

The Shadow Economy and Corruption as Development Impediments

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Abstract Shadow economic activity has been on the rise leading to many problems for society, the state and also when it comes to trust in its organizations. The shadow economy has a significant share of the overall economy and captures all the activities beyond those measured by official activities. The rise of the shadow economy around the world is attributed to the stronger presence of government activity, increase in tax rates and taxpayer firms and households' desire to escape taxes and regulatory restrictions. This paper is a review of recent studies investigating various theoretical and empirical aspects of activities in the shadow economy and the measurement and development of the shadow economy across developed, developing and transition economies. It discusses a number of areas related to the shadow economy and their relationship with public performance and economic growth. The review leads to the identification of several indicators with negative or positive association with the size of the shadow economy and its causal effects.

Keywords Shadow economy • Tax morale • Institutional quality • Corruption • Economic freedom • Economic growth • Effective democracy • Natural resources • Political culture

1 Introduction

Activities in the shadow economy have been on the rise and are leading to violations of laws and regulations, lowering tax revenue collections, statistical discrepancies, inequalities, corruption, public budget deficits and public debt problems for the state and its organizations. The shadow economy captures all the

For a full but different version see Chap. 3 in Tausch et al. (2014).

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activities that are beyond the measurement of official activities. In all countries, there is evidence that the shadow economy has a significant share of the overall economy. It is also labeled as hidden, black, underground, unobserved, unofficial, unrecorded and parallel economy. The rise of the shadow economy around the world is attributed to the stronger presence of government activity, increase in tax rates and the desire to escape taxes and regulatory restrictions. Tanzi and Schuknecht (1997), Tanzi (1999), Schneider (2005, 2012), Eilat and Zinnes (2002), Ahmuda et al. (2008) and Chaudhuri et al. (2006) shed light on shadow economic activities, its measurement and development across developed, developing and transition economies.

In reviewing recent literature, this paper focuses on a number of areas related to the shadow economy, in particular economic freedom, corruption and effective democracy and their relationship with economic growth. Researchers have identified several factors that are expected to have a negative association with the size of the shadow economy. These include trust (D'Hernoncourt and Meon 2012) and tax morale and quality of institutions (Torgler and Schneider 2009). Three key factors that have impacted the size of the shadow economy are: debt, default risk, corruption and financial development (Blackburn et al. 2012; Elgin and Uras 2013), information communication technologies (ICT) (Indjikian and Siegel 2005) and environmental violations (Biswas et al. 2012).

Considering economic freedom and corruption (Apergis et al. 2012), we particularly looked at economic developments and their variations (Pieroni and d'Agostino 2013), income and corruption (Saha and Gounder 2013), well-being (Belasen and Hafer 2012), benefits from economic freedom (Gehring 2013) and industrial policy and biased redistribution (Holcombe 2013). In some studies, there is evidence of a causality between economic freedom and economic growth (Narayan et al. 2011), competition law and health policy (Mossialos and Lear 2012), economic policies (Compton et al. 2011), capitalism as a necessary condition for economic freedom (Pryor 2010), transition from planned to market economies (Pääkkönen 2010) and inflows of FDI (Azman-Saini et al. 2010).

Considering an effective democracy, the focus in literature so far has been on the impacts of democracy on FDI (Asiedu and Lien 2011), the effectiveness of aid (Bjørnskov 2010) and benefits to political elites in recipient countries. Political culture (Feld and Kirchgässner 2000) and press freedom (Kalenborn and Lessmann 2013) are found to affect the outcomes of economic policy. There is also an argument for degrowth policies (Johanisova and Wolf 2012) for facing multiple crises with environmental, social and economic dimensions and the different questions that this raises (Romano 2012). State capacity, democracy and rapid growth in industries (Rock 2009), and the importance of good institutional structures are important for economic performance (Knutson 2013) and the effects of economic and political inequality on institutions (Savoia et al. 2010).

The rest of this study is organized into three major parts. The shadow economy and its measurement and magnitude across countries and country groups, factors determining its rate of increase and its linkages with environment and ICT are discussed in the first section. The second section is about economic freedom and

corruption and their relationship with economic growth. The third section discusses effective democracy and how it impacts economic growth in nations under different resource endowments. The final section gives the conclusion.

2 Shadow Economic Activities

2.1 *Shadow Economic Activities and Their Measurement*

The shadow economy is a key source of the gap between observable and actual economic measures. It captures all the activities which are not measured by official activities and consists of both legal and illegal activities outside the reach of the government. It makes up a significant share of the overall economy around the world. Other synonyms for the shadow economy are hidden, black, underground, unobserved, unofficial, unrecorded and parallel economy. There is evidence that underground activities have been on the rise since the 1970s. This rise is attributed to the stronger presence of government activity in economies, increase in tax rates to finance larger public spending programs and in parallel the desire to escape taxes and regulatory restrictions (Tanzi and Schuknecht 1997). Tanzi (1999) suggests that the shadow economy is growing because of the presence of activities that are difficult to measure and tax.

Schneider (2005, 2012) considers shadow economic activities a fact of life. Most societies attempt to reduce the magnitude of the shadow economy by controlling activities through legal measures such as punishment and persecution or by preventive measures with investments in welfare and education. Despite significant investments in the collection of data on shadow economic activities, it is difficult to obtain accurate information about its nature and magnitude. Schneider talks of the existence of comprehensive literature on particular aspects of the shadow economy, but the subject remains controversial. Furthermore, there is disagreement among researchers about the definition and estimation procedures and their use in economic analyses and policymaking.

In a common approach, Schneider (2005) defines the shadow economy to include all market-based legal production of goods and services that are deliberately concealed from public authorities for the following reasons: (i) to avoid payment of income, value added or other taxes, (ii) to avoid payment of social security contributions, (iii) to avoid having to meet certain legal labor market standards, and (iv) to avoid complying with certain administrative procedures. However, this definition does not include economic activities that are illegal and fit the characteristics of classical crimes, as well as the informal household economy or tax evasion.

In another approach Eilat and Zinnes (2002) treat the shadow economy as a distinct entity, instead of seeing it just as a symptom of policy failures in transition countries. They examine its short-term and dynamic consequences for

development. The shadow economy is measured in two different ways: first, the electricity method which attributes growth in total electricity consumption in excess of growth in GDP to the shadow economy, and the second a modified electricity approach correcting for limitations in the first approach.

However, in a third approach, Ahmuda et al. (2008) look at the monetary measure of the shadow economy. They discuss the money demand function and observed cash balances and their variations which are explained by variables which induce agents to make hidden transactions to estimate the size of the shadow economy. However, on econometric grounds, researchers have criticized the quantitative accuracy of this method. This critique is attributed to time series properties, structural breaks and sensitivity to units of measurement to lag the dependent variable and its initial condition.

2.2 Shadow Economic Activities in Industrialized and Transition Economies

Limited statistics from high income countries point to a positive trend in the development of activities in the shadow economy, yet little is known about its magnitude in transition, low-income and emerging economies. Schneider (2005) estimates the shadow economy for 110 countries (66 developing, 23 transition and 21 industrialized OECD) for 1990–1991, 1994–1995 and 1999–2000. The results provide some insights into the main causes and studies the dynamic effects of the shadow economy. The main causes of the shadow economy are found to be high tax and social security contribution burdens, the intensity of regulations and the low quality of public sector services.

Transition economies have undergone major changes. Increased unemployment, decline in GDP, a paralyzed bureaucracy and government corruption during this period saw a surge in the growth of shadow economic activities. Eilat and Zinnes (2002) conducted research on the shadow economy in transition countries. Their objective was to use a policy perspective to find out whether the shadow economy is a ‘friend’ or a ‘foe’. Their research was conducted in three parts: it lays out theoretical and empirical backgrounds, it estimates the size of the shadow economy and it examines its effects and discusses issues of policy implementation.

For the empirical part, Eilat and Zinnes (2002) measured the relative size of the shadow economy vis-à-vis the official GDP in 25 transition countries for 1990–1997. The patterns show that, once established, the shadow economy is hard to remove. Estimation results show that a dollar decline (rise) in official GDP is attenuated by a shadow economic expansion (contraction) of 31 (25) cents. Finally the authors examined whether the shadow economy prevents, slows down, or promotes economic growth and competitiveness, and through what mechanisms. In addition, they considered implications for policymaking that address key questions. The policy recommendations include actions with multiple

benefits (foreign exchange management, better regulation, institutional strengthening, oversight, transparency and public participation, bank privatization and capital market development, decentralization and better local public finance, rule of law, further liberalization, macro-stabilization), actions that directly target the shadow economy (pay your bills, taxation, stricter, more strategic enforcement), actions whose effectiveness is changed by the shadow economy and implementation considerations (market exit, policy complementarity and coordination, selective targeting, dynamic considerations).

In the context of industrialized and transition economies, Schneider (2005), maintains that the shadow economy is expected to influence the tax system and its structure, the efficiency of resource allocation between sectors and the official economy in a dynamic sense. Therefore, several studies have integrated underground economies into macroeconomic models to facilitate an investigation of the effects of monetary and fiscal policies on formal and informal economies and economic growth. In the neoclassical view, the underground economy is assumed to provide the economy with a dynamic entrepreneurial spirit. It can lead to greater competition and higher efficiency, help create markets, increase financial resources, enhance entrepreneurship and transform the legal, social and economic institutions necessary for asset accumulation providing a higher potential for economic growth.

Schneider (2005) concludes that for all countries investigated, the shadow economy as share of GDP had reached a remarkably large size (Africa 33.9–41.2; Americas 34.2–41.5; Asia 20.9–26.3; transition countries 31.5–37.9 and highly developed OECD countries 13.2–16.8). The average percentage shares of GDP in all cases are increasing over time. The author demonstrates empirically a strong interaction of the shadow economy with government policies and with the official economy. He draws three further conclusions. First, an increasing burden of taxation and social security payments combined with rising state regulatory activities, are the major driving forces underlying the size and growth of the shadow economy. Second, the shadow economy has a statistically significant and quantitatively important influence on the growth of the official economy. Increases in the shadow economy have a negative effect on official growth in a developing country, but a positive effect in developed industrialized and transition countries. Finally, shadow economies are a complex phenomenon, and are present in all types of economies. People engage in shadow economic activities because of government actions, most notably high levels of taxation and regulation.

Using state level data from India, Chaudhuri et al. (2006), investigate the size of the hidden economy in Indian states during 1974–1975 and 1995–1996. Their results show evidence of a varying size of the hidden economy in Indian states (10.2 till 48.3 % of GDP), and this provides evidence in favor of liberalization of the Indian economy in 1991–1992, which reduced the growth of the hidden economy. In addition, the results show that growth in the size of the shadow economy is less in election years, lower in states governed by coalitions of political parties and that increased growth of newspapers and literacy rates translate into cleaner governance and help lower shadow economy activities.

2.3 *Factors with Negative Association with Shadow Economy*

There are several factors that are expected to have a negative association with the size of the shadow economy. These include trust, tax morale and quality of institutions. This section briefly discusses these factors considering the magnitude and development of shadow economic activities.

Explaining the shadow economy, some researchers go beyond the objective variables such as tax burden, rate of public expenditure or the density of regulation, and use subjective variables such as perceptions, expectations, attitudes and motivations such as tax morale or institutional quality. The relationship between tax morale and institutional quality and the shadow economy is investigated by Torgler and Schneider (2009). The shadow economy is measured as a percentage of the official GDP using the DYMIMIC-method where one estimates the parameters for determining the size of the shadow economy. European Values Survey data on cheating on taxes and Latinobarometro data on the justifiability of avoiding paying taxes are measures of tax morale, and the quality of governance index is used as a proxy for institutional quality. These allow an investigation of the impact of such factors at the macro level. Torgler and Schneider use a multivariate analysis to examine the quantitative impact of these factors on the level of and changes in the shadow economy. After controlling for a variety of potential factors, they find strong support for the hypothesis that higher tax morale and higher institutional quality lead to a smaller shadow economy. The results show that improving social institutions (enhancing tax morale, voice and accountability, the rule of law, government effectiveness and its regulatory quality and reducing corruption) helps reduce the incentive to 'go underground'. In addition, the legal structure and security of property rights are among the important factors that influence the size of the shadow economy.

Another factor with a significant potential impact on the size of the shadow economy is trust. Trust can be a substitute for formal and legal contracts in a situation when the agents involved in shadow transactions cannot rely on the formal legal system to enforce agreements or settle disputes. This view suggests that trust increases the size of the formal sector by negatively impacting the size of the informal sector. In this regard, D'Hernoncourt and Meon (2012) investigate the relationship between trust and the size of the shadow economy. They report a negative relationship between the size of the shadow economy and generalized trust. Their data includes 145 developed and developing countries that they observed over 1999–2003. They define trust as a view that most people can be trusted which is measured as the trust index provided in the WVS data. Comprehensive sensitivity analyses that they conducted confirm that the relationship is robust to controlling for various sets of economic, policy and institutional variables, to changing the estimate of the shadow economy and the estimation period, as well as to controlling for endogeneity. Trust and the shadow economy are negatively related and trust matters more for developing countries. The impact runs through

agents' propensity to shy away from paying taxes. However, the shadow economy is found to be independent of trust in institutions and from income inequalities. It is mainly present in developing countries. The findings suggest that the tax compliance effect of trust dominates its role as a substitute for the legal system.

2.4 Factors with Positive Association with Shadow Economy

The extent, use and abuse of three key factors have impacted the size of the shadow economy: corruption, ICT and environmental violations. Water quality and air pollution are serious problems in many developing countries threatening the health of citizens. Many of the environmental problems are fostered by the sizeable shadow economies in developing and transition economies. Many countries lack regulations or their governments are corrupt or unable to implement effective environmental policies.

Biswas et al. (2012) are surprised that there is still lack of research on the shadow economy-environment nexus. They fill the gap in literature by testing the extent to which the informal sector contributes to pollution and the extent to which corruption undermines environmental policy. Their empirical study depending on the model and the sample size varies between 107 and 134 countries for the period 1999–2005. Two hypotheses are tested: the shadow economy increases pollution, and corruption exacerbates the effect of the shadow economy on environmental degradation. Pollution is measured as per capita environmental pollution. The shadow economy is measured as a share of the GDP and to measure corruption, the corruption index from Political Risk Services is used. They find that the larger the shadow economy, the greater the pollution, but the effect declines with controlling corruption. The results also hold when controlling for economic and demographic covariates. They also take into account country group heterogeneity by level of income. Their findings imply that policymakers may address the effects of corruption and the shadow economy before increasing environmental standards and regulations.

The diffusion and spread of internet technology in recent decades has had consequences for different sectors of the economy. The effects span from business to banking, e-government, education, information, productivity, foreign direct investment, inflation and political economy issues. In some cases, researchers point to its positive impacts on economic outcomes such as inflation reduction, higher volume of trade, increased productivity and higher economic growth. Indjikian and Siegel (2005) provide a survey of the economic effects of the spread of ICT while Elgin (2013) asks whether the spread of the internet has aided or abetted the shadow economy. The theoretical framework argues that internet usage creates two effects on the size of the informal sector through increasing productivity and reducing the size of the shadow economy and tax evasion. Using a panel data of 152 countries over 9 years (1999–2007), Elgin examines the empirical relationship between the degree of internet usage and the size of the shadow economy. Informal

sector size, total factor productivity (TFP) growth and taxes are estimated as a system where internet usage explains TFP growth and taxes which in turn determine the size of the informal economy accounting for various control variables. The estimation results indicate that the association between internet usage and the size of the shadow economy strongly interacts with GDP per capita and level of development. In designing an economic policy for the shadow economy, it is recommended that policymakers should take into account its two opposite effects on productivity and tax aversion. Policy measures which put the productivity enhancing effect forward relative to the tax-evasion effect should be taken. Subsidizing ICT investment and better infrastructure, improving institutions and bureaucratic quality are among the steps that the governments need to take.

2.5 Public Finances and the Size of the Informal Economy

Data on sovereign debt and the size of the shadow economy vary substantially among countries. The macroeconomic implications include high interest rate payments which constraint economic well-being, risk of debt default, limited enforcement of tax collections and the presence of the informal sector, which influences fiscal instruments, tax revenues and the government's ability to repay public debt. Elgin and Uras (2013) address the interactions between government's indebtedness, sovereign default risk and the size of the informal sector. They test a theory which suggests that in societies with limited tax enforcement, the presence of informality constrains the set of fiscal policy alternatives. It increases public debt and the implied probability of sovereign debt restructuring. In the empirical part, a number of hypotheses are tested: a larger size of the informal sector is associated with higher public indebtedness, higher interest rates paid on sovereign debt, a higher level of financial instability and a higher probability of sovereign default. These are represented by the ratio of public debt to GDP, the interest rate spread, the financial stress index (FSI) and default probability obtained from the World Development Indicators (WDI) database.

The empirical results in Elgin and Uras (2013) from cross-country panel regressions of 152 countries over the period 1999–2007 show that after controlling for previously highlighted variables identified in literature that could explain variations in financial instability, sovereign default risk and public indebtedness, the size of informality in the economy remains a significant determinant of these variables. In order to show that a larger shadow economy size is associated with the four possible undesirable outcomes, they compute elasticities. A 1% increase in the size of the informal sector led to a 6% increase in the ratio of public debt to GDP, a 127% increase in the financial stress index led to a 14% increase in the interest rate spread and a 4% increase in the probability of default. They conclude that improving enforcement through enhancing law and order and implementing policies for lower taxes and unemployment can have significant effects on the sovereign default risk. Policy implications suggest that public policy should focus more on taking

measures to reduce the size of the shadow economy. Increasing law enforcement, enhancing institutional development, policies towards lowering income taxes and unemployment are among the prescribed measures recommended for policymakers in societies with large informal sector sizes.

In a recent study the theoretical relationship between the underground economy and financial development in a model of tax evasion and bank intermediation is studied by Blackburn et al. (2012). Here the presence of an underground sector is a reflection of individuals' incentives to conceal their economic activities or circumstances for two reasons. First, these activities would be less rewarding if practiced in the formal sector. Second, because the activities are illegal. The shadow economy has potentially serious implications for economic performance and public policy. The primary objective of this study was to shed light on the determinants of underground activities and their influence on an individual's incentives. The results show that the lower the financial development, the higher the incidence of tax evasion and the greater the size of the underground economy. This negative relationship implies that the marginal net benefit of income disclosures increases with the level of financial development.

3 Economic Freedom, Corruption and Economic Growth

3.1 Corruption and Economic Freedom

A few studies discuss the substitutability of corruption and economic freedom. Their aim is to analyse how economic freedom affects corruption. However, an analysis of the relation between corruption and economic growth is of great interest. It is expected that the more the government intervenes in markets, the more the economic freedom declines. Apergis et al. (2012) investigate the relationship between economic freedom and corruption using data from 50 US states during 1981–2004. Their study contributes to literature in a number of respects. First, it uses a more objective measure of corruption, namely, the number of government officials convicted in a state for crimes related to corruption. Second, it exploits both time series and cross-sectional variations in the data. Three different measures of economic freedom are used. The results show that in the long-run, economic freedom, per capita income and education have a negative and statistically significant impact on corruption whereas income inequality has a positive impact. The causality tests reveal bidirectional causality between economic freedom and corruption in both the short and long-run.

It is expected that economic freedom reduces levels of corruption. Empirical studies support this expectation, but with some inconsistencies in results. Therefore, the prediction that economic freedom is beneficial in reducing corruption is not found to be universally robust in empirical studies. Pieroni and d'Agostino (2013) reviewed this relationship by using firms' data in a cross-country survey in 1999.

They argue that approaches using aggregated macro data have not been able to explain this appropriately. They model cross-country variations of the economic freedom-corruption relationship using multilevel models. They also disentangle the determinants for several components of economic freedom with unequal effects. The results show that the extent of macro-effects on measures of microeconomic freedom for corruption can explain why lack of competition policies and government regulations may yield more corruption but with large variability across countries. Estimates for Africa and transition economy sub-samples confirm these results.

It is well-known that corruption is detrimental to economic performance, especially in developing countries. However, it is unclear whether an increase in income consistently reduces corruption. Saha and Gounder (2013) investigate the relationship between income and corruption to provide an insight into changes in the level of corruption and economic development. For the empirical part they use data from 100 countries classified by region and income for the period 1995–2008. Unlike most previous studies, they use hierarchical polynomial regression to evaluate the existence of non-linear relationships after controlling for socioeconomic and institutional factors. They find a quadratic function to best fit the data. The results show that corruption is explained by various socioeconomic, political and institutional factors. The results also challenge some of the findings of a negative income-corruption association. Despite an upsurge in corruption among the low-to-medium income countries, advanced stages of development eventually reduce corruption levels. Policy implications suggest that a combination of economic, institutional and social policies can effectively reduce and lower the effects of corruption. Achieving a high level of educational attainment, employment opportunities and equal income distribution are necessary for discouraging corrupt activities.

3.2 Gains and Well-Being from Economic Freedom

Interest in factors that increase well-being, happiness and life satisfaction has increased over past decades. Belasen and Hafer (2012) state that there is plenty of evidence that well-being is positively related to the level of general intelligence and economic freedom across countries. Their aim is to determine whether economic freedom and well-being are related at the state level. Well-being is measured as a multidimensional index and economic freedom as an index of freedom. A regression analysis of the link between well-being and economic freedom accounting for different control variables indicates that across the 50 US states, improvements in economic freedom lead to higher levels of well-being. They find that the relationship between well-being and economic freedom differs significantly across regions in the US and they suggest that the government plays a major role in influencing individual well-being.

In relation to the link between economic freedom and well-being, Gehring (2013) asks the question: who benefits from economic freedom? His focus is on

the effects of economic freedom on subjective well-being. Well-being is defined as happiness obtained from the World Value and the European Value surveys. Results from a panel of 86 countries over the 1990–2005 period suggest that economic freedom has a significant positive effect on subjective well-being. Economic freedom's dimensions including legal security and property rights, sound money and regulation are strong predictors of higher well-being. Different sensitivity analysis tests show that the positive effect is not affected by socio-demographic variables. Developing countries profit more from higher economic freedom by reducing the regulatory burden which strengthens the effect. Culture seems to moderate the effect. Gehring concludes that societies that are more tolerant and have a positive attitude towards the market economy profit the most in the form of well-being.

The issue of inequality in the distribution of freedom, growth and well-being is an important one. For instance, many South Koreans believe that the country's remarkable economic successes are the product of an industrial policy that made Korean industry competitive. Holcombe (2013) maintains that while there is widespread sentiment in favor of maintaining the emphasis on industrial policy, some also believe that the industrial policy has generated unequal benefits at the expense of the welfare of the working class. In recent years, there have been tendencies towards economic democracy to share gains from increased productivity more equally. Neither industrial policy nor economic democracy is in the best interest of the Koreans as each rewards particular interest groups. A *laissez faire* policy of minimal government interference is suggested to provide the best environment to foster South Korea's continued economic progress.

3.3 Causality Between Economic Freedom and Economic Growth

Causality and its direction between economic freedom and economic growth has been another focus of attention of the kind of cross-national comparative literature under review here. Narayan et al. (2011) examined the relationship between democracy and economic growth in 30 Sub-Saharan African countries for the period 1972–2001. Democracy is defined as democracy index constructed by Freedom House and the Legislative Index of Electoral Competitiveness. The results support the Lipset hypothesis indicating that in the long-run, real GDP Granger causes¹ democracy and an increase in GDP results in an improvement in democracy in a number of countries. Support for the compatibility hypothesis that in the long run democracy Granger causes real income and an increase in democracy has a positive effect on real incomes is also found in a number of countries. Support for

¹ A time series X is said to Granger-cause Y if it can be shown through a series of statistical tests on lagged values of X that the X values provide significant information about future values of Y.

the conflicting hypothesis that in the long-run democracy Granger causes real income and an increase in democracy has a negative effect on real income is found for two countries. For most countries there is long-run Granger neutrality between democracy and real GDP supporting the skeptical hypothesis for a majority of the countries.

European community (EC) welfare states have developed compulsory public social insurance to promote social cohesion among citizens. The European health systems are based on the principles of solidarity, equity and universality. In recent years the EC health policy shows signs of tension between EC economic freedom and social policy. The EC competition law restricts national health policy options of member states and limits the ability to adequately account for non-economic gains in consumer welfare. Mossialos and Lear (2012) define the policy and legal parameters of the debate between competition law and health policy in EC. They use a sample of cases to analyse how the European Court of Justice, national courts and national competition authorities have applied competition laws to the health services sector. The health policy does not enjoy special exclusion from competition law which above all emphasizes trade. They conclude that the implications of the convergence of recent trends in competition law enforcement and health system market reforms do not undermine the social model and its goals of equity and social cohesion.

Compton et al. (2011) analyse which economic policies are most favorable for economic growth. In literature, policies that promote economic freedom have been suggested as a viable path towards sustained economic growth. Using the multidimensional measures of the economic freedom index the authors investigate the nature of the relationship between economic freedom, the size of the government, taxes, labor market and economic growth for the 50 US states spanning the period 1981–2004. The results from a comprehensive sensitivity analysis with respect to variable definitions and model specifications as well as accounting for endogeneity and a selection bias and after controlling for various control variables, show evidence of a significant positive relationship between economic freedom and economic growth at the state level. However, not all selected components of economic freedom affect growth equally. As policy recommendations, constraining excessive government expenditure, minimizing the tax burden and maintaining an open labor market are suggested.

3.4 Economic Transition, Freedom and Growth

Over the last two centuries the spread of capitalism and the level of political freedom have increased. The connection between economics and politics has made economic freedom indispensable for achieving political freedom. Pryor (2010) tests Milton Friedman's conjecture that capitalism is a necessary condition for political freedom. An analysis of data shows that for the decade around 2000, indices of the degree of capitalism and the degree of political freedom with few

exceptions were highly correlated. This provides plausibility for Friedman's conjecture. However, results based on data for the nineteenth century refute Friedman's conjecture. These contradictory results are related to per capita GDP and the educational levels of the population. Despite their correlations, capitalism is neither a necessary nor a sufficient condition for political freedom and no confirmation is found for the reverse proposition.

The 1991 collapse of the Soviet Union led to the creation of 15 new states and a transition from a centrally planned economy to a market economy for 25 states for the period 1998–2005. These countries experienced heterogeneous growth and development. Pääkkönen (2010) reviews the political economy of economic growth in post-communist economies' transition to free markets. His focus is on the role of economic policy and institutions in the transition process. The author tests the hypothesis that better institutions, measured in terms of economic freedom, contribute to growth. The empirical results confirm this hypothesis. There is an interactive effect between economic freedom and investment, where institutions affect growth indirectly by affecting the marginal effects of investment. He concludes that non-linearities are present in the specified growth model, where the marginal effect turns to become negative. Increased government consumption also has a negative effect on growth suggesting the presence of wasteful spending and a hindrance to growth.

The relationship between foreign direct investment (FDI) and its technology, management and skill spillovers and improved productivity and economic growth is intensively analysed with conflicting conclusions. Efforts have been made to identify determinants of FDI inflows to design suitable policies and to remove restrictions imposed on foreign capital flows. Azman-Saini et al. (2010) investigate the systemic link between economic freedom as absorptive capacity, FDI and economic growth in a panel of 85 countries for the period 1976–2004. Their empirical results based on the system estimator, reveal that FDI has no direct positive effect on output growth. Instead, the effect of FDI is contingent on the level of economic freedom in the host countries. Countries promoting greater freedom of economic activities gain from the presence of multinational corporations. The results suggest that economic freedom is important for host countries' absorptive capacities. Policymakers should promote better freedom of economic activities.

4 Effective Democracy and Economic Growth

4.1 Democracy, Natural Resources and Aid

In recent decades, attitudes towards FDI have changed. Researchers and international organizations encourage developing countries to attract FDI as a tool for fighting poverty. However, most developing countries have weak democracies.

Asiedu and Lien (2011) examine the impact of democracy on FDI assuming that the relationship between the two is the same for resource exporting and non-resource exporting countries. Their objective is to examine whether natural resources in host countries alter the relationship between democracy and FDI. Results based on data from 112 developing countries over the period 1982–2007 show that democracy promotes FDI. However, this effect is observed only if the share of natural resources in total exports is less than some critical value. Of the sample, the authors identified 90 countries where an expansion of democracy may enhance FDI inflows, while in 22 countries it may reduce FDI. The effect of democracy on FDI is found to depend on the size and not the type of natural resources exported. It is also well-known that in resource rich countries democracy is weak and the curse of natural resources leads to lower economic growth.

Literature on the measurement of the effectiveness of aid is voluminous. Foreign aid is found to be ineffective in creating economic growth. Bjørnskov (2010) refers to a popular argument for the absence of beneficial effects—that it is skimmed by political elites in recipient countries. Some studies also suggest that aid may be more effective in relatively democratic developing countries. He studied data for 88 developing countries for the period 1960–2000 with a 5-year average to test the relationship between democracy and the effectiveness of aid. The results indicate that foreign aid and democracy in conjunction are associated with a higher share of income held by the upper quintile as a result of rent seeking during the transition to democracy. The results also show that foreign aid leads to more skewed income distribution in democratic developing countries while the effects are negligible in autocratic countries. The paper also has a discussion on potential mechanisms generating this perverse effect and questions whether equitable income distribution and democratization can be achieved through foreign aid.

4.2 Political Culture, Press Freedom and Economic Policy

Feld and Kirchgässenr (2000) in their research show that the political culture in Switzerland is influenced by the country's system of direct democracy. To support their statement, they consider the outcomes of two political decisions by Swiss citizens in the 1989 vote on an initiative that proposed to abolish the Swiss army and the 1979 vote on a possible exit from the nuclear energy system. The outcome in both the cases was unexpected. The two cases showed that compared to purely representative systems, direct democracy led to a different type of communication among citizens and also between citizens and their representatives. The results show that the opportunity of deciding on political issues by themselves provides citizens with greater incentives to collect more information. Better informed citizens and a focus on common interests leave less room for politicians to pursue their personal interests. As a consequence of better informed citizens who enjoy and apply direct democratic rights, public expenditure and public debt are lower. Increased participation in decision making and the feeling of being responsible

for their community has resulted in lower tax evasion compared to representative democratic systems with less participation.

In particular, corruption is widespread in developing countries. A precondition for achieving growth and reducing poverty is dealing with corruption in an effective way. This view is also supported by growing literature. Potentially effective instruments for rooting out corruption are democratic elections and press freedom. Since their effects on corruption interdepend on each other a simultaneous interactive model is used to estimate the conditional effects. Kalenborn and Lessmann (2013) empirically analyse the joint impact of democracy and press freedom on corruption. They argue that both institutional features complement rather than substitute each other in controlling corruption. Corruption is proxied by the Transparency International's Corruption Perception Index, democracy is represented by Vanhanen's Democratization Index and press freedom is provided by Freedom House. Result estimates based on a cross-section of 170 countries covering the period 2005–2010 as well as based on a panel evidence for 175 countries from 1996 to 2010 show that democratic elections only work in controlling corruption if there is a certain degree of press freedom in a country, and vice versa. The policy implications of the results are that democratic reforms are more effective if they are accompanied by institutional reforms strengthening the monitoring of rent seeking representatives.

4.3 Political Democracy and Degrowth Policies

Johanisova and Wolf (2012) state that we are living in times of quickly shifting paradigms where ideals like economic growth and political democracy are falling and losing their appeal in the face of multiple crises with environmental, social and economic dimensions. In contrast to political democracy with power control in the public sector, economic democracy has received much less attention. The authors define economic democracy as 'a system of checks and balances on economic power and support for the right of citizens to actively participate in the economy regardless of social status, race, gender, etc.' They suggest six possible faces of economic democracy and look at their implications for the vision of a sustainable, equitable and non-growing society including regulation of market mechanisms and corporate activities to curb economic power; support for social enterprises which are better suited to a degrowth economy; democratic money creation processes; and pluralist community currencies. The authors see reclaiming the commons as an important aspect of enhancing economic democracy; redistribution of income and capital assets is another approach to achieving economic democracy; and finally, a broader view of economic democracy will involve a diversity of production scales and modes. Implementation of these visions will mitigate growth pressures from profit-oriented enterprises and facilitate easier implementation of degrowth policies.

In relation to the link between democracy and degrowth, Romano (2012) elaborates on four questions: can the degrowth project contribute to rediscovering the meaning of democracy? Can the establishment of a real democracy lead to building a degrowth society? Has the project of a 'democratic degrowth' a real chance to succeed, from a political point of view? If not, how should degrowth be re-thought to foster democracy? Romano's belief is that the currently dominant formulation of degrowth and its relationship to democracy are highly problematic. A degrowth proposal reproduces a central paradox where degrowth does not aspire to restore collective linkages. It only works like an intervention offering techniques that will allow the human species merely to stay alive. Moreover, there is a political problem: while the need for degrowth is presented as very urgent, the tactic for spreading the idea is one of an elitist strategy of voluntary simplicity, which can only work very slowly. As a result, degrowth cannot connect to real social processes covering a large part of the population. To make degrowth feasible and to restore democracy, Romano proposes a foundation of degrowth on a human subject of 'de-thinking' and discusses the political pathways for such a degrowth project.

4.4 State Capacity and Economic Growth

In general, growth in Asia's authoritarian regimes has been very high. This gives rise to the question: has democracy and/or democratization slowed growth in Asia? Rock (2009) tests hypotheses linking Asia's democracies and autocracies to growth. The tests are conducted in a panel regression framework that controls for fixed country and time effects, other major variables affecting growth and for endogeneity between explanatory variables resulting from the direct effect of democracy and its indirect effect through investment. The '*democracy slows growth*' hypothesis is tested against the bureaucratically capable authoritarian regimes of East Asia's developmentally minded governments. The findings from various model specifications and sensitivity analyses reject the '*democracy slows growth*' hypothesis. They show that unlike autocracy, democracy by itself causes growth and investment to increase in Asia. The implication of these findings is that concern over the economic growth performance of new democracies in Asia is misplaced.

It is well-known that good institutions are important for economic performance. However, little is known about the effects of specific institutional structures. Knutsen (2013) discusses how regime type and state capacity may interact in jointly affecting economic growth. A number of hypotheses are drawn from the trade-off between state capacity and democratization in enhancing economic growth. State capacity is measured as a bureaucracy quality index and other control variables include regime duration, the ethnic fractionalization index, plurality, religion and data on the colonizer (if any). Knutsen's analysis finds a positive and robust effect of democracy on growth in Sub-Saharan Africa, a continent characterized by weak-capacity states. The author identifies a robust interaction effect between democracy

and state capacity on growth, both in Africa and globally. The effect of democracy on growth increases when state capacity is reduced. Democracy has a positive effect on growth in weak-capacity states, but not in high-capacity states. The results also indicate that state capacity enhances growth only in dictatorships confirming a trade-off effect between state capacity and democracy in affecting growth. The robustness of the results is confirmed through a sensitivity analysis.

Institutions play a major role as determinants of growth and development. Political economy factors such as inequality and political democracy influence the quality of institutions. Savoia et al. (2010) survey theoretical and empirical literature on the effect of economic and political inequalities on institutions. The current understanding suggests that unequal societies develop exploitative and inefficient institutions. The most used indicators in empirical research include property rights, regulatory quality, government effectiveness, political stability, executive constraints, democracy index, income inequality index and land inequality. Empirical research has mainly concentrated on the cross-national level and supports, to some extent, the existence of an inverse relationship between inequality and institutions. The authors suggest further research but based on country, state and micro-level analyses as complements to aggregate level studies. They also recommend an investigation of the separation of the direct and indirect effects of inequality on institutions through democratization.

5 Concluding Remarks on the Dark Side of Economics

The shadow economy and corruption are the two main dark sides of economics. Activities in the shadow economy have been on a rise around the world regardless of the level of development, geographic location or type of governance in the country. This has led to significant violations of laws and regulations and has reduced tax revenue collections, caused statistical discrepancies, inequalities, corruption and increased public budget deficits and subsequent public debt default problems. This paper reviewed literature on the shadow economy and its direct and indirect effects on economic growth. Several studies attribute the shadow economy to higher taxes, larger governments and their interventions, restricted economic freedom and the desire to escape taxes and regulatory restrictions by individuals and businesses.

This paper reviewed a large number of recent studies investigating theoretical and empirical aspects of the shadow economy, in particular the measurement of the shadow economy and its causality with economic growth. In the process, emphasis was placed on issues such as corruption, economic freedom, state and institutions' capacities and quality as well as on morale and trust. For the empirical parts, these studies use large datasets allowing for cross-country and country group comparisons. A negative relationship is found between shadow economic activity and level of development, democracy and press freedom. Countries with abundant natural resources for exports are facing a larger degree of activities in the shadow economy,

corruption, inefficiency, inequality and lower economic growth. In literature this is referred to as the ‘curse of natural resources’.

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