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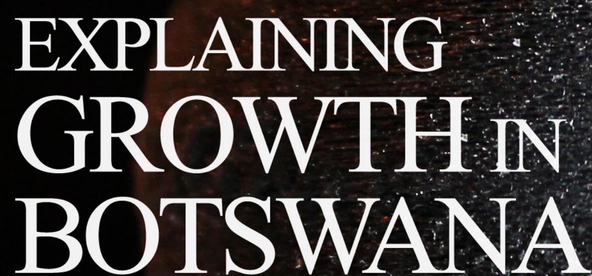
lent 2014 edition

RATIONALE

in a world without reason, turn to economics

WILL BITCOIN LAST?



INSURANCE IN EMERGING MARKETS

WITH A SPECIAL FEATURE ON SOCIAL WELFARE

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Cover design by **Rui You Ho.**
Cover photo by **Marius Gundersen** (mariusgundersen.net).

MESSAGE FROM THE EDITOR

Since our Michaelmas Term issue was published back in December, unemployment benefits in America have expired, GDP growth has returned to Spain (albeit just barely), the Argentine peso experienced its largest fall since Argentina's financial crisis twelve years earlier, and the Bank of England revised its policy of forward guidance only six months after it was first announced. News moves fast in the world of economics, and the writers at Rationale are keen to cover it.

As reflected by our cover design – and may I just say that this is one of the sleekest cover designs we have ever had – Bitcoin is the economics story of 2014. Its fluctuating value and elusive origins are certainly adding to the mystery and confusion surrounding it, and governments have begun to respond by regulating Bitcoin exchanges. Everyone wants to know: what is Bitcoin and will it last? We looked at the first question in the last issue, and two of our contributors, Alex Christensen and Yi-Hua Lu, give their different takes on the latter question today.

Bitcoin can be used and transferred anywhere in the world, transcending national borders. Yet, it has not and will not diminish the importance of the specific national context to a country's economic situation. Aris Moro explains the political and economic turmoil behind the protests sweeping Italy, while the world of Chinese shadow banking is illuminated by Editor Honglin Jiang. While much of the world's media focusses on how various countries have faltered, Yann Koby elucidates the factors behind Botswana's sustained growth and, more generally, why progress differs between countries. Three of our editors also present short economic projections on the United Kingdom, Australia, and Ukraine.

Cultural and social frameworks also matter, and for that reason, we present a section on 'alternative economics' – alternative to us here in London, perhaps, but the prevailing standard in other eras or places. Santiago Fernandez-Sordo contrasts the economic behaviour and decision-making process of pre- and post-capitalistic societies, wondering whether there really was the marked difference that some economic historians have claimed. Microinsurance and Islamic takaful insurance are two growing markets directed at the poor and the Islamic world, respectively; Natalie Burford explains the hurdles to their growth and impact. In and out of fashion over the past century, the theories and policies of British economist John Maynard Keynes are discussed in an article of Louis Ariss's, reprinted from the Michaelmas Term edition.

Macroeconomics and financial markets not your thing? Don't fret, for we have three pieces applying microeconomics to shed light on society. Tan Xin Xuan asks whether it does economic good to donate a pair of worn-out but still wearable old clothes to charity in Africa, and Benjamin Aw discusses a sector particularly pertinent to this magazine: the rapidly-changing journalism industry. Meanwhile, I (and I am at a loss as to how to non-conceitedly plug my own article) explore the complexities behind the relationship between health care research and health care delivery.

The articles contained in this magazine, and indeed economics as a discipline, are only relevant insofar as they affect the 'real economy', or the goods and services that you consume. To that end, we present a special feature on social welfare or society's overall satisfaction. After an illustrative introduction to the social welfare function by Michael Famoroti, Michael Plant and Navid Sabet respond very differently to the question: "does maximising a social welfare function achieve an attractive notion of equity?" Read and judge for yourself.

So thank you, dear readers, for sticking with us and our commentary throughout the Michaelmas and Lent Terms this year. We'll be back seven months from now with another look at both long-standing theories and recent developments. Feel free to let the writers and the magazine know your thoughts. And, I highly encourage you, if you're still around the LSE next year, to consider contributing to Rationale. It's been a pleasure for all of us producing this magazine, and now, expositorally yours,

Jeffrey Mo
Editor-in-Chief, Lent Term 2014

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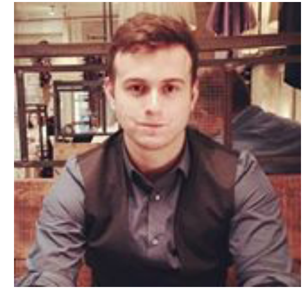

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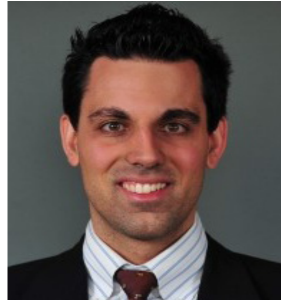

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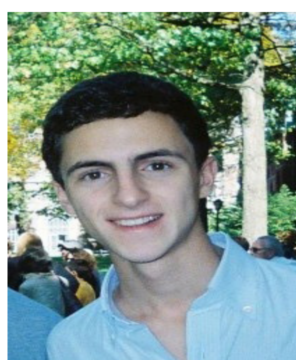

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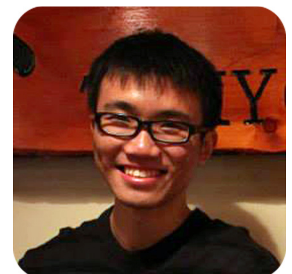

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WHO SAYS WHAT MATTERS? THE HIDDEN ASSUMPTIONS IN ECONOMIC POLICY-MAKING

BY MICHAEL FAMOROTI

It is the spring of 2014 and there is a downturn in the economy. After an aggressive bout of fiscal stimulus, the government of Welfaremania turns to the tool of monetary policy. The Central Bank decides to slash base interest rates from 3% to an unprecedented 0.5%. Chaos quickly ensues! Economics students at the LSE pore over the financial pages at the Bean Counter, the Chancellor looks suitably grim-faced on TV, and Richard in Stockport quietly congratulates himself for recently switching to a floating-rate mortgage. In the midst of all the commotion, a bored and weary soul ponders the question: To what extent does welfare economics provide a justification for a policy intervention such as this? Or, to put it another way, are there any value judgments being made by policy-makers that go beyond the prescriptions of economic theory?

The true nature of the philosophical question here cannot be properly seen without an exposition of the economic effects of the policy. A cut in interest rates, ceteris paribus, implies that the cost of borrowing should fall. The government hopes that by making it easier to borrow, it will ease households' and firms' budget constraints and thereby stimulate greater aggregate demand. Seen another way, the returns to saving would fall. This policy has thus effectively redistributed wealth from savers to borrowers.

This is not an evaluation of the merit of borrowers relative to that of savers, nor is it an attack on monetary policy. However, most policies have indirect redistributional effects that tend to get lost within the rhetoric of policymakers. This article is an examination of these implicit assumptions and the conditions under which they may be justified. What does welfare economics tell us about the legitimacy of such policies?

Economists use the concept of utility to capture individual's welfare. A way to represent one's experienced satisfaction, utility is ordinal: it is a personal measure of the relative ranking of goods/states. The alternative is cardinal utility, which gives a quantitative value for the desirability of goods/states. This distinction is significant because although ordinal utility gives us the preference ordering of an individual, it says nothing about the extent to which one state is preferred to another, nor does it provide information about how to compare this ranking with that of another individual. With ordinal utility, we simply have a list of states ranked from worst to best for each individual. The use of ordinal utility underpins most of welfare economics.

Economists opt for ordinal utility because it is limit of what can be inferred purely by an individual's choices without having to make further value judgements. However, if we have no way of comparing the ordinal rankings of two individuals' preferences, then we have no way of comparing their utilities! We may know that James prefers apples to oranges and that John prefers beans to potatoes, but using ordinal utility, we are unable to make any claim concerning their relative positions in any state of the world, i.e., who is happier when James has a certain bundle of apples and John has a different bundle of beans. This problem is known as the interpersonal incomparability of utility. Notice that this problem does not exist under the cardinal utility paradigm as a quantitative scale, measured in units known as utils, can be defined. For example, if James receives 5 utils from a basket of apples and John receives 3 utils from a can of beans, we know that James enjoys those apples more than John enjoys those beans. However, despite the advantages of cardinal utility for comparability, it has numerous empirical and philosophical hurdles (outside the scope of this article) that mean it has been consigned to only a handful of fields within economics for the best part of the last century. Nevertheless, we will see that some cardinal measure of utility is the only feasible way to solve the interpersonal incomparability problem.

The problem for policymakers is that if you are fundamentally unable to quantitatively compare the utilities of two individuals, how do you then compare savers to borrowers and going further, how do you assess the effect of any policy that takes from one and gives to the other? It becomes impossible to aggregate individual utilities in any meaningful way. Economic theory tells us the mechanical effects of an interest rate cut (e.g. redistribution from savers to borrowers) but nothing in economic theory tells

us what these effects mean for total societal welfare. Moreover, any claims made by policymakers suggesting positive effects of the policy on welfare within the country have no economic basis. As we have no meaningful way of aggregating people's welfare, any change in the particular aggregate measure being used is likewise of limited value. For example, one could argue that a policy is good if it increases aggregate demand within the economy -- after all, more is better, isn't it? But this misses the point entirely. The economic pie may be larger now but its distribution has also changed. Some people may be better off while others are worse off, and we have no way of making comparisons in order to ascertain any "net effect". Therefore, given interpersonal incomparability of utilities, we are unable to appeal to economic theory alone in suggesting that the post-policy state is better that the pre-policy state.

Needless to say, economic policymaking has continued unabated despite this criticism. Some have tried to justify their benefits through the Kaldor-Hicks (KH) efficiency. A policy is a Kaldor-Hicks improvement if after it is implemented, those who benefit could potentially compensate the losers to ensure that everyone is better off as a result. Oftentimes, this simply depends on whether the net economic benefits of the policy are positive -- in other words, KH improvements are potentially, after reallocation of resources, Pareto improvements, where no one is made worse off and at least one person is made better off. Economists use this as a way out of the interpersonal incomparability dilemma because if everyone is potentially better off, then, we have no need to compare or aggregate any utilities and we can go ahead with the policy without making any tradeoffs.

Does this work? Clearly not. Firstly, compensation in the Kaldor-Hicks vein is entirely hypothetical. Most people would reject the idea that a dictatorship is fair because the despot could potentially create a democratic environment. Hypothetical compensation would be insufficient. Actual compensation faces practical issues: how does one actually redistribute? Furthermore, proponents of the Kaldor-Hicks efficiency criterion provide, broadly, two other justifications of KH efficiency:

- Over time, a succession of KH-improving policies are likely to make everyone better off, or in other words, lead to an actual, not simply potential, Pareto improvement. But why should this be true? There is no guarantee that constantly increasing the economic pie would make everyone better off in the long run. Dynamic models of the economy tend to exhibit a "Matthew effect" of accumulated advantage, where the rich get richer and the poor get poorer. Moreover, even the most ardent fan of the technological age, after considering sweatshop workers in Bangladesh living well the poverty line, would not argue that it has made life better for everyone.
- KH-improving policies could be implemented by first increasing aggregate utility, then afterwards dealing with any distributional implications, or in other words, following the "maximise then redistribute" approach. Unfortunately, the problem of interpersonal incomparability with ordinal utility means that we must rationalise different utility scales before we can maximise aggregate utility. As this will involve judgments on distribution, issues of distribution cannot be separated from those of efficiency.

There's an anti-climactic sense to the fact that appealing to KH efficiency fails to deliver us from the trappings of ordinal utility. Yet, the supposedly more objective KH efficiency still forms the basis of most of normative economics. Cost-benefit analyses and arguments about externalities and monopoly power are built on this economic conception of efficiency. Furthermore, in their attempt to use KH efficiency to avoid the problem of interpersonal incomparability, economists and policy makers are implicitly making extra value judgements regarding the nature of people's welfare. On its own, without moral judgments,

welfare economics does not provide justification for policy intervention.

This final point is worth explaining carefully. Earlier, we argued that an interest rate cut that redistributes from savers to borrowers cannot be justified if ordinal utility is used. . Therefore, in order for policy-makers to do support such a cut, they need to make additional assumptions beyond what is prescribed by welfare economics. Moreover, the implicit assumption made by economists is loosely utilitarian: it that the welfare of different individuals can be assigned certain weights and given a common scale. The assumption need not be that welfare across individuals is considered equal and of an identical nature but is rather a de facto stance that despite ordinal utility, we can indeed compare and aggregate different individuals. What this does, in effect, is cardinalise people's utility. Thus in justifying economic policy, economists can no longer sit entirely within the ordinal utility framework and can no longer avoid making the value judgements that made cardinal utility so unattractive in the first place.

The suggestion that a government is roughly utilitarian in its economic reasoning is unlikely to distress many, but the crucial point is that nothing in economic theory alone advocates for this. Utilitarianism is an entirely moral or political position. When the government announces an interest rate cut, it has made a value judgement about the relative interests of different people within the economy: it is saying that it is worth sacrificing savers for the greater good at this point in time. Positive welfare economics cannot be used alone to defend this policy and any central bank that acts in this way must be appealing to additional moral or social norms. Quite simply, economic theory alone is insufficient for policy and economics can never relieve us of the obligation to make moral judgements.

THE UTILITARIAN SOCIAL WELFARE FUNCTION: TWO PERSPECTIVES

How can we best distribute wealth among individuals in a society? In answering this question, we often face a tradeoff between equity and efficiency. We could try to raise the total consumption among members of society but, in doing so, we might make some individuals very wealthy while leaving some people very poor. On the other hand, we could try to share the wealth more evenly, but that could reduce incentives to work, efficiency in the economy, and therefore 'the size of the [economic] pie.'

One method (among many) to measure total welfare in society is through the utilitarian social welfare function, which adds together the utilities (individual measures of satisfaction) experienced by all individuals. Does maximising the utilitarian social welfare function (SWF) – that is, maximising efficiency via this rubric – also provide an attractive notion of equity? Below, two authors argue their opposing views.

These articles were originally submitted as coursework for PH413, Philosophy of Economics. These articles have been condensed from their original version for journalistic reasons.

NAVID SABET

A key feature of the utilitarian SWF is that it is not indifferent to the distribution of wealth, but to the distribution of utility. As noted by economist Amartya Sen, "the utilitarian objective is to maximize the sum-total of utility irrespective of distribution". It does this by transferring wealth from those who have lower marginal utility of wealth – presumably, the rich – to those with higher marginal utility of wealth – presumably, the poor. The marginal utility is the additional utility gained from each additional unit of wealth, so by the method just mentioned, the wealth transferred to the poorer person makes more of an improvement to their utility than the loss taken by the richer person.

By using the utilitarian SWF, society is implicitly indifferent between one util (or unit of utility) assigned to a rich person or to a poor person. Thus, while the utilitarian SWF may produce unequal effects, it claims to be motivated by a concern for equality – indeed, the members of a society are assigned equal weights in its calculation.

This leads to perhaps the most obvious of the reasons for why the utilitarian SWF is unsatisfactory: it is insensitive to utility distribu-

tion. Accordingly, as Sen expounds, "even the minutest gain in total utility sum would be taken to outweigh distributional inequalities of the most blatant kind." The utilitarian SWF can justify imposing large costs on some so long as they are outweighed by the benefits to others. Suppose, for example, that in a certain society of 1000 individuals, the utility gains obtained by enslaving the poorest ten members would outweigh, either by orders of magnitude or by the slightest of margins, the utility losses sustained by the enslaved ten. Then, if we were trying to maximise the utilitarian SWF, we would find it socially beneficial to enslave the ten to make society better off overall. Though this example may be far-fetched, it illustrates that, by disregarding the distribution of utility, the utilitarian SWF can in fact worsen social inequalities. Aside from being "grossly immoral," it is difficult to see how the utilitarian function could provide society with viable notions of equity when it considers the violation of equality as a possible means of achieving greater social welfare.

A second critique arises from the fact that individuals have different utility functions, which implies that different people obtain different amounts of utility from wealth. While some proponents of the utilitarian SWF might argue that all individuals obtain the same utility from wealth, such an assumption could not be further from the truth since there are obvious differences between human beings. Suppose, for instance, that Jack is disabled and Jill is not and that, because of this disability, Jack is more difficult to please than Jill. In technical terms, Jack has low marginal utility than Jill because Jack gains less in utility from an additional unit of wealth than Jill does. A policy based on a utilitarian SWF would opt to give more resources to Jill than to Jack because such a distribution maximizes overall utility – Jill is better at turning wealth into utility than Jack is. Jack is thus disadvantaged on two fronts: not only does his utility function convert wealth into less utility than does Jill's, but distributional policy also affords him less of society's wealth to begin with. Clearly, this is neither a desirable nor an equitable social outcome and yet it is entirely possible under the utilitarian SWF.

Finally, and perhaps most importantly, the utilitarian SWF cannot provide society with plausible notions of equity because it relies on inadequate conceptions of moral values such as rights, equality, and justice. According to the utilitarian SWF framework, such conceptions derive their value not from any sort of intrinsic moral worth but from utility calculations. Indeed, as stated by political philosopher Will Kymlicka, for the utilitarian, "there is no standard of what 'rightfully' belongs to anyone prior to the calculation of utility. What is 'rightfully' mine is whatever distribution maximizes utility."

Society, in other words, simply requires utility maximization; satisfying this condition will satisfy all other challenges facing society. This requirement, however, violates our most basic intuitions about what is just and equitable for several reasons.For one, the utilitarian SWF ignores the social context in which individuals obtain utility. Many people live in conditions where injustice is rife and where greater aggregate utility is of little solace. As such, Sen noted that "the utility calculus can be deeply unfair to those who are persistently deprived." Worse still, such people, if made victims of oppression and injustice long enough, "tend to come to terms with their deprivation" and "may even adjust their desires and expectations to what they unambitiously see as feasible." This, then, underscores a second problem with approaches to welfare focused narrowly on utility: adaptive preferences make utility far too malleable a metric to provide society with reliable notions of equity. Utility might come to be assessed relatively, invalidating absolute comparisons between utility levels that were computed with different reference points (such as under different social contexts at different points in time).

It is conceivable, then, that those in society who suffer from persistent injustice would adapt to their new conditions and adopt a different utility function that yields higher levels of utility then the utility function prior to their deprivation. A utilitarian economist might then consider such injustice a more equitable outcome. This obviously goes against any standard understanding of equity. Is oppression tolerable so long as the oppressed adjust their mental states and obtain more utility? Is deprivation acceptable so long as the deprived adapt to their new circumstances and derive more 'welfare'? Clearly not, and these adaptive preferences make utility far too malleable a metric to provide society with reliable notions of equity.

The utilitarian social welfare function aggregates the total util-

ity of the members of a society as a sum. By assigning equal weights to all members of society, the utilitarian SWF seeks to treat people equally. However, it cannot plausibly achieve this goal. The utilitarian logic is insensitive to the distribution of utility, which can lead to greater inequities. Moreover, inequality can also be exacerbated if individuals have different utility functions, as the utilitarian SWF might take resources from those who require them more and give them to those who require them less. Finally, by defining moral values through utility calculations, the utilitarian SWF ignores rights and justice and is insensitive to the social context in which individuals derive welfare. This can lead to grossly unfair outcomes, especially to those who suffer from persistent deprivation and oppression. For all these reasons, the utilitarian function is unfit to assist society in its effort to achieve equity.

MICHAEL PLANT

How can we best distribute wealth among individuals in a society? In answering this question, we often face a tradeoff between equity and efficiency. We could try to raise the total consumption among members of society but, in doing so, we might make some individuals very wealthy while leaving some people very poor. On the other hand, we could try to share the wealth more evenly, but that could reduce incentives to work, efficiency in the economy, and therefore reduce 'the size of the [economic] pie.'

One method (among many) to measure total welfare in society is through the utilitarian social welfare function, which adds together the utilities (individual measures of satisfaction) experienced by all individuals. Does maximising the utilitarian social welfare function (SWF) – that is, maximising efficiency via this rubric – also provide an attractive notion of equity? Below, two authors argue their opposing views.

The social welfare function is a tool used by economists to decide on the preferred policy amongst several that entail different amounts and distributions of welfare. Welfare refers to the satisfaction that an individual gains from various goods and services, and a measure of welfare is known as utility. The SWF is relevant because society is typically concerned about both how welfare is distributed in society and how much of it there is.

Economists often make certain assumptions in constructing the SWF. Firstly, it is assumed that individuals exhibit a decreasing marginal utility with respect to wealth. In other words, an extra £X to a rich man should generate less utility than £X to a poor man as the rich man has already satisfied his most important preferences and so gets less additional utility out of each £X than the poor man would. Moreover, it is assumed that that transfers are costless – total welfare is not reduced in the process of taking wealth from A and giving it to B. This is unlikely to be true in the real world, as there is often bureaucratic wastage and reduced incentives to A; however, we will make this assumption for this article. (While often assumed, we will not need individuals to have the same utility function, and therefore one person with £X might have a different utility from another person with £X.)

A utilitarian SWF transfers wealth from the richer to the poorer as long as there is a welfare gain in doing so, i.e. until each person has the same marginal utility of welfare. This results in the greatest aggregate utility, which is what matters to utilitarians.

Those who find the utilitarian SWF unattractive do so because they think it fails on two counts:

- It permits an inequitable distribution of wealth and welfare. The utilitarian SWF allows some people huge amounts of wealth and welfare whilst others are left with little wealth, welfare or opportunities, if that could bring about higher aggregate welfare.
- It allows some people to be sacrificed for the sake of the welfare of others, or in other words, it fails the "separateness of persons" argument.

These complaints are most easily seen by considering a Utility Wizard, who is so efficient at turning wealth into welfare that regardless of his wealth he will generate more welfare from any further amount of wealth than anyone else in society. In other words, his marginal utility of wealth is always higher than anyone else's marginal utility, no matter what their wealth levels are. A utilitarian SWF would take give the Utility Wizard all of society's resources, illustrating both of the complaints above.

What are the main alternatives to a utilitarian SWF, which weighs all members of society equally? Four of them include:

- Prioritarianism, which gives extra weight, or priority, to the utility of the poor;
- Maximin, which gives weight only to the worst-off;
- Equality of welfare ("EW"), which gives importance not to how much utility people enjoy but how equal that level of wel-

fare is. (This SWF appears, to my eyes, to deliver similar results to maximin albeit for different reasons.); and

- Equality of opportunity for welfare ("EOFW"), which, as implied, gives importance to the potential that people have to amass utility.

But, these four SWFs are also inadequate, as shown by the Utility Demon. The Utility Demon has the lowest welfare, or opportunity for welfare, in society regardless of how much wealth we give him. If he receives more wealth, his welfare increases slightly but never to the level of the next lowest individual. Further, this is not an entirely hypothetical scenario. Individuals in permanent vegetative states, who suffer from chronic illness, or who have severe disabilities are all much less efficient at turning wealth into welfare than other members of society. The cost to aggregate welfare is very high if we try to bring their welfare up to that of others.

As those who advocate for the maximin, EW, or EOFW social welfare functions are committed to improving the situation of the least well-off, they would continue to funnel wealth towards the Utility Demon indefinitely in the hope of raising his welfare. This would cause a huge – indeed, total – welfare reduction for everyone else just for the sake of the Utility Demon, even though it would not raise his welfare at all. The prioritarian does slightly better – he can stop providing resources for the Utility Demon at some point because he is not committed to absolute regard for the worst off, only more regard. Nevertheless, he is guilty of decreasing the welfare of others for the sake of redistribution.

This result is absurd and it should cause us to re-evaluate the importance of the two criteria that were previously used to explain the inadequacy of a utilitarian SWF.

- Non-utilitarian SWFs support the Utility Demon because of their concerns about the worse-off, and as such, perhaps society should be less concerned about the worse-off.
- The violation of the separateness of persons holds true against non-utilitarian SWFs as well, as the welfare of everyone else is sacrificed for the sake of the Utility Demon. In fact, the only way to respect the separateness of persons is to not redistribute, as redistribution is in itself a sacrifice.

On the other hand, utilitarians do have a morally-attractive notion of equity: the utility of each individual is worth as much as the utility of any other. Utility is the same whether one is rich or poor, or whether it belongs to someone with more or less opportunity for welfare. Utilitarians would consider all other SWFs inequitable as they treat the utility of one person as being of more or less worth than that of another. For instance, taking 2 units of utility from a happy, rich person, but only generating 1 unit for a sad, poor person – possible because only wealth, not utility, is not lost during transfers – would be inequitable because we have judged 2 units to one person to be worth less than 1 unit to another. The relevant factor is the welfare felt, not the relative or absolute circumstances of experiencing it.

We ought to give wealth to the Utility Wizard at the cost of welfare to others, for if not, we would inequitably be claiming that his utility was worth less than others'. Equally, we should not keep giving wealth to the Utility Demon as that wealth comes at a direct and more severe cost to the welfare of those other individuals.

The criticisms levelled against utilitarian SWFs on the grounds of inequity are not strong. All SWFs violate the separateness of persons, and attempts by other SWFs to address distributional concerns can lead to grossly inadequate outcomes. The utilitarian SWF enables society to achieve an attractive notion of equity because the utility of each individual is given equal weight. It satisfies our initial desire – to increase welfare – and is the only notion that allows us to give sensible responses to all of the thought experiments presented.

I'M A BEAR ON BITCOIN

BY ALEX CHRISTENSEN

There is no denying that the story of Bitcoin is as fascinating as it is compelling. Wanting to free currency from the stranglehold of irresponsible central banks, as the story goes, a shadowy figure named Satoshi Nakamoto created an encrypted digital currency that protected independence and anonymity. It would be a great movie plot.

Unfortunately, Bitcoin has an Achilles heel: the very source of its romanticism, its rebuke of central banks and government-sanctioned money, makes it a terrible currency. Bitcoin is not even money. At best it is a speculative financial asset that happens to have the hopes and dreams of tech fan-boys fuelling its momentum. A Goldman Sachs report has recently reached the same conclusion.

Before delving into the fatal mechanics of Bitcoin, let us think about Bitcoin in practice. What does it offer that a dollar or pound cannot? There are certainly a few advantages, but it is uncertain whether they are enough to keep the cryptocurrency afloat. First, Bitcoin is ideal for buying illicit goods and laundering money online. Bitcoin, which is anonymous and nearly impossible to track, made a name for itself as the de facto currency of the online drug and gun emporium Silk Road. Although Silk Road has been shut down, Bitcoin is still available for other illegal purchases. Bitcoin has also become the go-to laundering device for quietly moving money across borders. Before China cracked down on it, Chinese residents were buying as many

Bitcoins as they possibly could to launder money out of the country under the nose of authorities. Perhaps Argentinians will soon be doing the same.

Aside from buying drugs online and laundering money, the value of Bitcoin is too volatile to be used in lieu of dollars for legitimate transactions. The one exception is in international transfers, where banks charge exorbitantly high fees to move money across borders. Using Bitcoin to transfer money from the US to the UK could save around $100 in fees and much waiting time. That is the innovation of Bitcoin: avoiding excessive bank fees.

The trouble is that this innovation is likely to be integrated into a larger and more useful system that already has legitimacy, such as a digital wallet. PayPal, Dwolla, and many others offer accounts to manage money digitally and securely. In order to attract customers in a tightly packed market, one will offer a service to cheaply transfer money sooner rather than later. Then, Bitcoin will only be good for one thing: the black market. There is a saying among gun advocates in the US: If you make guns illegal, only criminals will have guns. For Bitcoin it is similar, but with a twist: If you make international transfers cheap, only criminals will have Bitcoins.

Some of these troubles could be avoided, and its relevance widened, if Bitcoin could function as a legitimate currency. After all, money is a supposed to be a neutral element of the economy that merely serves as a way to facilitate transactions. But in its crusade to be everything that the US dollar is not, Bitcoin made its fatal mistake. Just like many libertarians and Tea Partiers, Bitcoin wanted to return to an age of "real money," where central bankers such as Bernanke or Carney could not devalue currency by arbitrarily printing more of it. But what they seemed not to have realized is that central bankers have prevented financial crises from being worse and more frequent. Before the US created the Federal Reserve, there were bank runs and financial panics every five to ten years, where families might lose all their savings. Monetary policy – or "printing money" – can help save us from that. Bitcoin is setting itself up for a turn-of-the-century style panic. Indeed, that is part of what happened to Mt. Gox.

Beyond that, Bitcoin does not even qualify as money. There are three basic characteristics of currency: it acts a medium of exchange, a unit of account, and a store of value. The US dollar and the pound sterling are all of these. Bitcoin is none.

If it were a medium of exchange, Bitcoin could be used as a means to make purchases. Instead of bartering an hour of my labour in exchange for a pint at the pub, one

could use Bitcoin. The problem is that there is not a commonly-held belief about the value of Bitcoin; not even those who closely follow it know its value. One Bitcoin was worth over $1,200 in December, but has lost one-third of its value since then. On a daily basis, its fluctuations (volatility) are of at least an order of magnitude higher than those of real currencies.

In a similar vein, Bitcoin is a terrible unit of account. If a company's books were kept in Bitcoins, it would be a nightmare trying to determine whether the firm was profitable. Perhaps this is why in the few places where you can purchase goods with Bitcoins, the price is also given in dollars. Moreover, the price in Bitcoin is constantly being updated as its value changes relative to the dollar. The real unit of account is still the dollar, but Bitcoin is next to it for reasons of vanity.

The volatility of Bitcoin makes it a terrible store of value. The idea of money is that over the medium-term it keeps its value. Instead of

rushing to the grocery store after work to buy food before your money expires or devalues, you can wait until next weekend. You could even take your money and put it in a bank account, leave it for a year, and then still know roughly how much it will buy you. Bitcoin cannot provide that. If your savings were in Bitcoin, you might have enough to retire to a tropical paradise today only to have to abandon those plans if Bitcoin should plummet tomorrow. You just never know what you will wake up to with Bitcoin.

There certainly is something revolutionary about Bitcoin: it is the first step in commerce moving completely out of the physical world, and it provides some fairly useful features for criminals and international travellers. But even considering its innovation, Bitcoin is fatally flawed. As it rebukes all that we have learned about money over the last century, its value rises and free falls like a rollercoaster. Bitcoin is not for nought, however, since fast-followers will learn from its mistakes and begin to provide better services more grounded in reality.

BITCOIN – NOT A FLASH IN A PAN

BY YI-HUA LU

Featuring sordid tales of drug dealing and rags-to-riches stories of early adopters turned millionaires, the story of Bitcoin in 2013 was a TV soap opera that wrote itself. Love it or hate it, like Miley Cyrus' twerking, you have probably read about it. The crypto-currency even landed on serious publications like Bloomberg, the Wall Street Journal, and the Financial Times. So the question that all the pundits are asking is: is Bitcoin the next big technology to disrupt global finance, or will it slowly fade

obscurity, just like Pokemon and the Harlem Shake did?

This author will argue that contrary to most mainstream commentators, Bitcoin will definitely have economic value and will be around for the foreseeable future, even if one finds its use somewhat odious. Moreover, the debate over Bitcoin will uncover some surprising insights into the modern monetary system.

Show Me the Money!

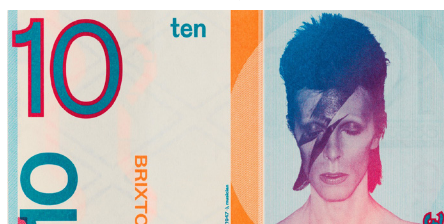
Opponents who argue that Bitcoin is not a real "currency" often offer a few arguments: its value is too volatile so cannot be used as a unit of account; it is not "legal ten-

der," and so forth. This debate is a bit semantic, although it is nonetheless interesting to pause for a second to think about what we mean by money.

Open any textbook and you will see the three functions of "money" – a unit of account, a medium of exchange, and a store of value. However, consider the following: are cigarettes in prison camps which are traded for other goods like bread and kept as a way to store value a currency? Also, consider the history of Brazilian monetary reform in the 1990s. To combat the hyperinflation of their then-currency, the Cruzeiro Real (CR$), the Brazilian government introduced a parallel currency, the Brazilian Real (BRL). For a period of time, prices in shops were denominated in BRL, the unit of account, but people paid for goods and services using the CR$, the medium of exchange, whose value relative to the BRL fluctuated wildly over time. The CR$ was indeed eventually phased out. The dichotomy is not dissimilar to the way online merchants quote prices in USD but accept payments in Bitcoins (the amount of which depends on the spot exchange rate). So if Bitcoin is not money, was the CR$ not money either?

Moreover, if we put aside the fact that Bitcoin is a digital crypto-currency and consider it simply as a form of private money, let us ask: should the state have a monopoly over issuing currency – so called seigniorage? At first the answer might seem obvious -- it would be anarchy if every man, woman, and dog could issue Monopoly money from their garage. However, under the credit theory of money, private currencies can function in the same way as sovereign money in facilitating economic activity. If agents can produce future goods or services but do not have any present assets to exchange, they can issue an "IOU" note. The "IOU" can then be traded and thus function as a medium of exchange. Your twenty pound note is in fact a glorified "IOU" note from the Bank of England.

In fact, far from being new or revolutionary, private money has actually recurred throughout history, cropping up most frequently during periods of crisis. In the United States, during the "Free Banking Era" (1837 to 1866) before the creation of a national banking system and the Federal Reserve, states, municipalities, private banks and even private companies could all issue private currencies, the relative values of which were dynamically determined in the markets. It was estimated that by the end of the three decades, over 8,000 different private monies were issued. During the Great Depression in the 1930s, private monies known as "scrip" were issued by companies to employees when official money was unavailable but there had nonetheless been great productive capacity. There are also examples of private currency in use today, such as the Brixton Pound, created in socio-economically depressed Brixton to stimulate economic activity amongst capacity-rich but sovereign-money poor agents.



If you still have trouble wrapping your head around creating "money out of thin air", consider this: governments can pay each other and the IMF by using Special Drawing Rights (SDR), book-keeping claims on the IMF balance sheet which were simply created "out of thin air" in 1967. The SDR was created when there was a lack of money supply globally, at a time when the money supply was tied to gold, the production of which was much slower than pace of economic growth and therefore the economy's demand for currency. So the financial edifice of the entire world and their governments is built on a foundation of "funny money?" Fact can be stranger than fiction.

Ultimately, the value of all fiat currency, sovereign or private, derives from credibility and a belief that they will be accepted in the future. So why should people continue to accept Bitcoins? A large part derives from a growing lack of trust in sovereign fiat money, arising from the financial crisis and the quantitative easing operations of the Fed and other central banks (such as Japan committing to doubling its money supply in a few years). It is not a necessary condition that everyone believe in Armageddon and pack their basements with canned tuna and shotguns for Bitcoins to have continued credibility - it is sufficient just to have a group who do. After all, not everyone values antique cars but a classic Dodge Viper is still worth a pretty penny because there are collectors who will pay for it. This author believes that in the United States in particular, with its tradition of deep-seated mistrust of the government, there are enough who lack faith in the official monetary system for "insurance policies" like Bitcoins to always hold value. In a strange kind of way, Bitcoins have become a collective call-to-arms, uniting the hacker-anarchists on the extreme left with the isolationists on the extreme right, whose one commonality is their disdain for the central government.

Crime Doesn't Pay ... By Direct Debit

In any case, the "money or not

money" debate is a distraction from the more interesting issues of the usefulness and durability of Bitcoin.

This author believes that Bitcoins will continue to have significant value, with one reason (among many) being that it has become a very useful tool in the criminal toolkit. This is not a moral justification of crime, but simply an objective statement that there will always be crime, especially the buying and selling of illicit goods. As an estimate of order of magnitude, a 2007 UK Home Office estimate put the illicit drug market in the UK at between £4–6 billion a year.

How does Bitcoin facilitate crime? Criminals traditionally preferred cash because it did not leave a digital trail of breadcrumbs, which bank transfers do. However cash transactions are inconvenient, can pose physical dangers (such as dealing on the street), and limit the market geographically. Bitcoins, on the other hand, provide both the anonymity of cash and the convenience of modern technology. Unlike bank accounts, which must be registered to individuals, ownership of Bitcoin wallets is not recorded anywhere. A Bitcoin wallet is simply a unique identifier or address like 1JArS6jzE3AJ9sZ3aFij1BmTcpFGgN86hA which is created for any new user, to which others can send Bitcoins. The identifier is known only by the owner and is password-protected by strong, uncrackable RSA encryption. The rise of Bitcoins also coincides with the advent of the "deep internet" and special anonymous email services. By installing simple software that routes internet traffic around the world to hide your actual location, users can anonymously surf deep internet websites, contact each other, and offer to buy or sell just about anything for sale – psychedelic drugs, firearms and ammunition, and even attempted assassinations.

Most mainstream commentators equate Bitcoin's association with criminality as its Achilles heel. However, as Prohibition demonstrated, blanket bans typically prove ineffective, so long as there is demand, in this case for anonymous payment systems such as Bitcoin. While there is technically no barrier to entry for other copycat systems, those other systems need to gain credibility first, which requires some kind of critical mass of adoption. Bitcoin had the first-mover advantage and has already gained critical mass, and is therefore likely to remain the preferred tool for criminals. Moreover, given Bitcoin's decentralised nature – there is no single company responsible, no central server that hosts the data – it is technically and physically impossible to shut it down. The government can shut down individual vendor websites on the deep internet such as the infamous Silk Road, but other clones will quickly take its place, while the ecosystem of Bitcoin keeps on growing. Lastly, it should be noted that Bitcoin is not exclusively used for nefarious activity. Its security and anonymity can also be useful for political activists and human rights groups – anyone who wants to escape the ire of an oppressive regime or government.

Democratising Money Transfers

Any international student reading will know the pain of international money transfer. It is slow and expensive, and the bank takes a big cut on transaction fees. One would think that in the internet age, sending digital money should be fast and cost effective. Yet it is not, primarily because the back office of banking is complicated and byzantine. When you make an international money transfer, you are not sending "money" over a wire; instead, you are exchanging the claims on the assets of one bank for the claims of the assets of another bank, as that is what a savings account at a bank really is. All this occurs because we have a fractional reserve banking system, where local deposit-taking banks do not have the liquidity to cover total deposits. Therefore, at the end of each day, commercial banks need to balance their reserves at their central bank to take into account gross and net transactions. In turn, central banks need to settle with each other through the Bank of International Settlement (BIS) to adjust for international capital flow.

Transfers using Bitcoins, on the other hand, are the purest form of money transfer the limited Bitcoin money supply itself is being transferred from one digital wallet to another. It is cheap because it cuts out the banking system entirely. Advocates point out that this may be particularly beneficial for remittances to developing countries, in effect democratising money transfers and taking away some of the monopolist fees banks have thus far been able to charge.

Magic 8-Ball Says ... The Future is Cloudy

So what does all this mean for the future of Bitcoin? Admittedly the future is uncertain. Regulators all around the world are no longer letting the Bitcoin phenomenon fly under the radar, and Bitcoin businesses, particularly Bitcoin exchanges, are coming under increasing scrutiny. Nonetheless, this article advocates the view that, unlike other fleeting internet memes, there are both theoretical and practical reasons to believe that Bitcoins can and will play a part in the financial system in the future.

OUT OF THE SHADOWS: THE FUTURE OF CHINA'S SHADOW BANKING SYSTEM

BY HONGLIN JIANG

2014 may well be a year remembered for China's shadow banking system coming into the open. President Xi Jinping has promised liberalization of key parts of the financial system. China's regulatory authorities are moving to step up oversight of the sector. A record amount of debt in the sector needs to be refinanced this year. With the failure and bailout of the $500m USD "Credit Equals Gold" trust product, investors are increasing scrutiny of similar products for signs of contagion.

Like other shadow banking systems, China's shadow banks sprang up to facilitate the transmission of credit between borrowers and lenders outside the purview of the conventional banking sector. The state-owned banks funnel most of their available credit to other large state-owned corporates and favoured investment projects, depriving other entities of access to reasonably priced credit. The lenders to shadow banks mainly consist of China's households, searching for yields higher than the paltry capped bank deposit rates on offer. Borrowers include entities such as local governments, real estate developers, small businesses, and other corporates unable to access ordinary bank lending. Rates in the shadow banking sector typically range in the double digits, with lenders netting around 10% and borrowers paying 15-25%.

Rates such as these may lead one to conclude that they simply reflect the greater credit risk inherent in the loans. However, recent trust failures have shown how many investors in shadow banking products believe that they are as safe as bank deposits. This is because many products that are issued by the shadow banking sector are actually sold and marketed by the state-backed banks. Retail investors believe that the product is guaranteed by the banks, while it is actually issued by a wealth management trust or an off-balance sheet investment vehicle. The underlying assets themselves may be loans to a defunct coal mining company, for example.

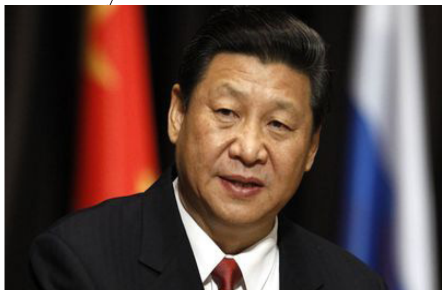
On the surface, this process sounds similar to the shenanigans that precipitated the U.S. subprime debacle. "Yield-hungry investors chase opaque investment products sold by banks, structured investment vehicles and off-balance sheet entities". Sound familiar? Yet there are important differences. China's financial system is almost completely closed to foreigners, insulating it from a run by foreign creditors. State owned banks can be directed to expand the size and scope of their lending, and to assume greater responsibility for the products they sell. If needed, they can also be recapitalized at the expense of existing shareholders. China's central government borrowing levels are still low as a percentage of GDP, and can easily be expanded. Its vast accumulation of foreign exchange reserves provides a natural hedge against USD liabilities. Debt maturities and interest rates can be managed by regulatory fiat.

However, some processes cannot possibly be avoided, even in a relatively closed system such as China's. Debt will always matter, in the sense that an inability to service it will always incur the cost of destroyed economic value. If the loss is not incurred by the creditor, as is usually the case in developed markets, then it is the taxpayer's burden. China has not experienced a significant default in its financial system since its last banking crisis in the early 1990's. If the most recent spate of projects financed by shadow banks does not deliver their promised returns, another rash of defaults may occur.

With the amount of debt up for refinancing, the day of reckoning for some shadow banking products may occur sooner rather than later. Of the estimated $1.6 trillion USD of assets under management, $660bn (41%) is maturing in 2014, while almost all of the remainder requires refinancing in 2015. If the investments that were financed by this money require a longer duration to produce returns, then the maturity mismatch may leave the loans vulnerable to a liquidity crunch.

Such an event, while likely to be financially quarantined, would have wide ranging social and economic consequences. Unable to refinance their loans, a large swathe of private enterprise would fold. Slowing economic growth would erode the Party's mandate to govern. The deflationary impulse from the fall in demand from the world's second largest economy would reverberate everywhere, particularly among its largest trading partners. The conventional banking sector (and by

extension, the state and taxpayers) will likely be pressured to assume responsibility for losses, resulting in a rise in non-performing loans and deterioration of their capital structure. As Professors Rogoff and Reinhart point out, this type of debt-fuelled financial crisis followed by a balance sheet recession tends to take years to recover from, which would depress the global economy for the foreseeable future.



Currently it appears that Chinese authorities are unwilling to let even modestly-sized products default. "Credit Equals Gold" was a relatively small product sold to wealthy investors - its bailout implies that larger and more widely-held products would stand an even smaller chance of being allowed to fail. Yet the moral hazard implications of such a stance are tremendous. Taken to its logical conclusion, the wholesale adoption of bailouts as policy is more likely to lead to a Japanese stagnation type scenario, with an overburdened financial sector too weak to lend, yet unpermitted to die.

However, neither a crash nor stagnation is inevitable. It is entirely possible that the Chinese leadership applies a policy prescription that safely integrates the shadow banking system into the real economy. Indeed, this appears to be part of the Party's plan to gradually liberalise the financial system and allow market interest rates to determine the optimal allocation of capital. This will almost certainly involve higher deposit rates for household lenders, higher borrowing rates for state-owned enterprises, and lower rates for economically viable small- and medium-sized enterprises. The tricky part will inevitably be dealing with bankruptcies and defaults. The state will need to establish the right mix of creditor losses, monetary policy, regulation, economic reform and redistribution. A better quality of growth, over time, will work off previous financial and economic excesses. The Party has the necessary tools to rebalance the economy and ward off a debt crisis - it must use them judiciously and wisely.

As John Stuart Mill observed: "Panics do not destroy capital; they merely reveal the extent to which it has been previously destroyed by its betrayal into hopelessly unproductive works". If China faces the worst case scenario of a credit crunch and liquidity freeze, it will be because of the sudden and wholesale realization of its malinvestment. Nonetheless, the government has powerful tools to forestall or mitigate such a crisis. With the sheer size of China's economy and the extensiveness of its trade links, the world will be hoping that the light China's shadow banks emerge into is not simply the headlight of the proverbial oncoming train.

ANOTHER LOST YEAR IN ITALY

BY ARIS MORO

In 1914, Italy's central regions experienced seven days of strikes and violent protests, an event which has come to be known as the 'Red Week.' The events were ignited by the fatal shooting of three young workers, and were overwhelmingly influenced by socialist and anti-militarist ideals, taking place just days before the assassination of Archduke Franz Ferdinand of Austria in Sarajevo escalated into the First World War. Eventually, the spontaneity of the protests and its lack of cohesion led to its demise, and possibly exacerbated the

discontent with the ruling classes that culminated in Mussolini's rise.

At the end of 2013, almost a century later, more protests are sweeping the country. A series of rallies and demonstrations in various locations, particularly in the north of Italy, threatened at one point to blockade the country's roads, railways, and main squares. Made up of a loose collection of students, football ultras, lorry drivers, and young unemployed people, they were referred to by the media as I Forconi (The Pitchforks), or as the December 9th Movement. Again, the lack of a national strategy, and the protesters' inconsistent and often illiberal opinions led to the unrest dying out by the end of the year.

This particular protest reinforced the general sense that 2013 was hardly the recovery year that Italians were hoping for. The early elections held after the withdrawal of Berlusconi's party from Monti's technocratic government were a disaster, splitting the vote three-ways and resulting in a hung legislature. The unprecedented re-election of 87-year old Giorgio Napolitano as President of the Republic followed the near implosion of the left-wing Democratic Party. Finally, Berlusconi's conviction on charges of tax evasion led to his expulsion from the Senate, and another government crisis was averted by his lieutenant's defection to a new centre-right party.

In both political and economic terms, it has been a bad year for Italy, especially given the signs of a cautious recovery in other developed economies. The government led by Prime Minister Enrico Letta has stumbled upon obstacle after obstacle. It has been undermined by internal opposition from Berlusconi's party, and the growing star of Matteo Renzi, the new general secretary of the Democratic Party (of which Letta is a member), who has called for more action from the government both on electoral law reform and on economic issues. Externally, it has faced low popularity ratings, and has had to face the uncooperative behaviour of the Five Star Movement, the third key player in Italy's political arena. The party, led by comedian and agitator Beppe Grillo, has now called for the impeachment of President Napolitano, who remains a staunch supporter of the government whose creation he himself had orchestrated.

Recent events epitomise the chaos that engulfs the Italian political arena. Renzi, unsatisfied and impatient, reneged on his earlier promises of not interfering with Letta's government and of awaiting electoral legitimation before entering government. His tenure as Prime Minister has just begun, yet he has set himself an extremely ambitious agenda; whether he can deliver, and whether he can accomplish both interventionist labour reforms and relieve Italians of an increasingly high and oppressive tax system, remains to be seen.

In 1914, Europe slid into a disastrous conflict, in which Italy's victory was arguably Pyrrhic, leading to the destabilisation of the country and twenty years of fascist rule. This is not a possibility nowadays, despite claims by members of the Pitchfork movement that the country is a slave to wealthy Jewish bankers, and of aborted plans to institute a military junta.

However, with unemployment at 12% and youth unemployment at 41%, something has got to give. The new electoral law currently being discussed may be a start, but may also divert attention from more urgent economic and political reforms: from new regulations promoting job-creation and investment, to those easing the dramatic conditions of prisoners and immigrants. Amongst the uncertainty, what is undeniable is that Italy can ill-afford another year of gridlock and empty promises.

ON ECONOMIC GROWTH: THE CASE OF BOTSWANA

BY YANN KOBY

Almost 10,000%: the staggering growth of real GDP per capita in Botswana between 1966 and 2012 is one of the highest anywhere in recent decades. When it gained independence in 1966, Botswana was an extremely poor country, where real revenue per capita ranged between $70 to $300 per year depending on the preferred measure, significantly less than a dollar a day. Only twenty kilometres of road existed, and a paltry total of one hundred citizens had attended secondary school. In 2012, however, real GDP per capita came in at $6,600.

Adjusted for the costs of living, it stands today between $10,000 and $14,000 depending on the used method to compute the purchasing power adjustment, thus placing Botswana at comparable levels to Turkey and Mexico, and above Brazil, China, and Tunisia!

A more local comparison is mind-blowing. The figure below traces the evolution of real GDP per capita in Botswana's neighbours, including the Sub-Saharan average. Botswana unambiguously stands out from the crowd, with strong and steady growth since independence.

What explains – or doesn't explain – such disparities? How has this country, with neither sea borders nor any special features except large reserves of diamonds – but aren't all African countries richly endowed with natural resources? – managed to become one of the success stories of the African continent?

These questions are part of a more general theme that goes back to at least Adam Smith's foundational work: why are some nations richer than others? Is it due to the legacy of history, the fortuity of geography, the roots of culture, or the ignorance of the political leadership? Many theories exist, but none seem convincing. Determining the legitimate one, however, is all-important: let us sadly remember how Hitler used the concept of "race" to rank human beings and nations. And who, today, hasn't heard – or worse, believes – that Africans are poor because they are lazy?

Similarly, some argue that certain religions or cultures, such as the Protestant work ethic first expounded by Max Weber, are more "compatible" with economic growth than others, such as Islam or African ancestor worship. Others say that leaders in poor countries are systematically committing mistakes due to ignorance or greed, thus explaining differences in development. In the context of this article, I will discuss the relevance of these theories in the light of some illustrative examples – including Botswana.

Growth Accounting

Only Rep. Cap. (K-L)	0.20
Schooling Cap. (H-K)	+ 0.13
Health Cap. (Weil)	+ 0.04
Test Correction	+ 0.07
Imp. Sub. Schooling	+ 0.23
Natural Capital	- 0.06
Total	0.61

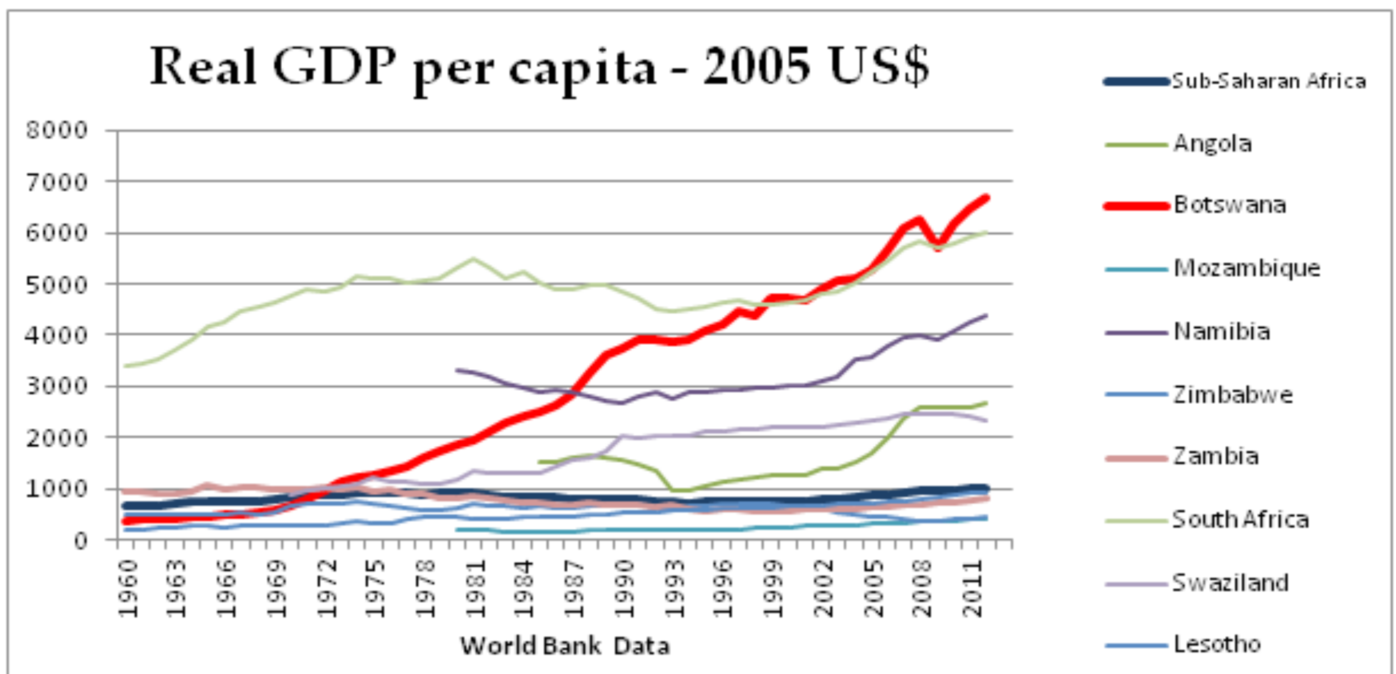
Social scientists have long aspired to explain differences in development across nations. The simplest approach is inspired by accounting: first, we measure the levels of factors of production in each nation. Those include physical capital (such as machinery and infrastructure), human capital (including the educational attainment of citizens and the quality of schooling), natural capital, health capital, and so on. Next, we use those levels of capital to deduce a projected level of development. Finally, these theoretical levels are compared to their empirical counterparts: more precisely, one looks at how the theoretical variation in development is able to explain the empirical variation.

This method explains only 60% of the differences in GDP per capita (see the table above). The large share left unexplained is the infamous Solow residual, which supposedly represents a technological residual (or from another point of view, the unexplained share could well measure economists' ignorance). Many authors have attempted to explain this residual by, for example, examining R&D investment or measuring the importance of tertiary education. Other authors have looked at optimal resource allocations: the Solow residual could be due to the fact that poor countries tend to not use their resources wisely, such as by investing in grandiose state projects instead of investing in infrastructure or R&D. A recent article published in the *Quarterly Journal of Economics* suggests that a significant share of the recent Chinese growth boom is due to the reallocation of factors of production from the inefficient and corrupt public sector towards the private sector.

However, a second and perhaps more difficult problem is that this approach is purely positive and not normative: it merely posits the existence and the source of these differences, but it doesn't explain why these differences exist and how we should correct them. To rephrase in the terms of Holland, this approach is merely associative and in no way causal. Further theories, then, are needed to explain how nations diverge in their growth experience. In this regard, the foundational work of Daron Acemoglu and James A. Robinson, as condensed in their recent book *Why Nations Fail*, will prove helpful.

Explaining Growth

The geographical hypothesis is based on the observation that a majority of today's rich countries are present in latitudes away from the equator. Some have suggested that differences in temperature and climate explain why it is relatively easier to work in temperate climates, which are also less prone to tropical diseases. Even if this seems a suggestive trend, the world is full of individual counterexamples, Botswana to begin with. Its climate, as well as both its flora and fauna, are fairly similar to that of their neighbours, but as we saw before, Botswana is significantly richer.



Similarly, Belgium and Luxembourg, or Israel and Lebanon, share similar climatic conditions but exert significant differences in real GDP per capita.

Religious, cultural, or even racial hypotheses contend that some forms of worship and ethics favour or undermine economic development. But again, Botswana and all of its neighbours feature a large-majority of Christian believers, casting doubt on this explanation. In addition, Botswana is mainly composed of Tswanas, who belong to the Sotho-Tswana ethnic family, also found in South Africa and in a majority of Lesotho. However, Lesotho is significantly poorer. As another striking example, the people of North and South Korea shared – before the 38th parallel separated them – the same culture, the same religious beliefs, and the same ancestors. Yet, the former live today on about $5 a day, compared to more than $90 a day to their southern neighbours.

By looking at the Korean example, it is tempting to suggest that poor countries are poor because their leaders systematically take bad decisions. These pile up through the years, resulting in the current income disparity observed globally. This view, termed as the "ignorance" of leaders, is particularly popular among economists: growth theory suggests that the state has an important role to play in early stage of development, both as an investor in much-needed infrastructure and as a regulator/law enforcer. Leaders of poor countries, more "ignorant" than their peers in richer countries, would have systematically adopted inefficient economic policies, or failed to understand the role of the state in the economy. The solution? "Educate" the leaders of underdeveloped countries towards the right path, as was controversially done by a team of Harvard academics in Russia as a "consultancy" post-1991.

This view certainly has its merits: just by looking at the Korean case, one can see that leaders in poor countries systematically make mistakes. But this assertion totally misses the question of causality. Is ignorance the real reason why leaders fail? Acemoglu and Robinson suggest that this is not the right answer. Rather, one needs to look at the incentives and constraints that those leaders face. For example, their hold on power may depend on their ability to please some influential groups. Ghanaian independence leader Kwame Nkrumah ruined his country with disastrous industrial policies but later wrote that although he was aware of the economic aberration of his government's investments, he acted for purely political necessities.

Unsatisfying Conclusions

These various hypotheses, although only briefly presented, are not fully satisfying. There exists, however, a common denominator to the different situations discussed. Botswana, since independence, lives in democracy and has not met civil war. The exact opposite is true in all its neighbours, where people have suffered dictatorships and violent civil wars – and this continues today. South Koreans have elected their leaders since the late 1980s, and live in a country where commercial freedom exists. Their northern brothers are not so lucky.

The differences between Bo-

tswana and its neighbours, or between South and North Korea, have nothing to do with geography, ethnicity, or culture. Ignorance and mismanagement of North Korean leaders ought to be blamed, yet it is still necessary to understand the reasons behind their bad decisions. The difference, it seems, relies on the institutions that govern socio-economic and political life. Those are the incentives and constraints that face leaders and people from every country, everywhere, but perhaps in different ways. The political institutions north and south of the 38th parallel are completely different. Similarly, Botswana has not inherited the colonial institutions imposed by Europeans to the same extent as its neighbours have. Of course, analysing institutions and their economic impact is not an easy task – and changing institutions, given their sluggish nature, even less so. Moreover, they certainly do not account for all of the reasons why economic development differs across countries. But nobody said economic growth was easy!

‘PRE-CAPITALIST’ AND ‘CAPITALIST’ SOCIETIES: ECONOMIC BEHAVIOUR AND INSTITUTIONAL CHANGE

BY SANTIAGO FERNANDEZ-SORDO

After the publication of Karl Polanyi’s *The Great Transformation*, a debate on the methodology of economic history emerged. Polanyi claimed that the advent of modern societies led to a radical transformation of economic behaviour and its motives. This implied that the assumptions of rational economizing behaviour used by economists and economic historians were not enough to understand ‘pre capitalist’ societies. But, was there a fundamental divide between the kinds of economic behaviour found in ‘pre-capitalist’ and ‘capitalist’ societies?

Polanyi’s argument and ‘peasant economy’: different economic behaviours?

In *The Great Transformation*, Karl Polanyi argued that before the emergence of modern society, there was an absence of the motive of gain, an absence of the principle of labour for remuneration, and an absence of any institution based on economic incentives. The individual, immersed in the social context of a traditional society, did not act to safeguard individual interests, nor did he seek personal gain or profit. His actions were oriented towards safeguarding social interests, based on the principles of reciprocity (trade without profit involved; received goods are enjoyed by giving them away) and redistribution (people share the product of their activity with the community).

According to Polanyi, these principles were immutably the same in all human societies that existed before the transformation into modern, market-oriented societies. But with the advent of modern societies, markets became the centre of all economic activity, and profit and gain became the main motives for economic behaviour. Polanyi claimed a fundamental divide in economic behaviour: from a reciprocal, redistributive, and community-based behaviour to a profit-making, market-oriented, individualistic, and economising behaviour.

Pre-modern economies must have been governed by different rules. For Polanyi, decision-making in pre-capitalist societies was not based on wealth-maximizing principles, as it is in market economies. Therefore, standard economics, based on neo-classical principles, could not be used to understand economic systems of past societies.

This led to the belief that ‘peasant economies’, which developed prior to modern market economies, were completely different types of economies. According to this belief, writes Sheilagh Ogilvie, peasants lacked economic concepts such as wages, capital, interest, rent, and profit. Hence, they could not think in terms of minimizing costs and maximizing profits; their behaviour responded to “culturally defined consumption targets”. Moreover, they had different values and preferences, prioritising family solidarity and communal altruism over individual gratification, and favouring autarky over markets, self-sufficiency over borrowing, family labour over wage labour, and payment-in-kind over money.

However, this belief has been proven wrong by Ogilvie’s 2001 work on Bohemia, exploring the economic reasoning of the serf in a traditional society. She demonstrated the presence of economic concepts such as ‘wage’, ‘interest,’ and ‘profit’ in the Estate of Friedland between 1583 to 1692 as shown by the employment of wage workers to cover labour dues, court records with a network of rural debts on which interest was charged, and the quantification and monitoring of one’s own gain in Bohemia, along with a self-interest in reducing costs and increasing earnings.

Ogilvie argued, for example, that the constant violation of the manorial milling prerogative demonstrated that serfs had a keen incentive to reduce costs and improve earnings. The prerogative tied each serf to a specific miller, “who paid a share of his take to the overlord”. Serfs often moved outside their manors to enter the employ of millers who charged them less. This carried a risk of being fined or imprisoned, a risk that was apparently worth taking for the benefits of keeping more for oneself.

Ogilvie provided evidence of the use of ‘modern’ economic concepts and the existence of ‘individualis-

tic' preferences in a rural society with no claim to being "Western", "advanced" or "individualistic". If it was possible to find 'modern' concepts of economic logic and 'individualistic' preferences in such a society, then there is *no fundamental divide* between pre-capitalist and capitalist societies in terms of economic behaviour. It is possible to find in both the desire to maximize individual profit and gain by minimizing costs, which is the key aspect of the economising behaviour that characterises modern, neoclassical economic models.

Nevertheless, it would be a mistake to believe that there was no significant change in the way pre-capitalist and capitalist societies functioned simply because economising behaviour was observe in both. One must consider the influence of any factors, as not doing so would be to neglect the essential character of the problem: its historicity, or its attribute of being historical, subject to time and change. The change in question is not found in the economic behaviour itself, but in the environment that surrounded it.

The transformation from the perspective of institutional change

Polanyi's critique cannot be ignored: social organisation is crucial for understanding economic systems. To understand why wealth-maximising behaviour came to dominate economic relations in modern society, despite being present in previous social formations, it is important to consider the context in which that happened and the institutions that allowed it.

This article will focus only on the transformation of *formal institutions*, understood as a set of rules that constrain and guide human behaviour, made explicit and enforced by an authority. However, this does not mean that other factors had no impact (such as the advent of liberalism as a dominant ideology), nor that formal institutions are the only cause behind the transformation.

The transition from a pre-capitalist to a capitalist society was defined by Comninel as the movement from a social organization where the production and distribution of goods were determined by social relations (often of a political and/or legal nature) to one determined by the market. While in the former the goods were produced to reinforce political links between peasants and their lords and between lords and their king, in the latter, production was undertaken with the sole objective of channelling them for sale in a market.

This does not mean that markets did not play any role in economic activities in pre-capitalist societies, but that they were not the main focus when goods were produced. Economising behaviour took place, and markets existed and were eagerly used by peasants and lords. However, this did not constitute the core of the feudal economy. Social relations, based on territorial rights where lords owed their very lands and positions to relations of fealty to an overlord, were the main reason for production (besides the fulfilment of personal basic needs).

What could explain the transition is the change in the social relations that dictate the economic order. The case of England illustrates this well. When royal jurisdiction intervened in the relationship between lords and peasants, new relationships of production emerged. This decree consisted of the legal differentiation of free peasants or freeholders, who were in possession of free tenures, from serfs or peasants, who had no property rights. This distinction gave formal legal equality between freeholders and lords in their actions before the courts of the king; a holder of a free tenure was protected from encroachment by his lord.

The introduction of enclosures was another formal institutional change of this nature. Enclosures were the division of land and its property rights, and their establishment extinguished the dominant community-regulated agriculture of pre-capitalist England. As noted by Comninel, important production decisions ceased to be a matter of community decision making. The consequences were the prevalence of individual rights in proprietary interests and the creation of a stratum of peasant producers who were forced to 'commodify' their labour-pow-

er once they were separated from their land.

These institutional changes created the environment for the emergence of markets as the centre of economic activity and, therefore, reinforced wealth-maximising economic behaviour: freeholders severed ties with their lords and gained ownership of their lands, enabling them to focus on the creation of personal profit, something best done through the market. Peasants displaced from their land became "free labour," an essential part of the new capitalist relations that were to emerge.

Conclusion

There was no fundamental division in the type of economic behaviour found in 'pre-capitalist' and 'capitalist' societies, as Ogilvie's work suggests. The difference lies at the level of social relations and social structure, not in economic behaviour. Economising behaviour, where benefits are maximised and costs are reduced, existed during both periods of time, but in pre-capitalist societies it was 'hidden' by the politic and legal relations between economic actors. When these social relations were modified, new sets of relations emerged, increasing the role of markets in economic activity and reinforcing economising behaviour.

The understanding of social organisation remains vital to understanding both pre-capitalist and capitalist economic systems, as stated by Polanyi. His central idea remains relevant if interpreted not as a change in economic behaviour itself, but as a change in the conditions that surround it. These conditions – institutions, social structure, technology, and politics – seem to hold the key for understanding both historic and economic change.

Originally submitted as coursework for EH401 Historical Analysis of Econoimc Change.

This article has been condensed from their original version for jounralistic reasons.

INSURANCE IN EMERGING MARKETS

OBSTACLE RACE

BY NATALIE BURFORD

In defiance of a range of obstacles, two distinct insurance markets have been achieving strong growth in emerging countries.

Islamic *takaful* insurance more than quadrupled its volume of premiums in six years and reached an estimated market size of US $5 bn (in gross premiums excluding Saudi cooperatives). Around a quarter of the world's population are Muslims, forming a market segment with extremely low insurance penetration and a very high potential for growth.

Microinsurance directed at the bottom of the pyramid has reached a market size of roughly US $1 bn of direct premiums. The huge untapped market potential is estimated at around US $40 bn by Swiss Re.

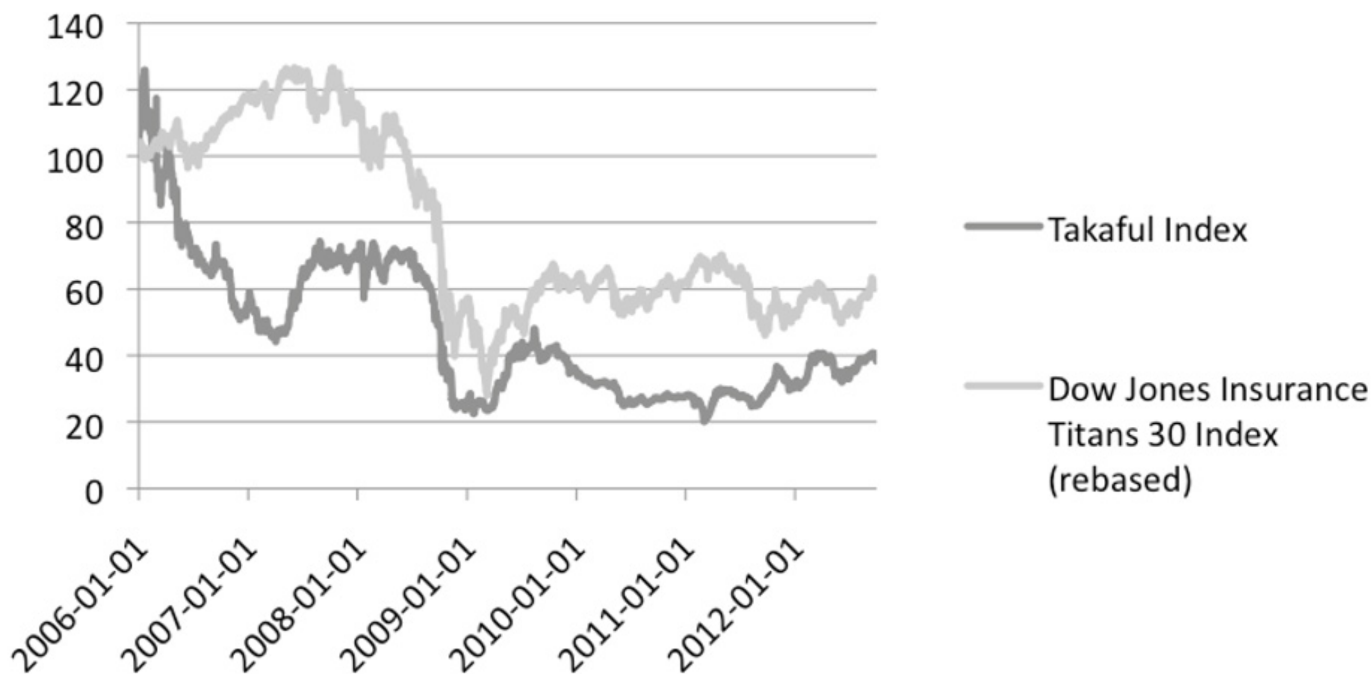
What has kept insurance penetration low in these two markets? The answer lies partly in their financial setup but predominantly in their cultural context.

Islamic takaful insurance

Four principles of the Quran have affected the Islamic financial system most: the prohibitions against *riba* (interest), *gharar* (uncertainty), *maysir* (speculation) and *haram* (forbidden activities such as gambling and the handling of weapons, alcohol and pork).

Although the concept of insurance itself is accepted by Islam ("tie your camel first – then put your trust in Allah"), the characteristics of conventional insurance are not. Therefore, Islamic scholars once prohibited all insurance. Today, the majority of Islamic scholars accept *takaful* insurance as shariah-compliant. It differs from conventional insurance through a couple of key characteristics:

- *Takaful* insurers may only invest their assets in shariah-compliant asset classes. These include shariah-compliant equities (excluding, for example, the arms, finance and some entertainment industries), *sukuk* bonds (whose payoffs are based on leasing or joint venture transactions in contrast to interest), cash in certain savings accounts, shariah-compliant derivatives, and real estate.
- As opposed to conventional insurance where risk is transferred from the policyholder to the insurance company, *takaful* insurance allows for mutual risk sharing among policyholders. Policy premiums are collected in a fund



which is owned by policyholders themselves. A fixed or variable fee is paid out from the fund to the insurance company as compensation for the management of the insurance operation. The *takaful* insurer's conformity with the religion of Islam is overseen by its shariah-board.

From the beginning of 2006 to the end of 2012, a share index of 19 listed *takaful* companies constructed by the author had a geometric average return of -13.26% per year and an annualised standard deviation of 31.73% (see chart). By comparison, the Dow Jones Insurance Titans 30 Index (DJITNN) recorded a geometric average return of -6.99% per year and an annualised standard deviation of 30.21%. These numbers equate to a Sharpe ratio, a measure of risk-adjusted performance, of -0.48 for the *takaful* index compared to -0.30 for the DJTINN. What explains the low performance of *takaful* shares?

Apart from the financial crisis that was reinforced in Gulf Cooperation Council countries by a crash of real estate markets and an oil price plunge, the share performance reflects the companies' low return on equity, which in turn mirrors their low return on investments. *Takaful* funds usually allocate a large share of their assets to risky asset classes such as equity and real estate. As a consequence, they have a very volatile return on investments. Depending on the type of *takaful* fund, investments in *sukuk* bonds represent as little as 0% and up to 50% of investments. American insurers invest 60% to 80% of their assets in bonds, thus optimally matching assets with liabilities and perfecting their diversified risk profile.

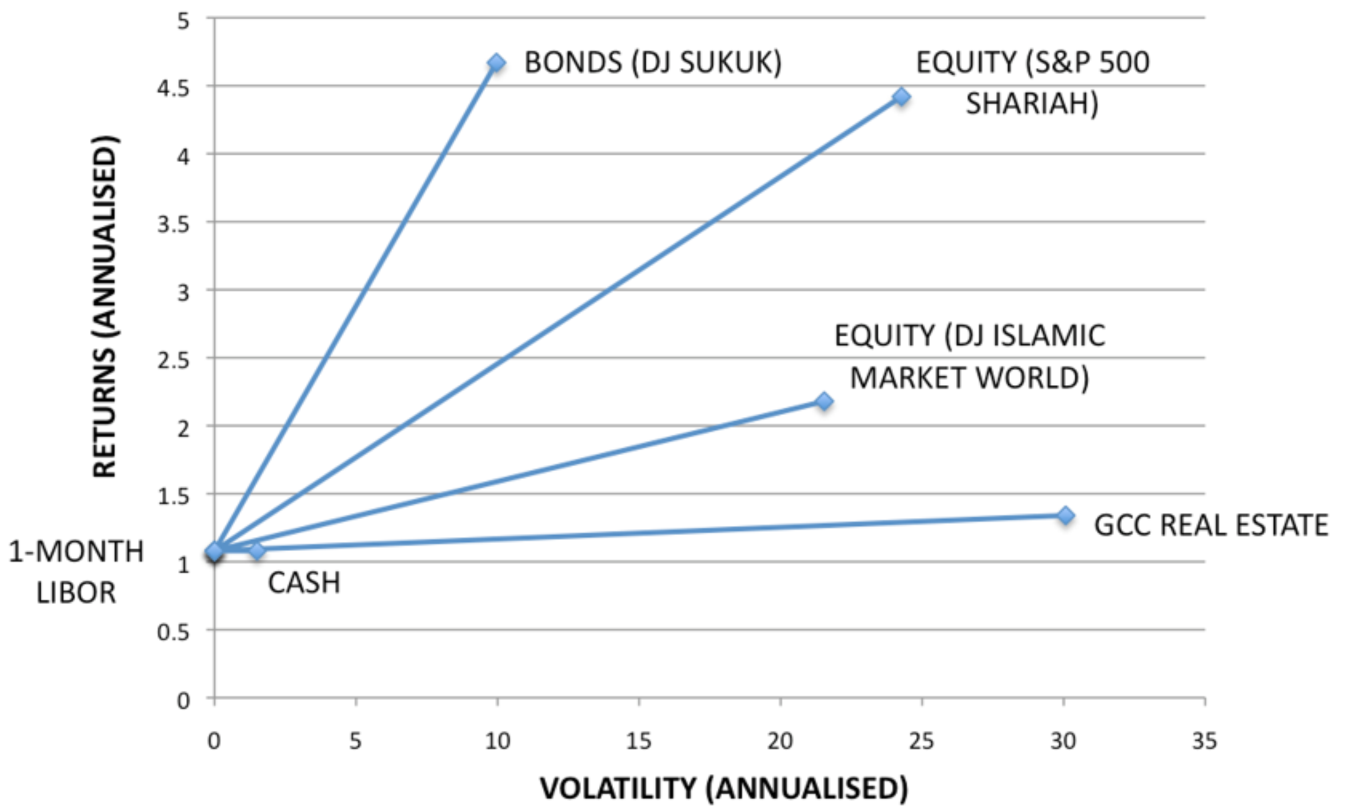
There are various reasons behind this large discrepancy:

- Regulatory parameters are not as strict and allow a larger proportion of investments in risky assets.
- Often a certain fraction has to be invested in local markets or currencies.
- The *takaful* structure encourages the development of underwriting skills more than that of asset management competencies since policyholders receive all or part of the investment returns. The ensuing lack of asset management expertise leads to asset allocations with room for improvement.
- *Takaful* insurers follow their conventional counterparts who have traditionally invested a large proportion of their assets in equity and real estate.

Yet the main reason for the discrepancy in asset allocations is a lack of suitable *sukuk* bonds due to illiquidity, emission in foreign currencies, or unfavourable ratings. Strong growth in the *sukuk* bond market will presumably have a significant positive impact on the returns of *takaful* insurance companies. Nonetheless, *takaful* insurance companies are already able to and should aim to increase the weight of *sukuk* bonds in their asset allocation.

Sukuk bonds had a distinctly higher Sharpe ratio than cash, equity or real estate between 2007 and 2012 (see upper chart on the next page).

It is interesting to note that whereas *sukuk* bonds featured a lower Sharpe ratio than conventional bonds, shariah-compliant equity featured a higher Sharpe ratio than conventional equity, indi-


Risk-return profiles of Shariah-compliant asset classes
(08/2007-09/2012)
RETURNS (ANNUALISED)
VOLATILITY (ANNUALISED)
BONDS (DJ SUKUK)
EQUITY (S&P 500 SHARIAH)
EQUITY (DJ ISLAMIC MARKET WORLD)
GCC REAL ESTATE
1-MONTH LIBOR
CASH
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
5
0
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10
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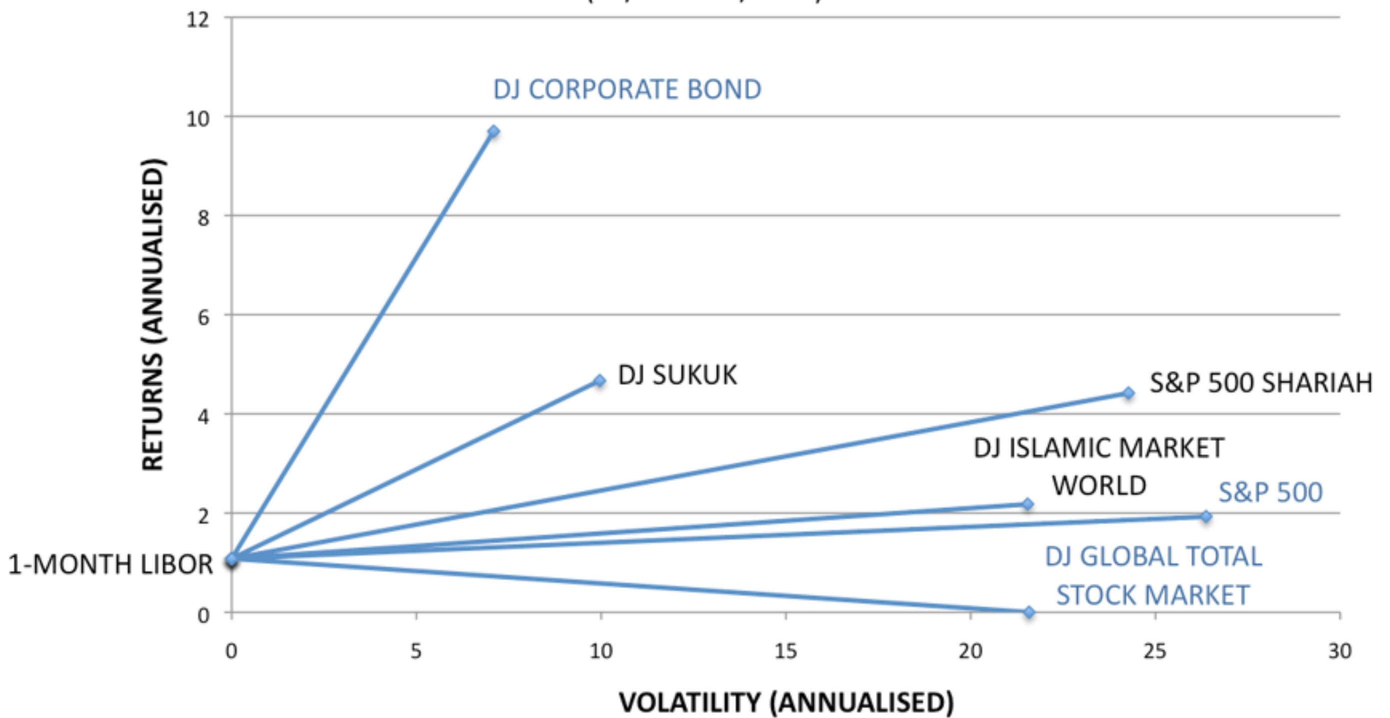

Shariah-compliant bonds and equities vs. conventional bonds and equities
(08/2007-09/2012)
RETURNS (ANNUALISED)
VOLATILITY (ANNUALISED)
DJ CORPORATE BOND
DJ SUKUK
S&P 500 SHARIAH
DJ ISLAMIC MARKET WORLD
S&P 500
DJ GLOBAL TOTAL STOCK MARKET
1-MONTH LIBOR
0
2
4
6
8
10
12
0
5
10
15
20
25
30

cating that shariah-compliant investments might be less risky (see lower chart on the next page).

Microinsurance

A completely different set of factors have prevented the microinsurance market from living up to its potential.

Having difficulty in finding a balance between operating costs and affordability, the majority of microinsurance schemes are struggling to be financially sustainable. Greater outreach combined with economies of scale may solve this problem in the future but for now, the market is forced to rely heavily on support from governments and donors. This support is strongly related to the impact of microinsurance on individuals' and countries' development. The current situation begs the question of whether microinsurance has a positive impact on development.

In theory, microinsurance functions both as a *safety net* and as a *springboard* for the poor and includes a range of positive ex-ante and ex-post effects (effects that occur before and after a shock).

- Naturally, microinsurance offers ex-post financial protection. The *safety net* bucket may additionally include health effects. For example, people with health insurance may visit a doctor sooner, preventing severe illnesses. Self-medication and traditional care may be substituted with modern health care, leading to better health outcomes.
- Microinsurance functions as a *springboard* by giving people the opportunity for advancement. For example, when insured, farmers can concentrate on higher-risk, higher-return crops or purchase more expensive and productive technology.

In practice, there are some additional, partly unexpected effects limiting the positive impact of microinsurance.

- Ex-ante positive behavioural changes may be diminished due to a lack of trust and understanding on the part of customers in developing countries. They may not believe or understand that they will receive future benefits in exchange for payments today.
- Informal insurance mechanisms limit the value of insurance to potential buyers. Insurance may distort informal risk management arrangements and encourage individualisation, leaving people even more vulnerable than before.
- Religious beliefs and traditions affect behaviour. For example, life insurance policies may inflate funeral expenses because the deceased is perceived to be the rightful owner of the insurance payout.
- Narrow or incomplete coverage limits the benefit to customers. Since the customers' annual income is very low, health expenditures categorised as "catastrophic" may remain catastrophic even though the severity of the expenditure is reduced.

The above examples show that the developmental consequences of projects may not always be as straightforward and clear as they may at first seem. Nevertheless, empirical research suggests that microinsurance has a positive, albeit small, impact on the development of individuals and countries, even when taking into account a certain positive bias in the empirical research literature.

The main challenges that the microinsurance market faces today are relevance, outreach, and sustainability (ROS). Simple products such as credit life do not necessarily have a strong impact on development. Health insurance products, on the other hand, are complex and expensive and do not manage to achieve financial sustainability. Microinsurance finds itself in a "chicken and egg" dilemma. The lack of outreach and awareness impairs the financial performance of microinsurance schemes and low financial sustainability prevents large-scale expansion.

According to microeconomics experts, two areas are the key to improve the impact of microinsurance:

- First, "design matters" (Michael Matul, International Labour Organization).
- Second, consumer education (termed "financial literacy" by Hanns Martin Hagen from the Kreditanstalt fuer Wiederaufbau; termed "trust and understanding as well as value for the customer" by Solveig Wanczeck from the Deutsche Gesellschaft fuer Internationale Zusammenarbeit) must be emphasised.

Hopefully, product design and consumer education will soon turn the "chicken and egg" dilemma into a virtuous cycle: outreach and market development could lead to greater impact as well as improved relevance and sustainability, and higher impact, relevance and sustainability could in turn lead to large-scale outreach.

JOHN MAYNARD KEYNES: AN INTERPRETATION OF HIS THEORIES, LEGACY AND SUCCESS

BY LOUIS ARISS

John Maynard Keynes revolutionised macroeconomic theory in the 1930s. First of all, he argued that frictions prevent markets from being fully flexible. He also highlighted the role uncertainty plays in markets, and promoted controversial government spending in times of depression.

Use of Keynes's theories was largely absent from economic policy from the stagflation of the 1970s until 2008. However, his theories regarding business cycles were brought back into consideration by economists during the "Great Recession" of 2008.

Keynes's analysis of business cycles posed a question relevant to the current economic climate: namely, why do economies remain in sustained depressions? Keynes's *Treatise on Money* (1930) highlighted the role of savings as a withdrawal from the circular flow of income. Indeed, history has shown that such withdrawals increase during depressions, where businesses are reluctant to invest these savings because of low business optimism and low expectations of future returns.

His hypothesis was further developed in his celebrated *General Theory of Employment, Interest and Money*; when an economy contracts, income contracts concurrently, causing savings to fall dramatically. In 1929 Americans saved $3.7bn of their income. In 1932 and 1933 they were saving nothing. Heilbroner, author of 'The Worldly Philosophers', summarized this succinctly:

"*An economy in depression could stay there. There was nothing inherent in the economic mechanism to pull it out. One could have 'equilibrium with unemployment, even massive unemployment.*"

Keynes saw capitalism as a cash-generating machine rather than a goods-generating one. In other words, money developed a purpose other than simply being a medium of exchange. Money allows consumers and firms to store wealth, protect themselves against an uncertain future, and delay investment and consumption decisions. Keynes described money as "*above all, a subtle device for linking the present to the future … a barometer of our distrust … concerning the future*".

Robert Skidelsky, the acclaimed biographer of Keynes, claims that contemporary economic theory has failed to consider the importance of uncertainty. Keynes believed that uncertainty explains a number of phenomena: why consumers maintain liquidity through paper money, why volatility increases in times of depression, and why low expectations can dampen business activity for longer than expected. He argued that in times of uncertainty, we fall back on conventions, or 'safe-havens'. This depresses aggregate demand, paving the way for government stimulus spending and inflationary monetary policies with the aim to promote optimism and confidence, both of which are key drivers of the economy.

Similarly, Alan Greenspan, former Chairman of the Federal Reserve, highlights the 'underpricing of risk worldwide' as a major cause of the Great Recession. Efficient market theory states that financial instruments reflect the best possible calculations of risk attached to ownership of assets, considering all available information. It assumes that the distribution of risk is represented by a Gaussian bell curve, where diversification reduces risk: this is the basis of all bank risk-management models. However, these ignore the possibility of correlation of risks. During the 2008 financial crisis, it was said that "10% risks became 90% risks or higher, and all at the same time". We must therefore start taking into account the distinction between risk and uncertainty, a major conclusion of Keynes's research.

The recent Great Recession has revealed the continued importance of Keynes's theories and legacy. Moreover, the classical response, cutting interest rates to stimulate borrowing and investment, has suffered significant setbacks. Banks have recovered large balance sheet losses by increasing their interest rate spread, limiting the effects of low bank base rates. Moreover, enterprise always involves some degree of risk, regardless of how 'cheap' borrowing is. Even so, it should be said that Keynesian policies are, clearly, not flawless. Bailouts and stimulus plans aim to relieve market failure (due to imperfect information and

other frictions) through the issuing of government debt. However, this simply diverts resources from one use to another. The added debt absorbs savings that would otherwise go to private investments.

Keynesian policies also have substantial limitations in light of recent financial and sovereign debt crises. The IMF and ECB have argued in much-cited papers that economic growth for individual countries slows down when their debt-to-GDP ratios reach around 90%, implying that for those countries most in need, the Keynesian remedy is not suitable.

Nevertheless, President Obama's stimulus plan in 2009 does reflect a policy consistent with New Keynesian ideas. The output gap, at the time, was estimated at around $2.9tn, while Paul Krugman, an American economist, called for $1.2tn of stimulus. The end result: $800bn spread over three years, with too many tax cuts. Its impact faded over time, and any initial employment boosts were not sustained.

This story is remarkably similar to that of the Great Depression. The necessary spending to provide full employment - $103bn - only occurred during World War Two. Despite significant American stimulus in the mid-1930s, unemployment never dropped below 14%.

The European sovereign debt crisis provides a unique case study to assess Keynesian policies. The collateral for European governments is tax revenue, and this has clearly been decreasing as unemployment and spare capacity have increased. This has undermined governments' ability to sustain high debt levels, resulting in rising yields, especially in bond markets in southern Europe. Angela Merkel's government has helped steer the European economy towards the tough cure of austerity. Perhaps as a direct reflection of a quote by Keynes, Merkel stated, "in the long run, you can't live beyond your means". Keynes would likely have encouraged the numerous debt 'haircuts' that Greece has undergone in the last few years. Yet politicians have been reluctant and inconsistent in their approach to Keynesian policies. In turn, they are accountable to citizens who are wary of excessive government deficits.

Krugman argues that, ultimately, "no country has driven itself into a debt crisis with stimulus – nor has any country with significant debt regained investor confidence through austerity". Keynes's theories provide crucial insight into the contribution of uncertainty in leading to a sustained depression. Even so, political willpower and unsustainable government debt presents a strong barrier to Keynesian stimulus in Europe. Therefore, austerity, with some limited supply-side measures to induce growth, has momentarily become the preferred option, though it remains to be seen whether austerity measures will have positive long-term consequences on European economies.

THE STUFF WE DON'T WANT

BY TAN XIN XUAN

It is the time of the year to clean out our cupboards, and that old pair of jeans looks too faded to be worn on the streets but too good to be thrown away. The marvellous idea of donating those jeans to charity for Africa pops into your head, but here's why you really shouldn't donate those jeans.

Unloading a massive amount of jeans onto some poor African country is as good as the predatory pricing practice of dumping. It is not just the jeans sellers in the recipient country who suffer from wilting demand for their domestically-produced jeans; all stakeholders involved in the supply chain of those products also feel the impact of the donations. Cotton farmers in Mali, Togo, and Burkina Faso often suffer from decreased derived demand for their cotton produce due to overwhelming donations of clothes and shoes to their countries. What may be an act of goodwill might just result in the collapse of domestic industries in recipient countries.

If we delve further into the economics behind such gifts-in-kind, we will realise that such donations only make sense if the costs of the jeans are lower than the benefits they bring to its recipients.

More often than not, the logistical costs of sorting, cleaning, shipping, and acquiring clearance at the ports of recipient countries are ridiculously high. This is done at the opportunity cost of being able to provide services of higher value, like clean water and medication. The donations, when in excess, incur incineration costs as well.

The benefit of those jeans, on the other hand, is not the £10 they would fetch in the British market for second-hand clothes. In order to assess the correct value of those jeans, we would have to ask the recipient of those jeans: 'By how much would I have to compensate you if I took those jeans away from you, so that you would be as happy as you were when you had those jeans?' The answer given is the true benefit of the jeans measured in monetary terms. This is usually about £1.20, the average price of a pair of jeans in recipient nations.

The high costs of sorting and shipping gifts-in-kind typically outstrip the benefits they bring. A more economically-sound solution to the problem of providing charity to recipients of clothing without destroying their domestic industries would be to buy low-value items, like jeans, from the home markets of the recipient countries, or regional markets in the vicinity, for distribution to the needy. The newly-purchased jeans usually cost less than donated jeans, and would not cost more than the benefits they bring if we assume that a perfectly competitive market is at work here.

Charities are often accused of accepting gifts-in-kind for the purpose of elevating their performance rankings. Donated items do not add to the spending of charities, but add to the administrative costs, thereby worsening the overhead ratio, an important criterion in ranking the performance of charities. In an article titled Donated *Pills Make Some Charities Look Too Good On Paper* published by *Forbes* magazine, some charities are further faced with the charge of inflating the value of the donated items by pricing them at the prices in Western economies instead of the prices in recipient countries.

An example that has met with much scrutiny, from economist William Easterly, is the American National Football League's donation of 100,000 shirts heralding the Pittsburgh Steelers as champions of the Super Bowl, after the Green Bay Packers were declared the official winners. The recipient charity, World Vision, responded to accusations by publishing the logistical costs of handling and shipping a shirt, which totalled \$0.58. The value of a shirt when bought in the markets of recipient countries was priced at \$2 by World Vision. In such a situation, these gifts-in-kind are well-received. However, in most cases, the donations are not brand new, and are not packed neatly into boxes all ready for shipping. Thus the costs of handling and shipping the donations are much higher.

Most charity organisations request for cash donations as it gives

them the flexibility of allocating the purchases. This is especially so when the gifts-in-kind being donated are low-value items. The economic theory on budget constraints and indifference mappings can be applied to see why this is so:

The indifference curves of the consumer are relatively flat because there is a much greater preference towards other commodity goods like clean water, healthcare, etc. than a low-value item, like a pair of worn jeans.

If the consumer receives a donation of c1 units of clothes, he moves from consuming bundle z to consuming bundle y. The consumer is placed on a higher utility when he receives the same value of the donations in cash as he is able to reallocate his cash to purchase bundle x.

Requests for cash donations over gifts-in-kind are particularly strong in emergency disaster relief efforts, because charities often do not have the time to organise and clean the donations. Further, some charities are unaware of the exact amount of such gifts-in-kind needed by the victims, and excessive inflow of donations clog ports, preventing the most urgently needed supplies from reaching aid victims.

Perhaps the only advantage of gifts-in-kind is that it does not attract corruption like cash donations do.

We haven't quite forgotten the pair of jeans that still sits forlorn on the bedroom floor, and here is what Scott Gilmore suggests we do with the stuff we don't want (SWEDOW):

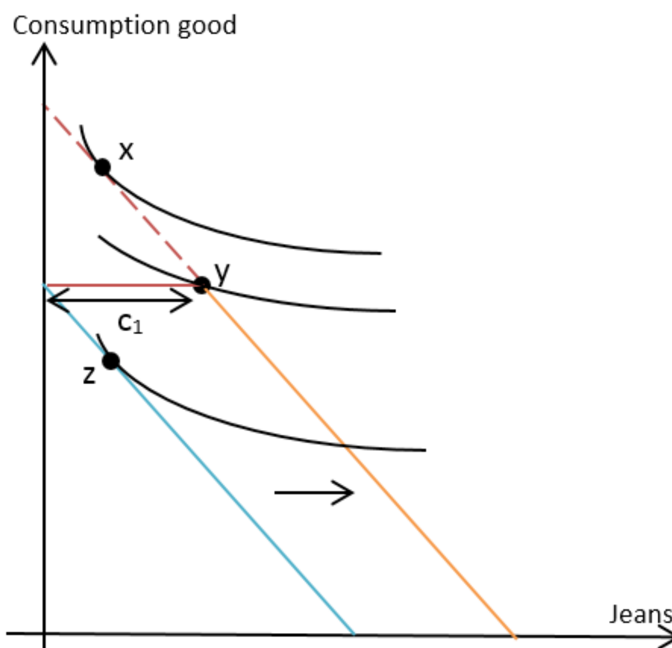
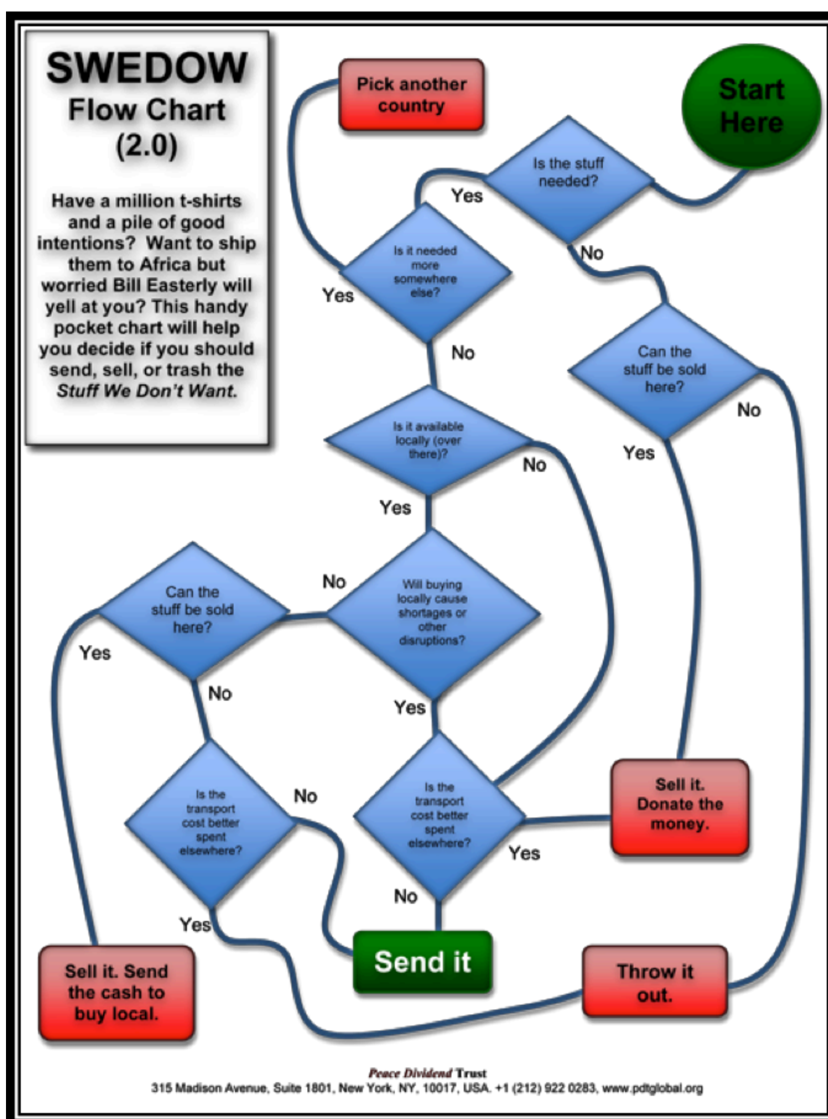


Figure 1: Indifference map and budget constraint



INTELLECTUAL PROPERTY, INNOVATION AND HEALTH CARE

BY JEFFREY MO

At one point, experts said that we would never finish it within our lifetimes: the sequencing of the human genome, more commonly known as our DNA. The human genome encodes the proteins that govern life and that therefore distinguish us from other organisms or, indeed, other humans. Sequencing the genome, or being able to read the DNA as if it were a book with letters, would let us identify the role of individual genes and thus their effect on human health and disease.

Led by the United States government and comprising a consortium of universities worldwide, the Human Genome Project commenced research in earnest in 1990. Celera, a private firm, joined the race in 1999 and was able to publish a draft sequence in 2001. Its business model was to charge other companies for access to its genetic data, which it was able to do until 2003, when the Human Genome Project finally disclosed its final draft of the human DNA sequence into the public domain. What did this historical legacy mean for the scientific developments that were promised?

A recent paper by Heidi Williams at the Massachusetts Institute of Technology has revealed that, even though certain genes were 'held' by Celera for only two years between 2001 and 2003, there were an average of roughly 1.2 scientific publications on each such gene by 2009, compared to 2.1 publications on each gene that had only ever been in the public domain – a statistically-significant difference. There were similar differences for gene-based medical diagnostic tests: approximately 3% of Celera-held genes but over 5% of non-Celera-held genes had been developed into such a test by 2009.

The Side Effects of Catalysing Innovation

Intellectual property rights also distort the incentives to innovate in other fields of medicine. Patents in the United States grant the developer a twenty-year timeframe during which they have the exclusive rights to manufacture the patented good. However, patents for pharmaceuticals are filed at the time of discovery as opposed to the time of commercialisation. Before such treatments can be sold, they must undergo rigorous clinical trials to ensure that the drug achieves its intended outcome with minimum adverse side effects. Such clinical trials can take years, reducing or even completely voiding the effective life of the patent. This creates the problem of misaligned incentives, since pharmaceutical companies preferentially develop drugs for conditions for which there is a shorter delay between development and commercialisation.

A working paper by Williams and her collaborators tests this hypothesis by examining drug trials conducted on cancers at different stages of malignancy. The five-year survival rates are lower for cancers in later stages of development, and therefore clinical trials targeted at these later stages need only follow patients for a shorter period of time. Indeed, two clinical trials for prostate cancer were published in the New England Journal of Medicine in 2011: a 3-year trial for a metastasised cancer with a 20% five-year survival rate, and an 18-year trial for a localised cancer with an 80% five-year survival rate.

Would this translate into fewer clinical trials for drugs that attacked localised, early-stage cancers? The researchers discovered that a 10 percentage point increase in the five-year survival rate led to an 8.7% decrease in the level of R&D investment. Indeed, 12 000 clinical trials were conducted for metastatic cancer patients but only 6000 clinical trials were aimed at localised cancer patients, which had average five-year survival rates of 10% and 70%, respectively. (NB: These are average survival rates over different types of metastasised and localised cancers, not only prostate cancer as was discussed above.) Perhaps even more tellingly, all of the drug trials that aimed to prevent cancer – with trials lasting several decades or longer – were funded by governments, not private companies.

The Antidote to Innovation Deficit: The Case of Treating Tropical Diseases

Treatments for tropical diseases, such as malaria, tuberculosis, and dengue fever, are often needed most in the countries that can least afford them. As might be expected, they are also among the diseases for which the least research and development have been undertaken: less than 0.5% of the over 1200 drugs licensed globally between 1975 and 1997 were explicitly tar-

geted towards such diseases.

Economists have posited two explanations for the lack of research in this field. Firstly, ideas and technology – in this case, treatments – are, in principle, a public good. Without patent rights, a treatment developed in one tropical country can be used in or 'spill over' to another country, which does not have to reinvest in the development costs. Hence, each individual country has a reduced incentive to fund research into treatments. Patents could help to resolve this problem. However, as discussed above, patents are of limited lifetimes and hence not fully effective, and intellectual property rights could actually stifle scientific progress.

Secondly, as those affected by tropical diseases are for the most part poor, governments and large organisations are relied upon for as the purchasers and distributors of most of these treatments. Prior to the development, they have an incentive to promise biotechnology companies high prices, and thus high profits, for these drugs when they come onto the market. However, after development, once the manufacturers have already invested large sunk costs into these treatments, governments and organisations would prefer to purchase these drugs at a low cost. Moreover, they are able to do so because of their high market power. Drug manufacturers are aware of this time-inconsistency problem and therefore do not develop an adequate level of tropical disease treatments.

One solution, advocated by Michael Kremer at Harvard University, is the advance market commitment, where governments or organisations pledge to purchase a certain number of treatments, to be provided to receiver countries as aid, at a pre-specified high price. After this quota has been reached, pharmaceutical companies would be required to either sell the treatment at a low price or to license the technology to other companies. Both of the problems above are solved: companies are compensated for their development costs and once again have an incentive to pursue R&D; and there is no time inconsistency as manufacturers and governments are contractually bound by the advance market commitment.

Perhaps an advance market commitment could also have been used in the case of Celera's gene patents. Celera, not being specialised in the downstream development of diagnostic tests, would be better off licensing its genes to other biotechnology companies with those capabilities, thereby receiving a licensing fee. However, if a licensing contract is only negotiated after the test is developed, then Celera can try to extract the highest licensing fee possible, thereby reducing the profits and incentives of the test developer. An ex-ante pledge specifying the licensing fee, to be paid only after the development of a diagnostic test might help resolve this problem.

Celera's Patents

In the end, the competition from Celera was not entirely negative. It helped to accelerate the Human Genome Project, which finished two years ahead of schedule. Moreover, Celera was able to complete its own sequencing in just two years because it used advances made by the Human Genome Project – its sequencing method, in fact, broke the human genome into bits and pieces and matched them against what parts had already been discovered by the Human Genome Project, as if putting together a jigsaw puzzle against a template.

However, even though they allowed non-commercial, academic research free access to their gene data, university scientists often stated that they were unclear as to Celera's precise terms of usage. This situation was further complicated by the fact that much academic research has been funded by competing commercial partners. The data indicate that Celera's patents over certain genes have reduced the medical potential of their genes, even long after the patent has expired. Scientific innovations can indeed build upon one another, but only if the right intellectual property mechanisms are in place.

How much is a human life worth? Obviously there is no clear answer to such a question, but one suspects that the value is at least $30 USD per life-year (i.e. $30 per human per year). That is how much vaccines purchased under an advance market commitment are posited to cost – just $30 USD to give someone one additional year of life. Economists studying innovation policy and patent rights are working to incentivise these low-cost health improvements. Indeed, Heidi Williams's research was cited by the United States Supreme Court in 2013 when it ruled against allowing patents on naturally-occurring human genes while permitting them on synthetically-designed genes. Advances in the economic sciences fostering breakthroughs in the medical sciences – maybe economics is not so dismal, after all.

SUSTAINING JOURNALISM

BY BENJAMIN AW

How much would you be willing to pay for the copy of Rationale that you are reading now? If I were to ask one hundred LSE students this question, the average answer I would probably get is nothing (or perhaps half a penny if I were to include myself in that sample of one hundred). If we were in the free market and *Rationale* were the product of a firm, it would take a miracle to sustain the production of this magazine. Even if the editors and writers were unpaid (as they are), the printing costs would certainly be high enough for this "firm" to be kicked out of the market before the first issue even went to print.

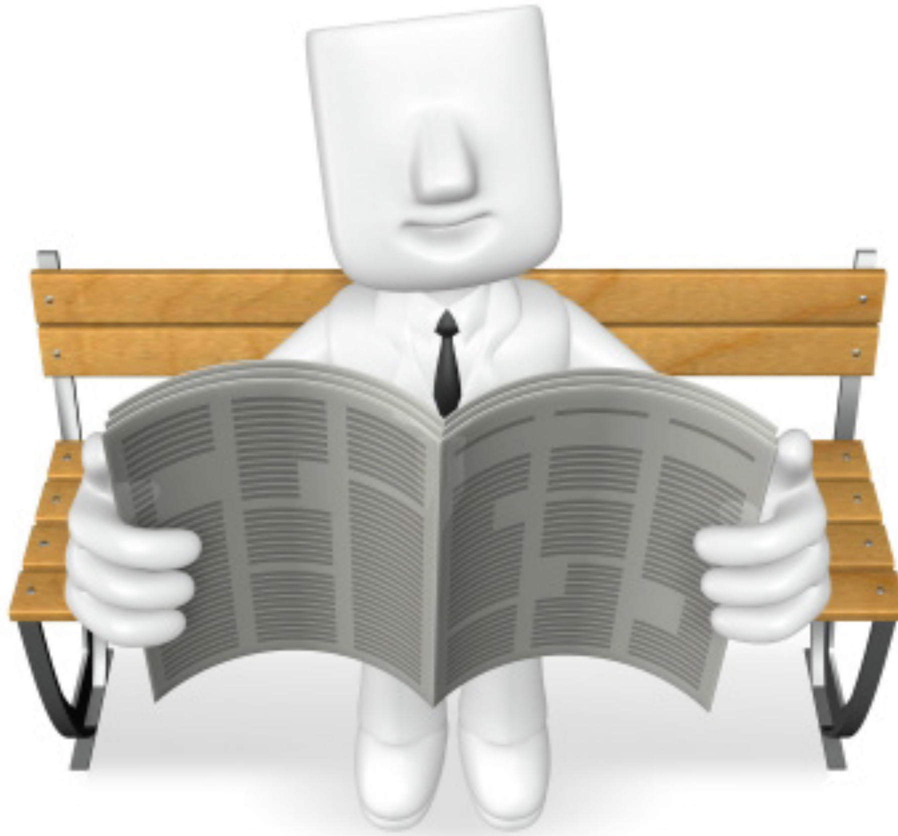
Yet, it does not take a genius to guess how it is possible that you are still holding on to this (free) copy of *Rationale* now. Rather than join the hundreds of other print works of journalism, mostly magazines and newspapers, that have ceased publication in the last decade, *Rationale* survives (along with the other student publications of the LSESU) because a visible hand (and a little advertising) exists to cover the costs of production.

Journalism was born to provide society with information and insight, and in many ways it provides more benefits to society than private consumers would imagine. Yet, since the advent of the information age, paid journalism has found its survival increasingly difficult to achieve by readership alone. Not only does it lose out to "new media" in the ever-intensifying race for readership -- after all, newspapers only go to print hours after reported events occur -- they face an increasingly thrifty audience who now have the choice to consume news on the internet for free. To a large extent, these unprecedented changes have led to what Schumpeter would call "creative destruction," as many for-profit news firms have innovated by setting up online equivalents of their print publications that charge a subscription fee, while shifting to a more advertising-focused revenue base.

These solutions are not without their own sets of problems. By moving journalism from print to the internet, firms are ironically exposing themselves to the risk of making their products more non-excludable, as news can now be copied, pasted, and spread faster than ever. This is especially true in regions with little or no regard for intellectual property rights. Considering that news can already be considered to be non-rivalrous (that is, one person reading news does not reduce the amount available to another person), the result is that journalism becomes a public good, as consumers are given no incentive to pay for news.

Of course, some newspapers have made use of advertising to the extreme, such that they can be given out for free or far below cost, with the costs of production and hopefully more paid for by advertising revenue. Yet, there is a limit to the advertising revenue that can be reaped, and this solution greatly blurs the already-fine line dividing editorial space and advertorial space. Given a choice between the two, would you rather read a newspaper that contains advertisements by the side or would you rather read a brochure of advertisements with news by the side?

The end result of these developments is that while most newspaper firms have survived, some have failed and are forced to shut down, with more to follow suit in the next decade. The investor Warren Buffett, whose company owns, *inter*



alia, dozens of newspaper firms, said in 2013, “The circulation, advertising and profits of the newspaper industry overall are certain to decline. That prediction still holds.” Although he was hopeful that local newspapers, especially those with monopoly power, would remain profitable, global trends are showing that the future of journalism is bleak. In two decades, the worst-case scenario could be one in which the industry becomes monopolised by citizen journalists providing news and commentary on a voluntary basis because nobody would be willing to pay for news anymore. While Adam Smith might have believed that this is simply the invisible hand at work, the merits of having a more informed society through journalism are simply too great to allow otherwise-functional journalism firms to fail.

Nonetheless, no self-respecting journalist (whether one writing for *Rationale* or otherwise) would call on the government to engage in the funding of journalism firms. Doing so would be tantamount to an attack on the freedom of speech, a destruction of the most important check on the state, and a walk down the slippery slope towards state-controlled media *à la Nineteen Eighty-Four*. Unlike in funding health-care, public transport, or national defence, government intervention in journalism is often met with responses of suspicion and, sometimes, civil disobedience.

So what could a responsible government do instead? Rather than intervene directly on the revenue of journalism firms, it should work indirectly on costs instead. Perhaps a tax break on profitable journalistic activity, in recognition of the public good it brings, would appear more benign than outright funding, even though they do more or less the same thing. As long as journalism firms do not appear to be under outright and undue influence, they would still be free to continue to exercise their freedom of expression, such as in criticising the state.

At the same time, any responsible government has a duty to ensure that society continues to stay informed, and journalism has a significant role to play towards achieving this goal. Already, many state-influenced education systems around the world inculcate the importance of reading newspapers, in the hopes of imparting a lifelong habit of staying informed. By increasing long-term readership and keeping the costs of production in journalism low, the worst-case scenario might just be averted. So, rest assured that you can look forward to the next issue of *Rationale*, at least for now.

EDITORS' PIECES

UKRAINE: A COUNTRY AND AN ECONOMY IN CRISIS

BY JEFFREY MO

The ongoing economic crisis in Ukraine has recently taken a backseat to the political upheaval there, but cannot be ignored much longer. At the end of January, foreign exchange reserves fell to $16bn, just enough to cover two months' worth of imports. Imbalances were accumulated throughout the Yanukovich regime, with the January to September GDP falling by 1.3% from 2012 to 2013. Economic activity has slowed and tax revenues have fallen due to the political situation, and shortly after the departure of Yanukovich, it was announced that the government did not have the coffers to meet its pension obligations.

Ukraine negotiated a $15bn bailout with Russia in December 2013, with the first $3bn tranche of Ukrainian sovereign debt purchased later that same month. However, given the tensions, Russia has not committed to any firm timeline for the disbursement of the remainder of the funds, and the second $2bn package has been deferred since late January. The bailout was widely seen as an attempt by Moscow to bring Ukraine back into its sphere of influence, amidst discussions between Ukraine and the European Union for a closer relationship.

The post-Yanukovich, pro-EU government has signalled its intent to integrate closer to the EU, a move that has been reciprocated through the initial offer of an €11.2bn package by the EU (supported by the European Bank for Reconstruction and Development) for the period until 2020. J.P. Morgan predicts that a separate IMF-led programme of between $25-30bn over the next 2-3 years will be announced after the presidential elections, currently scheduled for May 25. These packages will enable Ukraine to face its mounting trade deficit, with $9bn in external debt repayments are due by the end of 2014.

Perhaps even more worrying, yields on government bonds maturing in June 2014 offered yields exceeding 50% in late February. Markit predicts that Ukraine is slightly more likely to default than not over the next five years. This has led to a fall in confidence in and placed pressure on the Ukrainian hryvnia, which had, until early February, been tied to the US dollar through a 'managed peg', much like the Chinese yuan. Although some capital controls have been adopted, the peg has fallen from an original rate of 8 hryvni to the dollar to a peak of 9.8 hryvni to the dollar in late February. Rates have stabilised somewhat to around 9.3 hryvni to the dollar, as of the time of writing.

Real GDP was falling even before the crisis began, and is projected to be in the double-digits for 2014. Moreover, one-quarter of Ukraine's trade is conducted with Russia, a number that will surely fall if relations continue to be damaged. On the other hand, the political shift could present new opportunities for Ukraine. The government must establish enough legitimacy to enact key economic reforms and, most urgently, prevent an economic collapse. We may see growth again by the end of 2015, should these reforms be enacted.

AUSTRALIA: STILL THE LUCKY COUNTRY?

BY HONGLIN JIANG

In the years following the financial crisis, Australia was the envy of the world. With its relatively low unemployment rate, high standard of living, and record high terms of trade, it escaped the subprime mortgage crisis and Eurozone debt crisis unscathed. Its banks are among the most profitable and richly-valued in the world. This has largely been due to demand out of China, as fiscal and monetary stimulus created demand for large-scale investment projects, and thus for corresponding imports of Australian coal, iron, and raw materials. However, after more than twenty years of uninterrupted economic growth, luck may be turn-

ing against Australia.

A combination of government policy and raw economic reality is producing a slow but inexorable shift in Chinese economic dynamics. The process of rebalancing away from infrastructure and investment is lowering prospective demand for raw materials at precisely the same time as new sources of supply come online. Correspondingly, the price of iron ore and other hard commodities has plunged in recent weeks, hurting big Australian miners such as BHP, Rio Tinto, and Fortescue. This will inevitably flow on to their business decisions regarding capital expenditure and hiring.

Meanwhile, a persistently high Australian dollar has constricted other areas of the economy. Notably, manufacturing has all but disappeared (with Australian car-making factories being high profile casualties), while tourism and higher education have seen lower foreign demand. A shortage of skilled labour and unionised workforces has driven wage growth to the point where some sectors have become uncompetitive. Here, Qantas immediately springs to mind, with an average wage of around $A100,000 - 72% higher than the average Australian wage, and far higher than its competitors.

At this point, with trend growth forecast around 3% and inflation under control, Australia's lucky run appears set to continue. However, it should not become complacent. Dutch disease does not just affect the Dutch.

THE UNITED KINGDOM: NOT OUT OF THE WOODS JUST YET

BY SAM FOXALL

2013 was a bullish year for the UK economy: it outperformed all of its G7 partners, recording growth in GDP of 1.9% for the year according to the Office for National Statistics (ONS). This represents the fastest growth since 2007. 2014 promises to be an even better year, with the ONS forecasting growth of around 2.4% whilst more optimistic estimates estimate growth of around 3%. Even the conservative first figure will see the UK grow faster this year than any other developed economy with the exception of the US. There are other encouraging pieces of data, with inflation falling towards the Bank of England's 2% target and unemployment falling towards 7%, the level previously cited as the threshold for a rise in interest rates, which are currently at a historic low of 0.5%. Mark Carney, the new governor of the Bank of England, has recently suggested that once this threshold is met, as is projected to happen in the first quarter of 2014, rates will not necessarily move from the 0.5% level, moving policy in line with the Bank's plan to introduce forward guidance on rates.

Another factor behind the Bank's plan to leave rates unchanged gives an insight into some of the underlying weaknesses in the UK economy. Only two countries have higher aggregate debt relative to GDP: the crisis-stricken Ireland and Japan. Low rates and above-target inflation are nursing this debt, demonstrating the fragility of the economy to any further shocks. There is also the question of which type of recovery the UK is undergoing. The coalition government perpetually talks about a 'balanced' recovery, yet the services sector has outperformed all others by a considerable margin and still accounts for over three quarters of output while manufacturing remains flat and construction actually contracted in the final quarter of 2013. 80% of new jobs in the private sector were created in London last year as the capital continues to extend its economic supremacy over the rest of the UK, and wages have tracked below inflation for the longest period since the early 1960s. Finally, there is growing concern regarding an over-heating property market, particularly in the South East, where prices are growing annually at over 10% in some areas.

The UK is faring better than most of the developed world, there is genuine momentum behind the recovery, and confidence is growing. This year, output should go past its pre-recession level and GDP growth will move further towards the long-run trend. But the recovery will not, it seems, be as many had hoped: instead of being driven by exports and investment, it will look a lot like the UK economy that entered the 2008 financial crisis, consumer-driven with a property boom that could represent a nasty asset bubble. The challenge moving forwards is to address sluggish growth in investment and lending in order to stimulate higher wage employment. Regional development must come in the form of specialisation and foreign investment whilst the government continues its programme of fiscal consolidation. Finally, rates will have to rise eventually to protect an importing currency, but don't bet on it anytime soon. The UK economy remains far from the straight and narrow.