

The Role of Institutions

A critical question in the search for an explanation of Mauritius's successful growth performance is why the Mauritian economy has been able to continuously diversify its production base.

Broadly, the reasons for the success can be summarized in the phrase “good government policies.” Indeed, the government has played a leading role in the diversification process. The strategy involved an active role for the government in promoting industry, by means such as tax and other incentives and reforms of the regulatory environment. However, the ability of the government to promote a successful diversification strategy and to pursue appropriate macroeconomic policies, especially in the difficult circumstances of deteriorating terms of trade in the early 1980s, may have to be explained further. A logical explanation would lie in the quality and good functioning of public institutions.

There is in fact now widespread agreement among economists studying economic growth, an agreement supported by strong econometric evidence, that institutional quality plays a crucial role in explaining economic performance, and that there are close interactions between sound policies and good institutions, that are likely to be mutually reinforcing.¹⁷ In general, countries with strong growth performance are those where investors feel secure about their property rights, the rule of law prevails, private incentives are aligned with social objectives, monetary and fiscal policies are grounded in solid macroeconomic institutions, idiosyncratic risks are appropriately mediated through social insurance, and citizens have recourse to civil liberties and political representation. Sound policies are more likely to be pursued where they are supported by strong institutions, while a weak institutional setup may make it difficult to sustain good policies over time.

¹⁷See in particular Hall and Jones (1999); Acemoglu, Johnson, and Robinson (2001); Rodrik, Subramanian, and Trebbi (2002); and Easterly and Levine (2003).

An extensive analysis of the association between institutional quality and economic performance has been presented in the IMF's *World Economic Outlook* (IMF, 2003c); econometric analysis carried out in that document shows that institutions have a strong and significant impact on economic growth and on per capita GDP. This may also be due to the role of institutions in ensuring the sustainability of good economic policies, because good economic policies and the quality of institutions appear to be closely correlated. To distinguish between the roles of these two sets of variables, econometric analysis in the April 2003 *World Economic Outlook* seeks to explain variations in GDP per capita and in growth by including both institutional quality variables and economic policy variables. The results indicate that institutions play a dominant role in explaining cross-country differences in GDP per capita and GDP growth, but that macroeconomic policies also play a statistically significant role.¹⁸ The findings are consistent with those reported in Easterly and Levine (2003), and Rodrik, Subramanian, and Trebbi (2002).

Quality of Mauritius's Institutions

The high quality of Mauritian institutions suggests that they may be important in explaining the country's macroeconomic performance. Mauritius ranks sharply above the average African country with respect to all indices of institutional quality, political as well as economic (Tables 4.1 and 4.2) and also above the fast-growing Asian economies on most indices. Table 4.2 presents indeed some remarkable findings. The indices for voice and accountability, political instability, government effectiveness, regulatory burden, and rule of law are sharply more favorable in Mauritius, not only in comparison to all other

¹⁸The empirical work in the *World Economic Outlook* (IMF, 2003c) uses a sample of 94 countries, of which 25 are classified as advanced economies and 69 as developing. Three sets of dependent variables are used to assess volatility: real income per capita GDP in 1995, the average annual growth rate of GDP per capita over the period 1960–98, and the standard deviation of these growth rates. The regressions are estimated using two-stage least squares, to take into account that institutions and policies are likely to be endogenous; in fact, while institutions influence growth, higher income also increases the demand for participation, accountability, and transparency, and also provides the public resources needed for better institutions. The quality of policies is also likely to improve with higher incomes. The aggregate governance and the policy variables are therefore estimated in a first stage using a set of instruments correlated with the endogenous regressors. Geographical variables are used as instruments for the institutional index, as in many similar studies. The aggregate governance index is the average of the six indicators presented in Table 4.2. The policy measures are inflation, exchange rate overvaluation, trade openness, government size, financial development, and capital account openness. Initial levels of income and schooling are included to take into account possible convergence effects.

Table 4.1. Mauritius and Other Countries with Respect to Indices of Institutions

Institutional Quality Index	Mauritius ¹	Africa	Fast Growing Countries	Other Developing Countries
ICRGE ²	7.23	4.54	6.86	4.29
Expropriation ³	8.06	5.75	8.54	6.47
Democracy ⁴	0.75	0.25	0.47	0.51
Participation index ⁴	0.8	0.3	0.49	0.44

¹ For the International Country Risk Guide (ICRGE) and the protection against risk of expropriation Mauritius has fitted values.

² ICRGE index is a measure of institutional quality that contains aspects of government that affect indices, property rights or the ability to carry out business. It is published by a private firm that provides consulting services to international investors.

³ For the ICRGE index and the index of protection against the risk of expropriation, the scale is between 0 and 10, with higher values indicating better institutional quality.

⁴ The participation index measures the extent of competitiveness of political participation. This index is taken from the Polity III dataset of Jaggers and Gurr (1995), who define it as the “extent to which non-elites are able to access institutional structures for political expression.” The participation index is rescaled to range from 0 to 1 in Rodrik (1999b). The democracy index also ranges from 0 to 1.

Table 4.2. Institutional Variables: Mauritius and Other Regions¹

	EC-90	V&A [1]	PI [2]	GE [3]	RB [4]	RL [5]	G&C [6]	Average [1]–[6]
World	3.65	-0.22	-0.28	-0.34	-0.16	-0.31	-0.36	-0.29
Sub-Saharan Africa	2.51	-0.37	-0.62	-0.47	-0.34	-0.54	-0.45	-0.44
Emerging Asian economies ²	3.67	0.08	0.42	0.75	0.61	0.78	0.53	0.53
Mauritius	7.00	1.01	1.14	0.17	0.22	1.28	0.34	0.69

Source: Kaufmann, Kraay, and Zoido-Lobaton (1999).

¹ EC-90=constraint on executive branch in 1990; V&A=voice and accountability; PI=political instability; GE=government effectiveness; RB=regulatory burden; RL=rule of law; G&C=graft and corruption. The higher the score, the better the respective institutions.

² China, Hong Kong SAR, Indonesia, Malaysia, Korea, Singapore, Taiwan Province of China, and Thailand.

African countries, but also in comparison to fast-growing emerging Asian economies. This confirms that the political and legal institutions in Mauritius are at a significantly better level than those in the comparator countries. Indeed, Mauritius has a stable system of government with a tradition of smooth transition of power, a well-functioning parliamentary democracy, a respected and independent judiciary, relatively well-performing public institutions (including an efficient customs and port administration, particularly crucial in a small open economy), and a professional civil service.

Rule of Law

The Mauritian legal and judicial system is sound and effective. The legal system of Mauritius is well established, and is based upon a combination of French and common law provisions and principles that have been successfully blended to accommodate the situation, history, traditions, and communities of Mauritius.

In contrast to many parts of the world, the courts are perceived as doing a creditable job, and public confidence in the rule of law is high. The court system consists of the Supreme Court, which is presently composed of a Chief Justice, a Senior Puisne Judge, and seven other judges (soon to be increased by four more); the Intermediate Court; the District Court; and the Industrial Court. Bankruptcy issues are dealt with by the Master and Registrar who has the status of a Judge in Bankruptcy. In commercial matters, the judges are generally regarded as competent. Superior courts are generally well equipped with technology and libraries, and all proceedings are taped. An area of possible improvement is a reduction in delays in the hearing of cases, to ensure that the business community retains respect for the courts as the primary dispute resolution mechanism.

Adaptability to External Shocks

Both Gulhati and Nallari (1990) and Rodrik (1999b) have argued that Mauritius's successful performance in tackling its macroeconomic imbalances in the early 1980s owes much to strong domestic institutions. Macroeconomic adjustment was in fact carried out by a series of governments of different political persuasions, indicating an ability to achieve a broad national consensus on the need for adjustment. Furthermore, participatory politics and a good flow of information ensured that early warning indicators were in place and that emerging economic problems could be addressed at an early stage. Rodrik (1999b) also noted that robust domestic institutions and the culture of participatory politics allowed Mauritius to tackle without undue disruptions the distributional issues inherent in the adjustment policies needed to solve macroeconomic imbalances because the political culture facilitated finding satisfactory compromises that would achieve the needed adjustment with an equitable burden sharing among different groups. Indeed, there is a substantial body of empirical analysis indicating that policies conducive to growth, including growth in the areas of trade openness and human capital formation, are less likely to be formulated and carried out in a sustained fashion where the institutional setting is weak.¹⁹

¹⁹See, for example, Easterly (2002) and Banjeree and Iyer (2002).

Proper Uses of Sugar “Transfer” and Good Management of the EPZ

The skillful use of the sugar rents and the successful management of the EPZ are a particular example of the positive effect of strong institutions in Mauritius. As mentioned in the previous chapter, Mauritius has managed to use efficiently the sugar sector rent. While other countries have taxed their traditional cash crop, often out of existence (or have greatly damaged its potential for prospering), Mauritian society early on reached a social compact based on preservation of the strong and profitable position of the sugar sector in the society, thus facilitating the channeling of these profits into other areas. The skillful use of the possibilities offered by the preferential agreement with the EEC preserved the sector and its potential to produce profits and foreign exchange earnings, and boosted the savings capacity of the economy. The establishment of an efficient crop insurance system against weather-related losses in income has also contributed to preserving the sector and its potential for profits. These were essential to finance the country’s diversification into textile manufacturing, tourism, and other higher value-added services.

The success of the EPZ has also been a testimony to skillful management, made possible by a well-balanced and robust institutional setup. Interestingly, EPZs have not in general been successful in Africa and in other developing countries. A question is, therefore, why instead the EPZ was a strong success in Mauritius.

EPZs have failed in many countries because institutions and governments have not been able to manage the rent seeking and inefficiency that are often associated with the selective interventionism embodied in EPZs.

Apart from Mauritius, EPZ facilities and the attendant incentives were provided in many African countries, such as Zimbabwe, Senegal, Madagascar, and Cameroon. Hinkle and Herrou-Aragon (2001) rated countries like Zimbabwe and Senegal at par with countries without EPZs, because these countries, despite having established EPZs, implemented these arrangements so poorly that they did not achieve any benefits in comparison to African countries without EPZs. The EPZ experience in Cameroon also achieved only very limited success.

This unsatisfactory performance was not limited to the EPZs alone. In fact in analyzing the system of export incentives in 13 African countries, Hinkle and Herrou-Aragon (2001) conclude that no sample country came close to conforming to international best practice for export incentives. This is attributable, in their view, to fiscal constraints and limited administrative capacity, which resulted in leakage of products benefiting from the incentives to the domestic market, thus favoring import-competing rather than export-oriented activities.

The great success of Mauritius is therefore to a large extent attributable to the skill and rigor with which the EPZ regime was established, the complementary existence of efficient facilities for imports and reexports (ports, roads, electricity provision, skilled labor force), and the administrative capacity to ensure that its rules be respected and that no leakages to the domestic market take place. Also, a noteworthy feature of Mauritius's EPZ is that it was able to attract capital originating from the traditional sectors, such as sugar, that could be reinvested in the new sectors. This explains how the firms in the EPZ were largely of Mauritian origins, as mentioned above, while in other African countries EPZs have been constituted mainly by foreign investors.

Quality of Institutions and Mauritius's Growth: Some Econometric Evidence

The previous discussion indicates that strong institutional quality is likely to have played a key role in the good economic performance of Mauritius over the past 30 years. Econometric analysis carried out by Subramanian and Roy (2001) confirms that institutional quality has had a significant impact on Mauritius's economic performance. Their analysis uses the methodology of the cross-country growth studies of Sachs and Warner (1997) and Rodrik (1999b) to assess whether there is something special in Mauritius's growth that needs to be captured by a special dummy.

Table 4.3, which uses a Mauritian dummy in the Sachs-Warner equation, shows that the cross-country growth regression is inadequate to explain Mauritian growth performance, and that the dummy for Mauritius is significant and positive. It is noteworthy that in the second column, when an institutional quality variable is introduced that has been estimated through instrumental variables to eliminate its possible endogeneity bias, the openness variable loses its significance, suggesting that once institutions are controlled for, the openness variable becomes less important.²⁰

²⁰Sachs (2003) contests this result, arguing that the specifications of the basic model may give added power to the institutional variables, and that the interaction of institutions, policies, and geography is very complex. The IMF's *World Economic Outlook* (IMF, 2003c) also explains that the weak role of policies in comparison to institutions in cross-country regressions may be due to the fact that institutions evolve slowly, whereas often policies display large volatility through time.

Table 4.3. Cross-Country Growth Regression as in Sachs and Warner (1997)¹

Dependent Variable for Growth Rate Between 1965 and 1970	OLS	2SLS
Log of initial GDP	-1.44* (-6.45)	-1.79* (-5.73)
Openness x log of GDP	1.18* (-3.5)	-0.27 (-0.57)
Openness (fraction of years open according to Sachs and Warner, 1995)	11.85* (-4.25)	3.21 (-0.79)
Landlocked dummy variable	-0.61* (-2.71)	0.39 (-0.38)
Log life expectancy circa 1970	45.47* (-2.71)	111.14*** (-1.82)
Square of log life expectancy	5.37** (-2.32)	-13.81*** (-1.79)
Central government savings, 1970–90	0.11* (5.17)	0.11** (2.31)
Dummy for tropical climate	-0.82* (-2.92)	0.52 (0.66)
Institutional Quality Index (ICRGE)	0.34* (4.14)	
Expropriation index instrumented		1.41*** (1.72)
Natural resource exports/GDP 1970	-3.82* (-3.97)	-5.64* (-3.94)
Growth in economically active population minus population growth	0.74** (2.16)	-0.46 (-0.38)
Mauritian dummy	1.46** (1.94)	1.89** (1.88)
Constant	-83.26** (-2.46)	-216.43*** (-1.76)
R squared	0.87	0.83
Adjusted R squared	0.85	0.83
Number of observations	85	52

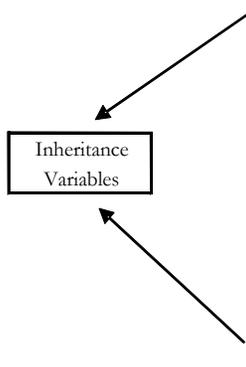
Source: Subramanian and Roy (2001).

Note: Figures in brackets represent *t* ratios; OLS: ordinary least squares; 2SLS: two stages least squares.

¹ * = significant at 99 percent; ** = significant at 95 percent; *** = significant at 90 percent.

Table 4.4. Breakdown of Mauritian Growth¹

Explanatory Variable	Difference between Mauritian Growth and the Baseline Growth of		
	Africa	Fast-growing countries	Other developing countries
Catch-up	-2.33	-1.33	-1.41
Life expectancy	1.51	0.29	0.68
Landlocked	0.19	0.00	0.06
Tropical climate	-0.09	-0.26	-0.34
Natural resource abundance	-0.35	-0.65	-0.55
Ethnolinguistic fractionalization	0.01	-0.03	-0.05
Total inheritance	-1.06	-1.98	-1.61
Openness	-0.20	-1.93	-0.47
Central government savings	-0.43	-0.53	-0.08
Average national savings ratio	-0.001	-0.020	-0.006
Institutional quality	0.75	0.10	0.82



Source: Subramanian and Roy (2001).

¹ Estimates are based on the Sachs and Warner (1997) basic regression.

Using the estimates of the Sachs-Warner model (Sachs and Warner, 1997), Table 4.4 (drawn from the same paper) shows how the explanatory variables contribute to the discrepancy between Mauritius’s growth and the baseline growth of other groups of countries, given the coefficients in the growth equation. While the catch-up variable would lead one to expect lower growth (given the higher starting level of per capita income), and while higher life expectancy helps to explain the growth differential, the strong impact of institutional quality is to be

Table 4.5. Cross-Country Regressions of Change in Growth (Rodrik, 1999b)

East Asia dummy	2.41 [*] (-3.26)	2.11 [*] (-3.06)	
Latin America dummy	-2.16 [*] (-4.56)	-1.77 [*] (-3.7)	
Sub-Saharan Africa dummy	-2.11 [*] (-3.38)	-2.09 [*] (-3.6)	
Growth 1960–75	0.77 [*] (-7.11)	-0.72 [*] (-6.41)	-0.83 [*] (-5.41)
Log GDP/capita 1975	-0.90 [*] (-3.02)	-0.87 [*] (-2.91)	-2.03 [*] (-4.54)
External shocks	-0.03 (-1.05)	-0.07 [*] (-2.84)	-(0.04) (-1.26)
Democracy	1.73 ^{**} (2.18)		
Institutional quality (instrumented for index of protection against risk of expropriation)			1.85 [*] (5.41)
Index of participation		2.02 [*] (2.57)	
Ethnolinguistic fractionalization	-1.65 [*] (-2.38)		
Dummy for Mauritius	3.68 ^{**} (2.19)	4.30 [*] (2.49)	3.91 ^{**} (2.29)
Constant	8.55 [*] (3.94)	7.44 [*] (3.11)	3.95 ^{**} (1.98)
R squared	0.60	0.61	0.54
Adjusted R squared	0.56	0.57	0.49
Number of observations	97.00	97.00	59.00

Source: Subramanian and Roy (2001).

Note: Figures in brackets represent *t* ratios.

*=significant at 99 percent level;

**=significant at 95 percent level;

***=significant at 90 percent level.

noted in explaining the higher growth of Mauritius in relation to both African and other developing countries.

The cross-country regressions in Table 4.5 are based on the Rodrik (1999b) model (the dependent variable is the change in growth between the pre-1975

period and the post-1975 period), and give more weight in the specification to institutional variables; they do not include policy variables such as trade openness and government savings. They again indicate the importance of the Mauritian dummy, which remains quite robust across different specifications of the institutional variable. In all, these regressions confirm that institutional quality is likely to have been a significant factor in explaining Mauritius's economic performance.