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A LOOK AT THE STATE OF KNOWLEDGE ON BUNDLING

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The theory surrounding bundling has evolved significantly; once ascertaining that all bundling is essentially motivated by efficiency but later believing that strategic bundling is an everyday phenomenon and currently considering this practice a potential problem. Cormac O'Dea sifts through the literature on this subject; he considers the absence of a legal test to determine the practice and then looks at the moves toward establishing such a standard.

Introduction

A striking proportion of papers on bundling seem to open with a statement to the effect that the practice is an everyday occurrence. It would be a shame to break with convention; hence, it should be noted that bundling is a ubiquitous phenomenon. Most cases of bundling are rarely noticed, let alone securitised by antitrust authorities. Any attempt to analyse bundling from antitrust perspective must do so along two dimensions. Firstly it must disentangle efficient from strategic motives for bundling. Secondly, in cases where bundling is considered to have a malignant effect, any analysis must attribute that effect to either market failures that competition policy cannot reverse[1] or to a strategic action that can be deterred using a policy instrument. This paper will focus on the potential for strategic bundling and will critically review recent literature suggesting the potential for that practice.

The Second Section presents the once-dominant notion that strategic bundling cannot occur, and looks at recent challenges to that theory. The Third Section reviews potential efficient motives for bundling, again focusing on recent developments in the literature. The Fourth Section notes the absence of an accepted legal test to determine the presence of exclusionary bundling, in the US, the EU or in the domain of economic theory. The section then analyses a number of recent suggestions for such a test. The Fifth Section concludes the paper.

[1] Such as oversupply of a commodity that consumers don't value, and wouldn't purchase were it not part of an attractive bundle.

Leveraging Monopoly Power

Such was the influence of the Chicago-style thinking that by 1978 Bork could state that:

> "[The leverage] theory of tying[2] arrangements is merely another example of the discredited transfer of power theory, and perhaps no other variety of that theory has been so thoroughly and repeatedly demolished in the legal and economic literature" (Bork, 1993: 372).

The Chicago argument illustrates that the bundling of monopolised product with a competitive one results in profits that are weakly less than those that would be earned by the selling of the two goods individually, or by selling the monopoly good alone (see for example: Schmalensee 1982, Posner 1976, Bork 1993). The literature reviewing the apparent discrediting the leverage theory has been concisely summarised by Whinston: "in short, there is only one monopoly profit to be extracted" (Whinston, 1990: 837).

Evaluated on its own very narrow terms, the logic of the Chicago School argument is unimpeachable. However, if either the scope of the analysis is broadened to include bundles other than the monopolised good/competitive good bundle, or if the concept of leverage is interpreted in dynamic terms rather than in static terms, Bork's contention that leverage theory has been discredited is unsafe. The effect of these extensions on the Chicago school argument will now be examined.

The case of a bundle of a monopolised and a competitive good is by no means typical of reality. Whinston (1990) shows that the integrity of the 'one monopoly profit' argument relies on the assumptions of perfect competition and constant returns to scale in the secondary market. Whinston looks at the case where the production of the tied good is characterised by economies of scale, and shows that, in the resulting oligopolistic setting, bundling can lead to the monopolisation of the tied good market. The mechanism through which that monopolisation occurs is that, by tying, the monopolist can reduce the sales of its competitor in the tied good market, lowering its profits to a level below that which would justify continued production.

Whinston's analysis of his special case no more proves the case for the 'leverage theory' than the Chicago School's analysis of their special case disproves it. While it would not be appropriate to expect a 'General Theory

[2] Though tying and bundling are not equivalent, the economic analyses applied to the respective practices are similar. The structure of this paper, therefore, will not be guided by the differences between the two practices.

of Bundling' from any author, a problem arises when an analysis of a specific case is given the credence of a general theory in academic and policy debate, as happened with the Chicago School's stylised example.

Posner stated that: "A [fatal] weakness of the leverage theory is its inability to explain why a firm with a monopoly in one product would want to monopolize a complementary product as well" (Posner, 1976: 173). Embedded in this is an implicit assumption that market structure is invariant to bundling, or that if strategic manipulation of a market is possible, that firms will not employ bundling to preserve, extend, or attain market power. The application of a similar standard to the analysis of predation would discount that practice as a concern in competition policy.

There has been a recent flurry of research, possible due to the USA v. Microsoft case, that focus on the creation of entry barriers using bundling strategies. These papers, which rise admirably to meet the challenge implied by Posner's statement, rely on fact that entry into more than one market is always more difficult than entry into one. Stating this same intuitive result from the point of view of the firm with market power, Porter (1996: 73) states that: "[dominant] positions built on systems of activities are far more sustainable than those built on individual activities". The thrust of recent literature has been directed towards developing models in which barriers to entry can be erected using bundling strategies. Three recent papers in this vein are analysed here.

Choi & Stefandis (2001) put forward a model that is different to that of the Chicago school along two dimensions. Firstly they consider the bundling firm to be one with some degree of market power in two complements rather than a monopolist in one. The two complements are assumed to have value only when consumed together. Secondly, they consider that an entrant has to undertake a risky investment decision which must succeed if they are to enter. In order to enter the market, the entrant (or two entrants acting independently) requires a technological breakthrough in both markets rather than in one alone to enter the market. The probability of successful entry is reduced. This protects the market power that the firm has in the two complements. As in Whinston (1990), the applicability of this model is limited by the fact that the result relies on a precommitment to bundle if entry occurs in one product. The need for precomittment stems from the fact that though the bundling strategy may be *ex ante* optimal in the hope of deterring entry, should entry into one market occur it might not be optimal *ex post.* Without precommitment, any equilibrium containing an entry barrier is not subgame perfect.

Carlton & Waldman (2002) take a different approach to Choi & Stefandis. They consider the effect not on the latter good in a monopolised good/competitive good bundle but on the effect of the monopolised market itself. They justify their reversal of the focus of attention by noting that in both the recent Microsoft case, as well as in the celebrated IBM case of 1936, the primary *public* concern was not with the respective companies trying to monopolise the peripheral markets (internet browsers and punch cards respectively) but with their entrenched monopoly position in their primary markets (operating systems and computational machines).

The authors show, in a two-period setting, firstly that a firm that is currently a monopolist in one market can preserve its market power by making the purchase of the monopolised good contingent on the purchase of a complementary product. Secondly, they show that tying can be used to transfer monopoly power from the already monopolised market to a newly emerging market. These results also rely on the ability for a firm to precommit to a bundling strategy and on either entry costs into the complementary market or network externalities among the bundled products.

The Carlton & Waldman paper has significant limitations in its applicability. The two-period setting is required for the result, as the mechanism for exclusion is delaying entry rather than blocking it altogether. As the time horizon under consideration is extended, the negative effect on a firm of exclusion for only one period is reduced. The two-period assumption can be justified with reference to industries where technological progress is swift. In these instances, markets will only exist for a short period of time. Indeed, the authors posit that their model could be used to explain the entrenched dominance of firms such as Microsoft which inhabit rapidly evolving industries. The application of the theoretical model to the computer industry also justifies the ‘precomittment’ condition as technological process can often be used to facilitate the integration of previously individual products in manner that would make separation either impossible or prohibitively expensive.

Nalebuff (2004) presents a model that is different from the two discussed immediately above and from Whinston (1990) as it shows that bundling can be used as an entry deterrent even in the absence of the ability to precommit. Nalebuff considers the case of a firm with a monopoly in two goods and shows that the monopolist can protect his market power in both markets by bundling. He also finds that if entry does occur, bundling will mitigate the negative effects on the incumbent firm.

Nalebuff decomposes the mechanism through which entry is deterred into two channels: a ‘pure bundling’ effect and a ‘bundle discount’ effect. The former refers to the fact that when two monopolised goods are bundled (assuming the bundle price is simply the sum of the optimal individual prices), the market available to any entrant with capacity to produce only one of the commodities is significantly reduced[3]. Only those with relatively high valuations of the entrant's product and relatively low valuations of the other product will be interested in buying from the newcomer. Secondly, the bundle discount effect, results from an optimisation of the bundle price. It will be profitable to reduce the price below the sum of the individual optima, further enhancing the incumbent's position viz. the entrant. Further lowering the price below the optimal will impose first-order costs on any one-commodity entrant and only second-order costs on the incumbent. Bundling can thus strengthen the capacity of limit pricing to deter entry.

However, Nalebuff doesn't acknowledge the fact that the gains from this optimisation result from the ability of the bundling firm to price discriminate. Two points must be noted on this: Nalebuff notes that "the price discrimination effect offered by bundling is valuable, but the largest gains come from the entry-mitigation effect and the efficient entry-deterrence" (Nalebuff, 2004: 173). Comparisons such as these aren't valid, as a proportion of the gains that have their proximate source in entry-mitigation or entry-deterrence have their ultimate source in price discrimination.

The second point regarding Nalebuff's omission relates to the potential contribution of this theory to antitrust law. The US Supreme Court has consistently stated that "exclusionary conduct is conduct that makes no economic sense but for its tendency to eliminate or lessen competition" (Abbot, 2005: 9). Exclusion as a result of price discrimination isn't considered an antitrust problem in the US. Given that the entry-mitigation effects and entry-deterrence effects that Nalebuff refers to result ultimately from price discrimination and not from bundling, the extent to which we label entry barriers as 'exclusionary' should be questioned. Furthermore, noting that strategic and efficient motives have been conflated in a theoretical context is much easier than separating their relative effects empirically. This presents a further challenge for the application of the academic literature on bundling to antirust policy[4].

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[3] In Nalebuff's simple model, with consumer valuations uniformly distributed across the unit square, the size of the market available to the one-commodity entrant is reduced by one half. The general result is robust to non-uniform distribution of valuations, as Nalebuff shows in his extensions.

[4] It should be noted that the issue noted above is not as critical in an EU context as it is in the US context. Article 82 of the Treaty of Rome regards any "abuse of a dominant position" as illegal. Abbot (2005: 10) notes that this "sanctions efficient as well as inefficient" conduct.

The three papers that have been discussed rise admirably to meet Posner's challenge of exhibiting why a monopolist would want to bundle its product with a complement. However, what these papers have in common with the series of papers they were written to discredit is that they are effectively 'possibility theorems', arguably as far from reality as the stylised Chicago example.

The recent literature can be seen as a reaction to the entrenchment of the Chicago School's position. Similarly, the Chicago School's conception of bundling can be seen as a reaction to a culture among the judiciary that viewed bundling as something inherently nefarious. It is probably unfair to quote and evaluate the Chicago School argument on bundling without acknowledging this context. There evidently was a need for a re-evaluation of bundling when; for example, Supreme Court Justice Felix Frankfurter stated that "tying arrangements serve hardly any purpose beyond the suppression of competition"[5]. Bork (1993:366-368) makes reference to the case of *International Salt v United States*[6]. In this case the Supreme Court found against a defendant who had leased patented salt-selling machines on condition that those leasing the machines purchase the necessary salt from the lessor. This could be seen as fitting nicely into the Chicago School's stylised monopolised good-competitive good example but for the fact that, according to Supreme Court Justice Hugo Black "the defendant offered to prove that competitive salt machines were readily available, but the Court regarded such proof as irrelevant"[7]. Here we have a court finding that the bundling of two *competitive* goods is somehow problematic on the basis that "it is unreasonable, per se, to foreclose competitors from any substantial market"[8]. While it may be possible to come up with a possibility theorem that supports a leverage hypothesis in this instance, the absolute suspicion of tying among the judiciary at the time is indefensible.

Unfortunately, in response to a situation in which the Judiciary refused to countenance that there could be any *efficiency* related reasons for tying or bundling, the Chicago School retreated to the other extreme and refused to countenance that there could be any *strategic* reasons for bundling. The recent literature occupies a somewhat more moderate position than either of these two positions, acknowledging the various efficiency

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[5] Standard Oil Co. of California and Standard Stations Inc., v. United States 337 US 293, 305 (1949)
[6] International Salt Co. v. United States 332 U.S. 392, 196 (1947)
[7] Justice Jackson, writing for the Court Majority in International Salt Co. v United States
[8] Ibid.

related reasons for bundling, while also recognising that strategic bundling is, at least, a potential problem.

Efficient Bundling

The traditional 'efficient' motive attributed to bundlers, after Stigler (1963), has been price discrimination. Posner (1976: 174) stated that "the replacement of leverage by price discrimination in the theory of tie-ins has been part of the economic literature for almost twenty years". There are two channels whereby bundling can facilitate price discrimination. Firstly, the act of bundling reduces the variation in consumer valuation of products. This effect is strongest when consumer valuations are negatively correlated but is still relevant where valuations are positively related. Secondly, with regard to tying, that act can be used to meter consumers' use of a product, thus separating consumers by the intensity of their use of the product, and therefore by their probable valuations.

Although Stigler's argument is internally consistent, Kenny & Klein (1983) argue that his analysis isn't actually applicable to the case he applied it to. It is interesting to note Kobayashi's (2005) suggestion that, if Kenny & Klein are correct, Stigler's mistaken 'answer' to why Loew's Inc. bundled their films precluded an early in depth empirical analysis of the efficient motives for bundling, and could have resulted in an intense study of an area of little empirical evidence.

More recent contributions to this area of the literature come from Nalebuff (2000)**,** and Choi (2003). Nalebuff applies Cournot's comments on the individual pricing of complements. Bundling can be used to internalise the externality that arises when individual firms selling two complements set price without regard to the effect of that price on the demand for the complement. Bundling isn't the only manner in which this can be done; one firm selling both goods could simply price having regard to the externality rather than physically combining the two goods, a point that Nalebuff doesn't acknowledge. However, neither is bundling the only manner in which a firm can price discriminate, so this fact shouldn't preclude the admittance of this rationale for bundling.

Choi (2001) examines bundling as a tool of informational leverage. In his model, in which a monopolist *irrevocably* bundles a good with an established reputation, with a new good and discontinues the individual sale of the established good, the act of bundling can act as a signal of the quality the new good. This bundling strategy means that, in order for the firm to continue making profits from its original good, consumers have to be satisfied with the new product. This is a more costly strategy for a firm with a low-quality new product than it is for a firm with a high-quality one, thus facilitating the signalling of quality. Choi also notes that a multi-product firm may asynchronise the timing of the introduction of new products when the qualities of all new products are unknown to customers. The positive effect from bundling: the acquisition by consumers of otherwise costly information must be weighed this second, less benign, effect.

There are a number of issues which limit the applicability of both the analysis of both Choi and Nalebuff to antitrust policy. However, it should be noted well in addition to the recent literature that discusses strategic motives for bundling, there have also been developments with regard to more efficient motives for the practice.

Towards a Legal Standard

In a brief to the Supreme Court of the United States regarding a petition for a writ of certiorari in the case of 3M v. LePage, the United States suggested that:

> "[A]lthough the business community and consumers would benefit from clear, objective guidance on the application of Section 2 to bundled rebates…The United States submits that, at this juncture, it would be preferable to allow case law and economic analysis to develop further and to await a case with a record better adapted to development of an appropriate standard" (Department of Justice, 2004:1865).

It is noted in the same brief that "there is no pressing need for the Court to address the matter at this time". Given the fact that the current literature doesn't display a clear understanding of either the efficient or strategic motives for bundling, this strategy seems sensible. Any legal standard will have to balance the potentially negative effects arising from strategic bundling with the various efficient reasons for the practice.

This 'wait and see' approach does, however, deprive firms of a "bright line safe harbour" (Nalebuff, 2005: 8). It is highly desirable that firms have a clearly defined set of rules, which, if they remain within them, they will not be found guilty of an antitrust violation, nor will any of their contracts be deemed void on the grounds it facilitated exclusionary bundling. Greenlee et al. (2004), Nalebuff (2005) have both suggested tests for evaluating potentially exclusionary bundling. Space constraints preclude all but a few general comments on these. The former test relies on a static analysis of consumer welfare changes and hence does not incorporate the effect of bundling on market structure. It suggests comparing the stand-alone price of a commodity which is also included in a bundle with the price of that good before the good was bundled. Greenlee et al. show that, in situations where the latter price exceeds the former, bundling reduces consumer welfare. Kobayashi (2005) notes that this test would condemn *all* instances of pure bundling[9]. While Kobayashi is correct in his analysis, the immediate concern of Greenlee et al. in presenting their test was an analysis of bundled loyalty discounts, in which case commodities will be sold individually as well as separately. The application by Kobayashi of this test to a pure bundling scenario is not appropriate, though it does indicate the limited scope of the test.

Nalebuff's test is less stringent. He considers two complements A and B which are consumed together in proportions X_A and Y_B. The firm has market power in A while the market for B is assumed to be characterised by some (but not necessarily perfect) competition. He defines the bundle discount δ by the relation $\delta = \varepsilon X_A / Y_B$, where ε is the excess of the stand-alone price of A over the implied bundle price of A (i.e. the price of the bundle minus the stand-alone price of B). Nalebuff's posits that any bundling which implies the stand-alone price of B (P_B), minus the implied discount δ is greater than the monopolist's long-run average variable costs of producing B is not exclusionary. He follows this up by noting, without elaboration, that "this is an overstatement of the required discount and hence a finding that $P_B - \delta$ is below cost does not establish exclusionary bundling" (Nalebuff, 2005: 7). This test seems to be a one-way test for proving that exclusionary bundling did not take place rather than a definitive litmus test for indicating the presence of the practice.

Conclusion

The contention that the motive for bundling is invariably price discrimination was uncritically accepted by most theorists until recently. The theoretical case for disregarding the possibility of strategic bundling has been discredited by a series of recent papers, though these papers have frequently been characterised by settings not indicative of reality. Assumptions that occur readily in literature such as the need for a precommitment to bundle have thus far limited the ability of theory to make

[9] This is due to the fact that in a case of pure bundling, where the bundled commodities aren't sold individually, the implicit stand-alone price is infinity.

a confident contribution to antitrust policy. It may be the case that the theoretically unsound Chicago hypothesis is valid empirically.

In breaking away from the judicial hyper-suspicion of bundling before the Chicago era, and the unquestioned acceptance of the practice that followed, the conventional wisdom, such that is exists, is healthier than previously. Unfortunately, as far as determining a series of definite legal tests, the economic literature is, as Kobayashi (2005: 1) contended, "not ready for prime time".

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AN ECONOMETRIC INVESTIGATION INTO THE DETERMINANTS OF CRIME

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Studies into the determinants of crime are necessary to improve the effectiveness of investment in its prevention. David O'Cinneide uses Ordinary Least Squares regression analysis to investigate how unemployment, inequality, the number of police officers and the legality of abortion affect the crime rate in America.

Introduction

"Crimes increase as education, opportunity, and property decrease. Whatever spreads ignorance, poverty and, discontent causes crime.... Criminals have their own responsibility, their own share of guilt, but they are merely the hand...."

Rutherford Birchard Hayes. (Hayes, 1922:629).

Crime is a facet of human culture that has existed since the earliest of civilisations. Contemporary societies dedicate huge resources to the prevention of crime and law enforcement, and rightly so, as without civil order and a functioning criminal justice system a modern economy would grind to a halt. To increase the efficiency of the investment in crime prevention, an understanding of the determinants of crime is necessary. By knowing what causes crime, societies can better fight it. In this report, I will analyse the effects of several economic and non-economic variables on a country's crime rate. More specifically, I shall use a country's unemployment rate, income inequality, as measured by the Gini coefficient, number of police officers and whether or not a country has legalised abortion as the independent variables and regress them on the rate of property crime. I shall use cross sectional data from 20 European countries for the year 2000.

The Theory and Variables

The dependent variable, Y, was chosen to be property crime[1] per 100,000 of the country population for two reasons: firstly, to scale the variable to a relative value and secondly, to fit in with the Becker-style rational criminal framework. By scaling the amount of crimes down to relative basis, cross-country comparison is more meaningful. Comparing the absolute values of property crimes would be of no use in this analysis; therefore this value was divided by the population of the relevant country and then multiplied by 100,000 to give the final number. The data is selected from 20 European countries, because it is believed that these countries would have similar values and cultures and indeed criminal justice systems, therefore the possible variation in crime rates due to differences in these factors would be minimised. This measure of crime rate is also compatible with the Becker rational criminal framework which I believe would be more sensitive to the model's independent variables, in particular the Gini coefficient and the unemployment rate.[2] Becker argues that a potential criminal, before committing a crime, weighs up the costs (including punishment and the opportunity cost of legal work) and the benefits (monetary and psychological). Property crimes are therefore to the economic benefit of the perpetrator, representing a transfer payment between himself and the victim, as opposed to violent crimes, such as murder. Although violent crime may have psychic benefits for the criminal, they do not necessarily provide any economic benefit.

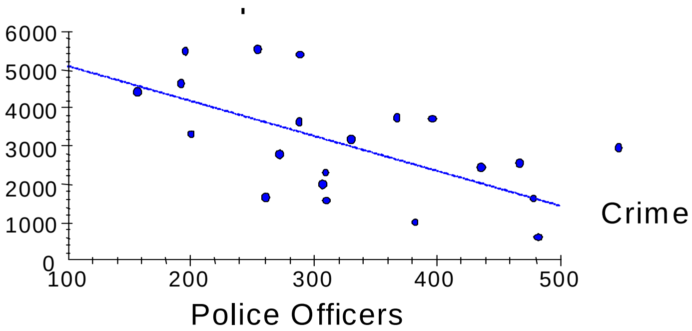
The numbers of police officers is used as a proxy for the overall effectiveness of the police force. Other studies have used perhaps more consequential measures of this, such as expenditure on crime detection and prevention per capita; however, I feel this is beyond the scope of my essay. As the number of police officers in a country increases, one would expect, ceteris paribus, the crime rate to decrease. I expect there to be a negative relationship between crime rates and police numbers. The scatter plot appears to confirm this. In reality, this may not be so. The complex relationship between police numbers and the crime rate could be considered one of joint dependency. In response to high crime rates, citizens may demand more police officers from their government. New police are hired and although the numbers of officers has risen, the crime rate remains high. The newly hired police in that period are inexperienced and perhaps their

[1] Although the variable used in the model is property crime per 100,000, hereafter, I shall simply refer to it as the less cumbersome 'crime rate'.

[2] Freeman (1994:1) asserts 'the unemployment-crime link was statistically … more closely aligned to property crimes than to violent crimes'.

introduction doesn't affect the crime rate immediately. More extensive studies may consider lagging this variable in order to take account of the time required for the crime prevention activities to bear fruit. That is, the number of police officers and their activities last period would have an effect on the crime rate this period. This is not the case in my model, however.[3]

Figure 1: Scatter Plot of Crime on Number of Police Officers



Widely debated in the literature, the link between unemployment and crime is still unclear. The general consensus is that the devil makes work for idle hands but the reality doesn't seem to be so straightforward. As Freeman (1994:1) says although "many people believe joblessness is the key determinant of crime … even the largest estimated effects of unemployment on crime suggest it contributed little to the rising trend in crime". More sophisticated studies decompose the unemployment variable into better indicators of labour market conditions, such as wage levels and employment opportunities. This links the falling 'legal' wage to a decreasing opportunity cost of crime and sits well with Becker's model. Such decomposition is beyond the scope of this project and I use the unemployment as a proxy for the labour market conditions.[4]

[3] The data on police numbers could prove problematic. The different countries in the sample have a variety of different police forces, some of which are included in the final figure. Some countries have municipal police, traffic police, etc. In some cases even the secret police are counted. My model ignores this inconsistency.
[4] Some studies (Fleisher 1963, Fougère et. al. 2003) have focused on the relationship between youth unemployment and crime. There appears to be a stronger correlation between these two, because young men have a higher propensity for criminal activity. Young, unskilled, uneducated men tend to have low returns from legal work,

Unlike unemployment, it is almost universally agreed that income inequality is a major determinant of crime. Three major ecological theories conform to the idea of inequality increasing crime rates: Becker's economic theory of crime, Merton's strain theory and Shaw & MacKay's social disorganization theory. Under Becker's framework, areas of high inequality, i.e. those areas where very poor and very rich coexist; the rational criminal's motivation is stimulated by the inequality. Merton's "strain theory argues that when faced with the relative success of others around them, unsuccessful individuals feel frustration at their situation." (Kelly, 2000:530) The greater the inequality is, the greater the inducement for low status individuals to commit crime. The motivation to commit crime is not solely drawn from the expected economic benefits, but from social disgruntlement and dissatisfaction. Social disorganization theory focuses on factors that "weaken a community's ability to regulate its members" (Kelly, 2000:530) as determinants of crime. These factors include poverty, familial instability and ethnic heterogeneity. In the parlance of the econometrician, one would expect a high degree of multicollinearity between income inequality and these factors. Therefore, I expect a negative relationship between crime rates and income equality. However data problems again occur here. The data source for the Gini coefficients, the UN Human Development Report, are not all given in the same year (2000) as the crime, police and unemployment statistics. The figures taken from the Report were assumed to be the most up-to-date and the best proxy measurement for income inequality.[5]

The final variable in the model is a dummy variable indicating whether abortion was legal in the relevant country since 1980[6,7]. The reasoning behind its introduction comes from research conducted by Levitt and Donohue (2001). The logic behind it is simple. The legalization of abortion disproportionately affects the births of those with the highest propensity to become criminals. This is because the mothers of these potential criminals are more likely to have abortions. This woman is typically young, single, uneducated and unable and/or unwilling to give her

so the opportunity cost of committing crime is also low. Also, young men tend to be more risk loving then other cohorts therefore will not weigh as heavily the probability of being caught and punished.

[5] The actual year the Gini coefficient corresponds to is given in the data appendix.

[6] The year in which abortion must be legal is 1980, because the cohort that would have been born in that year would be entering their criminal prime when they become young adults about 20 years later, in the year 2000, the year corresponding to the crime statistics.

[7] A '0' corresponds to 'abortion is illegal in 1980' and '1' to 'abortion is legal in 1980'

child what would be considered an adequate upbringing, in terms of love and respect for the child, as well as food on the table, decent schooling, etc. Many studies have shown that a child who goes without such an upbringing has a higher propensity towards criminality (Sampson & Laub, 1993). Therefore, if a child isn't born to experience an inadequate upbringing, an upbringing that increases their tendency to commit crimes, then those crimes will never be committed. As Levitt (2005:141) puts it, 'a private sadness becomes a public good'.

The Model and Ordinary Least Squares Regression

The econometric model I shall use for my analysis is as follows:

$$\mathbf{Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 D_4 + \mathit{u}}$$

where

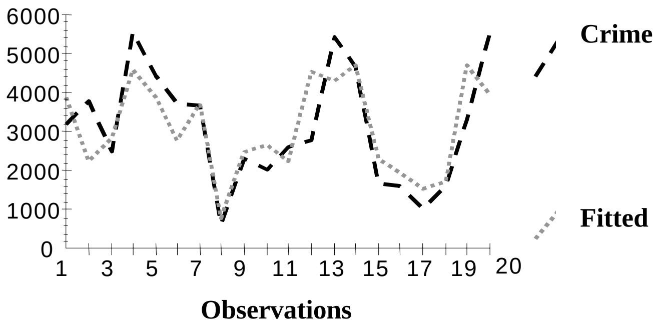
Y = property crime per 100,000
X_1 = police officers per 100,000
X_2 = unemployment rate
X_3 = Gini coefficient
D_4 = abortion
u = statistical residual

After running an OLS regression on the Microfit programme, the results are presented below:

Regressor	**Coefficient**	**Standard Error**	**T-Ratio[Prob]**
CONSTANT	5363.5	1801.4	2.9774[.009]
POLICE	-4.2919	2.8495	-1.5062[.153]
UNEMP	-154.0846	54.9593	-2.8036[.013]
GINI	-19.5439	54.5908	-.35801[.725]
ABORT	1212.8	544.0512	2.2291[.042]

R-Squared		.64087
R-Bar-Squared		.54510
F-statistic	**F(4,15)**	6.6918[.003]
Functional Form	**CHSQ(1)**	.90739[.341]
Jarque Bera Test	**CHSQ(2)**	.27338[.872]
Heteroscedasticity	**CHSQ(1)**	3.8480[.050]

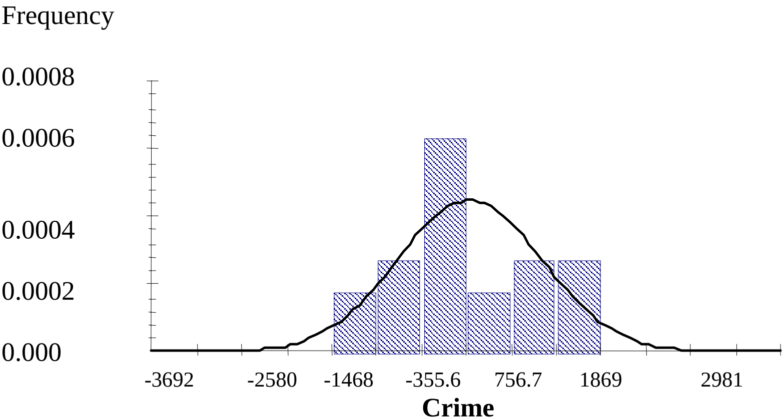
Overall, the R-squared result tells us the model explains 64% of the variation in the crime rate. Since there are four independent variables, it behoves us, as prudent econometricians, to consider the adjusted R-squared measure of 54.5%, to take in consideration available degrees of freedom. The F-statistic returns a value of 6.6918, large enough to reject the null, that my model has no explanatory power, at the .3% level of significance. The plot of fitted and actual values for the observations confirms there appears some degree of accuracy in the relationship between the crime rate and the model's variables.



However, the other regression results are less encouraging. The t-statistics test the hypothesis that the variable coefficients are individually equal to zero. For the police numbers variable, this hypothesis can only be rejected at a level of significance greater that the 15.3% level. According to my model, adding one more police officer on the beat reduces property crime by 4.3 per 100,000. Given that the mean number of crimes in my sample is 3089.2 crimes per 100,000, a drop in crime of 4.3 would represent a decrease of .14%, an unimpressive return. Unemployment, the ambiguous regressor, yields a t-value of -2.8036, significant at the 1.3% level. Unfortunately, the sign is not what I hypothesized. In fact, my model predicts a 1% *increase* in unemployment leads to a 5% *decrease* in crime (from the mean of my sample). The Gini coefficient appears to be highly insignificant, which runs contrary to much more extensive research. Perhaps this insignificance is owing to the inconsistencies in the data. The estimate for the abortion dummy variable is significant at the 5% level; however, my model predicts that a country with legalized abortion would have an *increase* in crime, which diverges from Levitt and Donohue's study.

The diagnostic results are important because they inform whether the classic linear regression models (CLRM) assumptions are fulfilled, otherwise all t, F, and standard error estimates will be wrong, and the model's results rendered meaningless. Since the data used in this model is cross sectional, correlation between residuals is not expected; therefore the results of the Durbin-Watson test and Lagrange multiplier test results are ignored. The Ramsey RESET test of functional form, which returns a result significant at levels greater than 34%, tells us that there is a considerable chance of error in model specification. Since this test is only valid asymptotically, it is partially invalidated because of the small sample size. Other results in the regression must be referred to, such as the individual t-statistics and the F-statistic of overall significance, to ascertain whether the model is adequately specified to describe the relationship between the variables. The Jarque-Bera test for normality considers the null hypothesis that the errors are distributed normally versus the alterative that they are not. The Jarque-Bera statistic returned has a value of .273, very close to the desired value of 0, indicating that the residuals are very close to have normal skewness and kurtosis.

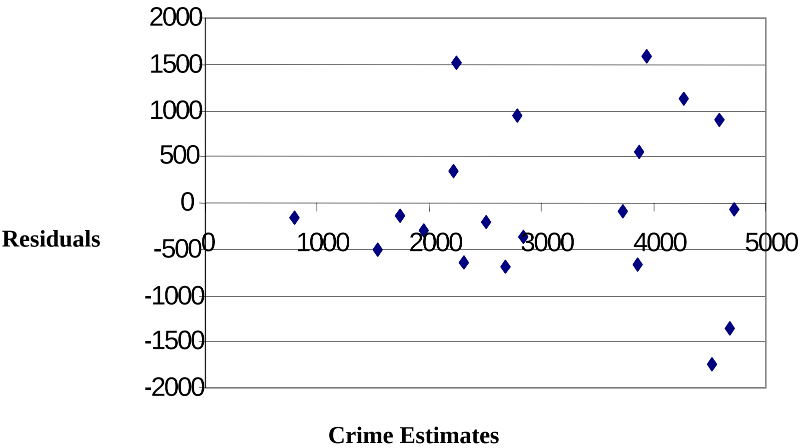
Figure 3: Histogram of Residuals and the Normal Density



An inspection of the histogram of residuals also supports this claim. Although this seems like a good result, the test is valid only in large samples, and therefore the t and F statistics must be regarded with caution.

The heteroscedasticity test result is problematic. The null hypothesis of homoscedasticity can be rejected at the 5% level; therefore this model violates one of the crucial assumptions underlying the CLRM, that of unequal spread of errors, as is usually the case for cross sectional data.

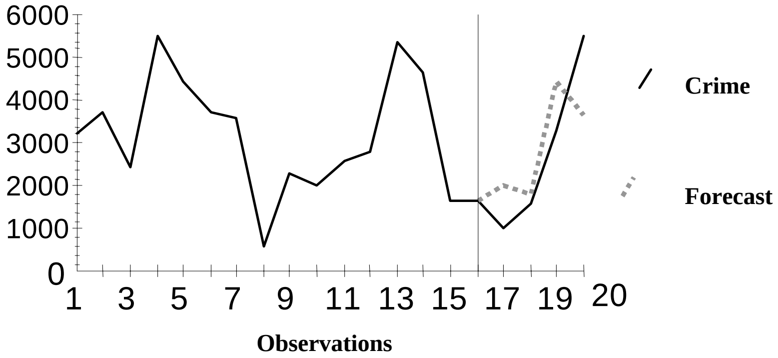
Figure 4: Crime Estimates and Residuals



A look at the graph of residuals on estimated values confirms this unequal spread. It seems that as crime rates rises, the spread of the residuals grows also. This apparent heteroscedasticity means the OLS estimates, although still linear and unbiased, are no longer best. There exist estimators with smaller variances. Therefore, my models estimates will be inefficient and will not accurately describe the relationship between the variables.

An illustrative way of testing the models accuracy is by trying to make a forecast onto the data in the sample. The regression was run again, but without the final 4 observations, the resulting graph showing the observed crime rate and the forecast.

Figure 5: Plot of Actual and Single Equation Static Forecast(s)



The forecast seems to follow the general trend, although not with a high degree of accuracy.

Conclusion

Enquiries along these lines are useful to policy makers if they mean to pro-actively tackle the scourge on society that crime is. This particular study, however, has its limitations. With more accurate and consistent data, I believe, a similar model would have a greatly increased ability to calculate crime rates. The decomposition of the variables into more relevant proxies of the concepts that are to be precisely quantified would offer a better description of the relationship between them. For example, police force effectiveness has very little to do with police numbers and more to do with police training, and a country's unemployment rate is probably not a good measure of the labour market conditions which face the potential criminal.

By refining our variables and data in this fashion, further studies will deepen our understanding of the causes of crime and methods of how to counteract it.

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THE RUDIMENTS OF ECONOMETRIC METHODOLOGICAL DIVISION

COLM MCCAUGHLEY

Senior Sophister

Significant differences exist between the econometric methods practiced by economists today. Colm McCaughley analyses the trade-offs between the key approaches to applied econometric methodology and is finally able to conclude that the field of study is enhanced by its diversity. This finding strengthens the case for augmenting traditional economics with psychology and neuroeconomics.

Introduction

Much of the division within modern applied econometrics originates in a famous debate which took place in the late 1940s. The debate concerned the role of data-led as opposed to theory-led econometric modelling. From this debate, an average economic regression (AER) approach had found its way into the mainstream of much econometric applied work during the 1960s. However, in the 1970s practioners became weary of critical problems within the AER and applied econometric methodology began to fragment. A fundamental division emerged between a British Tradition under the paladin of the LSE and David Hendry, as opposed to North American approaches led in separate dimensions by Ed Leamer and Christopher Sims. Such divisions remain to the present where noticeable differences often appear between econometric methods in prominent journals. This paper seeks to analyse the rudiments of these differing approaches. The methodologies presented are recognised as cornerstones of what has now become a diverse field of econometrics.

The Principles of Methodology

The essence of econometric methodology is the formulation of a framework which seeks an adequate “conjunction of economic theory and actual measurement, using the theory and technique of statistical inference as a bridge pier.” (Haavelmo cited in Pesaran & Smith, 1992: 9)

To the unknowing economist such an interaction or mix of theory and observation may seem peculiar - the view that there always exists a strict dichotomy between theoretical and empirical activities, that ‘theorists create theories and econometricians solely test’, is not uncommon. In reality however, econometric modelling is viewed not as a simple test of theoretical relationships nor as a method simply to validate economic theories but as an “endeavour to understand observable economic phenomena,” achieved through the use of “observed data in conjunction with some underlying theory in the context of a statistical framework.” (Spanos cited in Pesaran & Smith, 1992: 12)

The basis of most methodological approaches are derived from ideas within economic philosophy.[1] Philosophers and economists have long debated the scientific status of economics. In doing so both are habitually concerned with a number of philosophical difficulties which plague econometric practice. Issues concerning falsification,[2] induction,[3] and recognition of the ‘Duhem-Quine problem’[4] all affect the interplay between theory and data. Considering the words of Haavelmo above, if theory and statistical technique form the ‘bridge pier’ then these problems perhaps represent the icy water beneath.

Attempting to limit and control these difficulties may be seen as the underlying task of the econometric methodologist, in doing so he/she seeks implicitly to provide rigour to economic inference. In this regard, the principle division between all econometric methodologies is in how exactly they contend with the difficulties which plague the interaction between theory and observation.

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[1] See Hausman (1989) for a review of the philosophical aspects of economic methodology.

[2] Falsification is “the contradiction of a general rule by particular observation” (Pesaran & Smith, 1992: 4).

[3] Induction is “the inference of general rules from particular observations,” the philosophical difficulty being that past observation does not necessarily imply the existence of a general rule in future observation. (ibid.)

[4] The Duhem-Quine problem acknowledges that since any theory is inherently complex, to apply a theory to data requires auxiliary assumptions (regarding the disturbance term for example). In rejecting a theory based on observation one can never really be sure which component of theory or assumption has been falsified. (ibid.)

The AER Approach

The Cowles Commission for Research in Economics (1939-1955) is widely recognised as the first attempt to solidify general methodological foundations for applied econometrics. Although the strict ideas of the Cowles Commission were initially of limited influence on practical econometric techniques, it did set in motion a fundamental focus on methodological issues. By the late 1960s the methodological debate had arrived at one approach which emerged as the standard paradigm of applied econometric modelling. The so-called average economic regression (AER) will be familiar to many newcomers to econometrics as it is often used as a starting block in econometric pedagogy. (Christ, 1994; Keuzenkamp, 2000). The basis of the AER approach is that theory suggests both the "form and specification of the statistical model to be estimated" (Bond & Harrison, 1992: 316). A common example is a specification of the form,

$$y=X\beta + \varepsilon$$

The econometrician tests hypotheses relative to this structure but assumes the structure itself is correct. The econometrician will be concerned with the 'pathology' of the estimators when conducting such tests. Thus problems such as heteroscedasticity, serial correlation and multicollinearity will all be considered. In assessing the impact of these problems the Durbin-Watson statistic, coefficient t-ratios and so forth are all pivotal. The econometrician's response to the discovery of a pathological issue is to re-specify the model (usually by adding or subtracting variables) or to substitute for a more appropriate estimator (perhaps through a Cochrane-Orcutt transformation). Eventually the practioner will end up with a model which displays "all the correct signs, statistically significant coefficients, a Durbin-Watson statistic of around 2, a relatively high R^2 and so forth." (Gilbert, 1986: 283; Gilbert, 1998)

The fundamental problem with this approach is that two separate practioners each starting from a different theory may each be able to formulate a 'valid' model from an identical data set. Each will justifiably claim that the data supports their particular theory: the reader is left with no discernable scientific method to validate either claim. This problem stems from the very essence of the AER approach which was built around *estimation* rather than *testing*. The practitioner would typically interpret poor results as the need to re-estimate rather than a refutation of the model. Using econometrics in this manner then becomes a data-mining[5] exercise where the data is thrashed until it eventually reveals a model with the pleasing characteristics described above. (Darnell & Evans, 1990)

The recognition of this significant problem led to much dismay in the early 1980s on the tenuous nature of econometric practice. Some practitioners[6] set about to revise the AER approach, others however considered its methodological foundations as damaging to credible applied econometrics. Work such as that by David Hendry (1980) 'Econometrics - Alchemy or Science?' and Edward Leamer (1983) 'Let's take the Con out of Econometrics' enunciated the formal pursuit of alternative methodological approaches.

The North American Approaches

The main methodological approaches in North America were led in separate directions by Sims (1980, 1982) and Leamer (1978, 1983, and 1986). Sims promoted the Vector Autoregressive (VAR) methodology which emphasised time-series, a theoretical modelling seeking to 'let the data speak'. Leamer, conversely, advocated more structurally based models which, like the Cowles tradition, placed strong emphasis on theoretical underpinnings.

The work of Sims was initially developed in line with the Friedman methodology[7] but diverged into a unique approach during the 1970s. VAR models were intended to reduce the scope for data-mining by including all available variables. The only role for theory was to suggest which variables would be included but there would be "no exogenous variables [and] no identifying conditions" (Pesaran & Smith, 1992:13). Rather estimation of vector autoregressions (VARs) and analysis of moving average representations[8] (MARs) were to determine model specification and exact formulation. In this manner, data not theory would provide the substance to the model.

Due to developments in co-integration and non-stationary series, Gilbert (1998) argues there has been considerable convergence between the VAR

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[5] Data-mining consists of moulding or selecting models based only on ability to pass desired statistical tests rather than underlying theory. The result being misleading and biased research. (Hansen, 1996)

[6] Notably Darnell & Evans (1990: 64) who propose a 'variant of the traditional approach' built around a specified search strategy and a greater emphasis on testing.

[7] See Frazer & Boland (1983) for a detailed account of Friedman's methodology.

[8] See Darnell & Evans (1990:118) or Gilbert (1998: 113) for an explanation of VARs and MARs.

methodology and the British tradition.[9] In this respect, greater emphasis shall be given in this section to the 'sensitivity' approach of Leamer. Leamer (1978, 1983) argued that the AER methodology with its combination of iterative estimation and specification search was arbitrary and thus yielded invalid inferences. Leamer (1986) advocated a Bayesian approach whereby the econometrician would specify a priori beliefs[10] then confrontation with the data would mould these into posterior beliefs. The difference between the two would then enable the econometrician to assess the sensitivity of parameters to changes in model specification which occurred through confrontation with the data. It seems Leamer's principal justification for this approach was a view that the only way to make econometrics credible is by showing how inferences change as assumptions (i.e., specifications) change. This seems to be supported by Keuzenkamp (2000:112),

> *"An interesting economic question is rarely whether a parameter differs significantly from zero and should be deleted or not. The magnitude of a particular (set of) parameter(s) of interest, and the sensitivity to model changes, is of much more importance."*

Leamer's proposed method for assessing this sensitivity was through extreme bounds analysis (EBA). EBA "replaces point coefficient estimates with ranges defined by the maximum and minimum estimates across specifications." (Gilbert, 1998:112) The size of the range would determine a level of confidence in the nature of the results, also known as the fragility of the results. Thus a very large range would be interpreted as a 'fragile' inference. As Darnell & Evans (1990:109) note this range is not to be confused with a confidence interval, "The EBA range reflects model specification uncertainty in the construction of alternative point estimates; the range from a confidence interval reflects sampling uncertainty within a given specification."

Many opponents of Leamer's approach criticised the use of EBA by highlighting that this procedure does not allow the data to suggest fundamentally different alternatives from those anticipated in the prior. (Gilbert 1998:112) Failing to let the data speak in this manner may frequently fail to incorporate all relevant information in model formulation

[9] Nevertheless, the reader should appreciate that these methodologies are still fundamentally distinct. See Keuzenkamp (2000) for a greater discussion of this issue.

[10] Achieved through specification of a "prior distribution over the joint density of a complete list of parameters unconstrained by paucity of degrees of freedom." (Gilbert, 1998: 112)

and estimation. In retaliation, proponents of this approach argue that such constraints are necessary to address the possibility of data-mining accusations which plague alternative methodologies.

Keuzenkamp (2000) details further possible concerns with this approach, in particular that the R^2 statistic is often used as a specification selection criterion. Major statistical problems have been highlighted concerning the use of R^2 in this way, particularly in small samples. Furthermore, the real problem of Leamer's EBA seems to be that "whatever the bound, it is not clear whether the resulting specification is plausible." (Keuzenkamp 2000:169) There seems to be a general recognition that although the idea of sensitivity analysis is revealing to econometric practice, the lack of a cogent framework regarding selection and specification criteria is a significant weakness of Leamer's methodology.

The British Tradition

The British approach to econometrics was developed in the 1950s and 1960s at the London School of Economics. Its most famous proponent has been David Hendry to the extent that this methodology is also commonly referred to as the Hendry School. The Hendry methodology is grounded in the philosophical arguments of Lakatos and Popper who both had strong links to the LSE. Lakatos's arguments were based on the principle that "when a theory is rejected a more general theory is needed which explains both the original theory and why the implication was rejected" (Bond & Harrison, 1992: 398). This idea seems to be the philosophical justification for the 'general-to-simple' approach (GtoS) which characterizes the Hendry methodology. The GtoS method is to be contrasted by the 'simple-to-general' approach explicit in the AER.

The GtoS approach seeks to address and counteract the fundamental objectivity problem[11] of the AER by starting with a very general parameterisation that is acceptable to a range of plausible theoretical positions. The model is then marginalized through simplifications that are amenable to the data. In this way the general form of the model is derived from theory but the exact empirical form is determined only via estimation and testing procedures (Bond & Harrison, 1992). In this respect the Hendry methodology is positioned towards the centre of the data-theory spectrum. It may be considered as a type of middle ground between Leamer's approach

[11] That different investigators can arrive at conflicting or unique theories based on the same data set and same initial intentions.

which promotes a strong theoretical orientation, in contrast to Sim's VAR methodology which emphasises a theoretical, time-series analysis (Gilbert, 1986:305).

The layout of the Hendry methodology begins with the formulation of a very general specification representing the Data Generating Process as much as degrees of freedom permit. The DGP is "nothing more than the joint probability of all the sample data" (Gilbert 1986:285). Having formulated this general specification from theory the first step of the testing procedure begins. One uses classical F and χ^2 tests to search for simplifications that are *congruent* [12] with the data. In this way, moving from general to simple carries only specifications which Gilbert (1986:283) refers to as 'F-acceptable'. Testing then continues using appropriate diagnostic results. Hendry regards such mis-specification testing as central to credible econometric practice. Such views are clearly expressed in Hendry's tenet of econometric modelling, namely 'test, test and test.' (Hendry, 1980: 403)

At this point the GtoS approach does not overcome the problem that a large number of alternative specifications may be data amenable. The Hendry method addresses this issue through 'encompassing'. The basic idea of encompassing is that the true DGP should be able to explain any empirical results since by definition the DGP 'created' the results. Thus, since our aim is to model the true DGP in simplified form, our chosen general model should encompass any competing specifications which may simply be regarded as sub-sets of the true DGP (Hansen, 1996, Gilbert, 1986). Encompassing is carried out in practice through a series of tests, the exact formulation of which will depend on whether the competing models are nested or non-nested, linear or otherwise.[13]

Although the concept of encompassing is widely considered as enlightening and innovative its practical implementation has not received such praise. Hansen (1996: 1411) notes the idea that all chosen models must survive iterated encompassing tests against a range of alternative and conceivable models simply fails to make statistical sense. There seems a realisation in the critique of the Hendry methodology that *full* implementation of the encompassing principle is close to unattainable.

More general concerns regarding the Hendry methodology have been accusations of data-mining and questions as to whether this methodology is simply another form of standard statistical 'exploratory data

[12] The idea of congruence is very important to the Hendry methodology, the principle is that "models are not right or wrong but are useful or misleading for particular purposes; non-congruent models are open to constructive improvement" (Gilbert, 1986: 286)

[13] See Hansen (1996: 1410) for a greater discussion of encompassing tests.

analysis'. The grounding of data-mining accusations is quite clear in that Hendry (1993) openly advocates data-based searches for model selection. Hendry does however oppose that such actions conform to data-mining. He argues this point by emphasising that the criteria used to *select* the model are not used to *test* the model which is the real indication of validity. Hendry contends that the method of selection cannot really affect a model's validity; validity can only be determined through confrontation with empirical evidence (Hansen, 1996; Bond & Harrison, 1992). In essence, Hendry's methodology argues that one should never assume a specification is valid (as is common practice in the AER approach) rather one should *test* whether the specification is valid and congruent with the data.

This argument seems to reveal the spirit of the Hendry methodology - one cannot simply rely on economic theory to form specific empirical models for theory is rarely rich enough to specify any sort of detail. Rather we must use data and testing to provide the substance and body to model specification which theory alone cannot portray. Acknowledging that some form of specification search is necessary the real question then becomes whether Hendry's method represents the most appropriate way to provide such substance? Hansen (1996:1402) indicates via formal argument that it does indeed lead us closer to the 'true' specification.

Hendry's guidelines regarding specification searching are linked to one of the major and unique strengths of this approach - the recognition of the fundamental importance of model design. Unlike other approaches Hendry's methodology provides a coherent and competent set of criteria for both model design and acceptance.[14] Other approaches frequently explain how to recognise a poor model but rarely elucidate how to rebuild a model into a more robust design. In this respect, Hendry has addressed an important facet of empirical model formulation neglected by many alternative methodologies.

Conclusion

The choice between data-led or theory-based modelling may be thought of as a spectrum. In finding a position on the spectrum inherent trade-offs often exist: models which are theoretically rigorous frequently become unstuck when applied to data; strong empirical models are often little use to theory;

[14] See Gilbert (1986: 289-299) for a description and explanation of these criteria.

whilst models which locate towards the centre are often criticised on both accounts.

Having briefly analysed three of the major approaches the question then becomes which is the most constructive for econometric practice? If we are to use the quality and quantity of applied research generated by a methodology as a guide to its value then the Hendry methodology is certainly one of the most powerful. Nevertheless, it must be conceded that even Hendry's approach fails to be applicable to all purposes. As such, a unique, defining approach does not seem to exist. Perhaps then, a more informative question is whether we need such a unique approach?

The theory of comparative advantage would suggest there is no need for all researchers to specialise on one specific approach. As Hansen (1996:1408) notes, "It is perfectly acceptable for some researchers to specialise in data description, others in pure theory, and others bridging the gap." The current state of applied econometrics would seem to support this assertion, there has been a move towards greater fragmentation of econometric methodology rather than convergence. The wealth of current possible approaches including a revised AER methodology, new calibration approaches and most recently neuroeconomic methods would seem to suggest that alternative views on the subject are more beneficial than a solitary approach. As Hansen (1996:1409) points out, "I suspect that we can learn from many different approaches, not just one 'correct' path." In this light, the debate over econometric methodology looks set to continue for the foreseeable future.

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ECONOMICS AS A SOCIAL SCIENCE: PAST PRESENT AND FUTURE

ROBBIE SEMPLE

Junior Sophister

Economics is a social science in evolution; the bar showing the level of unrealistic assumptions allowed to underlie economic theory constantly being raised. Psychological understanding of human behaviour can provide stimulus to push economics forward into new territories. Robbie Semple explores the discipline of economics, where it has come from and where it is going.

Introduction

Economics is one of a family of subjects that has come to be classed as a social science. Whilst certainly adding to our stock of knowledge of the world, the fact that it is confined to a domain populated by thinking feeling people rather than inert particles means it lacks the objectivity of its natural cousins. Economics' desire to become more rigidly scientific in its outlook is certainly understandable, however, the sacrifice for formalising models is that the postulates originally used to represent reality have been made less real (Graham, 1999). Indeed many of the assumptions underlying the most basic models may be understood as outdated in light of recent findings in other fields, notably psychology. Though criticism of these assumptions is by no means new to the field, the economic fraternity as a whole have been traditionally resistant to more behaviourally focused models. This essay will begin with a review of the fundamental question: "What is economics?" before looking at how our understanding of this question has evolved over time. Some of the findings in psychology that pose serious problems to economic assumptions will be examined before the psychological explanations to these findings are explored. The points central to this essay will be the need for a review of the basic aims of economic research and policy, and the need to broaden the scope of economic study and look outside the field for theories that will move the discipline forward.

Economics in the Broader Social Scientific Domain

To start from first principles, the fundamental question that must be asked is what is economics? What is being attempted to be understood and predicted and accordingly, what does the study of the area encompass? Where does psychology begin and economics end? Where do politics and sociology fit into the jigsaw? The answer is more complex than first appears. Perhaps the most insightful comment comes from Kahneman and Tversky (1974: 1124) when they assert that "it is our task as social scientists to discover and explain the decision process." Whilst this is coming from a psychological background, their emphasis on the broader social scientific community is pertinent, and is taken up in economic terms by Cyert & Simon who claim that "the emphasis (in economics) should be on understanding processes of decision making, as opposed to making simple assumptions of motivation and proceeding to develop models with reference to their empirical validity." (1983: 106). The area of behaviour can thus be understood to transcend many of the fictive boarders in the social scientific domain. Moving the argument forward, it can be suggested that these boarders are entirely arbitrary. To take Robbins' definition of economics as "the science which studies human behaviour as a relationship between ends and scarce means which have alternative uses." (1962: 16).

Hirshleifer (1985: 53) points out that "such ends may include reputation, adventure, sex, status, eternal salvation, the meaning of life and a good night's sleep, the means for achieving each of these all too often being notably scarce." Burling (1962: 811) goes further stating that "there are no specifically economic techniques or economic goals." Such an assertion may seem nihilistic, yet is borne out by the use of essentially the same methodology in econometrics and political science; the study of the impact of names on job prospects (Freyer and Levitt, 2004) or the location of a "missing" comet (Strathern, 2001). The point of this is not to propagate an identity crisis for economics, rather to highlight the soft boundaries between social scientific areas, and how sensible, even necessary cross-disciplinary study is.

Evolution of the Subject

Economics may generally be divided into two major sub sets: positive, or the way things are, and normative, or the way things should be. Though both streams of thought have been around since the birth of the subject, with Adam Smith's cold analysis of how the world works and Jeremy Bentham's introduction of utility as a proposed test of policy in the late eighteenth century, the desire to be scientific has seen normative notions take a back seat. “Under constant suspicion as a science, defensive attempts to force economic theory into rigid scientific forms have frustrated its application to the facts of life”(Graham, 1999: 2). Indeed, the obsession with formal scientific methods has seen such a change in attitudes that it is now the commonly held view that “the primary concern is not with relation of the postulated model to the real world, but with the accuracy of the answers to well defined questions” (Arrow and Hahn, 1971: vii).

Economics is a deductive science, in which conclusions are drawn based on initial assumptions. Perhaps the two most central of these assumptions are wealth being equivalent to utility, and self interest being the primary motivator in the market. Bentham himself proposed income as a proxy for happiness, calling “money the most accurate measure of the quantity of pain or pleasure a man may be made to receive” (Lane, 2000: 33). In the eighteenth century, where absolute poverty was still rife, this was a fair assumption. Likewise Sen (1977: 1) cites Edgeworth in his central essay: “The first principle of economics is that every agent is actuated only by self-interest.” It must be remembered however that Edgeworth only applied his “economical calculus” to two situations; war and trade. The assumption seems far more sensible in this light. It was from this work that the notion of a core in trade, and the shrinking of this core to a series of equilibria as agents are added to the model emerged. From there, it was Arrow who brought forward the proof that general competitive equilibria may exist in the market place – a theory that still stands firm today.

Whilst the appeal of this latter theory is obvious, the logic sublime and its ability to predict answers to well defined questions undeniable, the more fundamental issue of which questions are being answered must be addressed.

What happens when the assumptions the model are based on are questioned. Are all people truly selfish? Is maximisation of income their underlying goal? If this is not the case, then the predictions made by Arrow’s and other economic models while still correct within the framework of the model they are based in are equally not necessarily relevant to people’s lives and thus policy. This is the danger of placing all normative goals outside the realm of the subject. It is not enough to make predictions about how things will work when the potential is there to bring greater happiness to a greater number. “Men must pursue rather than expect happiness” (Graham, 1999: 1). If economics is not part of the means to this end, what is?

It must be said the models of general equilibrium do not provide optimal outcomes in terms of human happiness. Sen (1977) is quick to point out that for an individual with little or no initial endowments, being in the core is no great achievement. While outcome is improved, it can not be greatly improved as nobody else can be worse off, leaving him still with little or no endowments. I will later suggest why such an inequitable society, though efficient is not necessarily happy.

Behavioural Beginnings

Even besides the normative problems with classical theory, there are a minority who became disenchanted with the positive shortcomings of the classical model. Such individuals argue that predictive power is not enough; that economics should attempt to understand how the decision making process works. Leibenstein (1979) points out that while sciences have tended to move toward the study of smaller and smaller phenomena (witness quantam physics and molecular biology) such a movement has been absent in economics. Indeed, while such a movement, in the guise of behavioural economics was not missing from the field, it was certainly not incorporated into classical theory with any speed or enthusiasm. The reason for this possibly lies in the aggressive tendencies of the subject. Behavioural economists see the field not as a sub category that should be married with classical theory, but as a new paradigm that is incompatible with conventional models (Earl 1988: 11). Behavioural economics dates back to the 1940's when Herbert Simon proposed an alternative to the perfect rationality assumption in economics. "Bounded rationality" is based on the idea of "satisficing," describing the process of choosing a satisfactory outcome in limited time with limited information, rather than an optimal one. This theory has since gathered great support from cognitive studies in psychology.

Satisficing does not sit well with classical theory however. If it is assumed that humans satisfice, then maximisation, of utility or profit is not a valid assumption. Leibenstein (1979) suggests that maximised returns are in fact a subset of satisficed returns. Moreover, if individuals are constantly looking for improved returns, then behaviour will constantly be changed based on success or failure in previous situations. In the face of such constantly fluctuating behaviour, no stable equilibrium can ever be reached (Earl, 1988). Behavioural economics thus undermines both maximisation and equilibrium assumptions; two of the most central concepts to classical theory. It is no wonder accordingly that the two schools have been slow to warm to each other. The relative youth of behaviourism and the corresponding disparate streams of thinking it encompasses have kept it sidelined. Caldwell (1986:14-15) suggests: "(The area) needs an Alfred Marshall to bring together compatible strands of thought into an integrated whole and a Paul Samuelson to write a popularising textbook". Meanwhile, classical theory has continued to dominate the area with its deductive reasoning based on simple assumptions about behaviour.

Signs of Trouble

Such assumptions are now however grossly outdated. Whilst wealth is undoubtedly one of the major determinants of human happiness, it is not the sole influence. Indeed, once absolute poverty is avoided, income becomes quite a poor predictor of well-being. Layard (2005) is one of many to point out that though average real income has more than doubled in the United States and Britain in the last fifty years, self-ratings of happiness have remained constant. Likewise, an American born after 1955 is three times more likely to suffer from serious depression in their lifetime than someone in their grandparents' generation (Lane, 2000). If wealth is always so central to human utility in all situations, some sort of increase in happiness would be expected, yet if anything, the opposite has manifested itself.

The entire economic model is dependent on the perfectly sensible assumption that individual agents will compete in the marketplace to maximise personal utility. This assumption is stretched, yet still intuitive when income is substituted for utility. Rilling, Gutman, Zeh, Pagnoni, Berns, Kilts (2002), had subjects participate in the prisoner's dilemma game whilst undergoing a brain scan. Activation of dopamine circuits in the nucleus accumbens, associated with positive rewarding feeling were noted, not when subjects competed and took the maximum reward, but when they co-operated and took a lesser personal reward for mutual gain. How is this altruistic behaviour reconciled with the purely selfish, competitive homo ecominicus?

The ultimatum game is not dissimilar in set up to the prisoner's dilemma. Two players must divide a sum of money between them. The first player makes an offer as to how the money should be split. The second player may then accept, in which case the prize is divided as suggested or reject in which case neither player gets anything. An economically rational player two would accept any offer, as some money, no matter how little, gives more utility than no money. A rational player one would recognise this and make small offers to player two to maximise his own income. Yet when this game is played in real life, offers of less than 25% of the total are rarely made and rejected with a high degree of probability (Fehr and Fishbauer, 2003).

Psychological Solutions

The above findings may be highly unexpected in economic circles; however they fit extremely comfortably with psychological theory. In particular the results would be expected in the field of evolutionary psychology. This discipline attempts to apply Darwinian natural selection theories to psychological phenomena (Buss, 2004): For example, it has long been accepted that our ability to work in groups and co-operate has aided our survival and success as a species. The theory of reciprocal altruism proposes that, although helping someone else in need may cost us resources, if that person helps us in turn when we are in need, both parties receive more in return than it costs to deliver the benefit (Cosmides & Tooby, 1992). Those that were able to co-operate in the distant past thus had a better chance of survival and sexual success than those that refused such social action. This truth is not localised to humans (see DeWaal (1982) for an example of the importance of social interaction in sexual success among chimpanzees). The genes that support altruism were therefore more likely to be successful than those that did not. Accordingly, finding a neurological mechanism that rewards co-operation is not simply intuitive, but highly sensible.

Evolutionary theory has an equally plausible explanation for the ultimatum game phenomenon. Whilst cooperation has obvious advantages, working in a group also opens up the possibility of the “free rider” problem. That is, it is very easy for an individual not to pull their weight in a group situation and reap the rewards of everyone else’s labour. If everyone took this attitude, the society as a whole would collapse due to lack of production. Accordingly, it was highly important for humans to develop a keen cheating detection mechanism, and a sense of social right and wrong (Buss 2004). There is experimental evidence that such a mechanism exists. Wason (1966) produced an experiment to test subject’s basic abstract reasoning capabilities. Most preformed extremely poorly. Cosmides and Tooby (1992) took the same test, but tested social rather than abstract reasoning. From fewer than 25% correctly completing Wason’s abstract task, over 75% were correct in the same test applied to social circumstances. The hypothesis Tooby and Cosmides were testing was that, though abstract rationality is quite poor in most people, we have developed a sharp intelligence in social circumstances to detect and punish cheaters.

Exactly such a mechanism would be activated in the ultimatum game. A player 2 receiving a perceived “unfair” offer would be motivated to reject and “punish” player 1 for their social injustice. As regards the lack of correlation between increasing wealth and happiness, economics itself offers an explanation in what is a conveniently ignored dichotomy. The law of diminishing marginal utility is as applicable to income as it is to any other economic good. A dollar is worth a great deal more to somebody living on a dollar a day than it is to somebody earning a hundred thousand dollars in the same time period. In the West, absolute scarcity has been abolished and whilst much research has demonstrated the importance of relative wealth, (Solnick and Hemenway, 1998) income is bound to take on less significance in such circumstances.

Conclusions

Deriving utility from other people's well-being and choosing to punish a perceived wrong-doer over maximising own income may thus be understood not as anomalies, but as highly rational behaviour. Their incorporation into economic models would not prove overly difficult. Likewise, if it is accepted that people make decisions based on schemas and heuristics, satisficing as it were further behavioural parameters may be drawn in to the model. It is the nature of such mental models that they are consistent across people and situations, making them highly suitable for inclusion in economic models.

Incorporating such information will further economics cause, both positively, as our understanding of the decisions in the market place will be better informed and normatively as the new framework explains the cleavage between expected and observed levels of happiness over the past half century. This is a powerful demonstration of the advantages of interdisciplinary research in the social sciences. The results produced by Rilling et al. (2002) are but a taste of the potential in the area of neuro-economics. If we as economists are serious about a search for knowledge, both for knowledge's own sake and for the improvement of the lot of all in our society, then it is imperative that we swallow our pride and take seriously the picture of humanity painted by the other social sciences.

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AN INSIGHT INTO NEUROECONOMICS

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Senior Sophister

Many of todays economists are no longer satisfied with economic theory and predictions based on the underlying assumption that individuals behave rationally. Previous essays in this journal attempted to overcome this assumption by supplementing economics with psychology. David Delaney and Jean Devlin now look at the exciting new area of neuro-economics which aims to improve economic understanding by analysing the workings of the human brain, thereby allowing for irrationality.

Introduction

Jean: So when is this essay due?
David: The 31st of February

People act in strange ways. We often say or do things contrary to information known to us. Economic theory views this as irrational behaviour. The concept of rationality is central to economics. Unfortunately for economic theorists, very often people, particularly David, do not think in this way. Economists have come up with many ways to augment the concept of rationality, such as subjective expected utility theory (Rustichini, 2005) and non-parametric econometrics; however the shortcomings of rationality assumptions are indicative of a larger gap in traditional economic theory – it is this gap that neuroeconomics seeks to fill.

In essence neuroeconomics is a new extension of economic theory that provides previously unavailable data - namely, neurophysiological data obtained from neuroscientific tests such as MRI scans, heart rate measures and galvanic skin response – with a view to concretely explaining the intermediate process hitherto assumed away with 'as if' modelling or assumption of algorithms. The potential of this new addition to improve economic theory should not be underestimated.

As one of the social sciences, the basic subject of economics is human behaviour, and the basic task of the economist is to establish useful predictions about these sets of actions. The traditional method in economic

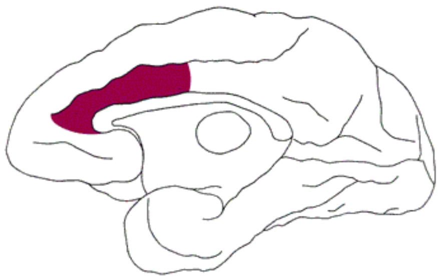
theory has been to take information such as incentives, preferences and feasibility constraints as inputs and observed behaviour as the output (ibid). They have tended not to worry themselves with the process in between. For instance, game theory relies on *'as if'* modelling of human behaviour; we don't know, for example, if firms really are profit-maximisers, but they act '*as if*' they are. The predictive capacity of economic theory (i.e. the ability to say what will happen if an individual or a society selects one course of action over another) is entrusted with complex problems - devising ways to make poor countries richer, optimising world trade - that have significant impact on the ordinary lives of its human subjects.

In this sense it is useful to draw a comparison with the medical sciences, which are also charged with finding solutions to urgent problems (Wilson, 1998). This comparison, however, shows the accomplishments of economics in a dismal light – against breakthroughs in research and new treatments for AIDS and cancer and vaccines for debilitating diseases including polio, economics has yet to come up with a formula for the optimal amount of fiscal regulation, for example, or specifying a future income distribution within and between nations (ibid). The 'laws' of economics, and of social science in general, are much more fluid than those of the natural sciences; but why is this? And how can neuroeconomics improve this capacity?

Shredder: "You have a brilliant brain, Krang."
Krang: "Of course. It's all I really am!"

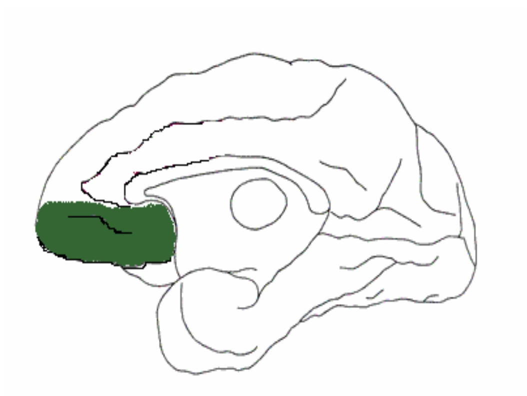
There are three main structures in the brain that neuroeconomists are interested in examining. The first, the anterior cingulated cortex, is concerned with cognitive functions, such as anticipating rewards and decision-making.

Figure 1: Anterior Cingulated Cortex



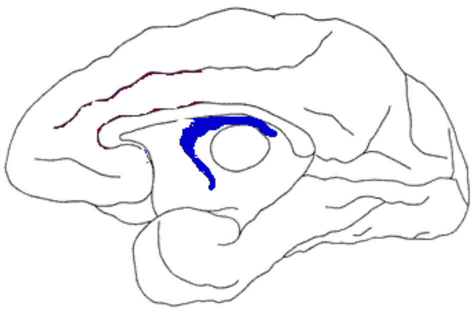
The second, the orbitofrontal cortex is involved in the decision making process, it is considered part of the limbic system and is associated with motivation. It is more active in risk takers than in introverts.

Figure 2: Orbitofrontal Cortex



The third part of the brain we are concerned with is the ventral striatum. The ventral striatum is involved in processing the likely rewards of some action and is important in how we form our beliefs.

Figure 3: Ventral Striatum



These parts of the brain are investigated by using MRI (magnetic resonance imaging) scans, which use magnetic waves and the echoes which rebound off these structures in the brain to analyse when each particular part is being used (www.wikipedia.org). Neuroeconomists can make inferences based on the functions of each structure and the changes that occur in the brain as the challenges which are posed to individuals differ. These results allow us to make new inferences about the nature of rationality in individual decision-making. As a specific example of where assumptions about rationality have broken down, we will look at the model of consumer choice.

Eeny, meeny, miny, mo

Consumer choice is based on the idea of revealed preference. This says that the best indicator we have of a person's preferences is to look at the choices they have made. The General Axiom of Revealed Preference (GARP) states that if an allocation X is revealed preferred to Y, then Y is never strictly directly revealed preferred to X. That is, X is never strictly within the budget set of Y. When a choice is made, GARP attributes choice preferences to this which rationalize this behaviour. GARP is a necessary and sufficient condition for data to be consistent with utility maximisation. At an aggregate level neither Varian (1993) nor Swoffard & Whitney (1987) found there to be any violation of GARP using non-parametric tests[1]. At a micro level, however, results were quite different. In experimental settings, subjects were asked to choose a position on a budget set between two goods. These results were then analysed, and if the results for different budget sets were found to be completely random, then the null hypothesis (i.e. the assumption) of GARP could be rejected. Mattei, in a microanalysis of GARP, observed that between 30% and 50% of results taken from Swiss consumer panel data rejected the null of rational preferences. In his study Mattei comments "we find a considerable number of violations of the revealed preference axioms, which contradicts the neo-classical theory of the consumer maximising utility subject to a budget constraint. We should therefore, pay closer attention to the limits of this theory as a description of how people actually behave" (Mattei, 2000:487).

What neuroscience is finding is that our intuitive understanding of the way preferences are formed is flawed. Neo-classical economics only looks at preferences in terms of the observed choices at the end of the decision process. It analyses the choice one makes by assuming the existence of one common indifference curve for all possible beliefs that we have. For example, whether I believe that the stock market will go up or go down, my maximisation problem will be the same. In reality, if the stock market goes down, this may come as a surprise to me, hence my indifference curve in this case will be flatter to allow for a different trade-off between risk and return. In contrast, if the stock market went up in value I would be more willing to take on extra risk. Neoclassical economics neglects this possible flexibility of preference curves. Neuroeconomics is changing this, by suggesting that preferences can be divided into different types of beliefs which we hold about the probability of different outcomes. This should allow us to model different indifference curves based on the probability of different outcomes occurring.

"I believe I can fly!" - Anonymous

Using neurological techniques Camerer and Bhatt (2005) have shown that they can separate the different types of beliefs that people have and the choices to which these correspond. They analyse two separate types of beliefs: 1st order or self-referential beliefs, and 2nd order beliefs or beliefs about what one thinks other people think they will choose. Equilibrium in

[1] non-parametric tests allow econometricians to analyse data when specific assumptions underlying the formulation of that data is unknown

this case is defined as the correlation between these types of beliefs and the final choice that the individual makes. Equilibrium therefore conforms to the neoclassical opinion that beliefs can be analysed based on the observed choice which an individual makes. Disequilibrium provides more interesting results and ones related to the real world in which decisions are made under uncertainty - uncertainty regarding the effects of an action, but also the actions which other individuals will take. This type of disequilibrium is modelled by allowing some individuals a set length of time in choosing their action while others must make split second decisions.

It has been shown that when making decisions concerning themselves, individuals are less concentrated on forming beliefs about their current situation; rather, they concern themselves with choosing an action. Interestingly, when it comes to considering the possible action of other players in the game, there is a great deal of neural activity in the ventral striatum. This shows that when thinking about the other person the player is analysing the likely rewards of their own action, given the other player's likely action; i.e. it is crucial to how we figure out our reaction. This type of inference has wide ranging applicability to economics. For instance we can analyse economic changes that will have effects on increasing disequilibrium in the decision making process, or increasing the correlation between the choices which we make and the beliefs preceding this action. It will allow us to specify the type of information needed to increase the speed at which we are able to make 'rational decisions' and increase our own welfare.

Conclusion

In summary, the application of neurophysiological techniques to measure and test economic behaviour is an increasingly popular method of investigating the empirical formation of beliefs and choices, the knowledge of which is crucial to understanding, and ultimately, predicting human economic behaviour. The exposition of one such application, to consumer choice models, is an example of the promise that neuroeconomics holds towards this end. However, that is not to dismiss the substantial advances made by neoclassical theory. It provides very powerful explanations of some economic phenomena – for instance, the Federal Reserve Board in the USA has successfully prevented major recession or depression from occurring through careful manipulation of monetary policy. However, it is biased in its fulfilment of the principles scientists lay down for scientific theories, and this bias leads to two major weaknesses that this essay has pointed out. The first is its obsession with universality. The stringency with which neoclassical economics upholds the principles of parsimony[2] and generality[3] makes for universal laws that must necessarily cover all possible economic arrangements (Wilson, 1998). This is not only unrealistic given the innate traits of human behaviour, but as Rustichini (2005) points out, the axiomatic system employed means that economic theorists must, from the beginning, specify behaviour in *all* possible choices – in effect, they must provide the answer before they can ask the question.

The second weakness stems from the hermetic character of economic theory – it examines economic behaviour in a vacuum, sealed off from the myriad complexities of human behaviour. *Homo economicus* exists because of this a priori consequence where economic action has become independent of reality. These weaknesses hinder the incorporation of the two other principles of scientific theory. Consilience - having units and processes that conform to solidly verifiable knowledge in other disciplines – is the major stumbling block of economic theory, and up to the emergence of neuroeconomics, the discipline has more or less made no attempts to seriously consider what other disciplines reveal about the exact nature and sources of individual behaviour. This is the major impediment to the achieving the fourth principle, predictiveness. As we have argued, it is at this point that neuroeconomics has entered the discipline in an attempt to bridge the gap and ultimately improve the accuracy of economic predictions by focussing on the most basic (neurophysiological) level at which human decision-making can be measured – what happens in the brain.

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[2] the fewer units and processes used to account for a phenomenon, the better

[3] the greater the range of phenomena covered by the model the more likely it is to be true

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PSYCHOLOGY AND THE ECONOMY OF IRELAND

ANDREW ALLEN

Senior Freshman

The preceding essay in this journal established that economics needs to develop closer links with psychology in order to move the scope and understanding of the discipline forward. Andrew Allen now enhances the economic theory explaining the Celtic Tiger with a psychological perspective on this phenomenon. He asserts that in our efforts to maintain such economic growth we need to complement sound economic policies with psychological insights.

Introduction

An underlying assumption in a vast number of economic models and theories is that of rationality. Individuals are thought of as economic actors who maximise their utility subject to a budget constraint and companies set marginal revenue equal to marginal cost in order to maximise profit. There is certainly some merit to this approach, particularly in the aggregate, but in reality the actions of individuals and companies alike can not always be thought of as rational.

The Celtic Tiger economy of the 1990s is a success story that has received much attention from both political and economic commentators worldwide. The majority of studies and writings on the reasons for Ireland's economic success, contain recommendations on which course of action should be taken in order to maintain growth, using economic theories which assume rationality. However further insight into the economy's performance can be gained by using principles of behaviour in general, rather than just assuming all human behaviour to be rational. Sub disciplines such as social, developmental, evolutionary and, of course, organisational psychology can complement the study of the Irish economy. When analysing the factors that influenced rapid growth in the 1990s and determining to what extent rapid growth should be considered tantamount to an increase in the happiness of Irish citizens, it is helpful to examine the relevant issues using the theories of psychology in conjunction with those of economics. This essay will do just that.

The first section looks at the limitations of using economic growth as a measure of the quality of life or happiness of a nation. The second section examines the issues affecting Ireland's competitiveness and looks at ways of maintaining competitiveness in future years. The third section looks at taxation and efficiency while the fourth examines factors that influenced the Celtic tiger. The fifth section deals with employment and the sixth section concludes the paper.

The Limitations of Economic Growth

In the last decade, and especially in the late nineties, Ireland has experienced strong economic growth. Obviously, from an economic perspective, this is viewed as beneficial. However, economic growth is a means through which the *utility* of people is increased and the term 'utility' is essentially interchangeable with 'happiness'. In "The Psychology of Happiness", Argyle (2001) points out that psychological research at large has not found material income to be the most successful determinant of happiness. Rather, happiness is correlated to a greater extent with social factors, such as family and friends. At a more basic level, it is linked to neurotransmitters such as dopamine and serotonin, which are activated through goal-related activity such as sport or indeed work (Argyle, 2001).

Bank of Ireland recently predicted that economic growth in 2006 will be driven by increased incomes, rather than increased credit. However, the increase in credit in the Irish economy of the last few years is simply too large to ignore. Research by Brown et al. indicated that non-residential mortgage credit in particular is linked with increased levels of stress (and with it, decreased utility). Although long-term increases in credit are arising from residential mortgage loans, credit in the last few months has been driven upwards by non-mortgage credit (Brown et al, 2005). Increased levels of stress within the population will moderate the benefits of any economic growth that this credit brings to the economy.

If we assume technology is driving Ireland's economic growth, as the Solow model proposes, then modern Irish lifestyles are becoming more divorced from their evolutionary heritage. An example of this is the increasing incidence of obesity in Ireland. Obesity among Irish children is growing at a rate of 1% per year. This will almost certainly place an increased burden on the health system in years to come. Evolutionary psychology argues that early humans developed a predilection for foods high in fat and sugar, as these foods were in short supply. With fast food and 'junk' food (as a result of advances in technology) increasingly available to the Irish population, obesity is the result (Lazar, 2005).

Competitiveness

As wages are continually rising in Ireland, one method of maintaining competitiveness is through workers giving better 'value for money'. Obviously, education is one method of doing this. Another is reducing the amount of stress within the workforce in order to increase productivity. It is estimated that tens of millions of workdays are lost every day in the E.U. due to stress-related illness. Organisational psychology research has indicated that a good social support system within the work place and employee training in stress management significantly reduces stress. In fact, U.S. research has shown that every dollar spent on stress management yields over five dollars worth of improved job performance (Statt, 2004). Ireland will be less able to compete if it has a stressed-out work force.

A competitive economy should have strong innovation. Extensive psychological research has been conducted on this topic. One method of innovation frequently used by firms is that of "brainstorming", where workers meet and suggest as many ideas as possible before deciding which ideas are the most effective. However, research by Diehl & Stroebe has shown that brainstorming is actually less effective than workers thinking up ideas by themselves and then coming together (as cited in Hewstone et al., 1997). However, brainstorming is still a popular practice. Irish firms should be made aware of the limitations of brainstorming.

Ekvall devised a Creative Climate Questionnaire, which he contended measured aspects of working environments that are correlated with innovation. (It should be noted that innovation is not just the creation of new products, but also of better ways of doing things within a company). These include humour, trust and emotional involvement with the performance of the workplace. These factors also tend to be linked with overall job satisfaction (Ekvell, 1996). A survey by the Irish Independent recently indicated that the most common reason for workers leaving firms is a failure to get on with their co-workers. It is quite likely that a lack of humour or trust is evident in these situations.

Guilford argued that creative/innovative thought is driven by the ability to think divergently (i.e. thought which does not slip into the trap of being habitual). By exercising one's ability to think divergently, one can become more innovative. Guilford tested this by using tests such as asking people to think of as many different uses for a brick as possible. The divergent thinker should be able to think of many different uses and also many different kinds of uses (Guilford, 1984). That Edward DeBono can charge over €500 for a course in this kind of thinking is indicative of the value workers and firms are beginning to place on divergent or ‘lateral’ thinking.

Taxation

One of the canons of taxation is efficiency, and an efficient tax should have little scope for evasion. However, Wenzel (2005) has pointed out that compliance with taxes is closely linked with the mores of one’s social group. If there is a ‘subculture’ of not paying taxes within a certain group (e.g. some politicians in earlier decades if not today) then measures such as tax havens may not prove as effective as hoped. Although such havens may promise confidentiality (to prevent fear of disgrace etc.) they ignore the psychological support tax evaders gain from their shared participation in the crime.

Another canon of taxation is equity. Unfortunately for policymakers, the idea of ‘equity’ is almost purely subjective. Lewis asked people whether or not they agreed with the statements ‘I find tax to be an imposition’ and ‘Tax helps to pay for essential services that aid to the greater good’. While around half of people agreed with the first statement, 80% agreed with the second! (Lewis, 1982).This demonstrates the psychological construct known as cognitive priming. If a particular idea is mentioned to us, our subsequent thoughts will be coloured by that thought. One could well imagine a discussion on ‘Questions & Answers’ about income tax. If the most articulate speaker on the programme argues that income tax is unfair, then the viewers will in future be more likely to perceive the injustices of income tax. If the most articulate speaker champions income tax on the grounds that it is progressive, then viewers will develop a more positive attitude towards income tax.

The Celtic Tiger

The strong increase in economic growth during the nineties was linked to entrepreneurial spirit (among other things). Entrepreneurial spirit is more evident in people who have what psychologists call ‘an internal locus of control’. What this means is that the person in question believes that he has control over his own life. Hofstede has found in a major cross-cultural study that internal locus of control is to be found more frequently in individualistic societies. It would not be erroneous to suggest that Irish society has become more individualistic, particularly following the demise of the Catholic Church's extra-secular influence.

Foreign direct investment from the USA continues to be a large factor in strong economic growth. It has been suggested that US investment in Ireland is determined by cultural factors as well as incentives such as low tax, access to E.U. markets and an English-speaking work force. This is illustrative of the ingroup/outgroup effect described by social psychologists Turner & Tajfel in their social identity theory (1979, as cited in Hogg & Vaughan, 2005). We consider ourselves to be part of an 'in-group'. Those who do not belong do the in-group form the out-group. We are more attentive to the positive traits and less attentive to the negative traits of fellow members of our in-group. The inverse is true for the out-group. So it goes with US investors. As Ireland is culturally similar to the US, not to mention a huge number of Irish descendents currently live in the US, US investors will notice positive aspects of Ireland more swiftly than they will notice positive investment opportunities in culturally diverse countries.

Employment

In the last ten years Ireland has seen increasing immigration of workers from foreign countries. An ESRI report has shown that although many immigrants have good qualifications, they tend to end up working in lower-skilled employment. Economic theory would suggest that indigenous lower-skilled workers should feel threatened by competition for work by such immigrants. However, research by Dustmann (2004) indicates that feelings of animosity towards immigrants (where they exist) are at least as determined by old-school xenophobic prejudice as rational, economic thought processes. This would suggest that a policy of anti-prejudice education and advertisements (as can be seen in the kNOw RACISM campaign) would be effective in combating anti-immigration sentiment.

Long-term unemployment has not been a serious problem for Ireland in recent years. However, research by Ek et al indicates that long-term unemployment is, in some ways, determined years before it occurs. Among the long-term unemployed, incidence of adolescent bullying is three times higher than it is in the general population. Low social status as an adolescent is also associated with long-term unemployment in adulthood, particularly among males (Ek, 2005). This indicates that truly effective active labour market policies should target those adolescents who are at risk of being long-term unemployed in the future, and not just those who have already suffered the effects of histeresis.

As technology continues to progress, constant re-skilling of the work force is becoming a necessity. Developmental psychologists have pointed to the risks of a generation gap in continued up-skilling. As workers grow older, they become less likely to engage in voluntary training programs in work and tend to prioritise security and leisure over education and advancement (Berk, 2001). With a gradually ageing workforce, Ireland should not allow older workers' skills decay due to a lack of ongoing training.

Conclusion

The Irish experience is one which many countries, particularly the ten new EU accession states, will seek to emulate. There are many lessons to be learned from Ireland's economic success in the last fifteen years, however governments would do well to note that economic processes are always and everywhere coloured by the intricacies our psychology.

We examine the past so that we may look to the future. The last ten years have been kind to the Irish economy, but complacency is a great threat to its next ten years. In continuing to strive for greatness, policymakers and firms should take account of how psychological processes affect the outcomes of their decisions and how their decisions in turn affect people's psychological well-being. Above all, the fatal assumption of humans as rational economic agents should be left to textbooks.

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CAUSES AND CONSEQUENCES OF INFLATION DIFFERENTIALS ACROSS THE EUROZONE

SHANE CONNEELY

Senior Sophister

The problems associated with a "one size fits all" monetary policy within the EMU is particularly pronounced in the case of the Irish economy. After thoroughly analysing the reasons underlying inflation differentials across the EU and then considering the effects of these differences, Shane Conneely considers the structural changes accompanying enlargement. He discusses the tools which individual governments may use to manipulate their economies and concedes that the potential for stagnation must be addressed.

Introduction

In this essay I discuss the historical background which has led to the development of the European Economic and Monetary Union (EMU) Project. I discuss the economic principles on which the EMU is based and its underpinning logic. From there, I develop a reasoning of the consequences of EMU with regard to inflation and its divergence within the Eurozone. I then go on to discuss the nature of inflation differentials across the Eurozone, the patterns which can be observed and why monetary policy at Eurozone level will inevitably produce divergent inflationary effects. I subsequently discuss the costs which accrue to those Eurozone members whose cycle of inflation is not synchronized with the Euro level monetary policy. I pay particular attention to the German and Irish economies as they are the economies which exhibit the greatest disparity in rates of inflation, within the Eurozone, since the creation of the Euro.

I believe that Inflation Differentials across the Eurozone are an intrinsic feature of our Monetary Union. I believe this to be the case because market place promotes specialisation as the fundamental response to the pricing mechanism. This heterogeneity ensures that, despite the same macroeconomic conditions, different regional rates of growth will be observed. Consequently there will be observed deviations in economic indicators across the Eurozone.

Historical Roots of the EMU

The primary economic philosophy behind the Economic and Monetary Union has been Mundel and Fleming's development upon the simple Keynesian model. A basic result of Keynes' model is that an economy may settle into an equilibrium which is stable yet does not operate under full employment. Keynes' model predicts that the government may, however, through an expansionist monetary policy, induce a positive shock to excite the economy thereby energizing it sufficiently to move towards another equilibrium which promotes a higher level of employment.

The Rise and Fall of the Keynesian Model

Confidence in Keynesian economics grew in the years after World War II, The Marshall Plan proved the value to an economy of government expenditure (albeit in cases where there is underutilization of resources and labour). Meanwhile in the international system, intercontinental levels of stability were the consequence of the Bretton Woods Agreement (BWA) which maintained fixed exchange rates through the pegging of the European currencies to the dollar which was in turn pegged to gold.

In the late 1950s this system began to crumble as the growth of the world's supply of gold bullion could not keep pace with the West's economic growth. With the crises of the cold war, the market value of gold spiked. When the price of gold exceeded the $35/ounce set by the BWA, arbitrage occurred. US reserves were bought at the fixed price and traded on the gold exchanges for the greater market price. This eventually precipitated the run on gold which forced the global system into a system of floating exchange rates.

Open Economies and the Mundel-Fleming Model

These failings of the BWA forced a re-evaluation of the Keynesian system and the Mundel-Fleming model developed as an explanation as to why these imperfections occurred. When a government seeks to engage in:

fiscal policy
in a world of free capital and
fixed exchange rates

it finds itself skewered upon the horns of a trilemma: the ‘inconsistent trinity’ of monetary policy. Increased expenditure (in order to spur on an economy operating under capacity) raises the nominal amount of currency within the economy. To compensate for this, prices will rise, thus leading to a rise in interest rates. If however the home state’s currency operates under a fixed exchange rate with another nation’s currency the home government cannot alter its interest rates without precipitating an influx of investment from its partner country. This freedom of capital to move across borders will consequently raise money supply to greater levels thus spurring on inflation even further in the home country.

Meanwhile, not raising the home countries rates continues to fuel the rise in prices in that country. As the prices rise in the home country consumers will choose cheaper, imported goods thereby causing a capital outflow which continues until equilibrium is reached and the previous real values reassert themselves.

The “Inconsistent Trinity” and EMU

This mutually exclusive triumvirate of concepts, the professed “inconsistent trinity”, is at the heart of the fiscal difficulties which trouble the Eurozone. In choosing the path of Economic and Monetary Union we have foregone our right to an independent monetary policy. This has led us to the EMU, with free capital movement and a transnational currency. This does leaves the member states with a dearth of economic management tools though. The costs associated with potentially uncontrollable inflation/deflation are substantial and must be weighed against the potential costs of turbulent currency exchange markets. Contrasting with this are the benefits which may accrue from the potential for growth through integration and investment in a common market and, of course, the peace dividends from a political solution to the Mittle-European penchant for invasion.

Causes of Inflation Differentials Across the Eurozone

Inflation differentials exist across the European Union for many reasons. There exists a strong correlation between changes in inflation in an economy and changes in the growth of the supply of money within said economy (Cagan 1956). Alas M1 money supply is no longer published by any of the Eurozone states other than Ireland. We can however observe the nominal rates of interest on deposit accounts which suggest that demand for money must be relatively low.

Table 1: Rates of interest on deposit accounts in the Euro Area

	1999	2000	2001	2002	2003	2004
Belgium	2.42	3.58	3.4	2.6	1.65	1.52
Germany	2.43	3.4	3.56	2.65	1.68	1.55
Greece	8.69	6.13	3.32	2.76	2.48	2.29
Spain	1.85	2.95	3.08	2.5	2.25	2.07
France	2.69	2.63	3	3	2.69	2.48
Ireland	0.1	0.1	0.1	0.1	0.04	0.03
Finland	1.22	1.63	1.94	1.49	1.34	1.23

Source: IMFStatistics.org

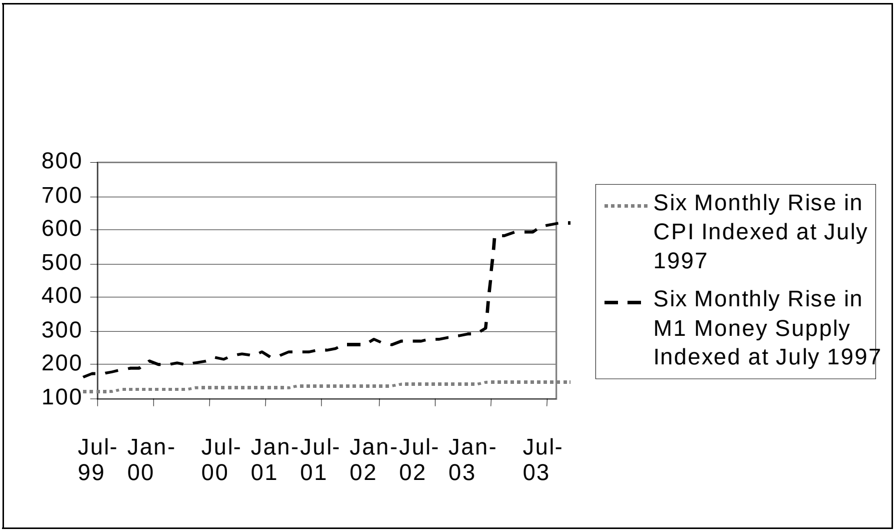
Inflation Persistence across the Eurozone

Much has been made of inflation persistence by the ECB (ECB-IPN 2004-2005), as it queries why certain countries exhibit rates of inflation which lie beyond the range of the ECB targets. We have to come to the understanding however, that so long as countries are behaving differently in economic terms, what is counter cyclical macroeconomic policy for one will exacerbate the situation of another. With Ireland accounting for only 1% of the Eurozone's economy, potential change in money supply is large and with a high degree of variance. Relatively large quantities of Euro can be shipped from the Continent and go unnoticed by the wider economy while a relatively small increase in the nominal demand for money by the Germany, France and Italy could force serious deflationary pressures upon Irish prices. This structural factor ensures that Ireland is likely to always have a wider range in variance than the Eurozone mean; this variance will exhibit itself in terms of inflationary and deflationary persistence.

Inflation and Money Supply in Ireland

Indeed since the transition to the Euro a high rate of growth in monetary supply is observable in Ireland (see figure1). The massive increase in the supply of money which occurs in December 2002 and January 2003 is quiet remarkable and requires a further analysis as there is a marked increase in the supply of money without any commensurate rise in nominal prices.

Figure 1: Indexed Growth of M1 Money Supply and CPI in Ireland 1999-2003

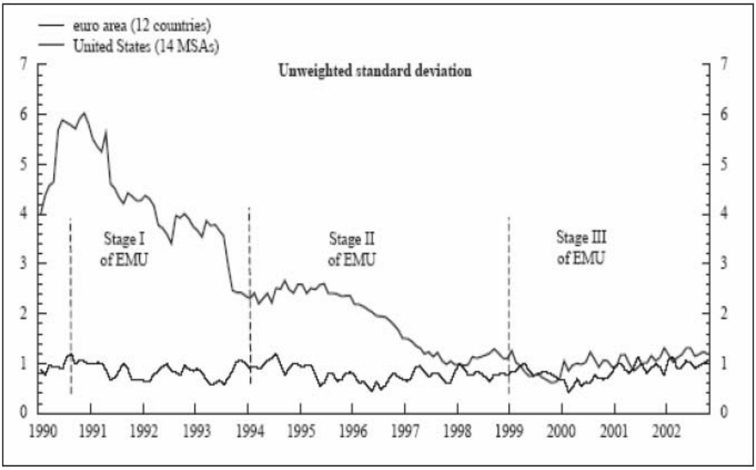


Source: CSO.ie

Variance in Inflation Rates in the Eurozone

There is no quick fix for the pattern of inflation divergence which exists within the Eurozone. The heterogeneity of the regions, combined with Germany's economy accounting for 40% of the Eurozone's GDP, ensures that the ECB's primary concern for monetary policy is to prevent a German slide into recession. The cost of this strategy will have to be borne by less vulnerable states.

Figure 2: Inflation dispersion in the euro area and in the United States (14 MSAs)

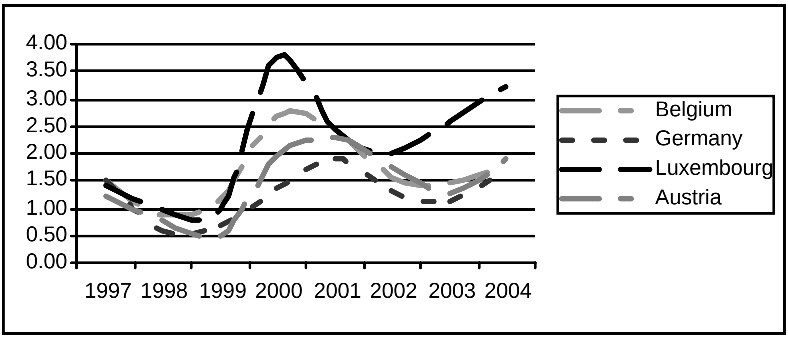


Source: Deutsche Bundesbank

While we can note that great strides have been made towards converging upon narrow band of inflation rates since the commencement of EMU, serious structural problems inhibit a closer re-alignment of the states.

Patterns Of Inflation In The Eurozone

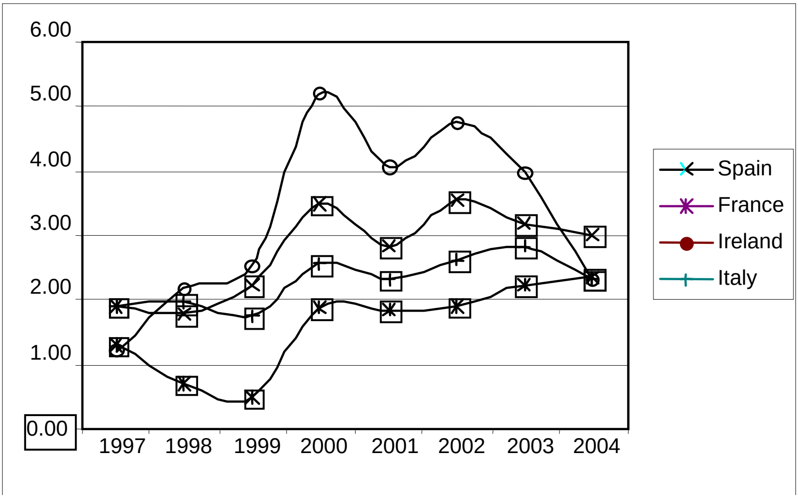
Figure 3: Inflation in the Germanic Zone



Source: EuroStat

When we consider the patterns of inflation in the Eurozone we can find three distinct groups of countries. The first of which are the Germanic peoples of mid-western Europe. Economic policy for them, given the high status that price stability has in the canon of the European central bank, dictates that interest rates should rise in order to stem unwanted or dangerous inflationary pressures.

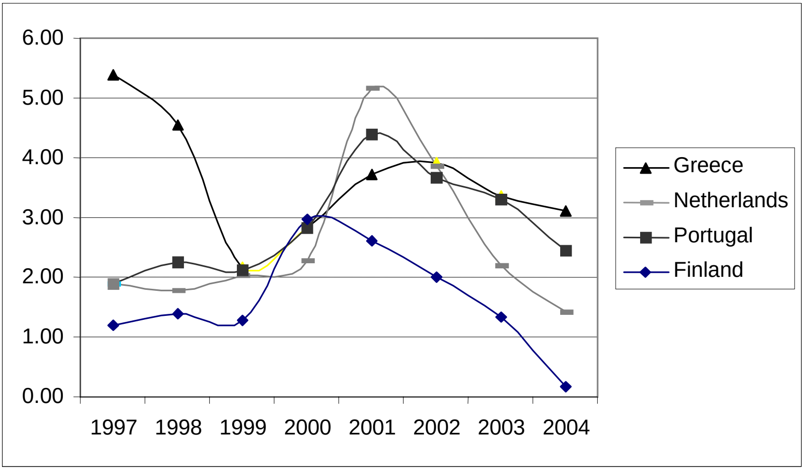
Figure 4: Inflation in the Coastal States



Source: EuroStat

Our second grouping of countries, the Coastal States, also shows a separate distinct pattern of inflation. All of these show a sudden drop in inflation in 2001 and see it rise again in 2002 only to converge on a point close to the 2% target rate.

Figure 5: Inflation in the Outlier States



Source: EuroStat

Finally we have the outliers who fit neither pattern. Greece's high initial inflation is an artefact of its interest rate before joining the EMU which was at almost 16%. Both Finland and The Netherlands have worryingly declining rates of inflation and could prove to become deflationary in the short term, so in their case the best option would be to lower interest rates yet again.

This implies that to take any action (including no action) could hurt the economies of a majority of the states in the Eurozone or at best act pro-cyclically and push them outside the bounds of the inflation targets of the ECB. Across 2005 the Outlier countries have exhibited a small (0.5%) increase in inflation, excepting Portugal which remains at 2.5%, The Coastal states have diverged with Spain's inflation increasing by 0.7%, France's dropping to 1.8% and Ireland and Italy remaining stable, meanwhile for the Germanic Zone all states have seen an increase in Inflation (albeit marginal). Consequently we see in 2006 a forecasted increase in the Euro interest rate of up to 1% despite 2005 inflation being over target by 0.2 %.

Regional Inequalities as a Source of Divergent Rates of Inflation

Certainly the high taxation regimes in the Franco-German hinterland limit growth and the high replacement ratios of unemployment benefits combined with a tradition of long periods of study in third level and early retirement ages are factors which compound this effect. The reason that the continentals could afford to have such generous regimes was because their economies were powerful engines of growth. Where the continentals now need to put their efforts is not simply in reforming their labour laws but in learning how to reform their economies. Compounding this issue is the lack of initiative that Europeans exhibit. (Europe's entrepreneurial rates are half that of Americans and its capital market is only a third the size of the American market.)

The Germans in the 19th and 20th centuries excelled at capital intensive industrial production. Through the success of this model, they enacted the economic miracle and simultaneously financed the French fetish for farming through CAP; at our stage of economic, however, capital intensive industrial production is not where one finds the pools of profit.

If flexibility in the workforce is what is required, this should not be simply looked at as reduced workers rights which allow the employer the flexibility to hire and fire. Flexibility in the workforce requires also the individual's flexibility to take risks, take opportunities and to take control of their lives; qualities which are taken away from the individual when they must serve five year apprenticeships to spray paint cars on a factory floor (Volskwagan website). It is the million people added to Ireland's population since 1972 that created its growth and the wealth. All the Irish government had to do was stop hindering them.

Existing regional inequalities will be augmented by supply and demand shocks which can always give rise to new differences in inflation. The Eurozone member's labour markets are as yet poorly integrated. Due to the intransigence of the average citizen, she is unlikely and unwilling to relocate to another region in their state, never mind another state within the EU. "Hence, short-term inflation differentials can be interpreted as a natural reflection of the necessary adjustment mechanisms taking place" (Weber 2004). As there exist so many rigidities in the internal market it seems likely that all the volatility within this market will be funnelled into that one aspect of the market which is left outside the sphere of governmental control, the pricing mechanism.

The Causes of Heterogeneous Rates of Inflation

Each region is affected differently depending on how their economy is structured, their resources and industries and on their degree of specialisation. Similarly the effect of an exchange rate shock will be different among member countries depending on their share of imported goods in private consumption and their reliance on exports. As Weber (2004) has gone on to say, however, “monetary policy in the euro area is necessarily uniform; therefore it cannot exert a direct influence on inflation differentials” hence those member countries with above average inflation simply “have to carry the cost associated with it… Moreover, their export industry is expected to lose competitiveness,” such as is occurring in Italy.

Even Eurozone wide effects such as the dollars drop against the Euro can have different effects on the regions. Germany’s low rate of inflation means that, despite the dollar being in free fall, in real terms its products are only marginally more expensive in the US than 5 years ago whereas in internal trade with Germany, Italy finds itself 20% more expensive than before it joined the single currency. (http://www.economist.com/displaystory.cfm?story_id=3666544)

The Consequences of Heterogeneous Rates of Inflation

One of the most painful lessons to be learned from the divergent rates of inflation has come as a result of the divergent Real Effective Exchange Rates, themselves a consequence of divergent rates of inflation. Here we find that in the period between 2000 and 2002 Ireland’s Real Effective Exchange Rate increased by 8% as compared to Germany and Belgium for whom the REEP differential was only 2.1% and 1.1% respectively (IMF wevbsite). This process has accelerated with the devaluation of the dollar since 2002. In the last three years Ireland’s and Italy’s REEPs have increased by a further 18% as compared to a paltry 4% for Germany. This has resulted in the German economy becoming increasingly competitive, albeit through a slight of hand and with the cost being borne by the other members of the union. “Indeed, Germany is the only G7 economy to have increased its share of world exports in the past five years” (The Economist, 2005).

In the medium term this will give rise to growth within Germany, something which can only benefit the Eurozone as a whole, though growth manufactured by this mechanism will result in the necessary restructuring of the German economy being delayed well into the longer term.

Conclusion

Ideally the ECB would re-evaluate its inflationary targets and what it judges to be a healthy level of growth. While there are dangers to be recognized in over inflation, the dangers of stagnation and the inadvertent slippage into recession have also have to be recognised; Especially as there exists a tendency to overestimate the rate of inflation, an artefact of the CPI measure of inflation. The risks of stagnation are further enhanced if it is true that the causes of the Eurozone's economic weakness are purely structural in nature. If this is the case it will take a long time for reforms to be pushed through against so many vested interests and longer again before they have an effect.

The potential for the expansion of the Eurozone has also to be considered. If the transition states join us in our experiment, this will immediately dilute the share of Eurozone economy which Germany, France and Italy currently hold. Such a structural change can potentially ensure that the needs of growing states will also be taken into account when the ECB's Board of Governors make its decisions.

Regardless of this variations in regional economies cannot be dealt with adequately on a Euro-wide level. The direct logic of this is that regional difficulties require regional responses. With responsibility for monetary policy transferred to Europe it behooves the regions to maintain those few economic tools that remain. Taxation policy can be used as a short term policy instrument to stimulate economies that show signs of flagging meanwhile in periods of high inflation governments can issue pension bonds. If revenue from such bonds were invested in external markets they would have to dual effect of extracting money from the home market while simultaneously ameliorating some of the costs associated with the ageing population. Such a measure is equivalent to raising the interest rate to a level where saving becomes an option.

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PROSPECTS FOR FUTURE EU LABOUR MARKET INTEGRATION- TRADE UNIONS, LONG-TERM UNEMPLOYMENT AND ACTIVE LABOUR MARKET POLICIES

LAURA CONROY

Junior Sophister

Nowhere is the changing structure of the EU labour market more evident than in the Irish economy. Recent enlargement of the EU and the subsequent focus on further labour market integration has aroused mixed feelings across the member states. Laura Conroy considers the prospects for achieving consensus on further labour market integration. Particular attention is paid to the future of trade unions, the harmonisation of welfare systems and the role of active labour market policies.

Introduction

Since the enlargement of the EU in 2004 much attention has been focused on labour market integration in Europe. Many members of 'old Europe' have fought to prevent what they feel would be an influx of an excessively large number of Eastern European, cheap, unskilled labour (this is particularly relevant at the moment in the services industry[1]). Only Ireland, Sweden and the UK have allowed truly free movement of labour across their boundaries. The experience of these three has proven beyond doubt that the fears of old Europe were unfounded. Even last month the EU Commission published a report stating that not only did the influx of foreign labour fail to increase unemployment (The Economist, 2006c), but Ireland has sustained a level of unemployment that is one of the lowest in Europe.

If labour mobility is to be so desired, what can we now do to improve it? Labour mobility in Europe is still lagging far behind that of the US and is not showing any signs of improving sufficiently in the near future. A huge step in the right direction would be to order the immediate removal by all EU members of restrictions on the movements of workers from new member states. This is likely to be a highly contentious issue and one not liable to be quickly agreed upon, even with some countries beginning to admit the failure of their doomsday predictions. We must also remember that

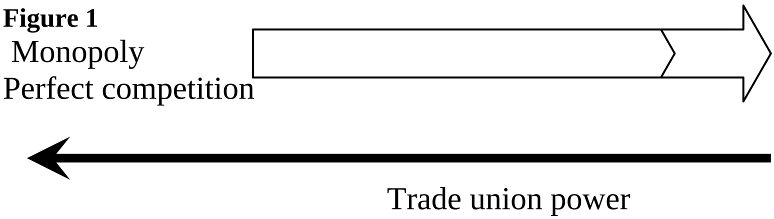
[1] For a full discussion of this see The Economist. 11/02/06

the EU is not one country like the US – "Europe cannot really be defined in terms of a single culture at all" (The Economist, 2006a). Cultural differences, national boundaries, nationalistic behaviour and perhaps even religion in the near future separate the EU where the US is united. Europe is totally committed to the EMU and many believe that in order for this to be a success there must be sufficient labour mobility to protect the market from asymmetric shocks. If this is to occur at a standard required then the next step for the EU labour market has to be further integration. In this paper the prospects of success for this integration will be looked at, first in terms of the role, if any, national trade unions may have in a more integrated labour market. Next, the EU experience with regard to long-term unemployment and harmonising welfare systems will be recounted, before concluding with analysis of the main active labour market policies in Europe at the moment and predictions as to whether any of these can be adapted or combined to 'fit' all of the members of the EU.

Trade Unions influx

In an ideal world, when an adverse shock occurs, demand falls and eventually wages will follow and the market will do much of the adjustment needed itself. However, the labour market differs considerably from the goods market, mainly due to the existence of labour market rigidities. Wages in industrial nations can rarely be legally cut and wage negotiations and redundancies are both equally drawn-out processes because of the presence of trade unions and labour legislation. So, when faced with declining demand, firms are in a difficult position if they are unable to adjust wages or employee numbers – ultimately profits will decline, other expenses will be cut and in extreme cases closure or bankruptcy may result. Trade unions and labour regulations are necessary to counter market failures such as information asymmetry; they also provide necessary protection of vulnerable workers and further training – the key issue here is balancing the need for regulation and the need for flexibility. Market failures need to be addressed, but in order to achieve maximum growth and economic stability an economy needs a flexible labour market; "the more inflexible the labour market, the higher are the costs of dealing with an asymmetric shock" (Baldwin & Wyplosz, 2004:432). In the EU at present stringent competition policy rules exist, and there is perceived to be far more market domination in the US than in the EU, (something which generally increases union power due to the larger nature of surplus).

Figure 1



This would seem to suggest a move away from powerful trade unions at the current time but other factors could influence their role more long-term; local union membership density, the preferred type of bargaining arrangements, the legislative environment, the level of public and media support and of course union preferences and choices as to their future direction. The impact of increasing intra-EU trade and FDI as well as both vertical and horizontal integration of firms must also be factored into the argument.

So what path will unions take?

It is undeniable – the role of trade unions in Europe is changing. Union density is falling and even the nature of business within Europe is changing as the effects of globalisation and deeper integration set in. It is quite apparent that, in order to survive, trade unions across Europe must change fundamentally or else they will be left behind. There would appear to be no compelling evidence to point towards a resurgence of union membership until there is some kind of radical change in the co-ordination of unions at an EU level, something that is highly unlikely mainly because of the loss in individual union power that would result and the major costs of co-ordination. The trend began in the first place because of a number of reasons, but primarily because of the increasing market size of service industries and a decline in the size of the traditional 'core' manufacturing industries where unions were popular. These new services depend on contract, temporary and short-term workers, and so do not favour union membership. This problem for unions has been further exacerbated by the EU itself. In recent years the EU has sought to protect vulnerable workers by issuing various directives to be implemented in all EU member states, thus removing one of the reasons for joining the union in the first place.

However, as mentioned earlier, much will depend on the unions' ability to reform. There are three different levels upon which a union can negotiate – plant level, industry level and on a national level, the latter possibly with EU-wide co-ordination. Of recent years, in most EU member states, the trend has been one of increasing decentralization of collective negotiations within countries, a development quite favourable to the population's welfare and economic efficiency. According to Baldwin & Wyplosz (2004:434), this negotiating at a plant level means that "workers and their unions are keenly aware that high wage settlements could endanger their firms competitiveness and result in job losses…exerts a moderating influence on wage claims". Negotiating at the national (or higher level) the unions can see that "the whole economy's competitiveness is at stake" (Baldwin & Wyplosz, 2004:434), and wage restraint will exist here also. It is at the industry level that the economy is most in danger, where "unions feel responsible for neither the entire economy nor any particular firm. (Thus) they have little incentive to restrain their wage claims" (Baldwin & Wyplosz, 2004:434). Therefore, the only two paths that unions should, from an economic efficiency point of view, travel down, are further decentralisation of negotiations or negotiations at a national level with a view to EU co-ordination. Negotiations at industry level, particularly in the event of possible co-ordination on a pan-European scale (for example co-ordination of unions of steel workers across the EU), would be very dangerous and would encourage reckless wage demands and inflexibility. Boeri, Brugiavini and Calmfors (2001)[2] put forward four possible scenarios for trade unions in Europe; for various reasons, mainly those discussed above, three of those options could be viewed sceptically, but the one of them is quite possible as a future role for trade unions.

National co-ordination through social pacts would be an option that would benefit all partners in the system; the unions, the working population and consumers, and the government with a view to the economy as a whole. The core problem with the EMU so far has been the inflexibility of the market to react to adverse shocks, due to the loss of the monetary policy instrument.[3] "If – as we expect – fiscal policy proves to be an insufficient stabilisation policy tool in this situation, then it is likely that wage restraint through co-ordinated action may come to be seen as a necessary means of stabilising a recession-struck economy" (Boeri, Brugiavini and Calmfors; 2001:122).

Consumers and workers alike would both benefit from the positive effects resulting from wage restraint as discussed in the preceding

[2] Contains detailed further discussion of possible future roles for European Trade Unions

[3] See Baldwin & Wyplosz; 2004: 435-437, also Boeri, Brugiavini and Calmfors; 2001: 121 - 125

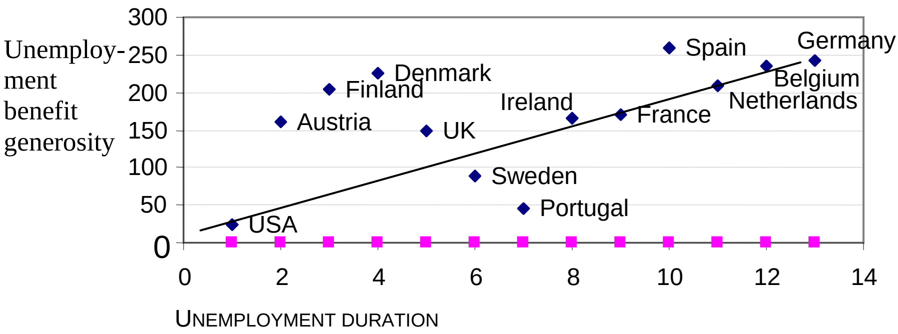
paragraphs. Finally, the unions themselves would also benefit from such a solution, one where there is no formal amalgamation of unions into larger European unions which would reduce the power of national actors. Social pacts and informal agreements would see a large level of cohesion while protecting national interests at the same time. The co-ordination would also be necessary to uphold the legitimacy of unions in the face of declining membership and increasing decentralisation, and would help the unions to act together with the ECB to guarantee wage restraint.

Long-term Unemployment & Social Insurance

Social insurance is a second issue which is of vital importance if the labour market is to be integrated within the EU and the issue of long-term unemployment needs to be addressed. Insurance against unemployment has obvious vital outcomes that society requires to protect the weakest of its members. However, it is a dangerous tool if not used in the correct manner or in the correct amount. If too much money is given out by the state (or trade unions for that matter), then there could be an incentive for people to stay out of employment or at least be overly-choosy in picking a new job. Furthermore, there is a risk of insurance taking the form of payroll tax (Baldwin & Wyplosz, 2004:440) – as unemployment rises so do the payments which will further increase unemployment and further aggravate the problem. There is a distinct correlation between the generosity of welfare payments and the length of time that people spend in unemployment – see figure 2 for details[4].

[4] Graph taken from Baldwin & Wyplosz; 2004:441:fig.17-7

Figure 2: Long-term Unemployment & unemployment benefits



Europe stands apart from the USA in its comprehensive safety nets and insurance it provides for it's workers, but it is a luxury that may be about to become too expensive to afford. Some have argued that the only way such expensive welfare systems could work is behind the protective wall that existed when the EU contained barriers to competition and trade. These are now rapidly falling. With the advent of highly integrated trade and competition policy the EU faces its biggest task yet – welfare policy harmonisation. Does it develop more along the US model of lower welfare provision or is there another way, perhaps along a 'Nordic' model? This returns us to the problem of asymmetric shocks; the model needs to be able to respond to such shocks, and high unemployment insurance payments hinder this process, as all other labour market rigidities do.

Welfare policy harmonisation for Europe

If the labour market is to converge there is obviously a need for the welfare policies in EU member states to converge – some will have to increase welfare provisions and some will have to decrease theirs. There is a desire in the EU for this, but very little accord with how to go about doing it. Francis Castles (2004) compiled extensive research into the possibility of convergence of welfare provision in Europe, and the results so far have been diverse in nature. It was found that although the EU is not distinct in welfare provision from much of the rest of the OECD area, within the EU there are a few distinct clusters. The Nordic countries, the 'continental' countries, northern Europe and the accession countries all formed comparable groups. The data did show that convergence is beginning to happen in areas such as expenditure levels, but in others, for example with regard to pensions, Europe is diverging. This is troubling for the leaders of the EU member states at a time when new, relatively poor countries have recently made the member numbers swell to 25 and stretched the budget for structural aid to its limit. In fact, this problem is at the heart of the most recent EU expansion;

> "If, over the coming years, we eventually witness a broader European welfare state convergence, we should hope it is because of structural adjustment initiatives and institutional rules stipulating minimum standards are bringing these countries closer to the realities now prevailing in much of Northern Europe…For many in the new Eastern Europe, it is the promise that makes EU membership seem so attractive." (Castles, 2004:92)

Active labour market policies

Now we turn to labour market policy prescription for Europe – how will welfare harmonisation occur? Most commentators agree on the existence of three distinct models in Europe – the 'Continental' (France, Germany, Belgium, Austria) model, the 'Nordic Model' (Sweden, Finland, Denmark, the Netherlands) and the 'Anglo-Saxon' model (UK, Ireland). The results across the three have varied quite considerably, but none seem keen to give up their respective policies, regardless of success.

The Nordic model has the highest level of welfare provision in Europe. There is a large emphasis on income equality, wage compression and the redistributive effects of high taxation in the region, and while unemployment benefits are among the highest, the region has a rigorous retraining system and is strict enough to ensure that workers are unemployed for only the briefest of periods. "Such a degree of wage compression is frowned upon by many economists who believe there is little reward for hard work and risk taking, and therefore may hurt growth. On the other hand, a high degree of equality underpins social cohesion and reduces crime" (Baldwin & Wyplosz, 2004:447). The results appear to speak for themselves – inequality, the number of hours worked, crime levels and unemployment duration in the Nordic regions are amongst the lowest in Europe.

The Continental model is one where trade unions would continue to play an important role, with very high levels of stringent labour laws on dismissals, wage cuts and welfare provision. The results in this model have not been promising (high unemployment, long duration of unemployment – see table above), but these countries are reluctant to give up their extensive welfare nets (in the form of education, working hours, healthcare provisions and social insurance) which they believe afford them a higher standard of living.

The Anglo-Saxon model evolved from the Continental model in the Thatcher era, which weakened trade unions and decentralised negotiations (Baldwin & Wyplosz, 2004). However, this model has quite a way to go if it is to catch up with the welfare standards of the Nordic countries, but there is an undercurrent of support for exploring such policies – a return to the high levels of unemployment in the pre-Thatcher era is not a welcome one.

With the arrival of the accession countries, these models will once again be thrust into public debate. It would seem, on the basis of results that the Nordic model is a successful one, and the Anglo-Saxon model is already evolving along these lines. However, the Continental countries will be reluctant to accept the relatively high taxes and redistributive effects, particularly since they feel their unfavourable unemployment statistics are offset by high, unquantifiable standards of living. The accession countries themselves at the moment do not have a 'model', and it may be their choices that will sway the debate. Either way, the debate will continue to run and run, but, for the benefit of vulnerable new economies entering the EU, a compromise should be found sooner rather than later. The question, then, really to be answered first is not 'what model of labour market policies does Europe want as a whole?', but 'do we want less favourable employment statistics in return for higher standards of living and job security, or will we accept much higher taxes in return for less unemployment, greater social cohesion and lower levels of crime?'.

Conclusion

To conclude, I think it is easy to say labour market integration and the removal of barriers to the movement of workers is needed for greater economic flexibility in Europe. What is harder, is reaching a consensus on how to get there. Removing barriers to movement of workers, some feel will leave the economies vulnerable to social dumping and an influx of cheap labour. Getting trade unions across Europe to co-operate will require huge co-ordination costs and the sacrifice of a lot of individual union power, and harmonising welfare systems will also require a sacrifice of even further government control over policy. All in all it will be a very expensive process, in monetary and political terms. But it will be a necessary one –

Europe is yet to be tested be a major economic shock, and it is very reasonable to believe that, at the moment it does not have the flexibility of labour to respond to large, adverse, asymmetric shocks. Trade unions are fast losing their relevance with the onset of integration, globalisation and the decentralisation of negotiations. If they are to survive, but also survive at a level that will encourage wage restraint rather than dominate the markets, major reform is needed, as well as cohesion with European counterparts (at a national level rather than industry level). A balance also has to be found in the provision of welfare benefits and social insurance. It is a fact that, without proper regulation, overly generous welfare benefits will encourage longer periods of unemployment, but statistics in Scandinavian economies have shown that large provisions can be balanced with thorough retraining schemes and strict regulations to reduce this time span. It is from the bones of these arguments that EU policymakers must put together a roadmap for a European welfare system, whether it be Scandinavian, Continental or otherwise. Whichever outcome or even if neither outcome results, some form of integration is necessary to hold the EMU together under the strain of an adverse shock in the future.

> "As the extent of economic integration approaches that of the United States, labour market institutions and labour market outcomes may also begin to resemble their American counterparts (…). Full and irreversible economic integration may call for harmonisation of social and market institutions within the European Union." (Giuseppe Bertola, in Baldwin & Wyplosz, 2004:426)

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THE FUTURE OF EXTERNAL EUROPEAN TRADE POLICY-THE BILATERALISM VS MULTILATERALISM DEBATE

KEVIN BYRNE

Junior Sophister

Kevin Byrne examines the divisive issue of whether external European Trade Policy would perform better under a bilateral or multilateral approach. He approaches the subject by considering the current configuration of trade policies as pursued by the world's major trading blocks. Through analysing the advantages and disadvantages of bilateral trade policies he finally concludes that multilateralism is the best way forward.

Introduction

There are few more contentious debates in these times than the topic of the European Union (EU)'s commercial relations with the rest of the world, from its richest to its poorest trade partners. It is a question that galvanises not only economists and trade lawyers, but also eighties rock stars and Korean cabbage farmers. Its contentious nature is rooted in the fact that it has become inextricably linked to political and social questions on how we handle the journey we take down the path to increasing globalisation. The social question is simple: how do we harness trade to ensure the most benefit to the global common good? However in its practice, it is a profane debate on economics, far removed from the high-minded ethereal talk of 'saving the world'.

In this article, I will address the effect of the EU's approach to international trade institutions and agreements; namely, is it more effective to work on a grand scale, by seeking to negotiate with all parties at the World Trade Organization (WTO) talks, or should Europe take a country-by-country approach and painstakingly negotiate unique agreements with each country? Naturally for a debate as complex and multifaceted as this, there are important advantages and disadvantages to both.

The present atmosphere in world trade

Under article 133 of the EC Treaty, the 25 nations of the EU adopt a common approach to world trade, known as the Common Commercial Policy. Every Friday, the trade ministers of each EU nation meet in a typically imposing modernist building in Brussels to decide what Europe will do next. The figurehead of EU trade policy is the commissioner with responsibility for trade, currently the British arch-technocrat Peter Mandelson. At all trade negotiations, it is thus the EU that is represented, not Germany or Ireland or Slovenia.

The European Union's approach

The EU's rhetorical commitment to a world of ever-liberalising trade is not in doubt: 'The EU proposes advancing meaningful liberalisation across all non-agricultural products, which represent over 70% of developing country exports, by eliminating tariff peaks and high tariffs, and significantly reducing tariff escalation.' (EU Trade Commmission's website)

This is, after all, the *de rigeur* line to be taken under the present economic climate of the liberal Washington Consensus. And the facts do bear this platitude out as more than mere sophistry of appeasement; the EU is in the process of dismantling trade barriers, not erecting them. By a combination of its own volition and the rules that must be adhered to as a condition of WTO membership, the EU has pursued a reduction in tariffs, quotas and other impediments to trade. This has been achieved mainly through the framework of negotiations at the WTO. It is the crucial method by which this process is executed that will have repercussions, and which I will discuss. The one qualification that the EU admits to is the maintenance of resistance towards agricultural imports, due to the provisions of the European Common Agricultural Policy (CAP). The issue of the future of the CAP is a similarly contentious debate and is no doubt addressed elsewhere in this journal. While not doubting the importance and relevance of the agricultural sector in international trade, for the purposes of brevity (and the potential to get seriously sidetracked) I will not seek to debate the internal effects of the CAP in too much detail. However, the external effects and distortions on world markets of the EU's intransigence on the subject of agricultural trade is too large an issue to ignore.

Trouble at the World Trade Organisation

The Doha round of trade negotiations of the WTO began in 2001 in the eponymous Qatari city. Their stated aim was to further liberalise world trade. In pursuit of this goal, the Doha round has experienced ups, but mostly downs; world trade liberalization has almost become a victim of its own success. The WTO now has 148 members, who must agree on all points of a decision for talks to continue – and whose interests often diverge sharply. The main culprit for the *immobilisme* that currently afflicts Doha talks is, predictably, the unwillingness of the wealthy nations (most notably the US, Japan, and naturally the EU) to accede to the demands of poorer countries (whose influence has increased exponentially since pooling their resources under major developing economies such as India and Brazil) to open up their markets to agricultural imports. The G7 and other wealthy nations have come back with accusations of excessive protectionism of those countries' service sectors. All this has taken place before a backdrop of serious protests against globalisation and trade liberalisation (or its present course at least) across the world. In the eyes of many of the citizens the participatory governments claim to represent, the name of the WTO is mud and their nation should have as little as possible to do with it. In short, multilateral trade negotiations are at a low ebb. In the words of Fred Bergsten, writing a few months ago in Foreign Affairs, "There is a widespread recognition that failure to keep the trading system moving toward further liberalization could trigger a sharp reversal into protectionism and bilateralism and perhaps erode the WTO itself, causing substantial problems for the economies and foreign policies of all countries involved" (Bergsten, 2005). An atmosphere of pessimism is quite pervasive among all parties.

The trend towards Bilateralism & Regionalism

Despite the general consensus that multilateral trade liberalisation is ultimately more effective and utility-maximising for all concerned in the long-run (the economic reasoning behind which I will discuss below), the relative failure of the WTO multilateralism in the past few years has been contrasted sharply by its bilateral antithesis. The United States, the number one economic power by a considerable distance (and as such a trendsetter on issues such as this), has been an enthusiastic pursuant of bilateralism and regionalism since the 1980s, when they began to sign Preferential Trade Agreements (PTAs) with Israel, Canada etc. This tendency was notable under the Clinton administration and has become even more pronounced since the Bush administration took office just over five years ago. The most famous example is the North American Free Trade Association (NAFTA), which the US established with Canada and Mexico. This wide-reaching series of trade-barrier reductions will create a large amount of trade deflection from other nations seeking to enter the US market. Other examples include APEC (Asia-Pacific Economic Cooperation) a potentially economically enormous trade bloc including Japan and China. The US has also pursued pure bilateralism, nation-to-nation trade agreements. A recent agreement linked the US with South Korea, itself one of the world's biggest economies. The US already has trade deals in South-East Asia with Thailand and Singapore, and is believed to be pursuing more (Bergsten, 2005), giving it wholesale access to the Association of South East Asian Nations (ASEAN) trade bloc. Several other PTAs have been signed that belie heavy political motivation. Arab countries that have cooperated with recent US policy in the Middle East have been rewarded by the US department of trade, Bahrain and the United Arab Emirates (UAE) among them. The fact of American enthusiasm for this bilateral/regional approach and a seeming lack of enthusiasm for reform at WTO negotiations (vis-à-vis the intransigent stance on agricultural imports) could potentially undermine the WTO itself and make this an ineffective path for our EU trade negotiators to follow. They must ponder the old question; where does an 800lb gorilla sit? Answer: anywhere it wants to. In the case of world trade negotiations, the US is the figurative ape. Anything less than full US cooperation with the WTO would render it impotent to pursue further liberalisation of trade in the future. Parties to global trade will not waste their time at a forum that is incapable of creating real progress in trade negotiations.

EU bilateral PTAs up to this point have been limited, mostly to those justified by pressing political or security concerns. The Cotonou Convention (formerly the Lomé Convention) is a system of tariff and quota agreements between the EU and its constituents' former African colonies, and is largely a relic of the process of decolonisation that took place in the 1970s and 80s. The Global Mediterranean Policy is a PTA agreed with countries neighbouring the EU, largely in North Africa and on the Levant, and is intended to ensure the future prosperity and stability of the EU's neighbourhood, and to glean the advantages that this scenario would bring.

The advantages to Europe of considering a more exclusively bilateral/regional approach to trade negotiations

Economic logic would suggest that Peter Mandelson and the EU are correct when they insist that Europe must continue to do all it can to revive the Doha round of WTO talks and other multilateral routes to trade liberalisation. But I feel it is a betrayal of what is a complicated argument to disregard the advantages of shelving Doha for now and seeking to sign bilateral agreements with preferred markets, for a number of reasons:

Europe may miss the boat, so to speak, if the WTO negotiations do in fact reach an insurmountable impasse. During this time, Europe's commitment to the multilateral talks will have lead it to not hedge its bets and agree back-up bilateral schemes – unlike the US, and other major importers such as Japan should they choose to create their own safety net of PTAs. Thus, there will be major trade deflection of essential imports (e.g. basic resources used in industry such as bauxite or uranium) of goods coming from markets that have sign trade agreements with other major importers. These will be diverted away from Europe, and towards those nations that have pursued the bilateral path. These goods would then become much more expensive within Europe, which would have a serious adverse effect on EU economies depending on the goods' importance to the European economy.

Political factors: The European Project, while primarily conceived as an economic endeavour, has always had political motivations too. The old Gaullist dream of a United Europe being the world's leading superpower – or a least a rival to the other collection of states across the Atlantic – has spurned leaders on to the process of increasing political integration we see today. In the absence of any kind of military strength on the EU's part, bilateral treaties are unquestionably Europe's most powerful weapon in spreading its influence across the world. Mark Leonard has argued that the EU has an ability to spread its influence to other nations unparalleled in the world, by offering them the prospect of membership (witness the enormous changes that the countries of central Europe went through at the EU's behest in order to join, and the lengths Turkey is currently going to) (Leonard, 2005). This, of course, only works on neighbouring European countries, not halfway across the globe. But the prospect of a preferential trade agreement with Europe - and its 450 million or so enthusiastic potential consumers of their exports from Dublin to Lublin – would be a powerful incentive to be influenced by Europe.

The disadvantages of moving to a more bilaterally orientated approach

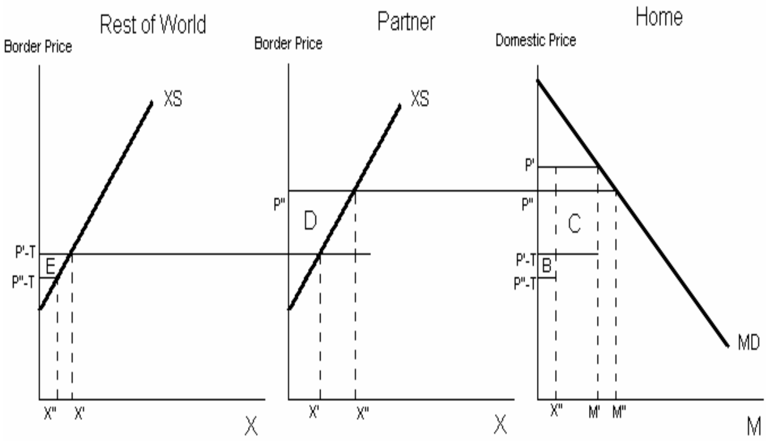
While moving to replace Europe’s commitment to the WTO and multilateralism with bilateral and regional PTAs would seem like a wise idea in the current atmosphere of multilateral inefficacy, it is not borne out in the long run when the ultimate microeconomic effects are ascertained.
The seminal study of the negative effects of PTAs on trade is *The Customs Union Issue* written in 1950 by Jacob Viner. He was the first economist to illustrate the gains and losses that PTAs bring to trade; the ambiguity that bears his name.

To elaborate, Viner (1950) (and many economists since then) demonstrated that while goods from a partner nation in a PTA are cheaper and more plentiful than under a more universal Most Favoured Nation (MFN) tariff approach (what Viner (1950) called ‘trade creation’), the overall welfare benefits are more, as is put, ambiguous. This is because potential imports from nations outside the PTA are much more expensive to the domestic consumer, causing a sharp drop in trade, what Viner (1950) called ‘trade diversion’, leading to a sharp drop in welfare in the excluded nations. Ideally, we should look at the aggregate of welfare effects around the world to ascertain the right course of action (if world welfare benefit is our goal, of course…)

It is helpful to use a graphic demonstration of the effects both MFN tariffs and PTAs have on international trade. These results can then be applied to the EU’s current circumstances to judge the best course of action.

Some assumptions must be made, and some factors held constant when modelling the effects of MFN tariffs and PTAs on trade – it is not possible without the aid of serious computational power to do so otherwise. The classic system used in analysis of this sort is the NICNIR framework, an acronym for ‘No Imperfect Competition, No Increasing Returns’. Obviously in the hugely complex real world, neither of these conditions exists, but it is nonetheless necessary to hold them for logistical reasons, and it does not overly distort the results.

Figure 1: The Welfare Effects Of Customs Unions



Where: X=exports, M=imports, P=price, T=value of tariff

The above diagram represents the welfare effects caused by the adoption of a customs union with another market (known as Partner). It shows the welfare effects in the home market, in partner's market, and in trading partners not party to the trade agreement. Both home and Rest Of World supply the same amount of exports to Home, shown by the supply curves XS. Goods from both areas are considered to be symmetrical.

The most obvious effects of the instigation of the discrimination between Partner and Rest Of World are the welfare effects caused in those markets. Partner gains D in welfare, as its trade volume is increased under the beneficial new terms of trade. For the opposite reason, Rest of World loses E. Home's overall welfare increase is A+B, minus the area C. This diagram shows a trade scenario where the welfare gain of Home is negative. If the parameter T (the tariff) is altered the sum of areas A and B will be greater than that of C.

These trade diversionary effects are supported by empirical evidence. During the period 1960-1990, a time of slowly deepening trade integration in Europe, the share of intra-EEC/EC trade rose from 40 to 59 per cent (Srinavasan et. al, 1993), a remarkable figure given that in that time it has become increasingly logistically possible to trade further afield. The subsequent provisions of the Maastricht Treaty have only increased the potential for diversion of outside-EU goods, tempered only by the multilateral provisions of the GATT/WTO.

Hence, it is not in doubt that overall the net welfare effects all round of the standard MFN tariffs within a multilateral framework are better than those from a system of bilateral and regional PTAs.

Conclusion

The world market in which the EU acts today is a hugely complex system of overlapping interests and risks. As well as the obvious goal of increasing the welfare of its citizens, the EU is increasingly under pressure from those same peoples to ensure that developing nations are not subjected to a sort of twenty-first century mercantilism. The bare bones of the argument are that multilateralism (embodied by the WTO) is ultimately the best and most equitable way of increasing everyone's welfare. It is when politics becomes involved and those involved in formulating trade policy seek to promote a dogmatic ideal, often at the cost of ignorance of fact to the contrary, that the path to fair, equitable and efficient trade is complicated. It will continue to be a long, painstaking process involving sacrifice on all sides, but – despite some convincing arguments to the contrary – Europe's interests are seemingly best served by following a road towards multilateral trade liberalisation.

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Student Economic Review, Vol. 20, 2006, pg. 251

THE PRICE OF WHEAT IN BRITAIN AFTER REPEAL: THE GOLDEN AGE FOR 19th CENTURY BRITISH AGRICULTURE?

CONOR O'TOOLE

Senior Sophister

Following the repeal the controversial Corn Law Act of 1815 the price of wheat in Britain failed to behave as many landlords and farmers of the day had predicted. Conor O'Toole considers the fundamental features of both demand and supply which could have contributed to the sustained high prices.

Introduction

The Corn Law Act of 1815 and its subsequent revisions[1] were deliberate attempts to artificially keep the post-Napoleonic Wars grain price at higher than market levels. The Acts are considered some of the most controversial pieces of legislation in British economic history and have subsequently become the subject matter for interesting and fiery political economy debates. The landmark Repeal of the Corn Laws in 1846 has been labelled the catalyst for Britain's move to free trade at the end of the 19th century and to many it is seen as the spark that ignited the Great Victorian Trading boom that occurred in the late 19th century (Rothstein, 1960).

Repeal caused major unrest among the landowners and farmers who had benefited from the protectionist tariffs, through high rents and commodity prices. "Terror gripped the English farmer when he realised that his wall of protection had been removed" (Hansen cited in Van Vugt, 1988: 412). It came as a surprise to many, that in the period after repeal, prices remained at high levels and British agriculture had something of a renaissance period. Fay (1921: 26) proclaimed that British farmers "surmounted the repeal of the corn Laws on a scale of ascending prices".

The focus of this paper is to investigate the main reasons why prices remained buoyant in this period. There are a number of factors that have been attributed as the causes of a continuation of high grain price levels: International Supply shocks such as the Crimean War, the American Civil War, and the reduction in exportable surplus of Britain's traditional trading partners; and demand shocks such as a booming world population, and the spread of the industrial revolution. Each of these factors will be

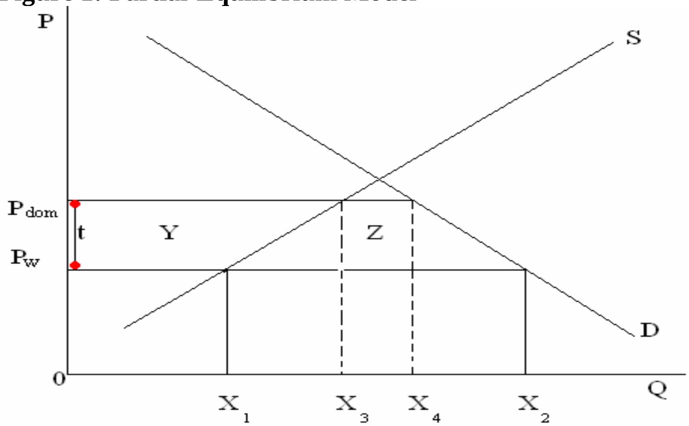
[1] It was revised in 1828 and a sliding scale tariff was introduced.

discussed and a short empirical clarification of some of these traditional arguments will be provided.

The Economic Effects of the Corn Laws

To begin, a short explanation of the economic effects of the Corn Laws is given. A simple partial-equilibrium model[2] can be used to describe the effect of imposing an import tariff such as the Corn Laws.

Figure 1: Partial-Equilibrium Model



Source: Kindelberger, 1975

An import tariff, t, raises the domestic price (P_{dom}) above the world price P_w, reduces trade from X_1X_2 to X_3X_4, expands production to X_1X_3 and reduces consumption by X_4X_2. Producer's rents increase by the amount y.

The free trade argument, which underpinned the feisty rhetorical protests of Richard Cobden, his Anti-Corn Law league associates and other proponents of Repeal, was that the Corn Laws were keeping prices artificially high (at the P_{dom} level in the above diagram). This was reducing consumption to below equilibrium amounts. They extolled that Agriculturalists were being rewarded for producing output at uneconomic prices and that the reallocation of economic resources would bring the economy closer to optimal productive efficiency. Kindelberger (1975) affirms the Anti-Corn Law league's perspective stating that Cobden and

[2] Taken from Kindelberger, the rise of free trade in Europe 1820-75

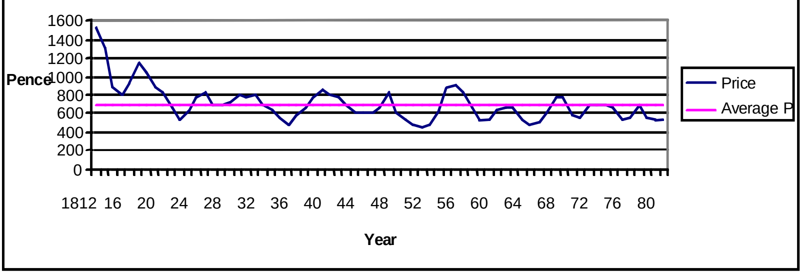
Bright regarded the Corn Laws as a tax on food that was taking as much as 20% of the earnings of a hand-loom weaver. Williamson (1990) finds that the Anti-Corn Law league was correct and that a move to free trade in the 1830's would have augmented manufacturing employment by an impressive 23%.

Wheat Prices after Repeal & the "Golden Age" of British Agriculture

The price of wheat did not dramatically fall after Repeal, leading some traditional historians to believe that the Corn Laws had no effect on material wheat prices, and that "the whole Corn Laws thing is made to seem pointless and much ado about nothing" (Fairlie 1965 cited in O'Rourke and Williamson, 1999: 81). Economic historians have subsequently found that the Corn Laws did affect material prices.[3] Williamson (1990: 127) found that "British and continental wheat markets were well integrated, and that the Corn Laws drove an explicit wedge between domestic and foreign prices".

It is useful to look at wheat prices in England and Wales for the 19th century.

Figure 2:British Wheat Prices and Average Price for the Period 1812-1880



Source: (BR Mitchell, 1988)

The above graph shows initially a dramatic decline but then a steadying of prices around means levels. Overall prices display marginal, downward tendencies. As we can see there was a fall after repeal but then prices rose again and remained at relatively constant levels from 1860 to 1879 when the market began to bottom out. Repeal was supposed to lead to disastrously low

[3] See (Fairlie, 1969), (Williamson, 1990), (O'Rourke, 1994)

prices. This didn't come to pass and British Agriculture experienced a sort of renaissance period in this epoch.

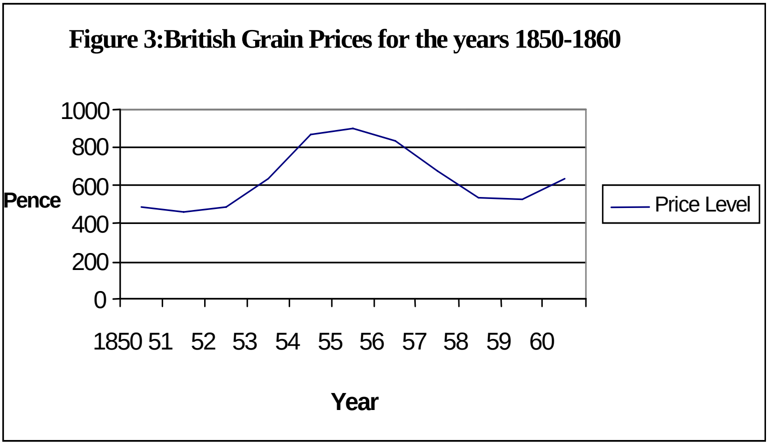
It is now time to turn our attention to the reasons for this "Golden Age" and for the continued high grain prices. The most supported reasons for the "renaissance" of British agriculture and relatively high price levels after Repeal are "the Crimean War, the American Civil War, a booming world population and the spread of the industrial revolution" (O'Rourke and Williamson, 2000: 81).

Each of the factors will be investigated in turn and their effect on prices discussed. Also analysed is the reduction in exportable surplus of Britain's traditional trading partners.

Crimean War

The disruption to grain supplies caused by war between Britain and Russia in the Crimea is one of the main factors believed to have helped maintain high prices in the post-repeal grain market. Fay (1921: 26) states that "the higher [price] level was maintained and intensified in 1855 by the outbreak of the Crimean war, which obstructed some of the usual sources of supply especially Russia". Fairlie (1969: 105) concurs with this view saying that "after 1853, the crucial factors were the outbreak of the Crimean War, the removal of Russia from the market, and the temporary inability of the US to make up the deficiencies"[4]. Paul (1958: 398) attributes the raising of the price of breadstuffs in this period to the Crimean War and the American Civil war which "temporarily distracted the two major wheat exporters of the world". Looking at the diagram below of British price levels, it is very easy to see why it's believed that the Crimean War had a short run supply effect.

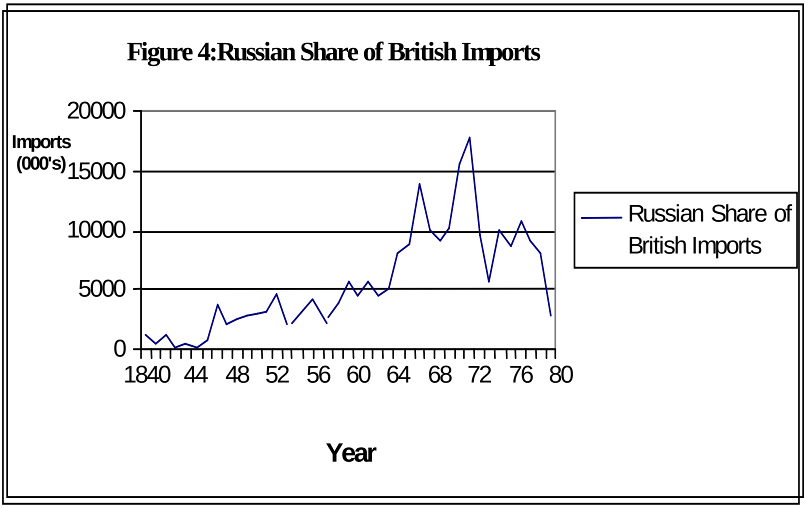
[4] The latter being a point that we will return to later in this section.



Source: (BR Mitchell, 1988)

The peak coincides with the Crimean War Years. Referring back to Figure 2, this peak can be seen to be out of line with general price trends. The Price in England and Wales, in the 5 years previous to the Crimean War (1849-1853), was 531p, 483p, 462p, 489p, and 639p respectively. During the years of the Crimean War, prices rose to 869p, 896p and 830p and tapered off thereafter. Looking at a graph of Russia imports of grain into the UK, we can see that these price-rises co-inside with a reduction of the Russian Share of British imports.[5]

[5] These Statistics come from BR Mitchell. There is no data for UK imports from Russia for the year 1855. It has been assumed that they were of negligible amounts if there were any at all.



Source: (BR Mitchell, 1988)

To shed further light on the affect of the Crimean War on Grain prices, two basic Ordinary Least Squares Econometric Regressions were conducted.

The first Test was a regression of the Price ratio[6] between UK and Odessa in Russia for the period 1831-1859 against the explanatory variables Time, Time², and a binary Dummy variable that was given the Values of 1 for the Period of the Crimean war and 0 for all other years.

The Regression Equation is as follows:

$$\text{Log}(P_{uk}/P_{od}) = \beta_0 + \beta_1(\text{Time}) + \beta_2(\text{Time}^2) + \beta_3 D + u$$

It produced the following results:

$$\text{Log}(P_{uk}/P_{od}) = -7217.6 + 7.8643(\text{Time}) - .00214(\text{Time}^2) + 1.1430(D)$$

(t-statistics) (-1.9447) (1.9544) (-1.9626) (4.6669)

The variable that is important for this analysis is the coefficient of the Dummy variable. The sign of this variable is positive which signifies that the price ratio was positively affected by the Crimean War. This variable is statistically significant at the 95% level. It is also economically significant.

[6] The Price Data that was sourced from a combination of BR Mitchell and Fairlie 1965.

These findings show that during the Crimean War Period there was upward pressure on the ratio of British/Russia Wheat Prices.

The second regression conducted, regressed the Russian Share of total British Imports of Wheat between the years 1840-1880 against the exact same explanatory variables.

The Regression Equation was:

$$\text{Log(Import Share}_{\text{Russia}}) = \beta_0 + \beta_1(\text{Time}) + \beta_2(\text{Time}^2) + \beta_3 D + u$$

The following results were obtained:

$$\text{Log(Import Share}_{\text{Russia}}) = -10916.4 + 11.6798(\text{Time}) - .00312(\text{Time}^2) - 5.2373(D)$$

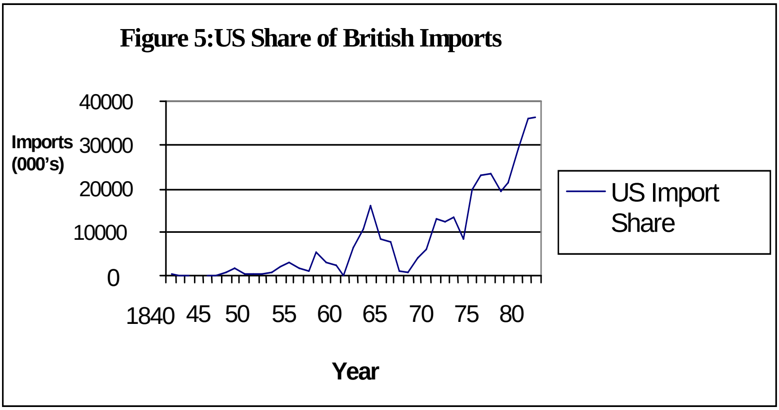
(t-statistics) (-1.1765) (1.1705) (-1.1629) (4.0352)

The Dummy variable is significant at the 95% level and it is also economically significant. The sign on the variable is negative. The interpretation of this is that during the Crimean War period, the share of total British imports accounted for by Russia declined.

Comparing the results from the two regressions above, the situation is characterised by a falling import share and upward price pressure. These findings are in agreement with the general consensus that the Crimean War had a positive influence on British Prices and helped sustain the British Wheat Industry in the Short term.

American Civil War

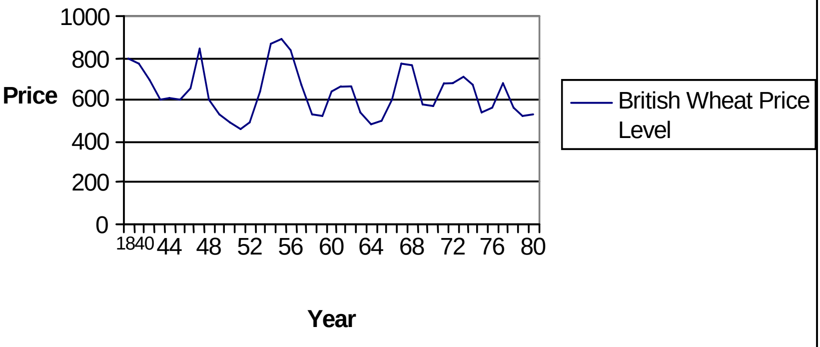
The direct effect of the American civil war on British grain prices is less straight forward. It is mentioned by O'Rourke and Williamson (2000), Williamson (1990), and Fay (1921) as contributing to the maintenance of high price levels. Fay mentions the American Civil War as a factor that helped keep prices high. For the American Civil war to exert upward pressure on prices in Britain, it would need to have caused a reduction in exports, reducing supply thus increasing prices. The evidence for this does not stand up to scrutiny. American wheat exports to Britain actually increased during the Civil war years to historically high levels and decreased afterwards.



Source: (BR Mitchell, 1988)

In the above figure we can see that during the civil war year's exports to Britain actually increased. The greatest exports to date from the US to Britain occurred in 1861, 1862 and 1863 during the war. Exports slipped after the war to low levels in 1866, 1867, 1868 and 1869. This would seem to agree with Rothstein's (1960) view that "during the corn crises, Crimean War and the first three years of the Civil war shipments of American wheat and flour were heavy and made up a large proportion of British and Continental imports, yet fell to comparatively low levels during the intervening period". Falkus (1966: 419) also offers an explanation for this, mentioning a "short but ominous" burst of competition during the civil war, whereby grain usually sent from the northern to the southern states went instead to Europe. A look at average British price movements shows that prices during the American civil war were lower than after the war.

Figure 6:British Wheat Prices 1840-1880



Source: (BR Mitchell, 1988)

The years of high prices in Britain, 1861 and 1862, coincided with high export from the US. This does little to confirm the view that the American Civil war had a direct upward effect on prices by reducing supply levels. There is seemingly no reduction in supply.

Using the same regression as was conducted previously for the Russian Import share, the US Share of total British Imports of Wheat 1840-1880 was regressed against the variables Time, Time², and a Dummy Variable to see if the share of imports was statistically and economically different during the Civil War period.

The Regression Equation was as follows:

$$\text{Log(Import Share}_{US}) = \beta_0 + \beta_1(\text{Time}) + \beta_2(\text{Time}^2) + \beta_3 D$$

$\text{Log(Import Share}_{US}) = -15819.1 + 16.8437(\text{Time}) - .0044789(\text{Time}^2) + .22466(D)$

(t-statistics) (-1.5870) (1.5716) (-1.5548) (0.20397)

Unfortunately in this Regression, the co-efficient on the Dummy Variable is not statistically significant. However, it is still useful to look at the sign of that co-efficient. It is positive. If the American Civil war was supposed to have sustained British agriculture's mini-revival then we would expect to see decreasing imports in this period and thus a negative sign. The positive co-efficient signifies an increase in the import share in this period.

This finding concurs with the qualitative data outlined above that the American civil war was a period of increased exports to Britain. This would imply that it did not directly put upward pressure on prices.

One possible explanation for how the civil war may have helped sustain Wheat price levels is espoused by Rothstein (1960, p. 402) who states that "adjustments in the domestic market after the civil war kept exports to a minimum for years". This would have added upward pressure on prices. This point needs further investigation that is outside the scope of this paper.

Decreases in Traditional Supply Sources

The third supply factor that influenced prices in this period was the change in productive capacity of Britain's traditional supply sources. After 1838, North West Europe became collectively deficient in bread grains (Fairlie, 1965). British sources of supply before 1938 were virtually confined to north Western Europe, being primarily Poland, the German littoral, and to a lesser extent the Atlantic coast of Denmark, Netherlands and France. Russia and the US formed only minor reserve sources as of yet (Fairlie, 1965). During the Course of the mid 19th century, these traditional sources of British wheat, especially Prussia and the other German states declined to be suppliers after the 1830's, no longer produced an exportable surplus. Fairlie notes this point and says "Britain's traditional suppliers not only ceased to be able to meet her needs but were to some extent competing for available supplies from elsewhere e.g. the Russian Black Sea and Volga steppes and the US, as scarcity became widespread by the time the Corn Law league began to agitate" (Fairlie, 1965: 568). She goes on to assert that repeal came not only at a time of famine conditions in North West and Central Europe (1845-47), when some European prices were higher than British prices but with the need technically to facilitate supplies from new areas to cover the increasing demands of a booming populations. The radius of supply, mainly North West Europe, (Fairlie, 1965) was becoming too narrow to satisfy the demands of a developing Europe.

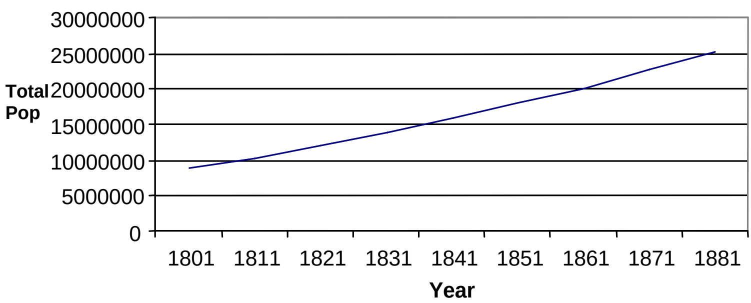
Another problem was the displacement of corn production in the traditional wheat exporters by more profitable crops. In particular Sugar beet, flax, tobacco, oilseeds, sheep and cattle were beginning to take up any spare productive capacity that might have been formerly used for grain. "The profitability of alternative crops coupled with Industrialisation, and population growth would effectively eliminate the exportable surplus" (Fairlie, 1965: 569) thus reducing supply even further. The psychological terror of British farmers, that their were European Grain Surpluses that piled up on the market shores of Poland and Germany waiting for the signal to depart for Britain once the free trade conditions allowed, never materialised after Repeal.

Having looked at the major supply shocks of the era, the factors that exerted pressure from the demand side now need examination.

Population Boom, Consumption increases and the Industrial Revolution

Attention must now be turned to the factors that caused continuous increases in demand during this period. At this time population levels in Britain and the Continent were increasing at a phenomenal rate (See Figure 7).

Figure 7:Population (England and Wales)



Source: (BR Mitchell, 1988)

The population was 13.89m in 1831; this increased to 25m in 1881. The expanding population was creating huge pressures for foodstuffs as consumption levels increased. Slicher van Bath (cited in Fairlie 1969: 107) states that "continuous population growth in Europe put continuous pressure on food resources and after the potatoe failures of the 40's there was renewed upward pressure on cereal foodstuff's". Consumption statistics from BR Mitchell show that per capita consumption of wheat remained relatively stable during this period. It was 0.9lbs a day in 1830, 0.85lbs in the 1840's and 1.03, and 1.05 lbs in the 60's and 70's and 80's respectively. Fairlie (1965) also calculated consumption data for the period 1831-1971 and finds that annual average wheat consumption per capita in England and Wales held steady at around eight bushels during the period. With Consumption holding at constant levels and population rising rapidly, there was a huge increase in consumer demand that needed increases in supply to keep comparative statics. This demand pressure was one of the reasons for the continued high prices. In the Period 1846-79, the radius of supply was still confined to greater Europe and to a small extent the United States. It was not until the transportation revolutions and the expansion of this radius of supply to include Canada, the prairies of the US, Argentina, Australia and other new World nations that wheat prices began to fall rapidly and decrease the pressure on limited European cereal productive capacity.

Another factor that caused increases in demand was the continuous process of industrialisation that was sweeping through Europe at the time. Fay mentions a growing industrial population at home as a "remoter influence" for the general rise in prices. These changes were providing an alterative source of employment for workers and they also offered Landlords a more lucrative investment opportunity than farming. The rates of return from investing in the booming railroad industry were much higher that the traditional returns such as Agriculture. This sapped both the capital and the labour from their traditional arenas and had negative consequences for cereal productive capacity. Industrial changes were accompanied by the pattern of continental land usage. Internal grain markets consequently became more attractive to remaining cereal growers in Poland and Germany (Fairlie, 1965).

Conclusion

After the Repeal of the Corn Law's, the price of Wheat in Britain did not fall dramatically. The farmers and landlords that had predicted a catastrophic bottoming out of the market were proven wrong, and British agriculture went on to enter a Golden Age that lasted until the Great European Grain Invasion of the late 19^{th}. The reasons for the sustained high prices were: a booming population and increased industrialisation on the demand side and the Crimean War and the reduction in exportable surplus by Britain's traditional suppliers on the supply side. The affect of the American Civil War is less clear cut and needs further quantitative analysis. The evidence put forward by this paper shows that it had a short run price depressing effect as it increased total exportable surplus, but in disrupting the internal development of the American interior it may have had a time lagged influence causing upward price pressure. For it was from this source that the main supply of the Grain invasion came in the later part of the century. As Fay (1921, p.27) notes of the bogey that descended on the wheat market after 1880 "Its feet were ships of steel, its arms railroads stretching over the prairies, and in its belly was Chicago Wheat".

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WTO DOHA ROUND AGRICULTURAL NEGOTIATIONS AND MARKET ACCESS

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Senior Sophister

At the heart of the WTO Doha Round negotiations lies the sticking point of agriculture. Laura Duggan explains the essential features of the agricultural Market Access Pillar and she highlights the difficulties involved considering that the final agreement will inevitably produce winners and losers.

Introduction

The current round of trade negotiations was born out of the Uruguay Round (1986-1994) Agreement on Agriculture (AoA). Article 20 of this agreement committed member countries to commence a new round of negotiations to carry on the reform in market access in late 1999 (early 2000). These negotiations are presently in their fifth year, albeit under a reformed mandate known as the Doha Declaration, issued in Doha, Qatar in November 2001 and is based on the framework of rules and disciplines established in the Uruguay Round (WTO, 2004). In particular, it continues to structure dialogue around the three clearly identified 'pillars' of market access, export subsidies and domestic support (Anderson and Martin, 2005). Of these three "pillars" in negotiations, market access is generally recognised as "technically the most difficult" (WTO, 2004: 14). On one hand, as Jales *et al* (2005), point out, export subsidies and equivalent measures are only administered by a small number of countries and are predominantly of interest to competitive agricultural exporters. Similarly domestic support is confined to a limited number of developed countries (Jales *et al,* 2005). On the other hand, improvements in market access affect all countries. Difficulties will inevitably be encountered when attempting to strike a balance between the specific needs of each member country in negotiations and trying to achieve consensus on market access issues (Martin, 2004). It is therefore significant to note that while consensus was reached on some market access issues in the 1 August 2004 Framework Agreement[1] ('July

[1] "The FA set out a number of agreed principles to guide the negotiations. They were: a high level of ambition in the overall outcome; that highest tariffs would be reduced the most; that a tiered approach would be used; that special treatment would apply to

Package'), no numbers were agreed upon or specified and as Anderson and Martin (2005: 2) conclude, 'the devil' will be 'in the detail'.

The main body of this paper will address the issues in the Market Access Pillar of the Doha Round agricultural negotiations to date and explain the difficulties involved. The second section will look at the issues surrounding tariffs. The third section will then proceed to examine the matter of 'Sensitive' products. The fourth section will address the issues surrounding Tariff-Rate-Quotas and their administration while the fifth section will discuss the matter of preservation of the 'Special Safeguard on Agriculture' (SSG). Subsequently, the issue of 'Special and Differential Treatment' (SDT) will be raised and the sixth and seventh sections will deal with the particularly sticky issue of preference erosion. Finally the eighth section will conclude this paper.

Tariffs

Tariff Cuts

The IPC[2] Issue Brief (2005a: 5) state that; "Agricultural tariffs[3] remain five times higher than tariffs in industrial goods and account for the bulk of the distortions in agricultural trade". This is significant in that despite reductions brought about by the Uruguay Round the global average bound agricultural tariff is estimated to be 62 percent (IATRC, 2001). The issue of how these tariffs will be reduced in the Doha Round of agricultural negotiations is "hotly debated" (WTO, 2004: 32). In particular, as Gunasekera *et al* (2005) point out, member countries found it difficult to agree on a 'formula approach' to tariff cuts.

Members in negotiations have at their disposal, numerous ways to cut tariffs each with their own corresponding advantages and disadvantages (Josling *et al,* 2001). One approach is 'request and offer' where member countries try to strike a compromise between the 'concessions' they offer to other countries and those that they receive in return. This technique is unlikely to work for highly protected sectors, however, because as Josling *et al* (2001: 23) "they have nothing to 'gain' in export markets". Similarly, the

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sensitive products; and that SDT would apply to developing countries" (Matthews, 2005a: 4).

[2] The international food and agricultural trade policy council.

[3] "Custom duties on merchandise imports. Levied either on an ad valorem basis (percentage of value) or on a specific basis (e.g. $7 per 100kgs). Tariffs give price advantage to similar locally-produced goods and raise revenues for the government" (Brokhaug and Primo Braga, 2005: 14)

'zero-for-zero' approach which has the potential to increase market access for minimally protected commodities, is still unlikely to work in highly protected sectors due to the fact that there is less to gain from other countries "in return for concessions in sensitive products" (Josling *et al*, 2001: 23).

Another technique to cut tariffs is the use of formulas – either linear or harmonising. A linear approach to tariff cuts such as that used in the Uruguay Round reduces tariffs by the same percentage 'across-the-board' regardless of what the starting tariff rate is. Problems were encountered with the Uruguay Round Approach, however, because it allowed for variations on tariff cuts for individual products provided that the target average cut across all products was achieved (WTO, 2004). Consequently, it allowed countries with variable tariffs to take credit for making a generous average-cut in tariffs while not actually making any notable market access improvements (Martin, 2004). As a result, the Uruguay Round approach is often described as "the cut you have when you're not having a cut" (Martin, 2004: 2). A harmonising formula such as the Swiss Method[4] makes greater cuts in higher tariffs than lower ones thus targeting the problems of tariff peaks[5], dispersion and escalation[6] (Josling *et al*, 2001).

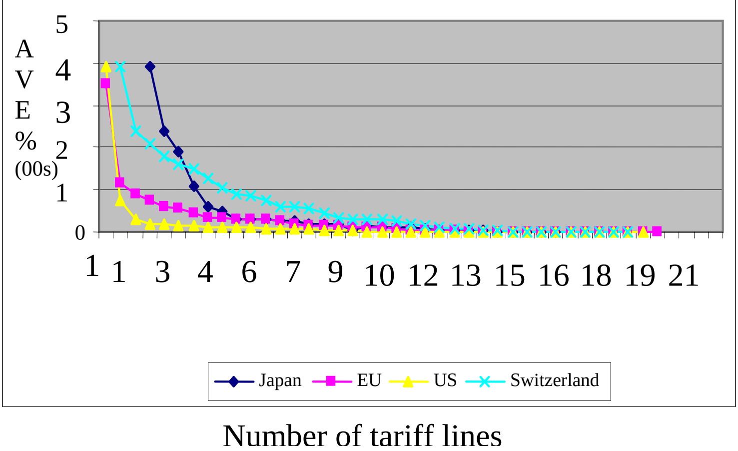
The difficulty in choosing a tariff cutting formula is exacerbated by the variation in tariff structures between developed (such as the US and the EU) and developing countries (such as Brazil, India and Kenya). As Jales *et al* (2005: 3) point out developed countries tend to have a curved tariff distribution while developing countries' tariff structure is normally a straight line or "a set of consecutive straight lines in a 'staircase' format". This phenomenon is captured graphically in Figures 1 and 2 below:

[4] "The formula is T1 = aT0/ (a÷T0), where T0 is the initial tariff, T1 is the new tariff and a is a parameter that determines the depth of the cut" (IATRC, 2001: 24).

[5] Abnormally high tariffs in comparison to generally lower tariffs. They are usually administered on 'sensitive products' (Brokhaug and Primo Braga, 2005).

[6] Tariff escalation in a phenomenon where tariff magnitudes are on a sliding scale upwards as products are processed, with raw products having lower tariffs than those on processed agricultural products (de Gorter *et al*, 2003).

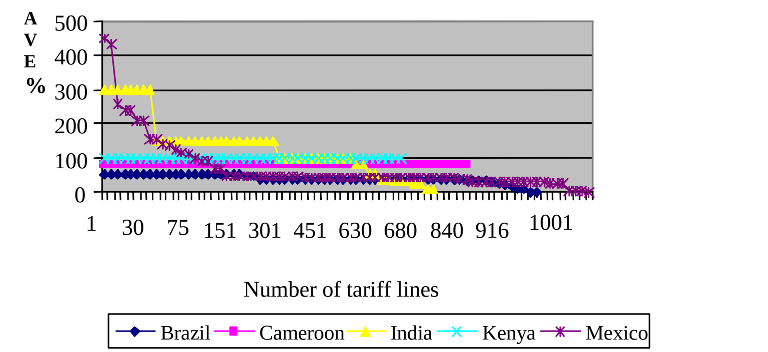
Figure 1: Bound Tariff Structures for Selected Developed Countries 2004



Source: Jales *et al*, 2005

Figure 2.

Bound Tariff Structures for Selected Developing Countries (2004):



Source: Jales *et al*, 2005

Thus, regardless of the tariff cutting method chosen, its impact will differ across countries depending on the nature of their tariff structures and consensus on which method to select is difficult as a result. For example, developed countries reluctant to open up their markets are likely to favour a linear approach where there is flexibility to chose which products will be subject to the greatest tariff cuts. The opposite could be said for developing countries because with the linear approach they will face similar cuts across all products (Martin, 2004).

Furthermore, the issue of tariff reductions is complicated by the need to choose between blended (or cafeteria) formula or a banded (or tiered) formula. The blended formula places products into three different groups subject to different tariff cutting techniques – the first group subject to the Uruguay Round approach, the second subject to the Swiss Formula and the third reduced to zero (Martin, 2004). The downfall of such a formula is that most likely scenario would be that sensitive products (see below) would be assigned to the Uruguay Round group. This would introduce flexibility but “at the cost of virtually abandoning the objective of increasing discipline, and raising great uncertainty amongst members and the extent of their potential gains in market access” (Martin, 2004: 1).

The banded (or tiered) formula allocates products into tiers based on the current bound tariff levels with higher tariffs being subject to greater reductions. Although consensus was reached in the ‘July Package’ to mandate the banded (or tiered) formula, the issue of which formula to use within each tier subsequently needed to be addressed. As Jales *et al* (2005) argue, the tiered approach has a harmonising effect on tariff levels so the application of the Swiss Formula (which performs a similar function) to cut tariffs in each band would not ‘make sense’.

The choice of tariff reduction formula is crucial to the overall ambition of the Doha Round. Substantial tariff cuts are necessary to rectify the extensive ‘tariff overhang’[7] (which table 1 shows is over 100 percent for many countries) and ‘water’[8] (shown in table 2) present in many countries’ tariff structures (IPC Issue Brief, 2005b).

[7] Tariff Overhang is the difference between bound and applied tariff rates.
[8] Water is the difference between a country’s applied tariff and the level actually needed to thwart trade at world market prices (IPC Issue Brief, 2005b).

Table 1: Tariff Overhang in selected products in selected Developing countries

Bound Tariff Range	Average Water in the Tariff %
0-15 percent	37
15-30 percent	50
30-60 percent	48
60-150 percent	48
150-300 percent	75
300 percent +	54

Source: IPC Issue Brief, 2005b: 42

Table 2: Average 'water' in agricultural tariffs

Product	Market	Applied Rate	Bound Rate	Tariff Overhang	Equivalent Cut
Raw Sugar	India	100%	150%	50%	33%
	Nigeria	10%	150%	140%	93%
	Brazil	16%	35%	19%	54%
White Sugar	India	100%	150%	50%	33%
	Nigeria	10%	150%	140%	93%
	Brazil	16%	35%	19%	54%
Ethanol	India	30%	100%	70%	70%
	Brazil	20%	35%	15%	43%
Bovine Meat (chilled boneless cuts)	Chile	6%	25%	19%	76%
	Mexico	20%	45%	25%	56%
	Philippines	10%	35%	25%	71%
	Brazil	12%	55%	43%	78%
Rice (milled)	Mexico	20%	45%	25%	56%
	Nigeria	10%	150%	140%	93%

	India	70%	100%	30%	30%
	Brazil	12%	55%	43%	78%
Powdered Milk	Egypt	12%	20%	8%	40%
	Brazil	27%	55%	28%	51%

Source: Roberts, 2003: 17

The issue of tariff reductions is further complicated by the need to determine the number of bands within the banded (or tiered) approach. According to Jales *et al* (2005: 3) "The more bands used the more "smooth" will be the harmonisation. However, too many bands would add little to the outcome and merely complicate the process of verifying schedules". Although Members finally agreed in the Ministerial Conference in Hong Kong in December 2005 to have four bands, significant divergence still remains at present around the issue of thresholds within these bands and in relation to the size of actual cuts to be made within the bands (WTO, 2005). This is highlighted in the table 3 below:

Table 3: Post-December 18 2005 divergences in proposals by Members in market access talks.

	Thresholds	**Range of cuts (%)**
Band 1	0% - 20/30%	20-65
Band 2	20/30% - 40/60%	30-75
Band 3	40/60% - 60/90%	35-85
Band 4	>60/90%	42-90

005: 2

Source: WTO, 2005:21

The choice of threshold for each band is difficult because they will have a disproportionate effect on different countries due to the variation in tariff structures (as noted previously) (Jales *et al*, 2005).

Tariff Caps

Another difficult issue in the current negotiations on market access is whether to establish a tariff cap and the level of such a cap. Tariff caps are useful to reduce prohibitively high tariffs that act as import bans. However, it must be set at a level low enough to have an actual impact on trade patterns. Table 4 below illustrates "the total number of tariff lines that would be captured by a cap set either at 50%, 100% or 150%" (Jales *et al*, 2005: 8).

Table 4: Total tariff lines captured by tariff cap set at 50%/100%/150%

Country	Total no. of tariff lines	No. of tariff lines >=50%	No. of tariffs lines >=100%	No. of tariff lines >=150%
Developed Countries				
European Union	2,200	259	69	16
Japan	1,806	395	307	272
Switzerland	2,168	798	498	316
United States	1,769	84	29	16
Developing Countries				
Brazil	959	148	-	-
Cameroon	831	831	-	-
India	690	633	584	243
Kenya	665	665	665	-
Mexico	1,080	84	67	48

Source: Jales *et al*, 2005 : 8

The current state of play in negotiations is that "some members continue to reject completely the concept of a tariff cap[9]. Others have proposed a cap of between 75-100%[10]" (WTO, 2005: 21).

Tariff Escalation

The tiered approach mandated in the July Package despite its harmonising effect is not guaranteed to resolve the issue of tariff escalation. This issue

[9] Such as the G-10 in their October 28 Market Access Paper (see Agra Focus , November 2005).

[10] The USA called for at 75% tariff cap while both the EU and G-20 called for a 100% in their October 28 (2005) Market Access proposals (see Agra Focus, November 2005).

must be addressed however because its trade distorting implications and the barriers it poses to "commodity dependent developing countries in their attempt to diversify their export base" (de Gorter *et al*, 2003: 4).

Tariff Simplification

The issue of tariff simplification in the negotiations on market access has proven difficult; in particular, the problematic matter of the conversion of specific tariffs to ad valorem equivalents (AVE). The tiered formula approach mandated by the Framework Agreement requires this conversion in order to assign products into their appropriate tiers for tariff reduction (WTO, 2004).

In straightforward cases of AVE conversion, the 'unit value' method is used which bases conversion on import volumes and import values in the WTO Integrated Database (IDB). However, difficulties arise when preferences or tariff quotas are involved, for products such as sugar and various cheeses, in which case there are discrepancies between the IDB import prices and those in the UN commodity trade statistics (ComTrade) which represent world prices (ICTSD, 2005b). In such instances, the WTO and UN databases produce significantly different ad valorem tariff rates (ICTSD, 2005b).

AVE conversion created a divide in market access talks between the EU and G-10[11] countries and the US, the Cairns group[12] and the G-20[13].

> "The former groups make use of a large number of specific tariffs and wanted the conversion to be based on the IDB data while the agricultural exporters wanted to see the conversion based more closely on the lower world prices which would lead to higher AVEs and, eventually steeper tariff cuts" (ICTSD, 2005b: 6).

Another difficult issue in relation to tariff simplification is whether to bind tariffs in their specified form in the tariff schedule (as in the Uruguay

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[11] G-10 consists of Bulgaria, Iceland, Israel, Japan, Korea, Republic of Liechtenstein, Mauritius, Norway, Switzerland, Chinese Taipei (Brokhaug and Primo Braga, 2005).

[12] The Cairns group is comprised of Argentina, Australia, Bolivia, Brazil, Canada, Chile, Columbia, Costa Rica, Fiji, Guatemala, Indonesia, Malaysia, New Zealand, Paraguay, Philippines, South Africa, Thailand and Uruguay (Josling *et al*, 2001).

[13] G-20 (which currently has 19 members) consists of Argentina, Bolivia, Brazil, Chile, China, Cuba, Egypt, India, Indonesia, Mexico, Nigeria, Pakistan, Paraguay, Philippines, South Africa, Thailand, Tanzania, Venezuela and Zimbabwe (Brokhaug and Primo Braga, 2005).

Round) or their ad valorem equivalent. Jales *et al* (2005: 7-8) argue that that countries may have difficulty agreeing to bind tariff levels that can vary due to external factors "beyond the control of the government"

Sensitive Products

Members agreed in the 'July Package' to allow a number of tariff lines to be designated 'sensitive' and consequently, subject to lower tariff reduction commitments. To compensate (for these lower tariff reductions), sensitive products would face tariff quota expansion (Matthews, 2005a). The difficulty facing members at present is in achieving consensus on the allowed number of products that will be designated as sensitive[14] and the extent of the required tariff quota expansion. According to Gunasekera *et al* (2005: 557) these factors "will be critical determinants of the overall market access outcome of the negotiations".

There is also the issue of the actual extent of the tariff reduction commitments facing sensitive products and whether to link the tariff reduction – tariff quota expansion combination with the main tariff reduction formula or not (Matthews, 2005a).

Tariff-Rate-Quotas

1400 Tariff Rate Quotas (RTQ's)[15] have come into effect in since 1995 as a result of the Uruguay Round[16] and they cover approximately 20 percent of agricultural tariff lines (Jales *et al,* 2005). Another difficult issue within the Doha Round of agricultural negotiations is how to reform TRQs in order to achieve market access improvements. This is tricky, because there is no agreed best method to do so (see table 5). Each TRQ varies in terms of its' trade distorting element(s) (under-quota tariff, quota or over-quota tariff) (Burfisher, 2001). In instances of low-fill rates (about 25 percent of TRQs)

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[14] At present, proposals on the number of sensitive products extend from as little as 1% to as much as 15% of tariff lines (WTO, 2005).

[15] "A TRQ is a two-tiered tariff to which the rate charged depends on the volume imported. A limited volume can be imported at the lower tariff – this is the "quota" part of the TRQ – and imports in excess of the quota volume are charged a higher tariff" (Burfisher, 2001: 12).

[16] TRQs are considered to be only a second best option for market access improvements because they are seen to be inefficient and non-transparent. Yet as Jales *et al* (2005: 11) point out "during the URAA they were necessary to convince some countries to reduce their tariffs on politically sensitive products, and they are likely to remain a fixture of the Doha Development Round Agreement".

reducing the in-quota tariff (if that is the binding constraint) would be the appropriate reform policy. However, for TRQs with over-quota imports (approximately 25%) however, the necessary reform would be to reduce the over-quota tariff (Burfisher, 2001).

Table 5: Impact of TRQ reforms on market access and quota rents

Policy reform	Binding constraint in TRQ		
	Within-quota tariff	Quota	Over-quota tariff
Lower within-quota tariff	+	-	-
Increase quota	0	?	-
Lower over-quota tariff	0	0	+
Notes: (+): increase in market access and reduction in economic rents. (-) opposite result. (0) no effect			

Source: Burfisher, 2001: 14

TRQ Administration

Another arduous issue in the Doha Round agricultural negotiations is how to improve the administration of TRQs. Methods used to administer quotas to exporters include ‘licence on demand’, ‘first come, first served’, ‘historical allocation’, allocation through State Trading Enterprises’, ‘lottery’ distribution and ‘auction’ (see Appendix 1) (de Gorter *et al*, 2003). Many of these methods are inefficient, non-transparent and trade distorting. Yet there is no generally accepted “best method” (WTO, 2004). Some Members argue that auctioning is the most efficient and transparent administration technique. However opponents view the money raised by governments through auctioning as an additional tax that could constitute a violation of tariff commitments in negotiations (WTO, 2004). At present, dialogue surrounds establishing principles such as predictability and transparency to guide administration methods (WTO, 2004).

Special Safeguard for Agriculture (SSG)

The issue that is currently under negotiation in the Doha Round in respect to Special Safeguard for Agriculture (SSG)[17] (established in the Uruguay Round Agreement on Agriculture) is whether it should, in fact, be eliminated and if so, within what timeframe (WTO, 2002). There has been difficulty reaching consensus on this issue. The SSG could be seen as unfair because only those countries that underwent tarrification[18] (essentially developed countries) in the Uruguay Round have access to the SSG. Proponents argue that it allows "reluctant importers to tolerate tariff cuts that would otherwise expose domestic producers to low prices or a surge in imports" (Jales *et al*, 2005: 13). If the SSG is to be maintained, however, then there is then also the matter of whether the existing product coverage should be maintained or altered (WTO, 2002).

Special and Differential Treatment (SDT)

Issues relating to market access for developing countries are addressed under the rubric of "Special and Differential Treatment" (SDT) (Polanski, 2005). According to Paugam *et al* (2005: 1) however, there is no "clear and undisputed economic paradigm" to govern this principle in the Doha Round. One major issue facing Members is how to merge a formula approach with SDT. The Uruguay Round committed developing country Members to undertake an average of two-thirds the reductions make by developed countries. According to Matthews (2005a: 5) if the same approach is to be taken in the Doha Round "the question is whether this commitment is built into the formula to be used or into the objective to be achieved". As noted above (Section 1), the extent of tariff cuts that result is sensitive to particular tariff structures of countries. Developing countries although in receipt of SDT could still end up making more substantial cuts in tariffs than developed countries due to their generally uniform tariff structures.

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[17] "This allows countries to apply special safeguard duties to counter import surges for products whose border protection was 'tarrified' and included in the country schedules… actions are exempt from the obligation to compensate, and from the threat of suspension of equivalent concessions or other obligations" (Josling *et al*, 2001: 14).

[18] "Tarrification meant that countries agreed to replace all existing barriers to imports which restricted market access, including import quotas, variable levies, voluntary export restraints and minimum import price schemes, by a single bound tariff"(Matthews, 2005b: 98).

Special Products

Consensus was reached in the Framework Agreement that "Developing country Members will have the flexibility to designate an appropriate number of products as Special Products, based on criteria of food security, livelihood security and rural development" (Matthews, 2005a: 6). In addition these products would receive more flexible treatment. Difficulties have arisen, however, in deciding which criteria should be used in choosing these products, and whether special products should be exempt from any tariff reduction or quota expansion commitments or merely be treated more leniently than other products. According to Polaski (2005: 7), these issues form "the crux of current negotiations on the defensive interests of developing countries".

Special Safeguard Mechanism (SSM)

Similarly, consensus was reached by Members in the 'July Package' to establish a special safeguard mechanism for developing countries. Difficulties arise, however, in achieving consensus on product eligibility and whether like the existing SSG it should have both a volume trigger[19] and price trigger[20] (Matthews, 2005a).

Preference Erosion

Preference erosion is another sticky issue that has arisen in market access talks. Many developing countries including African, Caribbean and Pacific (ACP) countries and least-developed countries (LDCs) that enjoy preferential access to developed country markets are experiencing a reduction in the value of these preferences as a result of cuts in most-favoured-nation (MFN)[21] tariffs (Matthews, 2005a). These countries are looking to defend positive discrimination or to have reasonable period to adjust and assistance if preferences continue to be eroded. Other Members, including numerous Latin American countries, disagree with the preservation of preferences and believe that the WTO's key principle of non-discrimination should be upheld (ICTSD, 2005a).

[19] "A specified rapid surge in imports" (Jales *et al*, 2005: 14)
[20] "A fall of the import price below a specified reference price" (Jales *et al*, 2005: 14)
[21] "[…] (GATT Article I) the principle of not discriminating between one's trading partners" (Brokhaug and Primo Braga, 2005: 14).

Conclusion

Following this analysis it is clear that there are a number of problematic technical issues that are holding up market access negotiations in the Doha Round. These issues have created significant disagreement among Members and progress has lagged behind the achievements with regard to the other two pillars of the talks (ICTSD, 2005b). According to Jales *et al* (2005: 1) "many gaps have yet to be filled in the market access talks and the way in which these missing pieces are put in place will have a major impact on the success of the talks". In particular, it likely that progress can only be made when *actual numbers* (figures for tariff reduction commitments, numbers of products to be designated as 'sensitive' or 'special and so forth) are specified. It is only in articulating 'the detail' that the overall level of ambition and success for this round of negotiations can be determined.

On a final note, it is important to emphasise that part of the difficulty in reaching an agreement in the Doha Round stems from the fact that decisions need to be made on all of these issues simultaneously and in a way that ensures all the member countries feel that they have achieved a balance between concessions and gains.

Appendix 1

Modes of TRQ administration

Licence on Demand: Import licences are assigned on the basis of quantities demanded. "Requests are typically reduced pro rata of the total request exceeds the quota volume" (de Gorter *et al* 2003: 5).

First come, First served: allows imports to be charged at the (lower) in-quota tariff rate until the quota is filled (de Gorter *et al* 2003).

Historical Allocation: is a method whereby "import licences are allocated to importing firms or *country specific* export quotas are granted to exporters on the basis of historical shares (de Gorter *et al* 2003: 5).

State Trading Enterprises: controls the import quota.

Lottery: import quotas are effectively won by firms in a form of lottery of licences.

Auction**:** is a method where licences are assigned using a "competitive bid system" (de Gorter *et al* 2003: 6). Auctioning is a relatively efficient mode of TRQ administration. However, in some cases, efficiency is compromised by certain conditions that are attached to quota allocations such as "a domestic purchase agreements (a condition requiring the purchase of domestic production of the product in order to be eligible), export certificates (a condition that requires an export certificate administered by the exporting country), and past trading performance (which limits eligibility to established importers of the products concerned)" (de Gorter et al 2005:6).

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DEVELOPMENT NGOS AND THE LIBERALISATION OF EU AGRICULTURAL POLICIES

LYNNE CAROLAN

Senior Sophister

It is far too easy to paint all developing countries with the same brush and thus assert that these economies will benefit from the liberalisation of EU and OECD agricultural policies. Lynne Carolan takes a closer look at the likely impact of this liberalisation on subdivisions of developing countries. She argues that while middle-income developing countries will gain, the more vulnerable less developed countries will lose out.

Introduction

"Agriculture is overwhelmingly important for the economies and livelihoods of developing countries. For millions of families in the developing world it is the sole available means of survival."

(Green and Griffith, 2002)

There is an ongoing debate in development economics as to whether the liberalisation of EU and OECD agricultural policies will actually benefit developing countries, with the majority of NGOs arguing that it will. Agriculture is central to developing countries' economies and their population, with three quarters of the world's 1.2 billion extremely poor people living and working in rural areas of developing countries (Green and Griffith, 2002). Developing countries are said to "have a comparative advantage in the production of agricultural [products, yet] they have made less progress in expanding their agricultural exports than hoped and have even lost market share in international agricultural trade" (Tangermann, 2005: 1). It is argued that the support and protection afforded by developed countries to their own farmers often imposes a heavy burden on many developing countries. For this reason further efforts to open up agricultural markets and improve upon world trade rules are seen as imperative by NGO's "in helping developing countries achieve food security and sustainable livelihoods for their farmers" (Oxfam, 2002:9).

However, much dispute remains as to the true consequences of the liberalisation of developed country agricultural policies for developing countries. Advocates of industrialised country trade liberalisation argue that the resulting rise in world prices for agricultural products will boost world incomes, thereby reducing poverty in the poorest countries (Hertel et. al, 2003). Conversely, more recent studies suggest that while trade liberalisation would indeed be beneficial to many middle-income developing countries who are net-exporters, the elimination of agricultural tariffs, domestic support and export subsidies would in fact be detrimental to net-importing LDCs (Less Developed Countries) because of terms of trade effects and the negative consequences that would potentially arise from the erosion of their preferential access to the EU and US market (Bureau et al, 2005).

For the purpose of this essay I will examine the contention of development NGOs that trade liberalisation would be of benefit to developing countries, firstly by outlining the net trade status of developing countries in agriculture and subsequently by examining the effect of liberalisation under the three pillars of trade liberalisation outlined in the Agreement on Agriculture of the Uruguay Round: Market Access, Domestic Support and Export Competition.

The Net -Trade Status

To begin with it is necessary to establish the five different groupings of developing countries. They include the major agricultural exporters, such as Brazil who belong to the Cairns group; large low-income countries close to self-sufficiency such as India; large and medium-sized net food-importing developing countries, such as Kenya; the small island states that are also net food-importers, including Jamaica; and the least-developed countries who additionally are net food-importers, including Sub-Saharan African countries. It is important to recognise that food exporters and importers are affected differently by food trade liberalisation and therefore are expected to pursue different agendas in the world trade negotiations (Matthews, 2001).

There is little disagreement "that overall the agricultural policies of developed countries' depress world market prices as they stimulate farm production, reduce consumption, and hence result in larger supply and lower demand on world markets" (Tangermann, 2005:3). Many NGO's view this as sufficient grounds for the liberalisation of agricultural policies. However, the manner in which the agricultural policies of developed countries affects the economic welfare of developing countries depends on whether they are net importers or net exporters of agricultural products. A common misconception is that developing countries are net exporters of agricultural products, and "therefore protection and subsidies by developed countries limit access of the LDCs thereby impacting adversely on the quantity and value of their exports" (Panagariya, 2004:11). However, studies by Valdes and McCalla have found that three fifths of all developing countries are net agricultural importers and Food and Agriculture Organisation (FAO) projections suggest that this movement towards increasing net imports of agricultural goods is expected to continue into the future. In fact, the FAO estimates that by 2030, developing countries will have a net food trade deficit in excess of USD50 billion (Tangermann, 2005).

Middle-income developing countries (such as members of the Cairns group) that are net exporters would gain from the removal of protection and subsidies by developed countries, through increased market access and an increase in world prices. Conversely, as net importers LDCs have access to current depressed prices and if the subsidies and protection were to be eliminated the world prices would rise and the losses to LDCs could be considerable. In addition, under the Everything But Arms initiative of the EU, LDCs already have quota and duty free access to the EU market (with the exception of bananas, rice and sugar), meaning that they can sell their exports at the internal EU price that is artificially high. Generally, the EU domestic price is far more profitable than the price that LDCs are likely to obtain following liberalisation of agricultural policies by developed countries (Panagariya, 2005). To make best use of the gains from trade reform, it is essential that the domestic economies of developing countries be well run. If factor mobilities are inflexible only a fraction of the potential gains from trade will be realised (Anderson, 2004). Many food-importing countries do not have the capacity to significantly increase their production should developed countries eliminate unfair tariffs and subsidies. The consequence is that trade liberalisation will simply increase their food import bill (Bouet et al, 2004).

Market Access

According to Anderson and Martin, agricultural protectionism by developed countries still significantly restricts exports from developing countries. They estimate that OECD agricultural protectionism costs developing countries in the region of $26 billion (Anderson and Martin, 2005). A study conducted by Hertel and Keeney using the GTAP-AGR model, shows that an improvement in market access would be the dominant source of gains as a result of agricultural trade liberalisation. Of the total $44 billion gain from freeing market access, about one-quarter accrues to the developing countries, which is well above those countries' one-sixth share of global gross domestic product in 2001 (Hertel and Keeney, 2006). However, the gains from a cut in agricultural tariffs would be limited if not negative for the developing countries that already benefit from reduced tariffs under preferential access schemes (Bureau et al, 2005). This is particularly the case for some small and highly specialised economies, which have developed specific agricultural sectors due to preferential access to the EU or US market (Bouet et al, 2004).

Preference Erosion

There are several types of preferential access schemes that have been designed to alleviate the effects of high tariffs on developing country exports to developed country economies. They range from very broad ones with minor tariff concessions, such as the Generalised System of Preferences (GSP), to market specific ones such as the EU's provision of duty free access for particular volumes of specified products form certain developing countries in Africa, the Caribbean and the Pacific (ACP), to the more recent Everything but Arms Initiative of the EU (Anderson, 2004). There has been much criticism of these preferential regimes. It is feared that they reduce quite substantially the capacity for developing countries as a group to push for more access to EU markets, by creating a group of developing countries supporting the EU's protectionist position (in order to receive the high internal prices in the EU market). Anderson argues that in ACP countries, preferences have resulted in the development of industries in which they have no comparative advantage and that as a whole may not have existed had the preference scheme not been introduced (Anderson, 2004). However, this drawback arose because under the ACP agreements preferences were granted for a limited number of products only. With the broader set of preferences offered by the Everything but Arms Agreement, this issue is less of a problem (Bureau et al, 2005).

A plausible argument put forward by Anderson is that since a developing country sells only part of its exports into a protected market to which it has preferential access, it receives a lower price for the remainder of its exports than would be the case under free trade (due to the price-depressing effect of developed country protection on the world market). It is therefore possible that the weighted average price that a developing country receives for its exports could in fact be lower than what it would be under free trade (Anderson, 2004). However, a recent study by Stevens and Keenan (2004) contradicts the theory that preferences are ineffective as development aid and finds that preferences in agriculture do in fact work on an international scale and that the problems are mainly caused by the limitations of these preferences e.g. technical standards imposed for tariff exemptions (Bureau et al, 2005). If these preferences had not been offered in the first place, perhaps developing countries would have lobbied more vigorously for lower tariffs on agricultural products into the EU. However, given that many developing countries have now invested heavily in certain industries in order to take advantage of these preference schemes they may face severe difficulties in reallocating part of their production factors to other sectors if EU tariffs were eliminated. These reallocation difficulties include obstacles to labor mobility, poor training facilities and the absence of safety nets (Bureau et al, 2005).

Technical Barriers and Supply Side Constraints

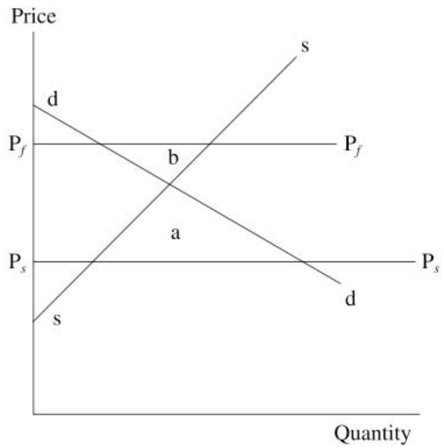
There is currently a fear that in anticipation of trade liberalisation under the Doha Round developed countries are now pushing import barriers up in the form of Sanitary and Technical standards. Due to the fact that LDCs have greater difficulties than the middle-income developing countries of the Cairns group and the developed countries in overcoming these technical barriers, they are in danger of losing some of their existing market access (Panagariya, 2005). Additionally there are supply side constraints such as poor infrastructure, lack of skilled labour and limited capital that may not be a problem for the more advanced developing countries but will curb many of the possible benefits of trade liberalisation for many LDCs (Bureau et al, 2005).

Agricultural Domestic Support

Reductions in domestic support have been seen as a particular concern of developing countries. Many developing countries are concerned about the ability of their producers to compete with producers of developed countries receiving large amounts of domestic support. However, evidence suggests that the benefits accruing to developing country as a result of the elimination or reform of domestic support may be considerably smaller than the potential gains from the removal of barriers to market access (Anderson et al, 2006). However, the removal of EU and US agricultural subsidies may for example have significant consequences on the world price of some commodities. This is the case of the subsidies on cotton, tobacco and soybeans (Bureau et al, 2005). Panagariya argues that because the vast majority of LDCs are net agricultural importers, an elimination of domestic subsidies would be of little benefit to them as their removal will raise the world prices of commodities and hurt the real incomes of the importing countries.

Figure 1:

A Developing Country Turning from a Net Importer to Exporter



Source: Panagariya, 2005

In the above figure ss and dd denote the supply and demand of a developing country that initially imports a commodity, with the triangular area ‘a’ representing net gains from trade. The world price of the commodity in the presence of a subsidy is P_s with the removal of the subsidy by the developed county raising the price to $P_{f.}$ As is evident from the above figure even if the developing country were to become a net exporter of a given commodity the gains from free trade would only outweigh the current benefit of lower commodity prices if world prices increased sufficiently to make the new gain from trade area ‘b’ larger than area ‘a’ (Panagariya, 2005).

Agricultural Export Competition

According to Hoekman and Messerlin (2006) farm export subsidies are inconsistent with the General Agreement on Tariffs and Trade and should therefore be eliminated (Anderson et al, 2006). At an economic level, export subsidies are very inefficient and face strong criticism from NGOs, as they deprive some developing countries with significant production potential of markets in nearby countries. However the removal of such subsidies will have a varying effect on developing countries and would in fact harm developing countries that are net agricultural importers in the short term as they benefit from more favorable terms of trade due to the lower prices that prevail as a result of export subsidies. (Bureau et al, 2005). In spite of this, Anderson et al (2006) contend that a gradual phasing out of export subsidies should be a feasible element of the Doha agreement and while their elimination in isolation could harm a few food-importing countries, the net buyers of food in these countries could be assisted in a far more efficient manner (Anderson et al, 2006).

Conclusion

Following an analysis of the probable effect of developed country trade liberalisation on developing countries through increased market access and the elimination of domestic support and export subsidies, it is clear that the impact on developing countries and indeed on economic agents within each developing country varies significantly. While NGOs are right in assuming that trade liberalisation will benefit some developing countries, research suggests that unfortunately this is not the case for many LDCs. Middle-income developing countries that are net exporters of agricultural products are likely to gain substantially from increased market access and an overall rise in the world prices of various commodities. However, the poorer and more vulnerable LDCs who are by and large net importers of agricultural products can be expected to suffer from the negative consequences of agricultural trade liberalisation. This negative impact is the result of preference erosion, a rise in world prices, technical barriers that have arisen in anticipation of trade reform under the Doha Round and supply side constraints. Farmers and members of rural communities are likely to suffer the most from this liberalisation in LDCs, while urban consumers may in fact benefit from the fall in food prices. For progress to be made in the reform of agricultural policies it is essential that we recognise the key distinction between net food importing developing countries and net food exporting developing countries.

It is the contention of this paper that the terms of trade losses that many LDCs may suffer as a result of trade liberalisation should not necessarily halt progress on agricultural trade reform. However, it is imperative that developed countries and institutions such as the World Bank and IMF compensate developing countries for terms of trade losses and assist in the setting up of the safety nets needed for developing countries to adjust to a more open trade regime. This way redistribution of income towards LDCs could be achieved without the inefficient misallocation of resources that accompanies current trade policies of developed countries. Finally, we must not forget that in order to take full advantage of a more open and competitive world trading system it may be necessary for developing countries to also open up their own markets rather than seek exemption from trade reform, thereby maximising potential economic efficiency gains.

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INTERNATIONAL TRADE AND TRADE POLICY: IT'S IMPACT ON THE DEVELOPING WORLD

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Free and fair international trade is often cited as the most effective way to overcome poverty in the developing world. Are the trade policy changes promoted by the IMF, the WTO, the EU and other affluent organisations really advancing the interests of developing countries? Sinead Kelleher investigates this by considering patterns of trade and trade policy. After doing so she is in a position to put forward some policy suggestions to assist developing nations.

Introduction

"International trade has often played a crucial though not necessarily benign role in the historical development of the Third World".

(Todaro, 2000: 457)

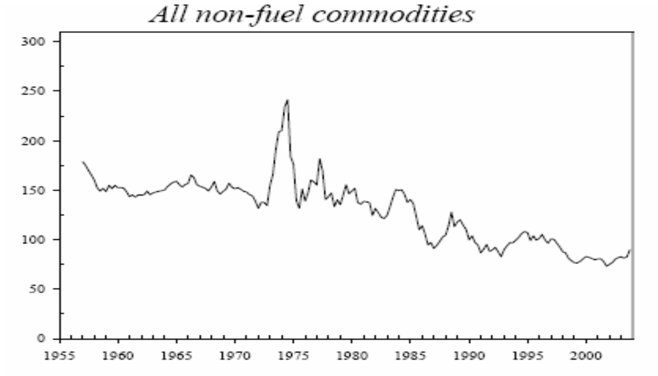
Trade is an essential aspect of any country's economic activities, and is of particular importance to developing nations. As Aaron Schavey of the Center for International Trade and Economics stated – "The evidence shows that increased trade leads to increased economic growth, which raises labour and environmental standards" (Schavey. A, 2001). Trade offers a source of essential foreign exchange, helps countries to avoid deficits on current accounts, and is a channel through which technology transfer occurs. The expansion of trade enlarges both consumption capabilities and potential markets for goods and through the concepts of specialization and comparative advantage, world output has increased to unprecedented levels. For some small nations with poor agricultural resources, the ability to purchase food on the world market is central to their very survival. Furthermore, large, industrial countries in the North depend on oil imports to drive their factories, power their electrical generators and run their cars, and luxury foods and consumables to satisfy the appetites of their residents. However, since globalization proper, identified by widespread price convergence and a high volume of international transactions, began in the 1800s (Taylor, 2002), world trade has been characterized by exploitative

relationships and inequitable policies. Rather than ameliorating, global trading relationships over the past two centuries
have continued to be asymmetric and unbalanced. The current pattern of trade, especially the near monopoly held by developed nations on lucrative manufactured goods and the reliance of their developing counterparts on primary produce works to the severe disadvantage of the South. This critical situation will be the first aspect of international trade examined in this essay. Following this policies, particularly those promoted by the IMF will be critiqued. A number of policy suggestions will then be presented- a special emphasis being placed on the possibility of 'collective self reliance' and economic integration of developing nations.

Pattern of Trade

Despite their large populations, many developing nations remain on the periphery of the international marketplace- the 44 least developed countries, home to 10% of the world's population, are engaged in only 0.3% of global trade (Todaro, 2000). However, even Less Developed Countries (LDC'S) which are participating in trade face a very serious obstacle- a disproportionate reliance on the export of primary products. There are a number of problems associated with this. Firstly, these products, mainly agricultural goods and unrefined metals, have very low price and income elasticities. This means that the demand for LDC exports increases slowly relative the growth of Northern economies, and that price decreases have little effect. Todaro explains that these two phenomena leads to 'export earnings instability' resulting in lower and unpredictable economic growth. As well as this, real, non-oil primary commodity prices have exhibited a downward trend for many years-between 1985 and 1993 the real prices of primary commodities fell 30% (Cavanagh, 2002). The graph below shows the declining overall trend in prices since 1957.

Figure 1.



Source: IMF, International Financial Statistics (2004).

Less developed countries also tend to be more dependent on foreign trade as a proportion of GNP than more developed countries. In 1996, export earnings accounted for between 30 and 40% of overall GDP in Togo, Sri Lanka, Venezuela and Nigeria, but just 9% and 11% in Japan and USA respectively (Todaro 2000). For this reason, falling prices or demand have devastating consequences for entire economies. This is particularly pronounced when countries focus their productive resources on only one or two goods. This is very common practice in the Developing World and a prime example of a country's "fatal reliance on a single export crop" (New Internationalist, October 1999) is the Dominican Republic. During the 1980s, bananas made up 20% of GDP, 60% of exports and provided jobs for 10,000 people. However, following a number of hurricanes and a more liberalized market in the EU, the exports of bananas fell dramatically, from 72,000 tons in 1988 to just 28,000 tons in 1998 (New Internationalist, 1999). Contrary to this dependence on primary products, developed countries export predominantly manufactured goods-these goods make up between 78% and 95% of exports in the UK, US and Japan but under 10% in Togo and Nigeria (Todaro, 2000).

The demand for these products tends to be more price and income elastic, and many of these products are imported in large quantities by LDCs to use in industry, repair malfunctioning machinery, carry out medical procedures and satisfy residents' demands for ostensibly Western goods. However, historically the prices of primary products have been falling relative to the prices of manufactured goods, leading to declining terms of trade for the Developing World. This means that in order for an LDC to be able to import the same volume of processed goods as it did in previous years, it will have to export more. However, as discussed earlier, primary goods have low income and price elasticities and greater production of these goods tends simply to lead to a glut on world markets (New Internationalist, 2000a). Todaro (2000) estimates that declining terms of trade cost the Developing World $2.5bn per annum, leading to steadily worsening merchandise trade balances.

In summary, the powerful, technologically advanced North benefits from rapidly declining prices of primary goods exported by the South while agrarian LDCs suffer due of declining terms of trade.

Trade Policies

Trade policies adopted and enforced by the North have, for many years, worked to the disadvantage of developing nations. These include the dumping of surplus agricultural produce on Third World markets and EU and USA subsidy policies. However the two policies I am going to focus on are barriers erected in developed nations against LDC imports, and free trade policies as insisted upon by Western dominated institutions, particularly the International Monetary Fund (IMF).

Trade barriers were first erected in the North in the 1960s and 1970s as a result of growing employment concerns following an increase in low cost LDC exports (Todaro, 2000). Barriers were put up against products which were likely to put competitive pressure on locally produced goods, namely light industries which are intensive in unskilled labour, including textiles, processed foodstuffs and footwear, as well as agricultural produce. Tariff escalation, where barriers increase as the level of processing does, reduces the incentive for LDCs to expand their production and export of more lucrative processed goods - for example, although the USA does not have a tariff on cocoa beans, it charges 25c per pound of imported chocolate (Rich World, Poor World: A Guide to Global Development). The average tariff of OECD members for imported agricultural products is 60%, while tobacco and chocolate face tariff peaks of 350% and 277% respectively (Food and Agriculture Organisation, 2005). Todaro estimates that barriers to trade cost the Developing World $40bn annually, while the table below emphasizes the biased nature of tariffs by showing that in many cases the USA collects more in imports from developing nations than from other countries in the North.

Table 1.

Country	Tariff Paid ($ billions)	Total US imports ($ billions)	Average income/capita (1995 $)
France	330	31	30492
Bangladesh	331	2.5	386
Norway	24.2	5.4	28,297
Mongolia	23.1	0.2	430
UK	403	42.3	22,697
Philippines	418	11.8	1165
Thailand	514	15.6	2,853
Indonesia	596	11	1034
India	428	10.3	477

Source: Rich World, Poor World: A Guide to Global Development

Although some barriers are gradually being lowered, for example the notorious Multi-Fiber Agreement was eliminated in January 2005, 'dirty tariffication' is still prevalent. This is the process whereby developed nations manipulate tariffs to obtain the optimal results for their country, often reducing, under public or political pressure, tariffs on products which have negligible impact on their economies while retaining barriers on key products. (Hyland and O Breasail, 1999). Even the Doha Round of world trade negotiations taking place at the moment, looks very unlikely to live up to its official title of the 'Doha Development Round'. As the Economist (2005) explain, the talks have been "plagued by a lack of ambition on the part of the poor as much as the rich" and a focus on the wrong issues – for example, within agriculture, much more progress has been made in pledges to phase out subsidies in the West. However, over 90% of the gains to developing countries from freer trade in food would be from tariff reductions – eliminating production enhancing subsidies will have relatively little impact on poorer nations.

Ironically, the other most significant trade policies of recent times placed emphasis on reducing trade barriers and encouraging 'free trade'. Free trade was an integral component of the packages of policies thrust upon developing nations via Structural Adjustment Programmes in the 1980s and is still enthusiastically promoted today by the Washington Consensus minded International Monetary Fund (IMF). Chris Brazier states that the IMF "has been taken over by fundamentalists as extreme and narrow minded as an al-Qaeda lieutenant or a US Bible-Belt preacher" (Brazier, 2004: 10) and Gregory Palast (2001) lambastes an “ideology gone rotten”. In their haste to implement market based trading systems in the aim of simulating economic growth in poorer nations, IMF analysts, including their European managing director[1], appear to have overlooked the fact that even the much lauded Asian Tigers judiciously protected certain infant industries from competing imports until they were well developed. As well as this, the immorality and irony of forcing developing nations to expose their economies to the unpredicabilities of international trade under the threat of withheld aid payments and a reputation as a non-cooperative nation, whilst barricading our own markets against their produce does not appear to resonate. Joseph Stiglitz, in an interview with New Internationalist (2004a) suggests that the IMF is working in the interests of Western capital and financial markets, and the fact that between 1995 and 2002 the EU gained $80bn from the liberalization of trade whilst Africa lost $2.6bn, offers some credibility to this claim. (New Internationalist, 2000b)

Policy Suggestions

Possible policy solutions to assist the Developing World’s in expanding and improving their share of global trade can be divided into three categories- those based in the North, national LDC policies, and transnational, or regional policies.

Policies originating in the Developed World revolve primarily around reducing import barriers on Developing World produce, especially manufactured goods. Lowering agricultural subsidies could assist in preventing overproduction of certain goods, which often results in product dumping on LDC markets. Recent examples of this include the dumping of European beef onto markets in Namibia in the early 1990s at half the price of Namibian beef, and the dumping of EU canned tomatoes onto the South African market more recently (Hyland and O’ Breasail, 1999). The transformation of the IMF, possibly involving a reversion back to its original Keynesian ideals (Stiglitz, 2002), or a review of voting power within the major global Economic institutions, the World Bank and IMF would undoubtedly assist LDCs. At the moment, voting power in these organizations is determined by economic power and, presently the G8

[1] By agreement between Europe and USA, the job of Managing Director of the IMF has traditionally gone to a European, and the presidency of the World Bank to an American- neither position ever to a citizen of a developing nation most affected by the decisions of these institutions. (Blustein, 2004)

control almost half the votes of each- 48.18% in the IMF and 45.71% in the World Bank (New Internationalist, 2004b).

National policies within individual LDCs should focus on developing strong financial, credit and legal institutions, as well as enhancing human capital by investing in education, with a particular emphasis on technology and science. The 'brain drain' which has afflicted many developing nations in recent years should be tackled, possibly by offering tax incentives to educated nationals who stay in their country or who are repatriated. A movement away from reliance on a very small number of primary products could also help countries to avoid major recessions when the price of, or demand for, a particular good falls in the Developed World. Ideally, diversification should be both vertical and horizontal, but as discussed earlier, unless barriers to manufactured LDC imports fall, Third World nations have a major disincentive to expand into manufacturing.

On a regional level, the development of regional trading blocs with no internal trade barriers, but common external barriers within the Majority World is viewed as crucial to the growth of LDCs (Todaro, 2000). Firstly, cooperation between states at fairly equal stages of economic development allow for combined inward and outward looking trade policies which make available the benefits of regional trade, while not subjecting infant industries to the ravages of international competition. Economies of scale can be exploited by industries whose domestic markets are too small to allow for efficient production, whilst wasteful duplication, such as the same, inefficient industry in neighbouring countries, is eliminated. A common economic policy could assign each country export quotas of certain goods to avoid oversupply on global markets and a consequent fall in prices. As well as this, natural resources such as waterways, forests and coastal zones can be utilized more efficiently, and the essential development of infrastructure, especially overland transport facilities in Africa, is more effective if done regionally, as opposed to nationally. Barriers to non-essential Developed World imports and a unified stance on certain issues would compel the EU, USA, IMF, World Bank and other Western institutions to engage with fundamental Developing World problems on a more appropriate, meaningful level. As Julius Nyerere, former President of Tanzania stated "[African Unity] can make it difficult for Africa and the African people to be disregarded and humiliated" (New Internationalist, 2000c). At present a number of regional trading blocs do exist in the Developing World, including Andean Community, SADC, Mercosur, Asean and ECOWAS and the significance of South- South trade is increasing rapidly. Although it still only represents 7% of overall global trade, in 1990 South- South trade made up 33% of all LDC exports, with trade in manufactured goods rising rapidly. (Todaro, 2000)

Conclusion

In this increasingly globalized and interdependent world, trade is essential to the development of viable and strong economies in Less Developed Countries. This is particularly evident now, following the acceptance by many that import substitution policies often result in rent seeking, inefficiencies and poor long-term economic prospects. However, declining terms of trade and a reliance on a small number of primary exports are making LDCs increasingly vulnerable, while barriers to trade in the North make it very difficult for countries in the south to expand production and exportation into more lucrative manufactured goods. As well as this, the so-called 'free trade' policies pushed upon poorer nations by the IMF are forcing them to lower their barriers to Western goods while we keep our tariff and quota systems firmly in place. Policy suggestions stemming in the Developed as well as the Developing World were explored in this essay emphasizing the fact that both have the responsibility and the ability to ameliorate the global trading system and to assist a transition to fairer relationship between equals.

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FROM HAND OUTS TO HAND UPS: MAKING AID EFFECTIVE

ROB QUINN

Junior Sophister

Increasingly aid donors are concentrating on the effectiveness of development assistance. Rob Quinn discusses how coordinated, effective and tailored aid strategies are more important than the volume of aid in achieving the ultimate aim of poverty reduction.

Introduction

"More effective development assistance means improvements in the lives of hundreds of millions of people: more food on the table, healthier babies, more children in school. These are things worth fighting for – and properly managed foreign aid can make a big contribution."

J.E. Stiglitz (Dollar and Pritchett, 1998:x)

Aid, the transfer of finance, resources, and advice from the developed to developing world is, as with most things in life, not a simple issue. The assumption that heaping money indiscriminately upon poor countries will allow their citizens to escape poverty is not just incorrect but dangerous given the negative effect mismanaged aid can have. Over the past decade there has been a paradigm shift in both the way aid is managed and the underlying reasons for its distribution. The end of the Cold War, whilst resulting in falling foreign assistance levels, thankfully dampened a hindering element to effective aid: the strategic interests of donors. Though these interests are still apparent, focus has changed. The landmark paper "Assessing Aid, What works, What doesn't and Why" by Dollar and Pritchett (1998) commissioned by the World Bank in 1997 and overseen by Nobel laureate Joseph Stiglitz envisions a framework for aid implementation radically different in its objectives and ideas. In a nutshell, the paper argues for financial aid to those poor countries with the institutions and policies to make good use of such assistance. On the other hand, regimes lacking the capacity to dispense of funds effectively should be patiently provided with knowledge and advice in the hope that a scheme for using financial aid and competently governing their countries can be constructed

"Assessing Aid: What works, What doesn't and Why" excites with its argument that for every $10 billion invested 25 million people can be lifted from poverty, a huge improvement on the figure of 7 million prior to its release. The main question however is whether donors, both multi lateral institutions and countries are implementing these recommendations into their aid policies almost a decade post-publication? The answer stresses not only whether there is consensus on the issue, but also how aid strategies are increasing their focus on poverty reduction rather than the rich world's interests. Additionally, it is often thought that most poor countries are badly run and this is often cited as the main reason they are poor. Hence, what does the notion of ideas over money constitute and in what context can ideas be made effective? This essay will seek to answer these questions in line with a description of the new theories "Assessing Aid: What works, What doesn't and Why" puts forth. Furthermore, whilst aid is the most direct form of assistance its interaction with other foreign instruments of development (namely trade and collective security interests as suggested in the Human Development Report) will be briefly examined given that co ordination of interests on all fronts is undoubtedly the key to deep and lasting progress for the world's impoverished.

What Needs Changing?

Historically, aid has been implemented on the grounds of strategy and quantity flow. Its assessment has also been narrowly focussed on whether projects have been successfully completed and how much cash has been doled out. Intuitively perhaps this makes sense. If, for example, aid to Ethiopia has doubled since the previous year or a bridge connecting rural villages has been completed, how could this be seen as harmful? The fact is that aid dollars are worth different values to the poor in different countries (Harford and Klein, 2004). Without evaluating Ethiopia's strategy to deliver services to its poor how could increased assistance prove a success? Likewise a bridge built, whilst providing a needed resource, indicates in no way whether institutions have been strengthened or policy improved within a country so that future unaided projects might prove successful. The result of narrow focus has been an ineffective aid program (Dollar and Pritchett, 1997). Many of the developing countries most lavished in the past are among today's poorest (the Congo and Liberia spring to mind). Aid has even had a negative impact in many cases, crowding out the private sector by funding projects otherwise available under the market mechanism and causing dependence.[1] Donor fatigue following the cold war was understandable given the fact that aid projects seemed to be achieving little.

[1] Mismanaged food imports funded by aid (in many cases for emergency relief) drive down domestic markets disincentivising domestic production. (Guest 2004)

A mutual view that aid needed reform was consolidated by the World Bank in the publication of “Assessing Aid”. The paper’s findings, that is the basis upon which future recommendations for policy are founded, can be summarised in five main points (Dollar and Pritchett, 1997).

First, the notion of financial aid is in no way obsolete. However, it is crucial that it be directed toward a sound policy and institutional environment. At this stage it is quite important to understand how each of these terms is judged. Policy is indexed according to trade openness, budget surplus and inflation. Institutions are judged by rule of law, corruption and quality of bureaucracy. In environments where these are well implemented the paper claims that assistance in these environments spurs growth whilst improving health and education with a 1% decline in poverty for every 1% of growth achieved. This makes sense but encounters the difficulty that well run, poor countries are hard to find.

Second, aid can provide critical support to building these institutions and policies which are so important in making it effective in the first place. This places an emphasis on the goals of project aid. The traditional importance of cost and speed with which a project is completed take second place to the influence such a project has on the ruling institutions and policies within a country. A good reason for enforcing aid with this kind of ethos is that in most cases finances are fungible. That is the recipient does not spend them on those areas of public spending the donor had earmarked them for. Hence, building a framework through which finance can in the future be effectively funnelled to provide quality public service is the primary objective. Ultimately it is societies who decide their own fate, ‘buying’ policy is not considered favourable as helping to build it from within national institutions.

Third, it has been mentioned that poorly managed aid efforts have in the past completely depleted the private sector. On the other hand, where aid sufficiently complements the private investment through the provision of infrastructure, education and health services it has a ‘crowding in effect’. According to “Assessing Aid”, in a good policy environment each new aid dollar attracts a further two in investment. Aid programs additionally compliment by increasing investor confidence.

Fourth, decentralisation and participation in aid projects are seen to further improve institution building and aid efforts. This view concurs with that of Jeffrey Sachs, a development economist who established a mini project in the rural Ituri district of southern Kenya (Sachs, 2004). The project proved such a success because it had full government consent and drew on the needs of local people and responded to them whilst implanting ideas that supported the objective at hand. In this ‘bottom up approach’ the benefits of consulting with local and central levels over “doling out” policy and finance was recognised.

Fifth, the recommendation for ‘distorted’, i.e. poorly governed countries is that ideas work better than money. The report draws on the examples set by previous aid programs implemented regardless of policy and their failures to achieve progress. A staff intensive advisory approach is envisioned backed by resources sufficient only to stay in operation. It is here that “Assessing Aid” falls under the severest criticism for its subjective interpretation of aid’s impact on growth regression and adamant stance that finance is obsolete in poor policy environment. White and Lensink (2004) contend that a simple switch can be made in the equation the report uses to show how good policies make aid work. This flips the argument on its head by highlighting the need for aid to improve policy in a poor environment.

$g = \beta_1 + (\beta_2 + \beta_3 P)A + \beta_4 P + \beta_5 X + \varepsilon$: Policy impacting aid effectiveness

The following equation, representing A as aid, P as policy and X as other factors can be re written

$g = \beta_1 + \beta_2 A + (\beta_3 A + \beta_4)P + \beta_5 X + \varepsilon$: How aid can improve policy

That aid could impact policy in poor institutional/policy environments has deep consequences for “Assessing Aid” and its recommendations (White and Lensink: 2000). The potential ‘Trojan Horse’ effect of using aid to sneak institutional change under the radar could prove more beneficial and faster acting than advice. However, if this were not to be the case money would be squandered where it might have been put to use in a better environment. It could be that either interpretation is useful when attempting to improve poor performance through aid. One could argue that a polarising of bad governance does not exist, rather a spectrum including poor institutions, policies and grades from the bad to the awful. In this context a case sensitive approach could be adopted, finance and knowledge in one circumstance, pure advice in the other when trying to bring about institutional change.

Thus, “Assessing Aid”, especially when trying to assist poor regime countries is not without its critics. The paper is further attacked on econometric grounds, the indicators it uses in evaluating policy seen as too narrow and without real grounds for being more important than others.[2] How to put selectivity into practice is a further concern inadequately addressed. Whilst one country may have good policies and another has bad ones, the

[2] Whilst openness is an important indicator, level of investment in education does not figure in “Assessing Aid”.

former's may be disintegrating whilst the latter's improves. Little guidance is given on this issue. Nevertheless, the paper's findings and suggestions are profound and their general grounds for implementation credible. There also exist further measures however for making aid more effective. The Human Development Report argues for consistency and transparency on the part of donors naming irregularity in funding as a principle cause of ineffective aid (Watkins et al, 2005). Co ordination among donors, less self interest, more long term focus on policy and institution spill-over is an obvious way to make aid more efficient. The type of financial aid dispersed is also significant. Untied grants rather than loans or debt relief are concluded to be the best form of financial aid if implemented in a sound environment (Harford and Klein, 2004). More money in better policy environments, more ideas for the 'distorted', is currently regarded as the solution to the aid problem.

Are Donors Responding?

As outlined, recommendations have been in place for the past nine years. Additionally there are clear grounds upon which to gauge whether donors are following advice since evidence shows total policy negligence in aid allocation during the late 80s and early 90s. Results are encouraging. In a study comprising forty one agencies, both bi and multi lateral Dollar and Levin displayed a clear improvement in policy focus over the past decade. On the other hand poverty was targeted as much in previous decades with no increase. Their study found that little to no trade off exists between the two in donor selectivity, that is impoverished nations have not been compromised for middle income ones with better policy. This points out that well run poor countries are being increasingly targeted, in line with "Assessing Aid".

The most striking finding was the counter intuitive correlation between a country's aid effort[3] and its ability to direct aid towards poor, well-run countries (the ideal combination). Previous thinking centred around the idea that the more an agency had to disperse, the less scrupulous they were about selectivity. The counter argument which subsequently emerged suggests that donors with large aid programs relative to their country's size can grant so many resources because it is publicly recognized by their electorate that an effective job is being done and money being well spent. High effort donors also display sensitivity to policy index shifts by

[3] Aid effort is the percentage of a country's GDP devoted to development assistance, not the quantity it contributes.

developing countries. An increase in policy level was met with a fourfold increase in financial assistance from the top donors (Dollar and Levin, 2000). Whilst recognising a positive change in allocation, Harford (2004) attacks the indicators Dollar and Levin use in arriving at their conclusions claiming they are too narrow to accurately judge policy against[4]. There is, it would appear, a case for more rigorous assessment when judging country policy. Given that aid agencies use the same indexes as researchers shows how important academic rigour and accuracy are.

That the majority of donors are becoming more selective and hence improving aid quality is a positive sign. The continuing problem lies in the fact that effort does not necessarily translate into quantity (Harford and Klein, 2004). Small Nordic countries and multi lateral institutions dominate in terms of performance and effort. It is the large rich nations, namely the USA, Japan and the EU that the lion’s share of aid is allocated by and they have some of the lowest efforts[5]. Resultantly, they achieve very poor selectivity scores for both policy and poverty suggesting that their aid programs (and therefore most aid programs) are proving ineffective. A further conclusion possibly drawn is that aid is still being used for predominantly strategic purposes, given the higher security interests these countries (namely the USA) possess abroad. Flying in the face of research, a re evaluation of foreign interests is thus necessary in order for large aid flows to reach destinations where they can actually lift people out of poverty. A wider look at development could in that context prove useful.

Aid + Trade + Collective Security = Development

An examination from within of what makes aid effective is crucial towards its improvement, no less important however are its partners in the larger development agenda (Watkins and Co, 2005). Aid, trade and security are interconnected and this section briefly seeks to examine the extent to which these further components can compliment good aid policy. As has already been mentioned, large donors are not directing their aid flows in line with recommendation and empirical evidence. Redefining security threats and strategic interests in terms of human over military security is a meaningful objective for superpowers controlling the worlds aid flows. That is, recognition of the fact that reducing poverty is the vanguard in the advancing of global security interests. Such a shift has the potential to profoundly effect not only the direction of current aid flows but also their volume with profound consequences for aid effectiveness as financial gaps are filled.

[4] The index used is the Country Policy and Institutional Assessment Index.
[5] The USA contributed just 0.16% of its GDP to overseas aid in 2004.

Furthermore, economic engagement (through aid) to less developed, potentially hostile countries not only encourages cordiality, it allows for political reconciliation and hence an improved security environment (Foley, 2004). A further shared interest between aid and security is the mutual need to build and strengthen multilateral institutions. In the case of aid, such institutions are the most effective dispensers, (Harford and Klein, 2004), in security terms membership to such institutions creates an environment for consensus and peaceful negotiation, discouraging conflict (Cooper, 2003). Multi lateral institutions (mainly the UN) also rely heavily upon the partnership between aid and security policies in post conflict situations where immediate infusions of development assistance backed by good policy strengthen new, weak institutions (Dollar and Pritchett, 1997). Aid's primary role in poverty reduction, it would appear has further uses.

Another complimentary aspect of development is trade whose benefits need no introduction. It is well recognised that specialisation and trade are the back bone of economic growth and even form a part of the policy index against which donors judge potential recipients. Trade hence directly compliments aid as it provides a mechanism through which nations benefiting from institutional improvement can raise further finance to funnel into their better services. Informal trade barriers such as poor infrastructure and lack of education are the very limitations aid aims to sustainably improve through its new capacity and knowledge building approach. It would hence seem reasonable that in a bid to maximise aid effectiveness, the rich world would open its doors to trade (Guest, 2004). Complementarily in improving aid effectiveness can hence be seen as critical.

The Need for Action

In conclusion, it is positive to note that in the last ten years, effective, policy and poverty orientated aid appears to at least be on the path to progress. Of concern however, are the methodological flaws apparent in such landmark papers as "Assessing Aid" upon whose recommendation aid allocation is decided. As a result screws need to be tightened and a more rigorous set of indices offered so as to optimally judge policy measures. Additionally, 'distorted' environments and how aid is to have a positive influence upon their policies and institutions need to be more carefully examined. Given the volume of impoverished people living within them, there may be consequences for increased global inequality as aid infused states take off while others are left behind.

The overarching principle that aid is a necessary tool in the fight against poverty does not appear to be in much dispute. This is a positive given that consensus and co ordination are hugely important to achieving poverty reduction, from academia to policy to implementation among donors. It is for this reason that concerns arising about the conclusions "Assessing Aid" draws, both on the grounds of how selectivity is to be applied and policy indicators better constructed, need to be addressed. Donors are changing their attitudes. Whether they are doing so to maximum effect and with a full appreciation of both the potential for the report's advice and its flaws is questionable.

Aid is ultimately about bringing people out of poverty. Further efforts to maximise volume and effectiveness, aligning objectives with trade and collective security are crucial. Not just for the cause of economic advancement do these efforts matter, but in the interests of humanity and moral integrity. Leaving the world's poor to their fate is not an option and aid remains the most direct way in which the outside world can positively influence their lives. Out of ideas must come action, *"Look if you like, but you will have to leap"* (W. H. Auden).

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REFORM OF THE EU SUGAR REGIME AND ITS IMPACT ON DEVELOPING COUNTRIES

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The negative repercussions of the reform of the EU sugar regime on the Irish sugar industry has been well publicised. Eoghan O'Briain analyses the effect this reform will have on different groups of developing countries. He finally concludes that it is not the EU sugar farmers that will suffer most but the poor producers in developing countries.

Introduction

'The Commission's proposal does not take our situation into account in any way. It is completely at odds with EU development policy, the general objectives of the Doha Development Round, and the pursuit of the UN Millennium Development Goals'

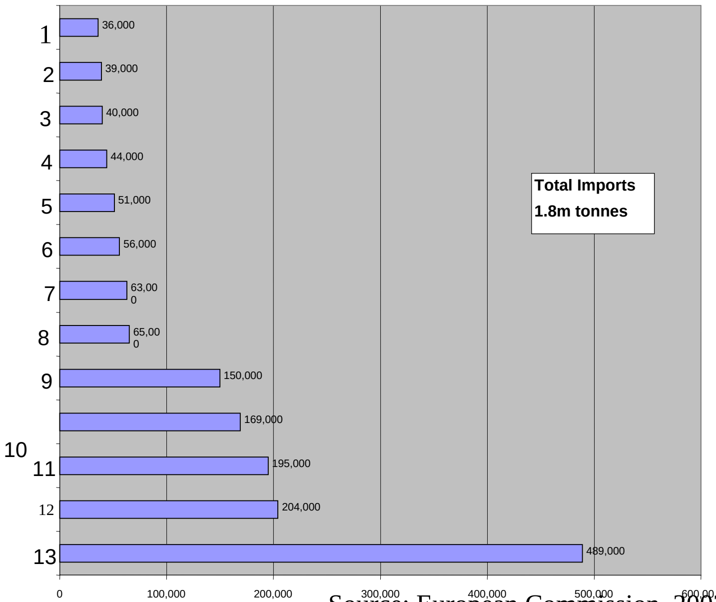
Kaliopate Tavola, Minister for Foreign Affairs and External Trade of Fiji (ACP, 2005b:1)

On November 24th 2005 EU agricultural ministers reached agreement on the details of the June 2005 Commission proposal to reform the Common Market Organisation (CMO) for sugar. I will outline the details of this agreement, before examining its likely impact on various groups of developing countries. This question is important in light of the EU's stated ambition of achieving the Millennium Development Goals by 2015. The essay informs the debate on preference erosion, an issue of major concern to developing countries at the recent WTO Ministerial in Hong Kong. I will examine the reaction of developing countries to this proposed reform, and investigate, whether the EU's package is fair in terms of its effect on developing countries. I will conclude that the EU has neglected its responsibilities to some of the world's most vulnerable economies, in its haste to compensate politically powerful EU sugar farmers.

Pressure to Reform

The Sugar CMO has remained largely untouched since its introduction in 1968. The CMO guarantees a minimum price for sugar, subject to a production quota for each member state. This intervention price is set high enough to ensure that even the least competitive member states can produce sugar. (Chaplin & Matthews, 2005b) The EU intervention price has typically been 2-3 times higher than world market prices. As such many sugar producers enjoy high profit margins, and some developing countries benefit from preferential trade agreements. For quota production export subsidies bridge the gap between world market prices and the EU price, enabling the EU to export large quantities of sugar, although it is a high-cost producer. High import tariffs restrict access to the lucrative EU market, however under the auspices of the Sugar Protocol the EU imports raw sugar cane at the higher EU price from developing countries (18 ACP[1] countries and India).

Figure 1: EU-15 Main Partners for Import Quantities 2000-2001



Source: European Commission, 2003

[1] African, Caribbean and Pacific Group of States.

Legend		
1 Brazil	2 Malawi	3 Serbia & Montenegro
4 Barbados	5 Belize	6 Trinidad & Tobego
7 Cuba	8 Zimbabwe	9 Jamaica
10 Swaziland	11 Guyana	12 Fiji
13 Mauritius		

Pressure to reform the CMO has intensified for both internal and external reasons. Reform should bring the sugar CMO in line with other sectors in terms of improved market orientation, and the shift towards decoupled payments. However it is the EU's need to meet its international commitments that makes the need for reform paramount. A WTO dispute panel ruled in favour of Thailand, Brazil, and Australia in their complaint that exports of C-sugar from the EU are indirectly subsidized, through the generous support for quota production. These non-quota exports must be subjected to the EU's Uruguay Round commitment to limit the quantity of subsidized exports to 1,273,000 tonnes. Therefore the EU can no longer export its excess produce on world markets. The EU faces further pressure to remove export subsidies, and reduce tariffs in the WTO Doha round of negotiations.

The EU's offer of unrestricted market access to 50 least developed countries by 2009 has also made reform inevitable. The Everything But Arms Initiative (EBA) will ensure that tariff-free import quotas are gradually increased, until they are eventually removed. Tariff rates on imports from these countries will be phased out by July 2009. Their potential to expand production, in order to take advantage of high EU prices, is expected to increase by 2009. Imports to the EU should increase, while exports must be curtailed to meet WTO commitments. This anticipated shift in trade patterns must be offset by a fall in EU production. In light of these realities the case for reform of the sugar CMO is unquestionable.

Reform Agreement

The November 2005 agreement (European Commission, 2005b) will cut the guaranteed price for white sugar by 36% over 4 years.[2] Farmers will be compensated through the Single Farm Payment for 64.2% of these price

[2] The price will fall by -20 percent in year one, a further -7.5 percent in year two, a further -5 percent in year three, and a further 6% in year four. (European Commission, 2005b)

cuts. Uncompetitive producers can avail of a voluntary restructuring scheme; € 730 per tonne of past production levels will be offered, if sugar factories exit the industry. This amount decreases annually, and the offer expires after four years. Initially there will be no compulsory quota reductions, as it is hoped that inefficient producers will exit gracefully. C-sugar will be brought under the quota system. Member states, which produced C-sugar, can avail of an additional 1million tonnes of quota production. In order to help ACP countries, which have enjoyed preferential trade with the EU, to cope with the impact of reform a country-specific assistance scheme will be established.

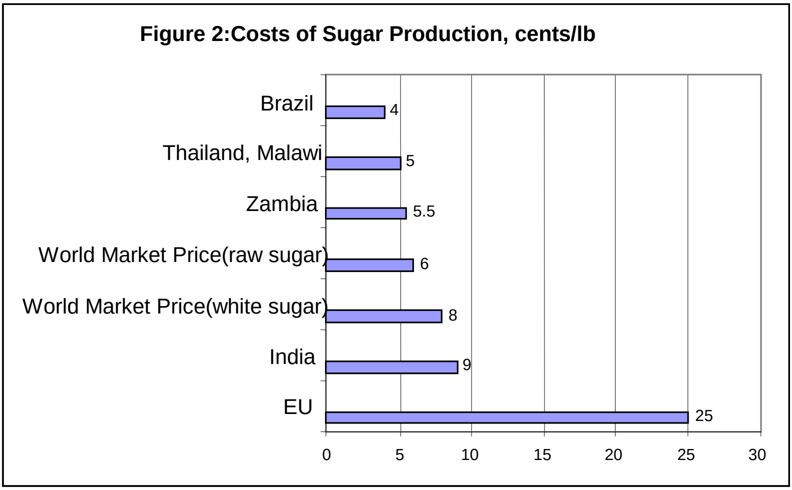
’Since the complexity of restructuring and diversification processes requires a sustained effort, assistance should be integrated into an eight year scheme. An initial budget of 40 million euro has been earmarked for 2006. Further long term assistance will be secured for the period 2007-13.’
(European Commission, 2005a)

The European Commission projects that reform will reduce EU production by 7.5 million tonnes to 12.2 million tonnes by 2012/13 (European Commission, 2005d). Such a drop in production should enable the EU to absorb the anticipated increase in EBA imports, meet its WTO obligations, and to eventually abolish export subsidies. These projections are contingent on success of the voluntary restructuring scheme, which is difficult to predict, as farmers may be reluctant to exit the industry quietly.

Impact of Reform on Developing Countries

The imminent reform of the sugar CMO will affect three groups of developing countries. Competitive developing country exporters such as Brazil, Thailand, Colombia, Malawi, and Zambia stand to gain from reform of the CMO. Despite the inefficiency of its production, the EU exported 6 million tonnes of white sugar in 2000, 15% of world exports. (European Commission, 2003) In the absence of EU export subsidies and sugar dumping on world markets, these countries will be able to exploit their potential to increase exports. They should also benefit from higher prices, as EU policy will not depress world prices to the same extent.

While such competitive producers will clearly benefit from EU reform, the effects on other developing countries are less clearcut, and more troublesome.



Source: The Economist, 2004.

African, Caribbean and Pacific Producers

EU reform will impact negatively on ACP countries, which have enjoyed preferential access to the lucrative EU market for exports of raw sugar cane under the The Lome Convention (1975) and the Cotonou Agreement (2000). This system was designed to secure 1,304,700 tonnes of imported raw sugar cane primarily for British refineries. As EU prices have soared relative to world prices, this scheme has been viewed more as a form of development aid to former colonies.[3] Furthermore seven EU refineries are allowed to import an additional 474,300 tonnes of Special Preferential Sugar from ACP countries and India under the Maximum Supply Needs scheme. Therefore 1,779,000 tonnes of raw sugar exports from these developing countries are eligible to receive the high EU price. Sugar production in many of these countries is relatively inefficient, and may be unsustainable, given a 36% reduction in the EU price[4].

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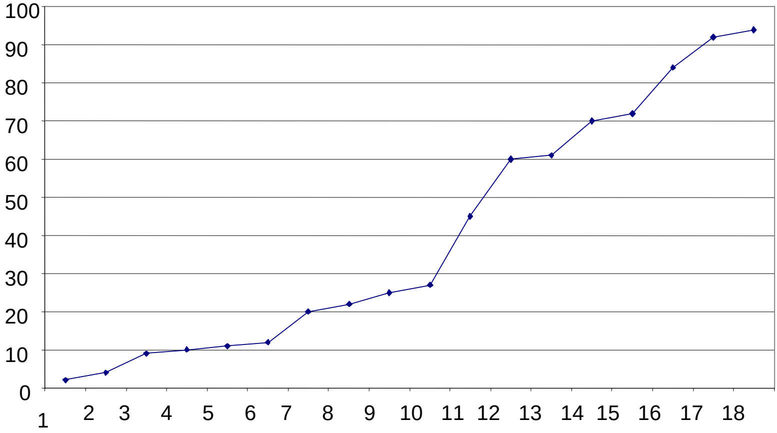
[3] Preferential trade is widely regarded as an inefficient method of development aid. Direct financial transfers would be more beneficial to developing ACP countries.(Chaplin, 2005)

[4] These figures are taken from Chaplin & Matthews 2005b P.3 but I don't see the need for a reference as it is common knowledge. Also EC 2004

Figure 3: Sugar Protocol Countries 2003: Exports to EU as a percentage of Production



Legend		
1 Kenya	2 Mozambique	3 Zambia
4 Zimbabwe	5 Tanzania	6 Congo
7 Madagascar	8 Cote d'Ivoire	9 Swaziland
10 Malawi	11 Belize	12 Guyana
13 Fiji	14 Trinidad	15 St. Kitts
16 Jamaica	17 Barbados	18 Mauritius

Source: European Commission 2005c

ACP countries have launched scathing attacks on the EU's reform package. While recognising the need for reform, they see this proposal as a callous move, designed to load the burden of reform onto ACP countries. Such developing countries are reliant on the sugar industry for employment, and foreign exchange earnings. 'Sugar generates 17% of GDP in Guyana and 24% in Swaziland, while in Fiji sugar production is responsible for 90% of agricultural output.' (ACP, 2005a:1)

Sugar production in ACP nations exhibits multifunctional benefits - plantations "provide vital ancillary services such as healthcare, education and social services in rural districts, while reducing migratory pressure on urban areas." (ACP, 2005a:1, Oxfam, 2004) Sugar cane's aesthetic appeal is important for tourism in countries such as Barbados, and it is also environmentally friendly. Many ACP nations are vulnerable to natural disasters, and potential replacement crops for sugar could not survive tropical cyclones. Reform threatens such benefits.

ACP countries have highlighted the social consequences of the decimation of their sugar industries. Fiji, Barbados, Jamaica, Guyana, Mauritius, Belize, St.Kitts & Nevis and Trinidad are likely to face massive upheavals, and probable exit from the sugar industry in the wake of EU reform. This would have dire consequences for rural employment levels, and may precipitate social unrest. Unskilled rural labourers will struggle to find alternative employment. ACP countries have lambasted the EU for failing to give them sufficient time, with price cuts taking effect from July 2006. Clement Rohee, Minister of Foreign Trade of Guyana and Ministerial spokesperson on sugar for CARICOM, believes that "it is impossible to overstate the devastating impact the price cuts and timescale proposed will have on ACP countries. Sugar industries in many countries will be unable to survive, while in others the so-called reform will inevitably lead to severe cutbacks with disastrous socio-economic consequences." (ACP, 2005b:1)

Although ACP countries have adopted a common stance in opposition to the proposal, some will not be affected as severely as others. ACP countries, which are also less developed countries (LDCs), should be able to offset the ill-effects of the price cut by increasing export volumes, as the EBA Initiative takes effect. Zambia, Malawi, Zimbabwe, and Tanzania fall into this category. If these producers can remain competitive (or if others become competitive) they will also reap the benefits of diminished competition from EU exports in third markets. ACP criticism of the reform has overlooked this opportunity.

As the EU only imports raw sugar cane, ACP producers have been denied the chance to add value to their produce, by developing their own sugar-based food industries.(Oxfam, 2002) Reduced dependence on the EU, and improved prospects in third markets may offer countries such as Swaziland the opportunity to develop the value-added sector of its sugar industry. ACP countries published an alternative proposal, calling for less drastic price cuts implemented over 8 years. These recommendations were ignored, as they preserve the underlying problems with the CMO. However unappealing in the short-term, it may be beneficial for ACP countries to diversify away from an industry, where they are inefficient. ACP representatives have expressed their preference for an EU assistance programme, which would promote productivity gains, and focus diversification efforts within the sugar industry.[5](ACP, 2005a) Perhaps many ACP countries should acknowledge that their sugar industries are unsustainable, and instead of futile attempts to save a rotten industry, should

[5] Sugar industries in ACP countries may be better able to survive, if they can gear production towards alternative uses such as rum or ethanol. In Brazil such activities account for a large proportion of raw sugar production.

embrace reform, and concentrate on restructuring their ailing economies with as much technical and financial assistance as is possible to extract from the EU.

Less Developed Countries

The fledgling EBA Initiative has already yielded benefits for some of the planet's poorest countries. Although efficient sugar producers such as Mozambique, Ethiopia, and Sudan can only avail of small quotas, the stability provided by the prospect of increasing access to the EU market has revived their sugar industries. 'Mozambique is making solid progress in agriculture. Sugar production is now running at more than 200,000 tonnes per year-the highest since the early 1970's' (Economist Intelligence Unit, 2005:1). Investors can make decisions in the knowledge that the price for a certain volume of sugar exports will be guaranteed by the EU.

'In Mozambique and Zambia more than three quarters of the population live on less than $2 a day'(Oxfam, 2004:4). In the case of Mozambique 'the sugar sector was the single largest source of formal employment in the country, employing 23,000 workers in 2001' (Oxfam, 2002:25). Clearly the revival of the sugar industry, arising from access to EU markets, can play a key role in lifting such countries out of their current malaise. In this context it is important to investigate, whether EU reform will retard this vital rehabilitation process.

Under the lower EU price, LDC export revenues will be lower and investment in sugar industries should not be as buoyant, as it would be in the absence of reform. If market access had preceded the fall in sugar prices LDC's would be better placed to attract foreign investment and quickly grow their sugar industries. Nonetheless access to the EU market remains lucrative to these countries, and export revenues will rise dramatically for efficient producers. In the absence of reform, the EU would not be in a position to offer this access. Consider the counterfactual case of a reform proposal, which instead of cutting the guaranteed price, would require EU farmers to reduce production still further, in order to make way for a flood of more competitive imports. Politically such a reform would be unviable.

If a sharp fall in the EU intervention price was inevitable, then this reform can be viewed as necessary to ensure that the improved market access, promised under the EBA Initiative, will not be postponed once again. Furthermore the fact that fewer LDC's will be in a position to export sugar under the EBA may be a blessing in disguise. Lower (although still lucrative) prices will ensure that some uncompetitive sugar producers will miss out. Perhaps they have no place in sugar production, if they are unable to take advantage of preferential trade. Negative future effects will thus be reduced. It is less likely that inefficiencies in sugar production will become locked into LDC economies, as was the case for ACP producers.

Is this reform fair?

Having examined the likely impact of this reform on developing countries, it is clear that although beneficial to some producers, it entails massive and sudden upheaval for others. Bearing in mind the need for reform of this magnitude, I believe that the EU could do a lot more to ease the hardship of ACP producers. The timescale is far from ideal, allowing ACP producers little time to prepare for a sharp fall in revenue. However it is the EU's perceived lack of interest in the plight of poor farmers that has particularly aggravated ACP countries. The assistance on offer to ACP farmers is derisory in comparison to the generous compensation which EU farmers will receive. Details of the proposed assistance scheme for ACP are yet to be formulated, however the 40million euro earmarked for 2006 is absolutely inadequate, especially when contrasted with the hundreds of millions promised to richer EU producers. Given that the fall in prices may decimate sugar industries in many countries, it is clear that such a scale of assistance package will fail to help ACP countries improve competitiveness, achieve diversification or maintain the social services and rural balance currently supported by the sugar industry.

ACP countries are more dependent on sugar production than EU economies. Due to climatic conditions, ACP farmers may not be able to produce other crops, while EU farmers will use their land in other ways. ACP farmers and factory workers are likely to face greater difficulties in finding alternative work than their EU counterparts. As such it is unacceptable that the EU has chosen to spend virtually its entire current sugar budget (1.3billion in 2004, European Commission, 2005e) on compensating its own farmers, while ignoring ACP farmers. The reform can be viewed as a transfer of hundreds of millions of Euro from farmers in developing countries to EU consumers. If the EU is not prepared to offer direct compensation, surely it could provide more assistance to help these countries cope with the socio-economic upheaval, which many will soon face.

Conclusion

The EU has obligations to three groups of developing countries. Competitive exporters will enjoy more favourable prospects, following the EU's fulfillment of its WTO commitments. ACP producers and LDC's, which currently benefit from preferential trade with the EU, will see their export revenue diminish as a result of this reform. Sugar industries in LDC's will not benefit as dramatically as they would in the absence of reform. However the fact remains that competitive producers will enjoy the fruits of full market access by 2009. While painful restructuring is inevitable for some overly-dependent ACP economies, it is by no means clear to me that this is not in their long-term interests. Dependence on the EU has guaranteed sugar exports but perpetuated a restrictive misallocation of resources. Reform will help reverse this scenario. Although it is not contravening the Cotonou Agreement, the EU should not shirk its responsibility to aid these nations in their efforts to minimize hardship caused by sudden structural change. EU leaders must heed the calls of ACP leaders for increased assistance. While reform is desirable, the negative effects of adjustment in developing countries could be minimized by a more compassionate offer of assistance from EU leaders, who thus far have overlooked poor producers in their haste to appease powerful vested interests within the EU.

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PSYCHOLOGY AND THE ECONOMY OF IRELAND

ANDREW ALLEN

Senior Freshman

The preceding essay in this journal established that economics needs to develop closer links with psychology in order to move the scope and understanding of the discipline forward. Andrew Allen now enhances the economic theory explaining the Celtic Tiger with a psychological perspective on this phenomenon. He asserts that in our efforts to maintain such economic growth we need to complement sound economic policies with psychological insights.

Introduction

An underlying assumption in a vast number of economic models and theories is that of rationality. Individuals are thought of as economic actors who maximise their utility subject to a budget constraint and companies set marginal revenue equal to marginal cost in order to maximise profit. There is certainly some merit to this approach, particularly in the aggregate, but in reality the actions of individuals and companies alike can not always be thought of as rational.

The Celtic Tiger economy of the 1990s is a success story that has received much attention from both political and economic commentators worldwide. The majority of studies and writings on the reasons for Ireland's economic success, contain recommendations on which course of action should be taken in order to maintain growth, using economic theories which assume rationality. However further insight into the economy's performance can be gained by using principles of behaviour in general, rather than just assuming all human behaviour to be rational. Sub disciplines such as social, developmental, evolutionary and, of course, organisational psychology can complement the study of the Irish economy. When analysing the factors that influenced rapid growth in the 1990s and determining to what extent rapid growth should be considered tantamount to an increase in the happiness of Irish citizens, it is helpful to examine the relevant issues using the theories of psychology in conjunction with those of economics. This essay will do just that.

The first section looks at the limitations of using economic growth as a measure of the quality of life or happiness of a nation. The second section examines the issues affecting Ireland's competitiveness and looks at ways of maintaining competitiveness in future years. The third section looks at taxation and efficiency while the fourth examines factors that influenced the Celtic tiger. The fifth section deals with employment and the sixth section concludes the paper.

The Limitations of Economic Growth

In the last decade, and especially in the late nineties, Ireland has experienced strong economic growth. Obviously, from an economic perspective, this is viewed as beneficial. However, economic growth is a means through which the *utility* of people is increased and the term 'utility' is essentially interchangeable with 'happiness'. In "The Psychology of Happiness", Argyle (2001) points out that psychological research at large has not found material income to be the most successful determinant of happiness. Rather, happiness is correlated to a greater extent with social factors, such as family and friends. At a more basic level, it is linked to neurotransmitters such as dopamine and serotonin, which are activated through goal-related activity such as sport or indeed work (Argyle, 2001).

Bank of Ireland recently predicted that economic growth in 2006 will be driven by increased incomes, rather than increased credit. However, the increase in credit in the Irish economy of the last few years is simply too large to ignore. Research by Brown et al. indicated that non-residential mortgage credit in particular is linked with increased levels of stress (and with it, decreased utility). Although long-term increases in credit are arising from residential mortgage loans, credit in the last few months has been driven upwards by non-mortgage credit (Brown et al, 2005). Increased levels of stress within the population will moderate the benefits of any economic growth that this credit brings to the economy.

If we assume technology is driving Ireland's economic growth, as the Solow model proposes, then modern Irish lifestyles are becoming more divorced from their evolutionary heritage. An example of this is the increasing incidence of obesity in Ireland. Obesity among Irish children is growing at a rate of 1% per year. This will almost certainly place an increased burden on the health system in years to come. Evolutionary psychology argues that early humans developed a predilection for foods high in fat and sugar, as these foods were in short supply. With fast food and 'junk' food (as a result of advances in technology) increasingly available to the Irish population, obesity is the result (Lazar, 2005).

Competitiveness

As wages are continually rising in Ireland, one method of maintaining competitiveness is through workers giving better 'value for money'. Obviously, education is one method of doing this. Another is reducing the amount of stress within the workforce in order to increase productivity. It is estimated that tens of millions of workdays are lost every day in the E.U. due to stress-related illness. Organisational psychology research has indicated that a good social support system within the work place and employee training in stress management significantly reduces stress. In fact, U.S. research has shown that every dollar spent on stress management yields over five dollars worth of improved job performance (Statt, 2004). Ireland will be less able to compete if it has a stressed-out work force.

A competitive economy should have strong innovation. Extensive psychological research has been conducted on this topic. One method of innovation frequently used by firms is that of "brainstorming", where workers meet and suggest as many ideas as possible before deciding which ideas are the most effective. However, research by Diehl & Stroebe has shown that brainstorming is actually less effective than workers thinking up ideas by themselves and then coming together (as cited in Hewstone et al., 1997). However, brainstorming is still a popular practice. Irish firms should be made aware of the limitations of brainstorming.

Ekvall devised a Creative Climate Questionnaire, which he contended measured aspects of working environments that are correlated with innovation. (It should be noted that innovation is not just the creation of new products, but also of better ways of doing things within a company). These include humour, trust and emotional involvement with the performance of the workplace. These factors also tend to be linked with overall job satisfaction (Ekvell, 1996). A survey by the Irish Independent recently indicated that the most common reason for workers leaving firms is a failure to get on with their co-workers. It is quite likely that a lack of humour or trust is evident in these situations.

Guilford argued that creative/innovative thought is driven by the ability to think divergently (i.e. thought which does not slip into the trap of being habitual). By exercising one's ability to think divergently, one can become more innovative. Guilford tested this by using tests such as asking people to think of as many different uses for a brick as possible. The divergent thinker should be able to think of many different uses and also many different kinds of uses (Guilford, 1984). That Edward DeBono can charge over €500 for a course in this kind of thinking is indicative of the value workers and firms are beginning to place on divergent or ‘lateral’ thinking.

Taxation

One of the canons of taxation is efficiency, and an efficient tax should have little scope for evasion. However, Wenzel (2005) has pointed out that compliance with taxes is closely linked with the mores of one’s social group. If there is a ‘subculture’ of not paying taxes within a certain group (e.g. some politicians in earlier decades if not today) then measures such as tax havens may not prove as effective as hoped. Although such havens may promise confidentiality (to prevent fear of disgrace etc.) they ignore the psychological support tax evaders gain from their shared participation in the crime.

Another canon of taxation is equity. Unfortunately for policymakers, the idea of ‘equity’ is almost purely subjective. Lewis asked people whether or not they agreed with the statements ‘I find tax to be an imposition’ and ‘Tax helps to pay for essential services that aid to the greater good’. While around half of people agreed with the first statement, 80% agreed with the second! (Lewis, 1982).This demonstrates the psychological construct known as cognitive priming. If a particular idea is mentioned to us, our subsequent thoughts will be coloured by that thought. One could well imagine a discussion on ‘Questions & Answers’ about income tax. If the most articulate speaker on the programme argues that income tax is unfair, then the viewers will in future be more likely to perceive the injustices of income tax. If the most articulate speaker champions income tax on the grounds that it is progressive, then viewers will develop a more positive attitude towards income tax.

The Celtic Tiger

The strong increase in economic growth during the nineties was linked to entrepreneurial spirit (among other things). Entrepreneurial spirit is more evident in people who have what psychologists call ‘an internal locus of control’. What this means is that the person in question believes that he has control over his own life. Hofstede has found in a major cross-cultural study that internal locus of control is to be found more frequently in individualistic societies. It would not be erroneous to suggest that Irish society has become more individualistic, particularly following the demise of the Catholic Church’s extra-secular influence.

Foreign direct investment from the USA continues to be a large factor in strong economic growth. It has been suggested that US investment in Ireland is determined by cultural factors as well as incentives such as low tax, access to E.U. markets and an English-speaking work force. This is illustrative of the ingroup/outgroup effect described by social psychologists Turner & Tajfel in their social identity theory (1979, as cited in Hogg & Vaughan, 2005). We consider ourselves to be part of an 'in-group'. Those who do not belong do the in-group form the out-group. We are more attentive to the positive traits and less attentive to the negative traits of fellow members of our in-group. The inverse is true for the out-group. So it goes with US investors. As Ireland is culturally similar to the US, not to mention a huge number of Irish descendents currently live in the US, US investors will notice positive aspects of Ireland more swiftly than they will notice positive investment opportunities in culturally diverse countries.

Employment

In the last ten years Ireland has seen increasing immigration of workers from foreign countries. An ESRI report has shown that although many immigrants have good qualifications, they tend to end up working in lower-skilled employment. Economic theory would suggest that indigenous lower-skilled workers should feel threatened by competition for work by such immigrants. However, research by Dustmann (2004) indicates that feelings of animosity towards immigrants (where they exist) are at least as determined by old-school xenophobic prejudice as rational, economic thought processes. This would suggest that a policy of anti-prejudice education and advertisements (as can be seen in the kNOw RACISM campaign) would be effective in combating anti-immigration sentiment.

Long-term unemployment has not been a serious problem for Ireland in recent years. However, research by Ek et al indicates that long-term unemployment is, in some ways, determined years before it occurs. Among the long-term unemployed, incidence of adolescent bullying is three times higher than it is in the general population. Low social status as an adolescent is also associated with long-term unemployment in adulthood, particularly among males (Ek, 2005). This indicates that truly effective active labour market policies should target those adolescents who are at risk of being long-term unemployed in the future, and not just those who have already suffered the effects of histeresis.

As technology continues to progress, constant re-skilling of the work force is becoming a necessity. Developmental psychologists have pointed to the risks of a generation gap in continued up-skilling. As workers grow older, they become less likely to engage in voluntary training programs in work and tend to prioritise security and leisure over education and advancement (Berk, 2001). With a gradually ageing workforce, Ireland should not allow older workers' skills decay due to a lack of ongoing training.

Conclusion

The Irish experience is one which many countries, particularly the ten new EU accession states, will seek to emulate. There are many lessons to be learned from Ireland's economic success in the last fifteen years, however governments would do well to note that economic processes are always and everywhere coloured by the intricacies our psychology.

We examine the past so that we may look to the future. The last ten years have been kind to the Irish economy, but complacency is a great threat to its next ten years. In continuing to strive for greatness, policymakers and firms should take account of how psychological processes affect the outcomes of their decisions and how their decisions in turn affect people's psychological well-being. Above all, the fatal assumption of humans as rational economic agents should be left to textbooks.

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IRELAND, A NON-RUNNER IN THE RACE TO THE BOTTOM

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Senior Sophister

The impact of immigration on the Irish economy is an issue that is presently at the centre of fiery political and economic debate. Thomas Conefrey uses recently released data to analyse both the fears and the benefits surrounding the large influx of immigrants into the Irish economy and into the EU in general. He considers the challenges posed and looks to the lessons that can be learnt from such migratory flows in the past.

Introduction

Recent high profile industrial relations disputes provoked a revival in the contentious debate as to the effects of immigration on the Irish economy. Not surprisingly, it was those on the extremes who grabbed the headlines from the unyielding free marketeers, who claimed that any attempt to restrict immigration would wreck the economy. These headline grabbers argued that unrestricted immigration was facilitating a race to the bottom in employment standards.

Data recently produced on immigration and employment in Ireland and the EU has added some much needed clarity to this confused and often ill-informed debate. Far from leading to the widespread displacement of Irish workers and to a deterioration in working standards, the data indicates that immigration has had a largely benign influence on the labour force and on the Irish economy. At the same time the importance of being alert to the challenges of large scale immigration has been emphasized.

This essay will begin with a discussion of the reasons for the fresh rise to prominence of immigration related issues in Ireland. Section 2 will analyse the data on immigration and its impact on the Irish and other European economies. Migratory flows are, of course, not unique to the 21st Century. The work of economic historians on previous migrations can provide some illuminating insights for today's policy makers and these will be explored in section 3.

The Immigration Debate in Ireland

Following the accession of ten new member states[1] into the EU on May 1st 2004, issues surrounding the rights of migrant workers from these new states quickly rose to the surface. Article 39 of the Treaty of Rome provides for the free movement of persons within the community and is thus is one of the most fundamental freedoms guaranteed by community law (Commission, 2006). All EU migrant workers and their families are entitled to equal treatment not only in employment related matters, but also as regards public housing, taxation matters and social welfare benefits.

In order to quell member states' fears of being overrun by a sudden influx in immigration upon accession, the Treaty of 2003 allowed for a temporary derogation form the fundamental principles as set out in Article 39. The Accession Treaty sets out 'Transitional Arrangements' whereby restrictions to obtaining access to the labour market can be applied to migrant workers (Commission, 2006).

Three EU15 countries, Ireland, Sweden and the UK[2] decided not to avail of the Transitional Arrangements and have not applied restrictions on access to their labour markets by EU10 nationals. All other EU15 countries have maintained a work permit scheme, in some cases combined with quotas (Commission, 2006).

By not applying any labour market restrictions, concerns were raised that Ireland had left itself unduly open to the possibility of an influx of foreign workers from low wage countries whom, it was feared, would displace higher paid Irish workers and raise unemployment. With the average minimum wage in the accession countries 74% lower than minimum wages in the EU15 and with unemployment rates typically twice as high in the EU10, it was feared that these acute economic differences would attract a flood of migrant workers to Ireland (Van Suntum, 2005).

With substantial wage gaps between Ireland and the accession countries (wages in the EU10 on average one fifth of those in the EU15, Van Suntum, 2005) it was predicted that without restriction, labour would shift to the areas where returns are highest, depressing wage levels in Ireland and increasing them in the accession states as standard Hechscher-Ohlin trade theory would predict. Trade unionists accordingly issued dire warnings of

[1] For ease of expression, the ten new accession countries will also be referred to in this essay as the EU10. The original 15 Member States that comprised the Union prior to the 2004 Enlargement will be referred to as the EU15.

[2] The UK has introduced a Worker Registration Scheme but there are no ex ante restrictions.

widespread displacement of Irish workers by cheap migrant labour from Eastern Europe (SIPTU).

The dispute at Irish Ferries, whereby management were attempting to replace Irish workers with cheaper foreign labour, was seized upon by the unions as evidence that job displacement was no longer “isolated or exceptional” but happening across a range of sectors (SIPTU). The Labour Party called for the imposition of permit system for workers from the new EU states to prevent further job displacement in Ireland. Despite relying on largely anecdotal evidence, the Irish Ferries dispute thus brought to the surface fears about the displacement of Irish workers by immigrants.

In the absence of comprehensive data on immigration, these results indicate that peoples’ attitudes towards migrant workers were being influenced by the largely unsubstianted claims of job displacement brought sharply into focus by the Irish Ferries dispute. The existence of these fears among the majority of Irish voters was confirmed in a recent opinion poll (The Irish Times, 2006a). Recently released data has allowed for an objective examination of these immigration issues and can be used to dispel some of the myths of the economic impact of the migrant workers.

Immigration Flows and Job Displacement in the Irish Economy: The Evidence

The two crucial immigration issues are the scale of the current inflow of foreign workers into the State and whether and to what extent Irish workers have been displaced by these lower paid immigrants (The Irish Times, 2006b). I will firstly examine some EU wide evidence on the scale of the immigration flows before examining more recent and detailed CSO data on immigration and job displacement in Ireland.

The European Commission recently produced a report on the workings of the transitional arrangements for access to EU15 labour markets. The report indicates that the proportion of the working age population from the EU10 Member States within the EU15 was small, being largest in Ireland at 2%. Between 2003 and 2005 the figures have been stable providing little evidence of a sudden large increase in immigration in the member states (Commission, 2006).

Significantly, the data also indicates that immigrants have had a positive impact on the labour markets of the member states to which they have had free access. The figures show that in Ireland, Spain and the UK, EU10 nationals have significantly higher employment rates than country nationals.

The argument that EU10 immigrants were being forced into low paid sectors and at risk of exploitation was highlighted earlier. Contrary to these claims however, the employment rate of EU10 nationals in EU15 countries has increased. This may be due to the official recognition given to previously undeclared workers from the accession countries and the enhanced clarity afforded to their legal status following enlargement. Enlargement has thus been beneficial to the welfare of EU10 workers (Commission, 2006).

Table 1 presents the first evidence with which to confront the claim of worker displacement. While the data is at the aggregate EU level, it is still useful in indicating that immigrant workers from the EU10 States did not ‘crowd out’ national workers with only minor differences in the concentrations of EU10 and EU15 workers in the various sectors of the economy suggesting that EU10 workers have a complementary role to play in the labour market (Commission, 2006).

Table 1: EU15 Employed Population by Nationality and Sector 2005.

Activity Sector	Nationality		
	National %	EU 15 %	EU 10 %
Agriculture/fishing	4	2	3
Industry	18	19	18
Construction	8	8	15
Retail/hotels	25	28	28
Financial/real estate	13	16	14
Public admin./ed.	32	27	23

Source: Commission, 2006.

Further evidence of the positive influence of immigrant workers on the labour force in the EU is provided in Table 2 which indicates that the proportion of EU10 nationals in EU15 Member States with low level qualifications is lower than for nationals of those countries.

Table 2: EU15 Resident Working Age Population by Nationality and Education Level

Education Level	Nationality			
	National %	EU 15 %	EU 10 %	Non-EU %
Low	31	36	21	48
Medium	46	39	57	35
High	23	25	22	17

Source: Commission, 2006.

The proportion of EU10 nationals with medium level qualifications is also higher (Commission, 2006). This indicates that EU10 immigrants can improve the skills base of EU countries and alleviate skills shortages in certain sectors such as construction. The role of immigrants in promoting human capital accumulation in Ireland has been critical to maintaining the growth of the economy where an estimated 40,000 new workers are needed each year to meet demand in a booming economy.

To summarise, the aggregate EU data indicates that:

- Labour flows between the EU10 and the EU15 as a proportion of the working age populations have been small and stable before and after enlargement.
- EU10 nationals in EU15 countries are more likely to be working than native citizens and possess comparable levels of educational attainment.
- By providing a firm legal standing for EU10 nationals, there is evidence that enlargement has improved employment standards for immigrant workers.
- There is no evidence of the displacement of national workers by the meager inflow of EU10 workers.

Contrary to the claims of displacement, higher unemployment and lower working standards, the analysis so far indicates 'major benefits' to countries from opening their labour markets to immigrant workers (Commission, 2006). Data recently published by the Central Statistics Office (CSO) for Ireland confirm the existence of these benefits and cast further light on the question of job displacement.

Overall, the CSO data indicates that employment increased by 86,500 or 4.7% last year, the highest annual rate of growth since 2000 (CSO, 2006). Over half of the 86,500 new jobs went to foreign workers bringing the total number of Non-Irish Nationals at work in the state to 171,000. Fewer than 62,000 of these workers came from the new accession states (CSO, 2006).

Turning to the issue of displacement, Table 3 shows that of the 11 main economic sectors, 10 recorded higher numbers at work in 2005 than at the end of 2004. In only two of the eleven sectors is there evidence of possible displacement of Irish workers. In manufacturing ('Other Production Industries') the number of Irish nationals at work fell by 19,900 while the number of foreign nationals working in the sector increased by 7,200 resulting in a net loss of 12,700 jobs. Similarly, in the hotels and restaurants sector the number of Irish workers fell by 800 while the number of foreign nationals in the sector increased by 3,600 (CSO, 2006).

Table 3: Net Change in Irish Employment, Q4 2004-Q4 2005 ('000's of Persons)

Sector	Total Change	Irish	Foreign Nationals
Agri./Forestry/Fishing	2.8	2.0	0.7
Other Production Industries	-12.0	-19.9	7.2
Construction	25.8	16.1	9.6
Wholesale/Retail	19.6	14.0	5.5
Hotels/Restaurants	2.9	-0.8	3.6
Transport/Storage/Communication	2.6	1.3	1.3
Financial/Other Business	15.3	9.1	6.1
Public Admin./Defence	6.3	6.1	0.1
Education	9.4	8.2	1.3
Health	9.0	4.9	4.3
Other Services	5.8	2.8	3.3
Total	86.5	43.1	43.3

Source: CSO Quarterly National Household Survey, 2006.

It would be wrong, however, to imply that this decline of over 20,000 in the number of Irish workers in these two sectors is evidence of direct displacement. It is likely, given the strength of the Irish labour market that the decline in the number of Irish workers in these sectors reflects the movement of lower paid Irish workers into higher wage employment. Given the increase of 43,000 in the number of Irish workers in 2005, it seems plausible to suggest that the immigrants replaced, rather than displaced Irish workers while at the same time maintaining the competitiveness of the labour intensive Irish manufacturing and hospitality industries (The Irish Times, 2006b).

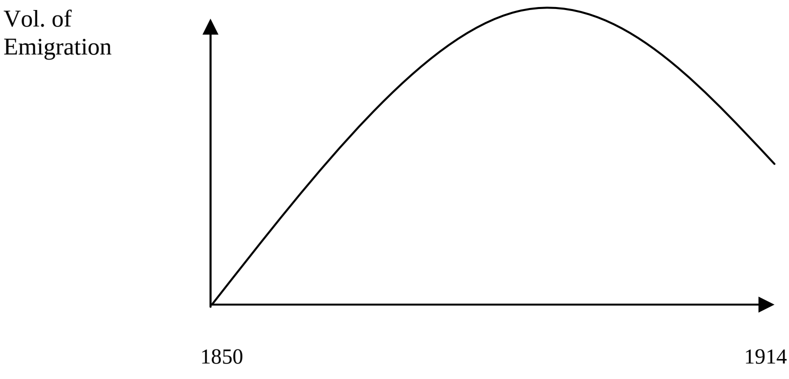
Rather than displacing Irish workers, immigrants have entered fast growing sectors of the Irish economy (as indicated by the aggregate EU data) relieving labour supply bottlenecks and helping sustain economic growth. In construction and in the hotels and restaurants industries foreign nationals account for 10% and 21% of the workforce respectively (CSO, 2006). Meanwhile, in every quarter since workers from the accession states were granted free access to the Irish labour market, unemployment has fallen. The Irish unemployment rate is 4.2%, the lowest in the EU and less than half the EU average of 9% (CSO, 2006).

To summarise, the data contradicts the view that immigration poses a threat to the Irish economy. On the contrary the evidence indicates that immigration has strengthened the Irish labour market and provided a vital impetus to Irish economic growth by increasing the overall level of employment, relieving skills shortages in key sectors and facilitating the movement of Irish workers into higher wage employment. At the same time, the European Commission has argued that enlargement has improved employment standards for immigrants. The conclusion that immigration is driving a race to the top does not appear unreasonable.

Lessons from History: European Emigration 1850-1915

Finally, while Europeans today may be grappling with the impacts of immigration, it was emigration which persisted on the continent for much of the 19th Century. Between 1820 and 1914, 60 million Europeans emigrated to the New World (O'Rourke and Williamson, 2000). The nature, causes and consequences of this mass migration have been much examined and this brief analysis merely scratches the surface to reveal some enduring lesson for today's policymakers.

Figure 1: The stylized pattern of European Emigration 1850-1914.



The Figure shows the stylized pattern of European emigration. In the early stages, emigration is constrained by enormous wage gaps between Europe and the New World. As industrialization occurs in the home country, wages rise and the constraint on emigration is released. Emigration increases dramatically and this coincides with rising home wages as emigration acts as a vent for surplus population. Eventually real wage convergence between the home and destination country causes emigration to taper off (Hatton and Williamson, 1994).

This analysis provides two clear lessons. Firstly, by increasing wages at home emigration is eventually reversed as wages levels at home become comparable to those in the destination country. History shows that emigration is a self-limiting process. Of its own accord, emigration from a poor country will eventually decline (O'Rourke, 2004). Secondly, by blocking immigration, rich countries are inhibiting the convergence of wages and living standards on poor countries. Mass migration holds out the possibility of a more efficient allocation of labour by allowing the movement of workers to areas where they are most productive. Indeed, it has been argued that freeing up world migration could double world income (O'Rourke, 2004).

The fears of EU15 countries of being swamped by Eastern European immigrants are therefore ill-founded and short-sighted. By opening up their labour markets to immigrants from the EU10 States, the EU can expedite the process of real wage convergence which ultimately dampens the demand for emigration from these countries as domestic labour market conditions improve. This in turn will help drive the process of convergence in real wages and living standards between rich and poor with major benefits for the world as a whole.

Conclusion

In this Essay I have examined the contentious topic of the economic impact of immigration. I began by examining some of the reasons for the reemergence of debates on immigration policy in Ireland. The Enlargement of the EU in 2004 and Ireland's decision not to impose any restrictions on the movement of labour, in addition to the recent high profile Irish Ferries dispute all led to calls for the introduction of immigration restrictions to combat the alleged displacement of Irish workers and the threat of a so-called race to the bottom.

Section 2 surveyed the evidence for both Europe and Ireland, which presents the harmonious conclusion that immigration has been largely beneficial to the Irish economy. Immigrants were shown to have higher rates of employment and comparable levels of educational attainment to Irish workers. There is no evidence that immigration has had an adverse effect on conditions in the Irish Labour market. On the contrary, a record number of new jobs were created last year while the Irish unemployment rate remains the lowest in the EU. Where the number of Irish workers in certain sectors of the economy has declined, the overall strength of the labour market suggests that immigration has facilitated the movement of these Irish workers into higher paid sectors. Finally, the lessons from economic history which indicate the potential economic gains from freeing up international migration were discussed.

Large-scale immigration does present challenges especially in the event of an influx of unskilled migrants which could threaten to reduce wages and conditions for Irish workers (NESC, 2006). Governments must also be awake to the dangers of illegal and exploitative work practices and ensure that unscrupulous employers are dealt with under the full rigors of the law.

Right now, however, Ireland has much to gain from the type and volume of immigration it has been receiving. Immigration is vital in order to ease labour shortages in key sectors such as construction and financial services. In an ageing Europe, proper immigration policy can form part of the solution to the problem of stimulating economic growth while at the same time catering for the needs of an older population.

Europe must not be blind to these economic realities and to its obligation to enhance the economic wellbeing of its newest citizens.

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Student Economic Review, Vol. 20, 2006, pg. 115

THE WHITE PAPER ON EDUCATION: A FAILURE TO INVEST

AIBHISTIN O'DUBHSLAINÉ

Senior Sophister

High educational standards in Ireland are often cited as one of the main reasons for the emergence of the Celtic Tiger. To ensure continued high growth rates the government is conscious of the need to invest in education in order to maintain our knowledge economy. Aibhistin O'Dubhslainé considers the government's advancements in this area against their white paper on education, "Charting our Education Future".

Introduction

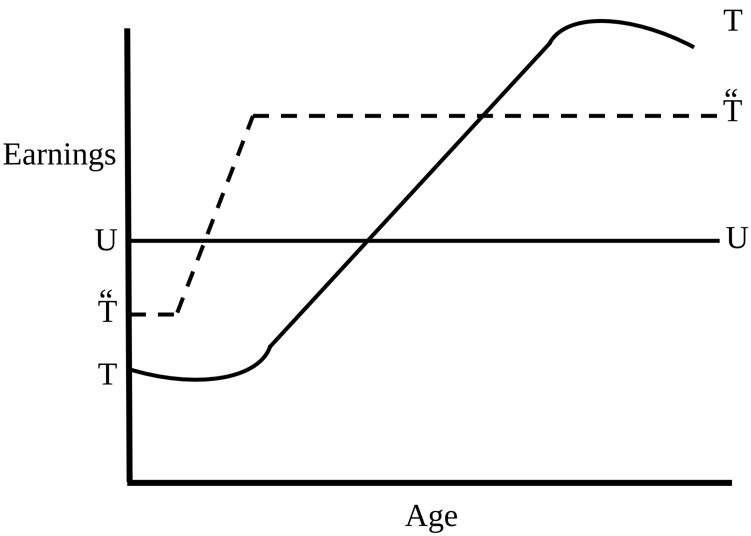
Eleven years ago the Irish government launched the white paper on education, "Charting our Education Future". This white paper outlined a plan to radically improve the education system. This paper contained two principal objectives: firstly to create a more equal education service and secondly, an education system geared to help advance the economy. This essay will evaluate the implementation of the white paper's objectives in primary education and in the education of science, mathematics and foreign languages. Prior to this, the essay will present the theories explaining the benefits of education to the economy. These benefits produce externalities and thus provide the basis for state involvement in education. The essay will conclude that there has been considerable progress towards the two objectives of equity and providing for economic expansion. In absolute terms, the government's white paper has failed to achieve its objectives.

Importance of Education

There are two theories that explain the importance of education to the economy: human capital theory and the signalling theory. Human capital theory argues that the accumulation of human capital is an important element of economic growth. In contrast, signalling theory states that the level of education is an indication of behavioural traits that employers are looking for. Human capital theory is an analysis of the relationship between the functions of education and economic growth. Education enables people to develop analytical skills and cognitive abilities. Education teaches children to analyse information and to utilise this acquired knowledge.

These skills enable the labourer to increase his productivity in two ways. Firstly, a labourer can use his existing working capital more efficiently. Welch (1970) argues that education increases the worker's speed and quality due to increased knowledge and understanding of the specific tasks within the context of a larger firm structure. In addition the worker makes better decisions about the allocation of resources. Secondly, this acquired knowledge can then be utilised to innovate and to create technological developments. Positive changes in technology will improve the production of materials and the communication of information. An educated labour force will be able to adapt to technology change. Therefore this human capital investment will reduce the costs of production and increase firms' production possibilities.

Figure 1: Positive relationship between education and earnings



Schultz (1961) claims that the improvement in the capabilities of the labour force will generally have a positive income effect. Workers not investing in education (UU) will have the same earnings throughout their career as higher paid employment requires education. Workers investing in education (TT) will receive higher wages in the long run. The line T"T" adjust the life income take to take into the loss of earning during the education and the cost of education. It still exceeds the income of the uneducated worker (UU).

A well-educated labour force will attract highly paid employment. These skills are rare compared to the ability to undertake menial tasks. This means that a highly skilled labour force will receive higher wages in the long run than had they not invested in education as illustrated in figure 1. These higher earnings will increase the consumption possibilities of the labour force. Human capital investment increases production and consumption, two components of economic growth.

> "The heart of the whole process of industrialization and economic development is intellectual: it consists in the acquisition and application of a corpus of knowledge concerning technique[s]" (Landes, 1980:111).

The benefits of education are not in dispute; the signalling theory asserts that education distinguishes and identifies workers' abilities. This is a key benefit from investment in education. As Stiglitz (1975:283) points out, important information for the economy is the knowledge about "the qualities of factor or a commodity".

Skills required for most jobs are specific to that industry or even that particular job. Education consists of teaching general cognitive abilities. There is a mismatch between the demand and supply of certain skills. The signalling theory argues that education is a socialisation process. Education instils behavioural traits of persistence, punctuality and ability. The usefulness of education to the economy is not the material students learn at school or university. This work simply demonstrates the students' capacity to learn.

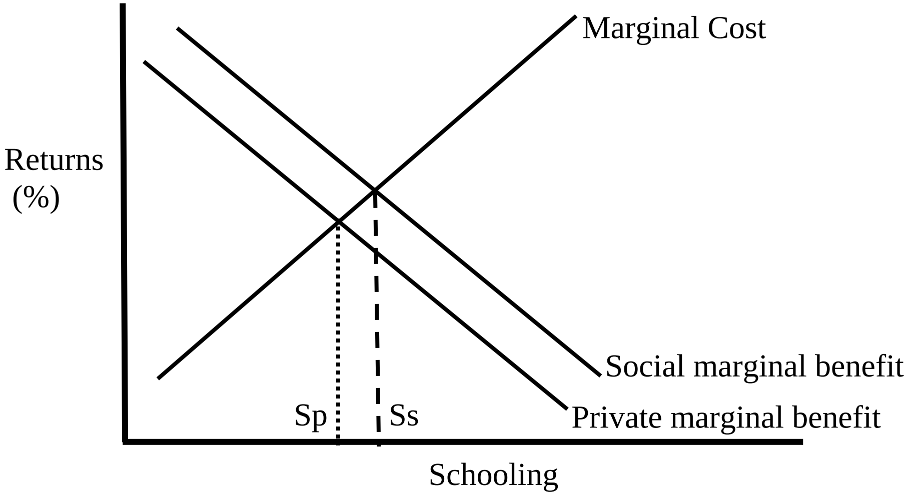
Employers act under a degree of uncertainty about the abilities of prospective employees and their suitability to the vacant positions. In most cases, it is too costly for employers to directly observe the abilities of all the applicants. Employers' experience of the labour market indicates that workers with a high degree of education are likely to have these behavioural characteristics. Employers use education as a proxy value for behavioural norms required to work in an organisation. Employees signalling these behavioural characteristics will increase their chances of acquiring employment and wage increases. These employees are perceived to be reliable and successful. Schooling theory has the same result as the Human Capital theory but the underlining process is different, the "relation between education and wages is a result of productivity-identifying role (instead of the productivity-augmenting role in the human capital theory) of education" (Groot & Hartog, 1995:34).

The two theories are not mutually exclusive and a synthesis probably explains better the role of education. Blaug (1985:19) explains that firms are looking for a "combination of particular personality traits and certain cognitive achievements". In the economy the different sectors prioritise between the human capital approach and the behavioural approach. Engineering firms generally require applicants to have studied engineering at university while business companies employ students from a wide range of backgrounds. Business companies use the level of education as a signal of the motivation and ability of its prospective employees.

Rationale for Government Intervention

The purpose of government interference in the education market is that there are positive externalities associated with investment in education. The government should consider all benefits to make a Pareto optimal allocation of investment in education (Weisbrod, 1962). Weisbrod identifies three different types of benefits: residence related benefits, employment related benefits and benefits to society in general. Residence related benefits are the intergenerational effect and the neighbour effect. The intergenerational effect is the informal education of the children in the homes of those who have received education. The neighbour effect is the dispersion of social and educational values into the local community. An example of the employment related benefits is the educated worker allocative decisions on the rest of the production process and how this increases the productivity of each labourer. There is also dispersion of knowledge in the personal interaction at the place of employment. The benefits to society are the increased communication of information, increased competitiveness within the market economy and the spread of democratic values.

Figure 2: Private and social optimum levels of schooling



As figure 2 shows individuals fail to take these externalities into account and will make investment decisions about education based only on private benefits. Society will under invest in education because it fails to recognise the social benefits of education. Also individuals might suffer from an imperfect capital marker and asymmetric information about education (Arrow, 1993). This will hinder their ability to participate in the education system.

Friedman (1955) argues that the state should subsidy those purchasing education and tax those that receive the benefits including external benefits, the welfare of both groups will be improved. This ensures a more equitable distribution of opportunities and is the least expensive way of enforcing minimum standards of education. The absence of state provided education would lead to a more unequal distribution of wealth and increase labour market segregation (Levin, 1991).

On the basis of this rationale, the Irish government provides significant funding for all levels of the education services. The government is constitutionally bound to provide education for all its citizens. The Irish government's white paper on education "Charting our education future" was launched in 1995 and the white paper set out ambitious targets to improve the Irish education system. It aims to achieve equality of opportunity for each individual in the education system and to increase Ireland's knowledge capacity to achieve economic prosperity (Department of Education, 1995).

Primary education

Primary education is the key to producing a more equitable Irish education service and the white paper recognises the importance of primary education. In Ireland, more students are enrolled in primary education than in either secondary or third level education (Department of Education, 2003). Primary education has more students from a disadvantaged backgrounds and the lack of investment in primary education is reproducing this inequality. The quality of primary education influences individuals' ability to complete secondary and third level education.

> "Primary education provides the foundation for all subsequent advancement in the education system. The most formative years in a young person's development are spent at primary school" (Department of Education, 1990:5).

Primary education teaches the basic skills of communication, literacy and mathematics. These skills are essential to achieving possible employment, personal interaction and a reasonable standard of living (OECD, 1992). At the time of the white paper's publication, there was a minority of students in primary schools who did not obtain basic literacy or arithmetic skills. The white paper's objective was that there are no students with literacy or numerical problems by the year 2000 (Department of education, 1995). In literacy, 3.1 percent of 15 year olds are below level 1 on the OECD PISA literacy proficiency scale in 2000 (OECD, 2003). At literacy skills, Ireland is ranked fifteen in the OECD. The Chief Examiner's Report on the Junior Certificate History Paper compared the ordinary level papers of 2001 to 2005 and found that basic literacy standards have declined. This is a stark indicator that not only is the white paper's objectives not being achieved, but in addition the quality of education is deteriorating.

`In mathematics, 4.7 percent of students are below level 1 on the OECD PISA mathematics proficiency scale in 2003 (OECD, 2005). Performance below level 1 means that the students are not able to use literacy or mathematics as a tool to acquire further knowledge and skills. The OECD reports show that the white paper has failed to meet its target objective of eliminating illiteracy and basic numeracy difficulties. Irish education is failing to equip all its pupils with the necessary social and cognitive skills to be effective workers in the economy. A good primary education system should have a low pupil-teacher ratio (Carnoy, 1995). Pupils receive more individual time in a smaller classroom particularly pupils with special needs. Small classrooms make it easier for pupils to interact in the classroom, thus improving their social capital. The white paper restates the government's commitment to reduce the pupil-teacher ratio, though it gives no specific target.

Table 1: Ratio of Students to Teachers in Primary Schools

	2003	2001	2000	1998	1996	1995
Ireland	18.7	20.3	21.5	22.6	22.6	23.6
OECD Average	16.5	17	17.7	17.1	18.3	18.2

Source: OECD education indicators

As Table 1 illustrates there has been a reduction by more than twenty percent in the pupil-teacher ratio in the last eight years. However, Ireland still exceeds the OECD average ratio. The Scandinavian region is a model of best practice for the provision of merit goods, like education.[1] The Scandinavian average ratio in 2003 is 12.9 (OECD, 2005). Ireland still requires a significant reduction in the pupil-teacher ratio to meet the OECD average. A reduction would lead to more effective teaching at primary school and would help students with literacy and numerical difficulties and students with special needs. A policy approach to reduce pupil-teacher ratio to a specific target that is similar to the Scandinavian average would create a more equitable primary education.

The high pupil-teacher ratio reflects the high level of underinvestment by the government in primary education. The white paper outlines the history of primary education expenditure. Real expenditure per pupil in primary education increased more than threefold from 1965 and 1995. Though over the last few decades, government has prioritised secondary and third level education at the expense of primary education. In 1966, 56 percent of expenditure on education went on primary education; in 1992 it was 37 per cent (O'Flaherty, 1993). The white paper calls for adequate funding of primary education and for this to be a priority (Department of Education, 1995).

[1] Merit goods are things that society deems necessary for every individual to have (Begg, Fisher & Dornbush 2003).

Table 2: Annual Expenditure on Primary Education per Student U.S. dollars converted using Purchasing Power Parities

	2002	2000	1999	1998	1995
Ireland	4180	3385	3018	2567	2144
OECD Average	5313	4381	5629	5760	3546

Source: OECD Education Indicators

The government has almost doubled its expenditure on primary education per student. This is significant progress towards the white paper aim of providing adequate resource for primary school teachers and administers. Nevertheless, Ireland has undergone tremendous economic expansion over the last decade and the fact that Irish expenditure is still significantly below the OECD average is disappointing. In 2002 Irish expenditure on primary education per student was only 60 percent of the Scandinavian average. Fuller (1986) argues that spending per pupil is an indication of the quality of the education service. In this regard, Ireland needs to increase investment to improve the quality of primary education and ensure equality of opportunity for every individual in primary education.

The low level of government's support for primary education is a factor in Ireland's performance at the later stages of education. The fact is 10.5 per cent of all those enrolled in third level education in 1998 came from households where the head was unskilled or semiskilled, despite making up nearly 20 percent of households nationally (Clancy, 2001). This outcome can be partially attributed to the lack of investment in primary education. Primary education, as the starting point for the education system, is the key to connecting young people with education and providing equality of opportunity.

Knowledge capacity and economic prosperity

Knowledge is crucial in securing employment, foreign investment and economic prosperity. Multinational companies seek skills in science, mathematics and foreign languages. Companies will locate their research and development departments where there is a high standard of scientific knowledge. These departments are costly to relocate so this is a long-term investment by these multinationals. Research and development means relatively secure employment. The white paper establishes a new scientific programme at primary level, which emphasises problem solving and critical thinking. In the junior cycle of the secondary level, the white paper made science part of the core required programme.

Some success has been achieved in improving the popularity of science amongst students. In fact, at third level the proportion of third level graduates in science exceed the OECD average (Expert Group on Future Skills Needs, 2003). Nevertheless, the science quality indicators explain better the situation rather than the quantity of students. In this regard, Ireland's mean score in the top two percentiles is below the OECD average in the scientific literacy of 15 years olds in 2000 (OECD, 2003). The percentage of Irish students achieving the highest level of mathematical proficiency on the OECD PISA scale is less than half that of the Scandinavian average and is just more than half of the OECD average in 2003 (OCED, 2005). This underachievement at secondary level has implications for student abilities and choice at universities. The proportion of students choosing science at universities has fallen from 14 percent to 12 percent between 1980 and 1998 (Expert Group on Future Skills Needs, 2003). Ireland is still behind the rest of the developed world in scientific knowledge and the white paper's new scientific programme has failed to promote the expansion of scientific skills.

The instruction time of science for 12 to 14 years old in schools is below the OECD average in 2001 (OECD, 2003). This is the root of the problem as not enough time is being spent teaching science subjects. Government policy should focus on increasing the number of science teachers and the number of hours schools devote to teaching science and mathematics. Science has suffered because the government's expenditure per student in both primary and secondary level of education is below the OECD average.

Ireland's increasing integration with the rest of Europe means languages skills are becoming more and more important. The European Union's public sector requires applicants to be fluent in three European languages. Multinationals operating in the European common market need employees with fluency in different languages. Many business deals and relationships are influenced by communication skills. The white paper's target is that all students should be studying at least one European language.

The implementation of this policy target is to tackle Ireland's low rate of comprehension of foreign languages. Yet in 2001 the instruction time of foreign languages for 12 to 14 years old in public schools in Ireland was less than two thirds of the OECD average (OECD, 2003). Ireland has the highest number of people with no knowledge of a foreign language in the EU. The EU average is 44 percent compared to Ireland's 66 percent (Irish

Independent, 2006). This problem weakens the Irish labour force's ability to compete with the labour force in other European countries.

Ireland's ability to conduct advanced research, particularly in science is critical to building up Ireland's intellectual capital. The investment in this high level of human capital allows for technological development, increases our national competitiveness and attracts pharmaceutical and I.T. companies. In 1995, Ireland's expenditure on research and development as a percentage of GDP was around 1 percent (OECD, 1998). This was below the OECD average in 1995. The white paper establishes a separate budget for research at the third level where additional funding will be available (Department of Education, 1995).

Intel's research and development department in Leixlip demonstrates that these skills create considerable amounts of secure employment. The additional funding from the white paper should enable more dispersion of these scarce research skills. The facts demonstrate that the white paper has failed to substantially increase the number of PhD undertaken in Ireland. Ireland's advanced research doctrines rates of graduation at the typical age cohort for graduation has persistently been below the OECD average from 1998 to 2003. Ireland graduation rate in 2003 is just above 1 percent compared to Sweden's 3 percent, the highest graduation rate in the OECD (OECD, 2005). In fact, the gap between Sweden and Ireland in the number of students graduating from advanced research programmes has increased from 1998 to 2003.

Conclusion

Education is important to individual development, social cohesion and economic growth. As John Dewey (1997:80) states "education is the fundamental method of social progress and reform… through education society can formulate its own purposes, can organise its own means and resources, and thus shape itself with definiteness and [the] economy in the direction in which it wishes to move". This essay mentions the two economic theories of education: Human capital theory and the signalling theory. Education involves the learning of valuable analytical skills and signals the level of abilities of the workers to employees. Externalities associated with the benefits of education make it essential that the government is engaged in the supply of education.

The low level of people from socio-economically disadvantage areas enrolling in higher education means the education system still functions on an unequal basis. This partially reflects the low levels of investment in primary education by the government. The government has failed to meet its targets in literacy and arithmetic and it has failed to resource primary schools properly. Primary education still has a high pupil-teacher ratio and a low level of expenditure per student compared to other developed countries.

The growing gap between Ireland's intellectual capital and countries like Sweden and the United States is a worrying sign. Despite Ireland's Celtic tiger economy, there has been a lack of resource devoted to fully implementing the white paper targets in science, foreign languages and advanced research. During the last decade, the white paper has failed to meet its targets in equity and human capital. The failure of the white paper necessities new education polices to provide equality of opportunity and to support economic growth.

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WAS THE GOVERNMENT RIGHT TO ABOLISH THE GROCERIES ORDER?

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Senior Sophister

The Groceries Order has been a source of bitter debate in Ireland for over fifty years. Jane Gibbons examines its details and then looks at its effect on competition, prices and industry structure. Finally she concedes that this controversial law has no place in the Irish economy.

Introduction

The purpose of the 1987 Restrictive Practices (Groceries) Order was to ban below invoice price selling with the objectives of reducing the concentration in the retail industry and preventing predatory pricing. The proponents of the Groceries Order (GO) have said that it should have been retained to maintain a large number of small retailers to increase competition. They argue that consumers have benefited from the investment in retail outlets since the ban and also argue that consumers do not have to travel to find a cheaper basket of goods. Those opposing the GO say that it makes it illegal for retailers to pass on substantial discounts to their customers and gives legitimacy to practices that would otherwise be illegal under competition law. They believe the GO is an anti-consumer regulation which adds to the problem of high food prices in Ireland. This essay proposes that the opposition to the GO are correct in their criticisms and that Minister Martin was correct to announce the abolition of the Order in 2005. This essay will provide proof that the claims of the supporters of the Order are implausible. I will do this by firstly examining the effects of the ban on the price of food in Ireland and secondly by examining the cases of Germany and the U.K.

The Groceries Order and its purpose

The original GO was introduced in 1956, but the GO that caused the controversy was the 1987 GO that remained in place until November 2005. This Restrictive Practices Order made below invoice price selling and 'hello money'[1] illegal on grocery goods for human consumption, excluding perishable goods, intoxicating liquor and household necessaries (Department of Enterprise Trade & Employment 2005). Dail debates on the GO demonstrated that the Order would interfere with competition, but these points were ignored. Before its inception each of the Fair Trade Commission Reports of 1966, 1972, 1975 and 1980 either did not consider or decided against below invoice price selling. However, it was the Fair Trade Commission of 1987 which recommended the introduction of such a ban. Only four years later it recognised its mistake and recommended that the ban be repealed, however this was not complied with. In both 1993 and 1995 the Department of Enterprise, Trade and Employment recommended the ban should be repealed. The 2000 report of the Competition and Mergers Review Group also recommended the Order be revoked. However, a report in March 2005 by the Joint Oireachteas Committee on Enterprise and Small Business supported the retention of the ban. This is hardly a surprising conclusion given that many of the members of this Committee and their lobbyist support groups were the retailers who were benefiting from the gross profits being legally handed to them. The Government finally took heed of the 2005 government report by the Consumer Strategy Group which recommended that the Order be revoked in its entirety. The purpose of the ban on below invoice price selling was to reduce, or even to maintain the level of industry concentration in the base year 1987, and also to prevent predatory pricing. This essay will attempt to analyse whether the government was correct to abolish the ban given the bans success (or failure) in fulfilling the two original objectives.

Pros and Cons of the Groceries Order

The GO has been a central issue of Dáil debate since its inception in 1956 but this debate heightened since the introduction of the ban on below invoice price selling in 1987. As a result of the controversy, and a number of submissions made to the Government regarding this argument, there is a great variety of debate on the matter. This section will highlight the arguments cited by the Department of Enterprise Trade and Employment, the Competition Authority and the Competition and Mergers Review Group.

[1] 'Hello money' is money or gifts given by suppliers to retailers for their custom. Forfas Report 1999 (The Dynamics of the Retail Sector in Ireland), reported that foreign multiples have managed to escape sanctions by receiving their payments through a foreign subsidiary.

Firstly, supporters of the GO argued that because of the low population density multiples tend not to locate in rural areas so independents and symbols cater for both one-stop and convenience markets. They said that the removal of the GO would further restrict access to shopping facilities for low income families, forwarding that this is particularly true for low income families because they cannot afford the transport costs to multiple supermarkets. As a response to this the Department refuted that if the elderly and low income families cannot afford to, or are unable to travel to multiples, then they depend on the independent retailers thus creating a niche market for independent retailers. The proponents also argued that there would be increased travel costs and congestion resulting from commuting to multiples. This argument does not hold because most multiples are located on the edge of urban areas where there are little problems with congestion. Those supporting the Order argue that it should have been retained to maintain a large number of small retailers to increase competition in the retail industry, however, the reality of this situation is that the GO had eliminated competition in the industry. The government argues that it is more expensive to shop in symbols and independents. It therefore wants more multiples to move into rural areas to increase price competition, which is virtually non-existent among independents. This appears to be an argument in favour of removing the GO. The Competition Authority were very much against the GO and they made the following points;

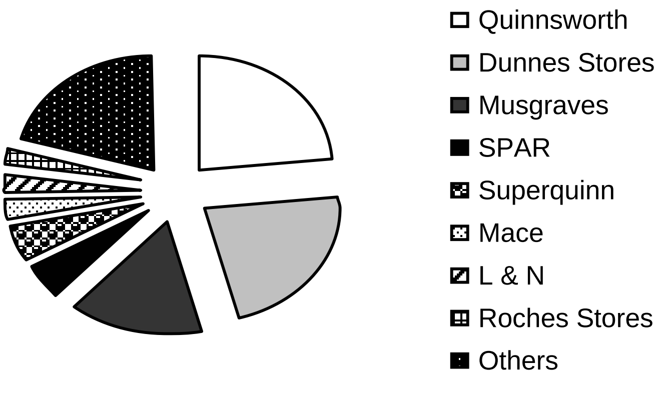
i) The GO makes it illegal for retailers to pass on substantial discounts to their customers and gives legitimacy to practices that would otherwise be illegal under competition law.
ii) This anti-consumer regulation adds to the problem of high food prices in Ireland. Removing it would have saved Irish consumers up to €577m over the twelve months between June 2004 and June 2005 (€481 per household).
iii) By protecting Irish suppliers with the GO it undermines the competitiveness of the Irish food industry and hinders employment. Providing a vibrant and competitive marketplace at home is the best way to ensure that Irish companies are in a position to compete internationally (Competition Authority 2000).

Those in support of the Order said that the level of food processing and employment in the retail sector has grown far more since the ban than before. However, this but it may be refuted by arguing that these high growth levels should be accredited to the economy wide growth in almost all sectors during the Celtic Tiger era and beyond. An argument the proponents of the Order made was that customers have benefited from more investment in retail outlets since the ban, they have an increased range of products, longer opening hours, etc. They also said they have benefited because these stores are so price competitive that people do not have to travel to get a cheaper basket of goods. A reasonable explanation for this is price fixing among retailers has led to consumers not having the choice of receiving a lower price at another retail outlet. Consumers should not have to be grateful for extra services nor should retailers be protected for providing them, they should be expected. In fact the majority of the arguments made in favour of maintaining the GO are either not creditable or the problems that they emphasise will not, and have not, been solved by the retention of this ban.

The structure of the Irish grocery market

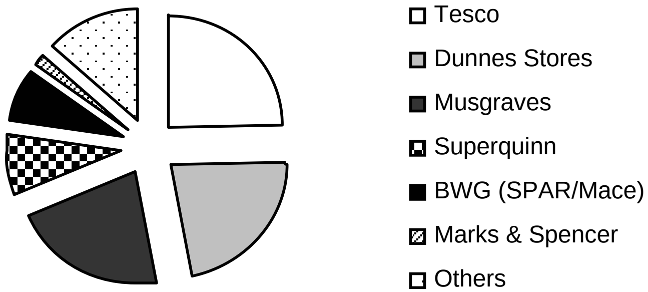
The structure of the Irish grocery market exhibits a high degree of concentration and a dualistic structure. Evidence has shown that this concentration has increased, rather than the hoped reduction, since the GO was introduced. In fact, Ireland and the UK exhibit similar levels of concentration despite the UK having no such ban. Pie chart one shows the market share in Ireland in 1990, just after the introduction of the GO. Pie chart two shows the concentration of the Irish grocery sector today and pie chart three shows the results for the UK in 2005. The most obvious changes have been the reduction in the number of independents by over 50% and also the loss of two multiples. Pie charts two and three also show how closely the UK and Irish markets are correlated.

Figure 1: Irish Retail Concentration 1990



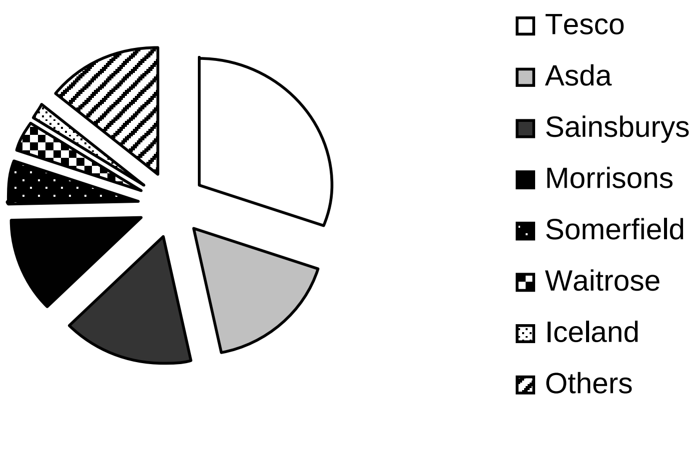
Source: 2005 Interim Report of Joint Oireachtas Committee

Figure 2: Irish Retail Concentration 2005



Source: 2005 Interim Report of Joint Oireachtas Committee

Figure 3: British Retail Concentration 2005



Source: TNS Till Roll Data June 2005

Competition and predatory pricing

As a result of the ban on below invoice price selling a supermarket price check in 2000 reported that the larger players in the industry have fixed their prices so closely that the current situation is seriously anti-competitive, and they strongly urged the Competition Authority to investigate (Department of Enterprise, Trade & Employment 2005). A lack of price competition has resulted in firms having to compete via non-price competition in areas such as convenience, product range, quality, cleanliness, friendly service, opening hours etc. Thus, it is the consumer, and in particular the marginal consumer, who looses out because they must spend a higher proportion of their income on groceries. To add to this the GO breached the Competition Acts in a number of ways: 'The Order seems to have as its primary objective the protection of competitors rather than competition. The ban on below invoice price selling could have the effect of applying dissimilar terms to equivalent transactions [due to the non-uniform application of discounts] something which is prohibited under sections 4 and 5 of the Competition Act.

'The Order may have the effect of mistaking legitimate competitive behaviour for predatory behaviour' (Competition Authority 2000: 8). Another item banned under the GO is predatory pricing. A predatory pricing strategy is a strategy that has the purposeful intent of damaging or eliminating competitors, mainly by selling items below cost (Department of Enterprise, Trade & Employment 2005). Irish Law states that it is not below cost selling but below invoice price selling that is illegal. This ignores the often quite substantial discounts from invoice prices that some retailers receive. Irish Law makes it illegal to pass these savings onto customers, this has resulted in prices among Irish multiples being almost indistinguishable.

A study by Walsh and Whelan (1999) says that "it is the ability of consumers to switch between alternative retail outlets that dominate pricing strategies" (Walsh & Whelan 1999:76). In reality most consumers tend only to have a high degree of "price awareness and a tendency to switch outlets on the basis of KVIs (known value items)" (Walsh & Whelan 1999:76). Thus, retailers, especially independents, tend to compete with respect to price on these KVIs and charge a higher mark-up on more price inelastic goods to maintain their rents. Walsh and Whelan cited the work of Bliss (1998) who indicated that assuming full consumer information and assuming all products to be KVIs, loss leading does not result in a competitive equilibrium. However, in reality consumers do not have perfect information and all products are not KVIs. Walsh and Whelan ran a model where there is imperfect information and they concluded that loss leading of multi-product retailers on a subset of products is an "equilibrium outcome used to protect market share which leaves retailer surplus, welfare, and the structure of the market at full consumer information levels in the long run" (Walsh & Whelan 1999:84). Their second conclusion was that "compared with the laissez faire outcomes, the prohibition of below-cost selling in the pricing of multi-product retailers under imperfect consumer information and imperfect competition ensures that welfare declines to a third best outcome" (Walsh & Whelan 1999: 87) i.e. by intervening in the market and introducing the ban you end up distorting the market structure and long run welfare, that results in a third best outcome. If these results are realistic we should not worry so much about predatory pricing and hence there is argument in favour of abolishing the GO.

Effects of the GO on Food Price Inflation

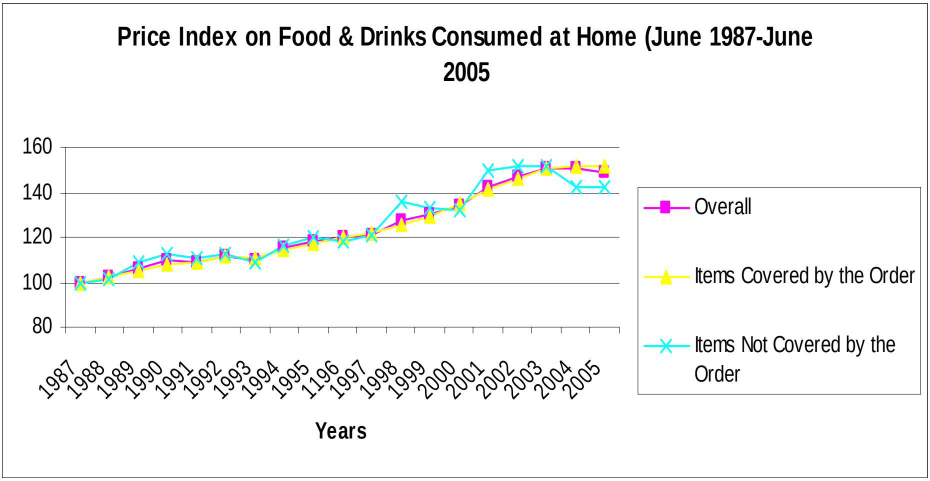
This section will examine the effect of the groceries order on food and drink price inflation. The purpose of this will be to definitively prove whether the GO has resulted in higher prices to consumers. If it has resulted in higher prices then this puts further weight on the argument to abolish the GO. Table one shows that since June 2001 food items covered by the GO have increased 7.4% in price while food items not covered by the Order have decreased by 5.1%. The Department of Enterprise, Trade and Employment took 2001 as a reference year because it was that year that Aldi and Lidl joined the market and began to generate greater competition in the marketplace. They concluded that the GO has played and important part in affecting the level of competition on GO goods from 2001 onwards. An important statistic is the fact that over the period 1996-2005 Ireland's rate of food inflation was virtually three times higher than that of the UK, where the rate is 8.3%. Also the Competition Authority, in its submission to the Department of Enterprise, Trade and Employment highlighted that although food prices rose between the period of 2000-2004 the prices of clothing footwear and household goods fell, which would mean retailers could not explain higher prices because of higher costs as these would appear in other industries' costs also.

Food & non-alcoholic drink	+9.6%
Clothing & footwear	-15.9%
Housing durables	-3.9%

Source: Department of Enterprise, Trade & Employment 2005:118

They also said that the introduction of Aldi and Lidl has stabilised prices but the prices of items under the GO continued to increase in price while those where competition was allowed fell.

Figure 4:



Source: Derived from CSO data

The experiences of other European countries

This section will briefly examine the positions of Germany and then it will give a detailed examination of the British case, as it offers a good comparison to the Irish market regarding structure. In Germany there is no general prohibition on selling below cost however, they do have a provision in law stating that a: "dominant retailer cannot abuse their position through below cost selling with a view to reducing competition in the marketplace, however, they are allowed to sell below cost to try increase market share, especially in emerging markets or new products" (Department of Enterprise, Trade & Employment 2005:140). This law seems to be successful as it was in Germany that Aldi and Lidl originated and they are the world's biggest chains of low cost supermarkets. In the UK there is no prohibition on below cost selling but, under the Competition Act 1998, the abuse of a dominant position is prohibited (this includes unfair purchase or selling prices). Although British grocery prices are much lower than Irish prices some say that this has been to the detriment of consumers. The Irish Co-Operative Organisation Society Ltd has called the phenomenon, of 42% of towns and villages in the UK having no grocery stores and price differences existing between rural and metropolitan areas, ‘Ghost Town Britain’. Although these statements seem shocking at first the reality is not so dramatic and one must account for the fact that these statements came from groups who stand to gain from the rents available from the 1987 GO. A ban on below invoice price selling would not be the best solution to these problems. Other direct policy measures are required and could be targeted to help small businesses in rural areas gain business skills to help them run successful enterprises. Alternatively a minibus service a couple of times a week to a local multiple to would cater for those who lack transport.

Conclusion

The 1987 GO was brought in without suitable consideration. The Government ignored simple economic logic that would have told them that the introduction of competition to the market reduces prices and increases sales volumes. Numerous reports before and after its introduction have agreed conclusively that it was not a positive measure to be introduced and that it would not and did not address the issues for which it was proposed. Its purpose was to ban below invoice price selling with the aim of eliminating predatory pricing and thus protecting the independent retailers in the grocery sector. Throughout this essay, examples and statistics have shown that the GO has resulted in higher prices and lower competition. Specific country examples in Germany and the UK support the conclusion that even when problems existed a below invoice price selling ban was most definitely not the solution to their problems. In conclusion, the only people who have supported the retention of the GO have been the lobbyists who stood to gain rents from its retention. Those who were loosing for so many years were the consumers, adding an unnecessary €481to their basket of goods each year (Competition Authority, 2000). Thus the government had little choice but to abolish the 1987 GO.

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AN ECONOMIC ANALYSIS OF THE WESTERN RAIL CORRIDOR

KEVIN PILKINGTON

Senior Sophister

Kevin Pilkington examines the economic case for funding the development of the Western Rail Corridor. Externalities, cost-benefit analysis and the alternatives are all considered before reaching the verdict that three out of four sections of this project do not justify investment while one section deserves further analysis.

Introduction

The Government's ten year transport investment plan, entitled Transport 21, was announced in November 2005. Among the projects included for funding was a stretch of railway from Ennis, Co. Clare to Claremorris, Co. Mayo. This is part of what has become known as the Western Rail Corridor (WRC). Incredibly, the Transport 21 plan amounts to little more than lines on a map, and it has proven exceedingly difficult to get concrete information on the costs and benefits of the various projects in the plan, including the partial WRC re-opening (Irish Times, 2006). This essay will examine the economic case for the restoration of the WRC, focusing on the literature available on the project itself and Irish railways more generally. Adjuncts of the WRC project, such as direct Galway-Limerick-Cork rail services will also be examined. Finally, potential alternatives to the WRC (i.e. bus services) will be assessed.

Background

The WRC is a 114 mile, single-line track from Ennis to Collooney, Co. Sligo (McCann *et al*, 2005). It links the National Spatial Strategy (NSS) 'gateways' of Sligo, Galway and Limerick as well as the 'hubs' of Ennis, Tuam, Castlebar and Ballina (West-on-Track, 2004). The line has been closed to passenger traffic since 1976 and freight traffic since 2001. Since the cessation of passenger services on the line, there has been a consistent effort by local lobby groups and campaigners to have the WRC re-opened. The primary arguments put forward in support of the WRC are "balanced regional development" (City and County Development Boards, 2001: 3) and the potential for commuting by rail into Galway, Sligo, Ennis and Limerick (West-on-Track, 2004). In economic terms, it is difficult to quantify the concept of ‘balanced regional development’. However, economics does have the tools necessary for examining the ‘spillover effects’ (externalities) that the use of railways can confer on society. These effects can include accident, time, congestion and road infrastructural costs that arise in the absence of rail services (Barrett, 1982).

Balanced Regional Development

The concept of balanced regional development is one of the central elements of the arguments in favor of the WRC. The perception that the East is receiving a disproportionate amount of public expenditure is emphasized in the statement of the public transport expenditure between 2000-02, spending in the BMW (Border, Midlands and West) region was 51% of what was forecast in the National Development Plan (NDP), while in the South and East region it was 174% of forecast (West-on-Track, 2004). This apparently contradicts the stated aims of the NDP, which “acknowledges the critical need to promote and foster more regional development to offset the disparities evident between the S&E and BMW regions” (Northern, Western, Mid-West and Southern City and County Development Boards, 2001: 3). The subsequent publication of the National Spatial Strategy (NSS) in 2002 emphasised the need for better transport links between the ‘hubs’ and ‘gateways’ envisaged in the strategy. A primary argument in favor of re-opening the WRC, therefore, appears to be the belief that will result in a more balanced level of development between Dublin and the eastern counties and the West. This is a somewhat weak and vague argument. In the past it has been argued that road links to Dublin are more likely to attract industry (National Economic and Social Council, 1980). The effective dismantling of the NSS through the government’s decentralization programme (which ignores the concept of ‘hubs’ and ‘gateways’) and the relaxation of rules on one-off house building in rural areas (decreasing the chances of towns reaching a size that would make rail links economical), further weakens the argument that the WRC will fulfill a useful role.

The Rail Problem: Externalities, CBA and Alternatives

One of the most striking elements of the WRC debate is the relative lack of economic analysis concerning the project. This is most obvious in the

McCann Report on the WRC to the Minister for Transport, which omits cost-benefit analysis (or even probable passenger numbers), mainly referring to the potential for regional development. However, this 'ladybird book' analysis of the project (Irish Independent, 2005) does make reference to the costing for the WRC in the Strategic Rail Review (SRR) of 2003, which rejected its re-opening. In analysing railways more generally, it is important to understand the reasoning behind rejections such as these, and the problems face more generally in making a net contribution to society. There are a considerable number of problems that Irish railways face. Usage is low compared to other countries in Europe, with only about eight journeys per capita annually (Barrett, 2003). Once suburban journeys are accounted for, this falls to about three journeys per head on inter-city routes (Ibid). This is presumably due to the low population density and small geographical size of the island. The gradual liberalisation of the Irish transport market, exemplified by the vast increase in bus services between Dublin and Galway (Barrett, 2003), will undoubtedly put further pressure on Irish railways. Railways also face significant costs, with a high level of labour required for tasks such as signaling and track maintenance. These high costs in turn lead to considerable problems regarding pricing policy. Costs such as those mentioned above were once regarded as fixed. However, research by Foster and Joy in the 1960s led to a substantial shift in how railway costs are perceived. A distinction can be made between fixed and variable costs (e.g. thresholds at which savings can occur should be identified, such as simplified low-cost signaling), leading to a new approach in railway pricing (Barrett, 1982). Instead of maximising revenue, railways should maximise profit, seeking to bring marginal costs equal to marginal revenue. If this cannot be achieved, "services must be paid for by the government or withdrawn" (Barrett, 1982: 86).

The policy of government subsidy, which is the norm for most passenger railways around the world, in turn raises the question of externalities, the positive spillover effects outlined earlier. These form the main justification for the subsidisation of the railway. The main externalities that the WRC could bring are reduced congestion, environmental benefits and social inclusion (Northern, Western, Mid-West and Southern City and County Development Boards, 2001). These effects are quantified through cost-benefit analysis (CBA). This differs from a company's financial analysis in that it assigns monetary values to externalities and aims to use the resources of the whole community effectively (Booz Allen Hamilton, 2003). In constructing a CBA, a discount rate (which reduces the monetary value of future costs and benefits back to a common time dimension – usually the base year) must also be determined. This is important as immediate income/benefits are preferable to future income/benefits, and there is an opportunity cost attached to capital investment (Booz, Allen Hamilton, 2003). The Department of Finance uses a 5% discount rate when evaluating public sector transport projects. Changing the discount rate or other factors can have a considerable impact on the benefit/cost ratios of a proposed project, a process known as sensitivity analysis. This is an important element of CBA, given that there can be considerable uncertainty about the various parameters included, such as patronage, economic growth and running costs. There has been criticism of some values in the SRR, which in turn were used to construct CBAs of various rail projects, including the WRC. An example of this is the valuation of non-working time at €6.53. Given the fact that the valuation for this is generally 25 per cent of earnings, the SRR "gives annual earnings of €60,000 per train passenger at 2002 prices, or twice the national average" (Barrett, 2003: 16). This in turn calls into question the benefit/cost ratio for the WRC, given as 0.88 from Sligo to Cork (Booz Allen Hamilton, 2003). An even more extreme example can be found in the West-on-Track publication on the WRC. It gives a valuation of €20 per hour for congestion per capita for congestion in Galway City, concluding that it costs the city €93.6m per annum (West-on-Track, 2004). This is utterly bogus economics, vastly inflating the value of both working and non-working time. While there is congestion in Galway, it is nowhere near as bad as portrayed in the West-on-Track report. Alternatives to alleviate congestion such as Quality Bus Corridors are omitted.

Incorrect evaluations in the SRR further weaken the case for the WRC. The other arguments for the WRC in terms of positive externalities must also be called into question. The social equality argument that railways can serve as a means of transport for lower income groups is flawed on three grounds. Firstly, those without cars require local stopping services, which negate one of the railways main advantages, namely its speed. Secondly, it is argued that buses would be both cheaper and more cost effective at providing services, due to their flexibility. In fact "though speeds may be higher by train, actual origin-to-destination journey times are often lower by bus" (National Economic and Social Council, 1980:49). Thirdly, it is a fallacy that rail, as a form of public transport, aids the poor and helps redistribute income. Expenditure on train fares rises with income in Ireland (National Economic and Social Council, 1980), as well as with income as a percentage of total household expenditure. Bus subsidies are viewed as being slightly more effective as a means of redistributing income (Ibid.). The potential for environmental benefits is also limited, given the overall dominance of road transport. As well as this, the WRC runs through a largely rural area, where the air pollution costs are lower (Barrett, 1982), perhaps due to the low population density. Many other negative environmental externalities, such as H.G.V.s passing through town centres are being mitigated by the building of new motorways and by-passes.

Freight and the WRC

The potential for using the railways as a means of transporting freight is a recurring theme among advocates of the WRC, illustrated in statements such as: “We believe that freight has a vital contribution to make to the future success of the WRC” (West-on-Track, 2004: 23) and the belief that a reopened WRC will “promote efficient and environmentally sustainable freight transport” (Northern, Western, Mid-West and Southern City and County Development Boards, 2001: 13). These arguments fly in the face of evidence that rail freight is in decline in Ireland, and has been for many years. As far back as 1980, it was noted that “recent economic trends in Ireland do not appear to have favoured rail freight” (McKinsey, 1980: 20). This situation has continued to worsen in the intervening decades, with the railway share of total freight now standing at around 4 percent, down from 10 percent in 1980 (Barrett, 2003). The low level of rail freight by international standards is perhaps unsurprising, given the scarcity of products that are best suited to transport by rail (such as steel or minerals), the highly competitive road haulage market, and the relatively short distances that Irish rail freight travels by international standards (McKinsey, 1980). The SRR recommends that government should calculate the net societal gains from rail freight and then identify a means of support, such as subvention or capital grants (Booz, Allen, Hamilton, 2003). As seen earlier, the negative externalities from road freight (e.g. noise and pollution) are being mitigated through new road schemes. Other externalities such as emissions can be negated through tighter regulations. Ultimately, if government is concerned about the negative societal impact of road freight, it can recoup the social cost through a Pigovian tax.

Rail freight is, in almost every area of haulage, not suited to Ireland, given our services-led economy and small geographical size. In freight markets where it can compete, Iarnród Éireann should concentrate traffic where marginal revenue equals marginal cost. This is most likely to be bulk point-to-point traffic such as Tara Mines where freight does not have to be unloaded onto lorries for further distribution. The WRC is not needed for the passage of freight from the West. Functioning rail lines exist in Clare, Galway, Mayo and Sligo, and have existing links to Dublin and Waterford ports. An example of this can be seen in the recent decision of Norfolk Line to run a liner (container) train between Ballina and Waterford (Western People, 2006). The view that carrying freight on the WRC will free up rail capacity in Dublin (McCann *et al*, 2005) is nonsensical, given that most freight movements take place at night or at off-peak times. Perhaps the most damning indictment of the freight argument in the context of the WRC is that the McCann Report mentions the potentially substantial unmet rail freight demand, yet is unable to name one manufacturer that would avail of freight services on the WRC.

Conclusion/Recommendations

As has been shown, most of the arguments for the WRC do not stand up to any rational economic analysis. If fully reopened between Sligo and Limerick, and under the timetable proposed by West-on-Track of 3 services a day (West-on-Track, 2004), the line would be a white elephant, requiring a subvention of €35.3m annually (Barrett, 2003), not paying its way through positive externalities and would be basically comparable to the branch line between Limerick Junction and Rosslare, effectively recommended for closure by the SRR (Booz Allen Hamilton, 2003).

However, the most interesting feature of the McCann Report is the division of the WRC into four sections, which allows analysis of which sections of the WRC might be viable. The section between Claremorris and Collooney (an area of low population) can be instantly discounted, with capital costs of €197.4m, perhaps a conservative estimate give the presence of numerous level crossings, "two of which alone would cost €24m" (McCann *et al*, 2005:6). Indeed, the McCann Report does effectively dismiss this section, except on the grounds of "balanced regional development" (McCann *et al*, 11), which has been shown to be a very weak argument. The sections between Athenry-Tuam and Tuam-Claremorris are recommended for restoration by McCann (2005:6), and have a combined capital cost of €93.6m. Again, there is little real justification for its restoration. There is a small potential for commuting from Tuam to Galway, but given Tuam's size (c. 7,000), buses would undoubtedly be a better alternative, especially given the lack of congestion.

The rail line between Ennis and Athenry is the only section of the WRC that merits real attention. It has a capital cost of €74.7m (McCann, 2005:6), and provides a link between the second, third and fourth-largest cities in Ireland. There is a considerable discrepancy here with the figures for a Galway-Cork project in the SRR, costing €290m (Booz Allen Hamilton, 2003). This makes little sense, given that the line from Ennis to Cork is in good condition. This is also noted by Barrett, who writes that the line could be opened with little investment (Barrett, 2003). Ultimately, the line between Ennis and Athenry does require renewal, for train times to be at all competitive.

In an increasingly contestable transport market, a Galway-Cork service would have to emphasise its superiority over cars and buses through factors such as speed, comfort and frequency, allowing it to charge a premium (Barrett, 2003). The experience of other inter-city services however suggests that marginal revenue would be unable to cover marginal costs. The level of positive spillover effects (justifying subvention) then comes into question. This will also be relevant to the provision of commuter services, such as those announced for Athenry-Oranmore-Galway in Transport 21. The potential for commuting from Ennis (population 25,000) to Galway exists and the introduction of a greatly enhanced service between Ennis and Limerick in 2003 increased passenger numbers from approximately 40,000 (estimate from Ennis station master) to 130,000 (McCann, 2005:3) and introduced a commuter service. Externalities such as time savings, reduced road infrastructural costs and reduced congestion may or may not justify the reopening of Ennis-Athenry. I would recommend that a full-scale CBA be done of this section of the WRC, with a more rigorous analysis than the SRR, in such areas as the proper evaluation of shadow prices (e.g. the valuation of time) and the presence of alternatives, such as buses and road improvements. The reopening of the WRC as far as Claremorris in Transport 21 is little more than a political gesture, although the lack of economic analysis (in the public domain at least) is a common theme throughout that particular plan. Increased bus services in the West along the WRC route (certainly north of Athenry) would be more cost-effective and would arguably deliver greater time-savings, given the maximum speed on the WRC would be 60-70mph (Northern, Western, Mid-West and Southern City and County Development Boards, 2001) and also given the fact that buses can provide a more flexible service.

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FROM LONDON TO NEW YORK: OPENING UP THE SKIES

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Senior Sophister

Irish consumers are well aware of the benefits of deregulation of the EU airline industry. Belinda Kingston discusses the current transatlantic regulation and details the further efficiency gains that may yet be extracted if deregulation of this sector is realised. She unequivocally asserts that Ireland would gain significantly from open skies.

Introduction

"Rule number one: there shall be no rules, other than that of the market"
(The Economist, 2003)

It is a striking paradox that the airline industry, which has done so much to promote globalisation, is itself stuck in a primeval past dominated by national pride and monopoly interests. Undoubtedly, powerful shiny planes are an apt symbol of modernity but the structure of the industry in which they operate is largely dictated by government interventions that are more appropriate to the 19^{th} rather than 21^{st} century. Air travel directed by inter-governmental deals dictating who can fly where, the number of seats available and, often, which fares can be charged, have resulted in inefficiencies and foregone consumer benefits (Economist, 2003). These deals have prevented the type of competition that has preserved the vitality of other industries. Some would even argue that, as a whole, the airline industry has regularly destroyed more wealth than it has created.

In November 2005, talks resumed in Washington between the EU and the USA in an attempt to negotiate transatlantic aviation deregulation. Progress in these talks could lead to an 'open skies' deal as soon as the beginning of 2006 (Meckler and Michaels, 2005). What are the costs and what are the benefits of such a deal? Is transatlantic deregulation the key to greater efficiencies in air travel? How would it impact on the Irish economy? This project endeavours to address these timely questions.

Section I will give a brief overview of transatlantic regulation. Section II will discuss recent negotiations in the field. Sections III and IV will make arguments in favour of transatlantic deregulation, making particular reference to the benefits for the Irish economy. Finally Section V will look to the future of aviation and what conclusions can be drawn there.

A Brief History

The US Airline Deregulation Act of 1978 freed US airlines from the control of the government bringing about huge changes in airfares and consumer choice. The EU benefited to an even greater extent from deregulation when in 1993 airlines were authorized to operate freely between all member states[1]. On the first day of deregulation between the UK and Ireland, the Dublin-London airfares alone fell by 54% and have continued to fall competitively ever since (Barrett, 1997).

Alliances

Although the airline industries in the EU and USA have been successfully deregulated, airline movement between the two masses remains under tight control. Currently, alliances are proposed as the solution to many of the problems in aviation (Barrett, 1999), the US has struck a series of bilateral deals with various European countries which allows its carriers to fly from anywhere in the USA to destinations in Europe in return for direct access to many USA airports (Economist, 2005a). Unfortunately these deals frequently act only to further restrict competition, and, in the long run, collusion will never stand to make customers better off.

So, Why Choose Regulation?

A number of arguments have been used to answer this question:

Table 1: The Case for Regulation

Argument	Counter Evidence
A home-grown fleet of aeroplanes is beneficial for tourism - there is a level of national pride associated with seeing a countries national symbol flying across the Atlantic.	After European airline deregulation, tourism numbers grew from 2 million to 6 million in Ireland (Barrett, 2005). Would transatlantic deregulation be any different?[2]

[1] Deregulation had occurred earlier between a small number of countries e.g. the Anglo-Irish Agreement in 1986 opened the skies between the UK and Ireland.

[2] We will look at gains to tourism more comprehensively later in the project.

A greater number of airlines would have to be given access to already busy hubs[3]	New airports are created that are lower in cost and cause less congestion[4].
Unrestricted competition leads to lower quality of service with safety implications.	Customers trade quality for price all the time. Airline safety can still remain regulated by the government.
Liberalisation would lead to gaps in service rather than an integrated network.	Integration can be expensive. Point to point is much simpler.

It is difficult to find satisfactory arguments in favour of transatlantic regulation and the majority of ones that are made are rapidly loosing credibility as counter evidence comes to light.

Recent Negotiations

An issue which has received increasing coverage of late has been landing rights and foreign ownership of airlines between the EU and USA. Greater access to Heathrow is the big prize for the USA if open skies talks are successful. Under current rules, only two USA carriers – American Airlines and United Airlines can use Heathrow (Meckler and Michaels, 2005)[5]. Delta, Continental Airlines and other USA carriers can fly into Gatwick Airport but access there is also restricted. Virgin has attacked the USA position in the negotiations as an apparent attempt 'to secure access to Heathrow for their airlines…while giving little or nothing in return' (Wall Street Journal, 2005:4).

Before opening its markets to US airlines, the EU wants the USA to relax its rules on foreign ownership and control of carriers. USA law limits

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[3] The British government is tempted to block any transatlantic liberalisation that would allow more American carriers to use London's Heathrow airport (Economist, 2005).

[4] Passenger numbers flying into London Stansted have grown significantly, particularly with Ryanair making a stop there (Barrett, 2006). O'Leary says the key to Ryanair's growth has been their fast 25 minute turnaround (2006). Congested airports like Heathrow do not allow this kind of turnaround time.

[5] British Airways and Virgin Atlantic Airways are the only UK carriers allowed to serve the US from Heathrow (Wall Street Journal, 2005).

foreigners to owning a maximum of 25% of voting stock in a USA airline and no more than 49% of total stock. The rules governing EU airlines are more liberal. Pressed by the Europeans, George Bush is considering loosening the rules to allow foreigners to have influence over most operations. The question now is how much will these negotiations stand in the way of a deal being reached on transatlantic deregulation.

Now that a little groundwork has been done, it is time to move on to discuss the arguments in favour of deregulation.

The Arguments in Favour of Transatlantic Deregulation

Basic economics suggests that to reach a Pareto optimal allocation of resources, there needs to be perfect competition in the market. The transatlantic aviation market is not a perfectly competitive market. There are minimum sellers, entry is greatly restricted, alliances and cartel-like behaviour is evident and prices are high.

Natural monopolies are characterised by decreasing average costs meaning that one producer can supply a product at a lower price than if there were many firms competing against each other. However, aviation is not a natural monopoly so governments should not treat it as such. Whilst airlines have a heavy fixed cost base (their aircraft and computer systems), these costs are not sunk as they can be bought or sold.

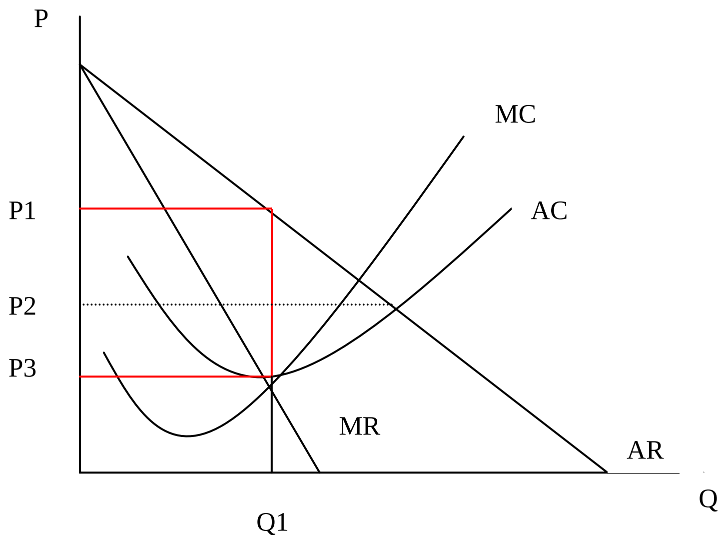
Contestability

Perfect competition is an ideal market type but is, in reality, very difficult to achieve. The Theory of Contestability, developed by William J. Baumol, aims to help markets yield the same competitive results but without requiring the same abundance of firms to do the job. A contestable market is defined as: “one into which entry is absolutely free and exit is absolutely costless” (Baumol, 1982:1). In this case imperfectly competitive markets can be contestable, because what is important is not actual, but potential competition[6].

Suppose a firm enjoys a monopoly position in a perfectly contestable market. If it produces above marginal cost it will earn supernormal profits (shown by the area Q1*(P1-P3)):

[6] Some, however, would argue that the US case shows that actual competition in the industry, if possible, is more beneficial than the threat of potential competition.

Figure 1: A Contestable Market



However, because of free entry and exit there is a threat of potential entrants coming in and sharing the profits. This reduces the price to where the firm is making only normal profits (i.e. at P2)[7]. Contestability will force the incumbent away from profit maximising towards sales maximising which benefits the consumer. In the long run, no economic profits and no inefficiencies are permitted in equilibrium, and equilibrium prices will tend towards marginal cost (i.e. at P3).

The problem with the transatlantic aviation industry is that whilst there are few firms (like in this contestable market); there are also barriers to entry resulting in high prices and a loss in consumer surplus. Airlines are not being forced to produce at marginal cost. Contestability theory argues that zero barriers to entry and exit into the aviation market will lead to a Pareto optimal outcome which is most efficient for all.

[7] In general, the degree of contestability will determine the extent of the price change.

What does a contestable market require?

1. Low entry costs e.g. the ability of airlines to lease planes and have access to landing rights in airports
2. Freedom of exit e.g. ban the state saving of airlines about to go bankrupt
3. Access to the same technology and infrastructure as the incumbents e.g. computer reservation systems
4. Freedom to entice the incumbent's customers.

New entrants will keep incumbents efficient so they should be encouraged not excluded.

Obstacles to contestability in a deregulated market.

A number of barriers to contestability could arise if the transatlantic market was deregulated:

Hub airport slots – grandfather airlines may get preferential treatment with regards to property and landing rights.

Predation – incumbents could sell seats below cost to scare off new entrants. This action is difficult to prove, however.

State aids – as mentioned earlier, state could bail out failing incumbent airlines.

Frequent Flyer Programme – many customers are tied to a dominant airline.

Pro-competition policies that focus on efficiency rather than seniority would have to be put in place in each of these areas to ensure that entry and exit was not restricted.

Expected Benefits from Deregulation

The European Commission estimates that full liberalisation of the skies could boost transatlantic passenger numbers by up to 11 million a year, which is a 24% increase on routes that already generate revenues of $18 billion (Economist, 2005b). The Irish Aviation Authority also believes that: "the EC/US agreement on open skies would lead to a substantial increase in Trans-Atlantic traffic while also impacting on the nature of our domestic traffic" (Irish Aviation Authority, 2004).

Protectionist policies have caused restrictions in air travel over the years - raising costs, rewarding anti-competitive behaviour and diverting trade elsewhere (Barrett, 1999). Domestic deregulation in the USA and Europe produced an explosion of low-cost carriers and clever new strategies. New routes were created and greater economies of scope allowed for network size to increase along with passenger numbers and revenue. It seems certain that international deregulation would yield similar results (Economist, 2003).

The next section is going to look at the benefits of transatlantic deregulation in the Irish context, particularly looking at its affects on business and tourism.

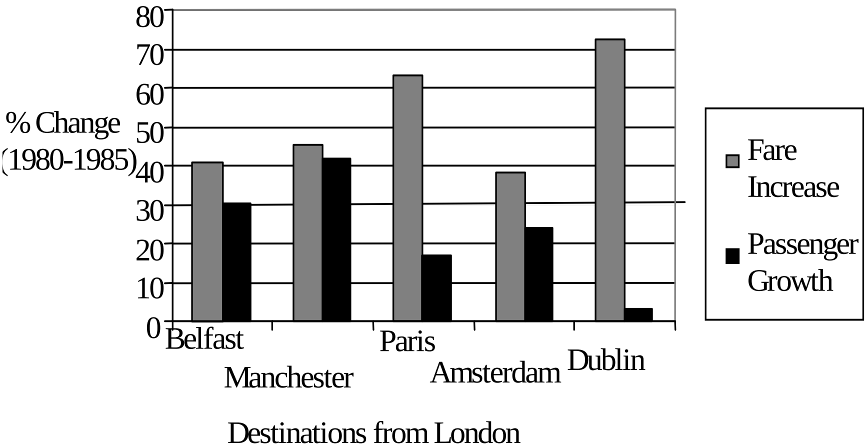
The Benefits of Deregulation for the Irish Economy

The impressive performance of the Irish aviation industry since its deregulation in December 1985 has become a model for other aviation markets. Are there lessons to be learnt here for transatlantic deregulation? An analysis of the impact of deregulation between Ireland and Britain might be helpful in answering this question.

The Impact of Deregulation on the Dublin-London Route

The deregulation of air transport between Ireland and Britain brought about reductions in fares of over 50% and a doubling of passenger numbers (Barrett, 1997). Graph 4.1 shows the performance of the Dublin-London route in comparison to other European routes over the period 1980-1985 (before deregulation) according to a CAA study:

Figure 2: Comparison of Fare Increases and Passenger Growth

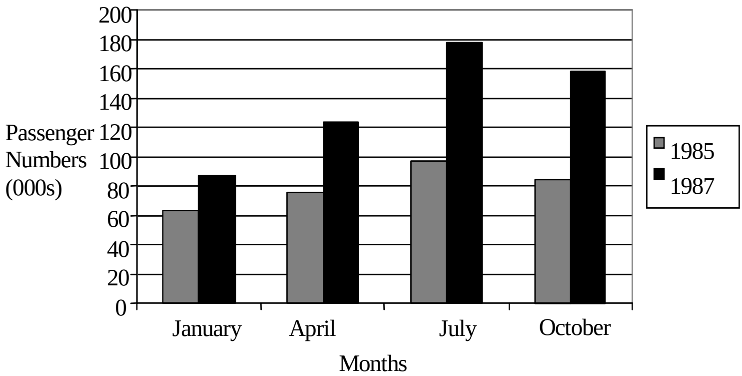


Source: Barrett, S. (1997)

Of the 11 routes compared in the study the London-Dublin route had the largest fare increases (72.6%) and the smallest passenger growth (2.8%) over the time period[8].

As a result of deregulation the Dublin-London route has become the second busiest route in Europe after London-Paris. The contracting market of 1980 to 1985 became the fastest growing European market over the years 1985-1994, with growth of 184% (Barrett, 1997)[9]. Even during the first couple of years of deregulation passenger numbers soared, as Graph 4.2 illustrates:

Figure 3: Dublin-London Passenger Increases during Initial Deregulation



Source: Barrett, S. (1997)

Between 1986 and 1987 passenger numbers increased by 64.9% and the initial *price* impact was a 54% reduction of the incumbents fare by Ryanair (Barrett, 1997). Deregulation caused a shake up of the incumbents as they were forced to cut costs and run more efficiently or they would face loosing even more market share.

The rapid increase in low cost airline seats also had positive knock-on effects for a stagnated Irish tourist industry. In 1994 an Irish Government Green Paper on Aviation stated that airline deregulation had increased visitor numbers by approximately 60%, tourist earnings by IR£560million and jobs

[8] It is also noted that the time prior to deregulation was characterised by low staff productivity and high costs for all of the incumbent airlines serving these routes.
[9] This was 1.95 times the growth rate of France, 2.16 that of the Netherlands and 2.62 that of Germany.

by 25,000 between 1987 and 1993 (Barrett, 1997). In addition, outward business travel increased by 50%. As a whole the economy was made more competitive[10].

It has been argued that much of the success of the Dublin-London route is attributed to the strong Irish population that lives in the UK. This factor would surely benefit us if deregulation between the USA and Ireland was to come about.

The Benefits of Open Skies to the Irish Economy

Between 1995 and 2002 Ireland gave USA companies their highest rate of return on investment in foreign countries (US Bureau of Economic Analysis, 2003). In 2003 Ireland accounted for 6% of all USA FDI coming into Europe. The USA remains as Ireland's third most important destination for Irish exports and the third most important source for its imports (Embassy of Ireland- Washington DC, 2005). According to the IDA, they supported 478 USA companies in Ireland in 2004, including huge global multinationals such as Intel, Dell and Boston Scientific (Irish Development Authority, 2004). These USA companies provided employment for over 90,000 people. Easier access to Ireland will increase our competitiveness in terms of contending for more FDI which will bring about more jobs and GDP growth. Quite evidently access to the USA is key to the continued success of the Irish economy.

Currently there are direct flights from Ireland to a number of USA cities. The IDA has global offices in many of them but would benefit significantly from access to an even greater number who are presently inaccessible directly from Ireland. Point to point access is appealing to business travellers, saving money and, more importantly, time.

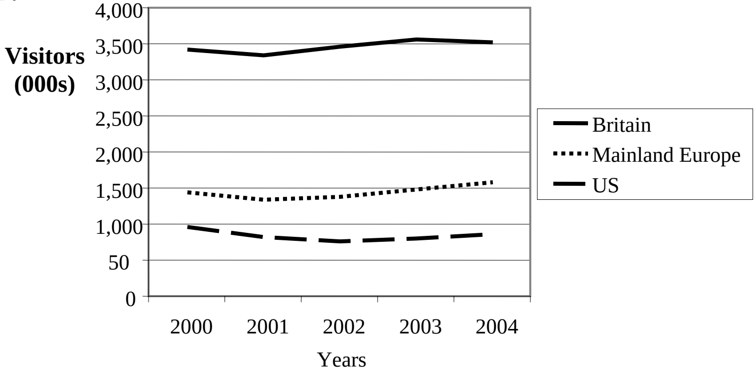
Moving on to look at tourism, the trend for direct flights has been growing steadily amongst visitors here too. Areas like Dallas and San Francisco have large untapped populations that would have an interest in flying to Ireland direct (Irish Hotels Federation, 2004). Between 1989 and 2002 over half of USA visitors flew directly to Ireland, while 46% came via mainland Europe. O'Leary claims that cheap fares and direct flights have allowed European visitor numbers to Shannon to reach over 3 million.

[10] In terms of other European routes, deregulation has not been as transformational as hoped. Few EU carriers have been inspired to start extensive fare competition and low cost providers on mainland Europe are not as common. Is there an opportunity to push contestability in these markets? New entrants need to be encouraged.

The American market is vital to the tourist industry, accounting for revenues of approximately €750 million. The Irish Hotel Federation is calling on the Irish Government to negotiate an open skies deal as soon as possible with America (Irish Hotel Federation, 2004). They believe an agreement will increase US visitors by over 1 million. Tourist numbers from the US fell between 2000 and 2004, but rose from Britain and Mainland Europe, as shown below:

Figure 4: Tourist Numbers Coming to Ireland

Error!



Source: CSO/Failte Ireland/NITB (2004)

The drop in visitor numbers from all locations in 2002 can largely be accounted for by the events of September 11th. However, as numbers rise again it is important that the US market is captured as much as possible. There is ongoing scope for the industry to expand. Deregulation would only be a help in doing this.

In summary there are various reasons why deregulation would be beneficial to the Irish economy:

1. The existing example of Irish-British deregulation shows the potential gains in total welfare because of decreases in fares and increases in airline productivity.
2. Route expansion would encourage more businesses and holidaymakers to Ireland bringing in more revenue.
3. After a lull in world tourism at the beginning on the century, people are starting to increase their travelling. The Irish tourist industry needs to promote Ireland as an exciting place to travel and needs to be able to offer competitive prices to do this.

Future Prospects

The airline industry will face a number of changes in the coming years, many of which will impact on the shape of 'open skies'.

The events of September 11th brought about a difficult period for many airlines, particularly for those in North America. The period also saw a decline in the profitability and popularity of state-owned airlines. What will the future bring for the industry? Rigas Doganis (2001) in his book *The Airline Business in the 21st Century* makes a few suggestions:

> Alliances will become increasingly integrated and dominant. The three largest alliances will carry as much as 60% of air traffic and completely dominate many sectors. Governments and regional bodies such as the EU will have to enforce competition rules to make sure these alliances do not abuse their power.
>
> New low-cost carriers will force all carriers to cut costs. The main emphasis will be on reducing the cost of labour through staff reductions, more efficient work practices and outsourcing. Not only will they outsource catering but even actual flying. Airlines will also increasingly relocate to low-wage economies to maximise cost efficiency. E-commerce will continue to help lower costs and improve customer service[11].
>
> Pressure will increasingly be put on hub airports for landing rights. However, a greater use will be made of satellite and smaller airports, many of which will be former military airfields.
>
> Most importantly, Doganis (2001) sees a complete liberalisation of the skies on the cards. Restrictions on ownership, market access, capacity and prices will be progressively eroded, until there are *'clear skies'* and we have a truly global airline business.

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[11] This year Ryanair will allow customer to check-in online, reducing staff costs and big queues for customers.

Conclusion

It is time for the transatlantic aviation industry to spread its wings and be free from its parent's reigns. The arguments in favour of regulation are not strong enough to hold any longer. Contestable markets have proven to be more efficient in promoting innovation and in attaining welfare optimising outcomes. This paper has argued, in some detail, that the positive affects that deregulation could bring to Irish business and tourism are significant enough to warrant an Irish plea for open skies.

In conclusion, government should have authority over such standards as security, environmental oversight and safety in aviation but no more. Once again, economists will refer back to Adam Smith and argue that the market must rule.

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SINKING THE MYTHS: PRIVATISATION, B&I LINE, AND IRISH FERRIES

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Senior Sophister

Attitudes concerning the optimum degree of government intervention in an economy have evolved over time. Paul Sammon illustrates the failures of state intervention in the shipping industry by following the story of Irish Ferries from being an exchequer burden under public ownership to commercial success as a private company. After careful consideration Paul concludes that although the market system led to the displacement of Irish workers this outcome was in the best interests of a growth economy.

Introduction

Over two centuries after Smith had written his seminal work, market capitalism remains under a shadow of doubt in some sectors of the Irish economy. It is thought that the market system systematically fails and that government interference is warranted. This view is nowhere more prevalent than in the transport sector. Despite the successes of privatisation and deregulation, most notably in the airline and taxi markets, there remain gaps in the public perception of private ownership and competition.

Such gaps were evident at the end of 2005 when Irish Ferries announced changes in employment conditions, redundancies, and an expansion of employment of workers from Eastern Europe. Irish Ferries were condemned as greedy capitalists exploiting hard-working labourers. The truth is that their reactions were those of a dynamic company responding to market conditions, and making the painful decisions necessary to guarantee its long term viability.

Such responsiveness is due to the fact that the company is in private hands. When Irish Ferries was a publicly owned company (known as B&I Line) it was a bloated Leviathan; an ineffective and inefficient drain on public finances. This essay will track the evolution of the company from its initial purchase by the state in 1965 up to the present day. Firstly, the shipping industry in general will be examined. Part of the reason for the nationalisation of 1965 was that it was thought that the industry was not competitive, and thus government intervention was required. This essay will, using the Theory of Contestable Markets, show that this was not the case. Then, the dismal performance of the B&I Line will be shown and explored, with reference to the theoretical debate on State-Owned Enterprises (SOEs). Finally, B&I's performance will be contrasted with the successes of Irish Ferries after its privatisation in 1992. Lack of political interference and the discipline of the market will be shown as being instrumental in its success. The essay will conclude that the controversy at the end of 2005 was symptomatic of competition inducing a race to the top, and not to the bottom. I begin by looking at the nature of the shipping industry.

Baumol, Contestable Markets, and the Shipping Industry

The B&I Line was bought from Coast Lines Ltd. in 1965 for £3.6m. For many in the Irish government at the time of the acquisition of B&I line, it was in the strategic interests of the country to own and control its own maritime fleet. It was thought, like so many other transport sectors, that left to itself the market would seriously under-invest in the industry (Barrett, 1990). It was thought that increasing returns to scale were a characteristic of the industry, perhaps leading to a monopoly being formed which would produce too little output, at too high a price.

Herein lies the gap in political considerations of the role of the market in such a case. For, according to Baumol (1982), even if monopoly power could be exerted in the market, incumbents act 'as if' they were in a perfectly competitive situation. This is the conclusion of the Theory of Contestable Markets. Necessary conditions for contestable markets are:

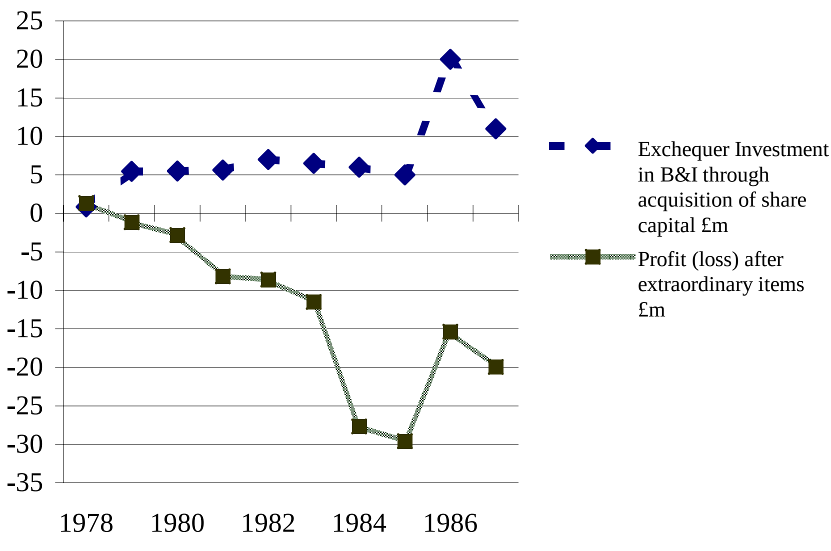
i. Entrant and incumbent are symmetric: They are subject to the same regulations, have access to the same technology, and have similar outputs;
ii. Sunk costs are low: Sunk costs represent a barrier to exit. Thus, capital employed should be reusable, resalable, rentable, or movable (Davis, 1986)
iii. Freedom exists to woo incumbent customers: So, predatory pricing policies must be absent.

The result is a contestable market wherein price approaches long-run marginal cost, and supernormal profits are absent. Otherwise, the industry would be subject to hit-and-run entry; large scale entry; and entry-nullified monopolies/dominance. According to Baumol (1982), even if a history of frequent entry does not exist, a consequence of competitive pricing means that this implies a lack of profitable entry, and few firms may be "a symptom of virtue, not vice." (Baumol, 1982:1)

Davis (1986) shows the conditions necessary for a contestable market hold in the shipping industry in general. In an Irish context, the Larne shipping routes were used by numerous companies, and competition successfully operated without government intervention (Barrett, 1990). However, it would appear that such *bona fida* theory credentials, industry application, and empirical proof were altogether about 20 years too late for the Irish Government. Maybe, had Baumol been around in 1965, he could have convinced those in power to let the market work. With it, he could have prevented B&I Line from being an albatross around the country's neck for over 25 years.

B&I: Bloated and Incompetent

Figure 1: B&I Line's Performance In the 1980s



Source: B&I Accounts; Joint Committee: 3rd Report

When the government bought Coast Lines in 1965 to form B&I Line, major investments were required to expand and refit what was an aged and decrepit fleet. The company was bought during the "Age of Administrative Planning"

(Button & Gillingwater, 1986) when efficiency was linked to integration and coordination, rather than allocative efficiency. This is reflected in the company's corporate objective which stated that B&I Line was "to provide and develop a modern, efficient, profitable, national and comprehensive surface transport system to and from Ireland", but that this was also subject to a "social obligation to the community" (Joint Committee: 2nd Report, 1978). It was to be an "efficient monopoly", to use Garrett FitzGerald's famous oxymoron.

And so the government let flow a stream of funds into B&I Line, which would in time turn into a cascade. Between the years 1965 and 1992, the government invested a total of £142.5m (€180.9m) in share capital in B&I Line. The fleet was upgraded, and new vessels purchased. By the end of the seventies, after a decade of losses, the company turned its first profit. The figures thereafter, though, tell a very different story.

As can be seen from Figure 1, even with continuous injections of exchequer funds into the company, it performed dismally throughout the 1980s. The figures are astounding:

> Despite operating receipts increasing tenfold between 1965 and 1978 (from £4.3m to £42m), the company yielded a loss or insignificant profit in each year. By 1978, it had an aggregate loss of £0.2m (€0.25m) (Joint committee: 2nd Report, 1978);
>
> 1978-87 saw the Exchequer invest a total of £72.9m in the company through acquisition of share capital. But at the end of this period, it had accumulated a loss of £125.5m (€159.5m) (Joint Committee: 3rd Report, 1988);
>
> By the end of 1991, this figure had grown to £134.4m (€170.7m), representing an average annual loss of €9.1m inflated to 2005 values.

But what explains such catastrophic figures? The main reasons for the failure of SOEs in general, and B&I Line in particular, are as follows:

Political Pressure: Since public firms are controlled by the government, it is inevitable that they will be held responsible for all major (and minor) decisions. Thus, the company's management will be influenced and second-guessed by the government, in order to achieve political or social goals. For example, when B&I tried to end the loss the loss-making Cork-Pembroke service in 1983, the government prevailed in preventing them (Joint Committee: 3rd Report, 1988).

Weak Management and Strong Trade Unions: According to Barrett appointments to SOEs were based on "political loyalty rather than commercial ability" which ultimately "undermined the quality of board members." The result, he continues, was that "with weak management and politically appointed boards, the commercial state enterprises were captured by public sector trade unions" (Barrett, 2003:4). As a result, labour costs per employee increased 16% in real terms between 1979 and 1984 alone (Barrett, 1990).

Soft Budget Constraint: The availability of government finances exacerbated the problems at B&I. Since the threat of bankruptcy didn't exist, the market was prevented from disciplining the company. The result was over-investments and over-staffing (Joint committee: 3rd Report, 1988).

Principal-Agent Problem: In a private enterprise, the principal is the shareholder, and the agents are the directors. The shareholder has power of exit as well as voice (Robinson, 2003). For a SOE, the public in general is the principal. The public lacks the power of exit, and relies on a complex array of agents to act for them.

Altogether, these factors contributed in making B&I the fat, unresponsive Leviathan it was. In 1987, the company revealed plans to restructure, and to layoff workers. This helped to reduce the company's loss to €1.5m in 1988 (Arthur Andersen, 1992). However, B&I's problems ran much deeper. Between 1985 and 1989, turnover had fallen by 45% in real terms. Even after restructuring, it couldn't control staff costs, which rose by 11% in the years 1988-90 despite the number of staff falling by 8% in those years (ibid). By 1990, its loss had widened again to €3.6m. It had a capital deficiency of £26.5m and a fleet of only two ships (Barrett, 2003). It was effectively insolvent, and dependent on government subventions. Its service remained dire, with management indifferent to consumers. It continued to have a high-cost base, which was imposing further high costs on the economy as a whole (ibid).

By 1990, the government at last saw change was necessary, with the privatisation of B&I seen as being the best solution to cure the ills of the company. In the next section, reasons for the privatisation will be examined, before looking at the theoretical basis for private control, and the eventual success of B&I as Irish Ferries.

Plotting a Course to Profitability: Privatisation and ICG

The privatisation of B&I in 1992 was the result of 3 major changes during the 1980s. Firstly, internationally, the "Age of Contestability" had begun, according to Button and Gillingwater (1986). It was brought about by a changing political philosophy, especially in the US and UK. It was an era wherein deregulation and the reapplication of the concept of allocative efficiency reigned, especially in the transport sector. Barriers to entry or exit were seen as contrary to a redefined concept of the public interest. Instead of the state protecting the public through regulation and planned competition, the public interest was pursued through creating the conditions necessary for efficient transport operations (ibid). The impact of airline deregulation in 1986 "provided a clear demonstration of the potential benefits of competition to all consumers in Ireland, having a significant effect on public opinion" (Barrett, 2003).

This fed into a changing economic and political climate in Ireland. National debt and unemployment had been rising for much of the decade, and a reassessment of economic policies in general occurred. In October 1990, the Minister for Tourism and Transport told the Dáil that he had commissioned consultants "to recommend the best and most economic means of terminating Exchequer support for the B&I line at the earliest possible time" (Dáil Papers, 1990. 402), and that "the *status quo* cannot be allowed to continue" (ibid). In 1991, the consultants reported that disposal of the company was the best option, with Irish Continental Group's (ICG) bid of £8.5m eventually succeeding. But why would ICG be more successful than the government at running B&I?

Privatisation in Theory

For Vickers (1997), the basis for the success of privatisation is that it changes the nature of the Principal-Agent relationship. Firstly, the principals (and hence their objectives) are changed. Managers are freed from political intervention and bureaucratic constraints. The discipline of the stock market brings about allocative efficiency; objectives which divert from this no longer exist. Also, the agents are changed. As shareholders in the company, they now have an "incentive to monitor the behaviour of managers/employees so that they tend to supply what consumers demand and do so in a cost effective manner" (Hanke, 1987:976).

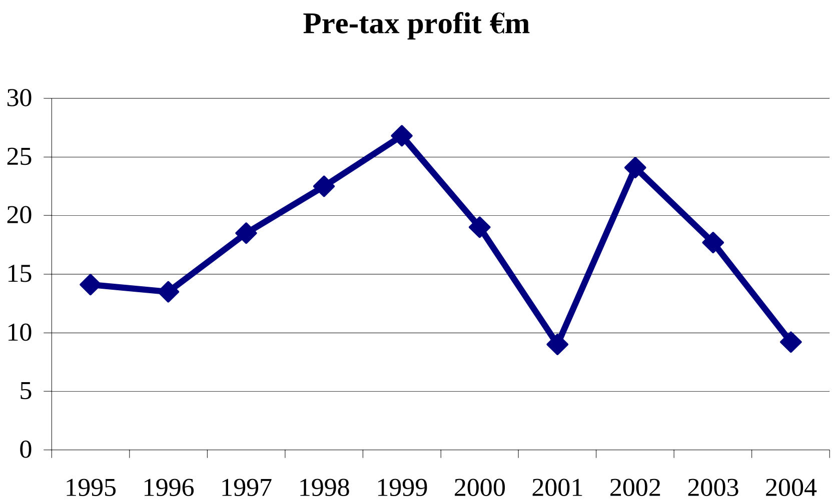
Ultimately, "competitive processes can be set in train which will have efficiency advantages and bring benefits to consumers" (Robinson, 2003). Competitive markets give consumers the power of exit. So, there is constant pressure on producers to set higher standards which competitors must try to emulate. What results is "a race to the top" (ibid). However, is this *ex ante* evaluation of privatisation borne out by the *ex post* experiences of Irish Ferries under ICG?

Privatisation in Practice

Upon acquiring B&I Line, ICG began a process of restructuring and change in the company. It was divided into three separate operating divisions, to enhance efficiency. None of the existing directors were retained. The company made a large number of redundancies as part of their cost-cutting drive. Finally, ICG revealed they had an overall plan for B&I to "enhance customer service, provide long-term employment for its staff, and ensure a reasonable return to its shareholders", (ICG, 2005b). These new priorities are in line with Vickers' (1997) predictions above.

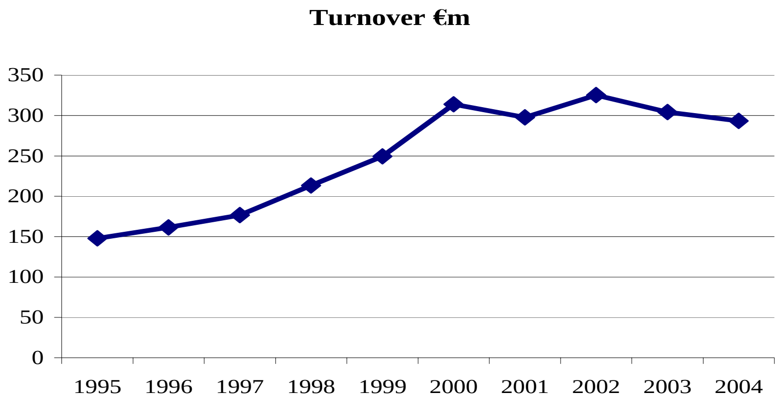
The modernisation was accompanied by significant investments also. Old ships were sold-off or chartered to other companies. Meanwhile, new 'super-ferries' were bought including the £46m (€58.4m) Isle of Innisfree in 1995, and the €100m (€127m) M.V.Ulysses in 2001, which at 50,000 tonnes, remains the world's largest passenger/RoRo[1] ferry.

Such re-organisation, investments, and also a new competitive tariff structure helped make the company consistently profitable for the first time.



Sources: ICG Annual Accounts, 2000-2004

In 1990, the profits of ICG were £2.3m (€2.92m), and the losses at B&I were £3.4m (€4.3m) (Barrett, 2003). As evident from Figure 2, by 1995, profits at ICG incorporating Irish Ferries had risen to in excess of €14m, rising to almost €27m in 1999. The sharp decline in 2001 may be attributed to the government actively discouraging passage to the UK on account of Foot and Mouth Disease. Also, 2001 was a 14-month financial year for the company, in order to bring it in line with the calendar year, resulting in the traditionally loss-making months of November and December being included twice.£3.4m (€4.3m) (Barrett, 2003). As evident from Figure 2, by 1995, profits at ICG incorporating Irish Ferries.



Sources: ICG Annual Accounts, 2000-2004

Figure 3 shows how the company managed to increase turnover rapidly up to 2000, despite rising fuel costs, and intensive competition from cheap airlines. Between 1996 and 2002, Irish Ferries increased its market share in the Irish Sea by 27% for tourist cars, and by 32% for freight (Competition Commission, 2004), implying that its increased turnover was not merely the result of the rise of Ireland's export-orientated growth. Furthermore, Irish Ferries was awarded "Best Ferry" award for the eighth successive year in 2004 by Irish Travel Trade, indicative of its success in providing a customer-orientated service.

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[1] Roll-on/Roll-off

Privatisation *in Excelsis*

Despite these successes, from 2003/4 Irish Ferries' financial position started to deteriorate as evident from Figure 2. Its Return on Capital Employed (RoCE) was trending downwards from 9.8% in 2002, to 7.4% in 2003, 5% in 2005, and predicted to be 1.2% in 2007, when the rate of profitability necessary to allow the business to recover and renew its assets (ships) is 15% RoCE per annum (Labour Court, 2005). They faced unprecedented adverse trading conditions with fuel costs increasing by 85% between 2004 and 2006 (ICG, 2005b). The car ferry market was in retreat generally with a 10% decline from 2003-2005 resulting in the closure of Irish Sea Express (150 jobs lost), the ending of 5 P&O Ferries routes from Ireland (1200 redundancies), and 2 Seacat routes (ibid).

Furthermore, given the international character of the industry, most of the company's competitors had a significant cost advantage since they had outsourced crews. P&O, for example, operated six vessels on the Irish Sea, all of them registered in the Bahamas, while Swansea-Cork Ferries' ship sailed under the flag of St Vincent and Grenadines, allowing each to pay wages far less than Irish Ferries'. Stena, another shipping stalwart, admitted that the profitability of its ferry operations was minimal due to intense pricing pressure on fares and high operating costs (Gill 2005). According to ICG (2005b), without change, a loss was forecasted by the end of 2007.

At this point, the supremacy of privatisation and competition became apparent. Irish Ferries responded to market conditions and the signal of faltering profits to restructure the company:

> "Time has now run out for Irish Ferries. Change is needed now to bring the company's cost base into line with its sea competitors, allow it to compete with low-cost airlines and ensure a future for the company" (ICG, 2005b)

The company saw outsourcing of workers as the only possible solution to the problems it faced. 543 seafarers were offered generous voluntary redundancies packages up to 4 times the level of statutory packages. Over 90% took the offer. Incoming Latvian workers would be earning at least €17,300 per anum, four and a half times the Latvian average industrial wage of €3,900. Far from being a race to the bottom, for these Latvian workers it represented a massive step-up on the economic ladder (O'Leary, 2005). The savings to Irish Ferries were hoped to guarantee its long-term viability.

While the Seamen's Union of Ireland (SUI) were broadly in favour of the changes (as evident by their vote), SIPTU came out against. What followed was a story of public relations failure, SIPTU militancy of

Scargillite proportions, and an ill-conceived national day of protest at which almost 100,000 people took part in a economic-blackmail-pride parade.

Doubtless, had Irish Ferries been in public hands in the time, trade union power and political pressure would have prevailed in preventing the painful but necessary changes. But as Bös (1991:54) points out, nationalisation on the basis of stabilisation does not hold:

> "Unpopular decisions… can best be performed by private firms which are not obligated to labour market objectives… [The] long run success of private capitalism is a decisive argument for privatisation…"

Conclusion

Lessons are to be learned from the story of Irish Ferries. For almost 27 years, as B&I Line, the company failed to become profitable, failed to be efficient, and failed to serve the public. Yet B&I's utter failure should not surprise us. As we have seen, the weight of theoretical and empirical evidence is against the viability of SOEs. Political pressures, trade union power, weak management, regulatory capture, soft budget constraints, the social choice model, and the principal-agent problem are among the factors which conspire to doom SOEs to failure. The total cost to the state of this flop is estimated at almost €309m.

The second lesson is that we should listen to Baumol, in that any market can be contestable, and private markets will work. This is nowhere clearer than when the B&I Line was sold to ICG to become Irish Ferries. The discipline of the market was brought to bear on the company. With consumers given the power of exit, competitive pressures forced the company to re-orientate towards what they demanded, and not what the government thought was socially desirable. The result was strong growth in turnover throughout the 1990s, and consistently high profits. Privatisation brought about this 'race to the top'.

In 2003/4, falling profits acted as a signal that change and restructuring were necessary. The company could not seek exchequer handouts, nor would it ignore the problems. So changes were made. In the end, the company will return to profitability, the Latvian workers will climb the economic ladder, and the displaced Irish workers will quickly find new jobs in Ireland's fast-growing economy, or even start new enterprises with their €100,000+ redundancy payments. The free market will result in growth and economic development where government regulation never could. Yet state monopolies in other sectors may remain, especially in the transport sector with CIE's failings mirroring B&I's. It is over 200 years since Smith (1776:309) told us that crown lands were "a mere waste and loss of country in respect of both produce and population," yet the lessons he taught us, and those learned here regarding public and private ownership, continue to be lost on the public at large.

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