Growth Week 2012

Daily summary
Monday 24 September 2012

The first day of Growth Week 2012 saw four sessions from our research programme (Agriculture; Infrastructure and urbanisation; Trade; and Climate Change, Environment and Natural Resources) and four sessions from our country programme (Ghana, Rwanda, Pakistan and Ethiopia). The plenary session on 'Entrepreneurship, firms and growth in developing countries' was followed by the first public lecture from Paul Collier and Tony Venables on 'Cities: Places to live, places to work'.

Over 200 delegates participated on day one of Growth Week, with the film crew being kept busy hearing new and interesting 'Ideas for Growth'. If you haven't shared your ideas make sure you head over to the filming area to participate.

Ideas for Growth session 1 - Agriculture

Chaired by *Tavneet Suri (MIT; IGC)*, the Agriculture session began with a presentation by *Maitreesh Ghatak (LSE)* who addressed the question of compensation policies for rural communities that lose their traditional lands and livelihoods to make way for business (e.g., industry, commercial agriculture, urban development). Households in affected areas as well as neighbouring non-affected areas were surveyed in order to estimate the income losses for the former, and assess the suitability of compensations offered by the government in relation to these losses. Ghatak explained that the land acquisition strategy has been inadequate mainly because there is a large discrepancy between government records of offered compensation and household reports for particular kinds of land. He expects to provide guidelines for the design of compensation policies that could be used in the future, which most likely would have an impact on the policy debates on land acquisition in India, which has traditionally been one of the most sensitive issues.

Guush Berhane (IFPRI) presented research that aims to introduce an index-based drought insurance product in 15 areas in rural Ethiopia, via their informal insurance groups, the local funeral societies. In Ethiopia, these groups are widespread, highly inclusive and well structured. They charge premiums against risks and increasingly offer other products beyond funeral insurance. The weather index product, calibrated for local circumstances is sold via a private insurance company, Nyala Insurance. The main objective is to improve product uptake, and at the same time ensure basis risk—the difference between risk insured and the actual risk experienced—is reduced and informal insurance mechanisms are not undermined but used to increase coverage. The project uses a randomized controlled trial to investigate the uptake among groups and farmers, and the way it affects their functioning and the behavioural impact on agricultural technology choices and productivity. It also assesses how the introduction of these products will affect existing informal insurance arrangements.

Douglas Gollin (Oxford) talked about how high transportation costs—affecting both domestic and international trade—influence the current structure of African economies and consequently contributes to the slow transformation from agrarian to industrial and service-oriented economies. The study developed a calibrated model of spatial production and consumption to examine how public-policy interventions, such as investment in the rural road network or in exposing domestic transport and distribution activities to greater competition, impact on the spatial and sectoral structure of production in the economy.

Both discussants, *Former President of Zanzibar, Amani Karume* and *Alex Kanyankole, Director General of the National Agricultural Export Development Board of Rwanda* pointed out that it is crucial to find a common ground between farmers and the government when negotiating adequate compensation policies. They also argued that drought insurance is the beginning, but may not be sufficient to address all risks related to the agricultural sector, therefore, a holistic approach must be taken into consideration.

Ideas for Growth session 2 – Infrastructure and urbanisation
Enrico Moretti (UC Berkeley and IGC) chaired Session 2 and introduced *Nathaniel Baum-Snow (Brown University)* who presented his research on transport infrastructure and cities spatial development in China. The researchers' main question is to understand the extent to which elements of infrastructure that has been built over the last 20 years in Chinese cities have shaped the spatial form of cities, redistributed population and decentralized production. Elaborating on the infrastructural elements, the main findings of the paper are: highway rays have had no effect on industrial decentralization; railroad rays, on the other hand, have displaced about 26% of industrial GDP from the centres to the suburbs but have had no effect on population displacement; finally, ring roads have affected both decentralization of industrial GDP and that of population. These results would be important for city planners and government when they check the costs and benefits of different infrastructural projects.

The second presenter, *Diego Puga (Instituto Madrilene Estudios Avanzados)*, presented research on explaining the discrepancy in wages between bigger and smaller cities: more specifically, why are employers willing to offer/accept higher wages in big cities. Some potential explanations span: firms' static advantages of being in a big city, sorting advantages in bigger cities of workers with higher initial ability, and learning advantages, whereby bigger cities allow workers to accumulate more valuable experience. The authors used administrative data with longitudinal information of measures of social security, income tax and census records, and other factors that help explain the variability in wages. Some of the most interesting results are that most of the wage differences between big and small cities come from worker ability and experience learnt in a bigger city. Furthermore, the extra earning in bigger cities is enhanced by in workers with greater ability.

Ideas for Growth session 3 – Trade
The goals of the IGC trade session were to (1) promote interaction among the members of the programme and the policy-makers that came from the IGC countries, (2) motivate members to stay engaged with IGC and submit research proposals on trade and development for funding, and (3) give members a chance to see and discuss cutting-edge research at the intersection of trade and development.

David Atkin (Yale) presented a paper on the "cost of globalization". The opening up of a country to free trade is indeed very costly. The researchers estimation on the intra-national trade costs in developing countries suggests that the marginal cost of distance approximately double when only use source-destination pairs and that marginal costs of distance approximately double again when spatial variation in marks- up are taken into account. This paper is particularly timely because there is an increased understanding of trade among the practitioners. It is therefore entirely relevant, and especially for Africa.

Amit Kahndelwal (Columbia) presented his work on exports and firms performance. This is a path-breaking study because it implements for a first time a randomised controlled trial in a trade study. Much of the literature on microenterprises focuses on supply-side constraints preventing firms from growing. However, there is a large gap for work on demand constraints. Thus, this project analyses demand shock driven by a specific policy intervention: matching firms with new export opportunities. The field experiment is in Fowa, Egypt with the authors examining firms that manufacture handmade rugs using wooden looms. The advantages to choosing this case study are threefold: i) technology is common across firms and relatively simple to understand; ii) there is a large sample size; iii) the research can explore the link between exporting and poverty reduction. The study is still ongoing and it will produce the first results in the first months of 2013. The feedback from the audience was very positive.

The final presentation by *Eric Veroogen (Columbia)* on technology spillovers was particularly satisfying because it brought to the table one of the most relevant trade issue in developing countries: technology spillovers. The project looks at the production of soccer skilots balls in Pakistan in trying to understand the role of technology spillovers and their impact on productivity and firms' performance. Al three papers had a respective discussant, precisely for the last paper. The discussants – *John Page (IGC Tanzania and Ethiopia)*, *Paulo Bastos (World Bank)*, and *Shujaat Ali (Government of Punjab, Pakistan)* – challenged the researchers with very relevant policy questions which created an extremely interesting debate in the spirit of Growth Week.

Ideas for Growth session 4 – Climate change, environment and natural resources

Greg Fischer (LSE) presented on research using the Becker–DeGroot–Marschak method (BDM) to accurately estimate willingness to pay (WTP) for water filters in Ghana. The BDM is useful as it gets at the critical point of whether people will treat a good differently if they paid for it or not. The research compared the BDM to a 'take-it-or-leave-it' offer in order to directly estimate demand and also to estimate the effect of an AfriClay water filter. The BDM was better than a 'take-it-or-leave-it' mechanism because it provides much more precise information on WTP, and also lets us know more accurately how much different individuals benefit from the filter through a reduction in reported diarrhoea.

Susan Murcott (MIT), founder of Pure Home Water, an NGO founded in 2005 to provide safe household water in Ghana using AfriClay water filters, responded to Fischers's presentation. The filters are given away for free via UNICEF, but sold for GHS 5 via Rotary. Murcott had two key questions: Should they charge at all, or if they should charge, at which price? Based on Fischer et al's results it appears that GHS 3.5 may be the optimal price to charge to obtain a 25% reduction in diarrhoea. The discussion emphasised the critical importance of real-world experimentation to avoid the biases of the lab.

Mushfiq Mobarak (Yale) presented on communicating with farmers about the adoption of sustainable farming technologies, such as pit planting and compost application, which remain low in many African countries despite demonstrated large gains. The Malawi-based research focused on information failures and the use of social networks, such as interactions between farmers, as a persuasive source of information. The results of a survey of 4200 households in 168 villages show that incentives matter a lot to technology communication (farmers needed to have been given an incentive to initially learn about, retain over time, and then transmit the information to others). Poor farmers respond most strongly to incentives and female farmers respond more than male farmers. The research also concludes that there is a role for external agents to intervene in the process of learning, as information transmission is not automatic, especially about entirely new technologies.

Country session 1 - Ghana
The Ghana session at this year's Growth Week was motivated by the *Enterprise Map of Ghana* book which has stirred an intense interest in discussing how to promote the growth of the private sector in the country since its launch in April 2012. Under the theme 'Promoting Private Sector Development for Growth in Ghana', the session brought together academics, key policy-makers as well as private sector practitioners and stakeholders. The presentations and discussions focused on what government is doing in terms of policies to promote the private sector; how the private sector is performing and responding to what government is doing; areas of policy gaps and knowledge gaps; and whether there are endogenous feedbacks from the private sector that influence the quality of business regulations.

One key message from the session is that there is a strong possibility that even though the private sector is influenced by government policies, there are feedback influences from the private sector on the quality of business regulations. There is also a need to find out where there is a critical size that the private sector must reach for its impact on governance to be significant. These conclusions were drawn from the preliminary result of studies being undertaken by *Matthias Busse (Ruhr University Bochum)* and *Robert Osei (University of Ghana)*. The session also showed that while government efforts under the PSDS II programme were laudable, the private sector still experienced a lot of challenges mainly due to lack of infrastructure and a long term development plan. The government policies were presented by *Joe Tackie (Ministry of Trade and Industry)* while *Nana Osei-Bonsu (Private Enterprise Foundation)* spoke on behalf of the private sector.
The session was very well attended with about 45 participants and the discussions were very deep, passionate and comprehensive. One participant – the governor of the Bank of Zambia – commented that among all the workshops and conferences he had attended on the private sector this was the most serious discussion.

Country session 2 - Rwanda
The Rwanda session was chaired by *Richard Newfarmer (IGC Rwanda)*. *Rocco Macchiavello (Warwick University)* presented preliminary results of IGC work in understanding the downstream structure of coffee value chains. Coffee washing stations play a crucial role in the coffee value chain in transforming commodity coffee into specialty coffee, a process that adds more than 100% value to the bean. A nation-wide survey highlighted three important operational constraints: access to finance, competition, and transport costs. Focusing on finance in particular, preliminary analysis shows evidence of moral hazard being a key factor; in particular, experimental data shows that low trust levels between actors in the value chain prevents pre or post financing agreements between buyers, service providers and farmers. *Alex Kanyankole (National Agricultural Export Board)* indicated that the government of Rwanda was aware of the risks posed by excessive competition in the sector, as it was noted that the number of stations has increased rapidly in the past few years. In order to increase traditional financing mechanisms on the coffee value chain, the government is encouraging financial institutions to study and gear products towards the sector value chain.

Jonathan Argent (IGC Rwanda) presented implications from the interim evaluation of the one cow project on the importance of providing training alongside asset transfer program. The GIRINKA – one cow – project is a government initiated program that aims to provide one cow to poor households in the country. As cows are provided by a range of actors with different array of support services, including training, the supply driven nature of such services can be used to estimate the impact of training in performance. Results from a comprehensive survey of beneficiaries show that having received any sort of training increases the probability of successfully breeding and selling calf and milk production.

Marguerite Duponchel (IGC Uganda) presented the results of a joint World Bank and IGC study on the impact of land titling on credit constraints. Potentially negative impacts of credit constraints on economic development have long been discussed conceptually but empirical evidence for Africa remains limited. The study assess the nature of credit constraints and the impact on productivity through a method of direct elicitation. The analysis focuses on the semi-formal credit sector, as the formal sector is almost inexistent while the amounts borrowed in the informal sector are small and used more towards consumption smoothing. Levels of credit rationing in the semi-formal sector are high (71%), with 32% related to supply-side factors (10% mentioning lack of collateral), and decreases with wealth. An endogenous switching model points towards significant impacts on productivity, suggesting that elimination of all constraints would increase value of total output per ha by about 17%. Whether, and to what extent an ongoing land registration program will be able to eliminate these constraints will be of considerable interest.

Garth Frazer (University of Toronto) presented results from his research that assesses the introduction of the EAC common external tariff (CET) and develops a set of priorities for tariff negotiations with the aims of poverty reduction and removing barriers to export growth. Frazer found that the price changes in key products, driven by the CET, caused a 4% reduction in the real income of low-income households in Rwanda. This is due primarily to the products on the Sensitive Items (SI) list which are subject to a tariff rates of up to 100%. The SI list was responsible for an increase in tariffs on agricultural products of 380%. Frazer found that reductions in the import tariffs on inputs under the move to the CET had a significant positive impact on Rwanda's exports – it is plausible that this extends to domestic production too although this is something that would require further study. His findings suggest that a further 5 percentage point reduction in tariffs would likely result in a 5-10% increase in exports, mainly through lowered costs of imported inputs.

Country session 3 - Pakistan
The Pakistan country session was chaired by *Ijaz Nabi (IGC)*, and addressed by Honourable Finance minister *Abdul Hafeez Shaikh* as the key-note speaker. Shaikh highlighted that Pakistan's economy is currently undergoing a transition allowing policy makers to take corrective measures to achieve Pakistan's growth potential. He reviewed the past challenges that prevented growth spurts from being converted into sustained high growth over longer periods of time. He then outlined developments that are helping address those challenges, emphasizing the importance of democratic transition, strengthening of institutions, and progress on macroeconomic stabilization. He pointed out initiatives to strengthen state capabilities and international competitiveness to achieve high growth, linking them to on-going IGC work for sustained high growth in Pakistan. A large number of international researchers in the audience appreciated in particular the minister's candour in acknowledging the challenges that remain to be addressed specially in the energy and power sector.

The session was divided under two sub themes: governance and firm capabilities. The first presentation under the governance theme was on the use of ICT to improve governance in the health sector in the Punjab. *Michael Callen (UCSD/UCLA)* presented early evidence of increase in supervisory visits to basic health units in the Punjab, due to the use of android cell phones. He discussed several factors, such as political connections, affecting the performance of supervisory officers. The second presentation under the same theme was on improving efficiency in public procurement. The presentation was made by *Oriana Bandiera (LSE)*, describing the existing procurement patterns at the provincial level. She discussed the main challenges intrinsic in the procurement systems. She also outlined the various interventions being designed by research team to address issues of wastage and inefficiency.

The next presentation was under the firms capabilities theme by *Theresa Chaudhry (Lahore School of Economics)* on incentives schemes to improve worker attendance in the fan industry in Pakistan. She discussed the impact of tenure and social network on the response to incentives.The last presentation was by *Eric Verhoogen (Columbia)* on dispersion of technology in export oriented soccer ball firms. He discussed early results from his experiment in Sialkot, drawing policy lessons from baseline and follow up surveys of soccer ball manufacturers. The session was wrapped up by Resident Country Director, *Naved Hamid (IGC)*. He appreciated the diversity of research and its linkages with the public sector, making IGC a unique platform to engaged in policy oriented research. In the end, the Finance Minister concluded the session, pointing out ways of bringing out policy relevance of the research discussed in the session.

Country session 4 - Ethiopia

Chaired by *John Page (IGC Ethiopia)*, the Ethiopia session focused on industry and agriculture. *Måns Söderbom (University of Gothenburg)* presented research examining the problem associated with high transaction cost to small manufacturing firms due to poor infrastructure, which creates market segmentation. Ethiopia is landlocked, with no effective railways and few navigable rivers. Using GIS data from the Ethiopian Road Authority and the census on firm data from the Central Statistical Agency, the research examined the relationship between an increase in roads from 26,550km in 1997 to 46,812km in 2009, and the concentration of firms in Addis Ababa reducing from more than 60% to 40%. Using cross sectional and panel data, the research estimated the effect of road sector improvement on enterprise. A positive relationship was observed between average size of firm entrants and infrastructure quality, as well as a high positive correlation of infrastructure improvement on value-added productivity. The key policy implication is that better roads may result in more and larger firms, but does not necessarily mean that building more roads is required for enterprise development. *Mulu Gebreyesus (United Nations University)* commented that suggesting causality from road network development to enterprise development is complicated, as it may also be a causal relationship in the other direction. Another issue raised by Mulu was that some important policy variables such as the government's initiative to promote industrial clusters, the cost of labour and land should also be considered in such studies.

The second part of the session was a panel discussion on agriculture chaired by *Pramila Krishnan (IGC Ethiopia; Cambridge)* with H*is Excellency Ato Newai Gebre-ab (Chief Economic Advisor to the Ethiopian Prime Minister; Ethiopian Development Research Institute)*, *Stefan Dercon (DFID)*, *Doug Gollin (Oxford University)*, and *Alemayehu Seyoum (IFPRI)*. The focus of the discussion was on public investment on agriculture, particularly on agricultural extension in Ethiopia. Seyoum focused on three related issues: fertiliser use, improved seed adoption and irrigation use in Ethiopia, and the return on fertiliser use. He mentioned that fertiliser use has risen to 60% (i.e. 60% of the smallholder farmers use fertiliser), but the adoption of improved seed and irrigation use is still very low in Ethiopia. The former is adopted by less than 30% of farmers, with irrigation use even more limited. On average the return to fertiliser is still very low (less than 1%) and application rates are not changing significantly. Finally he mentioned the significant heterogeneity in technology adoption among farmers that is not location-related. Gollin mentioned that this heterogeneity is well known in the economic literature, and noted that agricultural technology is location specific. Dercon reflected on yield growth in Ethiopia. He mentioned that national data do not show much intensification although there is high yield growth. The Ethiopian Rural Household Survey (ERHS) shows lower yield growth about 22% growth for all cereals mainly for maize and wheat and a modest increase in intensification in fertiliser and improved seeds. Finally Ato Newai made his reflection on some emerging future opportunities and challenges to Ethiopian agriculture. He mentioned labor shortage as one challenge and see mechanisation as one important option to address this problem. The issue of agglomeration, irrigation and commodity exchange are also important issues that are related to the performance of Ethiopian agriculture.