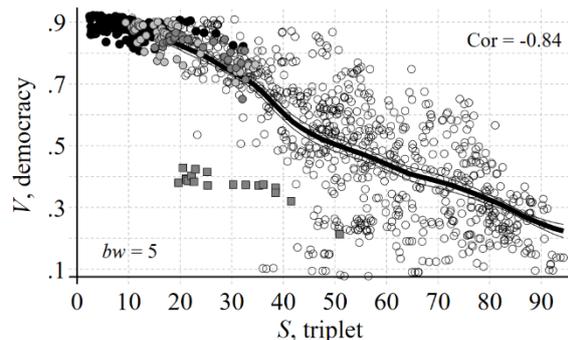


Figure 8b.  $V(S)$



The simultaneity found between the four institutional indices  $E$ ,  $S$ ,  $T$  and  $V$  are not by design as they are independently made by NGOs, with headquarters in different countries, and different preferences. Thus, it is an important finding that they have similar transitions, and Pairwise relations that looks fairly linear.

## 6. Conclusions, with some normative aspects

The triplet of political capitalism, state capture, and crony capitalism have overlapping definitions. It is possible that they may be defined in a way that makes them separate, but as of now they are indistinguishable in practice. Thus, the  $S$  index for state capture is an equally good measure for the other two triplets. The paper considers the cross-country (long-run) pattern in  $S$  relative to three other indices:  $E$ , market capitalism,  $T$ , corruption, and  $V$ , democracy. The four indices are highly correlated as all four have a strong and very similar transition.

Table 1 defined good institutions as low values of the triplet and corruption, and high values of economic freedom and democracy. Figure 4 demonstrates that good institutions go together and are strongly correlated with income. Two stories about causality between good institutions and income can be told. They have important normative implications.

(A) The nice story is that virtue is rewarded. If a country chooses good institutions, it becomes wealthy. This is the primacy-of-institutions' view.<sup>12</sup>

(B) The reverse interpretation is that when a country becomes wealthy, the other good outcomes follow, so it says that those who have will be given more. This is the transition view, which is supported by the fact that transition of institutions only happens after development is well under way. Elsewhere the authors provide more evidence, *ibid*. It tallies with the old claim that the structure of consumption is demand driven. Democracy, honesty, and economic freedom are goods with a positive income elasticity, so that income rises cause an increasing demand for these goods.<sup>13</sup>

Once the institutional transitions start, they become simultaneous. When democracy gradually leads to a free press and an independent legal system, this reduces collusion and

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<sup>12</sup> Most development aid agencies in the West express similar ideas. Aid should be used to develop good institutions, and then development will follow. It is worth pointing out that good institutions are goods in themselves.

<sup>13</sup> The World Values Survey includes an item asking about the preference for public vs. private ownership to business. It is analyzed by Bjørnskov and Paldam (2012). The preference for private ownership grows with income.

corruption and vice versa. These simultaneous effects seem to be strongest at a relatively high income. Such complexity softens the distinction between (A) and (B).

The transition view does not explain where development comes from, but only its (largely) good consequences. Thus, it leaves us with the old question of finding the key to development from which everything follows.

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**Background notes.** Available from <http://www:martin.paldam/GT-Main2>

B(2025). Does the corruption index have international trends?

B(2026). Remaining pairs of kernel regressions

The reference *ibid* covers MP (2021, 2024, 2025a), and as regards the OPEC countries MP (2025b) and MP and Saadaoui (2026).

## Appendix

**Table A1. Variables with sources**

|                       |  |
|-----------------------|--|
| $S$                   | Measure the triplet of political capitalism, state capture and crony capitalism<br>State capture. range ]0, 100[, from Kaufmann (2024)<br>Source: <a href="https://governanceactionhub.org">https://governanceactionhub.org</a>  |
| $T, TI$               | Corruption, $T = 10 - TI$ , where TI is Transparency international's honesty index, range ]0, 10[<br>Source: <a href="https://www.transparency.org/en/cpi/2024">https://www.transparency.org/en/cpi/2024</a>   |
| $E$                   | Market capitalism proxy<br>Economic Freedom index, range ]0, 10[, from the Fraser institute<br>Source: <a href="https://www.fraserinstitute.org">https://www.fraserinstitute.org</a>   |
| $V$                   | Democracy index<br>Polyarchy. Scale: 2-3 decimals in the interval ]0, 1[, from authoritarian to democratic<br>Source: <a href="https://v-dem.net/">https://v-dem.net/</a>  |
| $GDP$<br>$gdp$<br>$y$ | National accounts variables<br>Gross Domestic Product, in fixed PPP, purchasing power parity, prices<br>GDP per capita in fixed 2011 US\$. From the Maddison Project.<br>Income, the natural logarithm to $gdp$ . One logarithmic point is a $gdp$ change of 2.72 times<br>Source: <a href="https://www.ggdcc.net/maddison/maddison-project/home.htm">https://www.ggdcc.net/maddison/maddison-project/home.htm</a> |
| $K^x(y, bw)$          | Kernel regression terminology<br>Kernel regression of the relation $x = x(y)$ , $bw$ is the fixed bandwidth to be estimated<br>Estimated by the command <code>lpoly</code> in Stata using the defaults   |

The ][ brackets refer to open intervals, where the limits are extremes/ideals that have not been/cannot be reached.

### Definitions of Political capitalism, state capture and crony capitalism

Political capitalism is the oldest of the three concepts going back to Max Weber in the early 1920s. Crony capitalism was introduced in the 1980s to discuss the regime of Ferdinand Marcos in the Philippines, while state capture was introduced by the World Bank around 2000 discussing some of the central Asian countries in transition from socialism. As seen from Table A2, the three concepts have found a wider use.

Table A2. Google hits, 18 September 2025

| Triplet concepts     | Hits             |
|----------------------|------------------|
| Political capitalism | $13 \times 10^3$ |
| State capture        | $51 \times 10^4$ |
| Crony capitalism     | $12 \times 10^5$ |

The triplets are propagated by different groups, who reached their concept from different avenues, and with different theoretical frameworks in mind. There are few cross-concept references. The large discussion has led to many related definitions of the concepts, making them a bit woolly. This appendix chases the definitions. We report some of the most prominent definitions and framed overviews of the definitions made by Google's AI program Gemini, which tries to catch the most common definitions.

**Political capitalism** is defined by Holcombe (2018) in his book on the subject: 'It is an economic and political system in which the economic and political elite cooperate for their mutual benefit.' The AI overview of the related definitions is:

Political capitalism refers to an economic and political system where the wealthy and powerful collaborate to shape public policy for their mutual benefit, often at the expense of the broader public. {This system blurs the lines between the state and the market, with economic elites influencing government actions to maintain their privileged positions.}

**State capture** was defined by Kaufmann (2024) as, ‘... when individuals in government or corporations actively shape laws and institutions to serve their own interests.’ The AI overview of the related definitions is:

State capture is a form of systemic political corruption where private interests significantly influence a state's decision-making processes to their own advantage, often to the detriment of the public good. {This influence can involve shaping laws, policies, and regulations, and is often achieved through illicit means, such as bribery and other forms of corruption.}

**Crony capitalism** is defined by Rubin (2014) as ‘an economy in which success in business depends on close relationships between businesspeople and government officials.<sup>14</sup> It may be exhibited by favoritism in the distribution of legal permits, government grants, special tax breaks, or other forms of state interventions.’ The AI overview is:

Crony capitalism refers to an economic system where businesses thrive due to close relationships with political figures and government officials, rather than through fair competition or merit. {This can manifest as preferential treatment, special privileges, or even corruption, ultimately hindering economic progress and distorting market mechanisms.}

It is obvious that the three concepts have overlapping definitions, which are all covered by the definition in Table 2 above. It is hard to think of something that is covered by one triplet and not by the other two. It follows that the *S*-index also measures political capitalism and crony capitalism.

Conceptually, political capitalism may be the most general system term stressing elite cooperation between political and economic elites. State capture may stress the shaping of rules, enforcement, or allocation for private interests. Crony capitalism may be more instrumental (and also more derogatory), stressing favoritism and privileged access for connected firms. However, as seen from the definitions listed, the three triplets are used with few attempts to distinguish.

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<sup>14</sup> Rubins lucid article only mentions crony capitalism, but if the term is replaced by one of the other triplets, nothing else changes.