

Tabellini, Guido

Working Paper

The role of the state in economic development

CESifo Working Paper, No. 1256

Provided in Cooperation with:

Ifo Institute – Leibniz Institute for Economic Research at the University of Munich

Suggested Citation: Tabellini, Guido (2004) : The role of the state in economic development, CESifo Working Paper, No. 1256, Center for Economic Studies and ifo Institute (CESifo), Munich

This Version is available at:

<http://hdl.handle.net/10419/18894>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.

THE ROLE OF THE STATE IN ECONOMIC DEVELOPMENT

GUIDO TABELLINI

CESIFO WORKING PAPER NO. 1256
CATEGORY 5: FISCAL POLICY, MACROECONOMICS AND GROWTH
AUGUST 2004

An electronic version of the paper may be downloaded

- *from the SSRN website:* www.SSRN.com
- *from the CESifo website:* www.CESifo.de

THE ROLE OF THE STATE IN ECONOMIC DEVELOPMENT

Abstract

This paper discusses the recent literature on the role of the state in economic development. It concludes that government incentives to enact sound policies are key to economic success. It also discusses the evidence on what happens after episodes of economic and political liberalizations, asking whether political liberalizations strengthen government incentives to enact sound economic policies. The answer is mixed. Most episodes of economic liberalizations are indeed preceded by political liberalizations. But the countries that have done better are those that have managed to open up the economy first, and only later have liberalized their political system.

JEL Code: O1, O11.

Keywords: political liberalization, democracy, economic development.

Guido Tabellini
IGIER Bocconi University
5, Via Salasco
20136 Milan
Italy
guido.tabellini@uni-bocconi.it

I am grateful to Francesco Giavazzi for several helpful discussions, to Andrew Feltenstein and participants in the IMF conference on the Middle East and Northern Africa (MENA) region on April 7,8, 2004, Washington DC, for helpful comments, to Torsten Persson for sharing with me his data set on democratic institutions and economic development (Persson (2004)), to Gaia Narciso for excellent research assistance, and to Bocconi University and the Canadian Institute for Advanced Research for financial support.

“...a wise and frugal Government which shall restrain men from injuring one another, which shall leave them otherwise free to regulate their own pursuits of industry and improvement, and shall not take from the mouth of labor the bread it has earned. This is the sum of good government, and this is necessary to close the circle of our own felicities”. (T. Jefferson, 1st Inaugural, 1801, Memorial Edition; 3:320).

1. Introduction

This is how Thomas Jefferson viewed the role of government in 1801. Is this minimalist view still relevant today? Or have we become wiser? This paper addresses this question, reviewing the recent literature on economic growth and on the role of the public sector in fostering economic development.

The central conclusion of this recent literature is that Jefferson was largely right. Not because a minimalist government is necessarily better than a big government. But because the key challenge for most developing countries is to create the basic legal and institutional infrastructures that protect property rights, enforce private contracts and allow individuals to freely take advantage of market opportunities. In principle there are many more things that governments could and should do: provide public goods, correct market failures, reduce inequalities in income and opportunities, stabilize excessive economic fluctuations. But these other government activities are not what makes the difference between success and failure in economic development. The real difference is made by the basic institutional and legal infrastructures that protect property rights, enforce the rule of law and prevent abuse by governments.

This conclusion raises another, more difficult, question. What can developing countries do to facilitate the emergence of these basic institutional infrastructures and more generally to create appropriate government incentives? The paper concludes with a general discussion of this question, reviewing some recent results on the effects of economic and political liberalizations.

The outline of the paper is as follows. Section 2 discusses how history and institutions influence the current level of economic development. Section 3 reviews the recent empirical literature on how public policy affects economic growth. Section 4 discusses the effects of economic and political liberalizations on economic performance and policy outcomes. Section 5 summarizes and concludes

2. Institutions and economic development

The idea that institutions protecting property rights are key to economic development is not new. North (1981) has built his analysis of economic history on this premise. More recently, Hall and

Jones (1999) have shown the relevance of this idea in explaining contemporary differences in the level of economic development across countries.

At the core of the influential paper by Hall and Jones (1999) lies a startling correlation, depicted in Figure 1: countries with a better institutional environment have a much higher level of labor productivity. The vertical axis of Figure 1 measures output per worker (*LOGYL*) in 1988 – a similar correlation exists with regard to total factor productivity. The horizontal axis measures the quality of the institutional environment (*GADP*), at about the same point in time. The variable *GADP* summarizes perceptions of structural policies and institutional environments encouraging the production of output rather than its diversion (through theft, corruption, litigation or expropriation).¹

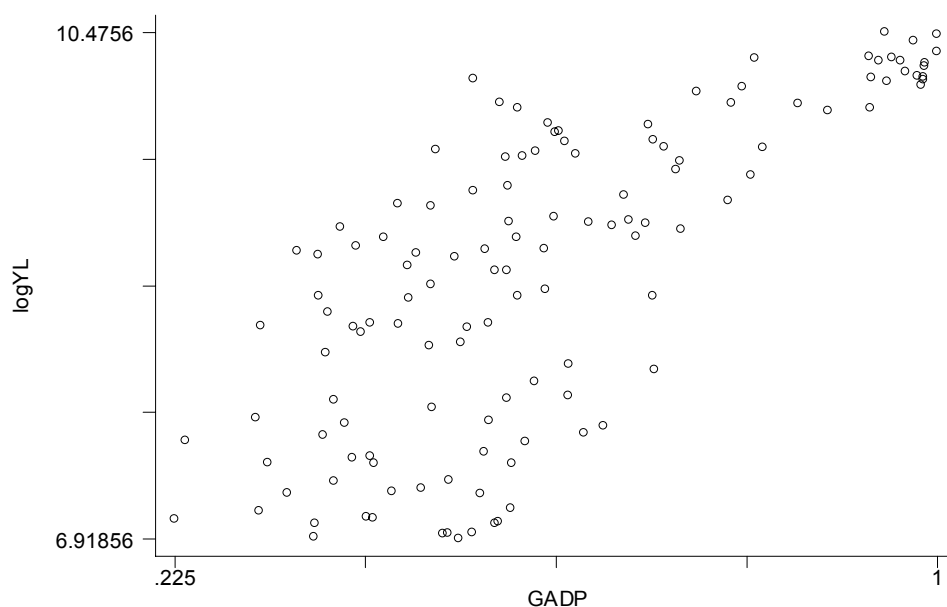


Figure 1 Labor productivity (*LOGYL*) and institutional quality (*GADP*)
 Source: Hall and Jones (1999)

Of course, reverse causation is a serious issue in interpreting Figure 1. Do better institutions and structural policies lead to more productivity, or does economic development lead to better policies and institutions? Hall and Jones (1999) argue that there is enough exogenous variation in structural policies and institutions to identify a causal link from institutional quality to productivity. They show that institutional quality is explained by historical and geographic features of countries (such

¹ This variable has been compiled by Knack and Keefer (1995) using ICRG data. It is measured over the period 1986-95 and consists of a simple average of five indicators; two of which relate to the role of the government in protecting property rights against private diversion (law and order, and bureaucratic quality); the other three to the role of the government itself as a source of diversion (corruption, risk of expropriation and government repudiation of contracts). The variable *GADP* varies from 0 to 1, with higher values indicating better policies (more protection of property rights). We return to this variable in sections 4 and 5 below.

as distance from the equator and percentage of the population speaking English or another European language). Moreover, these historical and geographic variables are valid instruments for institutional quality, in the sense that they influence economic development exclusively through their impact on institutions.

Although the instruments used by Hall and Jones (1999) are somewhat dubious, subsequent research has confirmed the validity and robustness of their basic insight. In particular, Acemoglu, Johnson and Robinson (2001) have shown that the quality of institutions and structural policies as measured by *GADP* is explained by the colonial history of countries. European colonizers pursued different objectives. Some colonies were exploited to extract resources; others were settled by European inhabitants who transplanted their economic and political institutions. This choice was strongly influenced by local conditions at the time of colonization, such as the hospitality of the local environment for European settlers and the density of the indigenous population. Acemoglu, Johnson and Robinson (2001) argue that this pattern of colonization had long lasting and relevant implications. The colonies that were exploited for extractive purposes never developed adequate institutional infrastructures, while those that were settled by European colonizers developed much better institutions that persisted after independence. To test this idea, Acemoglu, Johnson and Robinson (2001) collected data on the mortality rate of European settlers in the colonies between the 17th and 19th centuries and on the density of the indigenous population at that time. The data are strongly supportive: as shown in Figure 2, the index of institutional quality and structural policies, *GADP*, is negatively correlated with settler's mortality measured in logs, *lmort*: where settler's mortality was higher, current institutions are worse. Similar results are obtained with the density of the indigenous population at the start of colonization. Moreover, these variables are valid instruments for institutional quality in the regressions where labor productivity is the dependent variable. Finally, the original instruments used by Hall and Jones (1999) lose explanatory power once local conditions at the time of colonization are controlled for, suggesting that their instruments, and in particular distance from the equator, really proxy for colonial history. More recent research by Easterly and Levine (2002) and by Rodrik, Subramanian and Trebbi (2002) further confirms the robustness of this link from colonial history to institutional infrastructures to current economic development. See also the discussion in Acemoglu, Johnson and Robinson (2004).

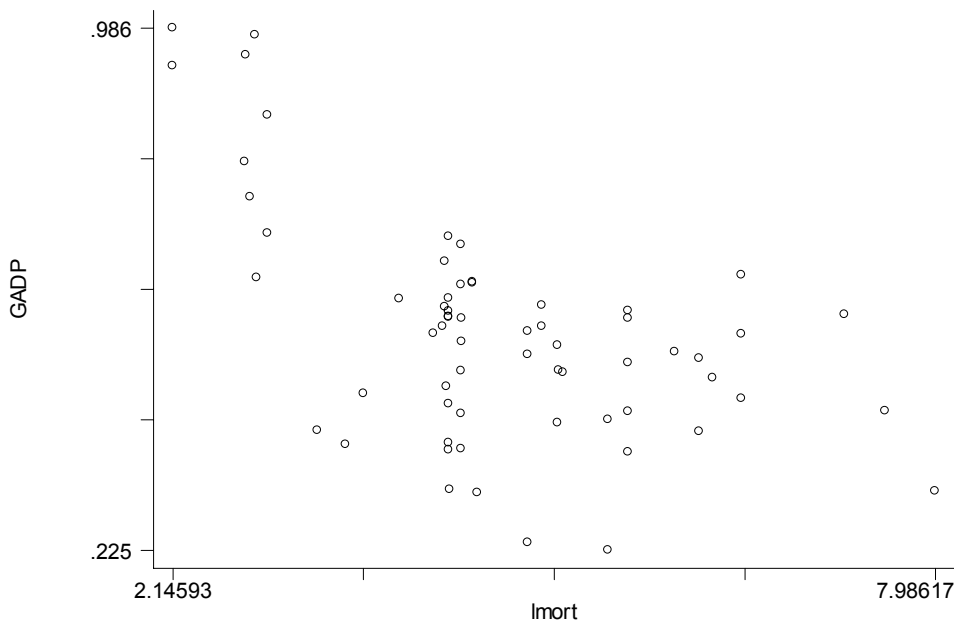


Figure 2: Institutional quality (*GADP*) and log of settler's mortality (*lmort*)
 Source: Hall and Jones (1999) and Acemglou, Johnson and Robinson (2001)

Having established the relevance of a causal link from basic institutional infrastructures to economic development is only a first step. The next challenge is to gain a better understanding of what these good institutional features are, and how can countries deliberately acquire them. This means addressing several problems.

A first issue concerns the precise nature of formal institutions. The indexes of institutional quality used in the literature are averages of individual perceptions about the protection of property rights, the absence of corruption in the public sector, the respect of the rule of law. These perceptions in turn reflect of variety of formal features of institutions and structural policies, ranging from an independent and effective judiciary, to the quality of the bureaucracy, to the deeper constitutional features that guarantee basic political and civic rights, checks and balances on the executive, and generally well functioning democratic institutions. Which of these several features of formal institutions is responsible for the causal effects on economic development? Answering this question is particularly difficult, also because these institutional features are likely to be strongly correlated across countries. A recent paper by Acemoglou and Johnson (2003) suggests the primacy of political institutions. They contrast two sets of institutions: “contractual institutions” (technologies for enforcing private contracts) vs “property right institutions” (technologies for avoiding expropriation of private property by the government). “Contractual institutions” are measured by the index of legal formalism compiled by Djankov et alii (2003a, 2003b) and are instrumented by the country legal origin (whether French-civil-law or English-common-law).

“Property right institutions” are measured by perceptions of risk of government expropriation and by an index of constraints on the executive compiled by POLITY IV and are instrumented by colonial history as measured by settler’s mortality or density of indigenous population. Acemoglu and Johnson (2003) show that “property rights institutions” seem to be fundamental determinants of output and investment, while “contractual institutions” are of secondary importance. They interpret this finding as suggesting that investors cannot really escape the threat of government expropriation, while private transactions can be structured to overcome the deficiencies of the judiciary. But much more remains to be done to identify the separate effects of specific institutional provisions. Moreover, as remarked by Rodrik (2003), we should not take it for granted that there exist institutional blueprints that work well in all economic and social environments. If the effects of institutions are heterogeneous and depend on the environment, the task of identifying the causal effects of specific institutions becomes even more difficult.

A second problem concerns the distinction between formal legal or constitutional provisions vs informal habits and social norms. Real world institutions are shaped by both, and perceptions of institutional quality clearly reflect both formal and informal institutions. Yet, changing habits and social norms may be even more difficult and lengthy than enacting new legislation or reforming political institution. We still know very little about the relevance of this distinction for the effects of institutions on economic development. Note that if informal institutions matter, the effects of formal institutions is bound to be heterogeneous and depend on the overall environment, adding another layer of complexity.

Finally, even if we can identify the precise (formal or informal) institutional features that are most helpful for economic development, there is the question of how to acquire them. Institutions are largely a legacy of history: the age of democracy (i.e for how long a country has been democratic) is strongly correlated with the institutional infrastructures that promote economic development, as shown in Figure 3.² But changing political institutions is very difficult, for obvious reasons.

We return to the question of how to acquire better institutional infrastructures in section 4. In the next section, we continue our review of the evidence on the role of the public sector in fostering economic development.

² The age of democracy (*AGE*) is defined as the fraction of years between 1980 and 1800 for which the country has been a democracy in the sense of having had an uninterrupted string of positive values of the variable *POLITY2* in the POLITY IV dataset (without subsequent reversals into autocracy).

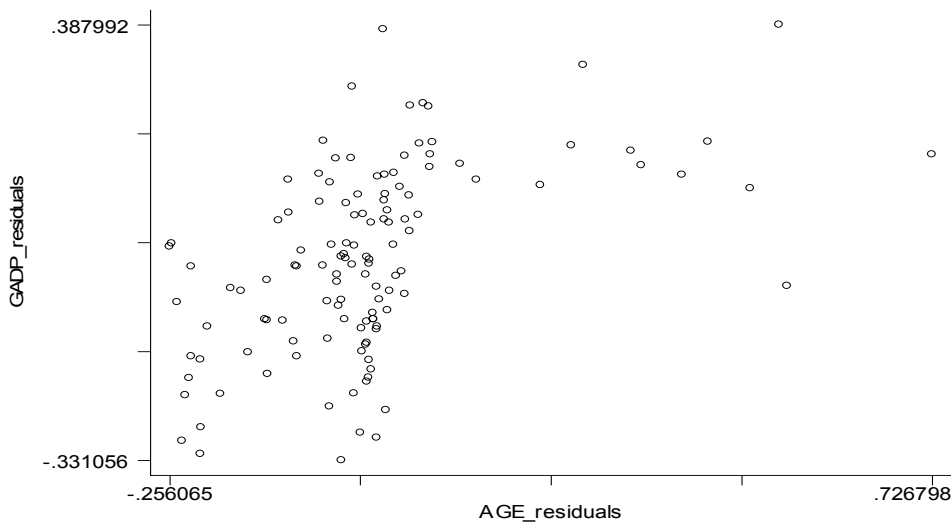


Figure 3: Institutional quality (*GADP*) and age of democracy (*AGE*)

Both variables are the residuals of a regression on distance from the equator and a dummy variable for being a democracy in 1980. Source: Hall and Jones (1999), Persson and Tabellini (2003), Persson (2004), Polity IV.

3. Policies and growth

The view that the current level of economic development of a country is determined by its institutions is important and plausible. But it has the disturbing implication that economic development is largely a legacy of history. What can governments do to rid themselves of that legacy, besides engaging in deep and difficult institutional reform? What kind of economic policies are more likely to accelerate the process of economic development? Motivated by these questions, a large literature has studied the link between growth (rather than the level of development) and public policy (rather than institutions). This section briefly reviews its main insights.³

This line of research originates with the theories of endogenous growth formulated by Lucas and Romer in the mid 1980s. These theories imply that economic policy can easily have large effects on long run growth of income per capita, through individual decisions to accumulate physical or human capital. But when taking this implication to the data, several difficulties immediately arise.

First, over the period 1960-2000 for which data are available, the growth rate of developing countries has been far from stable. Easterly et alii (1993) point out that the correlation of economic growth across the decades 1960-69, 1970-79, 1980-88 for a large sample of countries is almost nil (it ranges from 0.1 to 0.3). Similarly low numbers apply to economic growth across successive 5-

³ Helpman (2004), Easterly (2001, 2003), Easterly and Levine (2001) among others review this line of research in much greater detail.

year periods in the sample up to 1999 (Easterly 2003).⁴ This suggests that shocks have been an important determinant of economic performance. Of course, this could include policy shocks. But most observed policies and other country features tend to be much more stable than economic growth (Easterly et alii 1993, Easterly 2003). Hence, a large component of growth over the period 1960-2000 is likely to remain unexplained. Moreover, if good economic performance is a temporary phenomenon, the level of development reached at the end of this period is almost exclusively explained by the initial conditions. Indeed, Easterly (2003) points out that the correlation between per capita income in 1999 and in 1960 is close to 0.9. Our attempt to escape from the legacy of history is unlikely to take us very far away.

A second problem is that economic performance has deteriorated in the period 1980-2000, relative to the previous two decades. But economic policies have generally improved in the later period. Easterly (2001) and Rodrik (2003) point out that in the 1980s and onwards several developing countries adhered more closely to the so called “Washington consensus” of good policies (fiscal discipline, competitive currencies, privatization and deregulation, trade and financial liberalization). Yet, this did not prevent a decline in their growth rate.

Finally, there is an important methodological problem. We are interested in the growth effects of economic policies. But economic policy itself is endogenous. When estimating regressions of growth on policy variables, we assume that variations in policy are random, as if they were due to new discoveries about policy consequences or to random experimentation. This assumption is generally untenable. Variation in policies (across countries or over time) is more likely to reflect different incentives of governments, rather than different information. But government incentives in turn are shaped by institutions (mainly political institutions). Even rigorous policy analysis, therefore, cannot avoid to take into account institutional determinants of government choices.

With these general caveats in mind, we now review the main conclusions of the existing literature on the growth effects of specific government policies.

3.1 Macroeconomic policy

A stable macroeconomic environment, with low and predictable inflation, a sustainable budget balance, and a stable and competitive currency, is widely believed to be one of the ingredients of economic success. Policy-induced macroeconomic uncertainty interferes with price signals of

⁴ According to Easterly and Levine (2002), however, the instability is greater for total factor productivity growth than for capital deepening.

relative scarcity inducing misallocation of resources, and might discourage private investments. Moreover, a distorted foreign exchange market in the form of a high black market exchange premium acts as a tax on exporters and induces the expectation of future depreciation, with negative effects on investment and on the allocation of resources.

Several papers have asked whether these priors are indeed consistent with the data. Fischer (1991, 1993), in particular, estimated cross sectional or panel regressions where the dependent variable is either the growth of per capita income, or its components obtained from a growth accounting exercise (capital deepening or total factor productivity); the macroeconomic policy environment is measured by the rate or the variability of inflation, the government budget surplus in percent of GDP, the black market exchange premium. His findings support the priors summarized above: inflation, budget deficits and a distorted exchange rate market all reduce growth; the effects operate through both lower investment and lower total factor productivity growth.

Can we interpret these empirical correlations as causal, and infer that a better and more stable macroeconomic environment would bring about more rapid growth? Unfortunately the answer is no, or at least not in all circumstances.

First, according to Easterly (2003), such empirical results are largely due to extreme observations. Once these extreme observations are removed from the sample, the effect of macroeconomic policies becomes statistically insignificant. This is confirmed by the simple plot of average growth of gdp per capita against the log of average inflation (*lnf*) depicted in Figure 4 below. The extreme observations reflect instances of very bad policies (such as inflation rates or black market premia in excess of 35%, or budget deficits greater than 12% of GDP). Several observations can be classified as extreme in this sense. Thus, Easterly (2003) is not pointing out a statistical fragility. Rather, the interpretation is that very bad macroeconomic policies can be very harmful to growth, but in a more moderate range the effect of the macroeconomic policy environment on growth seems negligible. To put it more bluntly, a very bad and unsustainable macroeconomic environment almost certainly kills growth; but sound macroeconomic policies do not seem to guarantee a satisfactory growth performance.⁵

Second, the instances of very bad macroeconomic policies are not random, but probably reflect deeper failures of the institutional environment. Using the settler's mortality variable discussed in

⁵ Fischer (1993) too finds evidence of non-linear effects of inflation, but according to his estimates even low inflation rates hurt economic growth.

the previous section, Acemoglu et alii (2003) argue that colonial history is responsible for weak political institutions, and that these in turn induce unstable macroeconomic policies and a low and volatile growth performance. Moreover, once they control for the effects of political institutions, macroeconomic policy appears to have only a negligible impact on the mean and volatility of economic growth. In other words, weak political institutions seem to be the ultimate cause of unstable and disappointing growth, while poor macroeconomic policy is only a symptom. Suppressing the symptom without curing the ultimate cause is unlikely to lead to lasting improvements.⁶

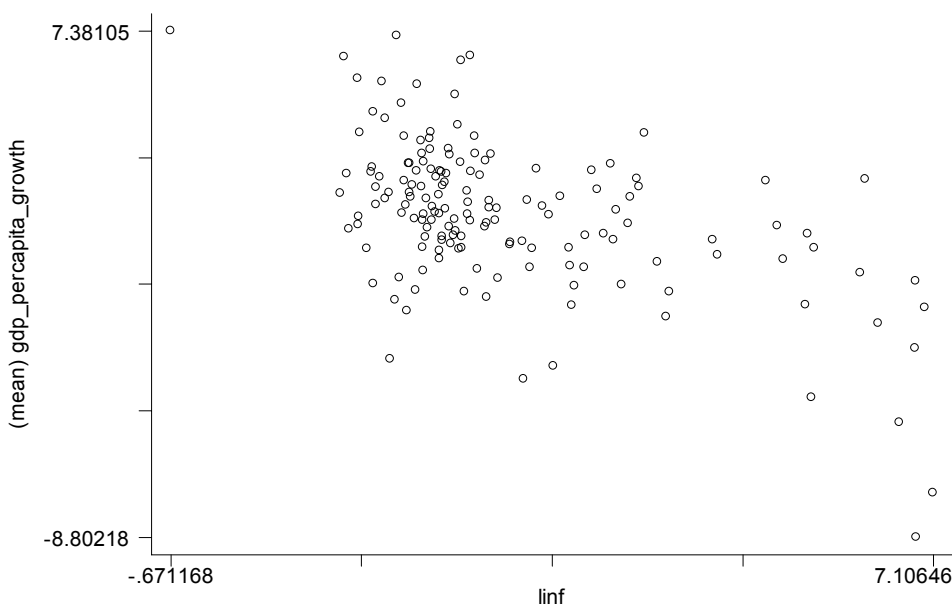


Figure 4: gdp per capita growth and log of inflation (country averages for 1960-1999)

Source: Global Development Finance & World Development Indicators, World bank database.

3.2 Public goods and redistribution

Public spending is a crucial policy tool. Governments can use it to overcome market failures and accelerate development. Or they can abuse it and create additional distortions. At an abstract level, we can distinguish between three kinds of public spending: general public goods (spending that benefits all or a large number of citizens); targeted redistribution (spending that benefits a few citizens); rents for politicians (spending that benefits no-one except the politicians or their close friends). Public spending is more likely to be counter-productive as we move from the first to the last category. Useful government spending typically takes the form of public goods that benefit

⁶ Hamann and Prati (2002) also find an effect of political institutions on the probability that inflation stabilizations will fail. But while a more open and competitive electoral competition reduces the probability of failure, additional checks and balances on the executive (typical of better democracies) increase the probability of failure.

many citizens and that would otherwise be under-provided due to free rider problems or other market failures. Examples are security against external or internal threats, transportation, communication or urban infrastructures, general public services such as education and health, safety nets for the poor or against natural disasters. In principle, targeted redistribution can also remedy market failures. But more often, its true motivation is to provide benefits to powerful groups. Finally, rents for politicians are clearly counter-productive, as they introduce tax distortions at the voters' expenses.

It is generally very difficult for external observers (citizens or analysts) to tell the difference between productive vs counterproductive spending. Transportation infrastructures can remedy market failures, but they can also be a vehicle for corruption or for providing benefits to a geographic constituency. Spending in education can offer a valuable service to many poor households, or it can be an instrument of clientelism to pay higher wages to a selected group of public employees.

Nevertheless, selective redistribution for political purposes is easier with some types of public spending than others. Several studies have pointed out that public employment is a particularly efficient instrument to achieve targeted redistribution. First, the redistributive benefits are very evident to those that are hired as public employees, but they are less visible to citizens at large (Alesina, Baqir and Easterly 2001, Coate and Morris 1995). Second, public employment is less easily reversed in the future compared to other more fungible forms of redistribution; this makes it more valuable to the beneficiaries because its persistence over time is particularly credible (Robinson and Verdier 2002a, b). Third, public employment helps to maintain the coherence of the group of beneficiaries and thus their future political power, further enhancing the credibility that the transfer will last over time (Acemoglu and Robinson 2001).

What does the evidence say about the growth effects of alternative types of public spending, or about the effects of overall spending in general? The answer is that there is no robust link between the size or composition of public spending and economic growth. Easterly and Rebelo (1993), in particular, estimate panel or cross country regressions controlling for initial per capita income and a few other variables. They find that the share of public investment in transport and communication is robustly and positively correlated with growth. But the link between growth and most other variables is very fragile. In particular, growth is not robustly correlated with spending in education or health. In some specifications growth appears negatively correlated with public employment

expressed in percentage of total government spending; this is consistent with the idea that public employment often has the purpose of targeting benefits to special constituencies, rather than providing public goods.

The finding that public spending in education is not helpful for growth might appear surprising. One possible reason has already been suggested: measurement error. What is coded as spending in education might in reality be higher wages for public employees with no improvement in the quality of the public service. But there is more than that. Several careful studies were not even able to find a robust correlation between human capital accumulation (measured as educational attainments in terms of years in school) and subsequent economic growth – see the references quoted by Easterly (2001). The point is that differences in economic growth, like differences in the level of economic development, are largely due to differences in total factor productivity. The precise estimates depend on the sample of countries and the time period: the variation in growth due to total factor productivity ranges from 90% according to Klenow and Rodriguez-Clare (1997), to 60% according to Easterly and Levine (2001). In any case, accumulation of physical or human capital, and a fortiori in human capital alone, plays only a secondary role in explaining both growth and the level of development.

Several studies, such as Easterly and Rebelo (1993) and Slemrod (1995), document that growth is also not robustly correlated with the overall size of government, nor with various measures of tax rates, including the ratio between tax revenues and GDP. The main statistical reason for this fragility is a collinearity problem: fiscal policy is strongly correlated with initial per capita income (richer countries tend to collect more revenue and spend more), also one of the determinants of growth. But the general reason for lack of clear cut results is that, as argued above, public spending can be productive or counterproductive, depending on the political purposes of governments. In other words, public spending too is endogenous. To understand the growth effects of public spending, we first have to identify its determinants.

This takes us to the large and rapidly growing literature on political economics, that studies how governments allocate spending among alternative uses.⁷ In all political systems, governments have strong incentives to under-provide public goods that benefit all, in order to target powerful groups or to appropriate rents for themselves. Targeted benefits are a more efficient instrument to win the election compared to general public goods. A politician only needs the support of a majority to

⁷ See Persson and Tabellini (2000).

remain in power; in fact, the support of relatively small pivotal groups of supporters is often what is needed. Providing benefits to all is thus a waste for the politician.

Although the incentives for targeted redistribution or political rents are always present, their strength varies with the economic and political features of a country. In particular, rent extraction is discouraged if voters are generally well informed and “mobile” among alternative political candidates. Voters’ “mobility” (or “responsiveness”) refers to their willingness to reward good policies with their vote. Accurate information about the policy consequences is of course a precondition for mobility. But a high participation rate in elections, a lack of ideological extremism, a low identification with ethnic groups, are all features that increase voters’ mobility. If voters are very mobile, they are more likely to punish a corrupt incumbent, and hence the incentives to appropriate political rents go down. Conversely, political incentives for selective targeting are stronger if voters are strongly attached to parties or candidates, in the sense that their willingness to reward a politician for a favour received depends on the identity of the politician. Clearly, this kind of voters’ behaviour fosters clientelism, where each politician only wants to provide benefits to “his” voters.⁸ As pointed out by Keefer and Khemani (2003), the evidence suggests that targeting and corruption are particularly pronounced in developing countries, where voters are often poorly informed and attached to specific candidates along ethnic lines. For instance, Foster and Rosenzweig (2001) and Pande (2003) have shown that enhanced political rights of disadvantaged groups in India did not give rise to improvements in broad welfare services or education helping the poor, but rather to selective targeting towards these groups through access to public jobs or other targeted transfers.

Political institutions are another important determinant of the quality of government, and in particular of politicians’ incentives to appropriate rents and target powerful groups. Clearly, more open and competitive elections and stronger checks and balances on the executive tend to reduce abuse of power by politicians. This in turn implies that democracies ought to exhibit less corruption by public officials compared to non-democracies.⁹ Confining the analysis to democracies, Persson, Trebbi and Tabellini (2003) have shown that small details of electoral rules have strong effects on the incentives to appropriate political rents.

⁸ These results are discussed more in detail in Persson and Tabellini (1999, 2000) and Persson, Roland and Tabellini (2003) with reference to models of probabilistic voting.

⁹ Keefer (2002) finds that corruption falls as democracies age. Persson and Tabellini (2003), Persson, Tabellini and Trebbi (2003) confine their analysis to a sample of democracies. They find that corruption is not significantly correlated with indicators of the quality or age of democracy in cross country data, after controlling for education of the population and for per capita income. A possible reason is collinearity between income and democracy indicators.

Recent research has also asked how alternative democratic institutions shape the incentives to target redistribution to influential groups of voters. Majoritarian electoral rules typically provide stronger incentives to target redistribution, compared to proportional elections, for several reasons. First, under plurality rule the incumbent needs to please a smaller coalition of voters (half the voters in half the districts) compared to proportional elections (half the voters in the whole population). Hence, public goods are more of a political “waste” under plurality rule than under proportional elections. Second, the incentives for geographic targeting are also stronger under majoritarian elections, as the incumbent is particularly keen to win electoral support in the pivotal districts where the race is closest.¹⁰ Finally, in parliamentary democracies electoral rules also influence fiscal policy through their effect on the party system. Proportional elections typically lead to fragmented party systems and coalition governments, which in turn tend to spend more than single party majorities. This contributes to explain why proportional-parliamentary democracies tend to have bigger size of governments compared to other types of democracies. Fiscal policy also differs systematically between presidential vs parliamentary regimes: the presidential form of government is associated with smaller governments but also smaller public goods provision.¹¹ Not much is known yet, on the other hand, on how political institutions shape fiscal policy in non-democracies, although according to Mulligan and Sala-I-Martin (2004) cross-country comparisons suggest that fiscal policy does not systematically differ between democracies and non-democracies.

These effects of institutions on fiscal policy suggest another important channel through which institutions can influence economic performance. We return to this issue in section 4, when discussing the effects of economic and political liberalizations on policy outcomes.

3.3 Trade policies and openness

A large literature has explored the impact of international trade and trade policies on growth. In theory, the effect can go either way (Lucas 1988, Grossman and Helpman 1991). The evidence is also mixed. Several historical studies suggest a positive effect of tariffs on growth for the period before World War I (Helpman 2004). But for the second post-war period, the evidence generally suggests a positive effect of free trade and trade volume on growth.

A problem with the early empirical literature on trade and growth was the failure to recognize the endogeneity of trade volume. Frankel and Romer (1999) propose a methodology to overcome this

¹⁰ Lizzeri and Persico (2000) and Persson and Tabellini (1999) discuss these points.

¹¹ See in particular Persson and Tabellini (2003, 2004), Persson, Roland and Tabellini (2003, 2004.)

problem. They estimate a gravity model of bilateral trade flows, where bilateral trade depends on bilateral distances among countries and other geographic features (such as being landlocked or being neighboring countries). The predicted trade flows are then used as instruments for observed trade volumes, in a regression where the dependent variable is the level of income per capita. Larger trade volumes are associated with higher levels of income per capita, mainly through TFP. But the result is not very robust: the effect of openness disappears when the regression also includes measures of the quality of institutions (Rodrik, Subramanian and Trebbi 2002 and Dollar and Kraay 2003). Once more, when trying to explain cross country differences in income levels, the primacy of institutions emerges as a general finding.

Alesina, Spolaore and Wacziarg (2003) apply the Frankel and Romer (1999) methodology to study the link between trade and growth (as opposed to income levels). They find that more open countries on average grow faster, controlling also for country size. But size and trade interact: smaller countries benefit more from trade, while the beneficial effect of trade tends to vanish for countries as large as France.

Several papers have also investigated the effect of trade policy (as opposed to trade volumes) on economic growth. Sachs and Werner (1995) in particular construct a widely used indicator of trade liberalizations. A country is considered as closed to international trade if one of the following conditions is satisfied: (i) average tariffs exceed 40%; (ii) non-tariff barriers cover more than 40% of its imports; (iii) it has a socialist economic system; (iv) the black market premium on the exchange rate exceeds 20%; (v) much of its exports are controlled by a state monopoly. Sachs and Werner (1995) show that this indicator of openness is positively correlated with economic growth in the period 1970-89. The effect is very large and robust: trade liberalization increases average growth by as much as 2%. Figure 5 illustrates the pattern in the data that gives rise to this finding. The vertical axis measures average growth between 1960-1998, the horizontal axis measures the fraction of years between 1950 and 1994 that the country has been open according to the definition of Sachs and Werner (1995). Both variables are the residuals of a regression against the log of per capita income in 1960 and a dummy variable for socialist legal origin. Thus, the figure depicts the partial correlation between average growth and years of being open, after controlling for initial per capita income and for socialist legal origin. Clearly, the correlation is very strong and robust. It remains strong if the variable *yearsopen* is treated as endogenous with the same instrument as in Frankel and Romer (1999).

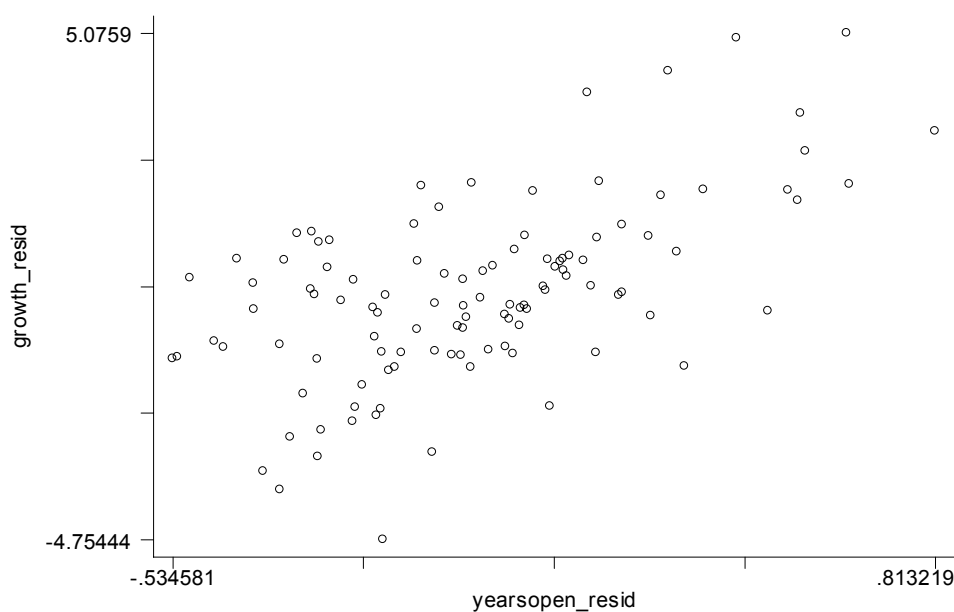


Figure 5. Average growth (1960-99) and fraction of years of openness (1950-94), after controlling for initial per capita income and socialist legal origin

Sources: Penn World Tables 6.1, Hall and Jones (1999), La Porta et alii (1998)

Wacziarg and Welch (2003) update the Sachs and Werner index of trade liberalizations for the 1990s. The cross-sectional correlations are weaker for the 1990s. But the time series variation in the data reveals very robust effects: episodes of trade liberalizations are followed by an increased trade volume, faster growth and an acceleration of investment. These findings are confirmed by Giavazzi and Tabellini (2004) with a difference-in-difference estimation that also compares countries that underwent trade liberalizations with those that did not over the same period. Finally, Ben David (2000) documents how trade liberalizations and trade integration accelerate income convergence.

4. Economic and political liberalizations

Trade liberalizations seem to play an important role in accelerating economic development. Perhaps this is the only positive and robust finding discussed in the previous section. But what is the channel through which this happens? Opening up the economy changes both private and government incentives. On the one hand, trade liberalizations remove economic distortions and create new opportunities for the private sector. On the other hand, opening up the economy acts as a discipline device on governments, because it increases the cost of pursuing inefficient policies. Which of these two channels is more important?

Giavazzi and Tabellini (2004) address this question by comparing macroeconomic policies and structural policies before and after episodes of trade liberalizations, also taking into account what happened in countries that did not liberalize. This difference-in-difference estimation reveals that the process of trade liberalization is accompanied by overall macroeconomic improvements (lower inflation and lower budget deficit) , while the liberalization itself may also be triggered by a bad or unsustainable macroeconomic situation. Moreover, trade liberalizations are also associated or followed by improvements in structural policies and institutional infrastructures (such as better protection of property rights and lower corruption – the same institutional indicators discussed in section 2). This contributes to explain why trade liberalizations induce better economic performance: on average, a more open economic environment is accompanied by a generalized improvement in economic policies and other institutions.

Of course, this pattern of correlations cannot establish that the direction of causality runs from trade liberalizations to better macroeconomic and structural policies. Although the data suggest that a regime open to international trade is an important ingredient of a successful reform package, it could be that trade reforms tend to be accompanied by more comprehensive reforms, simply because a reform minded government acts on several dimensions at once.¹² But this remark does not diminish our interest in these episodes of economic reform. On the contrary, whether they are pure trade reforms or more generalized economic liberalizations, we would like to know what triggers them.

A plausible conjecture is that more open and democratic political institutions facilitate the decision of governments to liberalize their economy. The benefits of international trade typically accrue to citizens at large: consumers, new producers who find profit opportunities in the liberalized sectors, but also owners of factors of production employed in export oriented sectors. The opponents of liberalizations, instead, are typically large incumbent producers in the import competing sectors. Political reforms that improve democratic institutions expand the number of citizens included in the winning political coalition: almost by definition, a democratic government has to rely on the support of many citizens, while an autocratic government can rule against the will of the majority. Hence, when a country becomes democratic, the political influence of those who benefit from international trade is likely to increase, at the expenses of the large incumbent firms in the economy.

¹² Wacziarg and Welch (2003) focus on a subset of 21 countries; they point that of these, 7 are exclusively trade reformers (Bolivia, El Salvador, Ghana, Kenya, Morocco, Trinidad&Tobago, Uruguay), while 14 are comprehensive reformers (Argentina, Brazil, Chile, Colombia, Costa Rica, Ecuador, Guatemala, Hungary, Mexico, New Zealand, Paraguay, Poland, Spain, Sri Lanka).

But the direction of causation could also go the other way, from international openness to democracy. A more open economy increases the returns from engaging in productive activities, as opposed to political rent seeking. It also exposes the ruling class to more competition, because it facilitates comparisons with what happens in other countries. Moreover, a more open international environment increases the cost of inefficient policies, and this in turn makes citizens more demanding and less tolerant of corrupt and unaccountable leaders.

Motivated by these arguments, Giavazzi and Tabellini (2004) study what happens once a country becomes a democracy, focusing in particular on the interactions and the feedback effects between economic and political liberalizations. A cursory look at episodes of trade liberalizations reveals that they are often preceded by democratic reforms, rather than the other way around. This is confirmed by more careful statistical analysis. Although Giavazzi and Tabellini (2004) cannot rule out that feedback effects go both ways, democratization imparts a significant boost to trade reforms. They estimate that already 4 years after having become a democracy, the probability of being open to international trade is about 30 percentage points higher than before democratization.

If this was the end of the story, it would be a very happy ending. We would have a simple and appealing lesson to preach to countries around the world: become a democracy! Once democratic institutions were in place, citizens would have the carrot and the stick with which to induce their governments to enact better policies and to build appropriate institutional infrastructures. But unfortunately, the world is not so simple. Despite the positive association with subsequent economic liberalizations, Giavazzi and Tabellini (2004) also find that on average transitions to democracy are not followed by significant growth accelerations nor by large improvements in economic policies. Why is that so and how can it be consistent with the positive association between democratization and economic liberalization?

Giavazzi and Tabellini (2004) suggest that the answer has to do with the sequence of reforms. They find that opening up the economy first and then becoming a democracy gives better results than the opposite sequence. Countries that first liberalize the economy, and then make the transition to a democracy, do better, in terms of growth, investment, trade volume and macro policies, than those that adopt the two reforms in the reverse order. There are two possible interpretations of this finding. One possibility is that economic liberalizations enacted first are more effective. “Dictators” are less likely to open up the economy. But when they do it, like Pinochet in Chile, they crush whoever opposes the reforms and hence economic liberalization is more pervasive and complete. A

liberalizing democracy, instead, is bogged down by veto players and it is forced to compromise or to compensate the losers. The other possibility is that the “good” sequence (open the economy first and become a democracy second) produces better democracies. An open and competitive economy constrains democratic populism and makes it less likely that redistributive conflicts end up with inefficient policies. Moreover, the sequence economic liberalization followed by political liberalization might indicate the presence of a controlled and pre-planned liberalization enacted by a far sighted leader. When democratization comes first, instead, it is more likely to be unexpected and result from violent struggles or collapses of state authority. As such, it is more likely to be associated with economic disruptions and redistributive struggles.

5. Concluding remarks

This paper reviewed a large body of empirical research that asked what kind of economic policies are more conducive to economic growth. In the end, we are left with the conviction that this is not the right question. At a general level, it is quite clear what kind of economic policies are good for growth: a stable macroeconomic environment, generalised access to the world economy, protection of individual property rights, spending in public goods that provide benefit to all. The really crucial question is why don't governments pursue these sound policies. Lack of knowledge may be part of the answer. Sound economic principles do not translate precisely into unique policy packages, but need to be adapted to the specific economic and social realities, as argued for instance by Rodrik (2003). But lack of incentives is bound to be much more important. This is suggested by the finding in the literature that bad economic policies are generally associated with institutional failures, particularly failure of political institutions.

But what can be done to give the right incentives to the governments of developing countries, short of waiting until they become mature democracies? A practical conclusion of this analysis is that there are beneficial complementarities from political and economic liberalization. Political liberalization facilitates opening up the economy to international competition, probably because democracy increases the political influence of those that are more likely to benefit from international integration. But economic liberalization seems a necessary step towards economic success: without it, new democracies do not prosper.

The detailed interactions and feedbacks between economic and political liberalizations are still not well understood, however. Moreover, while economic liberalizations have been extensively

studied, less is known about political liberalizations and episodes of transition towards democracy. Which specific features of democratic institutions are more likely to promote sound economic policies? And how do they interact with local conditions and with specific features of the economic and social environment, such as inequality, media diffusion, structure of property rights? Making progress in answering these questions is essential, if we want to offer valuable advice to many countries that are not developing.

References

Acemoglu D., S. Johnson, J. Robinson and Y. Thaicharoen (2003), “Institutional Causes, Macroeconomic Symptoms: Volatility, crises and growth”, *Journal of Monetary Economics*, vol. 50, n. 1 January, pp. 49-123

Acemoglu D. and S. Johnson (2003), “Unbundling Institutions”, NBER Working Paper No. 9934, 2003

Acemoglu, D., S. Johnson and J. A. Robinson (2001), “The Colonial Origins of Comparative Development: An Empirical Investigation”, *American Economic Review*, Vol. 91, 1369-1401

Acemoglu, D., S. Johnson and J. A. Robinson (2002), “Reversal of Fortune: Geography and Institutions in the Making of the Modern World Income Distribution”, *Quarterly Journal of Economics*, Vol. 117, 1231-94

Acemoglu, D., S. Johnson and J. A. Robinson (2004), “Institutions as the Fundamental Cause of Long Run Growth”, in P. Aghion and S. Durlauf eds., *Handbook of Economic Growth*, North Holland, forthcoming

Acemoglu, D. and J. Robinson (2001), “Inefficient Redistribution”, *American Political Science Review*, September, 95, 649-661

Acemoglu, D. and J. A. Robinson (2003), *Economic Origins of Dictatorship and Democracy*, manuscript

Alesina A., R. Baqir and W. Easterly (2001), “Public Goods and Ethnic Divisions”, *Quarterly Journal of Economics* 109, no. 2 (may): 465-490

Alesina, A., E. Spolaore and R. Wacziarg (2003), “Trade, Growth and the Size of Countries”, Harvard Institute for Economic Research, Discussion Paper 1995

Ben David, D. (2000), “Trade, Growth and Disparity among Nations”, *Income Disparity and Poverty*, World Trade Organization Special Study 5, Geneva: WTO Publications, 11-42, June 2000.

Coate, S. T. and S. E. Morris (1995), "On the Form of Transfers to Special Interests", *Journal of Political Economy*, 103, 1210-1235

Djankov, S., E. Glaeser, R. La Porta, F. Lopez-de-Silanes and A. Schleifer (2003a), "The New Comparative Economics", *Journal of Comparative Economics*, Vol. 31, n. 4, 595-619

Djankov, S., R. La Porta, F. Lopez-de-Silanes, A. Shleifer (2003b), "Courts", *Quarterly Journal of Economics*, 118, 453-517

Dollar, D. and A. Kraay (2003), "Institutions, Trade and Growth," *Journal of Monetary Economics*, vol. 50, n. 1 January, pp. 133-162

Easterly, W. (2001), *The Elusive Quest for Growth: Economists' Adventures and Misadventures in the Tropics*. Cambridge MA: MIT Press

Easterly, W. (2003), "National Policies and Economic Growth: A Reappraisal", Centre for Global Development, WP no. 27, May 2003

Easterly, W., M. Kremer, L. Pritchett and L. H. Summers (1993), "Good Policy or Good Luck? Country Growth Performance and Temporary Shocks", *Journal of Monetary Economics*, vol. 32, no. 3, December, pp. 459-483

Easterly W. and R. Levine (2001), "It's Not Factor Accumulation: Stylized Facts and Growth Models", *World Bank Economics Review*

Easterly, W. and R. Levine (2002), "It's Not Factor Accumulation: Stylized Facts and Growth Models", *Economic Growth: Sources, Trends, and Cycles*, edited by N. Loayza and R. Soto, Central Bank of Chile

Easterly W. and S. Rebelo (1993), "Fiscal Policy and Economic Growth: An Empirical Investigation", *Journal of Monetary Economics*, 32: 417-458

Fischer, S. (1991), Macroeconomics, Development and Growth, *NBER Macroeconomics Annual*, 329-364

Fischer, S. (1993), "The Role of Macroeconomic Factors in Growth", *Journal of Monetary Economics*, 32: 485-512

Foster, A. and M. Rosenzweig (2001), "Democratization, Decentralization, and the Distribution of Local Public Goods in a Poor Rural Economy", Working Paper, Brown University, <http://adfdell.pstc.brown.edu/papers/democr.pdf>

Frankel, J. A. and D. Romer (1999), "Does Trade Cause Growth?", *American Economic Review*, 89, pp. 379-399

Giavazzi, F. and G. Tabellini (2004), "Economic and Political Liberalizations", IGIER working paper

Grossman, G. M. and E. Helpman (1991), *Innovation and Growth in the Global Economy*, Cambridge MA: MIT Press

Hall, R. E. and C. Jones (1999), "Why Do Some Countries Produce So Much more Output per Worker than Others?", *Quarterly Journal of Economics*, vol. 114 n. 1 February, pp. 83-116

Hamann, A. J. and A. Prati (2002), "Why Do Many Disinflations Fail? The Importance of Luck, Timing, and Political Institutions", IMF Working Paper, n. 02/228

Helpman, E. (2004), *The Mystery of Economic Growth*, mimeo, Harvard University

P. Keefer and S. Khemani (2003), "The Political Economy of Public Expenditures", mimeo, The World Bank

Knack, S. and P. Keefer (1995), "Institutions and Economic Performance: Cross-Country Tests Using Alternative Measures", *Economics and Politics*, 7: 207-227

Lizzeri and Persico (2000), “The Provision of Public Goods under Alternative Electoral Incentives”, *American Economic Review* 91, pp. 225-245

Lucas, R. (1988), “On the Mechanics of Economics Development”, *Journal of Monetary Economics*, 22: 3-42

Mulligan C. B., R. Gil and X. Sala-I-Martin (2004, 2003 NBER), “Do Democracies Have Different Public Policies Than Nondemocracies?”, NBER Working Paper Series, mimeo *Journal of Economic Perspective*

North, D. C. (1981), *Structure and Change in Economic History*, New York, W.W. Norton and Company

Pande, R. (2003), “Can Mandated Political Representation Increase policy Influence for Disadvantaged Minorities? Theory and Evidence from India, mimeo *American Economic Review*

Persson, T. (2004), “Consequences of Constitutions”, 2003 Presidential Address at the Annual EEA Congress, Stockholm, mimeo *Journal of the European Economic Association*

Persson, T., G. Roland and G. Tabellini (2003), “How Do Electoral Rules Shape Party Structures, Government Coalitions and Economic Policies?”, mimeo IGIER

Persson, T., G. Roland and G. Tabellini (2000), “Comparative Politics and Public Finance”, *Journal of Political Economy*, 108, 1121-61

Persson, T. and G. Tabellini (1999), “The Size and Scope of Government: Comparative Politics with Rational Politicians, 1998 Alfred Marshall Lecture.” *European Economic Review* 43: 699-735.

Persson, T. and G. Tabellini (2000), *Political Economics: Explaining Economic Policy*, Cambridge, MA: MIT Press.

Persson, T. and G. Tabellini (2003) *The Economic Effects of Constitutions*, Cambridge MA, MIT Press

Persson, T. and G. Tabellini (2004), "Constitutions and Economic Policy", mimeo *Journal of Economic Perspectives*

Persson, Tabellini and Trebbi (2003), "Electoral Rules and Corruption", *Journal of the European Economic Association*, vol. 1: 4, June

Prezewski, A. and F. Limongi (1993), "Political Regimes and Economic Growth", *Journal of Economic Perspectives*, Summer, vol. 7 n. 3

Robinson, J. A., R. Torvik and T. Verdier, (2002a), "Political Foundations of the Resource Curse", CEPR Discussion Paper no. 3422

Robinson, J. A. and T. Verdier, (2002b), "The Political Economy of Clientelism", CEPR Discussion Paper no. 3205

Rodriguez, F. and D. Rodrik (2000), "Trade Policy and Economic Growth: A Skeptic's Guide to the Cross-National Evidence", *NBER Macroeconomic Annual 2000*, Vol. 15: 261-325

Rodrik, D., A. Subramanian and F. Trebbi (2002), "Institutions Rule: The Primacy of Institutions over Geography and Integration in Economic Development", NBER Working Paper No. 9305

Rodrik, D. (2003), "Growth Strategies", mimeo, Harvard University

Sachs, J. and A. Werner (1995), "Economic Reform and the Process of Global Integration", *Brookings Papers on Economic Activity*, 1: 1-95

Slemrod, J. (1995), "What do Cross-Country Studies Teach about Government Involvement, Prosperity and Economic Growth?" *Brookings Papers on Economic Activity*, 2: 373-431

Wacziarg, R. and K. H. Welch (2003), "Trade Liberalization and Growth: New Evidence", NBER Working Paper No. 10152

CESifo Working Paper Series

(for full list see www.cesifo.de)

- 1193 Inés Macho-Stadler and David Pérez-Castrillo, Optimal Enforcement Policy and Firms' Emissions and Compliance with Environmental Taxes, May 2004
- 1194 Paul De Grauwe and Marianna Grimaldi, Bubbles and Crashes in a Behavioural Finance Model, May 2004
- 1195 Michel Berne and Gérard Pogorel, Privatization Experiences in France, May 2004
- 1196 Andrea Galeotti and José Luis Moraga-González, A Model of Strategic Targeted Advertising, May 2004
- 1197 Hans Gersbach and Hans Haller, When Inefficiency Begets Efficiency, May 2004
- 1198 Saku Aura, Estate and Capital Gains Taxation: Efficiency and Political Economy Consideration, May 2004
- 1199 Sandra Waller and Jakob de Haan, Credibility and Transparency of Central Banks: New Results Based on Ifo's *World Economic Survey*, May 2004
- 1200 Henk C. Kranendonk, Jan Bonenkamp, and Johan P. Verbruggen, A Leading Indicator for the Dutch Economy – Methodological and Empirical Revision of the CPB System, May 2004
- 1201 Michael Ehrmann, Firm Size and Monetary Policy Transmission – Evidence from German Business Survey Data, May 2004
- 1202 Thomas A. Knetsch, Evaluating the German Inventory Cycle – Using Data from the Ifo Business Survey, May 2004
- 1203 Stefan Mittnik and Peter Zadrozny, Forecasting Quarterly German GDP at Monthly Intervals Using Monthly IFO Business Conditions Data, May 2004
- 1204 Elmer Sterken, The Role of the IFO Business Climate Indicator and Asset Prices in German Monetary Policy, May 2004
- 1205 Jan Jacobs and Jan-Egbert Sturm, Do Ifo Indicators Help Explain Revisions in German Industrial Production?, May 2004
- 1206 Ulrich Woitek, Real Wages and Business Cycle Asymmetries, May 2004
- 1207 Burkhard Heer and Alfred Maußner, Computation of Business Cycle Models: A Comparison of Numerical Methods, June 2004

- 1208 Costas Hadjiyiannis, Panos Hatzipanayotou, and Michael S. Michael, Pollution and Capital Tax Competition within a Regional Block, June 2004
- 1209 Stephan Klasen and Thorsten Nestmann, Population, Population Density, and Technological Change, June 2004
- 1210 Wolfgang Ochel, Welfare Time Limits in the United States – Experiences with a New Welfare-to-Work Approach, June 2004
- 1211 Luis H. R. Alvarez and Erkki Koskela, Taxation and Rotation Age under Stochastic Forest Stand Value, June 2004
- 1212 Bernard M. S. van Praag, The Connexion Between Old and New Approaches to Financial Satisfaction, June 2004
- 1213 Hendrik Hakenes and Martin Peitz, Selling Reputation When Going out of Business, June 2004
- 1214 Heikki Oksanen, Public Pensions in the National Accounts and Public Finance Targets, June 2004
- 1215 Ernst Fehr, Alexander Klein, and Klaus M. Schmidt, Contracts, Fairness, and Incentives, June 2004
- 1216 Amihai Glazer, Vesa Kannianen, and Panu Poutvaara, Initial Luck, Status-Seeking and Snowballs Lead to Corporate Success and Failure, June 2004
- 1217 Bum J. Kim and Harris Schlesinger, Adverse Selection in an Insurance Market with Government-Guaranteed Subsistence Levels, June 2004
- 1218 Armin Falk, Charitable Giving as a Gift Exchange – Evidence from a Field Experiment, June 2004
- 1219 Rainer Niemann, Asymmetric Taxation and Cross-Border Investment Decisions, June 2004
- 1220 Christian Holzner, Volker Meier, and Martin Werding, Time Limits on Welfare Use under Involuntary Unemployment, June 2004
- 1221 Michiel Evers, Ruud A. de Mooij, and Herman R. J. Vollebergh, Tax Competition under Minimum Rates: The Case of European Diesel Excises, June 2004
- 1222 S. Brock Blomberg and Gregory D. Hess, How Much Does Violence Tax Trade?, June 2004
- 1223 Josse Delfgaauw and Robert Dur, Incentives and Workers' Motivation in the Public Sector, June 2004
- 1224 Paul De Grauwe and Cláudia Costa Storti, The Effects of Monetary Policy: A Meta-Analysis, June 2004

- 1225 Volker Grossmann, How to Promote R&D-based Growth? Public Education Expenditure on Scientists and Engineers versus R&D Subsidies, June 2004
- 1226 Bart Cockx and Jean Ries, The Exhaustion of Unemployment Benefits in Belgium. Does it Enhance the Probability of Employment?, June 2004
- 1227 Bertil Holmlund, Sickness Absence and Search Unemployment, June 2004
- 1228 Klaas J. Beniers and Robert Dur, Politicians' Motivation, Political Culture, and Electoral Competition, June 2004
- 1229 M. Hashem Pesaran, General Diagnostic Tests for Cross Section Dependence in Panels, July 2004
- 1230 Wladimir Raymond, Pierre Mohnen, Franz Palm, and Sybrand Schim van der Loeff, An Empirically-Based Taxonomy of Dutch Manufacturing: Innovation Policy Implications, July 2004
- 1231 Stefan Homburg, A New Approach to Optimal Commodity Taxation, July 2004
- 1232 Lorenzo Cappellari and Stephen P. Jenkins, Modelling Low Pay Transition Probabilities, Accounting for Panel Attrition, Non-Response, and Initial Conditions, July 2004
- 1233 Cheng Hsiao and M. Hashem Pesaran, Random Coefficient Panel Data Models, July 2004
- 1234 Frederick van der Ploeg, The Welfare State, Redistribution and the Economy, Reciprocal Altruism, Consumer Rivalry and Second Best, July 2004
- 1235 Thomas Fuchs and Ludger Woessmann, What Accounts for International Differences in Student Performance? A Re-Examination Using PISA Data, July 2004
- 1236 Pascalis Raimondos-Møller and Alan D. Woodland, Measuring Tax Efficiency: A Tax Optimality Index, July 2004
- 1237 M. Hashem Pesaran, Davide Pettenuzzo, and Allan Timmermann, Forecasting Time Series Subject to Multiple Structural Breaks, July 2004
- 1238 Panu Poutvaara and Andreas Wagener, The Invisible Hand Plays Dice: Eventualities in Religious Markets, July 2004
- 1239 Eckhard Janeba, Moral Federalism, July 2004
- 1240 Robert S. Chirinko, Steven M. Fazzari, and Andrew P. Meyer, That Elusive Elasticity: A Long-Panel Approach to Estimating the Capital-Labor Substitution Elasticity, July 2004
- 1241 Hans Jarle Kind, Karen Helene Midelfart, Guttorm Schjelderup, Corporate Tax Systems, Multinational Enterprises, and Economic Integration, July 2004

- 1242 Vankatesh Bala and Ngo Van Long, International Trade and Cultural Diversity: A Model of Preference Selection, July 2004
- 1243 Wolfgang Eggert and Alfons J. Weichenrieder, On the Economics of Bottle Deposits, July 2004
- 1244 Sören Blomquist and Vidar Christiansen, Taxation and Heterogeneous Preferences, July 2004
- 1245 Rafael Lalive and Alois Stutzer, Approval of Equal Rights and Gender Differences in Well-Being, July 2004
- 1246 Paolo M. Panteghini, Wide vs. Narrow Tax Bases under Optimal Investment Timing, July 2004
- 1247 Marika Karanassou, Hector Sala, and Dennis J. Snower, Unemployment in the European Union: Institutions, Prices, and Growth, July 2004
- 1248 Engin Dalgic and Ngo Van Long, Corrupt Local Government as Resource Farmers: The Helping Hand and the Grabbing Hand, July 2004
- 1249 Francesco Giavazzi and Guido Tabellini, Economic and Political Liberalizations, July 2004
- 1250 Yin-Wong Cheung and Jude Yuen, An Output Perspective on a Northeast Asia Currency Union, August 2004
- 1251 Ralf Elsas, Frank Heinemann, and Marcel Tyrell, Multiple but Asymmetric Bank Financing: The Case of Relationship Lending, August 2004
- 1252 Steinar Holden, Wage Formation under Low Inflation, August 2004
- 1253 Ngo Van Long and Gerhard Sorger, Insecure Property Rights and Growth: The Roles of Appropriation Costs, Wealth Effects, and Heterogeneity, August 2004
- 1254 Klaus Wälde and Pia Weiß, International Competition, Slim Firms and Wage Inequality, August 2004
- 1255 Jeremy S. S. Edwards and Alfons J. Weichenrieder, How Weak is the Weakest-Link Principle? On the Measurement of Firm Owners' Control Rights, August 2004
- 1256 Guido Tabellini, The Role of the State in Economic Development, August 2004