

STANFORD UNIVERSITY  
**Undergraduate  
Economics  
Journal**



JANUARY 2013  
ISSUE I  
STANFORD ECONOMICS  
ASSOCIATION

Dear Reader,

On behalf of the Stanford Economics Association, I would like to thank you for taking the time to read the first issue of the *Stanford Undergraduate Economics Journal*. All of our writers and editors put in a large amount of time working on articles and I am glad you will get to read their amazing work.

We have a dual mission. The first is to publish research papers written for class. The second is to allow a wide variety of students to publish their ideas in economics by writing short articles and papers. We strongly believe that this mixture is the best way to engage students with economics.

As you read, please think about what you like and dislike about our journal. We are just starting out and we would love to hear as much feedback as possible. Please do not hesitate to contact me with any questions or concerns. Also, if you are interested in writing or helping to edit the next issue, please let me know.

Sincerely,

Brandon Camhi' 16  
Editor in Chief  
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A warm congratulations to all the editors and writers for their extremely hard work and contribution to the journal. In particular, I extend a huge thank you to Brandon Camhi, the Stanford Undergraduate Economics Journal Editor-in-chief for his outstanding leadership that has been key in both the quality of the journal and the speed in which the journal evolved from an idea to a publication. In addition, I would like to express my gratitude to Professor Timothy Bresnahan, faculty liaison of the Stanford Economics Association, Joanne DeMarchena, Economics Undergraduate Student Services Specialist, and members of the Stanford Economics Association for their support and advice in getting the Stanford Undergraduate Economics Journal off the ground.

The Stanford Undergraduate Economics Journal is one of the branches of the Stanford Economics Association (SEA). The SEA at large has the mission of increasing student involvement in economics and organizing events that allow student interest and curiosity in economics to flourish and be satisfied.

We are a very innovative organization in that a lot of our thriving initiatives were launched in the past 2 to 9 months. To that end, we welcome both ideas and individuals for new programs in the future. Currently, our main initiatives include the SEA mentorship program, faculty-student lunches, a weekly economics conversation series, and of course, the Stanford Undergraduate Economics Journal. In addition, there are several exciting new endeavors that are in the process of getting started. Please contact me if you would like to be involved with the SEA or if you have any suggestions for new initiatives you would like to see.

Best regards,

Ganesh Raj Kumaraguru'13  
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# The Role of Decision Aids in the Affordable Care Act

By Samuel Hansen

Imagine an 86 year-old patient who is diagnosed with terminal cancer. One day, the patient suffers a mild stroke, falls down, and breaks her hip. She is admitted to a hospital, where a doctor says she has around three to nine months to live. If she receives a hip-replacement, there is a high chance her weak heart will not hold out for the surgery. But if she does not receive the replacement, she will painfully suffer through her remaining days. This is precisely the dilemma President Obama faced when his terminally ill 86 year-old grandmother, Madelyn Payne Dunham, broke her hip two weeks before she passed away in 2008. When asked how to approach difficult medical decisions, Obama said, "...there is going to have to be a conversation that is guided by doctors, scientists, ethicists" and ultimately, patients (Leonhardt, 2009, p. 6).

This "conversation" is the core theme of a new approach of delivering medical care known as shared decision-making. Section 936 of the Affordable Care Act (ACA) defines shared decision-making as:

A collaborative processes between patients, caregivers or authorized representatives, and clinicians that engages the patient, caregiver or authorized representative in decision-making, provides patients, caregivers or authorized representatives with information about trade-offs among treatment options, and facilitates the incorporation of patient preferences and values into the medical plan (United States, Congress, House 409).

In short, shared decision-making is a discussion between a patient and a physician meant to find the "right" treatment option when the relative risks, benefits, and costs of multiple medical treatments are uncertain. Shared decision-making is an integral part of health care reform because it redefines the patient-doctor relationship, emphasizes informed consumer choice, and has the potential to provide higher quality care at lower costs.

To facilitate shared decision-making, "decision aids" – medical information in the form of software, pamphlets, and other media – have become popular tools to help

patients make better choices about various medical treatments. Over the past decade, decision aids have gained relative popularity among physicians because of their potential to improve quality and control costs (O'Connor et al. 1). To expand the use of decision aids, Section 936 of the ACA presents guidelines for funding, developing, certifying, and implementing decision aids in the US healthcare system (United States, Congress, House 409). However, while there are many proven benefits of decision aids, their cost saving potential has led to the entry of for-profit decision aid developers and insurers into this lucrative new market. Indeed, the content and presentation of information in decision aids have profound effects on patient treatment choices with health consequences.

Given the risks of an unregulated decision aid market, the federal government has a responsibility to protect patients by a) requiring developers to be non-profit, and b) promoting the establishment of a nongovernmental organization of physicians and decision scientists that studies and creates unbiased decision aids.

### **Decision Aids: What are they, and how do they work?**

Section 936 of the Affordable Care Act defines a patient decision aid as:

An educational tool that helps patients, caregivers or authorized representatives understand and communicate their beliefs and preferences related to their treatment options, and to decide with their health care provider what treatments are best for them based on their treatment options, scientific evidence, circumstances, beliefs, and preferences (Ibid.).

Decision aids are used in instances of preference-sensitive care – care involving “tradeoffs that affect a patient’s quality and/or length of life” (Bronner 1). For instance, various life-saving breast cancer treatments involve the risk of breast loss, and prostate cancer procedures often pose the risk of incontinence – requiring patients to weigh expected quality of life over length of life.

To facilitate these tradeoffs, computer-based decision aids allow patients to input their unique preferences to match them with specific treatment plans. For instance, if a patient with prostate cancer wants to choose between undergoing surgery and localized radiation treatment, they could use the online decision aid pictured in Figure 1 to make a decision consistent with their personal preferences (see appendix).

After the patient reads the background information, compares treatment options, and enters their personal preferences (noted in steps 1-3 on the top tab of Figure 1), this decision aid will generate a personal summary of their recommended medical choice, which the patient can then use to make an informed decision with his or her doctor. For example, a prostate cancer patient will have to choose whether they are more concerned about the risk of excessive bleeding from surgery or the risk of erectile dysfunction from localized radiation. Additionally, if a patient has limited insurance coverage, he or she may have to compare the financial costs of treatment paths. Such interactive web-based tools are becoming common mediums for decision aids, but similar information can be conveyed in print form as well as phone-based information sessions between patients and decision aid consultants.

Ideally, decision aids should function as unbiased sources of information, but they have the potential to psychologically influence patient behavior by the application of heuristics and cognitive biases. In 2002, Daniel Kahneman won the Nobel Prize in Economics for pioneering the field of psychological heuristics – common human cognitive errors that influence judgment and decision-making (“Daniel Kahneman – Autobiography” 1). Such heuristics can be considered “mental shortcuts.” A common heuristic known as the “anchoring bias” occurs when people make decisions “anchored” upon previous information or numerical values (Tversky and Kahneman 1). For instance, “the awards from lawsuits are influenced by the plaintiff’s initial demand—the plaintiff gets more if he or she requested more” (Nofsinger 1).

In the case of decision aids, there are many heuristics susceptible to potential manipulation. One of the most common ones is called ordering bias – the “skewing of results caused by the order in which information is presented” (*Cdc.gov* 1). Evidence suggests that patients perceive information more favorably when it is presented first. For instance, a recent study involving decision aids for breast cancer patients found that those who first learned about the risks of a drug treatment favored the drug more than patients who first learned about the benefits (Ubel et al. 1). A decision aid developer could use this information to steer patients towards or away from the drug.

Similarly, a study involving decision aids for prostate cancer patients compared the ratios of negative to positive words (i.e. risks vs. benefits) in decision aids developed by



the government, academia, and for-profit insurers. The study found that for-profit decision aid developers used significantly more negative words to describe surgery – an expensive treatment – and more positive words to describe watchful waiting – a less expensive management option (Col et al. 1). Figure 2 suggests that the government and private insurers – the financers of healthcare coverage – may nudge patients towards cheaper treatments by making expensive ones seem less favorable.

Decision aid developers also varied the lengths of treatment descriptions to give the impression that ones with shorter explanations are less worth considering. In this way, the organization and presentation of information in decision aids can influence patients' medical choices by appealing to their cognitive biases.

### **The Impact of Decision Aids on the Cost and Quality of Care**

Despite the potential exploitation of decision aids by for-profit developers, decision aids have been shown to improve the quality of medical care. Although “quality” care can be defined in many ways, decision aids have been shown to improve quality when it comes to informing patients about treatment options, conveying risks and benefits, improving satisfaction with medical choices, and reducing decisional conflict (Shafir and Rosenthal 7). For instance, a recent study of breast cancer patients in Ontario found that patients who used decision aids before receiving surgery were more educated about alternative treatment options, and as a result, experienced less decisional conflict than those who did not use decision aids (Whelan et al. 1). A separate study of patients with ischemic heart disease showed that patients were significantly more satisfied with their care when they used decision aids than those who had not (Morgan et al. 1). The use of decision aids also improves patient participation in the decision-making process, as evidenced by a recent report on patients using decision aids for benign prostatic hypertrophy (Murray et al. 1). Although there is agreement that decision aids can improve the quality of care under these measures, their impact on cost reduction remains unsettled.

However, increasing evidence suggests that decision aids can reduce costs for specific health conditions. For example, a groundbreaking report by Group Health Cooperative in Seattle – deemed the “largest observational study to date of the implementation of patient decision aids” – examined the effect of decision aids on the rates of knee and hip

replacement surgeries (Schwitzer 1). They found a 26% reduction in hip replacements, a 38% reduction in knee replacements, and cost savings between 12% and 21% over the six months decision aids were used for such elective surgeries (Ibid.). Similarly, a study of women with menorrhagia in England found that patients who received information packets, videos, and medical consultations (all forms of decision aids) incurred significantly lower costs than those who did not (Kennedy et al. 1).

Clinical evidence suggests that decision aids generally promote non-interventional treatment options over surgical ones by about 20% (Shafir and Rosenthal 7). Because surgical procedures are often more expensive, reducing surgeries reduces costs. In this way, decision aids involving specific conditions – which often involve surgical options – have the potential to dramatically reduce medical costs. In fact, the use of decision aids for 11 procedures involving preference-sensitive care could bring about healthcare cost savings of \$9 billion over the next decade (Ibid. 2). However, the question remains what potential negative consequences can result from non-surgical interventions when measured in terms of quality of life. For example, reducing hip-replacements may control costs, but at the expense of pain and suffering borne by candidates who do not receive treatment.

### **The Use of Decision Aids by For-profit Companies**

The cost saving potential of decision aids has sparked demand for their production and use. Naturally, a new market has evolved to meet this demand – one made up of for-profit developers, insurers, government agencies, academics, physicians, and others. While academics and care providers have little incentive to control patients' choices through decision aids, those who pay for healthcare stand to gain by encouraging cheaper treatments. For instance, consider the following statement on a heart surgery decision aid: "For at least 70% of people who have heart bypass surgery, the survival rate is no better than if they had chosen to take medication alone" (Coetzer 3). Regardless of whether this statement is true, there is clearly a biased tone discouraging surgery in favor of less costly medication treatment. If instead the statement was, "For at least 30% of people who have heart bypass surgery, the survival rate is better than if they had chosen to take medication alone," patients would likely favor bypass surgery because a 1 in 3 chance of

improvement sounds appealing. In this case, the information is exactly the same, but the phrasing reflects the intentions and biases of the author.

Similarly, the statement “More care does not equal better outcomes” – which appears on a separate decision aid – discourages treatment in general without providing evidence related to any specific disease (Ibid.). In fact, it is likely that more care does improve outcomes in some cases. While the marginal costs may exceed the marginal benefits of receiving more care, there may be small advantages from elective treatments that the patient wishes to receive. From an insurer’s standpoint, the patient should stop demanding care at the point of indifference<sup>1</sup> - which insurers enforced by requiring prior authorization of treatments during the managed care era of the 1990s (Barr 195). But since healthcare has become more patient-centered, the choice to receive additional care has entered the realm of shared decision-making. As a result, insurers and for-profit decision aid developers (who are often allied together) try to infiltrate this process by creating biased decision aids against expensive treatments.

A 2012 report published by the Beazley Institute for Health Law & Policy found that “Decision support tools created by for-profit corporations or other interested parties may dramatically increase the risk of exposing patients to bias and misinformation, particularly given the fact that *no legal mechanism* currently exists to protect against such harms” (Sawicki 1). Although Section 936 of the ACA calls for decision aid certification standards, it mandates that the Department of Health and Human Services partner with an unspecified “entity” to design minimum requirements (United States, Congress, House 409). Based on the language in the ACA, there are no restrictions barring this “entity” from affiliations with the private insurance industry, for-profit decision aid developers, the pharmaceutical industry, or other special interest groups. Given the amount of lobbying involved in the ACA, it is likely that a biased “entity” could influence that certification process and further deregulate the “wild-west” market of for-profit decision aid developers.

## **Regulation of the Decision Aids Market**

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<sup>1</sup> Point of Indifference: The point at which the marginal costs of a treatment equal the marginal benefits.

To regulate the ability of for-profit decision aid developers from influencing patient decisions, their financial incentives must be removed by requiring them to be non-profit. By removing their profit motives, developers can focus on creating informative products, not biased ones directed towards cost-savings. A recent report from the American Medical Association (AMA) highlighted the importance of developer objectivity when it stated, “...The independence of groups creating these tools and the use of quality control measures is especially important” (McAneny 4). Such groups must remain independent in two ways: a) detached from direct financial incentives, and b) unaffiliated with those who seek to use decision aids for cost-reduction.

As previously described in Figure 2, payers of healthcare coverage are automatically incentivized to reduce costs – including both for-profit insurers and the government (Col et al. 1). Because of their vested financial interests, neither for-profits nor government agencies should be entrusted to develop unbiased decision aids. Therefore, as suggested by the AMA, only an independent advisory board is qualified to study and develop decision aids for clinical use.

Even President Obama acknowledged the necessity of such a board when he said, “...you have to have some independent group that can give you guidance. It’s not determinative, but I think has to be able to give you some guidance” (Leonhardt 6). Although this “independent group” is missing from the ACA, a coalition of doctors, decision scientists, and medical professionals would be best suited to study, evaluate, and develop unbiased decision aids to be used in the modern US healthcare system. Such a group would lack profit motive, be independent from government and private sector interests (such as cost reduction), and provide tools to facilitate shared decision-making. Additionally, doctors – who guide the shared decision-making process – would be best positioned to identify practical patient needs and structural inefficiencies with decision aids in clinical practice. In turn, they will be more qualified to provide feedback about improvements to decision aids than profit-motivated developers who do not work directly with patients.

Once formed, this independent group should serve as the “entity” designated in the ACA to partner with the Department of Health and Human Services and develop certification standards for decision aids. These standards should address controls for bias

and set minimum requirements for quality<sup>2</sup> of outcomes when decision aids are used in clinical settings.

The Affordable Care Act takes steps towards achieving full transparency and accountability when it comes to creating unbiased decision aids, but falls short of fully regulating the burgeoning decision aid market. President Obama must follow through on his intention to create an “independent group” and amend his keystone piece of healthcare legislation to protect patients from manipulation by financially motivated interest groups. As a legislative task, it is not complicated to enact a non-profit mandate or establish an independent advisory board; it just requires immediate leadership before patients are harmed.

## Appendix

**Figure 1: Prostate Cancer Online Decision Aid**

**Prostate Cancer: Should I Have Radiation or Surgery for Localized Prostate Cancer?**

1 Get the facts | 2 Compare Options | 3 Your Feelings | 4 Your Decision | 5 Quiz Yourself | 6 Your Summary

**Compare your options**

Compare	Have surgery	Have radiation
<b>What is usually involved?</b>	<ul style="list-style-type: none"> <li>You will be asleep for the surgery.</li> <li>You will stay in the hospital for 2 to 4 days.</li> <li>For 1 to 3 weeks after surgery, you will have a thin, flexible tube called a catheter in your bladder to drain your urine.</li> <li>After surgery, you will have regular tests and doctor visits to find out right away if the cancer has come back.</li> </ul>	<ul style="list-style-type: none"> <li>With external-beam radiation, the radiation is aimed at the cancer. Treatment usually is five times a week for 4 to 8 weeks.</li> <li>For internal radiation, a doctor injects radioactive material into the prostate. You will be asleep for this procedure.</li> <li>You will have regular tests and doctor visits to find out right away if the cancer comes back.</li> </ul>
<b>What are the benefits?</b>	<ul style="list-style-type: none"> <li>Surgery works about as well as radiation for cancer that hasn't spread outside the prostate.</li> <li>The doctor can look at the tumor and take tissue samples to test it. This can help your doctor decide how likely it is that the cancer will come back.</li> <li>Removing the prostate makes it easier to look for future rises in PSA levels and to treat cancer that comes back.</li> </ul>	<ul style="list-style-type: none"> <li>Radiation works about as well as surgery for cancer that hasn't spread outside the prostate.</li> <li>It may be a better choice for men who already have bladder, bowel, or erection problems.</li> <li>You avoid the risks of major surgery.</li> </ul>
<b>What are the risks and side effects?</b>	<ul style="list-style-type: none"> <li>The cancer could come back.</li> <li>You may have trouble controlling your bladder for a few months after the catheter is removed.</li> <li>Surgery often leads to longer-lasting bladder control problems (urinary incontinence). How bad it is ranges from dribbling now and then to needing to wear incontinence pads.</li> </ul>	<ul style="list-style-type: none"> <li>The cancer could come back.</li> <li>You could have erection problems. For some men, this problem gets worse over time.</li> <li>It can cause bladder control problems (urinary incontinence).</li> <li>Other risks can include diarrhea and trouble urinating.</li> <li>There could be problems from anesthesia.</li> </ul>

**Prostate Cancer: Should I Have Radiation or Surgery for Localized Prostate Cancer?**

1 Get the facts | 2 Compare Options | 3 Your Feelings | 4 Your Decision | 5 Quiz Yourself | 6 Your Summary

**What matters most to you?**

Your personal feelings are just as important as the medical facts. Think about what matters most to you in this decision, and show how you feel about the following statements.

**Reasons to have surgery** | **Reasons to have radiation**

**I would rather have surgery.** | **I would rather have radiation.**

More important | Equally important | More important

**I am more concerned about the risks of radiation than I am about risks from surgery.** | **I am more concerned about the risks of surgery than I am about the risks from radiation.**

More important | Equally important | More important

**I want my doctor to know what kind of tumor I have.** | **It's not important to me for my doctor to know what kind of tumor I have.**

More important | Equally important | More important

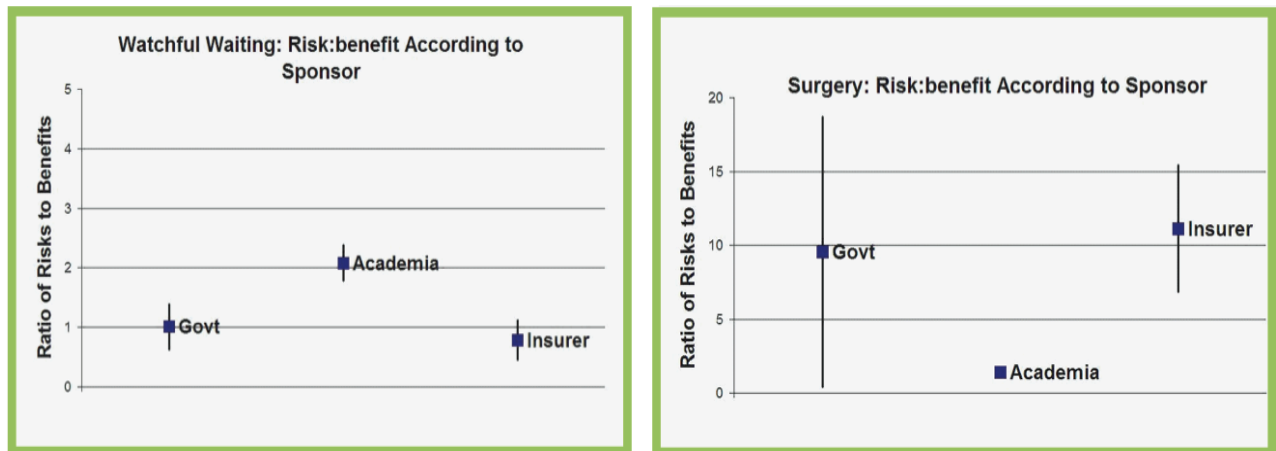
**I'm not worried about the higher risks of erection problems from surgery.** | **I want to do what I can to stay sexually active.**

More important | Equally important | More important

Source: Thompson and Wood 1

**Figure 2: Comparison of Risk-Benefit Ratios According to Decision Aid Sponsor**

<sup>2</sup> Quality measures include (but not limited to): improved patient satisfaction, knowledge of treatment options, participation in treatment plan, reduced decisional conflict, etc.



Source: Col et al. 1

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# Factors That Affect the Purchasing Decisions of Online Bookstore Consumers

By Ganesh Raj Kumaraguru

## **Abstract**

A lot of papers have studied the behavior of customers in different areas of business. Even in the online book industry, several papers have been written. However, given the rapidly changing nature of the book industry, it is difficult to find a dated paper that accurately reflects the current market. This paper will explore the factors that currently affect the behavior of an online book customer in purchase decisions. It will mainly focus on college students although some insights can be applied to all consumers. Due to the small survey response rate, it is difficult to comment on statistical significance although trends in data are definitely noted and analyzed.

## **Introduction**

### **Research question**

What factors play a role in the purchase decisions of an online book customer?

### **Scope of paper**

This paper seeks to examine the main factors that affect the decision purchase of a consumer. Data analysis reveals that consumers have different preferences in that some weigh price more than quantity in a given scenario and vice versa. Utility theory is used to explain this phenomenon.



Most of the theory and results analysis later in the paper that follow utility theory are an attempt to explain the different utility functions of various survey respondents. This includes time constraints, the income effect, and the book buying experience.

### **Predictions**

Factor	Prediction	Results support prediction
Value of book	Given a time constraint, the higher the price of the book, the more likely customers will choose to buy the book online and wait rather than buy the book in person at a store at a higher price and get it immediately.	Yes
Income of customer	The higher the income of the customer, the less likely customers will opt to wait given a time constraint, and hence choose to buy a book at a bookstore at a higher price.	No
Years of experience with online shopping	Seniors will use online book stores more often than freshman and be more sensitive to price changes	No
Reputation of seller	Customers value the reputation of a seller and some will not trade with brand new sellers. Customers will be willing to pay a higher price in order to gain security.	Yes
Platform security	Amazon may not necessarily offer the cheapest prices but people will use it because of the reputation of the platform as secure.	Maybe
Platform dominance	Amazon is the dominant platform for online book purchasing.	Yes

### **Research methodology**

1) The survey was emailed out to approximately 800 Stanford students and 27 filled in responses. The students had the option of leaving their names.

2) 16 females and 11 males completed the survey. There were no freshmen, 8 sophomores, 14 juniors, 4 seniors, and 1 co-term/5<sup>th</sup> year senior.

3) The name field was optional so that some survey respondents could be contacted for further details should they wish to be contacted.

4) Questions were in several different forms:

a) Binary choice

Choosing between two books. For example a \$40 “like new” condition book and a \$25 “acceptable condition” book. This was to elicit how much survey respondents waited price against perceived quality.

b) Numerical

Assigning monetary value to different factors such as

i) The reputation of the seller

ii) A “like new” condition book over an “acceptable condition book”

c) Multiple choices

i) To elicit income levels indirectly by asking how affected survey respondents were by expensive books

ii) To understand to what degree other factors that were not in my hypothesis may affect consumer behavior such as shipping prices, picture of book, presentation of website, elegance of reviews and list of books that other consumers who bought that book purchased.

5) Economics theories crucial to the understanding of this paper are:

- a) Utility theory
- b) Network effects
- c) Time constraint

6) Data exclusion

The student who never had a required reading that cost more than \$100 was removed from the numerical data questions since I believed that their responses would be a less accurate measure of what she would do in that situation given she had never been in a situation of purchasing expensive books.

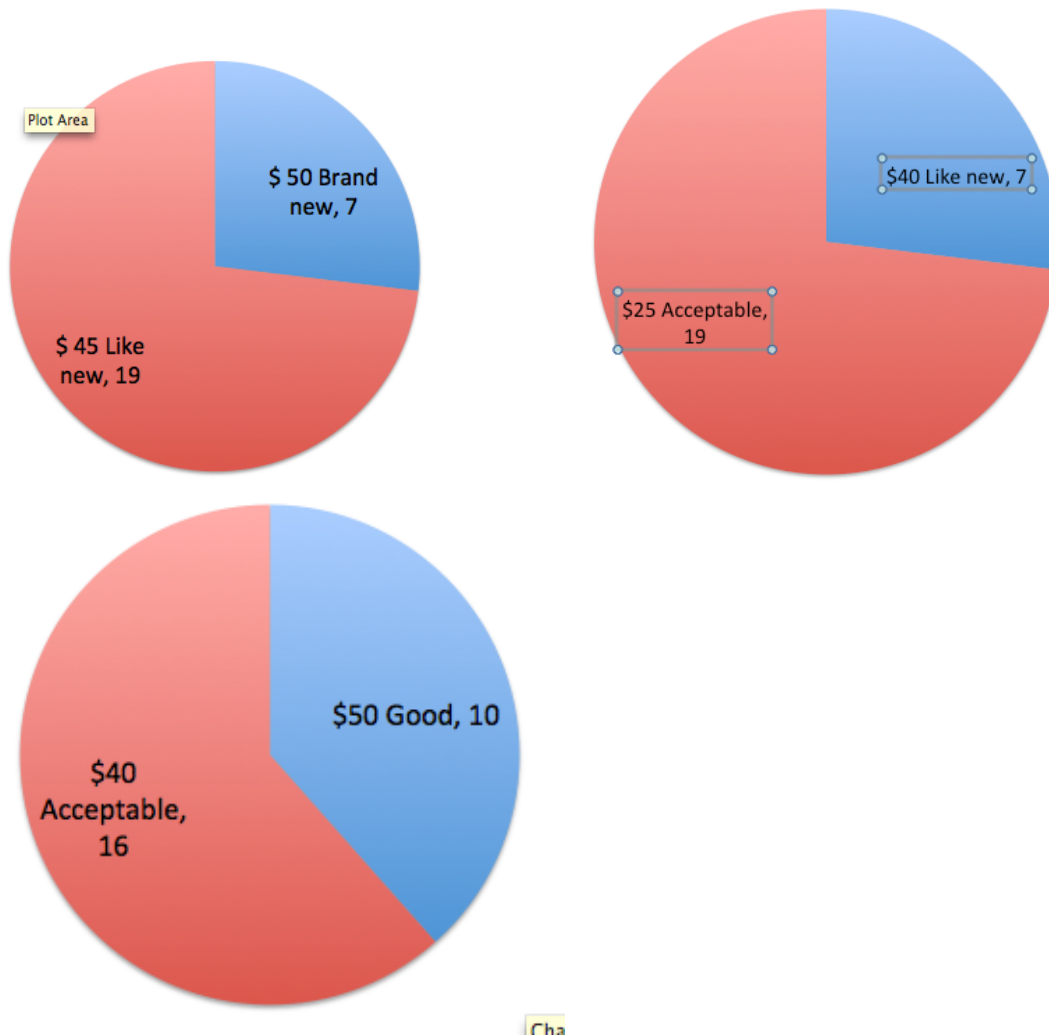
However, the student was included for questions regarding website presentation because that factor is not skewed by expenditure.

### **Results, economic theory, and discussion**

#### **Utility theory**

Consumers always seek to maximize utility. Before delving further in analysis, it is important to note that empirical evidence has shown that consumers in some markets often have very different demand functions (Ding, Ross, and Rao 2010). This has to be taken into account to understand why some consumers make different decisions in this market assuming that consumers are rational and seek to maximize utility.

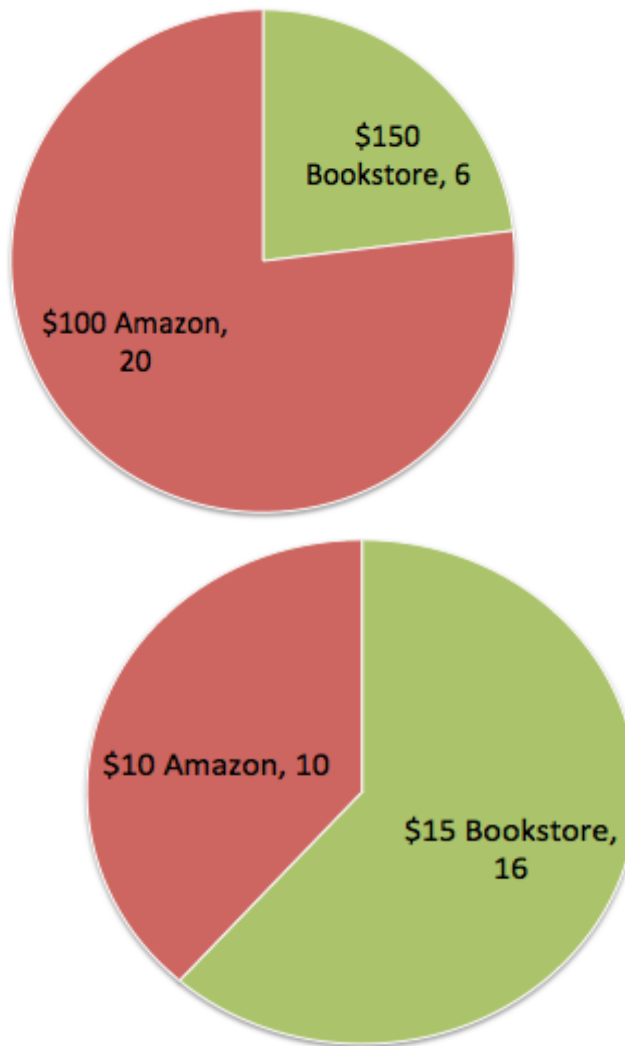
It is evident that some consumers place value on a book looking new more than the price as demonstrated by the results. The pie charts below display the number of students who selected a particular response when given a binary choice between two different books.



This is not a surprise. Different consumers gather different values from having a newer book and have different risk profiles in purchasing lower quality used books on the internet. Evidently, the consumers who would rather buy the \$50 brand new book than the \$45 like new book have different utility curves. The consumers who would rather buy the \$50 book are more likely on average to be risk averse, and place a premium higher than \$5 on buying a new book, although one cannot conclude this for each and every one of the respondents who selected that option. This is because either condition is sufficient for a consumer to opt to buy the \$50 new book over the \$45 “like new” book; risk aversion or a higher premium than \$5.

#### **Absolute price and income effects**

As predicted, a higher percentage of students would buy a higher priced book for the sake of receiving it faster, if the absolute price of the book was lower.



The pie charts display the number of students who selected a particular book given a binary choice between the two. In this case, we assume that the book from Amazon takes a week to arrive where else the book at the bookstore is obtained immediately after purchase.

In fact, the majority moves from one that prefers price to one that prefers convenience as soon as the prices of the books change. Again, this reflects the consumer utility function. Utility from price discounts diminishes as absolute price decreases, even if the percentage discount is the same.

By extension, this result suggests that consumers prefer to think of books in terms of absolute prices rather than relative prices. This makes sense given that the opportunity

cost of money spent on books is priced in the form of other goods relative to books rather than the price of books relative to each other.

### **Income effect**

The survey notes that 26 out of the 27 students have had at least had one required reading that cost at least \$100.

The survey suggests that the Stanford student body is generally significantly affected by book price. 37% of respondents said expensive books hurt their other expenses. This group can be inferred as the “tight budget” or “low income” group and in conventional theory should be more sensitive to price. 44 % of people respondents that expensive books inconvenience them, 19% of people said that “expensive books are okay but I want to cut costs as much as possible”, and no one selected the option of “I don’t really care about price”.

An interesting point to note was that when results were filtered to only include those who were impacted the most by expensive books, proportionally, there weren’t fewer people who opted for the \$150 Stanford bookstore book rather than the \$100 Amazon book. This suggests that contrary to my hypothesis, income may not be an important factor given a tight time constraint.

In addition to that, there wasn’t a noticeable difference in lower income students who used Green Library reserve<sup>3</sup> books when prices were too expensive suggesting that for a lot of Stanford students, the convenience of having the book constantly may outweigh the disutility from paying a high price and the opportunity cost of spending money on other products.

An additional point to note was that some students who said that they would borrow books from Green Library reserve when prices were too high still opted to buy the \$150 book from the bookstore and spend an extra \$50 to get the book a week earlier. This suggests that \$150 may not be considered too high a price. This makes sense given that some books can cost up to \$250 and hence, some students may see discriminate in their behavior between \$100 books and more expensive ones.

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<sup>3</sup> Green Library reserve is where students can borrow books for 2 hour increments. The books cannot be removed from the library.

However, it has to be noted that the survey couldn't take into account all the possible options a student could make. For example, students could purchase the book before the quarter begins or borrow a book from a friend. Despite the survey showing us that tight budget students react the same way to other students given a time constraint, it may be that students with tighter budgets are more likely to find ways to avoid putting themselves in a situation with a time constraint. Avoiding time constraints is beyond the scope of this paper. However, reacting to time constraints will be discussed.

### **Time constraint and risk aversion**

Previous research has shown that when given a choice between different brands, time pressure increases the chances that higher quality products will be bought at the expense of price (Nowlis 1995). Nowlis argues that consumers are likely to be more likely to choose the lower risk option as time to make the decision decreases.

A utility function that takes into account risk aversion can be modeled by:

$$U(E(x) - R) = E(U(x))$$

$R$  demonstrates the risk premium. The risk premium demonstrates the maximum amount of money the individual is willing to pay in order to obtain the expected payoffs for sure, instead of the gamble<sup>4</sup>.

Although the quality of new books on Amazon may not necessarily be considered high risk, the time of delivery may be. Hence, given a rush such as classes, it makes sense that the lower risk option is sometimes chosen despite the monetary loss of \$50.

For the sake of understanding risk, let us assume that students either put a value of \$20 or \$30 in receiving the book early given that they are 100% certain that Amazon will deliver on time. In this example, the utility of \$20 or \$30 is simply obtained from receiving the book early. Given this case, all students will buy books from Amazon.

However, Amazon despite its reputation cannot always deliver books on time with 100% certainty. Different students will have different estimates of the probability that Amazon will deliver the books on time. Some may value this at 99% and others at 70%. This estimate factors into a customer's choice.

It should be noted that even consumers who have faith in Amazon and think Amazon will deliver on time in 99% of the cases may still opt to buy from the Stanford bookstore if

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<sup>4</sup> Formula and explanation obtained from Economics 51 lecture slides

they are extremely risk averse. If we assume arbitrarily that the disutility from a book not arriving within a week is -\$200 and the utility from receiving the book immediately is \$30, this customer's pay offs will either be

$$0.99(-100) + 0.01 (-100-200) = -\$102 \text{ from buying on Amazon}$$

or

$$1(-150) + 30 = -\$120 \text{ from buying at the Stanford bookstore.}$$

If the risk premium is higher than \$18, the customer will choose the purchase the book at Stanford bookstore because even though the probability of not receiving the book on time is extremely low, the student would rather be safe and experience a lower expected return than save money and have a small probability of not receiving the book on time.

The same risk argument carries for students who prefer to buy "good" quality books over "acceptable" books. As demonstrated by some of the comments at the end of the survey, some students base their perceived quality on prior experience which suggests that buying an "acceptable" book is seen as more risky. On the other side of the utility spectrum, some students do not place any benefit in buying a new book as indicated by those who valued it at 0. 7 students placed no value on buying a "new" book over a "like new" book. 4 students placed no value in buying a "new" book over a "good" book and 3 students placed no value in buying a "new" book over an "acceptable" book

	Number of people		
Value of "new" book over like new/good/acceptable books ( in \$)	"like new"	"good"	"acceptable"
0	7	4	3
$0 < x \leq 10$	11	12	10
$10 < x \leq 20$	5	2	5
$20 < x \leq 30$	1	2	1
$30 < x$	2	4	6



### Asymmetric information and signaling

In online book purchasing websites, the sellers' experience and reputation is displayed. The survey sought to understand the value of a seller's reputation in determine the price of the book and decision making of the consumer. As predicted, some buyers would never purchase a book from a brand new seller. However, an interesting point to note is that the definition of an experienced seller heavily varied between survey respondents

Minimum number of sales required for seller to be considered reputable	Number of people
0	0
$0 < x \leq 10$	4
$10 < x \leq 20$	5
$20 < x \leq 30$	4
$30 < x \leq 50$	3
$50 < x \leq 100$	5
$100 < x \leq 200$	2
$200 < x \leq 500$	1
1000	2

\$ value of a product from a top rated experience seller over one from a brand new seller	Number of people
0	3
$0 < x \leq 10$	18
$10 < x \leq 20$	4
$20 < x$	1

The above table on the other hand has a much lower range of values. The spread of data is orders of magnitude apart in the minimum number of sales required for a seller to be

considered reputable and the \$ value of a product from a top rated experienced seller over one from a brand new seller.

Interestingly, both survey respondents who said they would need a seller to make 1000 sales to be considered experienced, only place a 10 and 20 dollar premium on the value of experience. This suggests that high standards on the minimum number of sales don't necessarily imply high dollar values for experience premium. It is difficult to draw anything conclusive from two data points but the possibility should be taken into account.

When asked to choose between a \$50 textbook by a top rated seller with 1000 sales and a \$40 textbook by top rated seller with 5 sales, 19 chose the former and 7 the later, a similar ratio to the survey respondents who would pick a newer more expensive book over a lower quality cheaper one.

This brings up the point made by Din, Ross, and Rao that different consumers have different demand functions. By extension, their utility functions are different. Hence, they have different perceptions on the minimum appropriate number of sales required as well as the value attached to experience. In addition, despite the difficulty of documenting it in a quantitative model, it should be noted that the marginal value assigned to more experience diminishes as the seller becomes more experienced. Din, Ross, and Rao have provided a model that mathematically explains that as a product gets better, consumers may be less likely to detect improvement or find value that improvement<sup>5</sup>. The same model can be applied to seller reputation in this paper.

The effect of reputation is a way of signaling. When the price of signaling is virtually 0, it is very likely for information asymmetry to be significantly decreased. A large seller has high consequences of providing poor quality products. However, a brand new seller selling an expensive book, who aims to only use the website once has a significantly lower consequence of providing poor quality products. Even though consumers can return books, it comes at a cost both in money and inconvenience and hence, consumers may perceive new sellers as higher risk than experienced sellers due to seller incentives. Previous research in 2002 by Latcovich and Smith (2001) predicted that

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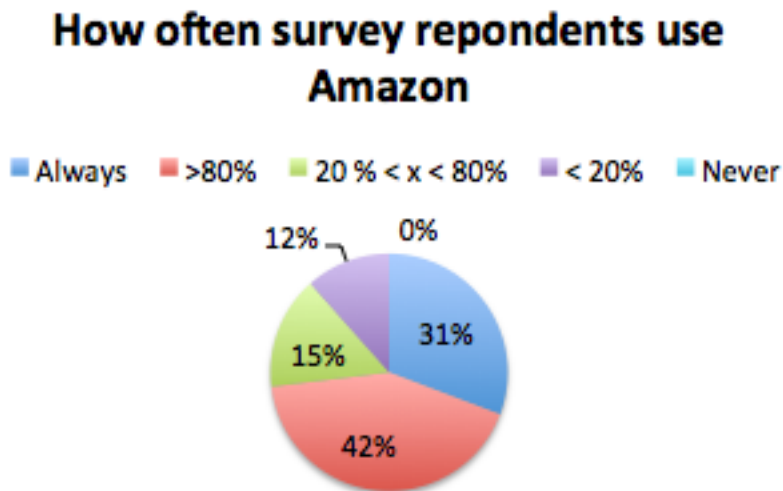
<sup>5</sup> This model can be observed in page 3 of Price as an Indicator of Quality: Implications for Utility and Demand Functions.

in the future, third party endorsement may occur (Oxford Paper) and current trends have shown that their prediction was prescient.

The points above focused on the financial costs for the seller of deceiving the consumer. However, there are additional costs that may not be obvious such as social costs. Some students use supost.com, a book trading website for Stanford students. One of the survey respondents said that she is far more likely to trust Stanford strangers than random strangers and is hence more open to buy used books on supost.com as opposed to amazon.com. This makes sense given that a Stanford student incurs a higher cost for deception. Stanford is a small university and word may get around which may have high negative social costs. In contrast, strangers on online book stores will remain anonymous and not incur any negative social costs.

### **Platform dominance**

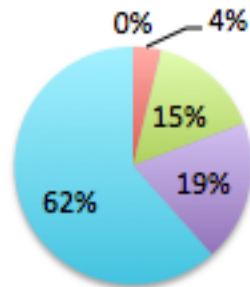
Apart from individual sellers on platforms, there is competition between platforms as well. It is interesting that one way Amazon competes with its rivals is to initiate competition within between the seller participants on its platform. The details of that are beyond the scope of this paper but it should be noted that despite Amazon's dominance as a platform in the market, it is not always the cheapest option.



### How often survey repondents use EBay

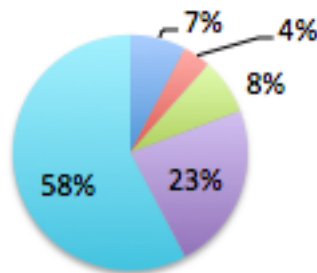
Chart Title

Always >80% 20 % < x < 80% < 20% Never



### How often survey repondents use other online websites

Always >80% 20 % < x < 80% < 20% Never



The pie charts show that every respondent has used Amazon to purchase books. In contrast, 62% of respondents have never used EBay. It was predicted that Amazon would be the dominant leader but the fact that EBay use looks inferior to that of “other online websites” suggests that EBay despite its history, is not even second to Amazon, at least when it comes to the college student segment of the market. This may be for several reasons. Amazon may already cater to the type of consumer who will consider going on EBay where as other websites such as Dealoz.com and supost.com cater to consumers with different behaviors or utility curves.

One of the survey respondent described using a website called Dealoz.com which searches all online directories for the cheapest book. By definition, Dealoz.com should turn up with prices lower than Amazon. Although the common view is that Amazon

provides student's with the cheapest prices possible, evidence shows that low prices are clearly only part of the picture.

In a paper written in 2002, Clay, Krishnan, Wolff and Fernandes demonstrate that there are two objectives of online retailers that contrast each other; no retailer can charge more because customers will not buy from that retailer and that firms prefer not to compete directly in price because of low profits. That tension can be explained by the results of my paper, network theory, and utility theory.

Price is definitely part of a consumer's utility function which suggests that Amazon has to offer a low enough price to remain competitive. However, it also competes in other ways such as product endorsements, guarantees, and security in order to avoid low profits. In addition, network effects cause more people to remain on amazon because of the spiral effect of more consumers drawing more sellers and hence more variety of books and higher competition between individual sellers on Amazon. This may explain Amazon's dominance over EBay which sometimes offers prices lower than Amazon, especially through halfebay.com (this was taken into account as part of EBay when questions were asked in the survey). The network benefits of being on Amazon in addition to the convenience of just using one website may outweigh the cost savings that arise from using both Amazon and EBay and searching for the best prices on both websites.

It is all too easy to isolate network effects and variety as Amazon's main reason for success. However, the point of variety and choice is not applicable when compared to websites such as Dealoz.com which search the entire web for the best price. In this case, possible arguments may include the fact that most consumers have simply never heard of websites like Dealoz.com, as indicated by the survey respondent. In addition, as indicated by Clay, Krishnan, Wolff and Fernandes, "although books are homogenous goods, the book buying experience may not be". This suggests that customers may gain satisfaction from the way Amazon presents books. My results also back this data. 21 out of 26 respondents noticed the presentation of the website when buying books and 13 out of the 26 respondents said they were affected by it. In addition, the effects of other variables that are linked to the book buying experienced are expressed in the table in the next page.

	Number of people			
	Yes, this factor increased my buying impulse and rightfully so	Yes, this factor increased my buying impulse although I can't really explain why	I noticed it influenced me although I tried to be rational and not make decision solely based on it	I didn't notice it
Elegance/detail/length of reviews (different from number of stars)	9	7	6	5
Picture of book	9	5	6	7
Presentation of website	5	8	8	6
List of books that other people who bought that book bought	2	2	4	18
Free shipping	22	0	5	0

## Conclusion

To summarize, the results suggest the following:

- 1) Absolute price of a book is a determinant to whether a customer will choose to buy the book online or at a store.
- 2) Time is a significant variable in the decision to purchase a book at a higher price.
- 3) Consumers have different utility functions in the online book industry.
- 4) There is a risk premium associated with buying online.
- 5) There is positive value assigned to the reputation of the seller
- 6) Amazon is the market leader and the reason is not limited to price
- 7) Presentation of the website, elegance of reviews, and other miscellaneous factors that affect the book buying experience influence the behavior of consumers.

The results found no significant difference in the purchasing behavior between income groups, gender groups, and year groups.

The result for income groups was particular surprising. However, as noted earlier, the lack of options demonstrated by the survey may be an issue. If interviews were carried out in person as opposed to an online form, it would have been useful to follow up on how lower income students saved money on textbooks. However, in person interviews are not unanimous and students may feel uncomfortable revealing their income levels.

The survey could have been improved if it had included more respondents. With a budget, survey respondents can be rewarded with cash for filling up the survey. This would increase the number of respondents. In addition, the survey didn't have freshman and hence was biased in the direction of upperclassmen. There wasn't any clear difference in behavior between year groups as wide apart as 5<sup>th</sup> year seniors and sophomores but it is unclear if this assumption can be extended to freshmen.

### **Suggestions for further research**

It is no longer a debate that online consumers have different utility functions. Different consumers place different weights on different factors such as price, reputation, book buying experience, and advertised quality. It would be helpful to run a regression on a lot more variables to deduce common utility function types amongst consumers and account for factors such as endogeneity.

In addition, it would be useful to study the perceptions of the reliability online bookstores by different people. Different consumers have slightly different views on the reliability of amazon. Even in the college population, this variation is evident (as evidenced by the comments more than the numerical data in this particular study). However, it would be interesting to study how age affects perception and how online bookstores can take this into account when targeting different consumers.

A large segment of the market was ignored in this paper- the segment that includes consumers who buy Amazon Kindle. It would be useful to compare using the Kindle as a substitute to buying a book. This wasn't included in the paper since the two are essentially different products despite their substitutability. However, given the rapid

increase of the Kindle edition purchases relative to book purchases on Amazon, future papers will likely seek to explain this phenomenon.

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## Penny Costs More to Produce than its Value

By Justine Moore

Imagine that the penny no longer exists. The nickel is the lowest denomination coin, and most sellers round up prices to whole dollar values instead of saving consumers an additional cent by offering goods at prices like \$19.99.

This imagined scenario recently became reality in Canada, and soon may become true for the United States, as well.

With increasing prices for copper and zinc, the cost of producing a penny has been greater than the penny's face value for seven consecutive fiscal years. According to



the U.S. Mint's Annual Report, pennies and nickels were produced at a loss of \$116.7 million in 2011.<sup>6</sup>

Demand from the Federal Reserve Board (FRB) for coins in these denominations is expected to increase in the future, according to David Motl, Acting Chief Financial Officer of the U.S. Mint.<sup>7</sup> Increased demand from the FRB as well as higher costs of production are the reasons why losses from production of pennies and nickels increased from \$42.6 million in 2010 to \$116.7 million in 2011.<sup>8</sup>

Data from the U.S. Mint suggests that it costs approximately 2.4 cents to produce a penny, more than twice as much as the penny is worth.<sup>9</sup> In comparison, it costs 5.2 cents to produce a \$1 or \$2 bill, 8.5 cents to produce a \$5 or \$10 bill, and 9.2 cents to produce a \$20 or \$50 bill.

The fact that pennies cost approximately half as much to produce as a \$1 bill and are worth much less is making lawmakers and economists question why new pennies are still being minted.

Other countries around the world have abandoned their lowest denomination coins. Australia withdrew its one cent coin from circulation in 1992, New Zealand withdrew both one and two cent coins from circulation in 1990, and Sweden eliminated its one and two cent coins as early as 1972.<sup>10</sup>

As the most recent country to announce the elimination of its lowest denomination coin, Canada may inform the decisions of U.S. lawmakers.

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<sup>6</sup> United States Mint, "US Mint 2011 Annual Report." Last modified 2012. Accessed December 19, 2012. [http://www.usmint.gov/downloads/about/annual\\_report/2011AnnualReport.pdf](http://www.usmint.gov/downloads/about/annual_report/2011AnnualReport.pdf).

<sup>7</sup> *Ibid.*

<sup>8</sup> *Ibid.*

<sup>9</sup> Isidore, Chris. CNN Money, "Obama wants cheaper pennies and nickels." Last modified Feb. 21, 2012. Accessed December 19, 2012.

[http://money.cnn.com/2012/02/15/news/economy/pennies\\_nickels/index.htm?hpt=hp\\_t3](http://money.cnn.com/2012/02/15/news/economy/pennies_nickels/index.htm?hpt=hp_t3).

<sup>10</sup> Forsyth, Randall. Barrons, "Canada's Ditching of the Penny Makes No Cents." Last modified March 30, 2012. Accessed December 19, 2012.

<http://online.barrons.com/article/SB50001424053111903715504577312660809673118.html>.

The Royal Canadian Mint decided to stop circulating pennies in early 2012, as it cost approximately 1.6 cents for the Canadian government to produce a penny.<sup>11</sup> Circulation will officially cease in Feb. 2013.

Pennies will continue to be minted in the United States in the near future, though rising costs of copper and zinc will increase the pressure on lawmakers to consider eliminating the penny.

The highest cost of production is metal expenses, according to the U.S. Mint's Annual Report. Congress addressed the issue of increasing costs of coins in Dec. 2010 with the passage of the Coin Modernization, Oversight, and Continuity Act of 2010.<sup>12</sup>

This act allows the Secretary of the Treasury to research and develop alternative materials for coins. An independent contractor hired by the U.S. Mint is conducting a series of studies about the costs of producing coins and is expected to recommend ways in which coin composition or production techniques can be changed to lower costs.<sup>13</sup>

Although it seems to make economic sense to eliminate the penny entirely, history has shown that Americans are devoted to the coin, both because of sentimental reasons and because they fear that small increases in prices as a result of eliminating the penny will eventually add up.

According to a March 2012 survey by Americans for Common Cents, more than two-thirds of Americans were in favor of keeping the penny in circulation. 77 percent of Americans polled believed that prices would rise as a result of the penny's elimination.<sup>14</sup>

However, recent studies have shown that these fears may be unfounded. After studying 20 stores and 185,714 transactions, Robert Whaples of Wake Forest University concluded that eliminating the penny would actually save consumers 1/20 of a cent on

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<sup>11</sup> Thorpe, Jacqueline. Bloomberg, "Canada kills its penny." Last modified March 29, 2012. Accessed December 19, 2012. <http://money.msn.com/personal-finance/latest.aspx?post=efb24bd5-b47f-4a32-abff-80901814837b>.

<sup>12</sup> United States Mint, "US Mint 2011 Annual Report." Last modified 2012. Accessed December 19, 2012. [http://www.usmint.gov/downloads/about/annual\\_report/2011AnnualReport.pdf](http://www.usmint.gov/downloads/about/annual_report/2011AnnualReport.pdf).

<sup>13</sup> United States Mint, "US Mint 2011 Annual Report." Last modified 2012. Accessed December 19, 2012. [http://www.usmint.gov/downloads/about/annual\\_report/2011AnnualReport.pdf](http://www.usmint.gov/downloads/about/annual_report/2011AnnualReport.pdf).

<sup>14</sup> Weller, Mark. Americans for Common Cents, "66% of Americans Favor Keeping the Penny." Last modified March 30, 2012. Accessed December 19, 2012. <http://www.pennies.org/index.php/penny-news/118-americans-for-common-cents-66-of-americans-favor-keeping-the-penny>.

every transaction, but that stores would only lose approximately 75.4 cents per day, making the overall effect of eliminating the penny negligible for both consumers and sellers.<sup>15</sup>

Despite data suggesting that the elimination of the penny will save government funds and impose no additional cost on consumers, bills to reduce use of the penny failed to advance beyond the House of Representatives in 2002 and 2006.<sup>16</sup>

The 2002 bill, proposed by Rep. Jim Kolbe of Arizona, was named the Legal Tender Modernization Act. Although the bill did not suggest that pennies should be completely eliminated, it recommended that prices be rounded up or down in order to make pennies unnecessary.<sup>17</sup> The bill did not make it to a floor vote.<sup>18</sup>

In 2006, Kolbe proposed a second bill, The Currency Overhaul for an Industrious Nation Act. This act also suggested rounding prices to the nearest nickel to make the penny useless, and died before reaching a floor vote.<sup>19</sup>

Although Congress has debated the purpose of the penny since the early 2000s, the U.S. government's struggle with high costs of producing pennies began long before. In 1982, the government decided that the penny should be composed of 97.5 percent zinc and 2.5 percent copper instead of 95 percent copper and 5 percent zinc because of the rising price of copper.<sup>20</sup>

Every penny since 1982 has been minted with the new composition, but as prices for copper and zinc continue to rise, it is now too expensive. The government needs to

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<sup>15</sup> Whaples, Robert. Eastern Economic Journal, "Time to Eliminate the Penny from the U.S. Coinage System: New Evidence." Last modified 2007. Accessed December 19, 2012. [http://college.holycross.edu/RePEc/eej/Archive/Volume33/V33N1P139\\_146.pdf](http://college.holycross.edu/RePEc/eej/Archive/Volume33/V33N1P139_146.pdf).

<sup>16</sup> O'Connell, Brian. San Diego Union-Tribune, "Penny Still Makes Sense to Most Americans." Last modified April 8, 2012. Accessed December 19, 2012. <http://www.utsandiego.com/news/2012/apr/08/tp-penny-still-makes-sense-to-most-americans/?print&page=all>.

<sup>17</sup> Lewis, Mark. Forbes, "Ban the Penny." Last modified July 5, 2012. Accessed December 19, 2012. <http://www.forbes.com/2002/07/05/0705penny.html>.

<sup>18</sup> Zappone, Christian. CNN Money, "Kill-the-penny Bill Introduced." Last modified July 18, 2006. Accessed December 19, 2012. <http://money.cnn.com/2006/07/18/news/penny/index.htm>.

<sup>19</sup> GovTrack.us, "H.R. 5818 (109th): Currency Overhaul for an Industrious Nation (COIN) Act." Accessed December 19, 2012. <http://www.govtrack.us/congress/bills/109/hr5818>.

<sup>20</sup> United States Mint, "The Composition of the Cent." Accessed December 19, 2012. [http://www.usmint.gov/about\\_the\\_mint/fun\\_facts/?action=fun\\_facts2](http://www.usmint.gov/about_the_mint/fun_facts/?action=fun_facts2).

find an alternative that will reduce the cost of production per penny to below the penny's face value. If this proves impossible, the penny may be gone forever.

## An Inquiry Into the Wealth of a Continent

By Jirapat Taechajongjintana

I once recalled my grandmother telling me her story of childhood yore; her eyes sparkled as she flashbaked to those moments of the “good old days”. “We lived differently then,” she said. “People went around on feet, the wealthy on horse-drawn carriages. Streets were just unpaved paths of rouge earth, with each and every piece of land on both sides littered with rice paddies and farms...” This was the land my grandmother once knew, a land barely touched by the onslaught of development. It was the place where people lived and traded without knowing what the invisible hand of capitalism was; where societies were structured by long-held traditions and social norms, ruled by divine monarchies, dominated by a strong faith in religion. Who would have believed that this was the continent called “Asia”, rewound back in time by a mere 70 years.

Asia has changed dramatically over the past decades, emerging itself from a distant terrain of the Far East into a prominent figurehead on the international stage (Gordon and Spicker, 1999). The rice paddies have been converted to high-rise buildings and apartments, the earthy roads now paved with concrete ground. The GDP of each nation skyrockets at a level as high as double-digit rates, and the people now receive better welfare and living conditions. If Asia were a man, it would be a young, attractive adult who is in pursuit for fame and success in his adulthood. This young man has a tenacious will, herculean strength, and great potential, but the path to that accomplishing adulthood will not be an easy one; instead, it will be an arduous path that lays defying impediments and obstacles, the ones which challenge Asia to get pass in order to achieve what it longs for. These impediments-the challenges of Asia-will define the fate of this young man in the next decade and beyond.

### **The Wealth that Isn't**

Asia's economy has been a speculative couple of rapid progress and unrestrained development. The continent may have faced the drastic financial crisis in the late 1990's, but we learned fast and revived our economy back to its pride and glory in just a few years. I still remember the time when I was delighted to see my father being somehow free enough to pick me up from school every afternoon, not knowing that he is actually laid off and the family was actually struggling through a hard time of financial crisis. Today, my father is a successful businessman, and the family now lives in a pretty content and well-off style than the last generation. It is this growing wealth and in turn increasing population that defines the post-crisis Asia. We have developed innate abhorrence against triggering yet another economic catastrophe, and our sheer fear from the TomYum Koong crisis has spared our economy from the dreadful consequences of the 2008 Hamburger Crisis that threatens to engulf the financial system of so many nations.

Still, Asia is not completely safe from danger. The growing wealth that nourishes Asia may well destroy it; the increasing population may crowd this continent may jeopardize it beyond resurrection. The expansion of Asia may have been dramatic, but a substantial part of it is based on a fragile establishment of ineffective administration, weakening societies, and unsustainable economy (Genugten and Bustillo, 2001). Should these problems be left untouched, Asia is sure to be imperiled by the following challenges:

### **The Black & White Wealth Gap**

Asia may have demonstrated an extraordinary growth rate achieved by a set of "dragon" economies, but poverty remains a foremost issue in this region (Oyen and et al, 2002). The average GDP of the Asia-Pacific region is 6.6% – the U.S. GDP grew at an annual rate of 3.8% (Wilson, Kanji and Braathen, 2001) and has succeed in reducing the proportion of people living in extreme poverty from half of the region's down to a quarter, but 979 million Asian are still living under the poverty line, representing 60% of the world's poorest.<sup>21</sup> The truth is, even when each nation is showing a beautifully skyrocketing GDP, the poverty gap is getting wider and wider. GDP represents "gross"

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<sup>21</sup>"Inequality in Asia, Key Indicators 2007, Highlights". Report by Asian Development Bank.

domestic production, thus it is not an accurate measurement on how poverty and inequality has improved over the years.

In the case of Asia, the phenomenal GDPs explain how the Asia's freer markets and capitalism have facilitated the rich to get richer while suppressing the poor to hard labors and petty income. The region's economy is prospering, but it is not the people living in extreme poverty who are benefiting from it. Even worse, the intense competition of the free market, the soaring oil price, the disappointing agricultural harvest in Southeast Asia, and the softening electronics market all play a part in traumatizing the poor in this region. All this has resulted in major and permanent demographical changes of which the consequences have yet to be fully played out (Williams, Kjonstad, and Robson, 2003).

The people in agricultural activities are abandoning their fields to work in factories, hoping for better welfare and steady income. The laborers in industrial production suffer from low income and extra-long-and-depressing working hours exacerbated by the very migration of workers to the urban areas and the rigors of a competitive world market (Reis and Moore, 2005). Unfortunately, this has triggered strikes, protests, and in many cases, suicides; as recently reported in the Honda, Toyota and Apple manufacturing facilities in Guangdong, China. These events are sad enough, but it is even sadder that our financial prosperity is founded on the suffering of these less fortunate individuals.

Through capitalism we have emerged into a significant player on the international market, but also through it has we let the poverty part our society be suppressed by capitalists just as big fishes eating smaller ones, while we blindfolded our perception of these problems with fancy numbers representing economic growth. But at present, we can no longer ignore the problems that are plaguing our economy. We cannot afford to take no notice of the vulnerability of the establishment that is supporting our fast-growing economy, nor can we look only at the attractive GDPs and disregard the ugly wealth gap that expose our economy. It is pivotal that we address these problems that are eroding the core of our economic and social structures, before it is too late to do so.

### **The Mismanaged Resource Allocation**

Besides the widening wealth gap, another severe challenge of Asia's growing economy is

the growing itself. In the many emerging industrializing countries of Asia, the rapid growth in capital and finance has been achieved predominantly through even more rapidly growing inputs of resources.<sup>22</sup> The nations that comprised Asia have transformed themselves from peasant societies into industrial powerhouse, in turns becoming both the greatest manufacturer and consumer of the world (Eversole, McNeish and Cimadamore, 2005). During the course of Asia's economic revolution, the chief strategy it used has been to embrace "quantity over quality". The plan worked well, making such Asian-Pacific nametag as "Chinese-made" the world's household application despite the questionable quality of their products. (recall the melanin-contaminated milk powder scandal that scares the be-Jesus out of every mother?) These mass-production methods that involved cheap labor, obsolete machineries, and the immense, yet inefficient, usage of mineral resources would have worked indefinitely if Asia possessed a limitless supply of natural resources and a labor supply that could easily be coerced forever to work in its sweatshops.

But in reality, when the drastic consequences of these careless mass-production started to become obvious, when forests are deforested and rivers contaminated, when the sub-quality of "Asian-made products" posed treats to everyone, when discussion on welfares and equality is becoming the heated topic of every factory workers, Asia is grimly realizing that it may well starve to death before it could instill sustainable wealth to the land and not only for the benefits of the privileged few.

The existing methods of mass-production have vaulted Asia's past its first hurdles, but it is running out of fuel to drive the continent into the prosperous incoming decade and beyond. To survive and be effective in the future, Asia's industries must reinvent itself. The region must change the way it thinks, produces, and distributes. Instead of prioritizing quantity over quality, it must do the vice-versa; instead of being just productive, it must be effective as well; instead of being economical in terms of manufacturing cost and labor, it must also be economical with efficient consumption of input resources and efficient output pollution control. With well-planned strategies and

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<sup>22</sup>Paul Krugman, "The Myth of Asia's Miracle" *Foreign Affairs*; Nov/Dec 1994; Vol.73, Iss. 6; p. 62, 17 pp.

tenacious efforts, Asia can reshape its industrialization and lay an incorruptible path towards economic advancement.

Thus, the biggest, and the most challenging challenge of all that Asia must resolve by the year 2020 can be formed into a single question:

**“Can Asia really continue to maintain the fast-paced economy of recent times without suffering any detriment in the quality of life of its people and making poverty condition worse?”**

This is the challenge that poses Asia in the next decade yet to come; of how it can balance its financial ambitions with morals and responsibility, to do what it must, not what it is capable of. Asia must rethink and rebuild the structure of its economy, starting with human resources. Each nation’s government must implement regulation that protects its people from the suppressing side of capitalist economy, while preparing the next-generation will knowledge and skills to increase their value as human labor. These proposals are sure to bring down Asia’s remarkable financial growth, but what it gets in return is a sustainable economic structure that is invaluable in the long run. This is the challenge Asia cannot fail to accomplish, for it concerns with the continual of our economy, in a sustainable way. Even if it means we have to rebuild our economic structure, brick by brick, we will have to do it.

#### **The Resolutions: What is then to be?**

The following ideas are sustainable and achievable ways as to how Asia can overcome some of its biggest Economical and Societal challenge of the coming decades, i.e., poverty, an extraordinary wealth gap, and an inefficient resource allocation process, to satisfy the physical needs of its population and to improve their quality of life; in other words, to bring “true wealth” to Asia.

#### **The Wondrous FTA**

Free Trade Agreements can be bi-lateral or multi-lateral in nature. How can Free Trade Agreements rescue Asia’s vulnerable economy? It doesn’t. The implementation of a FTA to the region will intensify competitions among its member Asian nations and, just like Charles Darwin’s’ theory of natural selection, the strongest, most competitive industries of each nation will survive while the less efficient will be erased from the board. Although “the strongest survive” approach might seem very un-egalitarian, it



actually does help in the long run. Many Asian economies have long been traumatized by these prevailing ineffective industries, which are not only unprofitable but also resources consuming. The FTA will mobilize and allocate resources to where they belong, where maximum productivity can be achieved at the most effective economies of scale. Moreover, the process of implementing FTAs will break down the tax barriers between nations, resulting in a better mobilization of resources in the region and give the citizens of Asia the access to cheaper products and commodities produced within its borders. However, the brilliant FTAs are not without flaws. Without a set of well-considered regulations married to a suitcase of fair procedures, the execution of any FTA may well be likened to a “firing squad” to the fragile economy of any uncompetitive yet poor and under-developed nation – like Bangladesh.

This was a lesson my country, Thailand, learnt the hard way. When Thailand signed an FTA agreement with China, a considerable part of our agricultural economy collapsed tragically. A bag of garlic from Thailand’s countryside costs 80 baht; the Chinese ones cost half of that. Even if one was a Thai Nationalist, it is a no-brainer which one you would buy from. Hence, FTAs are generally good, but they can never be perfect. Every time you implement a FTA with a group of countries, there will always be conflicts over the perceived loss of benefits, especially for the smaller, unproductive, and uncompetitive nations. The main objective of any FTA must be accepted by all participants as a tool to create a sustainable path towards economic prosperity, even if it means each nation has to sacrifice a little to gain more. Naturally, for certain nations like Myanmar and Cambodia, whose economies are likely to be adversely impacted and may be even jeopardized, should a FTA be instantaneously forced on them instead of a process of gradual implementation, then more harm than good would be the likely outcome.

In conclusion, FTAs are seen as an avenue whereby individual nations can pursue their own path and pace to achieving a higher quality of life for its citizens. Countries whose social and economical infrastructure are undeveloped, and hence feel vulnerable, may delay their progress in signing such Agreements whilst others who are more confident of their population’s ability to adapt may surge ahead in such contracts. This

inherent flexibility of FTAs enhances Asia's continuous growth and its efforts to eradicate poverty.

### **The Model of Lifelong Education**

Relief cheques, social compensation, and stimulus plan are great for tackling poverty and boosting economies, but they are only temporary advantages that are bound to disappear over time. So, what is the sustainable, ideal way to challenge poverty and uplift the economy in the long run?

The most promising way to do so is through education, specifically a “lifelong education”. Only it can solve the chronic problem of poverty and inequality, of ineffective and unproductive economy. Take the “Nordic Model”<sup>23</sup> as an accomplishing example. For years, economists around the world found themselves both impressed and inspired by the Nordic's (Iceland, Denmark, Faroe Islands, Finland, Sweden and Norway) superb combination of economic efficiency and growth with a peaceful labor market, a fair distribution of income and social cohesion. Their model is the benchmark, a source of inspiration for others in search for better social and economic system. Although the Nordic and the Southern Europe (Italy, Greece, Spain, etc.) both have social and economic structures that are considerably similar in many aspects, such as social welfare, ageing compensation, free(or cheap) medical service, but what makes the Nordic a great phenomenon while the Southern Europe economically annihilated by the financial crisis lies in one single subject-Education. True, both region gives free education to the juveniles, but the Nordic also have a compulsory “reeducation courses” for certain individuals, namely unemployed, laid-off workers. The Nordic governments will not let them live by for their unemployment relief cheques; instead, they let the unemployed workers choose from a variety of education courses, allowing them to start a new life in a new career, in turn increasing the overall productivity of the nation. Asian could also take after the Nordic's education model, retraining laid-off, working-class adults to give them another income opportunity to break free from poverty.

Still, Asian must not neglect the role of youth education. For the young children, quality, adequate, free, and relevant education must be compulsory and accessible to

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<sup>23</sup>*The Nordic Model* 2010, The Research Institute of the Finnish Economy (ETLA), Taloustieto Oy

every single youth. It is a good prospect that the Asians value education (Asia has three times the number of “tutoring Academies” than state-run schools and universities). However, much of these educations are limited, or over a “privileges” to the middle and upper classes. In order to eliminate poverty, it is consequential that the governments try at all cost to instill to seed of knowledge to every citizens’ mind, young or old.

### **The Prospect of an AU (Asian Union)**

Everybody knows what the European Union is, and what it is capable of doing. Now, what if Asia does the same, integrating each nation to create the Continental cooperation of an “Asian Union”. Such integration will surely strengthen the region’s economy, giving it grater bargaining power in trade and elevating its position in the International arena.

More significantly, a formal coalition of Asian nations may be the ultimate salvation to many of the continent’s prevailing challenges. Europe built its union from the scrap and ruins of World War II, and it is still an underwhelming accomplishment with new nations seeking membership and the recent near collapse of the financial systems of some of its members in the likes of Greece, Spain, Portugal and Ireland being a stark reminder of the possible perils.

Asia has far better prospects. Its society has not been destroyed by any war, nor has the economy been jeopardized in recent memory. Nevertheless, just as an economist once said, Asia is like a tiger that is “falling from the heights of Olympus to the plains of Thessaly.” Its economy needs to be addressed and reinforced urgently, and one of the most promising routes to sustainably do that is through the institution of an Asian Union. A joint cooperation on a continental scale will transform Asia from a “paper tiger” into a living, breathing animal; improving the region in terms of Economic ascendancy, as well as Social development, Cultural preservation, Educational proficiency and Political maturity. The region itself has many joint actions, such as the much-heralded ASEAN Free Trade Zone. What it needed now is a commitment from each and every nation to collaborate and contribute as a whole single massive nation.

Asia’s past economy has been driven by perspiration rather than inspiration; by wanton growth of inputs of labor and capital rather than by gains in efficiency. But with the establishment of Asian Union, we can change these anomalies. An Asian Union

allows for better mobilization of resources (e.g. mobility of labor), compliance of regulatory requirements for improved efficiency through greater transparency, etc. With the combined effort as a union, we can turn once peasant societies into the industrial powerhouses of the globe.

Should the dream of an integrated union comes true in the next decade, Asia in 2020 and beyond shall be a speculating set of development for the world. It will exhibit the ambitions that deserves acclamation, regional cooperation that should be replicated by all nations, and the rapid progresses in every aspect that other countries can only speculate in awe. It shall the Union that defines the era of globalization, of continual development to surpass all limitations and impediments that the world poses, of a continent that won't give up to its own challenges.

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# Price Gouging During Emergencies

By Nicholas Corona

In the wake of the Hurricane Sandy, it is important to analyze the economic principles at work as a part of the relief effort. According to the National Hurricane Center, Hurricane Sandy was the largest Atlantic hurricane, extending 1,000 miles in diameter and causing power outages in 17 states. Consequently, many of these states were suffered serious economic damage. IHS Global Insight estimates the somewhere between \$30 billion and \$50 billion dollars (~.3% of nominal GDP) in economics losses occurred as a result of the hurricane. Hurricane Sandy, lasting for nine days in late October last year, caused the local markets to experienced sharp demand and supply shocks through those nine days and several weeks after. Consumers were in desperate need of gasoline, electricity, and other relevant emergency equipment. However, because several banks, such as JP Morgan, which closed its banks in New York, New Jersey, and Connecticut, and Bank of America, which closed its banks in New York, people didn't have access to the liquid capital that was necessary when stores were out of power and trips to the ATM were too dangerous. As for suppliers, much of their infrastructure was either destroyed or put on hiatus for safety reasons. IHS estimates maintain that about \$15 billion in infrastructure damage were incurred at this time, matching the infrastructure damage caused by Hurricane Irene, the category 3 hurricane that occurred in August 2011. While active, the Hurricane Sandy put 70% of East Coast oil refineries on hold. The higher risk and costs associated with transportation led suppliers to choose to supply less. As a result, many of the elements needed for "price gouging" were present. Price gouging is the practice of selling goods, usually life-sustaining necessities, at a price higher than normally regarded as fair because some sort of national or local emergency increases consumers' willingness to pay far beyond the regular market-clearing price.

The majority of the states in the U.S, thirty-four to be exact, have laws to prevent price gouging. The earliest of states to take action was New York, which took action back in 1979. New Jersey has also taken action against several alleged price gougers who profited during Hurricane Sandy. Most U.S anti-gouging laws set a price ceiling on key

goods necessary for survival and tend to be only applicable during emergencies and disasters.

The price that anti-gouging laws dictate is lower than the market-clearing price which is relatively higher during natural disasters because of a decrease in supply and increase in demand. In a competitive free market, the market price is where the quantity supplied equals the quantity demanded; this is the market-clearing price. With price ceilings, such as those set by anti-price gouging laws, the government forces firms to sell goods at lower than the market-clearing price. This means that firms could sell the same exact quantity of goods at the regulated price, at a higher price that would yield higher profits. For the market, this means that there are now more people who demand the good than the aggregate quantity of that good that firms are willing to supply at that price.

Opponents of anti-price gouging laws argue that during Hurricane Sandy if there were no such regulation then the market could have achieved greater efficiency in several different ways. First, if firms were able to charge higher prices for a good like gasoline, then those who would be willing to pay the most for gasoline would be able to get gasoline and there would be nobody waiting multiple hours in lines for gasoline because the quantity supplied would equal the quantity demanded at that higher price. This scenario assumes, for simplicity, that firms raise the price of the good by exactly the corresponding increase in demand. In real-world scenarios the price will be a little bit above or below the point where quantity demanded equals the quantity supplied so there will almost always be a surplus or shortage. Empirical evidence does show that long lines for gasoline and other necessities tend to serve as a catalyst for social unrest and violence. There have been several reports of violence, some involving guns, in regions affected by Hurricane Sandy. However, in light of recent gun violence tragedies in Connecticut, Colorado, and Arizona, it is worth analyzing whether these gun incidents are the result of poor economic policy or gun control policy. Second, firms unaffected by the hurricane may have seen the potential profit from these short-term inflated prices exceeded the extra expenses of travelling out of their way to regions affected by Hurricane Sandy. In this way, while firms would have charged the higher price, the total supply would be greater than the supply absent anti-price gouging laws.

Certainly, while anti-price gouging laws inevitably create a discrepancy between the quantity demanded and the quantity supplied, as in the case of Hurricane Sandy, the shortage might have existed regardless of regulation. During natural disasters, there is simply less supply. Goods are destroyed, and so are production facilities. Therefore, shortages are unavoidable because there are fewer goods and the same number of people. Moreover, demand is likely to be increased for certain goods like generators and emergency supplies. In situations like this, the definition of willingness to pay becomes a little more opaque. Those affected by natural disasters have identical survival needs and derive similar utility from goods like gasoline and power-generators. Everybody was willing to pay, but not everybody had the ability to pay. Anti-price gouging laws, specifically those active only during crisis scenarios, aim to ameliorate this difference that allows those with more money to have an expedited route to goods that are needed universally and equally by everyone during a natural disaster.

Current price gouging laws in the United States tend to be vague to the point of impracticality. Some states define price gouging as “unconscionably excessive” increases in price. This kind of ambiguous terminology creates uncertainty for firms and undermines the effectiveness that regulators seek. If anti-price gouging legislation is going to be at all effective, it needs to be couched in more clear and perhaps quantifiable legal standards and rules.

Policymakers ought to evaluate both economic efficiency and social equity when dealing with market regulation for natural disasters and emergencies. Value judgments need to be made based on answers to vital questions such as whether the “just price” depends on labor and input costs of production or rather on the needs of a buyer, and whether this “just price” even has a place in a competitive free market that leans head first towards efficiency, so that we can deal with the fundamental problem of economics: a scarcity of resources.

# Demand for Online Education Increases in Economic Downturn

By Olivia Moore

While about 15,000 students call the Stanford campus home, hundreds of thousands of people in countries from Russia to Peru have enjoyed the benefits of Stanford courses through free online classes that are available to scholars across the globe.<sup>24</sup>

Upon completing an online course, which are designed by Stanford professors and offered on platforms like Coursera and Class2Go, students receive a statement of accomplishment signed by a professor. This statement of accomplishment “will not stand in the place of a course taken at Stanford or an accredited institution,” according to the Coursera website. However, this lack of official credit did not dissuade more than 350,000 people from enrolling in Stanford’s first three online courses in fall 2011.

Online course offerings have increased since the end of the pilot program, with five courses offered last spring and 16 this fall. Stanford isn’t the only university to offer free online courses, and the recent push to offer more classes has aligned Stanford with many other institutions such as Princeton University who have introduced online programs or have experienced increased demand for online courses.

A study by the Sloan Consortium reported that from fall 2007 to fall 2009, the number of postsecondary students taking at least one online class rose from about 3.9 million to over 5.5 million. The annual growth rate of online enrollment increased from 12.9 percent in 2007 to 21.1 percent in 2009. In fall 2009, almost 30 percent of all college students surveyed were enrolled in at least one online class.<sup>25</sup>

Some economists believe that the growth of enrollment in online education may have been spurred by the economic downturn. The impact of the economic downturn on

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<sup>24</sup> Beckett, Jamie. "Stanford to offer more free online classes | Engineering." Stanford School of Engineering | Engineering. Last modified March 6, 2012. Accessed December 19, 2012. <http://engineering.stanford.edu/news/stanford-offer-more-free-online-classes>.

<sup>25</sup> Consortium, Sloan. "Staying The Course - Online Education in the United States, 2008 | The Sloan Consortium." The Sloan Consortium | Individuals, Institutions and Organizations Committed to Quality Online Education. Last modified 2008. Accessed December 19, 2012. [http://sloanconsortium.org/publications/survey/staying\\_course](http://sloanconsortium.org/publications/survey/staying_course).



enrollment numbers was examined in the Sloan Consortium report, which stated that higher fuel costs motivate many students to take online courses instead of driving to college. In addition, higher unemployment rates can lead working adults to enroll in online classes as well to acquire the skills needed to make themselves more valuable to their employer.

It may seem as if demand for postsecondary education, which can be very expensive, would decrease in difficult financial times—one quarter of undergraduate tuition at Stanford costs \$13,750. However, another Sloan Consortium study released in 2010 disproved this, stating that “bad economic times can be good for higher education enrollments.”<sup>26</sup>

The study explained that during an economic downturn, the reduced number of appealing jobs incentivizes people to consider getting more education instead. Those who are employed also have an increased desire to “improve their chances for advancement,” and may attempt to do this through attaining a higher level of education.

Almost half of the institutions surveyed by the Sloan Consortium said that demand for face-to-face courses increased as a result of the economic downturn, and 75 percent of institutions said that demand for online courses increased because of the downturn.

A New York Times article published in July 2012, titled “Open Education for a Global Economy,” discussed how many people are turning to online education for its “convenience and affordability” in comparison to the more traditional college education, especially as particularly devastating unemployment in certain industries has forced employees to learn new skills in order to retrain themselves for another job.<sup>27</sup>

An article published on [campusexplorer.com](http://campusexplorer.com) echoed this sentiment, describing the increasing number of students earning degrees from their homes with a laptop as their

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<sup>26</sup> Consortium, Sloan. "Class Differences: Online Education in the United States, 2010 | The Sloan Consortium." The Sloan Consortium | Individuals, Institutions and Organizations Committed to Quality Online Education. Last modified 2010. Accessed December 19, 2012. [http://sloanconsortium.org/publications/survey/class\\_differences](http://sloanconsortium.org/publications/survey/class_differences).

<sup>27</sup> Bornstein, David. "Open Education for a Global Economy - NYTimes.com." Opinion - Opinionator - NYTimes.com. Last modified July 11, 2012. Accessed December 19, 2012. <http://opinionator.blogs.nytimes.com/2012/07/11/open-education-for-a-global-economy/>.

<sup>5</sup> "How Online Education Offers a Valuable Solution in a Down Economy." College Search and Planning Guide - Campus Explorer. Accessed December 19, 2012. <http://www.campusexplorer.com/college-advice-tips/AC2A3731/How-Online-Education-Offers-a-Valuable-Solution-in-a-Down-Economy/>.

primary instructional tool.<sup>28</sup> These students do not have to pay room and board or meal plan fees like residential students, and often find it easier to work with the more flexible schedule that online classes provide.

Whether or not the growth in online education will remain steady as the economy continues to recover is yet to be seen. According to the 2010 Sloan Consortium report, even if better economic conditions make online education less necessary for some, demand for online education may still rise if other attractive aspects continue to draw students.

## **The UK's Decision to Phase-Out Aid to India: Progressive or naïve?**

By Anne Evered

On November 8 of this year, the United Kingdom announced that it will be phasing out £200m (\$319m) worth of aid to India between now and 2015. Justine Greening, the UK's international development secretary, gave the official statement. Greening, who visited India the week of the announcement, said the decision reflects the country's growing economy and progress. "The growing two-way trade and investment between our two countries means that our development partnership should increasingly be about trade not aid," Ms. Greening commented.

The controversial decision has been simultaneously praised as forward-thinking and criticized for being hasty.

The decision will likely be popular with Tory members of parliament, as well as members of the Conservative Party who have pressed for cuts in aid spending by the U.K., as the country struggles with its own large deficit. India is increasingly being seen as capable of providing the funds for its development programs on its own.

Many charity organizations, however, such as Oxfam and Save the Children, are hesitant to praise the decision to cut foreign aid to India, fearing that while India is

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making progress both economically and socially, there is still huge inequality of wealth. These charities warn that the UK's decision will hurt the poorest families in India, where one-third of the world's poorest live. They suggest that, at the very least, after 2015 the UK should support Indian NGOS in battling infant mortality and work towards improving health standards in the country. Some have suggested that aid to India, rather than being cut, should be better directed towards the specific challenges India currently faces, such as the large inequality between social classes.

The aid relationship between India and the UK reflects the deep historical ties between the two countries. The UK has provided aid to India for fifty years and the country currently receives £280 million (\$448 million), most of which goes to education and health programs, such as the funds to provide bed nets to stop the spread of malaria. In 2011-2012, India was the second greatest recipient of aid from the UK, just behind Ethiopia. In the two years before that, India had been the top recipient.

Keith Vaz, Labor member of parliament and former chair of the Indian-British parliamentary group, said the government had to make sure that the Indian government still felt that the bilateral relationship remained important to the UK.

India's Foreign Minister Salman Khurshid issued a statement indicating that the Indian government agrees that the aid relationship with the U.K. is in need of a change. "Aid is the past and trade is the future, so we are looking to the future," Mr. Khurshid said after meeting with the British foreign minister, William Hague.

After 2015, UK will still provide assistance to India, but in the form of technical assistance rather than direct aid. The new program, only costing about £30 million a year, will focus on areas such as trade, skill and private sector investment. The UK estimates that because of this decision, the country will eventually be paying about one-tenth the current amount to India.

The UK will keep its commitment to spend 0.7% of its GDP on aid. Overall aid spending by UK will not go down, but will be redirected to other countries determined to be more in need. This decision to phase-out aid to India is not the first of its kind. Indeed, in 2010 the UK stopped providing financial aid to China, Brazil and Russia.

Giving his opinion on how the UK's decision will affect India's development, Stanford Professor Saumitra Jha emphasized the importance of the long history between

the two countries: “it is good to remember that the UK and India of course have a long history together, and I doubt that turning off the aid spigot for a while will have that much effect on their relations.”

Professor Jha is an assistant professor of political economy in Stanford’s Graduate School of Business with research interests in development economics and the political economy of South Asia.

He commented that the UK’s decision in some ways was unsurprising: that “if the UK wants to buy influence with its aid, it is unlikely to get as much for each pound in India as it may in other countries.” However, Professor Jha also stressed that South Asia, particularly India, provides many opportunities for the UK government to reduce poverty, if that is its objective.

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## **Honors Thesis: The Veil of Communism: An Analysis of Lifespan, GDP per Capita, Human Capital, and Agricultural Productivity in Eastern Europe**

By Matei Dăian

*Editor’s Note: Due to the length of Honors Theses, we only publish the Abstract, Introduction, and Conclusion. The full thesis can be read here:*

<http://economics.stanford.edu/files/MateiDaianHonorsThesis-2012.pdf>

## **Abstract**

There is a clear economic difference between the more economically-developed Western Europe and their poorer counterparts in Eastern Europe and central Asia. But what caused this economic divergence? How big of a role did communism play? If communism is responsible, through what economic mechanisms did it manage to hinder growth? This paper will look at GDP/capita, growth in GDP/capita, human capital, labor to land ratio, ratio of unskilled to skilled workers, growth in lifespan, average expenditure per student and variations in these outcomes in order to determine a more specific impact of communism. This paper finds not only that communism had a huge negative impact on growth, but that even though communism was completely gone from Europe by 1991; it still impacts the growth of former communist countries. Moreover, there seem to be 2 blocks of countries within the communist bloc: non-Soviet Central and Eastern Europe and Soviet Eastern Europe and Central Asia and these two regions behave very differently.

## **Introduction**

In Romania there appeared some articles in the newspapers which presented theories according to which the true reason for which Romania's economy is not at Western European standards is not solely communism. According to those newspapers there is a deeper reason and that would be that there is something innately wrong with the Romanian economy, and that would be more difficult to change. How big was the effect of communism on the economies of Eastern European countries that were forced into the communist regime?

What is the impact of communism on development in these countries today? What are the exact mechanisms that affect development? These are the type of questions that this paper will attempt to answer. It was believed that there was going to be a smooth transition to democracy after the fall of communism, however, even today, after more than 20 years, the effects of communism can still be seen and there still is a large economic difference between Western and Eastern former communist Europe. Is the current economic difference between the Western world and Eastern Europe caused solely by communism, or is there a different reason for this economic difference? The most difficult part of this paper is that we do not know what would have happened to the

economies of these Eastern European economies in the absence of communism. The Soviet Union and Eastern Europe were part of an economic system that was isolated from the rest of the world. Therefore, all the trade was done within the closed communist system. The economy was not allowed to evolve naturally following the demands of the market, but was centrally planned at Moscow for the entire communist regime.

From the existing literature analyzing growth, the main growth determinants seem to be the following factors: initial level of GDP/capita, human capital, labor to land ratio, trade openness, foreign direct investments, and taxation rates. Communism, as a political system, directly regulated the above mentioned factors, thus indirectly affecting growth in communist countries. Since money is not the only measure of a country's welfare, this paper also looks at changes in longevity during and after communism in order to gain a broader perspective of the larger effects of communism on life.

Some of the statements that will be made throughout this paper will be not be backed by statistical significance because of the small dataset. This thesis contains both quantitative and qualitative data. I am drawing evidence from related things without looking into the data myself. Democratic Europe grew more than communist Europe during the communist regime. Within communist Europe, at the end of communism, former Soviet Europe had higher absolute levels of income than non-Soviet former communist Europe. However, after the fall of communism, non-Soviet former communist Europe had a positive growth rate, as opposed to former Soviet Europe, which had a negative growth rate. These effects, especially the latter one, were so dramatic that former communist non-Soviet Europe clearly surpassed the income levels reported in the former Soviet Union within the first decade after the fall of communism.

The amount of foreign direct investment a country received does not seem to have had any significant impact on GDP evolution, longevity, or spending on education. The fact that a country was not a part of the Soviet Union, the fact that a country was democratic during the communist regime, and exports all seems to be positively correlated with growth, both during and after communism. Imports and taxes seem to have a negative effect on growth.

In terms of longevity, not having been part of the Soviet Union seems to have a positive effect on increase in lifespan. Exports and taxes seem to have a negative effect

on lifespan. Imports have had a positive effect on lifespan, except for women after communism, when they had a negative effect. Being democratic during the time of the communist regime had a positive effect on lifespan during communism, but not after. After the fall of communism, countries that were part of the non-Soviet communist bloc tended to spend a larger portion of their GDP on education. Countries that relied more on imports tended to invest more in education, whereas exports and taxes had a negative effect on education spending.

### **Conclusion**

After the fall of the communist system, it may have been easier for a country like Czechoslovakia to transition to the market economy considering the preexisting industrial infrastructure, compared to a country like Bulgaria which had almost no industrial infrastructure and was producing agricultural goods at inefficiently high costs, mainly because of the lack of modern mechanized equipment. I conclude that communism had a large overall negative effect on Eastern Europe and that even now, more than 20 years after its fall, Eastern Europe is still fighting against the inertial self-projecting ghost of communism.

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My findings raise a few questions that future work should address. The first question would be why doesn't foreign direct investment have any significant impact on any economic indicators? The second question would be why do imports have a negative effect on economic growth? What is the meaning behind the negative relationship between exports and longevity? What is the meaning behind the negative relationship between imports after communism and women's longevity? Why does non-Soviet Eastern Europe spend more on education as a percentage of GDP than former Soviet countries? What is the meaning behind the positive relationship between imports and education spending? Similarly, what is the meaning behind the negative relationship between exports and education spending? How about the negative relationship between taxes and education spending? These questions are meant to show that even though this paper has identified some interesting results, much work is still left to be done in order to identify the complete magnitude of the economic effects of communism.

## **Rise of Political Extremism Following the Eurozone Economic Crisis**

By Rehan Adamjee

The European economic crisis has become the center of much of the economic discourse that is taking place around the world. Unemployment rates of over 25 % in Greece, unstable bond markets in Ireland and Spain, and exploding levels of government debt across Europe have exposed both the fragility of the Eurozone as well as raised questions about its future. What many people don't know however are the greater ramifications of this crisis on the political stability of Europe as well as the threats to its



democracy. Crises such as these often provide the perfect breeding ground for extreme, undemocratic ideologies to flourish. What do I mean by this?

In Greece for example, individuals have had to endure enormous cuts to social security, education, health care and pensions. 150,000 public sector jobs will be slashed by 2015, 80 billion dollars of public sector assets have been sold to the private sector, and half of its young people are out of work. This has increased the level of frustration among the people and thousands are regularly engaged in violent protests on the streets of Athens to protest austerity measures that the Greek government is being forced to make. While the economic ramifications of this are huge, there is an even greater worry- the loss in faith in democratic institutions. This was evident in the outcome of the recent elections in which the Neo-Nazi party the 'Golden Dawn' gained 21 seats in parliament- far more than it has ever gained. 'Golden Dawn' is widely acknowledged to be both xenophobic and nationalist and operates primarily on an anti-immigrant agenda. It has also praised Nazism and used Nazi symbolism. The point is, that a party like this has only gained preeminence in the wake of the economic crisis. While claiming that such a party will gain the majority of the popular vote in the near future is a long shot, historical precedents give us reason to believe that such an outcome is not improbable. The Nazi party for instance gained preeminence in the wake of the hyperinflation that followed after World War 1. Long breadlines, scarcity of jobs, and high inflation frustrated many ordinary Germans who proved more willing to accept radical ideologies to get them out of the mess they were in. We can make a parallel with the current Greek economy that is predicted to shrink by 4.7% this year, and thus need to take seriously the threat of parties such as the "Golden Dawn" gaining yet greater preeminence.

The road forward for countries like Greece is not an easy one. Austerity measures by and large have failed and ordinary Greeks have to make greater sacrifices than ever before. One can only hope that the Greek leaders and the Eurozone leaders make some gains in curbing the debt and eventually restore some economic growth. The cost of failure is the potential rise of ideologies that would certainly cause major instability in Greece, harm democracy, and correspondingly send ripples across the Eurozone.

# Ending Drug Company Price Discrimination in the U.S

By KC Moss

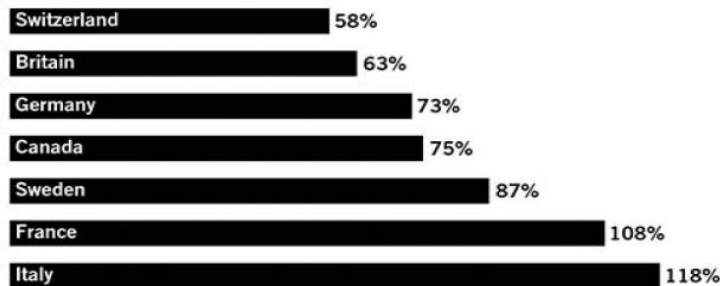
To make affordable health coverage a reality for more Americans, the government has a responsibility to ensure that drug costs reflect a competitive market. Currently, many drug companies price discriminate, charging higher prices in the U.S. for the same drug sold for less in other countries. A fair and effective change in health coverage would be to forbid this price discrimination, which would ultimately increase access to affordable, comprehensive healthcare. In evaluating the positive effects of this change, one must look to its impact on the three areas of greatest concern in the healthcare industry:

## *Rapidly Increasing Cost of Care*

Experts agree that a requirement for reducing healthcare costs is the need for accurate information regarding the effectiveness and corresponding costs of drugs. This qualification is often not met due to the price discrimination by drug companies, leading to higher drug prices in the United States than in other countries.

### Americans pay premium prices

Prices for patented drugs in the United States exceed those in other countries by the following percentages:



Source: Health Reform Program calculations from Patented Medicine Prices Review Board reports ("Trends in Drug Prices and Expenditures" tables)

*The Chronicle*

Data from a study conducted by Boston University's School of Public Health (shown above) shows how much higher prices are in the U.S. compared to other developed countries. On average, Americans pay 81% more for a given drug than other western European countries. These inflated prices prevent healthcare professionals from accurately equating the cost of a drug and its effectiveness. The link between cost and effectiveness is an important part of the "health information superhighway," as discussed in Obama's recovery plan, which includes a database measuring the "pay-for-performance" (P4P) of different drugs. If instituted, the database could help physicians make more cost-effective decisions, drive down premium costs and stall the rapidly increasing cost of healthcare.

### *Discrepancies in Quality of Care*

Equitable and accurate drug costs as a result of the discontinuation of price discrimination also have major benefits in reducing lapses in quality of care. If physicians know the true cost effectiveness, they can make more accurately informed decisions not affected by price discrepancies of drugs in the global healthcare market. These well-informed decisions will reduce

medical waste, meaning more medical treatments are higher in quality and potential benefit to the patient.

### *The Number of Uninsured*

Citizens without any health coverage are categorized as either unable to afford care, or unwilling to pay for it. The former is typically comprised of low-income households, while the latter is usually people in their twenties who are no longer a part of their parents' plan. Improvements in both quality and cost of care resulting from more competitive and equitable coverage costs can reduce the number of uninsured. Specifically, those who were financially unable to have healthcare will have new coverage options due to lower costs, and those who felt that the financial investment did not guarantee quality of care will observe a reduction in medical waste as a result of more consistent global drug prices.

With any policy change, improvements must be coupled with the possibility for losses. In this instance, those costs may be economic, as well as relating to medical innovations put forth by drug companies.

### *Reduction in drug research/development of medical technologies*

If drug prices are more closely monitored and kept constant across a global market, drug company revenue from sales in the United States will decrease. This change is substantial considering that not only does the U.S. currently pay more for the same drugs, but it also is one of the biggest consumers in the global healthcare market. The U.S. has the fourth highest per capita consumption of pharmaceuticals, and the demand for "new drugs" (on market for less than five years, and usually more expensive) outweighs any

other country. These high expenditures in the American healthcare market result in high profits for drug companies, which if reduced, could have a significant impact on their medical research and development.

### *Effect on Global Healthcare Market*

To offset the lower prices drug companies will charge in the U.S., medical costs could rise in other countries. These increases will impact the global healthcare market, which in the long term may be reflected in overall healthcare coverage costs in the United States.

Ultimately, the elimination of price discrimination by drug companies could stall the ever-increasing cost of care, reduce inconsistencies in quality of care and limit the number of uninsured Americans. These positive changes, however, must be coupled with the possibility of a decline in drug company research, and the likelihood of a rise in international healthcare costs. With an issue as impactful as healthcare, policy makers ought to consider both outcomes carefully, but act aggressively to ensure that Americans have access to affordable coverage in a fair, competitive market.

Source for Table A:

Colliver, Veronica. "U.S. Drug Prices 81% Higher than in 7 Western Nations / Study of Name Brands Shows Steep Rise in Differential since 2000." *SFGate*. 29 Oct. 2004. Web. 28 Oct. 2012.

# **Interesting in economics?**

## **Writing? Editing?**

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