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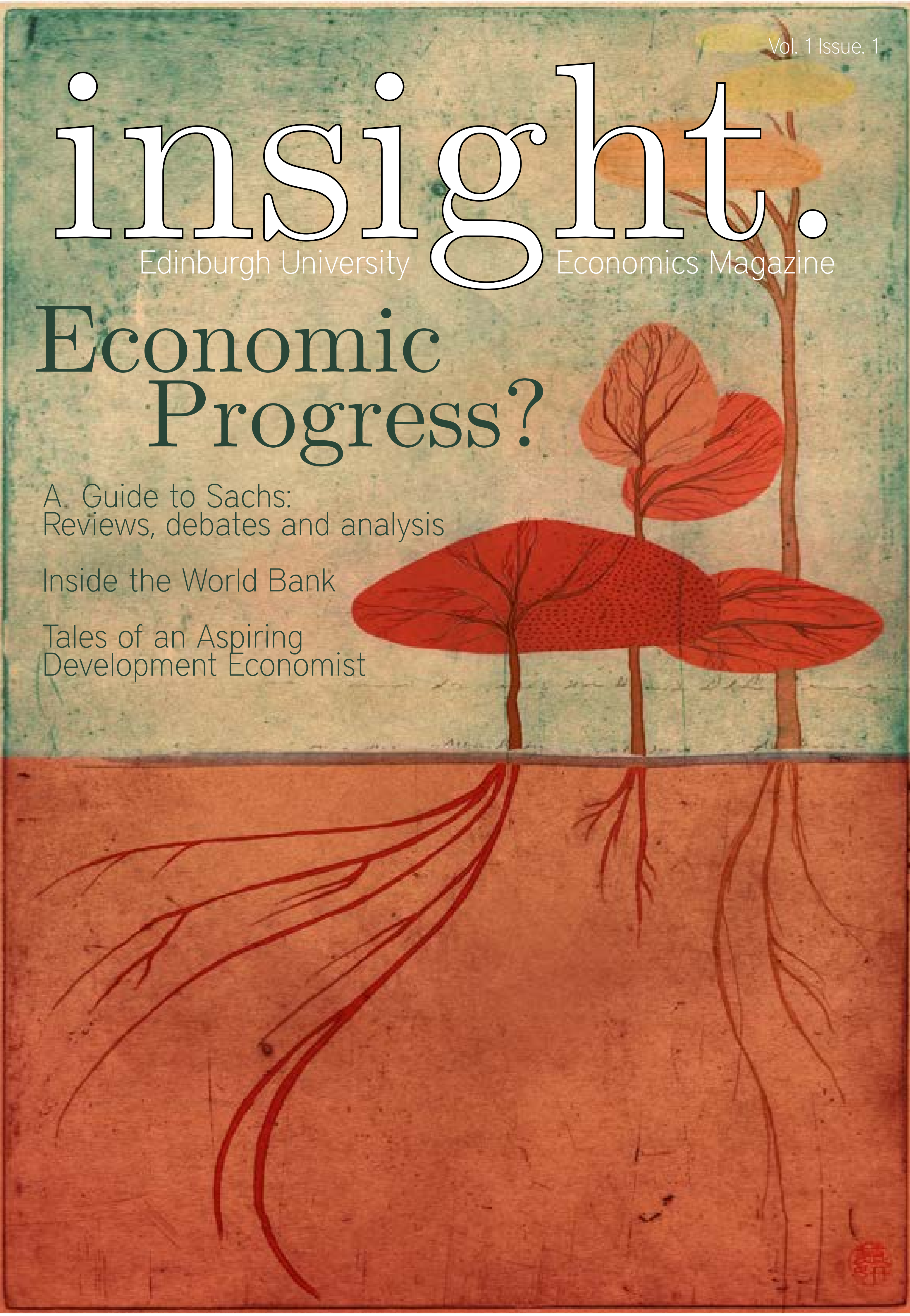

Economic Progress?

A. Guide to Sachs:
Reviews, debates and analysis

Inside the World Bank

Tales of an Aspiring Development Economist

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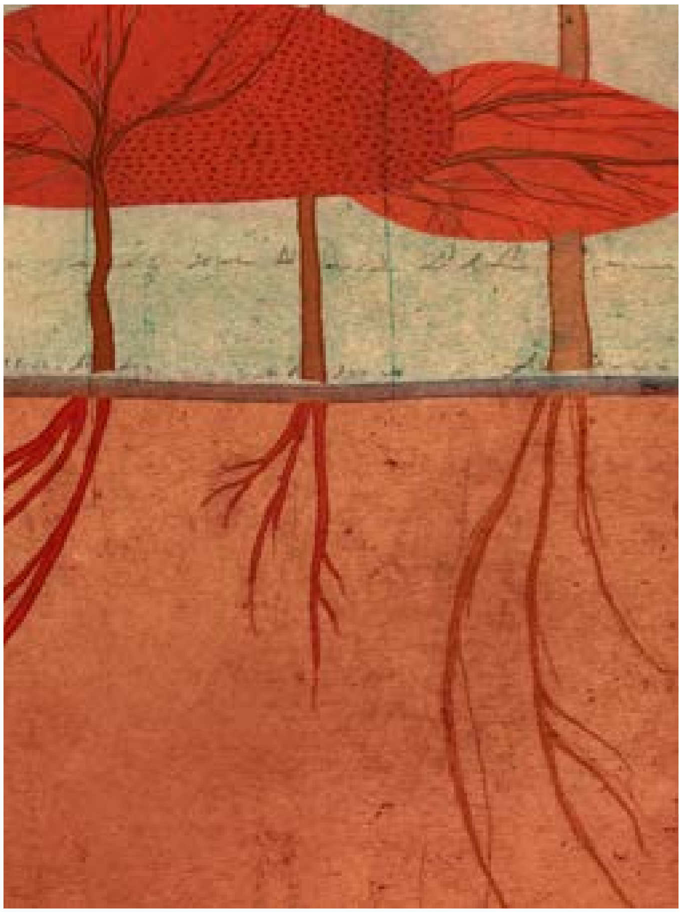

Staff

Editor's Note:

Welcome to Insight, Edinburgh University's Economics Magazine. As a student-run, student-authored magazine we are lucky to be somewhat insulated from the harsh economic realities of credit-crunch times. Certainly, without the admirable work of all of its contributors – writing for less than minimum, or any, wage – it is questionable whether this venture would have made it out the door of the cold flat it was first devised in.

Looking back at the largest global financial crisis in 2008, and forward to restructuring the global economy, this issue's Focus section's theme of 'progress' is reflective of a wider public debate. Recent public protests around the globe have illustrated the strong disagreement on the direction the road to recovery should take. From the trading floors of Wall Street to the backstreets of Bangladesh there are clearly many different conceptions of the term 'progress'; moreover, who is included in it. As the wide international scope of the following articles implies, it is with broad horizons that the theme of progress was conceived as the focus of the first issue. Similarly, the recurring theme of sustainable development is suggestive of what the economics students of Edinburgh conceive progress to mean. In the present context of global recession and endemic poverty, amongst other ailments, this is perhaps a good sign for the future!

Whether one shares the views of the writers or not, reading the pages of this magazine I hope will inform as much as engage the reader in a dialogue about the shape the future economy should take. As one poverty eradication organization puts it, 'without dialogue there can be no human development'. It is therefore for the very good of humanity I invite you to read on.

If you have anything to add or would like to respond to any of articles, or the magazine as a whole we would love to hear from you. Contact details are on the facing page. And for those swiftly browsing over a cup of tea, there's even a crossword on the inside backpage. Answers via email for the chance to win a lifetime subscription and dinner with our Managing Editor, Matthew Riley. He's quite a charmer.

Sincerely,
Charlie Barker (Editor-in-chief)

'insight' is generously supported by the Economics Society and its sponsors, which provided funding for our inaugral issue.

FOCUS: Progress

A Future for GDP?

Evan Williams explores the arguments for and against GDP's use as an economic indicator, whilst reflecting on the measure's history and its place in the future

The notion that a country's Gross Domestic Product (GDP) is a reliable indicator of its living-standards has come under increasing scrutiny in recent years. David Cameron's "Happiness Index" for example sets the framework for a historic move away from traditionally preferred measurements.

Critics of GDP's use as a measure of well-being lament that it both includes and excludes too much. As Senator Kennedy argued in 1968, a country's GDP tells us nothing about its distribution of income, the health of its citizens or the state of its environment, but includes 'air pollution and cigarette advertising, and ambulances to clear our highways of carnage.' If GDP is as misleading as some have argued, then why do we use it at all?

One of GDP's early architects was Simon Kuznets, an American economist who developed the measure in the 1930s to estimate the value of goods and services produced by a country. GDP's impact as a measure of progress was immediate; the Allies' superior knowledge of national production capabilities during WWII made a significant contribution to their victory.

Prosperity at the armoury does not however encapsulate a universal idea of progress and Kuznets himself recognised the limits of focusing on the market value of traded goods and services as a shortcut for measuring well-being. Although GDP was neither designed nor is able to account for much of what we value in our lives, the index has proven to a highly useful indicator since its invention. It was the unparalleled decline in living-standards during the 1930s' Great Depression

> "If GDP is as misleading as some have argued, then why do we use it at all..?"

which first inspired its development, and it was GDP's implementation which helped policy-makers explore a solution. Today, financial markets, central banks and governments around the world rely on the index measure in order to help manage the global economy.

What GDP provides is a level of objectivity and certainty that other statistics at present cannot, allowing its use as a cross-country comparator over time. Just because GDP does not provide a complete measure of living-standards does not mean it should be condemned to the economic scrapheap; if including the subjective and potentially immeasurable notions of happiness and non-market activity confuse statistics beyond comprehension, then GDP's merits are obvious.

GDP can of course be improved upon. As the 2009 report commissioned by French President Nicholas Sarkozy argues, there is room within the GDP framework to better measure the distribution of the gains from economic growth and the sustainability that that growth entails. Current applications of the GDP approach have nevertheless been successful; by placing GDP impacts at centre-stage, the 2006 Stern review provided policy-makers around the world with a clear endorsement of immediate action on climate-change.

Given the complexity entailed in the issue of human well-being, aiming for an all encompassing measure for economic and social progress would seem unrealisable. For progress to occur in this area, our obsession with GDP as the only important economic indicator therefore has to change. But, if measurable progress is what we are after, GDP should not be dropped altogether either. ❖

How Success is Measured

Desislava Dimitrova discusses the merits and limitations of alternative index measures

Out of a growing awareness of GDP's perhaps undeserved hegemony in the world of economic indicators, recent years have seen the rise of alternative index measures. Indicators such as the Human Development Index (HDI), the Happy Planet Index (HPI) and the Ecological Footprint (EF) attempt to produce better-rounded indices by considering factors other than mere production levels.

The HDI measures the progress of a country by considering three main factors: knowledge (measured by adult literacy and mean number of years spent at school), standard of living (measured by GDP per person adjusted for purchasing power parity) and life expectancy at birth. Whilst the measure recognises the multi-faceted nature of any country in its formulation, it falls short of including important societal features such as levels of inequality across gender. Moreover, sometimes the accurate construction of this indicator relies on information, such as literacy levels, which is not always so readily available in less developed countries.

An alternative to the HDI is the recently developed Happy Planet Index which considers both overall human well-being and ecological footprint in its formulation. The unsurprising result is that many countries who score highly on GDP-rankings list do not always score very highly on the HPI index. The value of this indicator is based on the assumption, however, that people value the environment and personal happiness equally.

> "... [the] result is that many countries who score highly on GDP-rankings list do not always score very highly on the HPI Index."

The Ecological Footprint is another economic indicator, which measures the effects of human activity on the environment. The index considers the sustainability of human activity with respect to natural resources such as forests, croplands and grass. In 2006 humanity's total ecological footprint was estimated at 1.4 planet earths – in other words, humanity in this year used ecological services 1.4 times as fast as Earth can renew them. Yet the Ecological Footprint's sole focus on ecology in its formulation means the index does not reflect factors such as levels of employment, mortality rates or literacy rates in any given country. For advocates of EF, the potentially disastrous consequences of not placing ecological factors at the centre of any index measure poses too great a threat to our long term economic future on this planet. The prevailing dominance of anthropocentric factors in any economic measure, however, suggests EF will remain a complement to, rather than a substitute of GDP.

In order to tackle questions to do with the measurement of economic and social progress President Sarkozy launched a commission in 2008, and the year 2010 saw Britain's own Prime Minister speak publicly about his desire to start measuring the nation's 'well-being'. While such ambitions have yet to be realised, continued dialogue challenging GDP's dominant use in policy making is undoubtedly beneficial seeing there is no one indicator as a panacea to all woes.

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Across the Pond...

Julian Radlinger on why the United States could learn from the German response to the global financial crisis

The real estate crisis, financial crisis, economic crisis, euro-zone crisis ... Add a global currency crisis, and you've got the main chapters of the worldwide economic recession since the fall of Lehman Brothers in 2008. As every subsequent turn of events in this crisis has revealed, it is difficult (if not impossible) to predict what will follow next. Comparing the responses of the US and Germany reveal significant insights into the success of economic policies, whilst providing lessons for the future.

Back in 2008, there were clear similarities between the economic policy responses to the global economic crisis on both sides of the Atlantic. In the US, as the Federal Reserve took the decision to lower interest rates, the newly elected Obama administration acted decisively to put together a large scale stimulus package to cushion the economy. European governments similarly followed suit, pumping large amounts of money into some of their nations' biggest companies. Banks such as Germany's Hypo-Real-Estate were effectively nationalized and programs such as "cash for clunkers" in the US were drawn-up to keep the car industry afloat. While all this was happening, global leaders took steps to try restore the trust and confidence of financial markets which had so quickly vanished.

By 2009, promising GDP growth of 5% in the US hinted at a more successful recovery than their European counterparts. However, with GDP growth of around 2%, persisting unemployment at between 9% and 10% and a budget deficit surpassing 10% of total output, 2010/11 told a different story. If the US were a European country, it would be next in line for a dramatic bailout.

Germany, on the other hand, has been able to gradually reignite their economy, boasting over 3% GDP growth for 2010 and the lowest unemployment rate the country has seen since 1981.

So what is to account for such striking distinctions in the economic performance of the US and Germany? Underlying differences in the two nations' economies is one explanation. Whilst recent years have seen Germany continue to benefit from a flourishing export industry and rising levels of foreign demand for German goods, US economic performance can be characterised by an absence of such export success, coupled with low domestic consumer confidence.

Yet in spite of these apparent drawbacks, the US's problems are far more fundamental and insidious. Where Germany aims for sustainability and long-term efficiency (goals deep-rooted in European thinking), the American administration has appeared to take a more short-term view. Rather, adopting policy initiatives focusing on growth and production in the here and now. Labour market policy of the respective countries provides just one example of this difference in thinking. Germany's decision to subsidise wages during the worst crisis enabled firms to avoid large-scale layoffs and the later costs of associated with the rehiring of workers. The US, on the other hand, took the approach to simply extend unemployment benefits to those without a job, meaning that American firms will have to incur the costs associated with labour recruitment when demand eventually picks up again.

Another revealing example of sustainable economic policy is the German government's refusal to cut two areas of arguably intrinsic importance to long term competitiveness: education and research. In the United States, so much of the 18% of GNP that the government collects in revenue is swallowed up by spending on health, retirement, defence and interest payments on the debt that little is left for educating the nation.

Germany (along with every other EU country) has recently made public its plan to reduce its budget deficit by curtailing government spending. In spite of significant increases in tax revenue thanks to the boom, the government has refused to lower taxes until the budget gap is closed. On the other side of the Atlantic, at a time when the federal deficit is at dizzying heights, the Obama administration buckled to Republican pressures by extending Bush-era tax cuts to the rich. While European policy makers have moved actively to eliminate large national deficits, their American counterparts seem unwilling to move against popular pressures by advocating spending cuts and tax rises. Whether the Fed's penchant for quantitative easing will prove fruitful, remains to be seen. ❖

... and Back Again

Jared Stephenson sees signs of recovery in the US economy, if further challenges lay ahead for the Obama administration

The quaint tree-lined streets of Georgetown, located in northwest Washington D.C., seem unaware of America's fragile economic recovery. Immaculate million dollar mansions stand in stark contrast to the realities faced by the vast majority of Americans. The current unemployment rate stands at 9.6% – a figure not seen since the early 1980s. This statistic, no doubt, lingered in the minds of voters during the recent November midterm elections, with the Obama administration paying a heavy political price for its handling of economic affairs.

The American electorate has explicitly claimed that Washington's expansive fiscal and monetary policies have thus far paid dividends only on Wall Street. One Tea Party senator-elect, Rand Paul, recently suggested eradicating the Federal Reserve entirely. With interest rates at record lows and government spending spiralling, the White House and the Fed must be at a loss to explain the lack of visible results following these drastic measures.

In truth, there have been implicit results. Jobs have been saved, though not created while GDP is growing lethargically rather than emphatically. Still, the American economy is languidly rising from the ashes of a severe financial crisis.

Less than one month into his presidency, Barack Obama signed a $787bn fiscal stimulus package designed to simultaneously boost job creation and the wider economy as a whole. Though many economists at the time agreed that this global fiscal catalyst was a sound economic policy initiative, its economic validity has since come under scrutiny. The Recovery Act, as it was named, had three primary intentions: to create new jobs and save existing ones, to spur economic activity and invest in long-term growth and to foster unprecedented levels of accountability and transparency in government spending. Economic intuition behind the act was simple Keynesian economics: spend your way out of recession. Contracts, grants and loans were assigned to a vast array of around 240,000 projects ranging from infrastructure developments to green initiatives.

Those who claim that jobs have not been generated from this act are standing on a leg as shaky as the majority of Ireland's bank's balance sheets. Browsing the Recovery Act website provides plentiful evidence. For example in Aiken, South Carolina, Savannah River Nuclear Solutions was awarded a Department of Energy federal contract worth around $720m to handle the disposal of hazardous waste materials, which created 733 new jobs. But at just over $980,000 per job, it would be both economically and politically erroneous to justify this figure.

> "Those who claim that jobs have not been generated from this act are standing on a leg as shaky as the majority of Ireland's bank's balance sheets."

Qualitatively, the President's economic tactics were strong; quantitatively less so. Overall, the US government's stimulus package amounted to just over 5% of GDP while the Chinese government's fiscal injection added up to 15%.

Over at the Federal Reserve, Ben Bernanke has been utilizing all the assets at his disposal to aid President Obama. Through two rounds of quantitative easing – whereby $1.85 trillion worth of US debt will eventually be purchased by the fed – interest rates have been pushed to unseen levels (currently, a US one-year treasury note will yield a meagre 0.24% at the time of writing) and the dollar has subsequently depreciated. This devalued dollar concurrent with low interest rates has spurred on both investment demand and exports through the first three quarters of 2010. Gross private domestic investment has advanced at an average annualised rate of 23%, albeit still weighed down by the sluggish housing market, and exports have risen at an average annualised rate of 9%.

An underlying issue, however, remains. Although economic conditions are improving, businesses are not adding to the payroll at anywhere near a meaningful rate. Instead, current employees are being offered longer hours. This poses a serious threat to the US economy and the Obama administration must quickly and efficiently combat impendence of structural unemployment. Higher inflation is one controversial option, as is expanding the government workforce, but both tactics would be politically problematic at best. Obama and Bernake have overseen the worst of this financial crisis, things are improving: GDP grew at 2.5% in the third quarter of 2010 while 151,000 jobs were added to the economy in October. Nevertheless, stormy seas still lie ahead and they must be navigated; America's economic future is at stake. ❖

China's Rise to the World Stage

Ryan Smart on China's transformation from an inward looking history into a global trade giant

In 1773, the Qianglong ruler of China granted an audience to a large British delegation, acting on behalf of King George III. The delegation, led by the first envoy of Britain to China, Lord Marcartney, sought trade opportunities in China's market. Despite flattery and gifts, the Brits did not meet with much success. Instead, the emperor reportedly proclaimed no use for England's "strange and ingenious" goods.


Alex He

While 18th century China's attitude towards Macartney and world trade in general was one characterised by disinterest, today's reality of China's regard to the world couldn't be more different. The country is at the heart of the international trade flurry. If once China's rulers were content with an inward trade strategy, its current rulers are massively attracted to growth in international commerce. The second half of the 20th century, for example, saw the country's economy grow at remarkable rates (averaging at about 10% since the 1980s), largely on the back of export success. Moreover, last year saw China overtake Germany as the world's largest exporter, and some pundits are already awaiting the year it will overtake its long-time rival, America, to become the leading economy of the world.

None of the numerous reasons put forward to explain China's phenomenal success can argue with the basic insight of the consumer's preference for the cheaper good. And this is where China tops its competition. The country's access to a vast supply of labour willing to work at competitive wages is arguably at the heart of its ability to satisfy demand for cheap goods in places such as Europe and the US.

The irony is of course that as US policy makers worry about high levels of consumer spending, it is by and large with Chinese money that the burgeoning current account deficit is financed. Chinese foreign exchange reserves have skyrocketed to around $490 billion since 2002, with most of this figure being US government bonds and securities. China incentivises American consumers by offering cheap goods and the money (plus interest) to buy them.

China's growth has inevitably been met with caution from global leaders precisely as a result of its competitiveness. A growing educated population, rising technological investment and government reforms all cement a feeling of unease from those who fear China's rise to the world stage. Those who share this sentiment must now reflect on the potent accuracy of Napoleon's words of advice, "let China sleep, for when she wakes she will shake the world". ❖

Real Progress for Angola?

Briana Pegado on the Republic of Angola's war-torn history, current predicaments and its prospects for the future

Little known fact: In 2009, Luanda, Angola held the place as the most expensive city in the world. This year it holds second place. Most people have never heard of this coastal capital located on the west coast of Africa in an OPEC nation just separated from the border of South Africa by Namibia. The country, ravaged by civil war for decades between the MPLA government and the rebel group UNITA, constantly experienced food shortages and electricity outages as a result of rebel forces and already unreliable infrastructure.

Obviously, many developing countries liberated from colonial rule, disjointed and disillusioned, experience a power struggle that results in civil conflict. This conflict then eventually subsides and some form of transition government is established. The pattern has held true for centuries, but in the case of Luanda, why so expensive?

Among many reasons in answer to this question, there are a number of important points to bear in mind. The first is that most consumer goods are imported. Secondly, domestic production for manufactured goods is essentially non-existent or (in the rare case of existing) unable to compete with imported goods and finally, a lack of access to markets for would-be farmers has meant that only 6% of the country's huge arable land is cultivated.

Deemed one of "Africa's longest serving leaders" by the BBC, President Jose Eduardo dos Santos has held presidency since 1979. Supported by the MPLA, (People's Movement for the Liberation of Angola) which won an overwhelming victory in the country's last parliamentary elections in 2008, Dos Santos maintains a hold on the economic policies of Angola like that of a dictator. Angola is one of Africa's largest exporters of petroleum and diamonds. Its wealth of petroleum remains in the enclave of Cabinda, an oil rich province north, and not bordering the mainland.

The country's infrastructure is almost non-existent. Buildings in Luanda are dilapidated and disintegrating. One well-known skyscraper in the city centre was left unfinished and is now infamous for the squatters (mostly Angolans that escaped the countryside during the war) who fall from its heights due to a lack of either side railings or walls. Many roads in the city centre are pothole ridden, filled with trash, and in rush hour frustrating to manoeuvre. A thirty-minute commute turns into two-hours during rush hour because of the mere lack of secondary roads into the city. There are only three main roads.

However, for another class of people in Luanda, those fortunate enough to work within the oil industry and for more than a dollar a day, their

lives are seeing more progress than that demonstrated on the streets of the city centre. ExxonMobil, Chevron, BP, Total, and Sonangol (Angola's national oil company) are the five largest oil companies operating in Angola. Sonangol has invested in a percentage of BP Angola's stock, therefore asserting itself as a major player in a slew of global energy companies grabbing for a piece of Angola's oil wealth. According to INSTOK's (Norwegian Oil and Gas Partners) June 2010 Annual Market Report, 2009 saw Angola - as the largest African crude oil exporter - take the organisation's presidency after just two years of OPEC membership.

Oil company families and workers enjoy the perks of working for multinational oil corporations such as Chevron and Exxon. Their homes are built in "compounds" outside of the city centre; mainly in a neighbourhood called Benfica that features beautifully paved roads, community centres, and 24-hour gate guards. The only shopping mall complex in the city is located just off the exit into Benfica of the main highway. The shopping mall is complete with a South African grocery store chain called Shoprite, a movie theatre that can sometimes get movie releases before some countries in Europe and a food court complete with a Sushi Bar that could never have been found in the city centre years before. One fast food chain in this food court particularly stands out – Bob's Burgers. The only other establishment in this chain is located in Ilha de Luanda, a long beach strip located in downtown Luanda. With a single Ovaltine Milkshake costing $10, the prices at this chain are not for the poor.

At the end of 2009 Angola's GDP per capita was $8,800. With the notable exception of 2009 that saw real GDP fall by 0.2%, the country's economy is growing. With exports accounting for 85% of GDP, Angola is benefiting from high oil prices. Such steady growth and availability of oil reserves has attracted foreign investment. No country in the world has been as drawn to the prospect of increasing oil imports from Angola as the People's Republic of China.

China is Angola's leading export partner. Some figures suggest Angola exports as much as 33% of its products (mostly, if not all, crude oil) to China. As a former communist nation, Angola welcomes economic and social political ties to China. During the war, Cuban and Soviet officials once sponsored MPLA, Dos Santos's party. It seems that post-war communist ties bind these two powers together and China gives out billions of dollars in loans to the Angolan government, expecting honest transparency in return. Sino-Angolan relationships can be seen everywhere in Luanda: Portuguese speaking Chinese own restaurants, Chinese merchants dominate the small printing and photo kiosk market and Angolans and Chinese are often co-workers in the oil industry.

One of the numerous oil company skyscrapers in Luanda was rumoured to have been built by the hands of Chinese workers in just over six months. Such workers no doubt worked full day shifts before their night time counterparts arrived to work the night. Welcome or unwelcome, the Chinese presence is strong in Angola. Many see the positive in the Chinese rebuilding much of the country's infrastructure, which was destroyed or abandoned during the civil war.

In a similar vein, many Angolans in Luanda welcome the dominant presence of oil companies. Admittedly, all oil companies in the city invest in the community, whether it be through community outreach, the construction of microfinance programs or HIV/AIDS education programmes.

The Angolan government has recently launched an ambitious

> "China gives out billions of dollars in loans to the Angolan government, expecting honest transparency in return."

programme of building one million homes and accompanying infrastructure by the year 2013. The fruits of such an initiative are already visible in the suburbs of Luanda, where a thousand new homes mark the beginning of a whole new community. Still, in spite of this progress, there is still a long way to go – not least in the countryside – to provide the Angolan people with the life they all deserve. However, if the government continues to do what it pleases with the country's revenue from the oil industry, the evermore potent question looms large in Angola's future development: will Angola ever see real harmonious progress? ❖

Microfinance in Bangladesh

Rebecca Kelly on whether Bangladesh's microfinance success story can be replicated in other developing countries

Bangladesh, among the world's most impoverished and corrupt nations, has been a pioneer in the provision of microfinance since 1976, when Professor Muhammed Yunus initiated the Grameen Bank. Poverty cripples the aggregate economic progress of a nation, and microfinance has become one of the most popular strategies for reducing poverty around the world. Bangladesh has seen its GDP more than double since 1975 with its poverty rate falling by a staggering 20% since the early 1990s, all fundamentally due to the evolution of microfinance institutions.

Bangladesh's Grameen Bank was the first of what would become approximately 70,000 micro-lenders worldwide. Its model has been replicated in 138 countries, providing credit to twenty-five million borrowers.

The concept is simple: microfinance broadly involves the provision of financial services – such as credit, savings, insurance and pensions – on a small scale to poor individuals. Small-scale lending exploits the likelihood that grateful borrowers will invest in creating or expanding self-sustaining businesses. The crucial difference to western banking is the lack of collateral. In replacement for collateral the strategy used is essentially 'peer pressure', in the form of group-based lending and repayment. Once one member defaults, the others are no longer eligible for loans.


Photography by Robbie Marwick

Borrowers in Bangladesh are mainly women living in rural areas. Allowing women to spend their loans innovatively and profitably contributes to the empowerment of women, a hugely important point of progress in Bangladeshi culture. Between 1977 and 2009, the number of borrowers has increased from 70 to just shy of eight million.

In practice, borrowers use their loans either to finance entrepreneurial initiatives in starting self-sufficient businesses of their own or to invest in existing businesses run by the friends and family around them. For example, a borrower might use his loan to purchase a rickshaw, thereby eliminating rental cost in favour of a profit with which he can repay his loan. The flexible, trust-based loan repayment schemes in Bangladesh have proven astoundingly successful; in 2009, banks enjoyed a 98% loan repayment rate.

Curiously, this high rate of success has not been seen everywhere, in fact it has not been the case for the majority of countries. Why is the repayment rate so much higher in Bangladesh than in most other parts of the world? Is it because need drives the system to work, the village culture or alternative reasons?

Integral to the economic growth of Bangladesh, or any other developing country, is the accumulation of capital. The Grameen bank facilitates a compulsory savings scheme with an interest rate of 8.5%, positively effecting economic progress while building a safety net for members. Borrowers are shareholders in the banks, so profits are invested only in borrowers.

In conjunction, the accumulation of human capital is encouraged by the availability of higher education loans and increased investment in rural education through what Yunus calls 'social business.' Yunus believes that all people have the skills needed to create and trade market goods, that they only require the opportunity to do so.

Photography by Robbie Marwick

'Allowing women to spend their loans innovatively and profitably contributes to the empowerment of women, a hugely important point of progress in Bangladeshi culture'

Microfinance not only allows the poor to consume beyond their means, increase their productivity and provide for their families, it also most essentially allows them to escape the poverty trap. Unlike many other financial institutions, the Grameen bank model extends lending to the extreme poor, termed 'struggling members.' Granted the most flexible type of loan, these struggling members are given the opportunity to borrow completely collateral free.

The real merit of microfinance lies in multiplier effects. The issuance of a loan allows for the creation of additional jobs, for increased level of capital, for greater access to costly healthcare, and an increase in 'sister companies' or 'social businesses.' Local, rural hospitals, schools, energy companies, and aggregate nutrition all benefit. Grameen's 2006 joint venture with Danone and the subsequent provision of nutritious yoghurts sold for 6TK (5p) each resulted in the eminent improvement in the health of poor children. At the initial factory, in Bogra, 30,000 yoghurts are sold per day.

Within its forty years of influence, microfinance has tackled some of Bangladesh's major economic issues. Each year, five percent of borrowers can lift themselves out of poverty. Income generation has positively effected employment, trade, foreign investment and, most importantly, the impending increase in skills as children of borrowers benefiting from granted subsidies and loans receive greater education and entrepreneurial experience.

Microfinance, however, has its limits. There are countless other strategies necessary to reduce the poverty in Bangladesh that microfinance alone cannot tackle – most focally, infrastructure and government policies. Additionally, Bangladesh has a high propensity for suffering severe seasonal flooding, an ongoing problem that cannot momentarily be solved; however, from a macroeconomic perspective, microfinance savings and credit provide a safeguard against at least large losses in GDP.

Microfinance also has various shortcomings: the danger of commercialisation, lack of encouragement of technological progress and the potentially false assumption that one model can be replicated in other contexts and still produce the same results. Regardless, the Grameen Bank and its ensuing effects on poverty reduction are an astounding breakthrough in economic development. Ultimately, the question becomes: is microfinance a solution to Bangladesh's poverty or the poverty of the world? ❖

The World Bank: An Insider's View

Shira Lappin talks to Dan Biller about sustainable development at the World Bank

For an introduction to sustainable development there can be few more qualified people to talk to than Dan Biller. As an academic with 30 odd publications to his name and an economist with over 20 years experience working across the globe, the World Bank's Lead Economist for the Operations and Policy Unit, in the Sustainable Development Department of the World Bank's East Asia and the Pacific Region (to give him his full title) knows a thing or two about the topic..

But what is sustainable development at the World Bank? "Sustainable development aims to meet the needs and welfare of the present generation, without compromising the ability of future generations to meet their own," explains Dan, "and it links everything to everybody."

With this evidently wide-reaching and daunting definition, how does he go about tackling the issue of sustainable development in his day-to-day work at the World Bank? "We cover a wide variety of policy areas, including transport, energy, rural and urban development, water and sanitation and the environment." Whilst other areas such as health, education and private sectors are handled by other departments. Dan and his team focus on the analytical side of projects, dealing with the details of the economic analysis and evaluation of key objectives.

He says that the concept of a 'discount factor' (how much the welfare of future generations is reduced in order to make it equal to the present's) is fundamental to his work, but causes a lot of problems. "When you are working with a poor subsistence farmer with a life expectancy of 50, it doesn't make sense to talk of a discount factor to him – his needs are in the present only and we must adapt to work within that framework." There are also social differences in how people would measure the importance of the future. Dan uses the example of religion: "the notion of an afterlife, for example, can be key in a group's perception of the importance of conservation." There is no universal optimum therefore that sustainable development can aim for, and so Dan's work is fraught with uncertainties and trade-offs.

> "We need to approach sustainable development using the framework of economic trade-offs. Everything involves a trade-off"

In fact, it is this economic notion of 'trade-offs,' which Dan argues is key for resolving the issue of sustainable development, is something that currently is not receiving adequate recognition in the decision process. "The issue of sustainable development is highly politicised and the economics of it marginalised. This is the wrong approach," says Dan, "decisions regarding sustainable development are often put into the hands of politicians and the issues dominated by the influence of politicians and lobby groups." Yet, without the input of economists being properly considered, Dan argues that we will never get to the crux of the issue with this approach. "We need to approach sustainable development using the framework of economic trade-offs. Everything involves a trade-off."

When asked for examples of places in which there has been considerable progress in sustainable development, Dan raises the interesting issue of how we measure this progress. Usually, one would look at which country has the fastest rise in GDP levels, "but this doesn't necessarily tell us anything. Bhutan, for example, has unremarkable growth levels, yet ranks consistently highly in the 'happiness index'." He also explains that progress isn't uniform. Sri Lanka, an area in which Dan has worked extensively in recent years, provides an amazing level of services to its population, but at the same time has a shaky national economy. "Their national parks, for example, are phenomenal, and they have been able to reach out and expand electricity to 85% of its population. This is an incredible achievement." He contrasts this to Pakistan, which has a higher level of GDP per capita, yet only 50% of the population has access to electricity. Again, everything is a matter of trade-offs.

I then move on to the issue of climate change mitigation. This seems vital to the idea of sustainable development; however Dan argues that developing countries on the whole should not bear the brunt of this. "We must talk about the USA and China in terms of carbon emissions and reducing these. A small, newly industrialising country will use coal as an energy source because it is cheap. If the world wants them to make the change to solar power, then it is the rest of the world which needs to meet this cost difference." Dan feels strongly on this issue, even arguing that the use of hydropower in the first Sri Lankan national park was a mistake: Sri Lanka's contribution to greenhouse gases is almost negligible, and the cost of that energy-efficient technology could have been directed more efficiently elsewhere.

Photography by "Shiny Things"

Aman Emoto

"If the world wants them to make the change to solar power, then it is the rest of the world which needs to meet this cost difference."

It's clear from my meeting with Dan that he is passionate about making sustainable development work and making a positive difference in the countries he's working in. However, this dedication isn't universal, and he leaves me with a striking statistic which shows just how much work is still left to do: "$1 trillion has been spent on the bailout of the financial sector of the USA. Spending on environmental issues including climate change since 1992 doesn't even reach half this amount. Why is it we are willing to save a sector, but won't save the world?" ❖

COMMENT

Learning Economics is Like Having Sex

Imran Shahryar shares his throughts on studying economics

While the title of this article was admittedly intended as an attention-grabber there is some truth in this catchphrase. Learning economics is like having sex: you think that the way you do it is fantastic, but from the other person's perspective, it's probably truly unsatisfactory.

This article aims to offer some insights into how using different approaches to learn economics can shed valuable light on the discipline – and beyond – in ways that can't be imagined until tried for oneself. It will compare some of my previous thoughts about economics with what I now believe, having studied at two very different academic institutions. No single approach can be objectively said to be the 'correct' one, but nonetheless the objective of this article is to raise some thought-provoking topics as material for healthy debate.

Until recently, I discounted the importance of learning about the history of economic thought. Now, I think it should be a compulsory part of all economics degrees. Studying the history of a discipline allows for open-mindedness that is lost when, as happens so often, we are told as students to study the modern methodological apparatus without questioning how they ever came to exist in the first place. How many economics graduates have detailed knowledge of the work of Smith, Marx, or Keynes – some of the greatest economic thinkers of all time? I suspect only a fraction. How many economics graduates know that there was a time when economics was not concerned with micro theory? Probably hardly any. How many economics graduates can comprehend a time when economic phenomena were examined in other ways than by simply plugging data into a computer programme and watching a result pop out? Not many, presumably. These things matter. If we don't understand how economics evolved into what it is today, we become slaves to its rigid methodological limits – which after all are only as they are now because of the work of the vast number of economists that shaped the discipline during their own time. Moreover, without knowing the history of economics, we risk not only finding the wrong solutions to the crucial economic problems of our time, but we also risk looking at the wrong kinds of problems to start with. Perhaps one of the most fundamental examples of this is thinking about how to alleviate poverty in the world. Modern orthodox economists approach this topic from within the narrow confines of their mathematical, model-based horizon, without taking a step back to first consider whether or not the 'system' within which we live is one where poverty is able to ever be alleviated, and second to ask themselves whether their intellectual tool-kit is sufficient to find a satisfactory solution.

This leads on to the next idea – that mainstream economists far too often believe that their approach and methodology is the best. While learning economics, it is so easy to think of it as the cleverest way to approach a problem. We hear of 'the economics of AIDS', 'the economics of crime', and so on, until we as economists start to believe that every single thing in the universe can be best explained by economics. But this way of thinking is both to greatly undermine the importance of other disciplines, and to wrongly imply that all phenomena are inherently economic. Take AIDS, for example. Can it really be the case, as some assert, that decisions about sex practices are merely

economic calculations about perceived costs and benefits, and that the spread of AIDS is somehow intrinsically related to economic factors? I suspect that disease experts, sexual health doctors, and AIDS sufferers themselves would have something to say about that. The point here is not that economists should not concern themselves with 'non-pure' economic issues, but that they should be aware that there may well be, and often is, a better way to approach issues than by economics.

Another thing I used to think was that Professors who went to the world's 'best' universities are so much cleverer than their students that it's not really worth questioning them. Whilst it undoubtedly takes a formidable amount of intellect to obtain a PhD from Oxford or Harvard, it is worth remembering that there are other ways of thinking too. So next time you go into a lecture, take a moment to consider what underlying assumptions your lecturer makes, and consider whether they have allowed for these assumptions to be questioned. If he or she states that a solution to a given problem – take the current higher education issue in the UK – may be resolved by allowing the market to function more efficiently, think about whether he/she has ever, during his/her many years at university, questioned the idea that markets are the only institution of economic importance. The same goes for written work, too. Next time you read a World Bank report, before even reading the opening sentence, think about whether or not the writer may have an agenda to push, and had an ideologically-influenced answer to the question before even carrying out the study.

Finally, I think economics could do without being called a social science. Despite the maths and the empirics, economics is not a science. We can build inspirational theories from a set of given assumptions; but that's all they are – assumptions. I believe that all economics students should remember this each time they go to a lecture, pick up a book, or write an essay. Many other important lessons can be learnt from learning economics at different places, and I hope that this article may invoke others to write about their experiences. ❖

> 'How many Economics graduates have detailed knowledge of the work of Smith, Marx, or Keynes – some of the greatest economic thinkers of all time? I suspect only a fraction.'

Morality in Economics

Our science may be dismal, but is it immoral as well asks Stephen Devlin

A famous study by Marwell and Ames indicates that the free-rider problem, so proudly developed by economists, most commonly affects economists themselves. In modelling the human being as an amoral agent are we implicitly promoting selfishness as a way of life?

The self-fulfilling characteristic of the free-rider model has been documented in a number of studies. For example, Frank, Gilovich and Regan found that professors of economics are more than twice as likely to donate nothing to charity as professors of other disciplines. Should these findings worry us? Many think not and advocate the selection hypothesis: people who are already naturally self-interested will self-select into studying economics. This seems this far-fetched. It is true that economics students can expect a higher than average salary, but this does not necessarily imply selfishness. And the other posited justification - that inherently selfish individuals choose to study economics because they are attracted to some kind of selfish dogma - seems wholly unconvincing. It is therefore logical to conclude that the more selfish behaviour of economists is at least partly influenced by the study of economics.

A similarly striking result from the studies mentioned above is that effectively no one behaves in an entirely selfish way. That is, when deciding what fraction of a sum of money to add

> '...professors of economics are more than twice as likely to donate nothing to charity as professors of other disciplines'

to a communal fund virtually no one contributes zero. Even economists, who generally contribute much less than average, rarely contribute zero. On the surface, it appears that economists have created a model of a rational economic man that only predicts the behaviour of economists, and even then only partially.

As any economics student will know, microeconomic models are based on the assumption that man is a self-interested, calculating agent, motivated only by the gains he expects from making a particular decision. But does anyone really behave in such a way? Intuition tells us that non-rational behaviour is abundant. If man were rational and purely self-interested there would be no market for fair-trade products, no country would sign environmental accords, and friends wouldn't even lend each other a spare quid. So what makes people behave in a less than rational way?

Arguably, the reasons fall into two main categories. Firstly, the assumption that agents have infinitely powerful computational abilities should be challenged. In other words, people often fail to make optimal decisions for themselves. For example, the average person may not be able to compute the exact probability of having a car accident and therefore may buy an insurance contract which is too comprehensive, or not comprehensive enough. Secondly, and more interestingly, the assumption that agents are self-interested should be challenged. The economic decisions of agents are often guided by moralistic values. Real people care for the well-being of others, including strangers, they espouse ideals such as equity and justice. In this way, real people will often put themselves at a disadvantage for the sake of morality.

Could our model of the economic man be improved by accounting for the influence of morals? In order to 'correct' for moral influence one would have to identify each relevant ethical factor, attach a utility value to upholding it and determine what proportion of the relevant population behave in such a way and to what extent. An ominous endeavour to say the least.

It is therefore obviously practical, though not ideal, that economic models be detached from morals. After all, the simplicity of the rational man is one of his greatest attractions. But what of the apparent effect of this model on trained economists? Have we come to a point, as Marwell and Ames suggest, where the concept of fairness is foreign to economists? Have our behaviours adapted to fall in line with our models? While omitting moral factors from mathematical models is desirable, omitting them from economics altogether does a disservice to the discipline. Economics was taught as part of Moral Philosophy until at least the 1700s and Adam Smith saw a strong place for morals in the subject. Only fairly recently, with the rise of positivism, has there been a conscious effort to remove ethical considerations from economics. This estrangement seems to have distorted the behaviour of economists themselves.

Economics is now commonly recognized as a cold and calculating science, when really it should not be. Surely the ultimate objective of studying economics is to understand ways in which we might improve everyone's lives. It seems that whilst practicing the science, we often lose sight of this end-goal and get bogged down in the miserable world of selfish, unfeeling agents. Perhaps this is why economists are becoming as dismal as their science.

❖

Your Money or Your Life

Despite new rules, Too Big to Fail problem is still unresolved says Gabija Misiulyte

According to Joseph Stiglitz, the 2001 recipient of the Nobel Memorial Prize in Economics Sciences, Too Big To Fail (TBTF) is one area where big financial institutions do not deal with what has to be done. The existence of TBTF financial institutions represents a three-fold policy challenge.

First, TBTF institutions exacerbate systemic risk. Incentives to prudently manage risks are removed and massive, contingent liability for governments is created, which in extreme cases can threaten financial sustainability as evidenced by Iceland in 2008-2009.

Second, TBTF institutions distort competition. According to Moody's analytics, US banks with assets greater than $100 billion can fund themselves more than 70 basis points cheaper than smaller banks. It is estimated that the largest banks have received the lion's share of state intervention. 145 global banks, with assets over $100 billion each, accounted for more than 90% of governmental support since the start of the recent financial crisis.

Third, the treatment of TBTF institutions is often summarized as the privatization of gains and socialization of losses. Trust in the "fairness" of the system decreases and the framework of responsibility and accountability that would ideally characterize a capitalist economy is undermined. Moreover, the fabric of politics is threatened as well. US Federal Chairman Ben Bernanke concludes, "If the crisis has a single lesson, it is that the too-big-to-fail problem must be solved".

New updates to the Basel Accords, known as Basel III, set capital ratio to 4.5%, more than double the current 2% level plus an additional buffer of 2.5%. Banks whose capital falls within the buffer zone will face restrictions on paying dividends and discretionary bonuses, so the updates set an effective floor of 7%.

Unfortunately, Basel III does not address TBTF as effectively as expected. The new rules leave authorities with the same terrible choice – accept financial and economic turmoil or inject taxpayer money to mediate the problem – should another systematically important bank find itself on the brink of failure.

According to John Grapper, a columnist for the Financial Times, Basel III has a déjà vu quality. Risk weights remain the same, and they will still be arbitraged, so there remains a possibility that banks will avoid capital adequacy requirements. The typical process includes securitisation of assets that have high-risk weighting. Banks may either cherry pick safe assets to sell (keeping risk and high risk premiums) or securitize on terms such that default risk will not be transferred. Securitisation may also involve credit default swaps. This kind of regulatory arbitrage may distort how assets are treated. For example, securities with a high credit rating may have a lower risk-weighting than the assets backing them. This means that capital requirements for the banking system as a whole will fail, leading to an increase in systemic risk as evidenced by the Credit Crunch.

Hence, an additional loss-absorbing capacity beyond the minimum requirements of Basel III is a crucial element but it will not be enough. In severe stress scenarios, a mechanism

> 'The new rules leave authorities with the same terrible choice – accept financial and economic turmoil or inject taxpayer money to mediate the problem'

whereby banks convert bonds or, if necessary, "bail-in" bondholders to generate enough equity to support an orderly resolution process is needed.

The Swiss are believed to be the first to attempt a real solution to TBTF problem. In October, a Commission of experts convened by the government issued a comprehensive package of proposals to mitigate risks posed by systematically important banks such as UBS and Credit Suisse. Two additional capital charges were proposed to supplement the minimum equity requirement of 4.5%, with ample time given to comply.

First, a 8.5% buffer of loss-absorbing capital, of which 5.5% must consist of common equity and a maximum of 3% may consist of contractual contingent convertible bonds (Cocos) with a relatively high conversion trigger point. Banks can draw on this buffer to absorb losses during periods of stress. These instruments behave like bonds but convert to equity if the capital ratio falls below a predetermined level.

Second, a progressive capital component. The amount is set at 6% of risk-weighted assets at the outset, rising or falling depending on the size, market position and interconnectivity of the two banks. The progressive nature of this capital requirement creates incentives for reduction of risk and provides funding for a mandatory emergency plan. If the bank's capital ratio falls below a certain level, the Cocos are converted into common equity, triggering the emergency plan to ensure important function and orderly resolution.

So far, only two banks – Lloyds and Robobank – have tested the market for Cocos, with a combined issuance of about €12bn ($16.4bn). UBS has questioned whether the market could ever exist. Even ratings agencies are reluctant to rate Coco. It has none of the upsides of equity in good times and all of the downsides of a bond in bad times, therefore there is little attraction for investors. On the other hand, the Basel Committee has suggested that the top 30 world banks should hold additional capital – which regulators privately say could be up to 2% of risk-weighted assets – beyond the baseline 7% using Cocos as the perfect instrument. This implies a Coco market of close to €300bn.

There are economists and policy makers who claim Cocos are a good rescue plan. Conversely, there are those who think a choice exists: "to divide and rule" or admit that nothing has been done so far to make a progress in finding the right solution. The reliance on Cocos would be just an empty eagerness to declare a victory to avoid undesirable turmoil in the banking industry. ❖

The Market of Marrakech

A true barter economy or simple extortion asks Leigh Ginn

The Djemaa El Fna is the heart of Marrakech. Long streets see floods of old motorcycles, battered taxis and horse-drawn carriages frantically weaving around the masses of people, all heading towards the city walls and the old quarter market inside. Hordes of tourists flock to see the snake charmers, performing monkeys and storytellers mingling alongside famous orange juice stands and eating stalls. Beyond the main square lies a labyrinth of seemingly never-ending streets filled with market stall after market stall, selling anything and everything. Tourists spend hours each day perusing and purchasing little pieces of Marrakech.

This marketplace makes for a curious economic situation. The advent of budget airlines supplies a near-constant influx of tourists to the Djemaa, each searching for that perfect memory to take home. Rising to meet demand, the

entrepreneurs in the souks of Marrakech are eager to sell. Hundreds of stalls line the Djemaa El Fna, the purveyors all selling the same things – whether that be decorative candles, jewellery or orange juice. At a glance, it seems as if an infinite number of buyers and sellers come together, providing the framework for a rare and practical example of perfect competition. But this is by no means the case, as asymmetric information inhibits equilibrium at what could have been a mutually beneficial price.

There are no fixed prices among the souks; instead tourists practice the art of haggling. Unfortunately, this sort of market environment enables asymmetric information, where one party – generally the seller – has a superior understanding of the market mechanisms in place and the goods available for trade. The consumer, on the other hand, has only a minimal idea of the true value of any good. When the entrepreneur knows this, the tourist falls victim to extortion. Ignorance on the part of the consumer thus facilitates market failure in the form of adverse selection. The seller, familiar with the market in which he operates, has knowledge regarding the price and quality of his goods above and beyond that of the buyer. The ignorance of the buyer is therefore exploited as he accepts the wrong selling price, lacking exactly the right information.

As an example, take the sale of freshly squeezed orange juice. On arrival, a visitor to the Djemaa El Fna notes the price of a glass of orange juice at three Dirhams across the entire square. Having little familiarity with the orange juice's worth and little alternative pricing, the tourist willingly pays the three Dirhams. However, near the end of his trip when newer tourists have arrived, the visitor notes the price of orange juice has increased to four Dirhams at every stall. The newer tourists, similarly out of place and seeing no competing sale, willingly pay the four Dirhams. If we assume that it takes time to gain an appropriate understanding of the market, the asymmetry in information and the subsequent extortion are unsurprising. Time is exactly what tourists have the least of and so the economy of the Djemaa El Fna could be shifting dangerously in favour of the entrepreneur.

Nevertheless, the tourists are not completely without protection and can employ their own tactics to shift the market balance back in their favour. One of the first lessons taught by reputable tour guides is the rule of three; divide any starting price by three and avoid paying any higher. This is signalling in action, the process whereby informed market participants reveal the extent of their understanding by taking certain actions. Additionally, observing the actions and following the advice of local consumers allows tourists to artificially build up confidence in the market environment absent time. Armed with these tactics, a visiting consumer can negotiate. When an entrepreneur adamantly values his rug at 800 Dirhams (around £65.00), a tourist can haggle until the entrepreneur lets the rug go for a fraction of the price, eager to see it sold. Conversely, without such tactics, a visiting consumer pays the extortionate asking price, no questions asked.

The market of Marrakech is much more than the home of colourful bedspreads and beautiful spices. It remains one of the few examples of a barter economy in action. However the extent to which this barter economy is able to achieve mutually beneficial prices for both consumer and entrepreneur is threatened by the fly-by visits of enthusiastic, but uninformed, sightseers on the hunt for souvenirs. Ever increasing Western presence in the Djemaa El Fna of the Red City could see bartering turn to exploiting all the more often.

> ‘Ignorance on the part of the consumer thus facilitates market failure in the form of adverse selection’

ACADEMIC

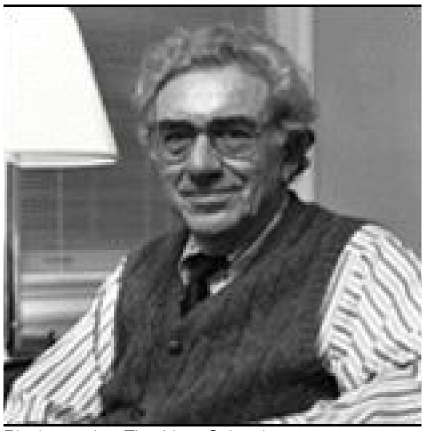
"Minsky Was Right"

The work of Hyman Minsky needs to extend to mainstream academic discourse if we are to learn lessons from the present crisis argues Rob Jump

The title of this piece refers to that of Martin Wolf's Financial Times column from September 16th 2008, in which the author describes his rereading of Minsky's 'masterpiece,' "Stabilizing an Unstable Economy". Yet, despite this revelation, two years on Minsky's work continues to barely penetrate the peripheries of academic discourse. It is the hope of this author that the following introduction to Minsky may aid in bringing about greater discussion of his theory.

The economics of Hyman Minsky (1919-1996) grew out of an interpretation of the General Theory of Employment, Interest and Money, encapsulated in his book, John Maynard Keynes. Here Minsky argued that the most important insight offered by Keynes was of the role of finance in determining the level of investment in a capitalist economy, and correspondingly of the importance of uncertainty and disequilibrium dynamics in any serious economic analysis.

Minsky's own analyses were contained in his 'financial instability hypothesis', restated concisely in Post Keynesian Economic Theory[5]. Here, the economy is treated primarily as a set of interdependent balance-sheets, with assets and liabilities denominated in money-units. Nominal prices therefore play a much greater role in this theory than in the mainstream approach, and are key in the endogenous development of financial fragility that Minsky describes. In short, where stability itself is the cause of instability.


Photography: The New School

For example, in the unusual event that an economy should experience a period of sustained equilibrium, cash flows at the relevant level of debt finance will continuously validate current liabilities. This raises the opportunity for businessmen and banks to boost their profits by increasing the amount of debt taken on, creating a cumulative movement away from equlibrium and towards fragility. In this situation, "large responses to small stimuli" are a real risk, as (for example) a positive shock to the interest rate structure can reduce the present value of gross profits, thereby reducing cash-flows by an amount great enough to prevent firms being able to meet commitments on liabilities. If such a situation affects enough firms, the resulting sale of assets in order to meet cash commitments may cause a severe fall in the price of assets relative to (contractual) liabilities, changing a crisis of liquidity to one of solvency.

> '... Minsky argued that the most important insight offered by Keynes was of the role of finance in determining the level of investment in a capitalist economy and ...the disequilibrium dynamics in any serious economic analysis.'

This approach to economic analysis is clearly relevant to the current environment, and although there are important limits in its applicability to the situation that unfolded after September 2008, it certainly holds enough analytical power to justify its rediscovery by commentators in the financial press.

Furthermore, throughout Minsky's writings are warnings of issues that are central to today's problems – from the moral hazard issues implicit in bank bailouts to the ability of capitalism to change and adapt in the face of crises.

Minsky himself did not live to see the present crisis the modern economy faces. However, the manner in which policymakers such as Ben Bernake have ostensibly ignored his work demands that his writings should be addressed and contested from within the academic mainstream, not merely the fringes and commentary pages of the financial press.

❖

Decoding Development

Marcus Schaffranka and Erkal Ersoy discuss whether institutions or geography dominate the debate on economic development

Daron Acemoglu by M. Weitzel

Jeffrey Sachs (Columbia University) and Daron Acemoglu (MIT) argued in several papers about the dominating variable for economic development: Acemoglu asserts that only the quality of institutions in various countries accounts for the difference in GDP per capita. On the contrary, Sachs has always been on the side of a more complex analysis and advocates the use of geographical variables along with those controlling for climate and risk of tropical diseases.

The following debate therefore tries to answer the crucial questions: What explains the poor economic performance of many developing countries?

Pro Acemoglu

Turkish born economist Daron Acemoglu is one of a number of scholars promoting what many call the new political macroeconomics. Whether one likes this term or not, Acemoglu, together with his colleague James Robinson (Berkeley), spawned an incredible amount of literature regarding the effects of persisting elites, inequality, as well as government structure, on economic backwardness.

In their breakthrough paper, "The Colonial Origins of Comparative Development [...]"[1], the focal point is put entirely on institutions whose impact on GDP per capita is to be assessed in an empirical way.

> '...geography was significant as it influenced settler mortality in colonial times and henceforth European (non-)settlement. Yet, the vital insight is that it mattered, but only 100 years ago, not today'

The general problem with evaluating this relationship empirically is the endogeneity in the regression of GDP on institutions. It arises from the fact that the latter is potentially correlated with omitted variables, might be measured with error or is actually the dependent variable (reverse causality).

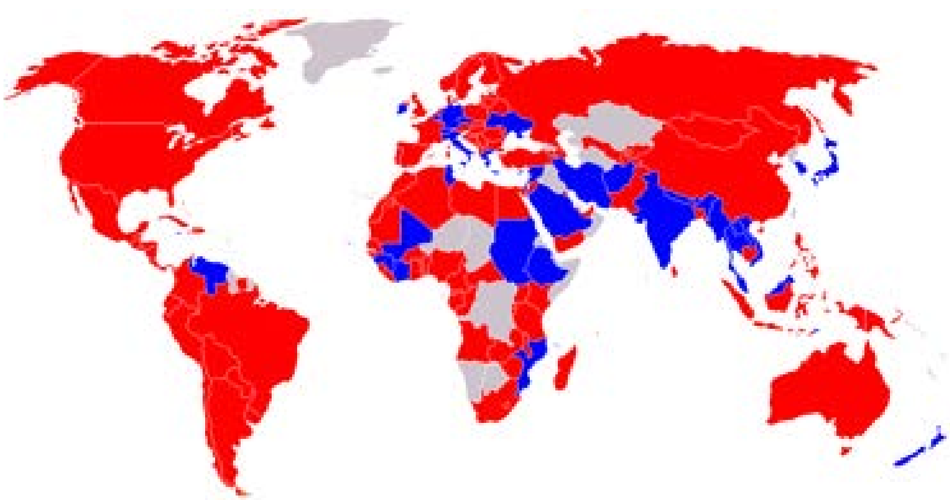
The traditional remedy in econometrics for all these situations that would otherwise produce biased estimates is finding an instrument that is uncorrelated with the error term but highly correlated with our explanatory variable; in this case, institutions. The choice of the instrument in this case is as simple as it is of non-economic genius. Acemoglu et al. use early settler mortality rates in former colonies and apply the following rational: low settler mortality rates as seen in the US, Canada, Australia and New Zealand triggered the early build up of European-like institutions in the colonial outposts that developed into their forms today. In contrast, colonies like Sierra-Leone, the Ivory Coast or the Congo were so-called non-settler or extractive colonies since mortality rates in the first years were high and early institutionalization did not take place. Thus, the bottom line of this IV-approach is that mortality rates in those times should have no effect on a country's GDP today but should be highly correlated to the current institutional quality.

1 Acemoglu, D., Johnson, S., & Robinson, J. A. (2001). The Colonial Origins of Comparative Development: An Empirical Investigation.

In a nutshell, the results of the authors are as follows: They find a significant coefficient of the variable for institutions, namely the risk of expropriation, with a magnitude of 0.94 (log GDP as dependent variable). Controlling for geographical factors such as latitude or malaria risk shows that these are highly insignificant. The same applies to a dummy variable controlling for the fact that a country is located in Africa. Once they have included the effect of institutions on GDP, these aspects do not matter anymore statistically.

Thus, the point of the paper is clearly that geography was significant as it influenced settler mortality in colonial times and henceforth European (non-) settlement. Yet, the vital insight is that it mattered, but only 100 years ago, not today.

The reason why this paper is so striking – apart from the compelling example of an IV-estimation - is that it answers a rather broad economic, almost philosophical question, with a clear-cut statistical analysis that rules out geographic factors and postulates a primacy of institutions in this field. In my opinion, every critique of this paper comes from intuition; from the feeling that diseases like malaria etc. do impact GDP and it is hard to believe that a few do-files in STATA prove that this feeling is wrong.[2]



Ratifiers of UN Anti-Corruption Treaty in red, signers but not ratifiers in blue.

2 You can download them on Acemoglu's website at MIT.

Yet, apart from econometrics, why should one believe that Acemoglu is on the right track?

Of course, it is not surprising that the economic performance of a country is crucially influenced by something that is broadly called the "quality" of its institutions. Aside from Adam Smith's clear perception of the four duties of government or Coase's underlining of property rights, even non-economists know that investors shun business environments that are subject to corruption, political instability or the risk of expropriation.

'The ultimate deterrent for capital flows is the prevalence of corruption and the risk of political instability that result in unpredictable cost barriers'

Firstly, two historical examples strongly support the hypothesis: Germany and Korea are illustrations of states that started off with similar economic, but more importantly with the same geographical variables, and developed very differently over time due to obviously diverging ideological and hence institutional approaches. In addition, the time in history with the most explosive growth, industrialization, was best brought about in countries where significant changes in the political structure took place. As seen in Britain, they were successful where the monarchist powers were stripped and property rights were advanced quickly.

Secondly, if you asked economics graduates today why they would not work for the central bank of Kenya, the most frequent answer will be that life in Nairobi is still too dangerous - one third of the city's inhabitants are confronted with some sort of robbery every year - and not primarily because of geography related disincentives like temperature and diseases. Similar findings apply to foreign direct investment and all kinds of development aid. The ultimate deterrent for capital flows is the prevalence of corruption and the risk of political instability that result in unpredictable cost barriers. In the latest World Bank Business Survey, the three most hostile factors for businesses operating in developing countries were corruption, inflation and political instability. So, for both stylized examples concerning the attractiveness for foreigners, institutional quality - embodied by crime prevention and anti-corruption policy - appears to outweigh the importance of geographical factors

Applying this to the issue at hand it is an imperative to understand that no one doubts the fact that diseases like malaria hamper economic development to a certain extent. Life expectancy is reduced together with human capital accumulation, as children don't attend school. Consequently, productivity suffers and the country is stuck in a poverty trap. Certainly, it must be the ultimate goal to eradicate diseases like HIV or malaria and the developed countries have to be on the forefront of this fight. Yet, according to his own findings, Acemoglu argues studies of a correlation between health and income are not as compelling when compared to the empirical evidence of the effect of institutions on income. Most economists believe that income determines health conditions and not the other way around. As Acemoglu points out in another paper, an effective instrument to eliminates this kind of reverse causality is yet to be found.[3]

The final dilemma in this debate is an obvious one: Even if we knew that Acemoglu and his colleagues were right and institutions do "rule," we still have to change both the medical and the institutional landscape, especially in Sub-Saharan Africa. How this can be achieved is the real conundrum in the field of development economics.

Marcus Schaffranka

Jeffrey Sachs (photo by Pietro Naj-Oleari)

Pro Sachs

At first glance, the Acemoglu et al. paper (AJR) may seem like an overwhelmingly successful one with a striking conclusion, but a deeper look into its inner-workings reveals that there is room for improvement, and that the reported results may not be reliable.

Before we move on to the critique of AJR paper, it will prove useful to reiterate the general structure and arguments. Firstly, the model used in the AJR paper is as follows:

$$ln(Y_i) = \beta_o + \beta_1 Ql_i + \beta'_2 Z_i + \varepsilon_i \quad (1)$$

In the above equation, $\ln(Y_i)$, log of income per capita is claimed to be a function of a measure of institutional quality, QI, along with additional variables Z_i that can consist of various variables including geographical ones. Since AJR argue that geography affects income only through the quality of institutions, β_2 in the above system should be zero. That is, Z_i should not have any explanatory power on $\ln(Y_i)$ once QI_i have been introduced. Therefore, the null hypothesis associated with (1) is

$$H_o: \beta'_2 = 0.$$

One of the points Sachs raises in his 2003 NBER paper[4] is the simplicity of the model in (1). He argues that per capita income should be accounted for in a "dynamic" manner as opposed to a static one, which is how (1) treats it. He suggests using a dynamic process like Barro and Sala-i-Martin construct in their 1997 paper, and states that economic theory would predict an impact on growth rate of the economy due to the quality of institutions at a given time period as opposed to a direct effect on the level of national income (Sachs, 2003).

In addition, the author states that the use of "distance from the equator" is not appropriate in an effort to account for geographical locations of countries. He claims that the information is not precise enough and that better proxies for geographical qualities are readily available. Besides, Sachs asserts that intensive geographical analyses include testing for multiple factors like climate, geographical isolation, and disease environment, and consequently regressions that include only one of these factors are likely to suffer from omitted variable bias (Sachs, 2003).

In the rest of his critique, Sachs uses the model in (1) although he believes it is misspecified with a goal of refuting the findings of AJR using their own specification. The author argues that the aforementioned Ho can be rejected when the Z_i variable is a measure of malaria transmission. That is to say, the coefficient on Z_i is statistically significantly different from 0, even after controlling

3 Acemoglu, D., Johnson, S., & Robinson, J. A. (2003). Disease and Development in Historical Perspective.

4 Sachs, J. "Institutions Don't Rule: Direct Effects of Geography on per Capita Income." NBER Working paper 9490.

for the quality of institutions. The Sachs paper shows that after controlling for government institutions, countries with a high risk of malaria transmission have lower per capita income levels than those with a lower risk. It is important to note that the author focuses on malaria transmission, because this particular disease is closely related to ecological factors and climate conditions, as it is transmitted by infected mosquitoes.

As a measure of malaria risk, the author uses WHO's 1994 report on malaria risk. Note that this measure of disease transmission is different from what AJR use. The AJR paper multiplies "the MAL94P index by an estimate of the proportion of national malaria cases that involve the fatal species, Plasmodium falciparum, as opposed to three largely non-fatal species of the malaria pathogen (P. vivax, P. malariae, and P. ovale)" (Sachs, 2003). The resulting index is labeled MALFAL. The main purpose of changing the measure of malaria transmission is that the number of malaria infections reported to WHO in a given year is only a small portion of the actual number of malaria cases. In addition, the author claims that most of the infected people in Africa do not seek medical advice and deaths due to malaria are occasionally reported. Hence, the author prefers to include an index that captures the size of population at risk as opposed to the number of actual cases reported. Another important variable Sachs introduces is Malaria Ecology (ME). Vaguely, this variable accounts for the temperature of each country as well as mosquito abundance and how much the particular type of mosquito present in each country prefers to feed on human blood as opposed to cattle.

In his regression analysis, Sachs instruments out both institutional quality and malaria prevalence. He uses the settler mortality variable in AJR as an instrument for institutional quality and labels it LOGMORT. In order to instrument for malaria prevalence, he makes use of two instrumental variables: KGPTEMP, and ME. The former is a measure of the proportion of a country's population in temperate ecozones based on the Koeppen-Geiger ecozone classification system (Mellinger, Gallup, and Sachs, 2000). What the latter variable (ME) consists of is discussed above. However, it has an important quality that has not been mentioned yet. This index "controls for the fact that causation may run not only from malaria to income but also from income to malaria." Lastly, KGPTEMP is used as an instrument for institutional quality as well as malaria prevalence in order to expand the sample of 64 countries in AJR. Note that institutional quality is strongly correlated with the percentage of population living in temperate zones making KGPTEMP a good instrument (Sachs, 2003).

Photography by James Gathany

'... after controlling for government institutions, countries with a high risk of malaria transmission have lower per capita income levels than those with a lower risk'

Finally, the model in (1) is used for estimation and several different samples and sets of variables are used. The overwhelming result is that the null hypothesis is repeatedly rejected at 5% and often at 1% levels. It is also important to note that the coefficient on the variable measuring the portion of population living within 100km of the coast is statistically significant in the AJR sample. The intuition behind this analysis is that based on our knowledge of land transportation costs, we expect countries with lots of landlocked regions to have lower per capita income levels.

In conclusion, Jeffrey Sachs' analysis illustrates that the results of AJR are not fully robust and the inclusion of malaria risk in the regression system tells us that institutions alone do not "rule." Notice that the coefficient on LOGMORT is still significant indicating that what AJR have found is valuable. Sachs' paper simply deduces that institutions alone cannot explain per capita income differences across countries. The author argues that for a robust analysis, a more complete model of development is needed and that "there is good theoretical and empirical reason to believe that the development process reflects a complex interaction of institutions, policies, and geography" (Sachs, 2003).

Erkal Ersoy

❖

REVIEWS

The End of Poverty.

By Jeffery Sachs

Written by the director of the Earth Institute (at Columbia University, New York, NY), the "End of Poverty" is not only an exquisite hybrid of Sachs' knowledge on the ins and outs of economic development (including its history, forms and determinants), but also an account of his travels to some extremely poverty stricken areas, which is sobering, to say the least. Beginning with an intense description of Malawi, which he describes as "the perfect storm", the book lays out a candid perspective for the reader of what exactly "poverty" comprises. In this example, rampant death of all able bodied men due to AIDS, a hospital used as a dying centre due to AIDS and grandmothers each left to single-handedly provide for scores of grandchildren.

Defining this as extreme poverty, Sachs claims that a sixth of the world lives in these conditions and has no grip on the "ladder of economic development". In order to change this situation, however, the Western world contribute $195 billion in foreign aid over the next decade to help the extremely poor onto the first rung of this ladder.

Sachs' explanations on development based on social, political, geographical confluences and technological prowess are impressive. His application of medical "differential diagnosis" to economies, where economies are seen as patients waiting to be diagnosed by governments and relevant institutions such as the IMF (International Monetary Fund), is just one such example.


Photography by Steve Evans

Nevertheless, some might argue that his approach is too neo-liberal. Furthermore, little attention was given to the elephant in the room - the environment. Sachs dedicates only two brief paragraphs cautioning China on the impact of environmental damage as industrialization and technology come to the rescue of the poor. Insomuch he seems to ignore the idea that the massive burden of environmental damage will be borne primarily by the poor when and if things come to a head.

While this book may not be a 'be all and end all' guide to ending poverty, its wealth of facts and experience, makes it an extremely useful starting point or template for all those who are interested in the development side of economics. ❖

Isha Gupta

Fooling Some of the People all of the Time

By David Einhorn

In his book, David Einhorn, the manager of 'Greenlight Capital', a NYC-based hedge fund, recounts the story of his short position in 'Allied Capital'. The episode starts with a charity fund-raising event where Einhorn was invited to present an idea for their annual investment research conference. This speech was given after the close of trading. The next day of trading 'Allied' stalled and opened down 20% through the volume of offers. So began a battle between 'Allied' and Einhorn, which still has not technically ended. However, this is not just a story about accounting impropriety. It reads more like fiction than reality with theft, federal investigations and the slightly clichéd story of one man (with some help) against the 'system'.

In short, 'Allied Capital' was incorporated as a Business Development Company (BDC). This structure was created to allow companies, under the regulation of the Small Business Administration (SBA), to make loans and equity investments in small businesses. This structure meant that 'Allied' did


Photography by Kjetil Ree

out in dividends. The dividend was often multiples of the market yield and was the main attraction for investors. The SBA would also partially guarantee loans to small business made by subsidiaries of 'Allied'. This system ultimately resulted in a situation where an 'Allied' 'subsidiary' was engaged in massive misuse of taxpayer money and 'Allied' was effectively in complete control over how it reported its own income and marked the value of investments on its balance sheet.

Yet, while stories of accounting misdemeanors are fairly common, what makes this book compelling is its coverage of how the 'system' responded. Einhorn, throughout this process, contacted the board of directors at 'Allied', the SEC (U.S. Security and Exchange Commission), the SBA, the FBI and even started legal actions against 'Allied' under the False Claims Act. Even though this act is intended to allow citizens to highlight fraud against the federal government, the authorities responded, on the whole, with indifference, confusion or investigated Einhorn for market manipulation.

It is the manner in which Einhorn's story illustrates a number of uncomfortable truths about Wall Street that makes it an important commentary and, perhaps, warning for our time. Certainly, Einhorn's discovery that unless the company goes bankrupt, fraud will be completely ignored is as disturbing as it is revealing of the state of financial regulation. ❖

Callum Russell

not have to pay corporate taxes but it did have to pay all taxable earnings

Crisis Economics

By Nouriel Roubini

Volumes of books have been written about the 2008 financial crisis making it hard for the average reader seeking to gain an understanding about those events to pick 'the best' book. Many of the authors claim to be experts who know the inner workings of the global economic trends that preceded the crisis, and the imbalances that continue to threaten it. Others even go so far as to claim that they predicted the crisis. However, only one economist, Nouriel al-Roubini, can truly make that assertion.

Long before the collapse of Lehman Brothers and the mayhem that succeeded it, Roubini was warning the world about the instability in the financial system, the housing market, and sovereign debt. However, the momentum of the 'irrational exuberance' proved too difficult to arrest. Many of the world's leading policy makers are framing the financial crisis as a 'once in a lifetime' event and the implications of this line of thinking are significant.

The danger is that too many leading banking chiefs and their governmental counterparts will use that as justification for inaction. Alternatively, other policymakers conclude that it was purely the result of bank mismanagement and that increased regulation is a panacea that will stop repeats.

However, Roubini counters these approaches by stating that such crises all part of the capitalist system, and that avoiding them using the current system is impossible. In fact, he takes the logic further to propose that all crises in general have the same foundation: a combination of irrational exuberance, easy credit, and lax regulation. Crises


Photography by Chris Ruvolo

reemerge as the present generation of the time seems to forget the lessons of the previous one.

Roubini's cures to the ills of capitalism are well-thought and intentioned, albeit they sometimes appear a bit quirky. One of his solutions to the instability of the banking system, for example - to create a pay structure whereby bankers are paid in the same esoteric securities that they sell - would clearly be too complicated. But others, such as an admission by central banks that they should be more proactive in arresting bubble growth before it becomes unstable is clearly more suitable to the current climate of debate.

Most global policymakers would do well to read "Crisis Economics" by Nouriel Roubini and realize that in order to avoid another economic meltdown they must stop thinking about them as once in a lifetime events, and realize that more thoughtful, and consistent approach to economic oversight is necessary. ❖

Anton P. Van deer Stroom

Internships Abroad

Imran Shahryar recounts his experiences as an aspiring development economist

During my first year of studying economics at the University of Edinburgh, I realised that not only did my personal passions lie in international development, but my academic interests did too. I began to comprehend that the raison d'être of economics is to understand why some people are better off than others. In fact, not only why, but also what can be done about it.

I decided that studying development economics was one thing, but if I wanted to learn more about it, I would need to experience things for myself. Over the next four years my travels taught me more than I could have imagined previously – about the realities of life in developing countries, about how economics can be used as a tool for 'development', and about myself.

In summer 2007, I went to Bangladesh – my father's homeland – for six weeks. I spent two weeks doing a field experience internship with BRAC (possibly the world's 'largest' Non-Governmental Organisation [NGO]), and another two weeks doing a similar internship with Grameen Bank, of Nobel Peace Prize (2006) fame.

Observing these microfinance organisations at the village level was fascinating. Both BRAC and Grameen Bank specialise in providing credit to people who would otherwise not have access to it. The idea is that people can take small loans – perhaps just a few dollars per month – to invest in entrepreneurial or productive activities. The revolutionary concept behind this service is that no collateral is demanded from borrowers. Consequently, rather than the threat of losing some valuable asset offered as collateral, people are instead encouraged to repay their loans through peer pressure (money is lent to groups – if one person defaults, future loans to the rest of the group are at risk). Extraordinarily high payback rates, and the spread of these organisations across the world, speak volumes for the success of microfinance initiatives in Bangladesh and beyond.

I learnt several lessons from this experience. Firstly, empowering women, who make up of the vast majority of BRAC's and Grameen Bank's borrowers, provides economic gains by getting women out of the home and into the 'productive arena'. Secondly, encouraging even the most basic entrepreneurial activity stimulates innovation and provides for thriving markets that previously did not exist because of dysfunctional capital markets. Finally, money is not synonymous with wellbeing. BRAC and Grameen Bank invest huge amounts into education, healthcare, and other social services in order for poor people to build their human capital alongside financial and physical capital.

The next summer, 2008, I travelled to Sierra Leone – my first African experience. I carried out a four week internship in the capital – Freetown – in an NGO called Pikin-to-Pikin Movement. This organisation's mandate is child protection, and its functions include promoting children's rights, and educating primary school children throughout the country about health and sanitation. In countries like Sierra Leone – where almost one in five children don't make it to their fifth birthday – interventions in children's wellbeing are crucial.

During this internship, I learnt about the financial and capacity constraints faced by NGOs, which feeds into the broader issue regarding aid and NGO effectiveness. Working at the grassroots level puts the activities of these national and multinational agencies into perspective – whilst decisions at this level can and do make enormous impacts, actions at the community level are also necessary for true development to occur. Pikin-to-Pikin Movement adopts the child-to-child approach, whereby children are not only taught about health and sanitation, but also taught how they can spread positive health messages throughout the community.

In 2009, I was fortunate enough to intern with UNICEF – the United Nations' (UN) agency for children – in their Pacific Islands office in Fiji. One of my tasks was to analyse the economies of the fourteen Pacific countries – in terms of key sectors, employment levels, and human development indicators – in order to get a better picture of how children and mothers fit into the wider economy. The most exciting part of the internship was the chance to contribute towards a UN-wide initiative to monitor the impacts of the global crises (economic/financial and food) on children and women in the Pacific. I attended meetings between heads of UN field offices and members of Pacific countries' governments, discussing how to best monitor the situation, and ultimately design policies to improve it. This experience taught me the importance of international cooperation, and how national and international policies and frameworks can create the essential preconditions for effective development work to be carried out.

> 'Through these kinds of internships, you will be able to realise whether a career in international development is for you, and even if it isn't, then at least you will have had a life-changing experience finding out'

My last internship was in summer 2010, working with UN-HABITAT – the UN's agency for human settlements and urban development – in Abuja, Nigeria. My main task was to create a report about the urban development of Karu, a satellite city of Abuja. I was tasked with reporting about seven key themes regarding Karu's development – namely shelter and slums, basic urban services, local economic development, governance, environment, gender and HIV/AIDS, and heritage and tourism. This gave me the chance to cover a wide range of pertinent issues relating to urban development in a developing country context.

A recurring theme of my report was that adequate planning and management of urban areas in developing countries is absolutely essential – both for the performance of the national economy, and for improving people's standard of living. However, 'adequate planning and management' is easier theorised than done. It requires technical know-how, administrative capacity, and political will. Without these features, cities can end up like Lagos, for example, where the city's disorganised nature means that maximising its economic potential gives a severe headache to those involved. My time in Nigeria was thought-provoking in many ways, such is the uniqueness of the country.

Development economics is not just academic – it exists in 'real life' too. Furthermore, it's no use simply saying that you are interested in these issues – to be credible, you need to prove it, and experience it for yourself. If you do, you will no doubt be amazed about how much you can learn about economics, and even use your skills in the discipline – or any other – in a positive way. Through these kinds of internships, you will be able to realise whether a career in international development is for you, and even if it isn't, then at least you will have had a life-changing experience finding out.

❖

Maximizing shareholders value by minimizing WACCs

The credit crunch and the corresponding volatility in cost of financing has provided an interesting environment in which to assess the real world implementation of Modigliani-Miller's theorem. While one might have expected corporate management teams to have adopted a more receptive approach to debt financing as the cost of issuing debt fell to record lows in 2010, we have actually observed management teams continuing to reduce balance sheet leverage. This counter-intuitive outcome may reflect a time-lag, higher perceived risk of bankruptcy or post-credit crunch conservatism, but the logical releveraging of balance sheets has not yet occurred.

Not only is there a strong economic rationale for a company to minimise its weighted average cost of capital (WACC), but corporate management teams have a fiduciary duty to do so by appropriately balancing their use of debt and equity in the capital structure. Although the tax shield available on debt (interest payments are tax deductible) normally suggests increasing the proportion of debt in a given capital structure, the disconnect between the cost of investment grade (at or above BBB- and Baa3 at Standard & Poor's and Moody's respectively) and high-yield debt caps the amount of debt that a conservative management team will tolerate. However, as the cost of debt falls, the incentive for management teams to increase the proportion of debt in its capital structure actually grows.

Like many market participants, followers of the investment grade corporate bond market have witnessed unparalleled volatility in the past three years. From a relatively normal level of 5% in December 2007, the Barclays Capital European Aggregate Credit Index yield to maturity (which we use as a proxy for the cost of financing for European investment-grade corporates) spiked to 7% in October 2008 (the true meaning of the phrase "credit crunch"), before falling back to record lows of 3% in October 2010. While such volatility has created interesting times for bond investors and corporate treasury departments alike, it is somewhat surprising that there has been reluctance to take advantage of the record low cost of debt.

Whilst it is true that bond investors reward management teams with consistent balance sheet strategies, there are relatively low-cost tools at the disposal of management teams to allow them to alter their own capital structures. Management teams wanting to increase the balance of debt can issue debt to fund share repurchases (while a management team wanting to increase equity can issue equity via a rights issue and use the proceeds to pay down debt). A combination of these tools should allow management teams to target the capital structure that minimises the weighted average cost of capital.

All of this raises the following questions: What advice should the corporate financier provide to management teams in this environment? What ideas should the company analyst be recommending to investors? How should our traders be positioned to take advantage of the current market conditions?

If you have answers to any of the above questions, you might be the type of person Barclays Capital is looking to hire.

Societies

Events to watch out for this semester: Spring, 2011

The 'Recovery Conference'

17 March, 2011 - The conference will discuss the economic recovery following the banking crisis. It will give students insight into how and why the global financial collapse of 2007 occurred and how governments and the financial services sector should move forward. (Economics Society)

'Citi's Apprentice'

This event is a 3-week long competition in sponsored by Citi. In it, students compete over a series of challenges for 2 places at Citi's spring week and a cash prize of £250. It is mainly aimed at students who are in their 1st and 2nd years. The competition will start on the 24th of February so mark it down on your calendars. (Bright Futures Society)

The Student Market

The Student Market has been set up to give new business start-ups and those with existing products or services a chance to attract interest and make sales within a market that is both familiar and friendly. Check the website for dates and more details www.icue.co.uk/studentmarket

The Edinburgh Apprentice

Closing date for Team Applications: 1st February, 2011. The Edinburgh Apprentice 2010 is inspired by the popular TV show "The Apprentice." The Apprentice Edinburgh is an entrepreneurial contest for students. It constitutes a creative, engaging business game with real professional experience.

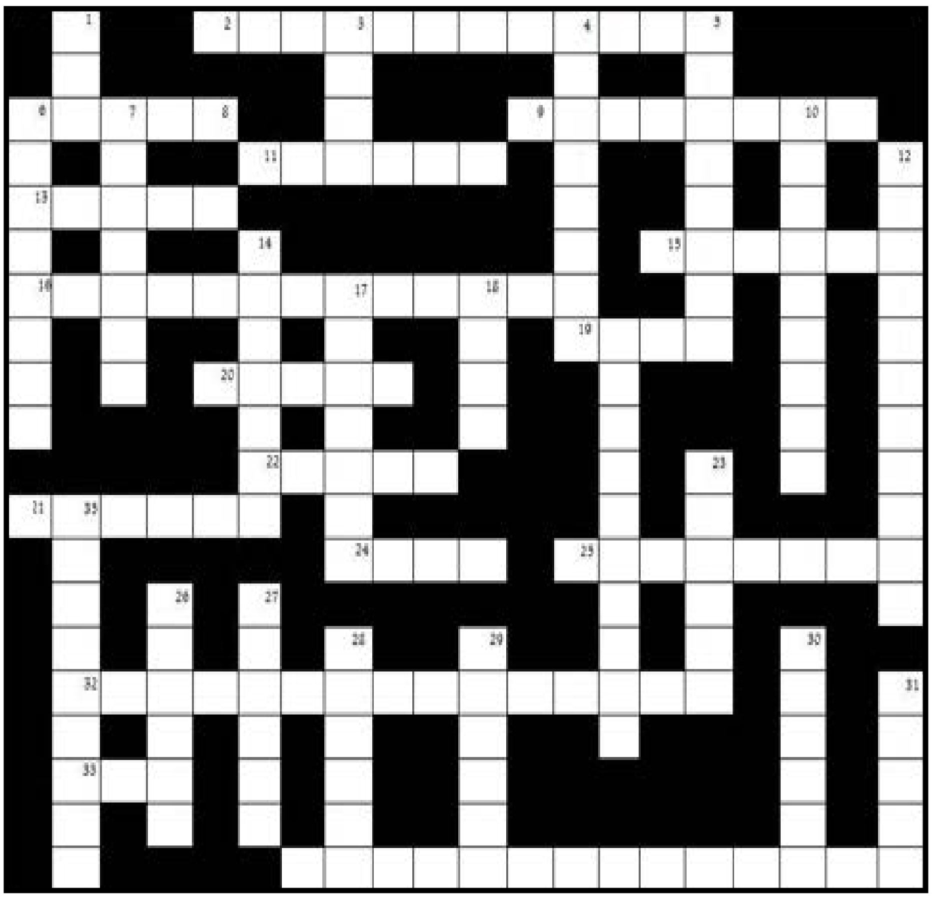
Students compete in groups of 1-5 over 4 rounds for the top prize of £1000, summer internships and professional business advisorsFor more information: www.icue.co.uk/apprentice

The 'Edinburgh Climate Change Conference'

The conference will take place on February 26th – February 27th. It will detail the problems facing the environment, the economic impact of this and suggest new methods of solving global warming. For more details see http://www.facebook.com/event.php?eid=175052005846151

ECC.11

Teatime Economics...



Across

2. Current rate in the UK is just under 8% (12)
6. Scottish advocate of private enterprise and free trade (5)
9. Rate for converting currency (8)
11. Entire world (6)
13. An economic resource capable of producing value. E.g. land (5)
15. French advocate of the Common Market in Europe. Don?t get him confused with the impressionist (6)
16. International concern of increasing greenhouse gases (7,5)
19. Posh contestant on 2008?s ?The Apprentice? _____ Bjayou (4)
20. Gradient (5)
21. Government action for maintaining economic growth and tax revenues (6)
22. Sum (5)
24. Currency of Malta and former of Italy (4)
25. _________ Sanchez- Edinburgh University lecturer/ Capital of Chile (8)
32. Forgoing alternative (11,4)
34. Net benefits from voluntary trading (5,4,5)

Down

1. Some of these dispensers incur a charge when used (3)
3. Prefix, many buyers one seller (4)
4. Born in the 19th century, this German economist?s first name could not be greater (3,5)
5. An exchange that occurs as a compromise (5,3)
6. A small inadequate amount (8)
7. Providing a bank card to a cardholder (7)
10. Magical wizarding bank (9)
12. Operation used in calculus (11)
14. Measure of relative satisfaction between goods (7)
17. ________ and labour - two factors of production (7)
18. An equilibrium within game theory - not necessarily giving players the highest payoff (4)
23. Quantity produced (6)
26. Amount available for use (6)
27. Type of efficiency - one person cannot be made better off without making someone worse off (6)
28. Country - market economy with an enormous amount of natural resources (6)
29. Study of principals relating to right and wrong conduct (6)
30. Political _______ - set of issues and policies (6)
31. A numerical quantity (5)
35. Small number of producers (9)

By Sarah Killarney-Ryan

Answers in next issue!

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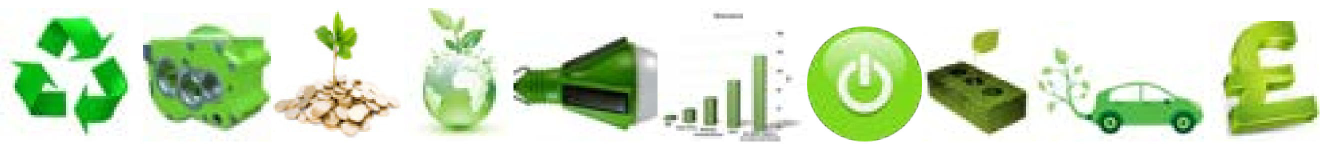
EDINBURGH CLIMATE CONFERENCE 2011

26th – 27th February, Appleton Tower



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