What role do small and medium-size enterprises play in generating jobs and promoting economic recovery?

Multi-billion-dollar aid portfolios are directed at fostering the growth of small and medium-size enterprises (SMEs). But there is little systematic research or data informing the policies in support of SMEs, especially in developing countries. Moreover, the empirical evidence on the relationship between firm size and growth has been mixed. Recent work in the United States suggests that start-ups and surviving young businesses contribute disproportionately to job creation and net growth—but shows no systematic relationship between firm size and growth after controlling for firm age. It is unclear whether these findings apply in developing countries, where there are greater barriers to entrepreneurship and venture capital markets are less developed.

In a recent study Ayyagari, Demirgüç-Kunt, and Maksimovic put together a database with consistent and comparable information on the contribution of firms to employment, job creation, and growth across 99 developing economies. The sample consists of 47,745 firms surveyed in 2006–10. The authors then examine the relationship between firm size and growth after controlling for firm age. It is unclear whether these findings apply in developing countries, where there are greater barriers to entrepreneurship and venture capital markets are less developed.

First, SMEs are the biggest contributors to employment across countries. But they contribute more to employment in low-income countries than in higher-income ones. Earlier work has shown that new firm entry is much higher in high-income countries. Taken together, these findings suggest that higher-income countries have high rates of entry and turnover of small firms rather than a large SME sector.

Second, across country income groups, small firms not only employ the most people, they also generate the most new jobs. SMEs with 250 or fewer employees generate a median 86.01 percent of the jobs. They generate a larger share (93.05 percent) in the countries with net job creation (figure 1).

Even in countries with net job losses, SMEs with 250 or fewer employees create a substantial share of jobs (81.51 percent). Young firms generate only 14 percent of net jobs in countries with net job creation and only 5.39 percent in those with net job losses.

Third, small firms and young firms have the highest employment growth rates in regressions controlling for country, industry, and year fixed effects. But small firms’ higher employment growth is not accompanied by higher sales or productivity growth. Large firms and young firms have higher productivity growth. Thus while SMEs employ a large share of workers and create most jobs, their contribution to productivity and growth is uncertain at best.

Overall, the authors’ findings contrast with those of studies using U.S. data. In the United States large mature firms have the largest share of employment, the authors find that while...

(continued on page 8)
FOCUS
Measuring Trade in a World of Fragmented Production

A recent workshop featured research on developing better measures of trade for today’s increasingly integrated world.

Global production has become increasingly fragmented, with different stages of production now regularly taking place in different countries. Because inputs cross borders multiple times, traditional statistics on trade values—measured in gross terms—no longer reflect economic reality on the value added in any particular country. International economists and trade statisticians are developing new measures of trade to meet the increasing demand from policy makers and the public for a better understanding of cross-border trade in today’s increasingly integrated world.

Top experts in the field presented their research on developing better measures of trade at a Development Economics workshop organized by Aaditya Mattoo, Francis Ng, and Zhi Wang and held at the World Bank on June 9–10, 2011. Besides building consensus and identifying opportunities for collaboration among experts in different groups, the workshop identified data gaps, sketched the direction of future work in this area, and contributed to the formation of a network of researchers and international agencies.

The workshop focused on both conceptual and practical issues. The first session was devoted to the conceptual framework and methodology for computing trade in value added terms based on statistics now available. The second focused on the statistical challenges in measuring value added trade and in improving statistics. The third discussed potential policy insights from the proposed new measures of trade. The fourth provided evidence on value added trade from two developing countries, China and Mexico. The fifth concentrated on specific data issues, such as identifying intermediate and final demand in goods and services as well as methods to integrate and reconcile trade and national accounts statistics in a multicountry framework. And the final session discussed future work on integrating value added trade statistics with the system of national accounts.

Initial empirical insights emerging from the work presented at the workshop include the following examples:

- Robert Johnson and Guillermo Noguera showed that bilateral imbalances measured in value added differ from gross trade imbalances. Most prominently, the U.S.-China imbalance in 2004 is 30–40 percent smaller when measured in value added.
- Neil Foster, Robert Stehrer, and Gaaitzen de Vries showed that patterns of trade in net value added closely resemble net trade flows but that there are distinct patterns when looking at individual factors. For example, North American Free Trade Agreement (NAFTA) members are net exporters of highly educated labor, mostly to the EU-15 (the 15 European Union members before the accessions in May 2004)—but have increasingly become net importers of less educated labor from China.
- Justino De La Cruz, Robert Koopman, and Zhi Wang showed that Mexico’s manufactured exports have a foreign value added share of about 66 percent on average. Industries with a foreign content share of 50 percent or more account for 80 percent of the country’s manufactured exports.
- Robert Koopman, William Powers, Zhi Wang, and Shang-Jin Wei showed that among emerging markets, East Asian countries are more tightly integrated with international production chains. They have greater foreign content in their exports and a larger share of intermediate inputs sent to third countries for further processing.
- Among major developed economies, the United States uses the most imported intermediate inputs to produce exports, while Japan has the most value added embodied in intermediate exports processed in multiple countries before reaching their final consumers.

- Abdul Azeez Erumban, Bart Los, Robert Stehrer, Marcel Timmer, and Gaaitzen de Vries, using a new world input-output database, found that for most countries an increasing part of domestic final output is captured as income by foreign production factors. Between 1995 and 2006 the foreign income share of final manufacturing output in China increased from 14 to 21 percent. This share is now on par with that in the United States but smaller than that in any European country. China’s share in foreign final output is increasing even faster, though it remains smaller in value.

Advances in measuring trade in value added could influence how policy makers deal with a range of issues.

- **Trade imbalances.** The reallocation of bilateral trade deficits and surpluses between partner countries could alleviate protectionist pressures.
- **Trade disputes.** Accounting for domestic value added in foreign products could modify notions of “them” and “us” and create a greater awareness of mutual dependence.
- **Trade and industrial policy.** If there is a case for proactive policy, the focus may need to be less on the industry and more on occupations and tasks.
- **Trade and macroeconomic shocks.** An empirical study of global value chains may help in understanding how crises are transmitted through trade channels.
- **Trade and employment.** A study of global value chains could also help in identifying the links between trade and job creation or destruction in different locations.

The workshop program, papers, and presentations can be found at http://go.worldbank.org/R156ABXQQ0 or http://econ.worldbank.org/programs/trade.
Radio Access and Service Delivery in Benin

Access to community radio improves household decisions but not government accountability in villages of northern Benin

In many developing countries citizens are unable to hold governments accountable for better service delivery, but they also underestimate the benefits of the services that government offers. Donors have long believed that access to mass media addresses both problems. They finance community radio, especially in Africa, to reinforce accountability in new democracies, and they support mass media programming to encourage households to change their health practices and to send their children to school. A new study by Keefer and Khemani, using information from 4,200 households in 210 villages across northern Benin, examines for the first time whether media access affects service delivery outcomes and, if so, whether through changes in household behavior or in government accountability.

Among the sample villages, results of literacy tests given to 2,100 second-grade children were significantly better in villages with greater community radio access. But the study could identify media effects only on household behavior: households with greater media access spend more on their children’s education. In contrast to previous research and to the main rationale for donor efforts to improve mass media, the study found that community radio access did not appear to increase the ability of villages to demand greater government accountability. Government inputs into education were not significantly different across villages with more and less access to community radio.

These results are consistent with those of a companion investigation by the authors, using data from the same survey but focusing on household acquisition of mosquito bed nets. Households with greater access to community radio are significantly more likely to pay for mosquito bed nets. But they appear to have lower access to free, government-provided bed nets: in areas where household demand for bed nets is higher, more bed nets are diverted from the free program into a gray market, where households pay for them.

Is the relationship between community radio access and service delivery a spurious association, or does the first cause the second? This is a serious concern: community radio stations broadcasting about health and education may prefer to locate in areas where households are already more concerned about the issues. Unobserved levels of household concern about health and education, rather than community radio access, would then explain the association between community radio access and health and education outcomes. In fact, the conditions of the radio market in northern Benin make it clear that village access to community radio is unrelated to village characteristics.

Small community radio stations with a limited broadcast radius dot northern Benin. Even within communes, villages vary substantially in the number to which they have access. This variation is unrelated to village characteristics that might also influence service delivery. When radio stations have weak signals, insignificant topographic and geologic differences between villages can have a substantial effect on their radio access. As a result, as the sample of villages shows, a village may receive the broadcasts of fewer radio stations than an otherwise identical neighboring village. It is implausible that such differences would affect service delivery outcomes. In addition, historical accounts of the founding of community radio stations indicate that highly local factors (such as intracommune power struggles), affecting only villages in the communes where the stations are located, determined their location. The study’s conclusions, however, are based on within-commune comparisons of village access to out-of-commune community radio broadcasts.

Surely, though, one might argue that radio stations’ programming choices are related to the characteristics of the villages in their broadcast area. After all, it is well known that community radio stations cater to the linguistic and cultural demands of their listeners. But they receive little or no revenue from advertising. Instead, they depend heavily on the financing they receive from donors and government ministries in exchange for broadcasting programs that suit the priorities of the donors and ministries (health and education), not those of listeners. Villages with greater community radio access therefore have greater exposure to broadcasts touting the virtues of better health practices and the importance of education.

These results have three policy implications. First, lack of policy information is often not the only impediment to collective action needed to hold governments accountable. As in Benin, citizens may lack organizations, particularly political parties, that can mobilize even fully informed citizens for collective action. Second, community radio stations that depend on donor and government financing may be particularly unlikely to broadcast “accountability” programming. Third, even in the absence of an accountability channel, media interventions can still influence household behavior. But media outlets that can support themselves with advertising may be reluctant to broadcast the health and education programs that influence behavior in northern Benin.


Trends in Adult Mortality around the Developing World

In Sub-Saharan Africa mortality rates in countries with the highest HIV prevalence exceed those in countries that had civil war

In a new paper de Walque and Filmer combine data from 84 Demographic and Health Surveys from 46 developing countries to analyze trends and socioeconomic differences in adult mortality. They calculate mortality based on the sibling mortality reports collected from female respondents ages 15–49. The analysis yields five main findings.

First, adult mortality is different from child mortality. While under-five mortality shows a definite improving trend over time, adult mortality does not. Moreover, the cross-sectional association between under-five mortality and national income is quite a bit stronger than that for adult mortality. In addition, while under-five mortality has fallen over time conditional on national income, this is not the case for adult mortality. Indeed, in Sub-Saharan Africa the trend is the opposite, with adult mortality rising at any given level of income.

Second, adult mortality has increased dramatically in Sub-Saharan African countries, especially in those most affected by the HIV/AIDS pandemic (figure 1). Mortality rates in the most affected countries of southern Africa (for example, Namibia, Swaziland, Zambia, and Zimbabwe) exceed those in countries that experienced episodes of civil war. Excess mortality during episodes of genocide is readily apparent in the data—with aggregate adult mortality rates approaching 15 percent (that is, among those alive at the beginning of a five-year period before the genocide, the probability of death was 15 percent over that five-year period). But mortality rates decline at the end of these extreme mortality events. In contrast, adult mortality in countries with high HIV prevalence shows no sign of slowing over the period ending in 2004.

Third, even in Sub-Saharan countries where HIV prevalence is less high, mortality rates appear to be at best stagnating and in several cases even increasing. It is unclear whether this is simply because even low HIV rates are translating into higher mortality in these countries or because of some other underlying cause.

Fourth, the main socioeconomic dimension along which mortality appears to differ in the aggregate is gender. In Sub-Saharan Africa adult mortality rates have risen substantially higher for men than for women—especially in countries with high HIV prevalence. On the whole, the data do not show large gaps between urban and rural residence or by school attainment. To the extent that there are some differences, the data suggest that urban women and more educated women had smaller increases in mortality. Among the groups studied, urban women and educated women also have the lowest overall mortality rate both in countries with high HIV prevalence and in those with low HIV prevalence.

Men with less than primary education had the largest increase in mortality. In countries with high HIV prevalence these men have mortality rates that are substantially higher than those for men with more education and for women. One age group for which the higher mortality among men does not hold is among those ages 15–24, especially those with less education. Women ages 15–24 with less than primary education have higher mortality rates than all other groups of the same age. This is consistent with the age profile of HIV/AIDS, but also with findings by others that younger, more educated women appear to be engaging in more protective behaviors as knowledge about HIV and AIDS is disseminated.

Finally, and perhaps unsurprisingly, countries that have experienced conflict or episodes of internationally recognized genocide display heterogeneous patterns in time trends and socioeconomic patterns in mortality. The experience in several countries suggests that male mortality is typically more responsive to these events—and in several cases it is urban or more educated males for whom mortality increases the most. At the same time, it is important to recognize that increases in mortality during these episodes of conflict are not restricted to men. In all cases women’s mortality is affected as well.

This research suggests that analysis of population health in developing countries should give more central consideration to adult mortality. Other indicators, such as child mortality, are poor measures of the dimensions of health captured by direct measurement of adult mortality. While the analysis of the data created for the study shows considerable heterogeneity in mortality patterns across countries, these publicly available data will allow other analysis to investigate country-specific patterns in more depth, supporting the design of tailored policies and programs that are better informed.

Eight Questions about Brain Drain

New evidence counters some of the myths and eases some of the common concerns about brain drain

The emigration of high-skilled labor is an emotive issue that in popular discourse is often referred to as brain drain, conjuring images of extremely negative effects on developing countries. Recent discussion of brain gain, diaspora effects, and other advantages of migration has been used to argue against this, but much of the discussion has lacked evidence.

Fortunately brain drain has been enjoying a renaissance as a subject of economic study. According to Econlit, 247 articles on brain drain were published between 2005 and 2009—about twice as many as over the previous 15 years. A new paper by Gibson and McKenzie builds on this wave of research to answer eight key questions underlying much of the brain drain debate: What is brain drain? Why should economists care about it? Is brain drain increasing? Is there a positive relationship between skilled and unskilled migration? What makes brain drain more likely? Does brain gain exist? Do high-skilled workers remit, invest, and share knowledge back home? What do we know about the fiscal and production externalities of brain drain?

Brain drain is used to refer to the outmigration of a nation’s most highly skilled individuals, making up a disproportionately large share of total migration. Consider this example: among Cambodians age 25 and above, 26 percent of those with primary education live abroad, compared with 5.9 percent of those with secondary education and 18.3 percent of those with tertiary education.

The international migration captured by the term brain drain is of tremendous policy concern in many countries. Between 1960 and 2010 the global stock of migrants grew only slightly faster than the world population, but the flow has increasingly been from less developed to more developed countries. This migrant flow also has a rising skill level, so that brain drain is increasing in absolute terms. But except in Sub-Saharan Africa, rising levels of tertiary education have offset this skilled migration to ensure that the rate of emigration has been very stable.

Brain drain rates vary widely across countries, with smaller, unstable countries (outside of Africa) having greater brain drain. The microeconomic literature shows that broader career concerns—such as the quality of opportunities to research, learn, and work—as well as lifestyle and family reasons, are more important than income gaps in determining the decision to migrate.

The authors analyze stocks of migrants to examine how these evolve over time. They find that countries that send relatively many high-skilled migrants to one country also send relatively many low-skilled migrants to the same country. Data from the Organisation for Economic Co-operation and Development show strong evidence of Granger causality from high-skilled to low-skilled migration, and vice versa. Consequently, destination countries must be aware that attempts to limit one form of immigration may have effects on the other form.

Recently, theoretical papers have suggested that high-skilled migration can lead to a rise in human capital levels in the originating country. Individuals take into account the prospect of future migration when investing in education, but may not eventually migrate. The authors argue for caution with these claims, because empirical evidence suggests shifts not in the level of attainment but in what is studied—for example, languages. Other channels, such as remittances and the return of migrants who acquire education abroad, are likely to be stronger contributors to brain gain, particularly in small countries with limited possibilities for tertiary education.

Another potential benefit of brain drain is return flows of income, investment, and expertise in the sending country. In India remittances have reached $55 billion a year, and returned migrants have shaped the development of the information technology sector. Smaller or unstable countries face a different picture. The authors find that less than half of migrants with tertiary education send remittances. But there is a strong negative correlation between income levels and the likelihood that skilled migrants send remittances, so poor countries are most likely to benefit from such remittances.

In assessing the fiscal and production externalities of brain drain, three factors of return need to be considered: the welfare of the individual, the fiscal losses (estimated to be $900–1,000 per migrant in the Federated States of Micronesia and Tonga, and $5,500–6,300 in Ghana), and how the brain drain affects the production and health externalities that may arise through education.

The new evidence outlined by the authors counters some of the myths and eases some of the common concerns about brain drain. But a recurrent message is that data limitations remain a huge challenge. Better data as well as specialized surveys are needed to improve the understanding of the consequences of these movements.

Who Uses Bottled Gas in Developing Countries?

Educating the public, especially women, about the costs and benefits of fuel choice could promote a switch to cleaner fuels

More than a third of the world’s population relies on biomass (wood, dung, crop residues, charcoal) for cooking and heating. Indoor air pollution from burning biomass in traditional stoves can cause serious health damage. Collecting biomass takes time away from such productive activities as schooling and child care. And concentrated use of fuelwood and charcoal can threaten tree resources. Yet a great many families in developing countries will continue to use biomass for the foreseeable future because it typically has the lowest financial cost.

Switching to a gaseous fuel, such as liquefied petroleum gas (LPG), is one way of reducing the problems associated with biomass use. LPG is the most commonly used clean fuel alternative for cooking in developing countries. The rate of LPG adoption by households tends to rise with income in areas where LPG would be the fuel of choice for convenience and cleanliness: urban areas without access to natural gas and all rural areas. But evidence in developing countries shows that many households using LPG also continue to use biomass and that use of multiple fuels is common except at high income levels.

Besides income, other factors also influence patterns of household fuel consumption. LPG is sold in cylinders, and delivery of bottled LPG requires good road infrastructure. There are economies of scale in cylinder management, so the LPG market requires a critical mass of regular consumers to become viable. These factors limit the availability of LPG in many parts of the developing world, particularly in rural areas. Cultural preferences and inadequate information about different fuel options—including fear of explosion and fire—also influence fuel use, and many high-income urban households continue to use biomass in a number of developing countries.

A recent study by Kojima, Bacon, and Zhou, surveying 110 developing countries, found that LPG served as the primary cooking fuel for more than half the households in 33 countries. The use of LPG increased with wealth quintile in 51 of the 63 countries for which there was information on LPG use by quintile.

The study further examined national household surveys in Guatemala, India, Indonesia, Kenya, Pakistan, and Sri Lanka to gain a better understanding of what factors influence households’ decision to use LPG (selection) and, for the households that have decided to use it, how much to use (consumption). In all six countries LPG selection increased with household expenditure and the highest levels of education attained by female and male household members, and LPG consumption (kilograms per month per household) increased with household expenditure and decreasing price of LPG.

Variables serving as proxies for the level of infrastructure development (electricity connection, urban rather than rural residence) increased selection and consumption, while engagement in agriculture (broadly associated with biomass availability) reduced them. Rising prices of firewood and kerosene, which compete with LPG, increased LPG selection. As expected, income and relative fuel prices were the two most important determinants of fuel use patterns.

Interestingly, the higher the education level attained by female and male members of a household, the more likely the household was to select LPG. This effect was larger for women than for men. Education affected consumption less than selection, and men’s education increased consumption more than women’s in India and Sri Lanka.

It is often speculated that female-headed households are more likely to choose clean and convenient fuels because women are directly affected by fuel choice. Once education levels of women and men were separated accounted for, however, the gender of the head of household was not statistically significant in most cases. Where it was significant, results showed that male-headed households were more likely to choose LPG. This finding, which stands in contrast to other study findings, may suggest that female-headed households face unmeasured economic disadvantages that make less cash available for LPG purchase.

Some developing country governments subsidize LPG to encourage fuel switching. But recent steep rises in world prices of LPG mean that the subsidies needed would have to be so large as to be fiscally unsustainable. Monthly household expenditure of more than $300 would be needed to enable a household to switch entirely to LPG and sustain its use. These findings suggest that in promoting household use of LPG, it would make sense to target households that have an income high enough to start using LPG without subsidies and that already live in areas with LPG marketers.

Education is likely to be a proxy for the level of awareness about the benefits and costs of LPG. In persuading households to start using LPG, raising awareness about the benefits of LPG use and providing basic training on safety features of LPG, especially among women, might be effective in shifting households away from solid fuels to LPG.

How Much Does Infrastructure Contribute to GDP Growth?

A big push in infrastructure investment may entail trade-offs and distortions that could substantially reduce the net effect on growth

Among empirical studies examining the long-run effect of public infrastructure on total factor productivity and growth in developing countries, few are convincing. This literature began with David Aschauer’s “Is Public Expenditure Productive?” (Journal of Monetary Economics 23 [1989]: 177–200). Aschauer, using annual time-series data for the United States, calculated that with private inputs held constant, the annual marginal product of public capital was in excess of 100 percent.

Subsequent research estimating production functions used pooled U.S. state data in levels, disaggregated public capital into its main components, or used industry data and found similar effects, particularly for road and highway capital. Time-series estimates in levels might simply capture common trends. And pooled state data in levels might simply capture underlying persistent state characteristics; that is, richer states invest more in public capital. In fact, when the production function is estimated with aggregate U.S. data in differences or with state data with fixed effects, zero or even negative marginal products of public capital become typical.

This literature measures infrastructure in terms of physical stocks (for example, kilometers of roads) or pecuniary stocks constructed by accumulating spending flows. The underlying assumption is that the flow of productive infrastructure services is directly related to the size of the stock of infrastructure assets. A number of empirical studies using various approaches also find that the output contribution of infrastructure exceeds that of conventional capital, which suggests the presence of externalities associated with infrastructure services.

The literature using physical measures of infrastructure stocks reports a significant positive effect of infrastructure on output, productivity, or their growth rate. Results are less conclusive among studies using pecuniary measures such as public investment flows or their accumulation into public capital. There is a good reason for this: the lack of a close correspondence between public capital expenditure and the accumulation of public infrastructure assets or the provision of infrastructure services, owing to inefficiencies in public procurement and outright corruption—issues probably more important in developing than in developed economies.

The recent literature tends to find smaller (and more plausible) effects than those reported in Aschauer and subsequent studies. Among recent studies using a production function approach, the midpoint estimate of the elasticity of GDP with respect to infrastructure capital lies around 0.15 for developed countries, implying that a doubling of infrastructure capital raises GDP by 15 percent. Estimates from recent studies using broader country samples are similar. But all these capture only the direct effect of infrastructure on output, given the use of other productive inputs. There may be additional indirect effects accruing through changes in the use of the other inputs because of complementarities with infrastructure.

A recent paper by Calderón, Moral-Benito, and Servén represents the state of the art in the empirical literature on the contribution of infrastructure to aggregate output. Using an infrastructure-augmented production function approach, the paper estimates the output elasticity of infrastructure on a large cross-country panel data set covering 88 countries, spanning the years 1960–2000, and containing more than 3,500 annual observations.

The paper addresses several limitations of the earlier literature. It uses a multidimensional concept of infrastructure, combining power, transport, and telecommunications into a synthetic index constructed through a principal component procedure. The econometric approach deals explicitly with the nonstationarity of infrastructure and other productive inputs, reverse causality from output to infrastructure, and potential cross-country heterogeneity in the contribution of infrastructure to aggregate output.

The authors’ empirical strategy involves estimating a production function relating output per worker to non-infrastructure physical capital, human capital, and infrastructure inputs. Their estimates, based on heterogeneous panel time-series techniques, place the output elasticity of infrastructure in a range between 0.07 and 0.10 (depending on the specification used). The estimates are highly significant and robust to a variety of experiments involving alternative econometric specifications and different synthetic measures of infrastructure. Some illustrative calculations show that the output contribution of infrastructure implied by these results is also economically significant. The estimates of the output contribution of human capital and noninfrastructure physical capital are similarly significant and in line with those reported by the earlier literature.

Tests of parameter homogeneity reveal little evidence that the output elasticity of infrastructure varies across countries. Observed differences in the ratio of aggregate infrastructure to output offer a useful guide to the differences in the marginal productivity of infrastructure. The paper also points out that increases in the quantity and quality of infrastructure, while worthwhile, are costly and take decades to implement. The fiscal distortions associated with such an effort, and the trade-offs it would entail with other needed investments, could well reduce the net growth effect substantially.

large firms have a substantial share of employment in developing economies, small mature firms have the largest share. The U.S. evidence suggests that small mature firms have net job losses; the authors find that in developing countries small mature firms have the largest share of job creation. Moreover, in countries with net job losses, it is only the small firms—especially small mature firms—that have net job gains. And while the U.S. evidence shows no systematic relationship between firm size and growth once age is controlled for, the authors find that in developing countries small firms are significant contributors to employment growth even after controlling for age.

With countries around the world struggling to recover from the crisis, job creation is a priority for policymakers. The authors’ results suggest that the challenge is not only to create more jobs but to create better-quality jobs. Overall, they show that while SMEs employ a large number of people and create more jobs than large firms, they contribute less to productivity growth than large firms do.


Recent Policy Research Working Papers

5714 Does Female Empowerment Promote Economic Development? 
Matthias Doepke and Michèle Tertilt

5715 The Effects of Conflict on Fertility in Rwanda 
Kati Schindler and Tilman Brück

5719 Population, Poverty, and Sustainable Development: A Review of the Evidence 
Monica Das Gupta, John Bongaarts, and John Cleland

5722 The Air Connectivity Index: Measuring Integration in the Global Air Transport Network 
Jean-François Arvis and Ben Shepherd

5722 Productivity Effects of Land Rental Markets in Ethiopia: Evidence from a Matched Tenant-Landlord Sample 
Klaus Deininger, Daniel Ayalew Ali, and Tekie Alemu

5730 Political Economy of the Mining Sector in Ghana 
Joseph Ayee, Tina Sareide, G. P. Shukla, and Tuan Minh Le

5732 Mixtures of g-priors for Bayesian Model Averaging with Economic Application 
Eduardo Ley and Mark F. J. Steel

5736 Efficiency in Public Procurement in Rural Road Projects of Nepal 
Radia Benamghar and Atsushi Iimi

5738 The Labor Market, Education and Armed Conflict in Tajikistan 
Olga M. Shemyakina

5744 The Role of Inventory Adjustments in Quantifying Factors Causing Food Price Inflation 
Gali Hochman, Deepak Rajagopal, Govinda Timilsina, and David Zilberman

5747 Governance in State-Owned Enterprises Revisited: The Cases of Water and Electricity in Latin America and the Caribbean 
Luis Alberto Andrés, José Luis Guasch, and Sebastián López Azumendi

5748 Commitments to Save: A Field Experiment in Rural Malawi 
Lasse Brune, Xavier Giné, Jessica Goldberg, and Dean Yang