ADEW 08 ABSTRACTS
(In order of proceedings)

Paper 1  Total Factor Productivity and Economic Growth in Indonesia

Pierre van der Eng, The Australian National University

This paper revisits the discussion about the contribution of Total Factor Productivity (TFP) growth to Indonesia’s economic growth during 1970-2006. It re-estimates the contribution of TFP to economic growth during this period on the basis of new estimates of GDP, capital stock, education-adjusted employment, and factor income shares. After accounting for the growth of capital stock and education-adjusted employment, the residual TFP growth found to have been on average zero per year during 1971-2006. Capital stock growth and education-augmented employment growth explained 74% and 26%, respectively. Only during 2000-06 was TFP growth 2.0% per year, explaining 40% of GDP growth. The paper doubts that these results imply that the Indonesian economy did not experience the impact of technological change, as this may be embodied in capital stock.

Paper 2  Industrialization after a Deep Economic Crisis: Indonesia

Haryo Aswicahyono and Dionisius Narjoko, Centre for Strategic and International Studies, Jakarta
Hal Hill, The Australian National University.

Indonesia experienced the sharpest economic contraction as a result of the 1997-98 Asian crisis. This paper examines trends and patterns in Indonesia’s industrial sector in the wake of the crisis, and against the backdrop of the country’s changed policy and institutional environment.

Prior to the crisis Indonesia was one East Asia’s fastest industrializers, whereas its industrial growth is now one of the slowest. Moreover, prior to the crisis, manufacturing was a ‘leading sector’ in the economy, whereas it is now growing at about the average. The record within manufacturing is diverse. The two main engines of growth following the 1980s reforms, textiles clothing and footwear (TCF) and wood products, have performed poorly. By contrast, electronics and the automotive industry have grown more quickly. Unit labour costs rose sharply immediately following the crisis. In consequence, industrialization has also become less employment elastic, and employment in the formal sector has hardly increased. Foreign ownership has risen significantly, while concentration levels remain largely unchanged. Industrial exports have performed indifferently, notwithstanding the large boost to competitiveness following the sharp depreciation of the Rupiah in 1997-98.
Here also TCF and wood products have performed poorly. Electronics has performed better, but this mainly reflects global growth. Firm-level dynamics also appear to be changing. The process of small firms ‘graduating’ to larger units has slowed down, and most of the output growth is now coming from existing firms rather than new entrants.

We link these outcomes both to general, economy-wide factors as well as a range of particular policy interventions that have had sector-specific effects. For example, labour market rigidities appear to have especially affect the TCF sector, while FDI policy and export/import procedures are relevant to understanding the indifferent performance of electronics.

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**Paper 3  Plant Productivity, Producer Concentration and Trade Policy Regime: Evidence from Thai Manufacturing**

Archanun Kohpaiboon∗, Faculty of Economics, Thammasat University

This paper examines the impacts of producer concentration on Thai manufacturing productivity. The key hypothesis highlights the role of trade policy regime in conditioning the impact of producer concentration. Inter-plant cross-sectional econometric analysis is undertaken, using 1996 industrial census, the only census available so far. The key finding suggests the impact of producer concentration on plant productivity is not consistent and depends on the nature of trade policy regime. Tariff reduction must reach a certain level before the potential positive impact of producer concentration on productivity is observed. These results further highlight the relative importance of the trade policy regime for productivity enhancement and thus development policy. Although high levels of producer concentration can result in productivity gains, the competition fostered by open trade policies is required in high concentration is to be translated into higher productivity.

JEL Classification: F14, F23, O24, D24, L11

Key words: Producer Concentration, Trade Policy Regime, Thai Manufacturing

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∗ This paper draws on my on-going collaborative research with Professor Eric D. Ramstetter, ICSEAD and Dr. Juthathip Jongwanich, Economics and Research Department, Asian Development Bank.
Paper 4  Processed Food Exports from Developing Countries: Patterns and Determinants

Juthathip Jongwanich, Asian Development Bank

Over the past three decades, there has been a rapid expansion of processed food exports, replacing the traditional food exports such as coffee, tea and sugar. However, this development and its policy implications have received little attention in the literature on export-led industrialization in developing countries. This paper aims to redress this oversight by providing an overview of key characteristics and growth patterns of processed food exports in developing countries. The determinants of inter-country differences in export performance of processed food are then examined. The results point out that agricultural resource endowments, trade policy regime and size of domestic markets are the key factors in explaining inter-country differences in export success of processed food. Compared to other regions, trade liberalization and well macroeconomic management, particularly in terms of domestic market prospects and price stability, help supporting processed food exports in Asian economies. However, relatively less development in agriculture sector, inadequate availability of credits and infrastructure tend to constrain an expansion of processed food exports in Asia. The implementation according to Sanitary and Phytosanitary (SPS) agreement in developed countries so far tends to perform as a barrier for developing Asia countries’ processed food exporters instead of helping them to upgrade the quality standard and market sophistication in the food export sector.

Keywords: Processed food, trade, developing countries

Paper 5  Child Labour and Schooling Responses to Access to Microcredit in Rural Bangladesh

Asadul Islam, Department of Economics, Monash University

Microcredit is found to improve household welfare by increasing income, consumption, and reducing poverty in many developing countries. However, little is known about its effect on human capital formation. This paper evaluates, using a large survey data from Bangladesh, the impact of access to microcredit on school attendance and work of children in rural Bangladesh. It uses a novel source of exogenous variation in treatment intensity among households in different villages to estimate the causal effect of access to microcredit. The empirical results indicate that household’s participation in a microcredit program may exacerbate child labour situation and reduce school enrolment. The effects are more pronounced on girls than boys. Younger children, in particular, can be strongly affected. The estimated impacts also vary by income,
education and asset holding of households with the children of poorer and less educated households being more adversely impacted by a household's microcredit borrowing.

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**Paper 6  Determinants of Gender Inequality in Child Mortality in India: Does God(s) matter?**

Marie-Claire Robitaille, University of Otago, New Zealand

Boys and girls do not face the same risk of dying prematurely in India, given their biological differences. Using data from the 1998 Demographic and Health Survey in India, this paper examines the factors that may lead some parents to gender discriminate against their female children in terms of nutritional inputs and access to health care, both of which lead to a higher risk of mortality. The main focus is on religion as a potential explanatory factor.

In this paper, gender inequality is proxied using five different variables: the probability of a child surviving until age one, two nutritional measures (height-for-age and weight-for-age) and two measures of access to health care (the number of vaccines received and if parents have sought treatment/advice for their children suffering from diarrhoea). These five dependent variables are explained using five main categories of explanatory variables: the economic system, the cultural system, religion, resource constraints and parents’ preferences for gender equality.

Multivariate analysis, Blinder-Oaxaca decomposition techniques, survey design, OLS and Logit are different estimation techniques that are applied in the empirical analysis.

This paper extends the existing literature by including a wide range of explanatory variables, notably some reflecting the cultural system, and by specifically focusing on the role of religion. Consistent with the theoretical discussion on religion, we find some evidence of variation in gender inequality by religious affiliation, with Sikhism being the only religious group clearly discriminating against girls.

Keywords: gender inequality, children health, religion, India.

JEL classification: J16 J13 Z12

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**Paper 7  Female Genital Cutting and Marital Outcomes**

Tatyana Chesnokova and Rhema Vaithianathan, Department of Economics, University of Auckland
The practice of female genital cutting (FGC) has a long history in Africa and it is thought that over 130 million females alive today have undergone the practice. The continuation of such a painful and dangerous custom is puzzling to many outsiders, since it is perpetrated by the women of the community, who after all are the main victims of the practice. In this paper we argue that FGC is a pre-marital investment. We analyze data from Burkina Faso and find that FGC improves marital outcomes. In particular, circumcised women marry earlier, live in wealthier households, have more surviving children and are more likely to be the first ranked wife if they are in a polygamous marriage. We develop a theoretical model and show that society might get trapped into an inefficiently high FGC equilibrium due to the rat-race nature of the marriage market. We argue that in this case regulation results in a (potential) Pareto improvement.

Classification Codes: O12, O55, J12

Keywords: Female Genital Cutting; Marriage; Premarital Investment

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**Paper 8**  
Is There Gender Bias in the Household’s Time Allocation a Developing Country? The Indian Experience*

Pushkar Maitra and Ranjan Ray, Department of Economics, Monash University

This paper uses the time use data from India to examine the principal determinants of time allocation to various activities by individuals (both adults and children) in the context of a developing country. The study extends the methodology adopted for investigating gender differentials in resource allocation from expenditure on items to time use. The results provide widespread evidence of gender differentiation, some with significant policy interest. The results also show that poor households allocate time differently to the more affluent ones.

Key words: Time Allocation, Gender Differentiation, India  
JEL Classification Codes: D13, C21, O12

We would like to thank an anonymous referee for comments and suggestions. Funding provided by the Australian Research Council Discovery Grant Scheme is gratefully acknowledged.
Paper 9: The Philippines Growth: Poverty Conundrum

Arsenio Balisacan, University of the Philippines

Abstract yet to be provided

Paper 10: MDGs in the Pacific

Vijay Naidu, University of the South Pacific

Abstract yet to be provided

Paper 11 Aid Has Failed the Pacific: Labour Markets and Social Indicators

Helen Hughes, The Australian National University
Gaurav Sodhi, Centre for Independent Studies

Economic development in the south Pacific has bi-polar characteristics: in French Polynesia and New Caledonia, in islands in association with the United States and New Zealand, and in Tonga and Samoa, per capita income has grown modestly leading to rising living standards. The larger islands of Papua New Guinea, the Solomon Islands, Vanuatu, and increasingly rural Fiji that account for more than 80% of the south Pacific's population, have stagnated. In these islands inappropriate policies including the neglect of education and health, have led to appalling social conditions, particularly for women and children. A HIV/AIDS epidemic is devastating Papua New Guinea. Women's work in gardens has to-date managed to keep-up food supplies to a growing population, but land shortages are becoming evident. These will increase unless traditional practices are transformed to increase agricultural productivity and unless development is promoted. With little formal or informal sector employment, nearly 2 million unemployed and underemployed men who reach middle age without ever having had an income or experience of work, dominate labour markets in the larger islands. Nearly 100,000 young men are being added to this number annually. Underemployment and unemployment is the principal cause of high crime levels and political instability. Unless the major Pacific islands reform their economic policies to create agricultural opportunities and overall growth, the south Pacific's labour market
problems are likely to create spillover effects on a scale that proposed 'guest worker' schemes will not be able to abate.

**Paper 12 Economic Vulnerability in Tajikistan**

Raghbendra Jha and Tu Dang*, The Australian National University
Mohammed Yusuf Tashrifov, Central Bank of Tajikistan

In the extant literature, either income or consumption expenditures as measured over short periods of time have been regarded as proxies for the material well-being of households. However, economists have long recognized that a household's sense of well-being depends not just on its average income or expenditures, but also on the risks it faces as well. Hence vulnerability is a more satisfactory measure of welfare. The concept of vulnerability used extends the notion of poverty to include idiosyncratic as well as system-wide risks.

It is discovered that the drop in poverty in Tajikistan, especially in rural areas, was due to economic growth, and not because of redistribution. Using cross-sectional data for 2004 and 2005 we find that people in Tajikistan are more likely to be poor if: a) they live in rural areas, b) are members of a household with large numbers of members, c) are members of a household with a large proportion of children, and d) are pensioners or live in a household whose head is a pensioner. There is also strong statistical evidence that living in urban areas decreases the variance of consumption. A half of the households in Tajikistan observed to be non-poor are estimated to be vulnerable to poverty. Using a 2-year panel data (2004-2005), our analysis further suggests that vulnerability in Tajikistan associated with inequality is very large. However, the vulnerability arising from idiosyncratic risk is moderate.


Akhand Akhtar Hossain, The University of Newcastle

This paper reviews macroeconomic developments, policies and issues in Bangladesh under different political regimes since it gained independence in 1971. After recovering from a dire economic-political condition in the mid-1970s, the country has gained macroeconomic stability and maintained a steady economic growth of about 5 percent per annum since the late-1980s. This has brought structural change in the economy and made a
significant improvement in the standards of living of the people. Such economic transformation has taken place as part of a paradigmatic shift from a ‘socialist’ model of development in the early 1970s to a ‘market-oriented, private-sector led’ model of development since the late-1970s. The economy has moved to a higher growth path of about 6 percent per annum since the late-1990s. Whilst a higher growth rate of per-capita income within an open economic environment has contributed to a steady decline in the incidence of poverty, the degree of income inequality has lately increased significantly. This has contributed to both social and political tension in the midst of polarised polity-and society. The resulting political instability has stifled foreign capital inflows and economic growth in Bangladesh, which would otherwise have matched the growth rates in countries such as India, China and Vietnam.

Having reviewed macroeconomic trends and drawn lessons from the successful economies of East and Southeast Asia, the paper updates the growth conditions for Bangladesh. If the country can manage reasonable social and political stability and continue with macroeconomic stability, it would achieve and maintain an economic growth rate in the range of 7-8 percent per annum over the next decade or so. Maintenance of social and political stability is in fact the critical factor that would determine whether the country’s potential economic growth rate is realised. The danger is that the present explosive ‘socio-cultural-political condition’ may go out of control and the country may miss the windows of opportunities for transforming itself into a middle-income country by 2020. Finally, the paper highlights institutional weaknesses that have contributed to social and political instability and suggests some ‘interim measures’ that may stabilize the political and economic environment so that the economy can march ahead until a durable solution to political instability is found.

**Paper 14**  
**Short-run Macroeconomic Determinants and Impact on the Philippine Economy of Remittances**

Maria Estela Varua, University of Western Sydney  
Arlene Garces-Ozanne, University of Otago

Remittance inflows have increased considerably as the number of overseas Filipinos (OFs) and overseas Filipino workers (OFWs) has grown and shifted towards more skilled jobs. After exports of goods and services, remittances have become the second largest source of foreign exchange for the Philippines. This paper uses both the ordinary least square model (OLS) and a time varying parameter model (TVP) to examine the macroeconomic determinants of OFWs remittances to the Philippines over the period January 1989 to
December 2007. We hypothesized a positive relationship between changes in remittances and foreign income. We also tested the significance of economic activity of the home country, domestic prices, exchange rate and the home and host country's interest rate differentials. The results show that the relationship between changes in remittances, the exchange rate and domestic income are in line with our expectations.

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**Paper 15  **
**Paper Corruption, Public Spending, and Education Outcomes: Evidence from Indonesia**

Daniel Suryadarma, The Australian National University

This paper takes advantage of a new corruption measure across regions within a country to measure the influence of corruption on public spending efficacy in the education sector in Indonesia, one of the most corrupt countries in the world. I find that public spending has a negligible effect on education outcomes in highly corrupt regions, while it has a statistically significant, positive, and relatively large effect in less corrupt regions. I do not find any direct effect of corruption on education outcomes, hence implying that one channel through which corruption adversely affects the education system is through reducing the effectiveness of public spending.

Keywords: corruption, public spending, education, Indonesia.

JEL classification: D73, H75, I21, O1.

I benefited from discussions with Ari Perdana, Raden Muhammad Purnagunawan, and Elif Yavuz. Paul Chen, Andrew Leigh, and Asep Suryahadi provide invaluable comments. I would also like to thank Wenefrida Widyanti for sharing her expertise on Indonesian datasets.

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**Paper 16  **
**Trade Liberalization and Institutional Development**

Sambit Bhattacharyya, The Australian National University

It is a widely accepted view in the literature that the majority of cross-national variation in institutions is related to history. The within variation however is somewhat less explored. We find that the within variation in economic institutions can be explained by trade liberalization. This relationship is robust with various indicators of economic institutions and liberalization, with different estimation techniques, in different sub-samples, and to the inclusion of additional covariates. Short-run trade liberalization appears to be more important than long-run
trade liberalization. This may be indicative of a short-term trade liberalization induced shift in the long-run institutional equilibrium. We also find that the country fixed effects are highly correlated with settler mortality and other historical variables. Our results are consistent with recent theoretical developments in the political economy literature and with the 'critical juncture' view of history.

JEL Classification: P16; O10; F13
Keywords: Trade Liberalization; Institutions; Economic Development

Paper 17 Is Fiscal Decentralization Conflict Abating? Routine Violence and District Level Government in Java, Indonesia*

Syed Mansoob Murshed, University of Birmingham
Mohammad Zulfan Tadjoeddin, University of Western Sydney (UWS)

Utilising a newly created data set we examine the relationship between routine/everyday violence and fiscal decentralization in 98 districts of the Indonesian island of Java. By examining possible relationships between fiscal decentralization and routine violence, this paper fills a gap in the literature where the analysis of the relation between fiscal decentralization and violence is relatively scant. Routine violence, which is different from both civil war and ethnocommunal conflict, centres around group brawls, popular justice or vigilante violence. Despite the uniform implementation of fiscal decentralization, sub-national entities exhibit varying experiences with decentralization, but a common consequence is the increased size of local government. Fiscal decentralization, and the increased size of local government, can alleviate pent-up frustrations with a centralized state, as local government expenditure is seen to satisfy the needs of communities that people identify with more closely. Our results show that this is indeed the case, but the capacity to do so mainly lies with richer districts.

Keywords: Asia, Indonesia, Routine Violence, Fiscal Decentralization

* We are grateful to the European Union funded MICROCON project for financial support. We also wish to thank Michael Grimm, Anis Chowdhury and Koen Vlassenroot for helpful comments on earlier versions of this paper.
Paper 18  Understanding Socio-institutional Reform: What matters?

Khaqan Hassan Najeeb, University of New South Wales

The recent socio-economic debate has been profoundly influenced by a global climate of divisions along ethnic, linguistic and religious lines in the developing world. Societal cleavages have been deemed as important determinants of the performance of the developing world (Easterly and Levine 1997). In this regard social capital and the trust it inheres has progressively gained credence both in the sociology and economics literature, as a significant explanatory variable underlying institutional framework and growth. This study builds a framework for the development of social trust levels based on the premise that anything that lessens social distance between populace may lead to more trust (Gradstein and Justman, 2000). The central idea is that education can impact people by broadening their outlook, enabling them to understand the need for norms and values and can help in restraining them from adhering to extremist behaviour (Lipset, 1959 p.79) thus impacting the social context. Conceptualizing a framework for the contribution of education in building norms like social trust, the paper presents new evidence for both quantitative (enrolment) and qualitative (pupil teacher ratio and public expenditures) effects of education as a socializing force. The paper researches the difference in levels of education, to determine the separate effect of primary, secondary tertiary education on social capital. Survey data is used for measuring generalized trust levels in countries using the World Value Surveys The findings suggest that education may have a considerable contribution in shaping the social context. The robust results to the inclusion of other variables and alternative samples support a case for (a) public schooling and (b) ingenuity in measuring education efficiency by incorporating the socializing effect of education. The paper advocates education as a more basic source for countries to build institutions and improve growth, through its role as a socializing force.

Paper 19  Education Reform in China: The Implications of Rapid Skill Accumulation

Jessica Y. Xu, University of New South Wales
Richard G. Harris, Simon Fraser University
Peter E. Robertson, University of New South Wales

The proportion of skilled labour relative to the population in China is only a fraction of that of the developed countries despite the rapid expansion of skilled workers in recent time. This paper considers the economy
wide implications of policy changes to accelerate the supply of skilled labour in China through education and labour market reforms. The analysis uses a dynamic, multi-sector general equilibrium model with endogenous human capital accumulation. We find that the growth in the supply of skilled labour has a large effect on capital accumulation and wages but it also generates increasing skill premiums in the short term. The economy experiences strong growth in the more skill intensive sectors and growth in the exports of skill intensive sectors such as durables and traded services.

Keywords: Human Capital, Economic Growth, China, Computable General Equilibrium Models

This paper is based on part of an ongoing PhD thesis, thus the results are preliminary.

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**Paper 20**  
**Mapping Poverty in Rural China: How Much Does the Environment Matter?**

Susan Olivia¹*, John Gibson², Scott Rozelle³, Jikun Huang⁴ and Xiangzheng Deng⁴*

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In this paper, we apply a recently developed small-area estimation technique to derive geographically detailed estimates of consumption based poverty and inequality in rural Shaanxi, China. We also investigate whether using environmental variables derived mainly from satellite remote sensing data improves upon traditional approaches that only use household survey and census data. Ignoring environmental variables in statistical analyses that predict small-area poverty rates leads to targeting errors where poor areas would be excluded from the allocation of transfers and non-poor areas are deemed as potential beneficiaries. Using area-based targeting may be an efficient way to reach the poor since many counties and townships in rural Shaanxi have very low levels of inequality, even though, on average, there is more within-group than between-group inequality. There also seem to be evidence that official poverty policy in Shaanxi targets particular areas which in reality are no poorer than other areas do not get targeted.

JEL: O15, O53, P36, Q56

Keywords: China, Environment, Poverty, Small Area Estimation

Acknowledgments: We are grateful to the Research and Education Advanced Network New Zealand Capability Build Fund for financial support and to Albert Park, Hongbin Li, and Shuming Bao for assistance. All remaining errors are our responsibility.
Paper 21  Migration as a Response to Intrahousehold Risk: Evidence from Indonesia

Elisabetta Magnani, University of New South Wales
Anu Rammohan, University of Sydney

Migration in search of better employment prospects is widely regarded as an important means of mitigating the adverse consequence of poverty, particularly in rural areas. However, in an environment where the social norms require children to support elderly parents, ill-health of elderly household members is likely to influence the propensity of an individual to migrate. In this paper using the Indonesian Family Life Survey 2000 (IFLS-3), we examine the manner in which care-giving responsibilities for the household’s sick elderly members’ impacts on the propensity to migrate of working-age adults. The main dependent variable in our analysis is a binary variable indicating the migration status of a working-age adult member. We define an economic migrant as an individual between the ages of 15-49 who migrated for a period of at least 6 months in the years 1999 and 2000 for the purpose of finding employment. An individual is described as being a care-giver if two conditions are simultaneously met: (i) they are co-residing with an elderly member aged 50 + and (ii) the elderly are in ill-health. Elderly health is measured using an array of self-reported health measures. Our analysis predicts that participating in the migrant labour market or migrating for any reason will look less attractive if the individual has an elderly household member who is not in good health. Further, if the individual has siblings available to act as potential caregivers, then it increases the likelihood that the individual will migrate.

JEL classification: J12, O12

Keywords: migration, elderly caregiving, labour supply, Indonesia

Paper 22  Sibling Effects on Educational Engagement and Achievement for Rural South African Children

Katy Cornwell\textsuperscript{a}, Brett Inder\textsuperscript{b}, Pushkar Maitra\textsuperscript{c} and Anu Rammohan\textsuperscript{d}

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The concept of a quantity-quality trade-off in education suggests that educational achievement is negatively correlated with family size, and a related phenomenon of sibling rivalry suggests that the chances of a child attending school decrease with the number of children in the household.

In this paper, we argue that there can be positive synergies created for children with other siblings of school age that potentially lead to improved educational engagement. We show empirical evidence that supports this
view of sibling synergy, using data on rural, black South African households. For example, a child at the school-commencement age who has an older sibling who is attending school is twice as likely to enrol in school than a child whose older sibling is not attending school.

The paper also reconsiders just how to best measure educational engagement. We argue that gross and net enrolment school enrolment rates can drastically understate the extent of educational disadvantage many poor households experience. For example, even though enrolment rates are a relatively high 90% for 9-14 year-olds in our sample, this masks the reality that only around 30% of 14 year-olds from rural areas have progressed to the grade they would have reached by this age were they progressing at the appropriate rate each year. The paper tries to decompose the causes of this slow progression, looking particularly at the factors contributing to school commencement and progression to subsequent grades. Sibling effects are particularly strong, with children much more likely to commence school at the appropriate age if their older siblings are attending school. Progression through the grades is also positively associated with that of their older siblings. Conversely, older children have poorer educational outcomes if they have pre-school aged siblings.

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**Paper 23  Anarchy and Herding: A Simple Model of Irrational Human Conflicts**

Partha Gangopadhyay, University of Western Sydney

An anarchic system is characterized by two distinct features: first, contenders sequester resources partly for using them as inputs to produce final goods and services and partly for protecting, or expanding, resource bases. Interests of contenders/rivals are therefore mutually antagonistic. Secondly, intergroup interactions are not guided by any legally enforceable common charter, or contract. Decision-making in anarchy thus involves a conscious diversion of resources from productive economic usages to the formation of a conflict and war technology in order to protect existing resource base of a group. The formation of a conflict and war technology has a trade-off in terms of lost economic benefits. An equilibrium in this context refers to a mutually consistent set of individual choices of conflict and war technologies such that there is no incentive for any contender to move unilaterally away from the equilibrium configuration. Under a set of plausible assumptions we establish the proposed Nash equilibrium to be beset with the following problems: first, the equilibrium military output of each rival will be greater than the socially optimal level. Secondly, the Nash equilibrium is shown to feed on subjective elements, which makes the equilibrium highly fragile. Simple fluctuations in subjective elements can have far-
reaching impacts on the optimal investment in conflict technology. Finally, we establish that the anarchic equilibrium can be driven by herd instincts. The herd instincts can adversely impact on the economic progress of a nation-state and will make the world extremely fragile with arms race and irreversible historical mistakes. Due to this element of herding, the decision to build appropriate conflict technology and military output may never be based on an objective evaluation of costs and benefits of protecting economic resources; whims and fads can easily drive these choices.

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**Paper 24 Development (Paradigm) Failures**

Roland Hodler The University of Melbourne

This paper provides an explanation for the failure of the different development paradigms that were advocated in different decades of the last century. It presents a game-theoretic model in which the government of a developing country chooses its policy, e.g., the degree of government interventions, and the level of corruption.

These choices affect domestic production and aid inflows: domestic production decreases in the distance of the chosen policy to the country-specific optimal policy and in the level of corruption, and aid inflows decrease in the distance of the chosen policy to the current development paradigm. The level of corruption further determines the national income share that the government can embezzle if it remains in once. The people can however overthrow the government at some costs, which are inversely related to the quality of the institutions that constrain the government. We found that countries are more likely to follow the paradigm if their productive capacity is low and corruption extensive due to poor institutions, and possibly also if their government has little knowledge about the country-specific optimal policy. Since such countries would perform poorly anyway, it is unsurprising that many countries that followed the different development paradigms performed poorly. We further discuss some normative implications of our model.
Paper 25 Growth and Dynamics of Australia’s Education Export

Mamta B Chowdhury, University of Western Sydney

Internationalisation of education sector is a successful endeavour for Australia as the sector becomes the number one services export and ranks number three in terms of total export earning in current year after iron ore and coal. Australia has become the third largest exporter of higher education and generated more than $12 billion in fees and other spending by overseas students. This study attempts to examine whether the rising Australian exchange rate have any adverse effect on this promising industry employing Cointegration and Vector Error Correction model for the period between mid 1975 and 2007 using annual data. Our study finds that the increased world income is positively and significantly stimulating Australia’s effort of internationalisation of higher education in the long run, especially in East and South Asian market. It is also found that the relative price of higher education between Australia and its competitors providing higher education in the global market is a significant variable explaining the expansion of the sector in the long run. The depreciation of real exchange rate between Australia and its competitors is positively influencing the sector’s earning, whereas, the stronger Australian currency value exerts an adverse effect on the sector in the long run. In the short run, it is found that the foreign income and real exchange rate are having positive and significant effect on Australia’s education export sector, however, the nominal effective exchange rate does not have any significant effect in explaining the expansion of the sector. Using a structural dummy to demonstrate the policy change effects illustrates a positive effect of policy reform on the sector from the mid 1980s.

Key words: Education services export, Internationalisation of education, Error Correction Model, Export demand function.