

SMU Knowledge hub

M.I.T.A. (P) No. 214/09/2004

A news update on research activity at SMU

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Organized by the Wee Kim Wee Center, SMU
October 14-15 2004



The Changing Unemployment Landscape in Singapore

Associate Professor Hoon Hian Teck
School of Economics and Social Sciences

For more than two decades, unemployment was almost an unheard-of word in Singapore. The labor market remained tight as the economy continued to surge forward with only very occasional and brief interruptions. The landscape has however changed dramatically in the past few years. In 2003, the unemployment rate climbed to a record 4.5% from about 2% that characterized much of the 1990s. Uncertain job prospects now constitute a major concern for many adult Singaporeans. Both the government and the labor unions continue to warn of worsening structural unemployment (i.e. unemployment that would occur even if there are no cyclical ups and downs in the economy) in the years to come.

What has brought about these changes? What lies ahead for Singapore? Is there light at the end of the tunnel? These are the issues that Assoc Prof Hoon Hian Teck tries to tackle in two recent papers, "Trade, Capital Accumulation and Structural Unemployment: An Empirical Study of the Singapore Economy" (with Kee Hiau Looi, forthcoming in *Journal of Development Economics*) and "Future Job Prospects in Singapore" (a 2005 SMU Economics and Statistics working paper). Prof Hoon also addressed some of these issues to a wider audience in a commentary entitled "A Fix for Joblessness" which appeared in *The Business Times* on 30 November 2004.

Prof Hoon starts his analysis by posing yet another question: Based upon Singapore's historical experience, what is the real GDP growth rate that will be required to keep the unemployment rate constant? The statistical relationship between changes in the unemployment rate and levels of GDP growth is known among economists as "Okun's Law", named after a former chairman of the US Council of Economic Advisors. Using data from 1967-2002, Prof Hoon found that an annual growth rate of 7.1 percent would be needed to keep the unemployment rate unchanged in Singapore. Moreover, a one-percentage point shortfall in GDP growth rate below 7.1 percent

in any given year could result in a 0.12 percentage point increase in unemployment rate over the previous year.

Such a finding has potentially far-reaching implications. If, as most economists expect, the Singapore economy is able to grow by no more than 5 percent a year in the coming years, then the unemployment rate looks set to continue rising from its current level. A crucial question then is whether the statistical relationship of 7.1% derived from the historical data would continue to be relevant for Singapore in the years ahead, as the economy matures further? Prof Hoon does not think so. Pointing to the experience of a mature economy like the US, which needs to generate only a 3 percent growth rate a year to keep the unemployment rate steady, he argues that as workers adjust their expectations and their wage bargaining practices to the reality of a new lower growth environment ahead, the unemployment rate need not rise even as growth slows. The new steady rate of structural unemployment however is likely to be higher than that in the past.

Can the policy makers do anything to reduce the structural unemployment rate in the new growth environment? Prof Hoon argues that neither a weaker Singapore dollar nor a bigger budget deficit which may stimulate the aggregate demand in the short run would likely have a lasting effect on the structural unemployment rate. It would be far wiser to consider policies aimed directly at reducing the equilibrium unemployment rate i.e. from the supply side. An employment subsidy scheme aimed particularly at low-skilled workers, for example, could increase job creation directly. So could a more business-friendly environment that encourages new start-ups by ensuring minimal red tape and relatively easy financing for them. Properly implemented, the job matching efforts by the Workforce Development Agency could be much more effective in a small economy than they are in geographically bigger economies. ■



When is a Mistake Really a Mistake? -- Developments in the Law of Contractual Mistake

Professor Andrew Phang, LKC School of Business

The law of mistake in contract law deals with situations where the Courts hold that a mistake is sufficiently serious so as to permit the party who is negatively affected to avoid the contract concerned. Applications of the law of mistake have been rare. This is due, in the main, to the need to observe the sanctity of contracts. If contracting parties are allowed to plead that they had made a mistake to get out of a contract easily, it would greatly undermine the sanctity of the law and increase uncertainties in the legal and commercial environments. There are however cases where genuine mistakes were made and the mistakes are serious enough to warrant releasing the mistaken parties from the contracts. While understanding the need to protect the sanctity of contract, the Court is nevertheless becoming increasingly more sensitive to such situations. Such increased sensitivity may be seen in some recent developments in various areas of the law of mistake.

There are however cases where genuine mistakes were made and the mistakes are serious enough to warrant releasing the mistaken parties from the contracts.

In a series of papers, Professor Andrew Phang, Senior Counsel and Chair of the Law Department at SMU, examines three such developments and their implications. The *first* relates to the law of *common mistake*, where parties are both mistaken about the subject matter they are contracting for. In "Controversy in Common Mistake" (published in 2003, *Conveyancer and Property Lawyer* 247), Prof Phang took issue with a recent decision by the English Court of Appeal that took away the flexibility that Courts have in applying the law of common mistake. In the past, both the common law and equity (two major branches of the *unwritten* law) provided a mistaken party relief if there had been a fundamental mistake. There was however a major difference between the two: the

common law is much stricter than equity. In common law, if mistakes were found to have been made, the contract was completely negated so that third party purchasers lost all their rights related to the contract. In contrast, equity conferred on the Courts flexibility to accommodate third party rights.

"Moreover, the jurisdiction in equity has been well-established for several decades in many Commonwealth jurisdictions," Prof Phang added.

The recent English Court of Appeal decision on *Great Peace Shipping Limited v Tsavliris (International) Limited*, however, effectively abolished such flexibility accorded by the doctrine of common mistake in *equity*. Prof Phang argues that this decision was wrong. He believes that it is important that the Courts retain certain flexibility in such cases. "Moreover, the jurisdiction in equity has been well-established for several decades in many Commonwealth jurisdictions," he added.

The second decision concerns the doctrine of *mistaken identity*. In their comment entitled "Mistaken Identity in the House of Lords" (published in 2004, *Cambridge Law Journal* 24), Professor Phang and his colleagues, Associate Professor Pearl Koh and Assistant Professor Lee Pey Woan, analyzed the first significant (English) House of Lords decision on mistake in more than seven decades, *Shogun Finance Limited v Hudson*. The case was decided by a bare majority of three to two. The majority judgments characterized the contract as one by correspondence. It held that there had been an operative mistake in a transaction where a rogue had obtained a motor vehicle fraudulently and sold it to the defendant who had purchased it for value and in good faith. The finding was not surprising as they focused mainly on the literal contract itself and as the finding of

an operative mistake is common for contracts by *correspondence*. The minority judgments, on the other hand, argued that transactions of this nature should never be negated, thus effectively *abolishing* the doctrine of mistaken identity. Prof Phang and his colleagues argued that the latter view was too rigid as Courts ought to be given the liberty to declare a contract void in really egregious cases. It was further noted that the time might have come for *legislative reform*, where one approach is for the Courts are conferred the discretion to apportion loss. Prof Phang's views are in line with that he expressed in an article published fifteen years ago (entitled "Common Mistake in English Law - The Proposed Merger of Common Law and Equity" (1989) 9 *Legal Studies* 291), in which he argued that legislative reform ought to be extended to the doctrine of *common* mistake.

The *third* decision concerns an important *Singapore* case - probably the first ever - on Internet mistake. In *Chwee Kin Keong v Digilandmall.com Pte Ltd*, the six plaintiffs sought to take advantage of a *unilateral mistake* made by the defendant who had wrongly priced a certain commercial laser printer at \$66 a piece, instead of the actual price of \$3,854. In total, the plaintiffs sought to purchase 1,606 units of the printer for a mere \$105,996 (compared with the market value of \$6,189,524). Invoking the doctrine of unilateral mistake, Judicial Commissioner (now Justice) V K Rajah ruled in favour of the defendant. His key holding was that, in such situations, there was no need for an actual notice of the mistake by the defendant. All that was required was that the non-mistaken party ought *reasonably to have known* of the other party's mistake -- known in legal terms as *constructive knowledge*. While an appeal has just been heard and a decision is pending, Professor Phang analyzes the ramifications of the present decision in two papers that are forthcoming in a special issue on contract law in the *Singapore Academy of Law Journal*. Amongst other things, he argues that the endorsement of constructive knowledge by the Court is both timely and fair. ■



Efficiency in Information Distribution and Protection of Privacy: Designing a New Super-distribution of Digital Media

Professor Robert H Deng, School of Information Systems

With the rapid growth of the Internet, ubiquitous storage devices, and multimedia processing capabilities, the use of digital media content (such as audio, video, image, documents) is fast becoming common place. Unlike the traditional analog content which is relatively difficult to copy and transmit, digital content can be copied and disseminated easily and without any degradation

in quality. But this also makes the enforcement of access rights and usage policies more challenging and could significantly undermine the sanctity of intellectual property rights. To meet such challenges, many in the information technology industry are embracing the *Superdistribution* approach to distributing digital content. With this approach, the content is made available freely either on-line

or off-line and without restriction but is protected from modifications and modes of usage not authorized by its provider.

Privacy has been a sensitive issue long before the advent of the Internet. But the Internet creates many new threats to personal privacy and raises some unique privacy concerns. Information sent

over the Internet may pass through dozens of different computer systems on the way to its destination. Each of these systems may be capable of monitoring, capturing, and storing on-line communications. Not only are Internet users concerned with privacy when surfing the web, service providers are also beginning to take customers' on-line privacy seriously, in order to build users' confidence in their business. Meanwhile, many countries are tightening up compliance with privacy legislations. Failing to comply often entails hefty damages.

The original superdistribution system makes it easy to automatically collect users' information (e.g., what he or she reads, listens and watches) and compile a dossier about an individual. While such data is potentially a valuable source of revenue for many businesses, it can also be a source of abuse that may cause embarrassment for users who have accessed sensitive or controversial materials on-line.

To address these concerns, Professor Robert Deng, together with Drs Bao Feng, Wu Yongdong and Ms Ma Di from the Institute for Infocomm Research, has designed a suite of techniques which

allows highly efficient superdistribution of multimedia content and at the same time protects users' privacy. The *privacy enhanced superdistribution* system is characterized by a number of innovative features. Specifically, the system

1. applies modern cryptographic techniques to protect the authenticity, integrity, and confidentiality of multimedia content;
2. automatically adapts the content distribution process to the capability of a user's device as well as the transmission bandwidth of the underlying network;
3. allows a user to disclose his/her identity or payment information to a clearing house in exchange for a digital product, but prevents the clearing house or other data collectors from learning which specific product the user intends to access; and
4. enables the clearing house to keep track of sale statistics (e.g., number of copies of a digital product sold in a day).

Prof Deng said, "For the first time we have proved technically that it is possible to apply the superdistribution approach over the open and public Internet and yet protect user privacy

protection at the same time." As privacy protection gives users peace of mind, Prof Deng believes that "everything being equal, content providers who respect user privacy are more attractive to users than those who do not."

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Prof Deng's research has resulted in two US patents and one PCT patent. Part of the research results have also been incorporated into the standard document by the JPEG2000 Security (JPSEC) Working Group. JPEG2000 is an emerging ISO standard for still image compression designed to address most of the limitations of the popular JPEG standard. ■



Professor Lim Kian Guan, LKC School of Business

Putting a Price on Future Financial Risks in Incomplete Markets: the Geometric Way

Derivatives are complex instruments in financial markets. Calls and puts are basic derivative products. Hybrids such as convertibles and options on options are becoming increasingly common. Structured products catering to different risk-returns needs of traders and investors are derivatives too. Many companies have seen their fortunes decimated when they engage in, without understanding fully, trades involving used of derivatives. Yet, derivatives when properly used, add tremendous efficiency to the markets, as they try to capture much future uncertainties and risks in a particular price today. These prices allow companies and individuals to insure or hedge against future financial risks. An understanding of how these risks are priced is thus fundamental to any proper use of the derivatives.

Many pricing models of derivatives assume that these instruments work within a setting of complete markets, i.e. a setting where all possible future states of uncertainty can be priced exactly today. In such a case, a unique price for the derivatives can be obtained. Yet, a complete market does not characterize the real world. Not all future states of the world can be exactly priced and hence insured against today. In an incomplete market, the price of the derivative may not be unique. If we invoke certain rational conditions such as no-

arbitrage condition, we could ensure that the prices today are in some way related to non-zero pseudo probabilities of the different states in future. The latter may be called "equivalent martingale probability measures". How to find the appropriate pricing measures and thus pricing model in an incomplete market has long attracted interests from and remains a challenge for many researchers around the world. Prof Lim Kian Guan, Professor of Finance and Associate Dean in the LKC School of Business, is one of them.

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In a paper that he co-authors with two other researchers ("An Approximation Pricing Algorithm in an Incomplete Market: A Differential Geometric Approach" published in *Finance & Stochastics*, Vol 8, Nov 2004, with Yuan Gao and Ng Kah Hwa), they provide a numerical procedure for computing an equivalent martingale measure for pricing a derivative in an incomplete market. Using

the Wiener-Ito chaos expansion, they build a finite geometric structure to approximate the infinite space of probability measures. This in turn allows them to provide a numerically feasible and intuitive approach to find the appropriate pricing measure and pricing model. As Prof Lim noted, "a finite expansion enables numerical procedures to be fitted, and the finer the grids, the better will be the approximation".

"How you frame the problem is an important part of the search for an appropriate pricing model," said Prof Lim. Most researchers frame the problem either as a utility maximizing problem or a minimization of a distance measure in the probability space. This has serious implications for current corporate and banking efforts to measure derivative risks. In particular, the model risk is at issue here.

Pointing to another significant finding of the paper, Prof Lim said that with the geometric structure, the authors are able to use the distance (difference) between two probability measures to approximate the pricing model risk. The distance is shown to be the Bregman distance in topology. "Such a finding is novel in the finance literature, and opens new grounds for evaluating model risks", Prof Lim added. ■



A Better Way to Find out if the World is Becoming More Equal

Associate Professor Lee Myoung-jae, *School of Economics and Social Sciences*

Few economic problems receive more attention from policy makers than income inequality. Poorly managed, a widening income inequality could have explosive political implications. A common way to see how income inequality (whether it is across individuals, regions or countries) has changed over time is to look at the “convergence” process, that is, how much closer the income levels have become with the passage of time.

The implication of such a finding is that the IQR can represent not just a degree of dispersion but also a group feature.

There are three common measures of the income convergence process across countries, ‘ β -convergence’, ‘ σ -convergence’, and ‘modal-convergence’. Each of these measures is defined in terms of a different macroeconomic indicator. A β -convergence is said to take place if a country with a low absolute GDP level consistently grows faster than another with a high absolute GDP level, resulting in a narrowing of income gap between the two countries. A σ -convergence happens when the standard deviation (SD) of the income distribution across countries becomes smaller over time. Modal convergence, on the

other hand, defines income inequality in terms of the number of the modes (most frequent values) of income distribution. If two modes, which means two income classes (the rich and the poor) becomes one, then this means only one income class and thus a lower income inequality. It is well known however that all three measures suffer from various forms of weaknesses.

In a recent joint paper with Professor Sung-jin Kang from Korea University, “Q-Convergence in Interquartile Ranges” (forthcoming in *Journal of Economic and Dynamics and Control*), Professor Lee Myoung-jae shows that it is possible to define a new measure of income convergence which may help overcome some of the problems plaguing the three measures above. Specifically, the authors suggest that changes in the ‘inter-quartile range (IQR)’ of income levels may provide a better way to track the income convergence process. They call it the “Q-convergence” process.

The IQR represents the difference between the ‘upper quartile’ (which measures the income level at 75% from the bottom) and the ‘lower quartile’ (which measures the income at 25% from the bottom). Like the standard deviations of income distribution, the IQR is a widely used indicator of income dispersion. What Prof Lee and his co-

author found in the paper was that the lower and the upper quartiles in fact have the special property of being representatives of two groups in the data. That is, if the income levels are ordered from the lowest to the highest and the data points are bunched up in two groups, and if the condition that the averages of the upper and lower quartiles equal to the median (which measures the income at 50% from the bottom) holds, then the lower and the upper quartile will turn out to be the centers of the two groups. The implication of such a finding is that the IQR can represent not just a degree of dispersion but also a group feature. In this sense, it integrates σ -convergence with modal convergence and provides a broader and potentially more satisfactory measure of the convergence process.

Applying the Q-convergence to the world income distribution over 1970-1989, Prof Lee found that the gap between the rich and the poor has widened in terms of real GDP. But the relative GDP gap, which is the real GDP gap divided by the real GDP of the poor in the same year, has more or less stayed the same during 1970-1989, because the real GDP of the poor has increased as well as the gap. In short, at least it can be concluded that income convergence has not taken place in the world cross-country income distribution. ■

Assistant Professor Steven F. Orpurt
School of Accountancy



Would You Trust Your Investment with Local or Foreign Analysts?

If you are investing in local companies, should you pay more attention to the earnings forecasts of the analysts based in the same country as the companies or those who are located outside the country? On the surface, one might not expect to find systematic differences between the two groups. Presumably, the business is competitive enough that the less capable analysts will be weeded out eventually, whether they are locally based or not.

Asst Prof Steven Orpurt believes that a study of the relative performance in earning forecasts would be beneficial to the investor community as well as policy makers.

There are however factors that may work to the advantage of local analysts. One such factor is known as “information asymmetry”. That is, foreign-based analysts may not have the same kind of access to information about local companies as their local counterparts. As a result, they may lose out either in accuracy or in timeliness of their

reports. Alternatively, local analysts may be able to interpret and process the same set of information better than the non-locals because they understand local cultures, customs, institutional features or local languages better. Conceivably, the greater accuracy of the local analysts’ forecasts could also be attributed to the greater influence they have over local corporates to manage the earnings towards their own forecasts.

Asst Prof Steven Orpurt believes that a study of the relative performance in earning forecasts would be beneficial to the investor community as well as policy makers. The findings could for example lead to questions about how corporate disclosures should be regulated and whether there is a need to even the playing field for local and foreign analysts in acquiring and processing information.

In a recent working paper, “Local Analyst Earnings Forecast Advantages in Europe” that forms part of his PhD dissertation at the University of Chicago¹, Prof Orpurt found, based on the data from seven European countries², that in general local analysts (i.e. analysts who are based in the country where the company is located) do provide more accurate earnings forecasts than their foreign

counterparts. The experience is shared by most countries in the sample although the differences in performance are stronger in some than in others. The greatest differences are found in Germany and the Netherlands while Belgium and Switzerland exhibit the weakest evidence. In addition, local analysts tend to be timelier in their forecasts.

Most non-local European analysts are located in London which is generally considered the financial center in Europe. Yet, when Prof Orpurt separates the London-based analysts from other analysts, the former were outperformed by the latter, both in terms of timeliness and accuracy of the forecasts. Why this is so is something that Prof Orpurt intends to explore in future studies. Prof Orpurt also plans to extend his studies to the Asian markets. In particular, he is interested in finding out whether recent changes in financial information disclosure and enforcement policies throughout the region may help level the playing field for non-local analysts. ■

¹ *This thesis was awarded the American Accounting Association International Accounting Section Outstanding Dissertation award for 2004.*

² *The seven countries are Germany, Netherlands, France, Italy, Spain, Belgium and Switzerland.*



Looking for the Right Accounting Information to Choose the takeover Targets

Visiting Professor Joseph Aharony, *School of Accountancy*

How useful is a company's accounting information to potential financiers and investors during a period of corporate takeover? Such information comes under close scrutiny during the takeover period as potential financiers and investors try to make a sound decision. In a joint paper with Professor Ran Barniv from Kent State University, "Using Financial Accounting Information in the Governance of Takeovers: An Analysis by Type of Acquirer", published recently in the *Journal of Accounting and Public Policy*, 23 (2004), pp. 321-349, Visiting Professor Aharony presents strong evidence that accounting information provides an important input in the governance mechanisms of US takeovers and has a significant impact on the valuation of acquired firms.

The authors focus on the value relevance of the accounting information to different types of acquirers and other investors in target firms. They identify four types of major acquirers: foreign firms, publicly traded US firms, private US acquirers, and leveraged buy-outs (LBOs). The authors expect the relevant accounting information

of the acquired firms to differ across types of acquirers and that such information is useful for investment strategy in choosing among acquired firms.

Most accounting studies use earnings and book value of equities to explain prices and returns of a firm's shares. But Prof Aharony argues that these two variables alone may not provide sufficient information about the firm's value at the point of takeover.

Most accounting studies use earnings and book value of equities to explain prices and returns of a firm's shares. But Prof Aharony argues that these two variables alone may not provide sufficient information about the firm's value at the point of

takeover. The inadequacy is especially notable during periods of takeovers. Instead, the authors constructed a probability summary-value measure that is made up of eight financial accounting variables. These include specific characteristics of accounting information used by each type of potential major financier in takeovers. The exact composition of the measure differs across firms according to the type of acquirers in question.

Using a sample made up of most of the US publicly traded manufacturing firms that were acquired during 1978-2001, the authors found that other accounting information was indeed more important than a firm's earnings and book value to investors in a takeover. The two conventional measures do not provide sufficient information for investors making choices among acquired firms during the period surrounding the acquisition announcements. Furthermore, the results show that this accounting information is very useful for investment strategies, allowing investors to derive higher returns for investment in acquired firms. ■

Do you know how safe your company is from Cyber security attacks?

Practice Associate Professor Desai Narasimhalu, *School of Information Systems*



Cyber villains are a nightmare for anyone who is tasked with the responsibility of guarding the security of corporate information. Often, they attack in the most unexpected way -- either through the Internet or by slipping viruses into a company's information system -- with grave financial and other operational consequences for the affected companies.

Yet, it is often difficult to convince the top management of a company to invest adequately in information security. Few CEOs appear to treat information security risks in the same way they treat investment and other business risks. Assoc Professor Desai Narasimhalu from the School of Information Systems believes that such a low level of commitment to ensure information security has less to do with the ignorance of the senior management than the absence of proper guidelines telling them how much they should rightly invest in the security system.

Prof Desai argues that there are two dimensions to the problem. Firstly, there is no industry-specific benchmark which prescribes the type of investment a company needs to undertake to ensure the safety of its information. Such benchmarks vary from industry to industry. A company that conducts its business entirely through the Internet would need to invest more heavily in internet-related information security systems compared to one

that derives marginal value through the use of Internet. Secondly, even if industry-wide benchmarks are available, there are no easily understood indicators to help the management identify the gap between the level of protection a company has and the expected industry benchmark.

Prof Desai is currently working with an IT service provider to address some of these problems. Together with Dr. N. Dayasindhu and Raghavan Subramaniam from Infosys, he is trying to build an Information Security Maturity Model to help companies strengthen their cyber information security. This model assesses a company's preparedness to deal with cyber attacks in three areas - infrastructure, intelligence and practices. In all three areas, a company's level of preparedness is rated from D to A: D represents an inactive approach, C an ad-hoc approach, B a streamlined approach and A a pro-active approach. Companies could get a cyber security preparedness rating ranging from DDD to AAA.

The work is currently being piloted by Infosys amongst its clients. Prof Desai believes that the experience thus obtained will help shed important light on the rating that companies in different industries should attain. For example, companies in banking sector may be required to operate at level AAA. Those in electromechanical manufacturing might be required to operate at

CBB. With the model's continued applications to different businesses, Prof Desai hopes that it would eventually lead to the development of recommended benchmarks for a wide range of industries. This in turn will help the senior management make more informed decisions on how much they should invest in information security systems.

This model assesses a company's preparedness to deal with cyber attacks in three areas - infrastructure, intelligence and practices.

An initial version of the proposed benchmark rating system has been reported in the Workshop on Information Technology that was run in conjunction with the International Conference on Information Systems conducted by the Association for Information Systems held in Washington D.C. on the 11th and 12th of December 2004. The industry specific version has been reported in the Work in Progress session of the Annual Computer Security Applications Conference 2004 held in Tucson, Arizona from the 7th to the 9th of December 2004. ■

Double Identity, Documentary Making and Shocking Revelation: The Suspense and Excitement of Visit by Justin Scott and Amber Edwards



Justin Scott
American writer



Amber Edwards
*Film maker,
writer and actress*



Internationally renowned American writer Justin Scott and his wife, equally well known film maker, writer and actress Amber Edwards visited SMU 18-22 October 2004. They gave a series of talks, readings and seminars to the SMU students and staff as well as a selected group of members of the public. The visit marked an exciting start to a new collaborative program between SMU and the US Embassy to bring in a regular stream of distinguished American personalities.

When Assoc Professor Kirpal Singh invited internationally-acclaimed writer Justin Scott to visit SMU in October 2004, under the auspices of a new collaborative effort between the SMU and the US Embassy in Singapore, he had no idea that the invitation would bring THREE famous personalities to the campus! Not only did Justin accept the invitation, he brought with him his wife, the equally acclaimed Emmy Award winning film maker, news-caster and actress, Amber Edwards, to whom the SESS was only too happy and honored to issue a separate invitation. Astonishing, Justin also revealed during one of his talks here that he was in fact the same person as Paul Garrison, another international acclaimed best-selling author!

It helped them to understand why direct contact with living artists could be such an enriching and molding experience in life.

Professor Singh could hardly contain his excitement. "We could not have asked for a better way to launch the program. Imagine having "three" distinguished visitors for the price of one!" he said. With the new visiting program, SESS hopes to be able to bring a regular stream of distinguished American visitors to SMU for short-term visits in future.

The announcement of Justin's and Amber's visit was greeted immediately with great excitement both within and outside the campus. Hundreds of SMU students and staff, together with many invited members of the public (including alumni of the East-West Center in Hawaii) were treated to a series of delectable and enriching talks, readings and seminars by the husband-and-wife team in a

hectic week-long program. The events were held variously at SMU, the American International School and the National Library.

The screening of Amber's documentary film on American artist George Segal in the SMU Auditorium was a singularly engaging experience, with Amber herself present to discuss and field questions from the audience. Amber spoke lovingly of her subject and talked about the joys and challenges of being a documentary film-maker. She shared generously her bountiful experience with many SMU students who are keen to learn more about making documentaries especially for TV. The audience was particularly impressed with Amber's abilities to combine strict discipline with gracious flexibility in her work.

Justin's revelation of his "double identity" was an awesome moment for the audience. Calmly but in a voice visibly cracking at times, he spoke of how he had, many years ago decided to write under the pen-name of Paul Garrison, and how this had been kept strictly secret until this moment of disclosure. Questions from the audience came thick and fast with the man himself saying it had been very hard for him to have played this strangely fascinating double-role, as *BOTH* Justin Scott and Paul Garrison have authored a wide range of books.

Justin's creation of Ben Abbot the detective has long been widely admired by readers all over the world. All the novels in which this charming, intelligent and sometimes exasperating character appears continue to both endear and haunt the readers: endear because Justin's is a readable style which makes readers feel important to him and haunt because some of the scenes are so vivid that they remain in the readers' imaginations long after the books have been kept away. Novels such as

FIRE & ICE, BURIED AT SEA and THE RIPPLE EFFECT by Paul Garrison and *HARDSCAPE, STONEDUST and FROSTLINE* by Justin Scott are intriguingly suspenseful and richly textured to ensure the reader's satisfaction for both entertainment and education. As Assoc Prof Kirpal Singh remarked, "Justin's masterful talent of knowing how to create mystery and provide thrill is just envy-creating!"

The SMU community could look forward to similar experiences in future as the new visiting program brings in other well-known American personalities.

In their last appearance here, the couple did a special duet: a sophisticated, witty and enticing dialogue performed with the skill known only to masters of the art and theatre. It was a rare experience for those present. It helped them to understand why direct contact with living artists could be such an enriching and molding experience in life. SESS Dean Bobby Mariano was particularly touched by the humanity of the two visitors. "We felt so famously enriched - both Justin and Amber are the most human of individuals - no airs, no arrogance, just sheer talent and genius."

The SMU community could look forward to similar experiences in future as the new visiting program brings in other well-known American personalities. Those who enjoyed the meeting with Justin and Amber have reasons to rejoice too. As the couple told the audience at their last presentation, "We cannot thank the SMU and the US Embassy enough. We have had such a wonderful experience here that We Must Return!" ■



Level-k Thinking, Outguessing and Deception in Games

Professor Vincent P. Crawford, *University of California*

Professor Vincent P. Crawford of University of California, at San Diego, visited the School of Economics and Social Sciences at SMU in November 2004. A well-known game theorist, Professor Crawford delivered a distinguished lecture on 9 November 2004, on the topic of outguessing and deception in novel strategic situations.

Many strategic situations in business, international relations, politics, or war are examples of *outguessing* games, which involve situations of pure conflict in which some players want to match other players' actions, and other players want to avoid matching them. Game theory has a standard model to describe how people make decisions in an outguessing situation. Typically, each party is assumed to choose the best possible action for himself given his (correct) expectations about the other parties' actions. The outcome is known as a *Nash equilibrium* (named after the Nobel Laureate John Nash).

The k-level model is able to address situations that the conventional equilibrium does not and make better predictions about such situations.

The concept of Nash equilibrium allows us to make clear predictions about the players' behaviors, assuming that that these players respond in the same ways that they did in similar games in the past. However, in novel strategic situations, equilibrium is expected to result from sophisticated strategic thinking rather than direct learning from past experience alone. In such cases, the concept of Nash equilibrium may not be able to provide reliable predictions.

In a distinguished lecture delivered on 9 November 2004, Professor Vincent Crawford from University of California, San Diego provided a different way of looking at the decision making process in such novel strategic situations. A leading researcher in game theory, his research papers have been published in top economic journals such as the *American Economic Review*, *Econometrica*, *Games and Economic Behavior* and *Journal of Economic Theory*.

In his lecture, Prof Crawford argued that a non-equilibrium model of initial responses, based on what he called "level-k" thinking, might capture the strategic intuition and experimental evidence in outguessing games much better than the conventional equilibrium models. In some games, the level-k model predicts the same actions as the equilibrium model, so equilibrium predictions can be based on weaker, more plausible assumptions, and are more reliable. In other games, the level-k model's predictions deviate systematically from equilibrium, but in predictable ways. Citing various historical examples and data, Prof Crawford showed that the k-level model is able to address situations that the conventional equilibrium does not and make better predictions about such situations.

What exactly is level-k thinking? A simple way to explain the concept is to consider the following game, where a group of individuals simultaneously guess between 0 and 100. The individual whose

guess is closest to half the group average guess wins a prize. Game theory predicts a unique Nash equilibrium, in which all guess 0. The Nash equilibrium can be found by repeatedly eliminating stupid (dominated, to game theorists) guesses. To begin with, it is obviously stupid to guess more than 50. Next, unless you think other people are stupid, it's stupid to guess more than 25. Successive reasoning reduces the maximum guess down to 6.25, 3.125, and eventually 0.

In experiments, however, the subjects never guess 0; and their initial responses are heterogeneous. Even though the initial responses deviated from Nash equilibrium, they have a coherent structure. The data from these experiments have been analyzed by Prof Crawford and other researchers by assuming that subjects' decision rules are drawn from a stable distribution of boundedly rational level-k types. A level-k type anchors its beliefs with a "naive" level-0 type, and adjusts the beliefs via thought-experiments with iterated best responses, in the following way:

- level-0 types make random choices over the set of possible decisions;
- level-1 types decides on a best response to Level-0 types. Thus, level-1 types have a perfect model of the game but a naive model of others;
- level-2 types decides on a best response to Level-1 types. Thus, level-2 types have perfect models of the game and less naive models of others.

In essence, level-k strategic thinking adopts a best response to beliefs about other players, but those beliefs are based on simplified models of other players. The level-k model describes subjects' initial responses to games significantly better than equilibrium model in a wide range of situations. This allows the model to help resolve some empirical puzzles that have proved intractable using equilibrium analysis. ■



Adolescents Around the World: Are They Really Different?

Professor Vivian Seltzer, *University of Pennsylvania*

The School of Economics and Social Sciences (SESS) hosted the visit by Professor Vivian Seltzer from the Graduate School of Social Work at the University of Pennsylvania. A world renowned expert in psychological development, especially adolescent social development, Prof Seltzer spent two weeks at SMU, giving a public lecture on 28 October 2004 on the behaviors of adolescents around the world. Entitled "Adolescent Perceptions of Self and Peer Maturity and Readiness to Assume Adult Roles: Findings from a Cross-National Study", it was an engaging presentation with many questions from faculty, students, and interested members of the public. The audience learned that despite cultural and geographical differences, adolescents around the globe are surprisingly

similar in how they view their futures, in terms of the ideal age of marriage, ideal age of having children, and perceived maturity of self and peers.

The talk was based on a book that Prof Seltzer is currently writing. In writing the book, Prof Seltzer has interviewed thousands of adolescents in Scotland, Costa Rica, The Philippines, South Africa, and Malaysia to study the manner in which they perceive their future. Such perceptions have serious implications for their current behaviors, attitudes, and choices. The preliminary analyses of her research have been published earlier in the article, "A Cross-National Study of Adolescent Peer Concordance on Issues of the Future," *Journal of Adolescent Research*, Vol. 11 (4), 461-482.

As a visiting scholar in SESS, Prof Seltzer also gave three guest lectures at the social sciences classes, discussing topics such as the achievement of identity and the relationship between identity and maturity. SMU also hosted an informal tea session with the Social Science undergraduates where Professor Seltzer chatted about her own research as well as provided advice about the importance of education in the Social Sciences. Prof Seltzer is an author of two previous books, *The Psychosocial Worlds of the Adolescent: Public and Private*, and *Adolescent Social Development: Dynamic Functional Interaction*. ■

Conference on Financial Markets and Integration in East Asia

Organized by the Wee Kim Wee Center, SMU, October 14-15 2004

The Wee Kim Wee Center (WKWC) in the LKC School of Business hosted a two-day conference on financial market development and integration in East Asia 14-15 October 2004. Jointly organized with the Australian National University (ANU) and sponsored by the Ministry of Finance, Japan and the Australian Treasury, the conference brings together key policy makers, academics and private sector participants, once every six months, to discuss policies related to various aspects of economic and market developments in the region. Past conferences have taken place in different capital cities across the region and have proved to be a very useful forum for participants with different backgrounds to share their views.

As WKWC Director Prof Pang Eng Fong noted in his opening remarks, “the theme reflects the recognition that private sector participation especially those from the financial markets, will have to play an increasingly more important role in integrating the region.”

The Singapore conference focused on the role of financial market development in fostering the regional integration process. As WKWC Director

Prof Pang Eng Fong noted in his opening remarks, “the theme reflects the recognition that private sector participation especially those from the financial markets, will have to play an increasingly more important role in integrating the region.” Prof Peter Drysdale from ANU and Dr Gordon de Brouwer from the Australian Treasury both pointed out that the changing themes of the conferences over the past few years had allowed the half-yearly gatherings to retain its relevance and value to policy makers in the region.

Kicking off the two-day discussion were representatives from the Bank of England and the World Bank, who shared with conference participants the experience of the European Union and that of other regions on financial market development in an integrating region. This was followed by a lively discussion on what it takes to further promote and integrate the bond markets, the equity markets and the derivatives markets in the region. The first-day discussion ended with presentations on two sub-regions whose efforts at financial market development will have far reaching impact on East Asia's integration: China and ASEAN.

In accordance with the objectives of the conference series, day two of the conference was devoted to two events: Firstly, a special session on macroeconomic risk monitoring and surveillance in the region, with presentations by officials from

Vietnam, Indonesia and Hong Kong. Officials from different East Asian countries take turn to make such risk assessment presentations at different legs of the conference series. Secondly, a wide-ranging dialogue on general policy matters on the integration process in the region, which provoked very lively exchanges on how economic policies should be conducted.

The conference brings together key policy makers, academics and private sector participants, once every six months, to discuss policies related to various aspects of economic and market developments in the region.

Among the highlights of the conference was a dinner talk given by Mr Haruhiko Kuroda, the incoming President of the Asian Development Bank. A strong supporter of the conference series, Mr Kuroda has always been able to provide very insightful views on the trends of economic and financial developments in the region, based on his experience as a senior official in different parts of the Japanese government over the years. ■

Special Research News

Asst Prof Steven Orpurt from the School of Accounting was awarded the American Accounting Association International Accounting Section 2004 Outstanding Dissertation of the Year Award at the annual meetings in Orlando, Florida USA. His dissertation is titled “Local Analyst Earnings Forecast Advantages in Europe”.

Assistant Professor Riccardo Pelizzo from the School of Economics and Social Sciences was awarded Honorable Mention in the category of Best Dissertation in the Field of European Politics and Society on 4 Sept 2004 by the European Politics and Society Section of the American Political Science Association in Chicago, USA. The Honorable mention was awarded for his dissertation entitled, “Cartel Parties and Cartel Party Systems”. Assistant Professor Riccardo is also the recipient of the Vincent Wright Memorial Prizes for the best article published in 2003: “Party Positions or Party Direction? An Analysis of Party Manifesto Data”, *West European Politics*, vol. 26, n. 2, (April) 2003, pp. 67-89. ■

Published by

Office of Research &
Office of Corporate Communications
Singapore Management University
469 Bukit Timah Road
Singapore 259756
Tel: (65) 6822 0197 Fax: (65) 6822 0810
www.research.smu.edu.sg/or
(Regn No. 20000267Z)

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