

### 13. Do Improvements of Institutions Harm Development?

The question in the headline has a divided answer: In the end, it is surely no, just as implied by the word ‘improvement’. However, in the short run it is yes!

The potential growth of poor countries is high, as discussed in Chapter 12. LDCs (Less Developed Countries) can potentially grow by 7-9%. As shown, poor countries do catch up, but much slower than they could. This chapter proposes a new reason: Development causes an improvement of institutions due to the long-run transitions, such as the Democratic Transition (Chapters 4-7), and the Transition of the Economic System (Chapters 8-9). Better institutions do help development in the long run. However, people experience changes of institutions – even if they are improvements – as system instability, which harms investment and growth. In addition, the process of transition is rather erratic. The gross movements in institutional indices are often much larger than necessary, as seen from the nutshell histories of countries in Chapter 7.3.

The reader should keep in mind that the chapter covers institutional instability only. What is lost in generality is won in two ways: In sharpness of focus and in the understanding of causality, as it builds on the previous chapters that have analyzed precisely that.

The five sections of Chapter 13 proceed as follows: First some stylized facts are provided (s1). An analysis of the development over time shows (once again) the big peak 1989-92 (s2). Then the large literature on development and political instability is surveyed (s3). Next follows a set of correlations and regressions analyzing the relation of average growth and the instability variables (s4). Finally, the implications of the results are presented (s5).

Table 1. Variables used in Chapter 13

Variable	Definition
$G^X$ -ratio	The gross over net changes in the institutional index, $X = P$ or $F$
<b>Polity index</b> from Chapters 4-7	
$P, dP$	$P$ -index and its first difference. Political system index. $dP$ are gross changes
$zP$	The fraction of years where $P$ is zero, i.e. anarchy or temporary foreign domination
$IP^P(y_j)$	Democratic Transition. Gives the net change in political system
<b>Fraser index</b> from Chapter 9	
$F, dF$	$F$ -index and its first difference. Economic system index. $dF$ gives gross change
$IP^F(y_j)$	Transition of the Economic System. Gives the net change in economic system

$dP$  and  $dF$  are calculated as the average numerical change per year.

### 13.1 The *G*-ratio giving the excess variation of the *P* and *F* indices

Table 2 reports that the full transition requires a change in the political system index *P* of 14 points, and a change in the economic system index *F* of 2.8 points. The table also shows that the two indices change (much) more than that.

**The *P* changes:** For the 56 years covered, the net change is 5 *P*-points, which is 36% of the full change. However, this has required 23 *P*-points of gross movements, which is about 4.6 times as much as needed. Thus, there is substantial excess variation, and the changes have great variation: It goes from zero in most western countries and in the countries on the Arab peninsula to more than 50 *P*-points in 19 countries. The top five are Turkey 69 (Figure 5.3b), Peru 72, Haiti 73, Pakistan 74 and Thailand 98 (Figure 5.3a), which is 7 times the full transition.

**The *F*-changes:** For the 46 years covered, the net change is 1 *F*-point, which is also 36% of the full change, but this has required a gross change of 5.7 *F*-points. This also covers a great deal of variation. The top five are Rwanda 9.4, Zambia 9.5, Syria 9.7, Zimbabwe 9.9 and Nicaragua 10.5. If the data had covered the change out of Soviet socialism, more countries would have been in this category.

Thus, the inevitable transition is not a smooth process, but a process with substantial **excess changes** assessed as the ***G*-ratio** in row (9) of Table 2. The 14 *P*-points of the Democratic Transition normally give gross changes of  $14 G^P \approx 60$  *P*-points in the average country, and the 2.8 *F*-points normally give gross changes of  $2.8 G^F \approx 15$  *F*-points. As will be shown, this gives a substantial loss of growth, slowing down development well below the potential.

Table 2. Descriptive statistics and some calculations leading the *G*-ratio

Variables <i>y</i> , <i>P</i> , <i>dP</i> , <i>F</i> , <i>dF</i>	Income (a)	Polity index (a)		Fraser index (b)	
(1) Range of data	Full data	Full data	Avl. data	Full data	Avl. data
(2) Average level 1960/1970	7.921	-0.34	-0.53	5.97	5.96
(3) Average level 2016	9.198	5.00	4.14	7.11	6.80
(4) Net change for period	1.277	5.34	4.65	1.19	0.84
Numbers in line (5) are from Table 1		Some calculations for the average country			
(5) Change for full transition, to Table 6	4.5	14 from Chapter 4		2.8 from Chapter 9	
(6) Part of transition (4)/(5)	28%	24%	33%	43%	30%
(7) Years for a full transition	200	240	170	109	160
		Changes for average country imputed for full period			
Variable	Growth	$56 \times dP$		$46 \times dF$	
(8) Gross numerical change	2.24	22.9		5.6	
(9) <i>G</i> -ratio of excess change, to Table 6		$G^P \approx 4.5$		$G^F \approx 5.5$	

Notes: (a) For the period 1960-2016. (b) For the period 1970-2016, where the first data are for 5-year periods. *Full data* means that there are observations for all years. *Avl. data* means available data.

Figure 1a. Distribution of Polity scores

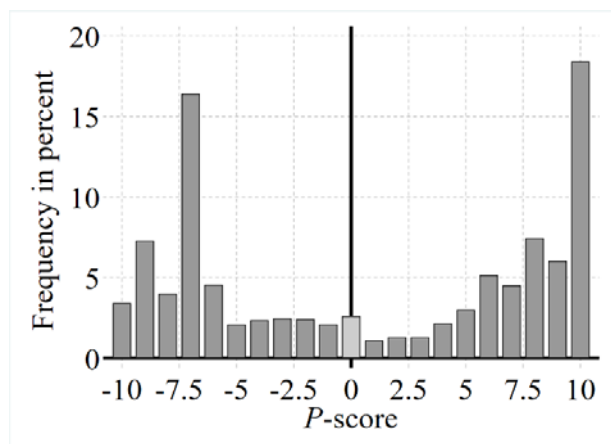
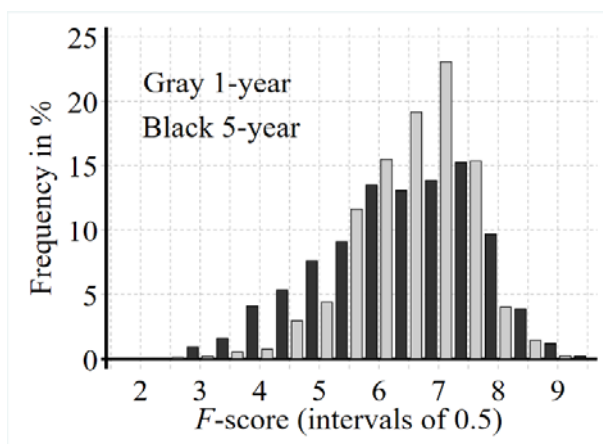


Figure 1b. Distribution of Fraser scores



The  $P$ -score of 0 is for no political system. The score of  $-7$  was used for countries with Soviet socialism. The  $F$ -scores are for the annual dataset and the 5-year spaced data.

The estimates in Section 4 below require that the variables are roughly normal, so it is worth looking at the distributions of the  $P$  and  $F$  data as done by Figures 1a and b. It is clear that both institutional variables have non-normal distributions. The same applies to the two first difference series  $dP$  and  $dF$ . In order to make sure that results are robust to the problematic distributions, Table 4 checks the basic pattern of correlations using rank correlations.

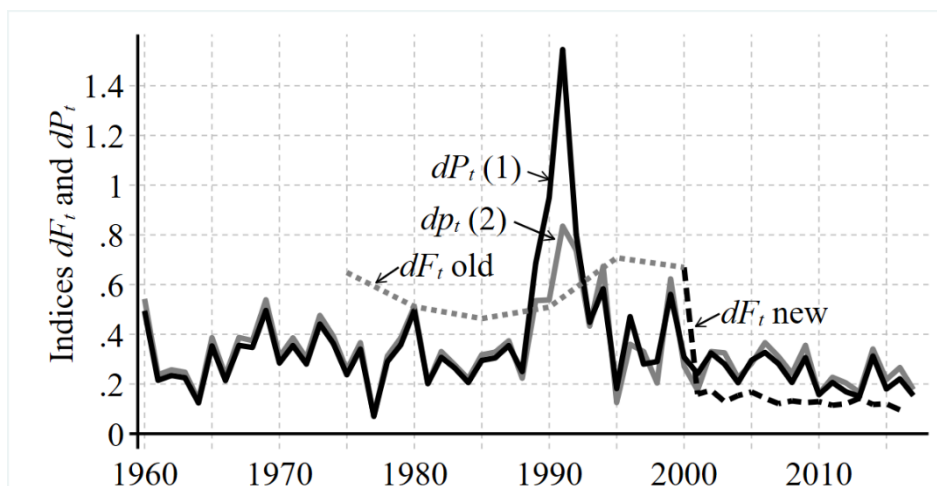
### 13.2 The path of variability over time

The *first difference*  $d$ -scores are averaged per year for the period  $t = 1, \dots, k$  for country  $i$  as given in equation (1), but they can also be averaged across  $i = 1, \dots, n$  countries for year  $t$  as shown in equation (2). This is done for  $X = P$  and  $F$ :

$$(1) \quad dX_i = \sum_{t=1}^k |\Delta X_{it}| / k \quad \text{or} \quad (2) \quad dX_t = \sum_{i=1}^n |\Delta X_{it}| / n$$

Equation (2) produces the  $dP_t$ -scores depicted on Figure 2 and analyzed by the regressions in Table 3. The analysis shows a weak downward trend and a large peak rising no less than 1.5 polity points above the trend in connection with the demise of Soviet socialism and the dissolution of the USSR and Yugoslavia as covered in Chapter 3. Even when the new countries that emerged from the two federations are deleted, the peak still rises 0.8 points above the trend.

Table 3 shows the significance of the pattern on Figure 2. A trend of  $-0.014$  gives a fall of 0.08  $dP$ -points over the 5.8 decades, so it is no wonder that it is insignificant. The table shows that the trend and the peak do not interact. They are two independent phenomena.

Figure 2. The first differences,  $dP_t$  and  $dF_t$ , for all years; see also Table 3

$dP_t(1)$  is for all countries, while  $dP_t(2)$  excludes the 21 new countries that came into being in 1990; see Chapter 3. They all started with a large change. The curve remains similar when these countries are deleted, but the peak goes to 0.83 only.  $dF_t$  old is for the period before 2000, where the  $F$  index had a 5-year time unit, while  $dF_t$  new is for the period from 2000 onward where the  $F$ -index is annual. Recall that the  $F$ -index did not contain the countries of the socialist block.

Table 3.  $dP_t$  explained by trends and the post-socialist peak, 1988-93

$N = 5.8$ decades	(1)	(2)	(3)	(4)
Decade	-0.01 (-0.5)	-0.01 (-1.6)	-0.01 (-1.6)	
Dummy for year	1988	-0.04 (-0.4)		-0.04 (-0.4)
	1989	<b>0.39</b> (3.6)	<b>0.39</b> (3.6)	<b>0.39</b> (3.6)
	1990	<b>0.66</b> (6.0)	<b>0.66</b> (6.0)	<b>0.66</b> (5.9)
	1991	<b>1.26</b> (11.5)	<b>1.26</b> (11.5)	<b>1.25</b> (11.3)
	1992	<b>0.52</b> (4.7)	<b>0.51</b> (4.7)	<b>0.51</b> (4.6)
	1993		0.16 (1.5)	
Constant	2.23 (0.6)	3.03 (1.8)	2.93 (1.7)	0.29 (19.2)
$R^2$	0.005	0.800	0.790	0.789
$R^2$ adj	-0.013	0.771	0.770	0.764

Parentheses hold  $t$ -ratios. Coefficients are bolded if they are significant at the 5% level.

### 13.3 The literature on variability and the missing miracle

This section covers the literatures on: (a) the effect of political instability on growth, (b) the effect of economic variability on growth, and (c) the missing growth miracle in most LDCs.

**Ad (a).** The relation between political instability and growth is discussed by a large literature, some of which was already covered in Chapter 4. All kinds of political instability are found to reduce growth, but the relation is highly variable and often negligible. Much research shows that constitutional changes of governments in stable democracies have little effect on the growth as predicted by the median voter theorem, which applies in established democracies with

a stable and well-defined single-dimensional issue space. Such democracies are mainly in wealthy countries. A family of studies deals with the interaction of elections and economic policies (see Carmignani 2003 and de Haan and Klomp 2013). Such fluctuations have a small effect on the medium-term growth rate, though they may affect the public debt.

Most countries have not (yet) reached such stability, but it is still possible to study within-system instability using the change of governments or even ministers as the instability indicator; see Aisen and Veiga (2013). Many authors do not distinguish the within-system and system variability, and some even say that the distinction is irrelevant (Alesina *et al.* 2006). Others, notably Jong-A-Pin (2009), study a wide range of instability measures; see also Bergh *et al.* (2012).

It is worth noting the diversity of country cases. Argentina and Haiti have had many institutional changes and low growth, but other countries, such as Thailand and Turkey, combine a fine economic development with an even greater instability of the political system.<sup>1</sup>

*Ad (b).* Economic instability and growth are covered by an even larger literature, some of which was covered in Chapter 8. Most of the literature on the relation between economic systems and income or growth looks at the effect of socialism vs capitalism, as covered by Chapter 3. It showed why the Soviet type of socialism disappeared. In spite of high investment ratios, Soviet type socialism produced a relatively low level of income and consumption and, in addition, low *P*-scores.

A large literature analyzes the relation between changes in the economic system  $dF$  and growth. It typically analyzes the effect of particular events and types of reforms. The largest event is the change out of socialism in 1988-95; see e.g. Åslund (2002) or Gross and Steinherr (2004). In hindsight, the long-run effects have been largely beneficiary, but in the short to medium term it had great costs that peaked at a loss of about 40% in GDP, and it typically took a decade to recover. Most of the literature deals with smaller cases, i.e. with the effect of trade liberalizations and other structural adjustments. They also tend to find a J-curve, of a downswing of a duration that depends upon the size of the change, and a positive effect that eventually exceeds the downswing.<sup>2</sup>

Studies of the within-system instability analyze the longer-run consequences of economic fluctuations. A rather broad approach is Gavin and Hausmann (1998), who found that countries with high economic variability have low growth. Later, the literature has splintered into many

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<sup>1</sup> The stories of the four countries Haiti, Argentina, Thailand and Turkey are covered by: Lundahl and Silé (2005), Tanzi (2017), Terwiel (2011) and Pope and Pope (2011), respectively.

<sup>2</sup> The survey is small. The term 'trade liberalization' gave almost 18'000 hits in google scholar, March 2020.

sub-literatures dealing with the effect of specific types of instability/uncertainty on growth. Newer studies look at different types of uncertainty shocks and conclude that they affect growth, though sometimes only temporarily (Bloom 2009 and Basu and Bundick 2017). Another family of studies analyzes the effect of policy regimes and changes in such regimes. It defines a policy regime as a set of preferences for outcomes and policy instruments (Wilson 2000 and Fernández-Villaverde *et al.* 2015).

The mechanisms analyzed are most diverse; authors discuss e.g. the link to the propensity to consume. However, the main link is the investment link, which has two parts:

(2) *Instability*  $\Rightarrow$  *low investments*  $\Rightarrow$  *low growth*

Many studies of the investment motive, since Borner *et al.* (1995), have pointed out that the predictability and transparency of political decisions are of great importance for the willingness to invest. System instability causes a loss of predictability and transparency and hence low investments. This is confirmed in many papers (at least) since Aizenman and Marion (1993).

Even more studies point to the second part of the link: Investment gives growth; see e.g. Barro (1991). By combining the two parts, instability becomes a strong impediment for growth. It does not appear that there is a difference between instability of the political and economic system in this theory. Both links in this theory apply rather generally to all types of uncertainty, so it might be difficult to sort out what is due to institutional instability.

**Ad (c).** As noted above, most LDCs sorely miss growth miracles. This chapter explains the gap by the large system instability generated by the transition. The common explanation is that most LDCs have small isolated economies in the traditional steady state. The *gdp-gap* is about 50 times. Thus, a poor country with 50 million inhabitants has a GDP that is smaller than that of Denmark, and most LDCs have a smaller population. Denmark has a trade share of about one; i.e., the sum of import and export of goods and services is equal to GDP. A large trade share is indeed essential for development, and it is difficult to build a large export share. During the period of LDC-socialism, many countries did not even try, and they used trade restrictions as a device for rent seeking.

#### 13.4 *Can system instability explain income and growth?*

This section reports correlations in Table 4 and regressions in Table 5, analyzing the effect of system instability on development.

Table 4 analyzes three country samples: (A) is without OPEC and post-socialist countries, (B) is without post-socialist countries, and (C) is all countries. The table gives two

‘technical’ results: The patterns in the three samples of the table are similar, but falling a little from (A) to (C) in most cases. The Kendall rank correlation gives much the same pattern as Pearson’s correlation – there is no need to be concerned about the distribution of the series.

Table 4a. Cross-country correlations to the income level,  $y$ 

Sample	Period 1: 1960-2016						Period 2: 2000-2016					
	Pearson			Kendall			Pearson			Kendall		
Sample	(A)	(B)	(C)	(A)	(B)	(C)	(A)	(B)	(C)	(A)	(B)	(C)
$N$ , countries	111	127	156	111	127	156	103	115	140	103	115	140
(a) $g$ , growth	<b>0.45</b>	<b>0.34</b>	<b>0.33</b>	<b>0.29</b>	<b>0.24</b>	<b>0.22</b>	-0.02	-0.03	-0.01	-0.07	-0.07	-0.07
(b) $P$ , Polity	<b>0.69</b>	<b>0.45</b>	<b>0.44</b>	<b>0.50</b>	<b>0.35</b>	<b>0.36</b>	<b>0.44</b>	<b>0.22</b>	0.24	<b>0.44</b>	<b>0.32</b>	<b>0.36</b>
$F$ , Fraser							<b>0.78</b>	<b>0.69</b>	<b>0.68</b>	<b>0.63</b>	<b>0.55</b>	<b>0.53</b>
(c) $dP$ , dif $P$	<b>-0.39</b>	<b>-0.41</b>	<b>-0.36</b>	<b>-0.34</b>	<b>-0.35</b>	<b>-0.29</b>	<b>-0.40</b>	<b>-0.39</b>	<b>-0.40</b>	<b>-0.28</b>	<b>-0.29</b>	<b>-0.27</b>
$zP$ , $P$ zero	<b>-0.25</b>	<b>-0.24</b>	<b>-0.25</b>	<b>-0.25</b>	<b>-0.23</b>	<b>-0.20</b>	<b>-0.44</b>	<b>-0.43</b>	<b>-0.43</b>	<b>-0.15</b>	<b>-0.14</b>	<b>-0.12</b>
$dF$ , dif $F$							<b>-0.59</b>	<b>-0.51</b>	<b>-0.46</b>	<b>-0.43</b>	<b>-0.37</b>	<b>-0.32</b>

Table 4b. Cross-country correlations to the growth rate,  $g$ 

Sample	Period 1: 1960-2016						Period 2: 2000-2016					
	Pearson			Kendall			Pearson			Kendall		
Sample	(A)	(B)	(C)	(A)	(B)	(C)	(A)	(B)	(C)	(A)	(B)	(C)
$N$ , countries	111	127	156	111	127	156	103	115	140	103	115	140
(a) $y$ , income	<b>0.45</b>	<b>0.34</b>	<b>0.33</b>	<b>0.29</b>	<b>0.24</b>	<b>0.22</b>	-0.02	-0.03	-0.01	-0.07	-0.07	-0.07
(b) $P$ , Polity	<b>0.22</b>	<b>0.16</b>	0.10	<b>0.15</b>	<b>0.10</b>	0.07	-0.15	<b>-0.16</b>	<b>-0.14</b>	<b>-0.19</b>	<b>-0.20</b>	<b>-0.16</b>
$F$ , Fraser							0.02	-0.10	-0.05	-0.06	<b>-0.13</b>	<b>-0.09</b>
(c) $dP$ , dif $P$	<b>-0.18</b>	<b>-0.17</b>	<b>-0.19</b>	<b>-0.11</b>	-0.09	<b>-0.12</b>	-0.14	-0.13	<b>-0.15</b>	0.02	0.05	0.04
$zP$ , $P$ zero	-0.07	-0.07	-0.09	<b>-0.12</b>	<b>-0.11</b>	<b>-0.11</b>	<b>-0.34</b>	<b>-0.34</b>	<b>-0.33</b>	<b>-0.08</b>	<b>-0.08</b>	<b>-0.08</b>
$dF$ , dif $F$							<b>-0.17</b>	-0.06	-0.07	-0.02	0.05	0.06

Rows (a) are the same in the two tables. The three country samples (A) (B) and (C) are defined in the text. The Fraser index covers fewer countries, so period 2 is estimated for fewer observations. The correlations of  $P$  and  $F$  for period 2 are 0.50, 0.43 and 0.44 for samples A, B and C.

Table 4a reports the correlates to income: Rows (b) and (c) have a highly significant and consistent pattern. Rows (b) show that income is positively correlated to the levels of both indices. One reason for this correlation is the transitions in the two system variables, from Figure 2. The next section shows that there are more reasons. Rows (c) report that income is negatively correlated to all three variability measures ( $dP$ ,  $zP$ ,  $dF$ ) – especially to  $dF$ .

Table 4b reports the correlates to the growth rate: Rows (a) are the same as in Table 4a, and rows (b) have the same problem as the (a) rows. The correlations in rows (c) are (nearly) all

negative and often significant. It is important that the short- and long-run connections are the reverse (just like in Chapter 10). Thus, the short-run connection does not aggregate to the long run. It has short-run costs to change the system, even when the changes have fine long-run consequences.

Figure 3a. Growth-income scatter, 1960-16

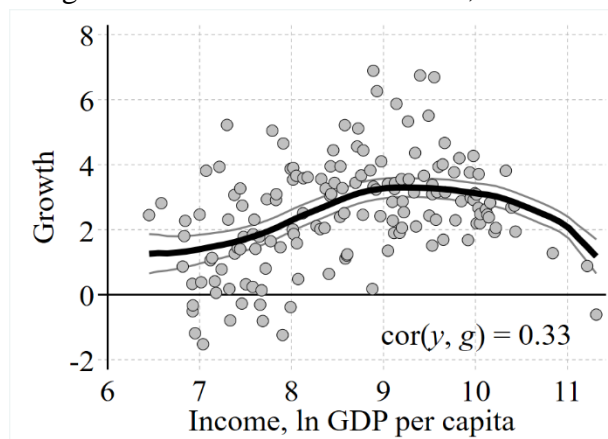
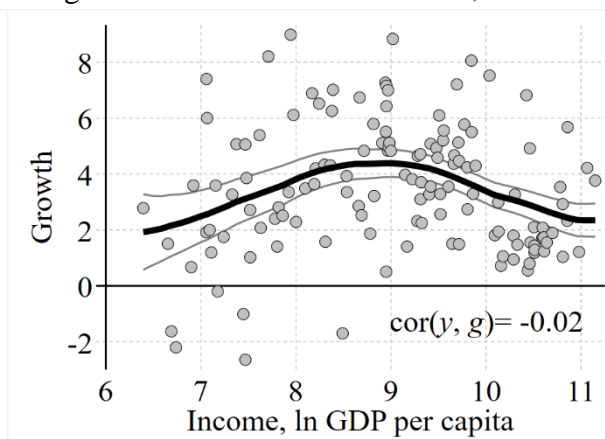


Figure 3b. Growth-income scatter, 2000-16



The kernel curve included has  $bw = 0.5$ . Seven outliers are deleted from the data for Figure 3b. This does not affect the form of the curve. The confidence intervals of the two curves overlap. However, a linear approximation gives a positively sloped curve for Figure 3a and a negative one for Figure 3b as in rows (a) of Table 4.

Row (a) is the same in Tables 4a and b. It differs greatly for the two periods. Figures 3a and b show the scatters of the data used for the correlations. They both have the typical hump shape found in Chapter 12, and they even look similar, but the hump shape gives rather arbitrary results when the correlation enforces linearity. Thus, it illustrates the story about  $\beta$ -convergence told in Chapter 12.

The results from Table 4 are further analyzed by the regressions reported in Table 5. Table 5a compares explanations of income. The coefficient to growth still changes from period to period, but now the coefficient is smaller. It also appears that Fraser,  $F$ , and its first difference,  $dF$ , are powerful variables destroying the coefficients of Polity,  $P$ , and its first difference,  $dP$ . Economic freedom has a positive coefficient, while its variability has a large negative coefficient.

Table 5b compares explanations of the growth rate. All 12 estimates of coefficients to  $dF$ ,  $dP$  and  $Z^P$  in Table 5a and the same 12 estimates in Table 5b are negative, and most are significant. This result is consistent with the theory that increasing variability causes decreasing growth. Note that the  $dF$ -variable is much stronger than the  $dP^P$ -variable.



Table 5a. Cross-country regressions explaining income,  $y$ 

	Full period 1960-2016		Period from 2000-2016		
	(Reg 1)	(Reg 2)	(Reg 3)	(Reg 4)	(Reg 5)
(a) $g$ , growth	<b>0.13</b> (3.1)		<b>-0.09</b> (-3.2)		<b>-0.09</b> (-2.4)
(b) $P$ , Polity	<b>0.08</b> (7.2)	<b>0.09</b> (7.3)	-0.02 (-1.3)	-0.01 (-0.5)	<b>0.04</b> (2.2)
$F$ , Fraser	n.a.	n.a.	<b>0.78</b> (7.3)	<b>0.85</b> (7.9)	
(c) $dP$ , dif $P$	<b>-0.80</b> (-4.2)	<b>-0.90</b> (-4.7)	-0.11 (-0.8)	-0.09 (-0.7)	<b>-0.47</b> (-2.7)
$zP$ , $P$ zero	-1.05 (-1.2)	-1.14 (-1.2)	<b>-0.96</b> (-3.3)	<b>-0.71</b> (-2.4)	<b>-1.63</b> (-4.1)
$dF$ , dif $F$	n.a.	n.a.	<b>-3.59</b> (-2.9)	<b>-2.55</b> (-2.0)	
(d) Com/Post	0.44 (1.9)	<b>0.61</b> (2.6)	<b>0.63</b> (3.1)	0.32 (1.7)	0.45 (1.7)
OPEC	<b>1.18</b> (5.1)	<b>1.26</b> (5.3)	<b>1.63</b> (6.6)	<b>1.54</b> (6.1)	<b>1.05</b> (3.1)
$n$ , per country	-0.00 (-0.4)	0.00 (0.1)	<b>0.08</b> (3.1)	<b>0.06</b> (2.3)	0.02 (0.5)
Constant	<b>8.50</b> (19.2)	<b>8.62</b> (19.0)	<b>3.43</b> (3.8)	<b>2.80</b> (3.1)	<b>8.98</b> (17.4)
$N$ , countries	156	156	140	140	140
$R^2$	0.480	0.447	0.664	0.638	0.341
$R^2$ adj.	0.455	0.424	0.641	0.616	0.306

Table 5b. Cross-country regressions explaining growth,  $g$ .

	Full period 1960-2016		Period from 2000-2016		
	(Reg 1)	(Reg 2)	(Reg 3)	(Reg 4)	(Reg 5)
(a) $y$ , income	<b>0.47</b> (3.1)		<b>-0.85</b> (-3.2)		<b>-0.49</b> (-2.4)
(b) $P$ , Polity	-0.01 (-0.6)	0.03 (1.1)	<b>-0.14</b> (-3.2)	<b>-0.13</b> (-3.0)	<b>-0.11</b> (-2.6)
$F$ , Fraser	n.a.	n.a.	-0.12 (-0.3)	<b>-0.84</b> (-2.5)	
(c) $dP$ , dif $P$	-0.39 (-1.0)	<b>-0.81</b> (-2.2)	-0.32 (-0.7)	-0.24 (-0.5)	-0.17 (-0.4)
$zP$ , $P$ zero	-0.17 (-0.1)	-0.70 (-0.4)	<b>-3.55</b> (-3.9)	<b>-2.94</b> (-3.2)	<b>-3.92</b> (-4.1)
$dF$ , dif $F$	n.a.	n.a.	<b>-14.50</b> (-3.7)	<b>-12.33</b> (-3.1)	
(d) Com/Post	<b>1.01</b> (2.2)	<b>1.29</b> (2.9)	<b>3.86</b> (6.8)	<b>3.58</b> (6.1)	<b>3.31</b> (5.7)
OPEC	0.04 (0.1)	0.63 (1.4)	<b>2.35</b> (2.7)	1.04 (1.3)	1.40 (1.7)
$n$ , per country	<b>0.03</b> (2.1)	<b>0.03</b> (2.1)	<b>0.29</b> (3.6)	<b>0.24</b> (3.0)	<b>0.19</b> (2.4)
Constant	<b>-3.12</b> (-2.0)	0.93 (1.1)	<b>9.87</b> (3.4)	<b>7.48</b> (2.6)	<b>5.10</b> (2.3)
$N$ , countries	156	156	140	140	140
$R^2$	0.152	0.098	0.400	0.354	0.332
$R^2$ adj.	0.112	0.062	0.359	0.314	0.297

Sections (a) to (c) correspond to the rows in Table 4. Parentheses hold  $t$ -ratios. Coefficients are bolded if they are significant at the 5% level.

The remaining coefficients give strong indications of confluence, notably between income and the Fraser index. Still, two results stand out: While the Fraser index has a positive coefficient to income, changes in the index have substantial negative effects. Thus, while a liberalization has good effects in the long run, it is expensive in the short run – and vice versa for an increase in the level of regulation. In addition, it is nice to see that the post-socialist countries have relatively high growth. Thus, while the transition from socialism was expensive

in the short to medium term, it gave higher growth during the recuperation period.

The  $zP$ -variable measures the fraction of years with anarchy and temporary foreign occupation. Such years are not present in most countries, but when they are, they are quite large. It is rather expensive measured in lost income and growth to go through periods of anarchy.

This section provides two parameters measuring the effect of instability: For political instability, it is the coefficient on  $dP$  that is about  $-0.5$ . For economic instability it is the coefficient on  $dF$  that is about  $-13$ .

### 13.5 Conclusions

The chapter has given various estimates of components of the cost of the Grand Transition. They are summarized in Table 6. The estimates are uncertain – notably the ones in rows (2) and (3) – however, it is still clear that they show substantial costs.

Table 6. The costs of the Grand Transition, at best and on average

$X = P$ or $F$	$P$ -index, from		$F$ -index, from		Total loss
(1) Full transition	14 points	Table 2	2.8 points	Table 2	
(2) $G^X$ , excess changes	4.5 times	Table 2	5.5 times	Table 2	
(3) Effect of $dX$	$-0.5$	Last section	$-13$	Last section	
(4) Total (1) x (2) x (3)		$-31$		$-200$	$-230$
(5) Minimum (1) x (3)		$-7$		$-36$	$-43$

The minimum of just above 40 percentage points is reached when only the changes necessary for the transition are made. It is a small loss when distributed over a couple of centuries. However, most countries take a roundabout road to development, and this means that the changes are much larger than necessary. This means that the loss is much larger. On average it is about 230 percentage points, which over 1-2 centuries is 1.1-2.3 percentage points per year.

However, think of the potential miracle growth that may make countries go through the Grand Transition in half a century. This is clearly impossible if countries go through the normal amount of institutional changes that gives a loss of 230 percentage points, which, when distributed over 50 years, is 4-5 percentage points per year.

The findings in the chapter confirm the standard result in the literature that system instability harms investment and hence growth. Thus, it tells a story of growth that brakes itself in middle-income countries. The prevailing opinion of the East Asian growth miracle is that it should be explained by the growth premium reached from transfers of resources – notably labor

– from the traditional to the modern sector. The chapter argues that this transfer is normally quite problematic, as many countries experience (high) institutional instability that generates uncertainty that harms investment.

Thus, the growth miracle may rather be that the political systems of these countries were sufficiently stable to limit the necessary economic system reforms until the good effects of the changes became visible to the majority of the population before the countries democratized.<sup>3</sup> They also managed to use the world market to overcome the limitations of the domestic market, so that the modern sector could expand rapidly.

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<sup>3</sup> It is also worth noting that one of the most thoughtful and successful practitioners of development, Lee Kuan Yew, often claimed that political stability is a key to development. Lee Kuan Yew ruled Singapore for all the 45 years of ‘miracle’ growth, where he practiced what he claimed.