# Visitors to the Old Library, Trinity College, Dublin: An Econometric Analysis


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The Old Library of Trinity College houses the Book of Kells and is Ireland's most popular tourist attraction with an increasing number of visitors. In this econometric study, Lucy O'Hagan examines this issue and attempts to explain the increasing number.


### Introduction

Each year increasingly large numbers flock to Ireland's biggest tourist attraction, the Book of Kells and the Old Library, Trinity College. The Book of Kells is a copy of the four gospels written by Irish monks in Kells around 800AD. The Old Library was opened in the year 1793. These exhibits are thus unique. There is no close substitute for either of these in Ireland or indeed world-wide. It is likely therefore that demand for entrance tickets will be inelastic with respect to price. In the last fifteen years the number of people visiting the book of Kells and the Old Library has more than doubled. In this paper I hope to determine what has caused this rise. Why have the numbers continued to rise despite increasing ticket prices? By how much has the rise in ticket prices dampened the rise due to other factors, and most especially due to increasing overseas visitors to Ireland?

Over the past fifteen years the service provided has changed greatly. In 1992 a new shop was built and along with the Book of Kells and the Old Library, annual exhibitions were also put on display that are included in the price. The Dublin Experience runs from May to August and is shown eight times a day. Combination tickets for the show and the Book of Kells are available. Walking tours of the college have been running throughout this period, and they also offer combination tickets. Thus, these three services run in conjunction with each other, making a visit to Trinity College, and subsequently to the Book of Kells and the Old Library, all the more worthwhile. Unfortunately the impact of these improvements in services on the number of visitors is unquantifiable. It is highly likely that they will have had some, if not considerable, influence on the number of visitors. They should therefore, be kept in mind as we continue with our econometric analysis.

I will begin by specifying my dependent and independent variables that are to be used in the analysis. I will then turn to estimation of the relationship between them, and finally I will evaluate my results. Since both are located in the same building, I will subsequently refer to the two exhibits as the Book of Kells.

### Specification

In order to determine the rise in the number of visitors to the Book of Kells, I have chosen the following variables:

*Dependent Variable*

As my dependent variable, Y, variations in which I hope to explain, I have taken the annual number of visitors to the Book of Kells. Charges to this exhibit were only introduced in 1983, and it was only at this point that the record of the number of visitors began. Therefore, I have chosen the years 1983-1997 for my study. In the early years charges were only in place from April to October, and consequently visitor numbers were only recorded for these months. In order to standardise the annual figures I have only taken the figures from April to October for each year. In these years there has been a significant upward trend, which will be examined using the following independent variables.

*Independent variables: Ticket Prices*

My first independent variable, $X_1$, is ticket prices. Since 1983 there have been huge changes in ticket prices, all in an upward direction. The price of an adult ticket has risen to seven times its original level that is from £0.50 to £3.50. Ordinarily one would expect demand to fall as price increases, that is we expect a negative correlation between Y and $X_1$. However, demand has continued to rise. What I hope to determine is whether or not other factors have more than offset this one, and if this is the case, how much did the rise in ticket prices dampen the rise due to these other factors? In this analysis I have taken adult ticket prices as a proxy for overall ticket prices.

*Second Independent Variable: Overseas Visitors*

My second independent variable is the number of overseas visitors to Ireland. I have only taken annual totals for the months of April to October. I found this to average at 75% of the annual figures, although it may in fact be less with the rise in Winter business in recent years. The main category of visitor to the Book of Kells, particularly in the summer months is overseas tourists (this has been observed through the number of free foreign language leaflets that have been used in the period). We would therefore expect a positive correlation between Y and $X_2$. Indeed the Book of Kells has been referred to as the National Tourism barometer. Within this period the

number of overseas visitors to Ireland has risen almost threefold. Unfortunately the 1997 figures are not yet available from Bord Fáilte.

*Rejected Independent Variables*

Sunday is the busiest day of the week and growth in Sunday business could possibly have been included as an explanatory variable. However, I have decided to neglect this variable because of the difficulty of obtaining precise data. I also considered quantifying changes in the composition of visitor groups as a possible explanatory variable. Visitor records categorise visitors into adult, OAP/pensioner, group and family. Group numbers have risen rapidly and now account for a third of all visits. I have decided not to include this influence because of difficulties in data collection.

## Estimation

*The Model*

In this analysis I am using the ordinary least squares method of estimation. From the estimates I obtain I will construct a line of best fit based on the following multiple- regression model:

$$Y=\beta_0+\beta_1 X_1+\beta_2 X_2+\mu .$$

This method will yield a relationship between the variables by estimating the size and the sign of $\beta_0$, $\beta_1$ and $\beta_2$. The term represents the error term, that is factors affecting Y that are unaccounted for by $X_1$ and $X_2$.

*Regression*

To carry out the regressions on my data I used the econometrics computer package, Microfit. The results were as follows: My line of best fit was found to be;

$$Y = 11030.4 + 9997.6X_1 + .094192X_2$$

The correlation between the variables was found to be very high as indicated by the correlation coefficient, $R^2$ of 90%.

The following table shows the associated parameter estimates and t-statistics.

| Independent Variables | Parameter Estimates | t-statistic (prob.) |
|---|---|---|
| Constant $\mu$ | 11030.4 | .278585 (.788) |
| $X_1$ | 9997.6 | .33973 (.741) |
| $X_2$ | .094192 | 2.3165 (.043) |

I then regressed Y on $X_1$ and $X_2$ individually, to determine the influence of each of these variables on Y.

Regressing Y on $X_1$ yielded:

Y= 97294.5 + 75533 $X_1$ $R^2$ = .84966 t-statistic = 7.8846

Regressing Y on X2 yielded:

Y= 93.9963 + .1074 $X_2$ $R^2$ = .90103 t-statistic = 10.0074

Unfortunately it then became apparent that there was a high degree of multicollinearity between $X_1$ and $X_2$. Regressing $X_1$ on $X_2$ gave $R^2$ = 0.92414. Intercorrelation of the variables is not always a problem. But since this $R^2$ value is greater than our multiple-regression value of $R^2$, drawing on Klein (in Maddala 1992) we could conclude that it will make the Y regression results less accurate, if not altogether invalid.

## Stage 3: Evaluation

In order to evaluate my regression results I will examine and compare them with the expected relationships. From the multiple regression it can be seen that the chosen independent variables have high explanatory power. Very little of the variations in Y remain unexplained. The significance of this may be undermined by the high degree of multicollinearity between $X_1$ and $X_2$ however. Looking at the simple regressions reveals a little more however. As was initially supposed, there was a high positive correlation

between Y and $X_2$ . $X_2$ was able to explain 90% of the variations in Y. The Book of Kells may indeed be referred to as the National tourism barometer therefore, since variations in the two are so closely correlated. Examining factors that determine the rise and fall in overseas visitors to Ireland may be the key to gaining deeper insights into variations in Y. Contrary to what we believed, Y and $X_1$ were positively correlated, and quite highly at that. The rise in ticket prices has not dampened the influence of the rise in overseas tourists in the multiple-regression analysis. This positive correlation is possibly due to the inelastic demand for this good which I alluded to earlier. It may further suggest that individuals marginal benefit from visiting the Book of Kells, or their marginal willingness to pay is actually higher than we would have supposed. This however, only explains why there was not a negative relationship between the two variables. The fact that there was a high positive relationship would suggest that tickets to the Book of Kells are a snob, or a so called 'Giffen' good. Could this really be the case? It is highly unlikely. It is most probable that there are other independent variables, omitted from this model, which have caused Y to rise, regardless of the price increases. Increases in demand for a good corresponding to increases in its price go against our economic theory. One final explanation for this positive correlation between Y and $X_1$ is that our dependent variable Y may be causing the variations in the independent factor $X_1$. Given the positive relationship, this would fit better with our theory. If the marginal willingness to pay meets the current price, ticket prices may not yet have begun to effect Y. The impact of the proposed price increase scheduled for 1998 will depend on the marginal willingness to pay. If it rises with the increase, the price increase will have little effect on demand. If it does not rise however, it may have a negligible negative impact on demand (this of course will also depend on inflationary changes).

*Statistical Evaluation*

The t-statistic, the ratio of the estimated parameter to its standard error, is used in the evaluation of a coefficients statistical significance. I will look first at the multiple regression case. $X_2$ is statistically significant at both the 5% and 10% levels, but $X_1$ is not statistically significant for either 5% or 10%. These results however, are due primarily to the problem of multicollinearity between $X_1$ and $X_2$. The computer is unable to read the area of Y that is determined by $X_1$ and $X_2$ together. Given that $X_1$ and $X_2$ are so closely correlated it is likely that all of the area explained by X1 is explained by $X_2$ also. Examination of the t-statistics for the simple regressions backs up this analysis. In this case both $X_1$ and $X_2$ are statistically significant for 5% and 10%.

## Conclusion

In studying the rise in the number of visitors to the Book of Kells, my regression results were very encouraging. My model, which used ticket prices and national tourism figures as independent variables, explained 90% of the variation in the number of visitors to the Book of Kells. National tourism figures were positively correlated with the number of visitors to the Book of Kells as expected. Similarly, ticket prices were also positively correlated with the number of visitors, although this was unexpected. I found this result to be conflicting with economic theory - a sign that some important variable had possibly been omitted from my model. On subsequent study, a flaw was revealed in my regression analysis, namely the presence of high multicollinearity between my two independent variables. Consequently only one variable was statistically significant in the multiple-regression analysis. However, on observing the simple regression results , the two explanatory variables were statistically significant at both 5% and 10%.

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# Art Prices - A Study of Picasso


## Clare McAndrew - MLitt.



Econometrics is a versatile discipline. Clare McAndrew demonstrates how this is so by attempting to explain changes in the prices of Pablo Picasso's work with the aid of econometric techniques. She finds that the art world is a complex place and warns the casual investor.


*'...To attempt an estimate of the money value of the artistic content of our museums would be an intellectual vulgarism...(art) is a service to society as free from the rules of demand and supply as the service of law...'*

-Adam, T. 1937:47.

When the question of valuing art arises, many argue that the very essence of art is beyond economic calculation and reasoning. They claim that its very 'raison d'être' is that it is set apart from such material considerations. However, given the multi-million pound global industry that is art, this tenet is unrealistic to say the least.

Valuing any commodity is simply the act of assessing whether it is worth its price. This means calculating whether the object is worth the other things that could be bought for the same amount. People in the arts do this as much as anyone else, despite their fondness for asserting that money should not interfere with considerations of artistic merit (Grammpp, 1989). Although there are many determinants in the production and consumption of art, Frey and Pommerehene (1989) state that there are very useful insights to be realised from taking an economic view of art. Art, like all other goods, is subject to scarcity and hence restricted by the scarce resources available. Its production and consumption are the result of the maximising behaviour of individual agents, which creates market demand and supply.

This essay will overview the art market and investment in art. It will then look at possible factors which may affect prices in it. The analysis looks at possible factors affecting the price of one artist's painting, Picasso, in a given auction season. From this, it is concluded that factors affecting prices are possibly too complex to be modelled in this simple regression, and given their number and variety, investment in art can be a risky, albeit pleasurable experience.

### The Art Market

> *'...The art market is not new , but its status as a popular spectator sport is. The price of art attracts more public attention than any other commodity except perhaps oil...'*

Money is by no means a new concept in the art market and despite some unique features, it functions along similar lines as any other market with a commodity to sell. Economists study how demand and supply interact to determine price and certainly contemporary art markets could be viewed as functioning along competitive lines with the various elements of supply and demand having their expected influence on prices.

Artists (and their dealers) as the basic suppliers to the market act like any other economic agents, taking into account the benefits and costs of alternative actions in pursuit of their own interests. Although the number of works of deceased artists is obviously given, supply of work by contemporary artists can be expanded by increased production. How many works produced will depend on the marginal input costs of production (which increases prices) and the expected future value of their work.

Demand on the other hand is basically a function of the income of potential buyers (which has a large positive effect), prices of art (small and negative), and the rate of return available on alternative investments (Frey and Pommerhene, 1989). Investing in an art object provides two main sources of utility or returns for a consumer:

- 'Psychic' returns: which can offer utility in the form of civic utility (from an altruistic need to support art or artists in society), functional or decorative utility (from the need for decoration or collecting art to adorn or display), or ostentatious or prestigious utility (derived from the prestige or status gained from owning especially famous pieces of art);
- Financial returns: from the prospects of profiting from an art investment due to a change in its value which is a function of expected rate of return and risk (Rouget et al,1992).

Candella and Scorcu (1997) conducted a study to assess whether it was rational for an investor to purchase a piece of art as opposed to another store of value such as government bonds, shares or real estate. They found that the estimated return on paintings was clearly lower than the corresponding average yields on government bonds and other stocks. Also regarding risk, art objects were found to yield the going rate for their systematic risk plus their value contained a substantial element of non-systematic risk. Risk in art is not simply confined to uncertainty regarding future prices but also includes risks such as attribution, fakes, forgeries, and material risks of damage destruction and theft (which increase its maintenance, insurance and restoration costs). Their findings corroborated many other previous studies such as Baumol (1986) who found that the real rate of return on paintings was only 0.5% as compared to 2.5% on

government bonds concluding that art was not a superior investment or a profitable way to speculate. However, Frey (1997) points out that many of these studies neglect the possible tax advantages of investing in art as well as the point that economists are really at a loss when it comes to evaluating subjective psychic benefits, often using residual measures which may understate this component of returns.

In the late 1980s the art market experienced a huge cash injection with the appearance of a new breed of investive collectors speculating mainly on modern art as it offered the most leeway in price and return. However, excessive speculation and exogenous factors caused prices to plummet in the early nineties as these investors got rid of their art in the recession. Although the market has recovered considerably, expectations for the future are that more works will come onto the market and average prices will fall.

## The Price of Paintings

Price fluctuations in the art market are unpredictable as they are not limited simply to the production costs or income of a firm. This has discouraged the cautious investor, despite possibly huge profits for certain players. There are a wide range of factors that influence the price of paintings which can be broken down into four main categories (Rouget, 1992; Czujach, 1997).

*The Fame of the Artist*

The price of a painting will depend greatly on the role the artist has had in the history of art and the fame they acquired. The fame of a particular movement that an artist belonged to, his place, and innovation in it gives a hierarchy of value to art. The importance of such factors is often decided by a minority of art experts. An artist's reputation affects the economic value of art by increasing the prestige or ostentatious utility derived from its consumption, as well as reducing financial risks compared to investment in relatively unknown work. The 'fame phenomenon' in art is a means to save information costs and reduce risk in the purchase of art, which justifies the higher prices attained.

*Characteristics of Works of Art*

Prices of works of art also depend on their artistic quality, authenticity, and other technical factors. Artists' work can often be divided into early, transitional, and mature works, with periods often used as approximations for quality. Higher prices are generally paid once the artist has established his own form or style.

The subject of the work is also a factor although this may largely depend on the preferences of buyers - for example male buyers are said to prefer the female form in representational work, they will hence pay a higher price for it. Artists' favourite subjects also sell better than non-typical works as they act as a recognisable trademark. However, subject has lost its economic and artistic supremacy in contemporary art.

Technical characteristics are also important in that if paintings are deemed to be of a similar quality, prices may vary according to size and techniques used. For example, it is assumed that oils are more expensive than other media due to higher production costs and greater durability. The effects of size are less straightforward. One would expect large works to reach higher prices, yet many studies have shown that whilst price does rise with size it does so at a decreasing marginal rate. Although production costs do increase with size, many collectors prefer smaller paintings that they can exhibit or hang on their walls at home. This means that the average collector will have less demand for large works thus reducing their price. In addition, large museums and galleries, which would be the main purchasers of large works, have considerable negotiation power as they will display the work publicly to the benefit of the artist, having a similar effect on price.

Authentic works often earn higher prices due to the reassurance of genuineness, as well as prestige if visible. Doubts regarding origin will greatly reduce value, therefore registration in established sales catalogues, proof of previous ownership, and other guarantees will add to authenticity, assurance, and therefore price.

*Characteristics of the Market*

The relationship between supply and demand of works of art helps to define their relative rarity, and hence their price. If a rare piece of work comes on sale there may be many competing purchasers who could drive up its price (if it is a recognised or fashionable work). However, the fame of a work will often depend on how many people have seen it, therefore it can not be too scarce as a minimum number of works are needed to spread information on the artist's reputation and give people the motivation to buy. For this reason, works that have been exhibited more often will usually obtain a higher price, although record prices have been gained when famous works come out of a private collection which have not been seen for years.

Works sold in large and famous museums or galleries often achieve high prices as they signal quality work to buyers. In addition, they contribute to the spread of information via large exhibitions and well promoted sales, often attracting prestigious collectors. Rich and well known buyers may not only offer greater amounts of money for art (as they have relatively inelastic price elasticity of demand schedules) but also increase possible resale values by bringing renown to the painting or artist.

Salamon (1992) also found a significant relationship between presale price estimates published by auction houses and the actual price achieved. These estimates are an indicator of the 'hammer price' expected, the seller's reservation price, and possible resale value of the art. As such, low price estimates often attract buyers to an auction whilst high estimates often attract sellers. Moreover auctioneers were found to display genuine expertise in predicting what price the art would sell for at auction.

The actual salesroom itself and where it is located may also affect price. New York and London are the international centres for world trade in art with around 70% of the auction market they also achieve the highest prices at auction. The existence of different tax rates and regulations may also influence the price and location of exchange. A possible factor for the focusing of the industry in these two cities is that neither imposes resale royalties, although it is likely that historical and other factors also affect their dominance. Sotheby's and Christi's are the dominant auction houses world wide, and as such command the highest prices (largely due to their volume of trade).

*Macroeconomic Factors*

There are contradictory views about the effects of macroeconomic factors on the price of art. Demand for art as a luxury good is positively correlated with income, therefore if supply is stable, increased demand from increased income should increase prices, hence the art market should mimic general economic conditions.

Investors may also consider art as a way of hedging for inflation. In periods of high inflation, risk associated with financial assets increases, thus demand increases for material or non-financial assets such as art, however, no stable relationship has been found between inflation and art as an inflation hedging investment.

Whatever their effects, macroeconomic factors will tend to affect aggregate art prices as opposed to other factors which will have a variable role depending on the artist or work exchanged.

Overall, what really drives value and prices on the art market is still relatively mysterious and complex and it is impossible to rely on any one factor exclusively in order to predict price changes.

## Econometric Analysis: Price of Picasso Paintings in the 1996 Auction Season

*Dependent Variable*

To try to assess the effects of certain factors on the price of art, the Y variable chosen is the prices achieved for Picasso paintings in the 1996 auction season. The work of this single artist was chosen in an attempt to keep the factor of artistic fame constant.

Given that Picasso's work is generally in similar condition and widely recognised we need not account for these factors in the analysis.

Picasso's work is regarded as amongst the highest quality in the history of art. He has also sold a huge volume of paintings, has three entire galleries devoted exclusively to his work (in Paris, Barcelona, and Antibes), and thousands of other pieces in museums and galleries world wide. Walther (1994) states:

'*...Picasso's creations are not merely part of the sum total of 20$^{th}$ century art, but rather are seen as its icons. 'Guernica' is unquestionably the most famous modern painting world wide, matched as an art classic only by works such as Leonardo's 'Mona Lisa'...'*

*Independent Variables*

As discussed in the previous section there are a large number of variables that may influence the price of paintings even if only considering one artist. The data source for this analysis is the Art Sales Index 1995/1996 (Hislop, 1996), which is a published price listing of all registered sales for that season. Although the source was useful in providing a reasonable sample size (285 Picasso paintings), it did limit choice and quantity of X variables available for analysis. The fact that this analysis is limited to only two independent variables limits the conclusions of the analysis.

The first independent variable used, X1, represents the dimensions of the paintings in square inches. The price of producing a square inch of a large painting is no less than that of a small one, therefore larger works should command proportionately higher prices. But as previously mentioned, the average buyer wants works they can display with ease hence this may reduce the demand for very large works. As these figures are obtained from public auction, it could be expected that this effect would dominate prices. Therefore paintings in the small to medium range may have the highest prices, and so price and size are expected to have a negative relationship.

The second independent variable X2 relates to the year in which the piece of art was created. Picasso had eight distinctive working periods during which the quality, the number of works produced, and the influence they had on the art world varied greatly. From this, it is expected that work created in the Blue, Rose and Childhood periods would fetch the highest prices (See Appendix 1). As these are his earlier periods, it is expected that price and year will have a negative relationship.

*The Model*

In this analysis the ordinary least squares technique is employed which yields a line of best fit according to the data given. The model therefore takes the form:

$$\mathbf{Y} = \beta o + \beta_1 \mathbf{X}_1 + \beta_2 \mathbf{X}_2 + \mu$$

It involves a multiple regression of X1 and X2 on Y with μ representing the error component or residual of the regression. Using the Microfit econometrics package, the analysis estimates the sign, size, and significance of the unknown parameters of the model (or the β s). The results of the multiple regression show that the line of best fit was estimated as:

Y= 20,600,000+382.7 X1-10,543.5 X2

*Evaluation*

From a superficial analysis of the signs and size of the variables, it appears that painting size is positively correlated with price, whereas the relationship that was expected was negative. This could imply that the negative price effect discussed only applies to very large cumbersome works, which were not contained in this sample. It could be that the intuitive idea is correct - people prefer large paintings but only up to a certain limit. Nothing definite can be concluded from the analysis as there were no extreme sizes in the data. The large negative coefficient for X2 indicates the expected result - that the paintings of Picasso's earlier years attain higher prices than his more recent work.

Examining the t-statistics and probability values, it can be seen that both variables are significant at the 5% level. In other words, if we consider the hypothesis that there is no relationship between the X and Y variables, the t-statistic (which represents the ratio of the estimates to the standard error) indicates that we should in fact reject this. Both of the estimated coefficients are significant at the 5% level. The F-statistic of 10.5 (at zero probability) also implies that we reject any hypothesis that $\beta_1 = 0$ and $\beta_2 = 0$ or that the model has no explanatory power.

However, examination of the $R^2$ indicates that only 7.6% of the variation in Y can be explained by the linear influence of the two independent variables (noting that the linear form is acceptable in the diagnostic tests). This indicates as predicted that there is a lot of unexplained variation in price or 'noise' that is not explained in this simple model. Although there appears to be no problem with heteroscedasticity, the serial correlation results indicate that the errors are not in fact random, which suggests that we have possibly left out important explanatory variables. There is also a high level of noise.

The single regressions of $X_1$ and $X_2$ on Y individually show the significance of the variables individually but with an even poorer $R^2$. The two independent variables were regressed against each other and their estimated correlation does not show any problems of multicollinearity. It was found that most paintings of a high price were in the small to medium range, with an interesting peak value of over £10 million for one of the smallest works. Most of the best sellers are pre 1940 with a peak price in the late 1930's (possibly a spin-off from Guernica).

Overall there is a strong indication that despite the possible importance of these variables, they are certainly not sufficient to explain the price fluctuations in these works and a much more complex multi-variable model may be needed.

## Conclusions

The most obvious conclusions that can be drawn from this analysis are that there are many, varied factors that play a part in determining the prices of works of art. Picking one variable even as strong as the international fame of the artist does not (even) guarantee any standard price, as can be seen from the wide range of prices in Picasso's work for just one season.

Although art prices again seem to be on a rising trend, the differences in estimates and the uncertainty inherent in markets such as these would warn away those who do not love risk. That is not to say that there are not investors making huge profits from their artistic assets, but that many of these are wealthy collectors whose large portfolio size ensures profitability and reduced risk. It must be remembered that investment in art is not all about making money. The more subjective psychic returns that an individual derives from owning a piece of art may be enough for the individual to purchase it without regard for pecuniary matters. In conclusion, however, it is wise to heed Grammpp's warning to the naive and amateur investor in the art world:

*'...if they love art as well as risk, the art market can be their playground... however the prudent amateur- the art lover who is not a risk lover- buys art for the pleasure of owning it. He invests or speculates in other things...'* (Grammpp,1989:166)

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**APPENDIX 1: Picasso's working periods (Walther, 1994 and Czujach,1997)**

**Period 1 (1881-1901) ' Childhood and Youth'**

These paintings represent the earliest of Picasso's work and hence have rarity and even an antique effect reaching the third highest prices of all the periods.

**Period 2(1902-1906) 'The Blue and Rose Periods'**

Paintings in this period command the highest prices in all of Picasso's work. They were thought to signify the end of his stylistic training and the beginnings of his own true form as a painter. During the Blue period, his paintings reflected death, loneliness, poverty, and age. In the Rose years, there was a decisive change of subject matter with themes including harlequins, acrobats, actors, and clowns as well as a switch of emphasis in his portraits to youth. It is thought that the inherently pleasant nature of this material along with its quality was responsible for high prices.

**Period 3 (1907-1915) 'Analytical and Synthetic Cubism'**

Cubism was developed by Picasso, Braque, Léger, Cézanne, and others and was an important development in the history of art, which involved taking objects apart and analysing them in a painting. This was one of Picasso's most productive and innovative periods. However, works from this period are not as highly priced as the previous period possibly due to the existence of other important Cubists and the volume of work he produced.

**Period 4 (1916-1924) 'Camera and Classicism'**

Most of the paintings produced in this period were based on photographs representing a sharp change from the previous period, which baffled many critics. Picasso returned to figural classical paintings with definite form and representation. He was seen to have distanced himself from his previous analytical outlook and his themes were much less provocative. Prices in this period were much lower than previously.

**Period 5 (1925-1936) 'Juggler with Form'**

Prices rose again in this period but not to the same level as the first two. In the first half of the period his paintings played with the interactions between linear, spatial, and curved elements and forms. In the latter half the works on the painter and model expressed the problems of sexual relationships. The bullfights with the 'tauromachia' expressed his own historical and personal reality.

**Period 6 (1937-1943) 'Guernica and the Style of Picasso'**

Guernica was painted in 1937 and made Picasso internationally famous. In this period and through Guernica he had reached a language of style and form that was recognised as the style of Picasso. Although one would expect the prices in this period to be amongst the highest, he produced many sketches and drawings in this period, which brings down the average price.

**Period 7 (1944-1953) 'Politics and Art'**

During this period Picasso was isolated from the rest of the world because of the war which devastated his psyche. The number of themes was much more restricted in this period both due to his isolation, in addition any open political comment or accusation could have jeopardised him personally. Despite the fact that his work was now famous, prices were down on the previous period.

**Period 8 (1963-1973) 'The Old Savage'**

In his older years, Picasso continued to create a large number of relatively similar works often with the theme of himself. Despite huge media attention and world renown, the prices in these two last periods were amongst the lowest. It is interesting to note that the market really does seem to value quality rather than simply the artist himself. The increased importance of Picasso, as an internationally famed person had, no effect on prices as when he was most famous his quality of work was valued at its lowest by the market.

# Econometrics and the Science of Economics

## Padraig Dixon - Junior Sophister

Econometrics is seen as the vehicle by which economics can claim scientific validity. Padraig Dixon examines this conjecture and suggests that econometrics is not the only way of validating the scientific status of economics.

*'...the difference between facts which are what they are independent of human desire and endeavour and facts which are what they are because of human interest and purpose and which alter with alteration in the latter, cannot be got rid of by any methodology. In the degree in which we ignore this difference, social science becomes pseudo-science.'*

- John Dewey: 'The Public and Its Problems'

Science is to be defined as a human cognitive enterprise, the aim of which is to produce falsifiable and predictively successful theories. A scientific theory is not so much a way of discovering 'truth' but rather a means of organising our empirical observations and thoughts in a useful way. This, according to Robert Aumann, is the sole criteria by which a theory, and therefore a scientific discipline, is to be judged. It follows that a theory which facilitates the organising of our thoughts in a useful and directed way must necessarily be a predictively successful theory.

This relates to the definition of economics, or at least positive economics, which is a system of generalised theories purporting to explain the behaviour of economic agents, often in a deterministic way. However, any inspection of actual economic behaviour reveals it to be a variegated and complex phenomenon, involving non-deterministic relationships. This introduces us to econometrics which attempts to measure in an empirical manner the nature of the association between stochastic economic phenomena.

On first glance, it would appear that econometrics has an extremely important role in making economics 'scientific'. If the true field of economic analysis is non-deterministic relationships, econometrics would appear to be an ideal way to examine the congruence between the postulates of economic theory and the requirements of a scientific discipline. In this essay I will argue that the impact of econometrics on economic theory has been minimal and far from being the only way of examining the scientific credentials of economic theory, there are in fact several other ways of developing our understanding of the structures of a real economy.

Aristotle's (Aristotle 1972) precept will be observed throughout the essay: 'Our discussion will be adequate if it admits of enough clarity as the subject matter allows'. But why is it necessary to make this qualification for the subjects of economics and econometrics?

We use Aristotle to qualify our discussion because of the reflexivity, lack of historical constancy, and conditionality of economics as a scientific discipline. These are the facts which provide the main difference between testing in economics and the natural sciences. The data that econometricians work with inhibit the precise estimation of empirical relationships. In the context of the restrictions discussed below, we must examine whether econometrics does allow us a discussion of the data which is as adequate and instructive as the data itself allows.

The main difference between testing in economics versus the natural sciences is that the phenomena/data under consideration are liable to historical change. For example, the CPI measures something different from the CPI of 40 years ago. An atom of carbon has the same structures it did 40 years ago. Not only do structural relationships lack the historical constancy that the materials of the natural sciences possess but shocks to the parameters of the economic system are definitionally unpredictable in their timing and consequences. A quote by Robbins (Robbins, 1981) vividly illustrates the difficulty econometrics has in estimating structural parameters. 'The influence of the Reformation made no impact on the forces of gravity. But it certainly must have changed the demand for fish on Fridays'. As Johnston (Johnston, 1991) has reflected 'It is surely too

much to expect the econometrician to develop a super demand curve for fish, which contains within itself an explanation for the Reformation'.

The problem of the reflexivity of economic behaviour has been discussed by Rosenberg (1992):

> *'When all agents are informed about these plans and predictions and know the relevant theory, the reactions of at least some agents to these plans and predictions will result in some of the predictions being falsified and some of the plans going awry'.*

Another unique aspect of economic data was pointed out by Kamarck (Kamarck, 1983a)'No electron profits from deceiving a physicist but the source of economic statistics may have a direct interest in reporting inaccurately or falsifying economic data'-to avoid tax liability for example.

These facts need to be borne in mind when one looks at the success of econometrics in providing a firm empirical base for economic theory. I will argue that econometrics provides an unsatisfactory analysis of the problems even given the restrictions discussed above, because it is plagued by problems of weak data, ideology affecting the outcome of 'empirical' tests, and misdirected effort. I will suggest that forms of economic analysis which do not necessarily rely on the crutch of econometrics are more useful in examining the structures of a real economy generally and the scientific credibility of economic theory in particular.

For example, econometrics is often characterised by data mining and *a prioristic* conclusions; researchers massage results so as to produce an outcome that accords with personal opinion. This means that the theory has not been tested and therefore has not been subjected to the falsification principle. Econometricians rarely try to find out if there is another fit to the data, 'acting as if the data admitted only a unique inference'. This was described by Solow (Blaug, 1992), in discussing the significance of econometrics for economics as 'the biggest sin of all'. In Kenen's (Blaug, 1992) words 'It is not enough to show that our favourite theory does as well as-or better than-some other theory when it comes to accounting retrospectively for the available evidence'. It is difficult to disagree with Mayer (Mayer, 1993), who reports that the practice of running 30 regressions and only publishing the one that confirms a hypothesis is widespread, when he concludes that 'this shouldn't be done in hard testing'.

Econometrics' credibility is damaged by prizing statistical pyrotechnics -'Physicists do not compete to find more and more elaborate ways of observing falling apples'- while ignoring the problem that the data is weak. In the natural sciences, as opposed to almost all economic data collection, great care is taken by highly skilled people to produce accurate and representative data. Kamarck (Kamarck, 1993b) in discussing econometrics has noted how: 'More prestige is acquired for applying the latest techniques to good, bad or indifferent data than arriving at valid, verifiable and useful results'.

The irrelevance of econometrics for economic theory was taken up by Leamer (Hendry et al, 1990) who argued 'We don't take empirical work seriously in economics. It is not the source by which economists accumulate their opinions, by and large'. Klamer and Colander (in Mayer, 1993) report that : '[Econometricians] will confess, usually at unguarded moments, that their highly sophisticated research produces ultimately meaningless results' since, their results and conclusions don't describe the operation of any economy that has ever existed or will ever exist. This cannot be said to contribute to the scientific status of economic theory.

Summers (Poirier, 1994) has taken up this argument by convincingly asserting that non-econometric models have had a far greater impact on economic theory than econometric studies.

> *'Surely* A Monetary History of the United States *(1963) had a greater impact in highlighting the role of money than any particular econometric study or combination of studies... data were presented in a straightforward way to buttress verbal theoretical arguments and emphasis was placed on natural experiments in assessing directions of causality'.*

Walters has claimed that the most significant development in post war empirical economics was the development of the permanent income hypothesis by Friedman, which did not rely on econometrics. If it is pointed out that these works are also affected by the ideological alignment of the author, at least this is implicitly acknowledged. To recall the quote by Dewey at the start of the essay, it is only when we ignore ideological positions, as opposed to acknowledging them, that the social sciences become pseudo-science.

Patinkin (in Latsis, 1976) was distressed by '...the high correlation between the policy views of a researcher ...and his empirical findings'. Surely in this case, econometrics is becoming the instrument of ideology and not science, thus diminishing the credibility of economic theory.

Leontief (Leontief, 1984) has been especially critical of econometrics: 'In no other field of empirical enquiry has so massive and sophisticated a statistical machinery been used with such indifferent results', but this may be ultimately too harsh an assessment since if we can say anything in defence of econometrics is that it has at least raised the wider recognition of the importance of the principle of testability and thus making economics theory more amenable to methodological appraisal. Furthermore, despite all that has been said against econometrics in this short essay, it could best be considered a type of 'weak testing', which shows, if nothing else, *some* sort of relationship exists between the variables under discussion.

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# Of the Socratic Ignorance of Economics

## Michael Jennings - Junior Sophister

The increasingly mathematical and quantitative nature of economics is a polemical issue in economic methodology. Michael Jennings discusses this issue and advocates a return to the Socratic method in economics.

'*How can anyone express a view when he is not only ignorant, but also admits his ignorance? ....No, it's you who ought to speak, really, since you do claim to have knowledge and to be able to express it.....If I think somebody has a good idea, I'm quick to applaud it...*'

'*To the extent that 'con' connotes 'trickery', let us banish it from econometrics. ....; to the extent that 'con' denotes learning, let it flourish in an econometrics progressing by learning from data.*'

The various valuable, but at the same time often technical, definitions of economics and econometrics, and their scientific status, have been extensively discussed, especially since the interaction of the revolution in 'macroeconomic measurement', and the 'theoretical revolution' induced by Keynes during the 1930s. Indeed, in this publication itself the topic has been covered by a number of authors. This essay hopes to contribute to the discussion in a simple way. An overview of some of the conventional arguments of economists is considered, but this essay then draws heavily on the valuable method of Socrates. It is a method that any scientist would do well to acknowledge. We shall then be able to consider, through slightly unconventional reasoning whether economics and its 'offspring', econometrics, are of scientific status.

### 'Science'

John Hicks supplies us with a definition of a science that he considers more widely applicable than merely to the natural sciences. Three distinguishing characteristics of the body of propositions constituting a science are laid out:

- they discuss observable phenomena, what humans consider 'real things';
- they are general, about classes of phenomena, and the relations between the properties of classes of phenomena;
- they allow us to make believable predictions.

The third characteristic is named as the most important. Hicks stresses two issues: the nature of predictions and the methodology for formulating theories that are used in prediction. The only truly attainable prediction, unless the boundaries of a science have been reached (and who can tell whether they have or not?), is a weak conditional one, for example that an event will follow if there are no 'disturbances'. The methodology in question is that of 'induction', for example generalising from past observations supplying us with manifold propositions, which are then linked together to give us quite a strong prediction, or theory. This may then be tested and questioned at a later date, possibly considering further important variables.

Hicks considers a second approach to be of relevance in the field of science: the stochastic approach. Here, one concentrates on a finite sequence of experiments, drawing inferences about longer series using probability theory. If we can then identify some systematic disturbances, we may eliminate them.

### Economics

How applicable is the above to economics? Hicks states that 'it is better to have some knowledge of what to expect than none at all', but this shows quite clearly how weak predictions in economics are, based on the dubious concept *o*f ceteris paribus. Economics has always used the tying together of weak propositions, but due to a 'temporal' problem, predictions must end up weaker than in the natural sciences. Data are abundant and of a quantitative nature, but are of the past and the terms in which they are couched are those of another person, often made in a different context. Therefore, economics hangs on the edge of science:

> *'If a scientific theory is good, it is good now, and it would have been good a thousand years ago, if it had been available; but aspects of economic life which we need to select in order to make useful theories can be different at different times.'*

The stochastic approach to economics is thus econometrics.

### Economics and Econometrics

To complete Hicks' argument, econometrics faces the same 'temporal challenges' as economics, but cannot circumvent them. It is difficult to apply the stochastic methodology of a natural science to economics, as we cannot utilise our data in the same way. In the final instance, Hicks argues that we cannot apply the notion of randomness over a long period of time to economic data, as the circumstances change over time. He believes that we must turn to history and new arising events (still noting, however, that econometrics does have some role to play!).

Other views are not dissimilar to the above. Worswick (1972) paints a more depressing picture initially however, claiming that the 'gloomy science' has not led to a better, healthier economy. Interaction between fact and theory is challenged by the 'detached' nature of the facts. He is disillusioned by the econometric models, the manipulation of variables and the fudging of 'negative' results to make them 'positive': 'too much of what goes on in economic and econometric theory is of little or no relevance to serious economic science'. Econometricians use 'pretend-tools' to arrange and measure facts. Worswick is then also pessimistic, although again not to the extreme. He answers his primary question by noting that progress in economic science *is* possible, if very slow. Coefficients of econometric equations are however not durable, and predictions are hazy. 'Progress' must lie in gathering and processing ever more up-to-date data. There is little denying that econometrics is an undeveloped and contentious tool, as the above goes some way in showing. Hendry, an advocate of the methods and the scientific status of economics, notes a number of weighty critics, such as Brown or Leontief, who name 'glaring weakness of the data base' and 'deception by regression'.

J.A. Schumpeter wrote in the first issue of *Econometrica* that

> *'It was definitively established that economic theory involves quantity, and therefore requires the only language or method available to deal with quantitative argument as soon as it outstrips its most primitive stage.'*

Both Maddala and especially Koutsoyiannis give good descriptions of what exactly is involved in econometric research, although both stress that their 'lists' are neither perfect nor final. They state that econometrics establishes the usefulness or insignificance of certain factors in economic relationships suggested by theory, and can thereby reshape theoretical economics through its analysis. Relationships are more precisely defined as regards coefficients, and explanations of parameters become more exact. A useful definition is then the following:

> *'Experience has shown that each of these three viewpoints, that of statistics, economic theory, and mathematics is a necessary, but not by itself sufficient condition for a real understanding of the quantitative relations in modern economic life. It is the unification of all three that is powerful, and it is this unification that constitutes econometrics.'*

So, the above argument, seems to revolve around some form of 'line' between the 'exact' sciences, and the 'moral sciences', a definition made by philosophers. Both place the train of econometrics somewhere on this 'railway line', but those who advocate it suggest it is moving ever closer to making economics a science, whereas those who oppose it state that it has been diverted by some 'specification side-track', therefore making it irrelevant whether the train itself gets ever faster or not!

## The Socratic Ignorance of a 'Progressive Research Strategy' Approach to Econometrics

Although Socrates proclaimed to be 'ignorant', and not able to put forward an opinion, he invariably did. Named by Apollo through an oracle as the wisest man alive, the Platonic Socrates sought to refute this by questioning anyone who purported to be wise, and find one wiser than himself. If they were not wiser, however, he questioned their ideas and proved their ignorance beyond a doubt, using a negative questioning process, the 'elenchus'. In a certain sense, he shows that, through his awareness of his ignorance, he remains wiser than those who are not. However, if this essentially negative result were the full extent of the ideal and aims of Socrates, it would not provide a fitting background for the current discussion. What is important is the following point:

> *'For Plato has designed Socrates' questions not only to lead Socrates' interlocutors to the recognition that they are as ignorant as he, but to guide first the conversation within the dialogue and secondly the reader to an improved understanding, and ultimately perhaps knowledge, of positive answers to the fundamental questions with which Socrates starts'*

The goals of Socrates (and Plato) were often of a more fundamental nature, examining virtue, justice and courage amongst others, but there are similarities in the methodology. The topics discussed were difficult to grasp, and their nature often almost impossible to agree upon. However, Socrates did not give up, and continued to question and argue. Even if a recognition of ignorance was the only outcome, this was considered positive and a basis to perhaps finding the right way, the right formulation of the problem and the right answer to it. The science of economics may not be exact, nor may econometrics produce positive, well-founded results all the time, but it is potentially as virtuous as the Socratic method of producing some positive result from such intensive questioning.

In an abstract way, Hendry and Mizon promote an approach similar to this process. It is a process that should not be strange to econometricians.

In formulating a model, a number of steps are invaluable:

- the model must be formulated as generally as possible, so as to characterise the data most thoroughly;
- it must encompass all previous models utilising comprehensive knowledge of them;
- this implies that a model must fit at least as well as preceding ones.

As modelling is a process, it is infinitely improbable that these criteria will produce a model that is everlasting - this is in fact an essential criticism of econometrics. However, the above approach does not claim to ascertain an 'ultimate truth', although at first this may seem to be the case. As do Hendry and Mizon, McCloskey mentions the 'context of discovery' and the 'context of justification'. These are vilified as postmodernistic tools to deal with the embarrassing fact that not all can be deduced from economic theory, and that economic scientists are convinced by 'metaphor, case study, upbringing, authority, introspection, simplicity, symmetry, fashion, theology, and politics....' McCloskey rejects the old style, modernist scientific method approach to economics. Economics as a science must go beyond this eternal and non-viable quest for prediction, control, observability. It promises knowledge free from 'doubt,

metaphysics, and morals' (p.488) and utilises a methodology to test practice that is arrogant and pretentious, based on a 'dubious epistemological principle' (p. 491).

Econometrics is included in the problem, as it is inevitably drawn into the 'official rhetoric' as McCloskey puts it. But, it is also part of the 'workaday rhetoric'. There are elements involved, which are not readily explainable. 'Unreasonable' results are then 'looped' and changed regarding the hypothesis or specification, wreaking havoc with the 'objectivity' of modernists. The official theory is quickly left behind, and here we return to Hendry and Mizon, and to Socrates. The former do not align with McCloskey's views, and this is not their intention, but implicitly their analysis is complementary:

> *'Intrinsically, therefore, models embody the notions of design and a corresponding focus of interest, but are inherently approximations and inevitably 'false'. .....Nevertheless, models can differ radically in their usefulness, (or otherwise!) relative to the objectives for which they were constructed. The extent to which they are useful depends on their actual design, not on the origins or methods whereby that design was achieved'*

The design must be dependent on the designer, and this is where subjective notions become important. Objectivity in economics is overstated, according to McCloskey, and in a certain sense is also claimed by the above authors. The former asks why such a firm line must be drawn between scientific and unscientific study. The latter seem to comply to this by giving us a way forward that relies on both feeling and introspection as well as quasi-objective checks and methods in the shape of computer programs run by 'honest' econometricians. Econometrics then plays a valuable part. Although it seems not to be able to be a pure method of science in economics, if we accept economics as different from science learnt in school then it remains a most useful tool. We are then returning to Socratic ignorance. This is of course not ignorance as such, but rather a notion that whatever we produce, we are analysing a system that is far too complex as to be fully understood through *any* methods. Socrates is also quick to disarm any attempt to impose false theories to further ones' own ends. A less formal analysis built on 'workaday rhetoric' and some progressive, critical system of empirical testing allow us to know how little we really do know, and also uncover 'frauds'. We must remain critical of econometric results, but nonetheless utilise them:

> *'If econometric argument does not persuade, it is because the field of argument is too narrow, not because the impulse towards thoughtfulness and explicitness which it embodies is wrong. The arguments need to be broadened, not merely dismissed.'*

Even if the 'train' considered above has been diverted, who is to say that any particular track might not be the right way to go? The constructive humility and wisdom of the Socratic ethos are proven by their continuing salience. The authors discussed above have implicitly applied it to economics and econometrics. They have shown that economics escapes from a rigid determination of science, but fulfils criteria much wider and more important to the topics at hand. It seems that a certain amount of humility and attempting to test other people's theories as well as one's own, constantly learning from and questioning others, and one's surroundings, are a most excellent basis for any science to build on. Even if we must continually confess collective ignorance as to the possible causations of complex models, we may draw from such results and look for new ways forward. Econometrics allows honest quantification of these ideas, as beset with problems as it may be. It is as useful an exercise as Socrates questioning Thrasymachus in Polymarchus' garden.

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# John Law, Monetarist or Keynesian?

## Fraser Hosford - Senior Sophister

John Law is typically remembered for the failure of the Mississippi system. In addition, he has been classified as a Keynesian. Fraser Hosford disputes this classification and finds evidence to suggest that Law might be more appropriately remembered as a Monetarist.

*"He worked out the economics of his projects with a brilliance and, yes, a profundity, which places him in the front rank of monetary theorists of all times."*

Joseph A. Schumpeter

"*a man of the rarest and most remarkable genius but one without virtue or religion*"

Ferdinando Galiani

"*the eldest son of Satan*"

Common French Appellation for Law

Few people in the history of economic analysis have inspired such a diverse range of opinions. This shows how truly remarkable John Law was. Law is chiefly remembered for the collapse of the Mississippi system to the neglect of his monetary theory. However, the aim of this paper is to investigate the monetary writings of John Law and to relate the themes to modern schools of thought. Section I shall briefly introduce his main monetary writings. Section II shall show that Law's theory accords with classical economic theory in many areas. Law's Keynesian leanings and proposals shall be examined in Section III. In Section IV the consistency of Law's theory shall be shown. And finally in Section V Law's policies shall be criticised.

### Section I

John Law's monetary thought is largely contained in two works, *Essay on a Land Bank* (1704), and *Money and Trade* (1705). The first of these works, *Essay on a Land Bank*, was a proposal to the English parliament of the day advocating the use of a land money in lieu of silver money. The content of the essay is best seen in Law's opening sentences:

> "*A land money may be established upon a voluntary acceptance so as to serve the uses of money better than silver money and to us to have a currency preferable to it. To prove this I shall show what are the uses of money, what are the qualities needful to be capable of these uses, and in what degree land and silver have these qualities.*"

*Money and Trade*, written one year later, was also a land bank proposal, this time to the Scottish parliament. Many such proposals were published at the time but Law's proposal stood out due to the intellectual depth of his argument. Contrary to most of his contemporaries, Law had substantial theory behind his policy proposal. He went back to the very nature of money as shown in the above quote, and in the opening paragraph from *Money and Trade*:

> *"There are several Proposals offer'd to Remedy the Difficulties the Nation is under from the great Scarcity of Money. That a right Judgement may be made, which will be most Safe, Advantageous and Practicable; It seems Necessary, 1. That the Nature of Money be inquired into, and why Silver was us'd as Money preferable to other Goods. 2. That trade be considered, and how far Money affects Trade. 3. That the Measures have been us'd for preserving and Increasing Money, and these now propos'd be examin'd"*

Thus *Money and Trade*, while written for the same reason as *Essay on a Land Bank*, went further by exploring the relationship between money and trade and the potential methods for increasing the money supply. This was because of the "great Scarcity of Money" which Law perceived to be the main reason for the depressed state of the Scottish economy at the time.

Murphy notes that the relationship between *Essay on a Land Bank* and *Money and Trade*, is in many ways similar to the relationship between two of Keynes's great works, *A Treatise on Money* and *The General Theory of Employment, Interest and Money*. The later works were considered to be both broader in subject and more revolutionary. However, whether or not Law deserves to be regarded in the same vein as the great Lord Keynes remains to be seen.

## Section II

Many elements of the theory behind Law's policy proposals coincide with the generally accepted views of contemporary economists. Not only is his account of the functions of money standard today, but he has been credited by Schumpeter and other economists with being the first writer to give such an account of the four functions of money. His definition of money in Money and Trade accounts for the functions of money as a measure of value, a medium of exchange and a standard of deferred payment:

> *"Silver is the measure by which Goods are Valued, the Value by which Goods are Exchang'd, and in which Contracts are made payable."*

That Law was aware of the fourth function of money, money as a store of value, is obvious from his support for land money, which was based on it having greater stability of value than silver money. He goes on to add that for "money to be qualified for exchanging goods and for payments need not be certain in its value." Here he is not denying the store of value function but actually postulating that there exist wider forms of money, such as stocks and debentures, which solely fulfil the medium of exchange role of money. While herein lies one of the flaws of Law's thinking and of his Mississippi system, it is also an important recognition of the concept of liquidity.

When it comes to the analysis of the role money plays in the economy and monetary policy, history has treated Law rather unfairly. Various commentators have dubbed him an inflationist and even worse a Keynesian. However, it shall be contended here that Law was in fact a precursor of modern monetarism. While Law would certainly not have subscribed to all the major tenets of monetarism, he had a remarkable comprehension of price determination and the Quantity Theory of Money. In *Essay on a Land Bank Law*, he stated that if the quantity of money is greater than the demand for it, money would be less valuable. Murphy notes that Law was the first writer to use the term 'the demand for money' to analyse the determination of inflation. Moreover the supply and demand analysis with which Money and Trade begins is extended to an analysis of money, with Law clearly stating what determines the value of money and hence the level of prices:

> *"Silver in Bullion or Money changes its Value, from any change in its Quantity, or in the Demand for it: In either of these cases Goods are said to be dearer, or cheaper; but 'tis Silver or Money is dearer or cheaper, being more or less valuable to a greater or lesser Quantity of Goods"*

The clarity of the argument and its reiteration in other parts of the book demonstrates Law's understanding. Furthermore Law illustrates his argument using the example of the inflation of the preceding two hundred years in Europe which he blames on "The Spainiards (who) bring as great Quantities into Europe as they can get wrought out of the Mines". This was his main reason for advocating a land bank, as he believed that land money would have a more certain value than silver money because it does not increase in value. This continual emphasis on the need for monetary stability echoes Friedman, who said that the two most important things that monetary policy could do is to prevent money itself from being a major source of economic disturbance, and to provide a stable background for the economy.

A further element of Law's theory that accords with monetarism is his recognition of the international dimension when it comes to price determination, or what is now known as the 'Law of One Price'. This is how he explained the fact that "Goods differ little in Price, from what they were when Money was in greater Quantity." It is because "the Value of Goods or Money differs as the Quantity of them or Demand for them changes in Europe; not as they change in any particular Country."

## Section III

Law believed that there was a relationship between the money supply and the real economy. He thought that money did have real effects on the economy and that the depressed state of the Scottish economy at the time was due to a scarcity of money. Chapter 2 of *Money and Trade* is titled "Of Trade, and how far it depends on Money. That the Encrease of the People depends on Trade. Of Exchange", and in it Law writes:

> *"Domestick Trade depends on the Money. A greater Quantity employes more People than a lesser Quantity. A limited Sum can only set a number of People to Work proportion'd to it, and 'tis with little success Laws are made, for Employing the Poor or Idle in Countries where Money is Scarce."*

This is one of the main tenets of Law's system, that wealth depends on trade (trade being a synonym for economic activity) and trade depends on the money supply. Vickers states that Law only gives one possible transmission mechanism on which this relationship depends. That is that an increase in the flow of money would raise demand which would then raise supply. This mirrors basic Keynesianism which inspired demand management policies for a large part of this century.

However, it can be argued that Law also thought there was a 'money in advance' requirement as subsequently argued by Clower and Leijonhuvfud. This argument states that there is demand in the economy which is unrealised because of an inability to financially support that demand; it is in effect only notional demand. Employers may want to hire more labour, but this can only be financed by what the labour produces. Individuals may want to purchase more goods and services but this can only be financed if they get a job. Thus, money is needed to turn these notional demands into effective demands and so an increase in the money supply could have real effects on the economy. In *Money and Trade*, Law noted that money is needed to pay wages and to buy goods. His example of an island, which switched from a barter to a monetary economy, also illustrates this point.

Nicholson notes that it was during Law's time in Holland that his views on money matured. He would have observed that in Holland there was an abundance of money to drive trade owing to its banking system, and this would have contrasted gravely with the situation in Scotland.

Law also pre-empted the Keynesian multiplier by observing that when consumption increased as a result of increased employment the economy would be stimulated further.

## Section IV

So there seems to be a contradiction at the very heart of Law's theoretical system. He appears to switch from a pseudo monetarist theory to a Keynesian theory and Keynesian policy measures. At the very root of the problem is blatant support for an expansionary monetary policy to stimulate the economy coupled with a belief in the price forming activity of money.

Vickers suggests that Law abstracts himself from the problem of inflation by an implicit assumption about the elasticity of supply of commodities produced. This theory is supported by the following quote:

> *"Perishable Goods as Corns, etc. encrease or decrease in Quantity as the Demand for them encreases or decreases; so their Value continues equal or near the same."*

Such an assumption means that the expansionary policy Law advocated is consistent with the Quantity Theory. Friedman himself said that "changes in money income mirror changes in the nominal quantity of money. But it tells nothing about how much of any change in Y is reflected in real output and how much in prices. To infer this requires bringing in outside information." So, if real output is at full employment level, supply will be inelastic and prices will increase. Or, like Law's assumption, if supply is elastic to changes in demand, output will increase and prices will be constant. Law's policy measures can now be analysed in terms of his own money supply/money demand framework. Law proposes that money demand will increase as trade increases. Thus, a transmission mechanism emerges whereby an increase in the money supply will increase real economic activity which will subsequently increase money demand. This ensures that the money supply will not rise out of line with money demand so that there will be no inflationary consequences.

Thus, this reconciliation of Law's policy proposals with neo-classical economics illustrates that Law's thinking did not leave out the real economy. Rist has criticised Law for doing so, while being himself stuck in a crude form of metallist cum mercantilist thought. In fact the actual systems that Law proposed were designed to be linked to the real economy. Under his land bank proposals, banknotes were directly linked to the productive earning powers of the land, and even his wider forms of money, like shares, were still linked to a productive capital base.

Therefore, Law's system appears to be internally consistent. Whether it passes the second test of being a close description of reality depends on the feasibility of the elasticity of supply assumption. This is not an absolute assumption, in the opinion of the author, and obviously depends on the economic climate of the time. When one takes into account the condition of the Scottish economy at the time of *Money and Trade,* the assumption does not seem so absurd. However, it is quite an optimistic assumption and in general, supply will not rise by enough so as to avoid a stimulus to inflation. Therefore Law's policy proposals have to be treated with extreme caution.

It should be noted that the flaw in Law's thinking, in relation to the Balance of Payments is not of direct relevance here. His belief that an increase in the money supply would increase exports and so lead to a trade surplus, is crucially dependent on two further assumptions. The first was about the expansibility of foreign demand, and the second that domestic consumption remained at the same level. This is in addition to the assumption about the expansibility of production.

Law gives another reason in *Money and Trade* why money demand and money supply will remain matched thus avoiding inflation:

> *"This Paper-money will not fall in value as Silver-money has fallen, or may fall.... But the Commission giving out what sums are demanded, and taking back what Sums are offer'd to be return'd; This Paper-money will keep its value, and there will always be als much Money as there is occasion, or imployment for, and no more."*

Law is stating that there can be a reflux of notes to the issuing authority so as to ensure that the money supply equals money demand. Vickers criticises Law for this assumption, noting that the authorities are not in any way compelled to take back notes, and furthermore that the demand for notes for trade purposes is related to the actions of the monetary authorities. While these criticisms are valid, they relate to Law's policy proposals and do not undermine the monetary theory that is being examined in this paper.

In *Essay on a Land Bank* Law describes the same reflux process and states that the level of interest has to stay constant and that if there are more notes than demand for them, at that level of interest, then they will be returned. He does not suggest that the authorities are capable of setting the money supply so as to equal money demand; in fact, he states that "the Parliament could not justly know what sum [of money] would serve the nation" This again echoes modern monetarism, which recognises that monetary policy could be used to offset economic disturbances, but believes that such measures are likely to aggravate the situation due to lack of knowledge about the economy, and so advocates a monetary growth rule.

In fact, Law's proposal for the monetary authorities to expand and contract the money supply, in order to maintain monetary stability, mirrors the pragmatic approach to monetary policy that is used in Western capitalist economies. Although such active policies are not

supported by monetarism, as explained above, they in no way violate the Quantity Theory.

So it has been shown that Law's monetary theory is coherent, except for the flaw in relation to the Balance of Payments. However, the consistency of his theory relies on a rather dubious assumption, which does not adequately describe the real world. It should be remembered that all economic theories are based on assumptions about the real world and that the feasibility of such assumptions is a relative phenomenon. Therefore, Law's theory should not be dismissed because of his supply assumption.

## Section V

Turning to Law's policy proposals and actions there are a number of flaws which can shed further light on his monetary theory.

It has already been mentioned that the main reason Law advocated a land bank was because "Land has a more certain value than other Goods" including silver, the currency of the time. This was due to the fact that silver was fixed in supply and had inelastic demand. Furthermore, as paper money was to be issued against the land, when its demand changed, money supply could be changed as well, as shown before.

However, Law was ultimately mistaken about the stability of the value of land and it represents the major flaw in his proposal. The real value of land will change due to productivity improvements and changes in the factors of production ratio. Curiously, Law noted the fact that land was capable of improvement but neglected to follow up the argument. Furthermore, land itself is heterogeneous. Ironically, the potential instability of the value of the proposed money is the very issue over which he criticised Chamberlain and others.

However, the puzzling issue regarding the stability of the value of land, is that Law also proposes an increase in the paper money that is issued against the land. This will automatically increase the monetary value of the land. With money demand rising to meet money supply, commodity prices will remain constant and thus the monetary relationship between land and commodities will be forced out of its natural equilibrium. This will have disturbing effects on incentives and decrease the efficacy of the market system. Furthermore, the artificially increased prices in the property sector of the economy could result in a speculative bubble that would have devastating effects on the whole economy. This pattern has become familiar in the recent boom and bust cycles that have scarred various parts of the world. Ultimately this fallacious policy is a result of Law's monetary theory. As Cesarano has shown, Law was a theoretical metallist, but due to his concern about the lack of money in the Scottish economy of 1705, he headed towards practical cartalism.

The infamous Mississippi System is for what Law is best remembered. The apparent folly of the system and the damage that it caused, has led some commentators to completely dismiss Law. However, as has been shown so far in this paper, his monetary theory was cogent and quite remarkable for the early eighteenth century. The history and flaws of the system have been well documented, but for the purposes of this paper a short look at the system will reveal more about Law's monetary theory.

Galiani echoes most economists when he faults Law for issuing an excessive quantity of money. Ultimately this was the failure of the system, that the money supply was expanded too far too soon. It has to be noted that Law was attempting to solve a financial crisis as well as a monetary crisis, as the French government was highly indebted at the time. There was also great pressure on him to pursue such excessive policies from the Regent, and two powerful groups, the financiers and the rentiers, were strongly opposed to him. However, despite these facts, Law still has to accept responsibility for the failure of the system, and his overexpansion of the money supply seems to cast doubts over his monetary theory.

Law had continuously multiplied the monetary wealth of many people in a short period of time without much consideration for the real economy. When he recognised this and tried to remedy the situation, it was too late. This whole experiment seems to show that Law believed too much in the capabilities of money and assumed away the role of money demand and the real economy. In the context of the earlier analysis of his monetary theory, Law must have believed that his elasticity of supply assumption would hold.

## Conclusion

This paper has shown that John Law pre-empted much of modern monetary economics. It has also shown that the reconciliation of his monetarist and Keynesian tendencies depends on an elasticity of supply assumption that reflects Friedman's remark that the main differences between the two schools of thought are empirical and not theoretical. Law's theory is both accomplished and consistent; however, it does rely on a rather doubtful assumption about supply. While this is not cause to dismiss his monetary theory it does mean his policy proposals should be treated with respect. When Law finally got a chance to implement his ideas, it exposed an overemphasis on the real effects of money and a neglection of the real economy. This is what has ultimately led to his popular, and perhaps misguided, classification as a Keynesian.

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# Is Political Business Cycle Theory Relevant to Ireland?

## Thomas Newell and Alan Stuart - Senior Sophister

In recent decades, economists have spent much time analysing the influence of politics on economic cycles. Thomas Newell and Alan Stuart present a review of political business cycle theory literature and consider its relevance to Ireland.

## Introduction

Since the 1970s, the field of political economics has attempted to describe and develop models to outline how governments in office, ever conscious of the need for re-election, manipulate key macroeconomic variables in an attempt to achieve political popularity. Research into these political business cycle (PBC) models attempts to link political elections with business cycles and examines theoretical ways in which explanatory links can be developed. The purpose of this paper is twofold. Theoretical, political and economic assumptions that underlie PBC models will be questioned, followed by an investigation into their applicability to Ireland. Two general methodological approaches can be taken to investigate the reliability and validity of these models. These are a qualitative narrative approach that relies upon anecdotal evidence or a quantitative approach using econometric modelling. Although only a small level of research into these theories has been undertaken with respect to Ireland, we shall provide a critique of that research and question its conclusions. The structure of this paper is as follows:

- A review of the main PBC models that have been developed, and a critique of the taxonomy developed by Alt and Chrystal (1983) to describe them;
- An outline of both the explicit and implicit assumptions of PBC models, which are often neglected by authors in the field;
- A review of PBC studies in Ireland, and an extension of research into the area already undertaken;
- An examination of whether the restrictive assumptions required for PBC models to work are realistic in an Irish setting.

### Background to Political Business Cycle Theory

An attempt to describe the diversity of PBC theory was undertaken by Alt and Chrystal (1983) and remains the dominant reference in the field. They made a number of initial assumptions, which they claimed were present in all PBC models. They are the following:

> "*1. Governments aim to win elections. In order to win elections, they attempt to maximise votes.*
> *2. Among economic outcomes, voters have preferences that are reflected in their voting behaviour.*
> *3. Governments can manipulate the economy to improve their chances of re-election.*"

Following from these three assumptions, Alt and Chrystal devised a taxonomy to describe the literature concerning PBC theories (Alt and Chrystal, 1983). This is illustrated below. The 2X2 matrix places four main PBC theorists' models in different cells of the matrix. The vertical axis describes whether the electorate's preferences for a particular trade-off of economic outcomes are fixed for each elector or if they vary over time. The horizontal axis describes whether governments are ideologically motivated and wish to adopt the policy preferences of their supporters (responsive governments), or office motivated and wish to calculate policy positions to maximise the greatest number of potential votes (strategic governments). Although the Alt and Chrystal taxonomy has been used as a starting point by researchers investing PBC, our paper will take a different approach. We shall examine the taxonomy's failure to outline the implicit assumptions surrounding the theories it describes and its neglect of alternative dimensions of PBC theory. We will begin by briefly reviewing each model in the taxonomy.

| GOVERNMENT PREFERENCES | | |
|---|---|---|
| ELECTORATE PREFERENCES | Strategic | Responsive |
| Fixed | Nordhaus | Hibbs |
| Varying | Tufte | Moseley |

Under the assumptions of fixed preferences and strategic governments, Nordhaus developed his model in the context of a naïve Phillips Curve model. With fixed election dates, he predicted that the economies are stimulated prior to an election with output increasing above the natural rate and thus reducing unemployment. After the elections, contractionary policies are implemented to control inflation (Nordhaus, 1975). Hibbs's partisan model was also based upon voters' myopia. His two-party model envisaged a left-wing party and a right-wing party. The former would be willing to reduce unemployment at the expense of high inflation, while the latter would be prepared to tolerate more unemployment with higher inflation. With left-wing victories, cycles are post-election as opposed to pre-election with right-wing victories (Hibbs, 1987). Tufte (1978), while following Nordhaus's myopic and strategic assumptions, claims that governments can in fact influence voters' preferences through the media and can do so to maximise the votes they receive. Mosley, on the other hand, agreed with Tufte's belief that governments can manipulate voters' ideas about which economic variable is the "crisis" variable, but assumed a level of partisan ideological bias among parties, like Hibbs (Mosley, 1984). The cyclical preferences indifference map which underlies these models is illustrated with algebra and appropriate diagrams in Appendix A.

The main ways in which the Alt and Chrystal taxonomy can be criticised are as follows:

- Some PBC theories exist that do not strictly follow all of Alt and Chrystal's assumptions;
- Alt and Chrystal ignore more important dimensions, which differentiate PBC models;
- Some models span more than one cell of Alt and Chrystal's taxonomy.

For instance, Alt and Chrytal's third assumption above does not state whether the government's ability to manipulate the economy depends upon voters' myopia. As it happens, all the models that they place in their taxonomy assume voters' inflation myopia, but a significant amount of the literature instead ignores voters' myopia in favour of asymmetric information between voters and future governments as the cause of the cycles. Alesina (1988), for example, expands Hibbs's model into one based upon rational expectations and Bayesian game theory. As before, the left-wing party concerns itself more with unemployment and is willing to accept higher short-run inflation, while with right-wing parties, the opposite holds true. Firms set inflation expectations as the weighted probability that either party will win the election. Therefore, a temporary boom follows left-wing victories as inflation is always higher than expected, while a temporary recession follows a right-wing victory as inflation is lower than expected. Sheffrin (1996) suggests that stock market indices should reflect Alesina's "announcement effect". This would result because a right-wing victory should result in lower prices, reflecting depressed profit streams, and vice versa for left-wing victories.

Others, including Rogoff and Sibert, Ferejohn and Cukierman and Meltzer have attempted to apply similar rational expectations analysis to fiscal policy distortions at electoral frequencies (Rogoff & Sibert, 1988). Persson and Tabellini (1991) go one step further by measuring government competence in terms of the natural rate of unemployment. It is also worth noting research findings by Kelman (1988) that electors' voting does not necessarily reflect their own preferences and can even be vaguely altruistic in nature. For instance, his research indicated that people vote for a particular party's policy because they believe that it will be good for the country in general, rather than for themselves.

Frey and Schneider (1978) also seem to combine both Alt and Chrystal's responsive and strategic governments with fixed preferences. In their model, they attempt to outline a popularity function and a policy function. The political popularity function expresses a party's support as a function of the unemployment, inflation and economic growth rates, while the latter embodies the responsive ideological preferences of the incumbent government. If popularity is low, then economic variables are manipulated to 'correct' the picture, whereas with high popularity the government follows its supporters' and own ideology by being responsive. Therefore, Frey and Schneider's model emphasises utility maximising instead of vote-maximising governments. Popularity is sought so that the ideological programme can be followed.

Another highly unrealistic implicit assumption of the Alt and Chrystal's models is the exogeneity of the

election timing (i.e. elections occur at fixed time intervals). However, only a tiny number of countries, such as America, have this system of electoral law. The 'ethnocentric' bias of PBC theory was only questioned by Balke (1990), who proposed the simple fact that governments time elections to occur during periods of economic boom. Thus instead of elections causing booms, Balke claimed that booms cause elections in endogenous election-timing regimes. Instead of the business cycle being fitted to the political cycle, the political cycle is fixed to the business cycle. Terrones (1987) goes one step further by expressing the probability of holding elections as a function of the strength of the economy and the remaining period in office.

It is evident from the descriptions above that Alt and Chrystal's taxonomy, prominent for so long in PBC theory, is flawed and outdated in describing the diversity of PBC literature. However, Alt and Chrystal's claim of a lack of empirical evidence is still generally true for all PBC models:

> "*... it is curious that the literature on political business cycle is widely invoked, even though there is little evidence of such cycles*" *(Alt & Chrystal, 1983)*

What this paper proposes is to outline the unrealistic assumptions that PBC models make about countries' economies and political systems. The fact that some models have not discussed all of their assumptions or how they differ from one another is a cause of great confusion. All PBC theories make the following assumptions:

A1) economic policy is a dominant dimension that divides political parties,

A2) growth, output and inflation are mostly endogenously determined.

While the first assumption is sometimes subsumed by ethnic or social cleavages, the second is true only for the most autarkic regimes today. Some or most PBC theories also make the following explicit assumptions, which are also questionable:

B1) voters' myopia or asymmetric information,

B2) exogenous election timing,

B3) choice between individual and social welfare is reflected in voters' preferences,

B4) parties are either strictly strategic or responsive but not both.

The case of the models that make these assumptions is outlined in the model descriptions above. In addition, political science literature suggests the following implicit assumptions, which are at odds with the PBC models to varying degrees in different countries:

C1) proportionality of the electoral system,

C2) economic policy variables in manifestos turn into actual outcome variables,

C3) party policy within a party is stable, regardless of the personalities that hold key positions,

C4) clear differentiation of economic policy between parties,

C5) coalitions reflect policy positions in proportion to their share of support in government,

C6) control of certain key ministries has no effect on overall coalition policies.

In the second half of this paper, we shall review and extend empirical tests of the models outlined above in relation to Ireland. We will also show that in the case of Ireland, the A, B and C assumptions are somewhat difficult to accept as being valid.

## PBC Theory and Ireland

Unfortunately, there has been a paucity of PBC research in Ireland. Only one major Irish econometric study has been undertaken (Annett, 1991). Other Irish political science and economic history literature, however, shall be used to provide a critique of Annett's results. Finally, the robustness of the A, B and C assumptions shall be examined in the case of Ireland.

In attempting to model political business cycle theories econometrically, authors like Alesina (1988) and Hibbs (1987) adopted the approach of creating regression equations to explain domestic growth, inflation and unemployment using foreign and domestic values of the relevant variables as regressors. Various PBC dummy variables are then individually added to the basic equation to test the various hypotheses of different authors. The purpose of adding the dummy variables individually is to avoid overspecification. Annett simplified this approach by including only some domestic autoregressive terms and the UK equivalents of the relevant variables as proxies for exogenous effects on domestic

growth, unemployment and inflation. Annett's regression equations are specified below. In order to obtain as many government changes and degrees of freedom as possible, a time period of 1949 to 1991 was chosen:

Irish Annual Economic Growth: $IREG_{it} = IREG_{it-1} + UKEG_{it} + e_i$

Irish Annual Unemployment Rate: $IRUNEMP_{it} = UKUNEMP_{it} + e_i$

Irish Annual Inflation Rate: $IRINF_{it} = IRINF_{it-1} + IRINF_{it-2} + UKINF_{it} + e_i$

Until 1989, post-war Irish politics consisted of single-party Fianna Fáil minority or majority governments, alternating with Fine Gael and Labour-led majority and minority coalitions. Annett labelled the Fianna Fáil governments as left-wing "social democratic" alternatives to right-wing "conservative" coalition governments. The rationale behind these labels was based upon an interpretation of Mair's work into the public spending policies of parties over time (Mair, 1987). The dummy variables used by Annett and his results are presented in Appendix B. Annett's basic equations all yielded moderate to high $R^2$ values and significant regressor t-statistics.

Annett's annual growth equation found no evidence of Nordhaus-style election-time growth spurts since the relevant dummies were insignificant. The "HPART" dummy tested the Hibbs (myopic) partisan model. Its positive and strongly significant value is indicative of Fianna Fáil being the party of fiscal expansion and high growth. Yet, there is no evidence of growth being consistent with the weak or strong versions of the Alesina model. The basic annual unemployment equation is also significant but with a low level of explanatory power. Here the Nordhaus dummies are not only insignificant, but also have the opposite of the hypothesised sign. The Hibbs dummy predicts lower unemployment under Fianna Fáil. Lagged one period, "WRPT" is highly significant yielding evidence in favour of the weak rational partisan model. Incorporating the strong rational partisan dummies, also lagged one period, does not provide much evidence in favour of cyclical behaviour after each election. From the results, it is evident that partisan unemployment might exist, though both the temporary and permanent versions of Alesina's model look unlikely (Alesina, 1988; Annett, 1991). The basic annual inflation model proved to have much greater explanatory power than the previous two models. None of the dummy variables outlined above were significant. Therefore, neither Nordhaus-style inflationary bouts around elections nor Hibbs-style partisan inflationary differences are evident. Annett also tried to test Persson and Tabellini's competence hypothesis (i.e. that higher inflation is associated with weak governments) by using the "STAB1" and "STAB2" stability dummies (see Appendix B). The results show that nether is significant. Annett never tested for either the Moseley or Tufte models of varying preferences. Since detailed policy-priority surveys of the electorate have only been done since 1987, it was impossible for the authors to attempt any meaningful econometric test of them.

However, Annett did attempt to test for the Balke (1990) and Terrones (1987) hypotheses about election calling in endogenous election-timing regimes (Annett, 1991). Annett followed the methodology of his predecessors in using logit and probit models to estimate the probability of calling an election (Alesina, 1988). The dependent economic variables were quarterly inflation, quarterly change in unemployment and the number of quarters since the previous election (TL). The basic logit and probit models are defined by the following basic equation:

$PROB_{it} = IRUNEMP_{it} + IRINF_{it} + TL_{it} + e_i$

Annett added his stability dummies to the basic equation and the results are in Appendix B. Both the basic equations show that while inflation is insignificant in the decision to call elections, there is weak significance in the negative relationship between unemployment and the probability of calling elections. The evidence is stronger in the logit model. However, the assumption of election calling as a 'choice' variable in endogenous election-timing regimes is not particularly applicable in Ireland due to the fact that most elections are caused by necessity as a result of coalition break-ups or political scandals (Coakley & Gallagher, 1992). The high significance of Annett's stability dummies indicates that it is the presence of coalitions and minority governments that determines elections to a much greater extent than the state of the economy.

Annett did not test Frey and Schneider's beliefs about partisan behaviour being contingent upon a favourable economic climate. However, in this paper an adjustment was made to Annett's basic growth equation to test just that. The dummy variable "ECNCLMAT" was added to the basic equation to provide the necessary adjustment. However, both the $R^2$ value of the basic equation and the t-statistic of most of the dummies disimproved, thus casting doubt upon the Frey-Schneider model validity for Ireland. The results are illustrated below.

**Results of the Frey-Schneider Growth Adjustment:**

| | PBC1 | PBC2 | HPART | WRPT | D1 | D2 | R1 |
|---|---|---|---|---|---|---|---|
| Coefficient | .00023 | -.00057 | .0036 | -.00037 | .0016 | -.0026 | -.0036 |
| t-statistic | .9645 | .9018 | .1313 | .9155 | .7965 | .6952 | .4339 |
| *$R^2$=0.64, F=23.604* | | | | | | | |

The authors also tested Sheffrin's idea the "announcement effect" of Alesina's concerning expected inflation hypothesis upon stock exchange prices, by setting up the following equation (Sheffrin, 1996):

$SEPRICES_{it} = IRINF_{it} + IRINF_{it-1} + PBCINF_{it} + e_i$

**Results of the Sheffrin "Announcement Effect" Equation:**

| | Basic Equation | PBCINF |
|---|---|---|
| Coefficient | *$R^2$=0.72* | -105.5 |
| t-statistic | *F=16.14* | 0.325 |

Unfortunately, these results show low t-statistics, even after correcting for autocorrelation and multicollinearity, so we can disregard Sheffrin's proposal.

## An Examination of PBC Assumptions in Ireland

At the end of the second section, we noted the underlying assumptions of PBC theory and the extent to which they were crucial. In reinforcing our criticisms of PBC models, our final section will examine these assumptions in relation to Ireland. Both of the A assumptions, which underlie all of the PBC models, can be easily proved to be untenable in Ireland. A quick glance at any history book will illustrate that the economic policy dimension has never been a dominant divisive force in Irish politics (Cullen, 1987). The 1950s obsession with the question of national identity was replaced by social, rural/urban and moral issues in the 1960s and 1970s (Chubb, 1992). Only from the mid-1980s did political scientists develop policy position tables to calculate more accurately the importance of the economic policy dimension. Indeed, economic policy only ever equalled or was exceeded by the other dimensions in terms of importance in Ireland, especially when compared with other countries (Laver, 1994). In fact, before the 1980s, the economic debates were dominated by the level of public spending and not about an inflation-unemployment trade-off. Criticism of the second A assumption stems from this. All major models determining Irish inflation (Central Bank of Ireland, 1997), unemployment (Barry & Bradley, 1990) and even growth (Ó Gráda & O'Rourke, 1995) have stressed the importance of exogenous determination of the variables. Being a small open economy with fixed exchange rates leaves Ireland with little scope for fiscal or monetary 'fine-tuning' in the sense of the PBC models. The Maastricht convergence criteria merely reinforce this stringent reality for 1990s Ireland. It must also be remembered that, in Annett's and this paper's ANCOVA models, the political dummies were only dummy variables and secondary to the main external and autoregressive variables in the basic equation.

Regarding the B assumptions, the adaptive and rational expectations approaches to studying inflationary expectations in the models are untenable given the prominence of indicative planning in Ireland, especially in the latter half of the sample period. Indeed, Leddin and Walsh (1995) find no relationship whatsoever between inflation and unemployment in Ireland. The assumption of exogenous election-timing has already been dealt with, but assumption B3, that voting reflects individual as opposed to social preferences in voting, can also be questioned. In Ireland, "the assumption that man is

an object of political rationality capable of calculating his precise well-being under different contingencies" has proved to be sometimes subservient to identification of voting for the traditional "family party" or for one's "social group" (Chubb, 1992). While these ties have weakened more recently (Coakley & Gallagher, 1992), there is considerable qualitative support for Kelman's socially responsible voting hypothesis mentioned above (Borooah, 1990). The B4 assumption of governments being either strategic or responsive, but not both, was tested by the Frey-Schneider regressions above.

The first of the C assumptions, proportionality of the electoral system, simply states that the proportion of votes for a party approximately equals the proportion of seats that the party gets in parliament. Although Ireland's PR-STV system is far more proportional than those of the UK and the US, there are still four ways by which it is prone to disproportionality (Coakley & Gallagher, 1992), and incidents of such have occurred during the sample period of study. Annett (1991), also admitted the assumption C2, that manifesto policy variables are transformed into outcome variables, in his paper. However, some political scientists have outlined no less than five ways in which this fundamental assumption is inapplicable (Gallagher, Laver and Mair, 1995), and have described Ireland as an example of this. Assumption C3 is also highly questionable given the importance of "personality politics" in Ireland over "toeing the party line" (Chubb, 1992). Cullen (1987) provides a critique of how dominant individuals have tried to alter party stances on economic issues, making Irish parties very "fuzzy at the edges". A corollary of this is the lack of validity one can give to assumption C4, and recent policy tables have confirmed the instability of economic policy positions among parties over time (Laver, 1994). Work by Borooah and Borooah (1990) casts doubt upon the "left- and right-wing" labels applied by Annett, which underlies the whole basis of the regressions in his, and this, paper. Indeed, Alt (1985) used labels that were the exact opposite of Annett's ones. Assumptions C5 and C6 have been questioned in a new model by Laver and Shepsle (1992) called "Portfolio Allocation", which they based upon "Westminster Model" countries like Ireland. The model emphasises the importance of the policy beliefs of the particular ministers in a government and the power that some portfolios can wield over others. Lee (1990) confirms their beliefs by outlining how the party affiliation and personal beliefs of Irish Ministers for Finance dominated coalition politics disproportionately. He also provides the example of MacEntee and Lemass as two people from one party with opposite fiscal views. Lee even uses the explicit term "political business cycle" to describe the Fianna Fáil Colley budget of 1972, but goes on to conclude that there was no evidence of this being a regular occurrence or of any recurring pattern with any party or coalition. In summary, the overwhelming qualitative evidence can be said to undermine the implicit C assumptions of PBC theory in Ireland.

## Conclusions

In this paper, we outlined and summarised, as broadly as possible, the diverse literature surrounding political business cycle theory. The Alt and Chrystal taxonomy, the traditional starting point for work on PBC theory, was shown to be inadequate as a description of the diverse models in use. We then proceeded to describe not only the explicit, but also the implicit assumptions that underlie most, if not all, PBC models that have been ignored in the literature. In applying the models to Ireland, we wanted to extend the econometric models used by Annett (1991) and provide a critique of them. While Annett concluded that there might be some evidence for partisan effects, by examining this paper's A, B and C assumptions we cast doubt upon his assumptions. While Annett's answer to the question in the title was a complicated way of saying 'maybe', this paper proposes a much simpler way of answering 'no'. PBC modelling is gradually losing empirical support in most other countries too.

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## Appendix A: Political Indifference Map Showing Vote Optimisation Underlying PBC Modelling

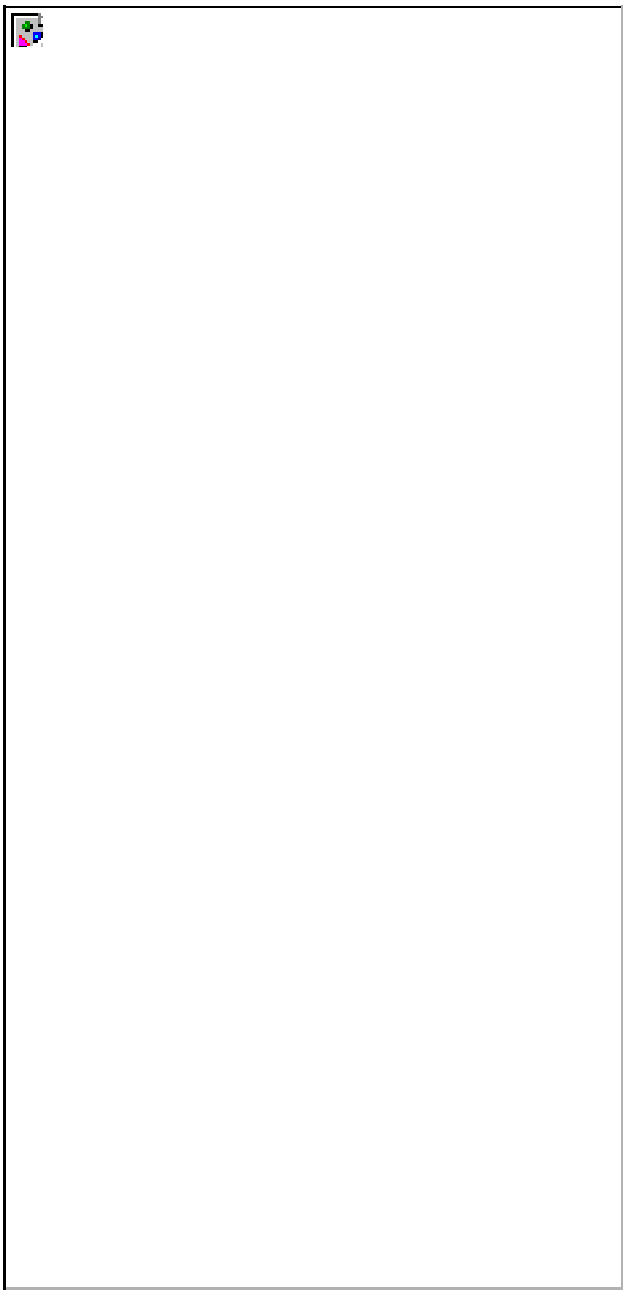
Since the two components of the 'misery index' are equivalent to negative goods in consumer theory, we can draw concave *isovote lines* (dotted) as an indifference map superimposed upon a set of naïve Philips curves (full lines) to arrive at a *voting expansion path* under the assumption of adaptive expectations. The objective isovote

function can be expressed as a function of inflation (p) and unemployment (U), while the non-linear Philips curves constraint can be expressed in the form of inflation as a function of unemployment (see Diagram 1). The non-linear constrained optimisation problem can be expressed as a Lagrangean:

The first order optimisation conditions are therefore:

Then setting the first order conditions equal to zero and solving to eliminate l gives:

This last equation is the voting expansion path, which goes through the origin when voters reach their optimal satiation point with no inflation or unemployment. The term -¶ g(U)/¶ U is the marginal technical rate at which inflation is substituted for unemployment in a given naïve Philips curve. The left-hand side of the equation is the ratio of the negative of the marginal rates of substitution of votes with respect to inflation and unemployment. Under the assumption of rational expectations, the constraint would be vertical at the non-accelerating inflation rate of unemployment (or NAIRU shown here by the symbol U*, see Diagram 2). The constrained optimisation problem with vertical Philips curves is impossible to illustrate by a Lagrangean, since there are no interior optimum solutions and the voting expansion path is coincident with the horizontal 'unemployment' axis. Each long-run optimum point is simply the boundary solution where each isovote line intersects the relevant NAIRU. It is worth also noting that no explicit functional form was used for either the isovote lines or the short-run Philips curves, since it is uncertain whether a circular, parabolic, hyperbolic or quadratic would best describe them.



## Appendix B: Description of the Variables Used in Annett's (1991) and This Paper's Regressions and the Relevant Results

PBC1: 0 in the election year (the preceding year if the election is before June), 1 otherwise (Nordhaus model).

PBC2: 0 in the election year and the preceding year, 1 otherwise (Nordhaus model).

PBCINF: 1 in the election year for Fianna Fáil governments, -1 for Fine Gael-Labour governments, 0 otherwise (the following year if the election is held in the last quarter) (Hibbs model).

HPART: 1 for years with Fianna Fáil governments, -1 otherwise (Hibbs model).

WRPT: 1 in the two years after the election, including the election year, for governments involving a change in power towards Fianna Fáil, -1 in the two years after election, including the election year, for governments involving changes in power away from Fianna Fáil, 0 otherwise (weak Alesina model).

D1: 1 for the first two years governments that do not involve Fianna Fáil, including the election year, 0 otherwise (strong Alesina model).

D2: 1 for the remaining years of the term (not equal to 1 in D1) for governments that do not involve Fiann

R1: 1 for the first two years of Fianna Fáil governments, including the election year, 0 otherwise (strong Alesina model).

STAB1: 0 for all majority governments, 1 for all minority governments (Persson-Tabellini model).

STAB2: 0 for all single-party governments, 1 for all coalitions (Persson-Tabellini model).

PROB: probability of an election being called (Balke and Terrones models).

TL: the number of quarters since the previous election (Balke and Terrones models).

ECONCLMT: 1 when economic growth exceeds 4%, 0 otherwise (Frey-Schneider model).

**Annett's Annual Growth Equation:**

| | PBC1 | PBC2 | HPART | WRPT | D1 | D2 | R1 |
|---|---|---|---|---|---|---|---|
| Coefficient | 0.001 | 0.31 | 0.82 | 0.36 | -1.08 | -3 | -0.45 |
| t-statistic | 0.001 | 0.47 | 2.62 | 0.7 | -1.25 | -3.21 | -0.64 |
| *$R^2$=0.27, F=7.3* | | | | | | | |

**Annett's Annual Unemployment Equation:**

| | PBC1 | PBC2 | HPART | WRPT[-1] | D1[-1] | D2[-1] | R1[-1] |
|---|---|---|---|---|---|---|---|
| Coefficient | -3.47 | -3.91 | -3.3 | -7.12 | 6.64 | -3.71 | -6.64 |
| t-statistic | -0.9 | -1.08 | -1.9 | -2.83 | 1.37 | -0.69 | -1.59 |
| *$R^2$=0.24, F=13.17* | | | | | | | |

**Annett's Annual Inflation Equation:**

| | PBCINF | HPART | STAB1 | STAB2 |
|---|---|---|---|---|
| Coefficient | 0.54 | 0.92 | 1.02 | -0.06 |
| t-statistic | 0.76 | 1.09 | 1.33 | -0.08 |
| *$R^2$=0.88, F=96.96* | | | | |

**Annett's Election-Calling Equation:**

| **Probit Model** | Basic Equation | STAB1 | STAB2 |
|---|---|---|---|
| Coefficient | *Log Likelihood = -37.55* | 1.19 | 0.07 |
| t-statistic | | 2.83 | 0.22 |

| **Logit Model** | Basic Equation | STAB1 | STAB2 |
|---|---|---|---|
| Coefficient | *Log Likelihood = -36.52* | 2.22 | 0.23 |
| t-statistic | | 2.75 | 0.35 |

# Irish Outward Foreign Direct Investment - The Future Impetus for Economic Growth


## Colm O'Connor, Eoghan O'Mara Walsh and Connor Owens - Senior Sophister



Messrs. O'Connor, O'Mara Walsh, and Owens provide an in-depth analysis of the nature of outward Foreign Direct Investment. In particular they examine its growing importance in the Irish economy, and its importance in a truly global economy.


The rapid globalisation and ever increasing integration of the world economy has made Foreign Direct Investment (FDI) a topical and controversial issue. Historically, the importance of inward FDI has dominated the economic and political agenda in Ireland. Nevertheless, it is the collective view of the authors that the growing importance of FDI from Ireland merits greater consideration. This paper intends to analyse this issue in the following way.

- Colm analyses and explains recent global trends in FDI flows with particular reference to the Irish context;
- Eoghan, quoting recent empirical evidence, examines in greater detail the effects of outward FDI for the Irish economy;
- Connor, using three specific examples, combines empirical evidence with the theory behind corporate FDI decision making.

Benefits and costs to the Irish economy of outward FDI will also be examined in depth.

### Foreign Direct Investment and Recent Global Trends

Foreign Direct Investment (FDI) is defined in the 1995 UN *World Investment Report* as being: 'an investment involving a long term relationship and reflecting a lasting interest and control of a resident entity in one economy by an enterprise resident in another economy'.

In essence, FDI is categorised as occurring when capital is provided (either directly or indirectly) by an investor based in one country (the home economy) to an enterprise resident in another country (the host economy). The importance of FDI has become increasingly evident against the backdrop of a rapidly evolving globalised economy.

At a global level, the growing importance of FDI is clearly evident. In 1995, outward flows of direct investment stood at $338.73bn, an immense figure which represents a 68.1% increase in flows since 1992. Given real GDP growth rates of approximately 2.0% during the same period, this represents substantial growth in FDI during the last number of years. Not surprisingly outflows from the developed world have risen significantly. In the period 1985-1995, outflows from the EU tended to rise at a fairly uniform rate with 1992-95 showing an increase in outflows of 34.9%.

Ireland however, follows neither a global nor an EU trend in either outflows or inflows of FDI. Between 1985-95, Ireland was the recipient of huge amounts of FDI inflows. The 648.96% increase during the period 1985-90 is remarkable and reflects the significant changes that occurred in the Irish economy during the late 1980s. Given the magnitude of these foreign investment flows into Ireland it is not surprising that study and research on FDI and Ireland has concentrated upon Ireland's status as a host economy.

**Table 1:** Inward and Outward FDI Stock as a Percentage of GDP, 1985-95.

| | | 1980 | 1985 | 1990 | 1995 |
|---|---|---|---|---|---|
| EU | Inward | 5.3 | 8.2 | 10.8 | 13.3 |
| | Outward | 6.3 | 10.4 | 11.8 | 14.6 |
| Ireland | Inward | 19.5 | 24.5 | 12.5 | 20.2 |
| | Outward | n/a | 1.1 | 4.8 | 6.5 |
| Switzerland | Inward | 8.4 | 10.8 | 14.9 | 18.8 |
| | Outward | 21.1 | 23.0 | 29.1 | 47.0 |

Source: UN World Investment Report 1995

Table 1 provides further evidence of why inward investment is of such importance to the Irish economy. Ireland receives considerably more FDI inflows than the EU average. In 1995, FDI into Ireland accounted for 20.2% of GDP. Irish outward FDI is well below the EU average, but given the upward trend evident since the 1980s and the current strength of the Irish economy we anticipate that the 1995 figure of 6.5% of GDP will continue to grow. FDI outflows in 1995 were measured at $820m. For a small economy this represents a significant amount of investment and it is important to ask why Irish firms wish to invest abroad and whether such investment is in the interest of the Irish economy as a whole.

We have also included the statistics for Switzerland to demonstrate the fact that a nation can be both a successful host and home economy for FDI. Switzerland has an inward investment stock of 18.8% of GDP, well above the EU average of 13.2%. More remarkable though is the 47.0% figure for outward FDI stock as a percentage of GDP, more than three times the EU average of 14.6%. Given Switzerland's status as one of the world's most successful and affluent economies, these figures provide clear empirical evidence that both inward and, more relevantly (given the nature of this paper), outward FDI can contribute to the economic prosperity of both host and home countries.

## Ireland and Outward Investment

To many, the concept of Irish companies investing abroad is the clearest sign yet of the growth and maturity that the Irish economy has experienced in relatively recent times. Historically, Ireland has always been associated with attracting inward investment; the IDA's record, ever since Sean Lemass altered the country's economic outlook in the 1960s, continues to be impressive to such an extent that Ireland ranks as one of the premier European destinations for multinational corporations (MNCs) to locate. However, in recent times, much has changed, not just from an Irish perspective, but crucially in a global economic context. As the UN *World Investment Report* stated in 1995:

> *'the liberalisation of international economic transactions, including the lifting of capital controls, have combined with rapid technological advances (particularly in the application of information technology) to create a global economy, especially in financial markets and increasingly in production'.*

Alan Tonelson defines economic globalisation as 'the increasing integration of international markets being brought about by rapidly expanding world-wide flows of goods, services, capital, information and sometimes people'.

In general world leaders have begun to look more favourably on free trade thus removing restrictions on Foreign Direct Investment (FDI) and correspondingly paving the way for phenomenal growth in the movement of capital. A series of bilateral, regional, and multi-lateral agreements have been constructed in tandem. Of most relevance to Ireland has been her membership of the European Union. The completion of the Single Market (soon to be further consolidated by a single currency) and the lifting of capital controls after Maastricht in 1992, means that Ireland has become part of a truly integrated economic region, with all the opportunities and challenges that such a scenario entails. The Uruguay Round of GATT (now the World Trade Organisation) also resulted in a number of accords relevant to investment flows and crucially tied in the area of services, a sector that now accounts for over half of all investment flows.

Such world-wide liberalisation has increased international competition on nearly all fronts - as a result, investment abroad for firms is now a serious consideration to counter substantial domestic competition as well as enabling firms to establish themselves in new and potentially fertile markets. This liberalisation of trade has resulted in a huge rise in the number of firms establishing themselves outside their home environment, thereby reducing market niches and increasing competitive pressure everywhere. Given these changes all developed economies, including Ireland's now realise the need for a liberal outward FDI policy, to ensure that domestic firms continue to be competitive and to exploit cost advantages in other countries. Outward FDI is therefore a strategic option that can benefit not just the firms involved but also the national economy.

Realising the importance of FDI, governments now tend to actively encourage outward investment, although there are a number of exceptions, most notably Japan. However, the Irish government tends to offer little more than informational and technical assistance. Tangible financial support for prospective investors must generally be sought from EU agencies such as the European Investment Bank. In 1988, the European Community Investment Partners Programme was created. Extended in 1992, the programme helps to finance all stages of an investment project. Grants, interest free loans and even co-financing of investment projects are all considered. Critical though, is the fact that large MNCs are ineligible for the scheme, which is aimed exclusively at small and medium sized companies, which most need assistance to compete internationally.

Ireland's leading companies have expanded abroad successfully, largely by foreign acquisition. The main targets have been the US and the UK, locations which boast strong and politically stable economies, no language barriers, and large markets that can be strategically targeted. As Alan Doherty of AIB Corporate Finance recently confirmed:

> *'With the globalisation of most industries, never before has (outward investment) been so important for corporates. This is particularly the case with large Irish companies who are faced with a relatively small local market and the need to look abroad for both organic growth and opportunities to grow profitably by acquisition'.*

However, as can be seen in table 2, Irish companies have not restricted themselves purely to Anglo-American ventures, and indeed the vertiginous collapse of the communist system in Eastern Europe has presented further opportunities.

Indeed if the accounts of the two largest Irish industrial companies are examined, their Irish operations are only a fraction of their total sales. Smurfit's Irish sales are not disclosed but instead are aggregated with their operations in Britain - even at that the figure of IR£564m in 1996 was only 22% of total sales, of IR£2.6bn. CRH's Irish sales came to IR£321m in 1996, only 13% of their total sales which were in excess of IR£2.4bn. It is also highly likely that Glen Dimplex, which has a reputation for secrecy, only manufactures a small proportion of its electrical goods in Ireland, with most of them being produced in the UK, Germany, and the Netherlands.

**Table 2:** Examples of Foreign Acquisitions by Irish Companies during 1997.

| Company | Target Price | IR £M |
|---|---|---|
| AIB | Dauphin Corporation ( USA ) | 840.0 |
| | WBK (Poland ) | 47.4 |
| Elan | Sano Corporation ( USA) | 268.0 |
| CRH | CPM Development ( USA ) | 62.7 |
| | Samse ( France ) | 3.50 |
| Irish Life | K&H ( Hungary ) | 60.0 |
| Aer Rianta | Dusseldorf Airport ( Germany ) | 35.0 |
| Jefferson Smurfit | Wellit Wellpappen ( Germany ) | 29.2 |
| | Celulosa Colonel Suarez (Arg.) | 17.0 |
| Doyle Hotels | Dupont Plaza Hotel ( USA ) | 28.5 |
| Kerry Group | SDF Foods ( Malaysia ) | 6.6 |
| Waterford Foods | Beni Foods ( UK ) | 54.2 |
| Dana Petroleum | Yoganeft ( Russia ) | 2.7 |

Source: The Irish Times 31 December 1997

## Benefits and Costs of Irish FDI

It is the collective view of the authors that an expanding Irish economy provides opportunities for firms to seek higher social returns on capital abroad rather than at home. Furthermore, profits earned by Irish multi-nationals can be repatriated homeward, thus benefiting the exchequer and shareholders alike.

The recent zeal, with which outward FDI has been pursued, has been driven by the strength of the Irish economy. Many companies have reduced their debt levels and this, coupled with the strength of the equity markets, has freed pent-up capital resources.

As outlined earlier, governments increasingly recognise that, given the reality of the global economy, domestic firms must be given the opportunity to establish themselves abroad, if they are to benefit from economies of scale and compete effectively against foreign competition. Outward FDI is therefore a strategic option that must be left open to firms. An excellent example of an Irish firm that has successfully expanded its operations abroad to compete internationally is the Smurfit Group. If Smurfit had been limited to simply investing and operating in the Irish market, the firm would never have benefited from economies of scale and the huge global market to which it now has access.

Of a more intangible nature, outward FDI offers the 'home' country the opportunity to be exposed to new work practices and technology, which can be readily transplanted homewards, thus aiding the domestic economy in terms of restructuring and being au fait with important technological advances. Regional trade imbalances can be corrected and the importance of outward investment in consolidating economic ties with other countries cannot therefore be overestimated. For example, a recent study found that there was a significant correlation between outward FDI to a 'host' country, and the effects on the exports in the 'home' country.[9]

This study found that a 1% increase in FDI to a 'host' led to a 0.25% increase in exports from the 'home' country to the 'host'. Thus, there is strong empirical evidence that outward FDI is positively correlated to improved export performance.

It is therefore of critical importance that a country considers both the short-run and long-run implications of outward FDI. Initially, outward FDI may replace exports thereby implying a reduction in domestic employment. However given the extent to which the investment abroad contributes to improved market penetration, demand for the whole range of products of an investor is likely to rise, thus creating employment not simply abroad, but also in the 'home' country through greater export production.[10] Such a benefit of outward FDI has accrued to Waterford-Wedgewood, as foreign activity has enabled the firm's lesser known brands to benefit from greater international exposure.

Such powerful motives for encouraging outward FDI must be balanced with what certain commentators see as costs of FDI to the Irish economy. One of the major critiques of investing abroad relates to the question of employment. Many, especially in political circles, view outflows of FDI as little more than an export of jobs, especially in the form of de-localisation, which can entail the transfer of production facilities abroad and therefore the loss of jobs in the home economy. Given that employment is such a sensitive issue in both political and economic terms, this can provide a major problem for governments. This was well illustrated recently in the USA during the debates which surrounded the NAFTA negotiations. Many in the USA, including Presidential candidate Ross Perot, felt that the cheaper Mexican labour market would draw investment and jobs away from the US. The ensuing controversy prompted a number of studies on potential employment effects, however the US Department of Commerce ultimately concluded that:

> *'At best the open US policy on inward and outward FDI has enhanced the employment of US workers and at worst it has had minimal adverse impact on aggregate US employment'.*[11]

Nonetheless, in an Irish context, there are many who claim that 'exporting' jobs and capital is a poor use of resources considering that the Celtic Tiger is still plagued by long term unemployment, external debt, large pockets of poverty, and deprivation. There is also evidence that supports the claim that certain overseas ventures have been both unwise and costly to the Irish economy.

Guinness Peat Aviation (GPA) aimed to raise $850m by a flotation on four stock exchanges, but to the consternation of the capital markets, the offer and listing plans were suddenly aborted due to insufficient demand. The scale of the demise was enormous with pre-tax profits and dividends tumbling from $279m and $98m in 1992 to a pre-tax loss of $1,022m and $9m respectively in 1993. Irish shareholders were directly affected as was domestic business confidence.[12]

Furthermore, such a collapse had been preceded two years earlier by the Goodman International debacle. Europe's largest meat processors foundered, spawning a tribunal of inquiry that shook the political elite. In 1989, Goodman International had had a turnover of IR£900m, building up lucrative Iraqi contracts and acquiring stakes in a number of British meat processors. However, such expansion proved over-ambitious and, following unrest in the Gulf, the 1989 net profit plummeted from IR£34m to a net loss in 1990 of IR£417m. Again the Irish economy suffered, particularly in the banking sector where up to 33 institutions had advanced Goodman International over IR£500m in unsecured loans.[13]

## An Irish Corporate Perspective

As stated above, for many companies, FDI is a strategic option. However, in the context of a small open economy (such as Ireland), FDI is imperative if indigenous companies are to grow into successful global corporations where the potential of economies of scale can be realised.

A small economy can only offer limited potential for corporate growth. Therefore, in order to maintain profitability a company can engage in cost-cutting and/or foreign acquisitions. The benefits of cost reductions are of course finite,[14] while FDI offers enormous potential, for future organic growth.

Dunning's Eclectic Theory on Causes of FDI identified three key sets of advantages that would induce a company to engage in FDI. [15]

*Ownership Advantages*

Technological patents, brands and legal rights to raw materials often form the ideal base for corporate expansion. For example, many companies that develop expensive in-house software and IT systems can extend that technology to their foreign operations at a relatively low marginal cost. Skilled labour and access to finance are further examples of corporate assets that can be readily transferred to foreign operations. Ownership advantages are essentially competitive assets that can only realise their full potential if utilised on a global scale. Thus, they are often a powerful force behind FDI.

*Internalisation Advantages*

Due to the presence of market imperfections, many companies are simply unable to sell their ownership advantages, i.e. new technology to other firms. Therefore, the original owners are left with no option but to exploit the advantage themselves.

- Market imperfections are pervasive and omnipotent;
- The costs of negotiation, especially legal costs and stamp duty, are often prohibitive;
- Opportunism poses a great difficulty. How does one sell a new technology without revealing all to the potential bidder?
- Offer price will not reflect the true value of the new product, as the buyer cannot be certain a priori that the new technology will be valuable.

Such market imperfections often compel companies to internalise their competitive advantages, thus leading them to engage in FDI activity.

*Locational Advantages*

Many companies engage in FDI activity in order to benefit from locational advantages such as low transport costs, government assistance, and various factor endowments. The essence of competitive advantage is whether it is optimal for a company to expand abroad or domestically, thus, it is purely a question of comparative advantage.

There is some empirical support for advantages pertaining to ownership and location. There is less empirical support for internalisation advantages driving FDI activity[16]. However, we do not feel that one should discount the importance of internalisation advantages, as the dearth of empirical evidence could be a function of the intangible nature of internalisation forces.

Despite the impressive performance of the World Trade Organisation in reducing trade barriers, many still remain. Therefore, for many companies FDI provides an effective mechanism for tariff jumping, especially if the cost of producing in a foreign market is less than the cost of a tariff.[17]

Irish companies have not been slow to recognise the potential of FDI, indeed 1997 was a particularly active year for Irish companies as demonstrated by table 2, with nearly £4bn in foreign acqusitions.[18] This table also reveals the geographical and industrial diversity of FDI by Irish companies.

A further significant trait of Irish outward FDI is the preference that Irish companies have for acquisitions, as their main vehicle of FDI. AIB, for example, recently made acquisitions in the USA and Poland totalling nearly IR£900 million.[19] Waterford-Wedgewood also revived its flagging fortunes via a take-over of Wedgewood Ltd. in the UK.

This important feature of outward Irish FDI does not reflect ineptitude or a lack of foresight among Irish companies, rather it demonstrates the relatively small size and volume of Irish companies in comparison to their global counterparts. Many Irish companies are still in a stage of 'adolescence', and simply lack the huge resources and expertise needed to develop greenfield sites abroad.[20] Even AIB, with almost IR£26 billion of assets, would have difficulty trading in the USA under its own name.[21]

This is not true of all Irish companies, as Smurfit's have such a strong brand name that they capitalise on this important ownership advantage through marketing themselves globally under the Smurfit umbrella. However, even Smurfit's have a clear policy of favouring acquisitions over developing greenfield sites. 'We [Smurfit's] try, wherever possible to buy rather than build paper-making capacity'[22] .

Indeed, by analysing the aforementioned companies in greater detail, it is our contention that further aspects of outward FDI from Ireland can be revealed.

*Allied Irish Banks PLC*

AIB's FDI strategy has essentially been a function of seeking locational advantage and an attempt to realise ownership advantages through economies of scale. Chairman, Lochlann Quinn, outlined this strategy as follows: 'organic growth will be complemented by an acquisition policy'[23] .

AIB's recent acquisitions include: First Maryland Bank Corporation & Dauphin Deposits of the USA, and WBK of Poland. To date, AIB's foreign investments have been profitable. In 1996, US operations contributed to 26.6% of the group's pre-tax profits.[24] In addition, AIB has a loan portfolio in the US of IR£1.5 billion. AIB's FDI policy reflects the nature of its business. A company, such as AIB, engaged in services, can only serve foreign markets through FDI, as direct trade is not a feasible option.[25]

*Waterford-Wedgewood PLC*

Waterford-Wedgewood, by virtue of its take-over of Wedgewood, now has manufacturing plants in the UK and Ireland. In addition to these it also has distributors and subsidiaries in the US, Japan and Australia.[26] International diversification is seen as the key to the continued success of Waterford-Wedgewood. According to Chairman, A.J.F. O'Reilly, it is the company's ambition to be: '...a truly international group, which continues to grow geographically'[27].

Waterford-Wedgewood has engaged intensively in FDI, by capitalising on its renowned reputation and strong brands (i.e. ownership advantage). Indeed, the presence of such a strong brand name, has enabled Waterford-Wedgewood to overcome the market imperfections alluded to earlier, and allow its products to be licensed. In 1996, IR£22 million of the company's sales came from licensed products.[28]

Waterford-Wedgewood's FDI policy has been a function of capitalising on ownership advantages in the form of brand and reputation, while seeking to create a competitive advantage through geographical diversification, so as to reduce its exposure to regional cycles. Internalisation advantages do not appear to have been a force behind the company's FDI policy, as they have been able to license their products successfully.

*Jefferson Smurfit Group PLC*

It is ironic that Smurfit PLC, who were originally against free trade in Ireland, have now become, arguably Ireland's most successful multinational. Since going public in 1964, Smurfit have diversified geographically, by seeking to realise the benefits of both locational and ownership advantages. For example, Smurfit have sought to realise locational advantages through investing in the timber rich Americas. Smurfit has also enjoyed ownership advantages through its management skills and via access to relatively cheap, finance such as junk bonds, for a time. Given the complexity and competitive nature of the paper processing industry, Smurfit has been reluctant to license its technology and so has sought to internalise its competitive advantages. The Smurfit group has global operations across five continents.

Indeed, the Smurfit group is well suited to pursuing an aggressive outward FDI policy, as recognised by its Chairman Michael Smurfit: 'the group (Smurfit) is uniquely positioned to realise the opportunity presented by increasing globalisation'.[29] Such an aspiration reflects the WTO's perception that FDI is tangible evidence of globalisation.[30]

The above evidence demonstrates the following points about Ireland's pattern of outward FDI:

- Outward FDI is geographically dispersed, with a heavy preference towards the US & UK;
- The importance to the home economy (i.e. Ireland) cannot be overestimated as can be seen from the above figures;
- Manufacturing companies have been quick to invest abroad, but in recent times, financial service companies have adopted aggressive FDI strategies too. It is worth noting that many of the largest recent acquisitions have been by services companies, i.e. AIB's take-over of Dauphin Deposits, and Capital's take-over of Hermes Property. This final feature reflects the increasing importance of the services sector to the Irish economy.

## Conclusion

The true importance of FDI to the Irish economy is illustrated by the fact that seven of the top ten publicly quoted Irish companies have in excess of 50% of their activities located in a region outside of Ireland.[31] The strength of foreign Irish activity is often eclipsed by the persistent focus on inward FDI; however our analysis proves that outward FDI is both a substantial and growing feature of the Celtic Tiger economy. With increased globalisation, it is our opinion that Irish companies are poised to continue their successful expansion overseas and contribute significantly to the health of the national economy.

Theory has shown that capital movement and flows of international investment are beneficial to both the home and host country, Ireland is no exception in this respect. In 1995, outward FDI stock from Ireland stood at 6.5% of GDP (see table 1) and although this represents significant growth, Ireland still lags well behind the EU average of 14.6%. Therefore, given Ireland's convergence towards EU norms in other economic areas, it can be anticipated that the current upward trend evident since the 1980s in outward FDI flows will continue.

In the final analysis, we would concur with the 1995 European Commission White Paper, which concluded that:

> *'FDI is a dynamic process which raises total wealth to the advantage of all those involved.'*

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# Foreign Direct Investment and the Multi-lateral Agreement on Investment - The Hidden Agenda


## Shane Roberts - Senior Sophister



In an era of increasing world trade and globalisation Shane Roberts discusses many of the negative effects of FDI. He argues that multinational companies and the proposed Multi-lateral Agreement on Investment will threaten the sovereignty of host countries and may not lead to the beneficial effects often associated with FDI.


*'We are writing the constitution of a single global economy'*

The Multilateral Agreement on Investment is an international treaty designed to open up national economies to foreign investors and to safeguard the rights of international investors. It is currently being negotiated by representatives of the OECD governments and the European Commission and it is expected to be ratified later this year.

This paper will begin by outlining the nature of multinational companies and describing recent trends in foreign direct investment flows (FDI). It will then explore the costs and benefits of FDI, from the host country's point of view. Host countries' policies towards multinational companies, and the effects of those policies, will then be briefly discussed. The need for international co-ordination of investment policies will be assessed. Finally, this paper will look at the Multilateral Agreement on Investment (MAI), and its likely effects. It will be argued that the multilateral agreement is inappropriate, that it addresses the wrong areas, and that it will have devastating effects on the ability of sovereign governments to regulate their economic, social, and political environments.

### Multinational Companies

Multinational companies (MNCs, which can be defined simply as companies which have operations in more than one country) account for over 70% of world trade. Multinational investment has grown at 13% per annum for the last two decades - twice the rate of growth of world trade. Large corporations now rival nation states in terms of influence - in 1993, 86 of the 150 largest economic entities in the world were corporations, while 64 were countries.

The vast majority of MNCs originate in the United States, Japan, and the EU. These countries are also the main hosts to MNCs, although the share of less developed countries in FDI has doubled in the early 1990's to 39%. Most of this new investment flowed to China and the 'tiger' economies of South-east Asia.

Many people have quite strong opinions about multinational companies. International institutions such as the World Bank, IMF, and WTO tend to see MNCs as champions of free trade and mechanisms by which national economies will be forced to open up. Many others, however, have expressed reservations about whether the benefits of FDI are as great as its proponents claim, or whether they even exist in the first place. The benefits and costs of FDI will now be examined.

### Benefits and Costs of Foreign Direct Investment

Proponents of foreign direct investment tend to focus on four effects of FDI on host countries:

*Multinational investment supplements domestic investment and leads to increased economic activity.*

A country's growth rate is strongly influenced by past investment levels. Therefore, if the level of investment in a country is increased, future output will be higher.

However, FDI may not raise the aggregate level of output in the host country. Because MNCs aim to maximise profits, they will often be attracted to the same sectors as indigenous investors. Multinationals operating on a global scale have greater scope to engage in anti-competitive practices. Predatory pricing, combined with large grants and subsidies from host governments, allow multinationals to offer lower prices and higher wages than indigenous competitors. As a result, MNCs often displace existing companies, or prevent the emergence of new competitors. By buying intermediate products from overseas affiliates, MNCs may also prevent the natural emergence or expansion of indigenous suppliers. Profits that would otherwise have accrued to local entrepreneurs, and probably been reinvested locally, are instead repatriated abroad. The host country becomes more dependent on multinational companies for employment and output.

Furthermore, MNCs often use local capital to fund their activities (US multinationals in Latin America, for example, finance 80% of their activities from local sources). Instead of supplementing indigenous ventures, they often displace them. Moreover, profits repatriated by foreign companies usually exceed long-term international interest rates. Loans from international banks would therefore make a less expensive source of finance for capital ventures, from the host country's point of view.

*Multinational investment provides host countries with much-needed foreign currency.*

Many developing countries face a very precarious balance of payments' situation, especially countries with deteriorating terms of trade, high debt servicing costs and huge capital outflows. The initial flow of capital into the host country and the (presumed) increase in exports caused by the presence of multinationals have beneficial effects on the host country's balance of payments. The inflow of foreign exchange helps to reduce balance of payments deficits and allows host countries to import more goods and services from abroad.

However, multinational companies import both capital equipment and manufacturing inputs. They may be more likely to import inputs and capital equipment than indigenous firms, because of a desire to buy inputs from affiliates in other countries. More importantly, they repatriate profits and send royalties, management fees and interest payments back to their home countries. In fact, the empirical evidence, though inconclusive, suggests that MNCs can have a negative net effect on the host country's balance of payments.

*Multinational companies and their subsidiaries frequently have very high profit margins, so they generate large amounts of tax revenue for host governments.*

However, MNCs can use transfer pricing to switch their profits to countries with very low rates of corporation tax. Furthermore, they usually receive generous tax concessions and allowances from host governments and, in many cases, the corporation tax paid by the foreign firm is actually outweighed by the subsidies and grants it receives from the government. By displacing indigenous competitors, MNCs further reduce the host government's revenues.

*Multinational companies bring with them a host of managerial skills, business knowledge and (most importantly) technological information which are of immense benefit to host countries.*

Neo-classical economic theory stresses the importance of technological advancement for economic development. However, to advance technology independently of other countries would require vast amounts of research and development expenditure on the part of indigenous companies. It is much cheaper and easier to allow MNCs to 'transfer' their technology by establishing subsidiaries, employing and training local people and forming linkages with the domestic economy.

There is, however, little evidence to suggest that MNCs facilitate the technological advancement of their host nations. Multinational companies are naturally reluctant to share their knowledge. They have, as one commentator observed, 'no commercial interest in diffusing [their] knowledge to potential native competitors'. The multinational company's technical knowledge is often of little (external) benefit to the host economy.

When technology is transferred to the host country, it is often inappropriate - that is, it is incompatible with the needs of the host economy. For example, technologies used by multinationals are usually developed in richer countries, where capital is relatively abundant. The introduction of this labour-shedding technology to developing economies can lead to increases in unemployment and deprivation.

Opponents of multinationals highlight several costs of foreign direct investment to the host country:

*Multinational companies may change local consumption patterns.*

MNCs that produce luxury goods (for example, processed foods) in developing countries often try to sell them locally. They advertise their products in order to create demand. The result is that people on very low incomes often find themselves compelled to buy luxury foodstuffs and other 'modern' goods when they should be concentrating on fulfilling their more immediate needs. Those who cannot afford these luxury goods become dissatisfied. Moreover, the consequences can be lethal, as when food companies from the North encouraged Third World mothers, many of whom had no access to clean water, to feed their children with powdered milk instead of breast milk.

It is argued, however, that these changes in demand patterns of host countries are the result of economic development and increased prosperity, rather than MNC activity. Multinational companies merely respond to changing demand patterns - they do not cause them.

*Multinational companies lead to increased inequality and contribute to the development of urban slums in developing countries.*

MNCs may pay high wages relative to the host country average. Consequently, a very small proportion of the population is on high income, while the rest struggle to earn a subsistence income. Because multinational companies often require host countries to finance part of their investments, they draw resources away from other areas, including agriculture, which can lead to increased unemployment. Perceptions that workers in the city are earning high wages contribute to the problem of urbanisation. As Michael Todaro observes, 'despite their insignificance in terms of the overall employment picture, these corporations often exert a disproportionate influence on urban salary scales and migrant worker perceptions'.

*Multinational companies reduce the host country's sovereignty and economic independence.*

Multinationals often make decisions which affect the long term welfare of citizens in host countries, particularly about environmental matters. Multinationals often have no incentive to consult host governments about the use of non-renewable resources, for example.

Furthermore, multinationals often influence the political processes of host countries. In 1973, for example, American multinational, International Telephone and Telegraph, backed a military coup in Chile, during which the democratically elected president, Salvador Allende, was assassinated and replaced by the notorious General Pinochet. IT&T's continued financial support allowed Pinochet's dictatorship to survive until 1990, much as Shell's generosity is facilitating the present military dictatorship in Nigeria.

Not only do multinationals themselves influence the political processes, but home country governments often become involved, too. The United States, for example, backed General Pinochet's coup in 1973, largely because President Allende's plans to nationalise the Chilean telecommunications industry would have threatened IT&T's profits.

FDI clearly has the potential to benefit host countries. It can lead to increased economic output and increased prosperity. There is little doubt that MNCs are the engine behind the 'Celtic Tiger', although one Irish economist has suggested that 'a great part of Ireland's so called economic growth is illusory, being derived from the accountants' pens rather than the effort of Irish workers'. Another concludes that 'the contribution of new [MNCs] to growth is practically restricted to the activities of [MNCs] themselves. Foreign investment creates few multipliers that lead to the growth of domestic investment'.

Because MNCs often displace (or prevent the emergence of) indigenous enterprise, distort consumption patterns, and exacerbate inequality and other social problems in the host country, it is unclear in practice whether FDI benefits the host economy.

## Host Government Policies Towards MNCs

Most governments simultaneously adopt policies aimed at both encouraging and discouraging inward FDI. They offer incentives (such as financial and tax incentives as well as market preferences) and they place restrictions on MNC activity. These policies can severely distort economic activity and reduce the efficiency of international investment. Furthermore, gains arising from them tend to be at the expense of other countries.

*Incentives*

There are quite a number of incentives that a government can offer to multinational investors. Fiscal incentives include tax reductions, accelerated depreciation, investment and reinvestment allowances, and exemptions from import and export duties. Financial incentives include subsidies, grants and loan guarantees. Market preferences include monopoly rights, protection from import competition and preferential government contracts. Governments also offer low-cost infrastructure (electricity for example).

As an advertisement placed in *Fortune* in 1995 by the Philippine government proclaimed:

> '*To attract companies like yours ... we have felled mountains, razed jungles, filled swamps, moved rivers, relocated towns ... all to make it easier for you and your business to do business here*'.

There is a certain beggar-thy-neighbour aspect to all of these policies - the gains to the country offering them are usually at the expense of another potential host country. Furthermore, a 1985 World Bank study found that an increase in one country's investment incentives tended to lead to increases in other countries' incentives. Because investment incentives usually benefit companies that would have made their investment anyway, the result is wasteful competitive bidding among nations. This leads to a prisoner's dilemma-type situation, where every country would be better off if each country reduced its incentives by the same amount. This is only possible through multilateral policy co-ordination, which could lead to huge welfare gains for all host countries.

*Restrictions*

Host countries tend to restrict multinational companies' activities in a number of ways. They often restrict entry to certain sectors, or require that firms operating in those sectors are owned primarily by domestic investors. This is usually done for cultural reasons or for reasons of national security. More importantly, national governments impose performance requirements on foreign firms operating in their territory.

Traditionally, the most widespread performance requirements were trade related - governments insisted that MNCs exported a minimum proportion of their output, or sourced a minimum proportion of their inputs locally. The Uruguay Round of GATT banned all trade related investment measures, however, because they were essentially beggar-thy-neighbour policies.

Host countries can still implement a number of performance requirements, however. For example, they can require that MNCs employ a minimum number of local workers or that they do not excessively repatriate profits. They often require MNCs to agree that they will eventually licence their technology to indigenous firms.

While these requirements discourage FDI and reduce the efficiency of international investment, they enable the host country to maximise the benefits of FDI. There is no reason for multilateral policy co-ordination in this area, as one country's restrictions do not adversely affect any other country's welfare.

## The Multilateral Agreement on Investment

The Multilateral Agreement on Investment is currently being negotiated by representatives of the OECD governments and the European Commission. It aims to provide greater security for international investors.

The negotiations began in May 1995 and were expected to be completed two years later but the negotiating parties failed to reach an agreement in time. The European Commission hopes that the treaty will be ready for ratification by May 1998, but sources within the negotiations say that this is unlikely.

When negotiations began, NGOs, environmental groups, trade unions and consumer groups were not informed. It was only months later that information began to filter through about the planned agreement. When these bodies did find out about it, they were excluded from the negotiations for a long time. By contrast, groups representing multinational corporations have been involved in the negotiations from the beginning. Their influence is clearly visible in the treaty.

Despite being hailed as the 'constitution of a single global economy', and in spite of the fact that multinational corporations arouse strong feelings in many quarters, the MAI has been the subject of very little public debate, largely because of a lack of awareness of its existence (unlike the Uruguay Round, for example).

Although only OECD countries (and the European Commission) are participating in the negotiations, it is expected that a number of other countries will be invited to join, once the negotiations are complete. Argentina, Brazil, Slovenia, Estonia, Latvia, Lithuania and Hong Kong have all expressed an interest in becoming party to the treaty at an early stage. Many other countries are expected to follow suit, for fear of losing their share of FDI if they do not. It is quite likely that the IMF and the World Bank will require other countries to sign the MAI if they are to receive aid and financial rescue packages in the future.

The MAI's main provisions are as follows:

- It ensures that all multinational companies receive national treatment, or most-favoured-nation treatment (whichever is better) in every member country;
- It prohibits any performance requirements on MNCs even if the same requirements apply to domestic companies. It prohibits host nations from any 'unreasonable or discriminatory measures' which would impair the 'operation, management, maintenance, use, enjoyment or disposal of investments';
- It provides for a state-to-state and investor-to-state dispute settlement mechanism;
- It is a stand-still and roll-back treaty. Once a country ratifies the treaty, it cannot withdraw from the MAI for a minimum of five years. Having announced its intention to withdraw from the MAI, a country will continue to be bound by its provisions for 15 years.

There are several weaknesses in the proposed wording of the MAI:

*The MAI severely curtails the power of sovereign states.*

The treaty prevents governments from any act which would reduce the ability of foreign investors to 'enjoy' their investments. By raising environmental or labour standards, governments could be accused of 'expropriating' profits from multinationals. Similar provisions in North American Free Trade Association led to the situation where Ethyl Corp., a petroleum producer, sued Canada for 'expropriation of profits' after the Canadian government introduced legislation to ban MMT, a toxic fuel additive. Ethyl Corp. even argued that, by debating the prohibition of MMT, the Canadian parliament was damaging the firm's reputation, which was tantamount to expropriation of profits.

If the MAI is passed in its current form, legislators will be extremely reluctant to introduce bills which would reduce any foreign company's 'enjoyment' of its investments, for fear of similar litigation. The negotiating parties are considering the inclusion of a clause in the treaty text to exempt any legislation resulting from member countries' obligations to implement the Kyoto Agreement. Any other social, environmental or labour standards which are introduced after the MAI is ratified are likely to lead to litigation.

*The MAI confers numerous rights on MNCs, but does not increase their responsibilities.*

The OECD argued that the MAI should not burden MNCs with any further responsibilities as they are already subject to codes of conduct from the UN and the OECD. However, these codes of conduct are voluntary - it is assumed that peer pressure and public scrutiny is enough to deter companies from breaching the guidelines even where large profits are involved. P&O (Australia) recently announced plans to construct the world's largest industrial port at Vadhavan, India. Its plans are in direct conflict with the OECD's guidelines, but objections have fallen on deaf ears.

Any multilateral investment agreement must match increased rights for corporations with increased responsibilities.

*The MAI does not address the issue of investment incentives*

Perhaps the greatest welfare loss associated with FDI is the large sums of money spent by governments to attract MNCs. Because it is a prisoner's dilemma-type situation, this is one issue where multilateral policy co-ordination is required. However, the MAI completely ignores this issue.

## Conclusion

By removing restrictions on foreign investors, the Multilateral Agreement on Investment will result in an increase in foreign direct investment, but also a redistribution of its benefits from host countries to multinational corporations and their shareholders. It increases

the rights and opportunities of multinationals but does not burden them with any increased responsibilities, or restrict the investment incentives offered by host countries. This is largely because of the influence of MNCs on the negotiations.

The MAI will dramatically reduce the ability of sovereign states to adopt environmental and labour standards. It will further shift the balance of power from democratically elected governments to large corporations.

Once the treaty is ratified, its provisions will hold for a minimum of 20 years. There is a great need, therefore, for close examination of its implications before it is too late.

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# 'The More We Import From Developing Countries, The More They Will Import From Us'


## Fraser Hosford - Senior Sophister
## Shane Roberts - Senior Sophister



Low import levels from less developed countries raise economic, political and moral questions. Fraser Hosford and Shane Roberts examine the theory and evidence to propose an economic argument in favour of importing more from less developed countries.


This paper will use both qualitative and quantitative analysis to evaluate the proposition that the more we import from developing countries, the more they will import from us. For the purposes of this analysis, it will be assumed that Ireland aims to maximise its net exports, rather than its real income, quality of life, or any other measure of welfare. The many other arguments in favour of trade (such as the gains from specialisation, scale and international competition) will therefore be ignored.

While there are several mechanisms by which an increase in Ireland's imports from developing countries could theoretically lead to an increase in their demand for Irish goods, there are a number of qualifications to this theory. There is, in practice, only a very small link between Irish imports and future demand for Irish goods.

Section I of the paper will state the arguments in favour of the proposition. Section II will examine the problems with these arguments and Section III will run three simple regressions using trade data from the last 23 years to test the theory.

### Section I

*'One argument in favour of free trade with developing nations is that the more we import from them, the more they will import from us'*

There are two principal ways in which an increase in Ireland's imports from the Third World may lead to an increase in our exports to them: by alleviating their balance of payments difficulties, and by encouraging them to be more outward-oriented.

Because of capital flight, deteriorating terms of trade, high debt-servicing costs and the increase in protectionism in developed economies in the 1980s, most developing countries face perpetually high balance of payments deficits. Even direct foreign investment, which many economists regard as the solution to many of the developing world's problems, has been shown in a number of studies to have a negative net effect on the host country's balance of payments. This is because multinational companies tend to import inputs and repatriate profits, royalties, management fees and interest payments.

Since foreign exchange flows and balance of payments deficits are a major source of concern, many Third World governments attempt to control import levels. Thus by importing goods from developing countries, we can alleviate their balance of payments problems and make them more open to imports from us.

When we protect our economies from competitors in developing countries, we encourage those countries to become more inward-oriented. On the other hand, if we open up our markets to producers in less developed countries, those countries will become more outward-oriented.

This will probably have a *direct* influence on the amount they import from us because, as they become more export-oriented, they will have to compete with firms in developed countries. They will therefore need access to technology and inputs, which are currently available in the developed world alone.

More importantly, a shift towards export orientation will have an *indirect* effect on the amount less developed countries import from us, because outward-oriented economies tend to grow faster than inward-oriented ones, resulting in a greater demand for Irish produce in the future.

There are a number of reasons why outward-oriented economies grow faster than inward-looking ones:

- The most important way in which an outward orientation leads to output growth is by allowing developing countries to exploit their comparative advantage, thereby using their resources more efficiently;
- Indigenous companies in export-oriented countries are forced to compete with foreign firms, they thus have a greater incentive to innovate, reduce costs and eliminate inefficiencies. This leads to further productivity gains for the export-oriented economy;
- Interaction with developed countries facilitates technological advancement in less developed countries through the transfer of technology as well as managerial skills and business know-how;

- Export-oriented economies tend to have higher savings rates. The 1987 *World Development Report* offers three explanations for this:

The policy shift from inward to outward orientation increases real incomes. In the developed world, the marginal propensity to save is generally higher than the average propensity to save, so a rise in real incomes will cause average saving levels to rise.

Export growth leads to higher domestic savings than growth in domestic sales, because 'the entrepreneurs and firms engaged in exporting probably engage in higher than average saving'.

Capital markets tend to be very distorted and underdeveloped in the Third World - so much so that real interest rates may be negative in some cases. Capital markets in export-oriented countries perform much more efficiently than those in inward-oriented countries, so savings levels are higher.

- Inward-looking countries find it more difficult to attract direct foreign investment.

There is an abundance of empirical evidence supporting the theory that an outward orientation leads to better economic performance in developing countries. The World Bank conducted a survey of forty-one developing countries in 1987, in which it divided the countries into 'strongly outward-oriented', 'moderately outward-oriented', 'moderately inward-oriented' and 'strongly inward-oriented' economies. They found that the more outwardly-oriented an economy, the faster its output level tended to grow. In another study, Anne Krueger concluded that 'an increase in the rate of growth of export earnings of one percentage point annually was associated with an increase in the rate of growth of GDP of about 0.1%'.

Export promotion policies also help countries to recover from external shocks, according to a study of the responses of 43 developing countries to the 1973-79 period of shocks. It concluded that:

> *'The rate of GNP growth is higher the greater the extent of outward orientation at the beginning of the period under consideration and the greater the extent of reliance on export promotion in response to the external shocks policy choices appear to account for a large proportion of intercountry differences in GNP growth rates during the 1973-79 period'.*[5]

By removing all protection from developing world exports, we provide better incentives for them to adopt an outward-looking approach to economic policy. This will boost their growth and, in the long run, increase their demand for Irish products.

## Section II

*Problems with the Proposition*

The argument that the more we import from developing countries, the more they will import from us is flawed in two major respects:

- An outward orientation may not lead to higher growth for developing economies.

While the World Bank, the IMF, the World Trade Organisation and most other international institutions agree that an outward orientation has beneficial effects on income growth, critics of these institutions are not convinced. They point to a number of reasons why export promotion may not be the best policy stance for developing countries.

Many less developed countries have, in the past, tried to improve their export performance by specialising in those sectors in which they have a comparative cost advantage (usually products which are intensive in the use of unskilled labour and natural resources). One problem with this, from the developing country's point of view, is that prices of these products tend to rise slower than prices of developing countries' imports leading to deteriorating terms of trade for the developing country. This means that developing countries have to export more and more every year (in real terms) simply to keep importing the same amount. The Neo-classical Heckscher-Ohlin model, which is essentially a static model, does not take this into account.

Furthermore, developing countries frequently find that their comparative advantage lies in cash crops such as tea, coffee and bananas. This leaves them extremely vulnerable to price fluctuations in world markets for these commodities. Such vulnerability and instability are not conducive to high rates of income growth.

Critics of export promotion argue that the empirical studies cited in Section I are either inconclusive or misleading. David Evans, for example, argues that the three 'strongly outward-oriented' countries in the World Bank survey - South Korea, Singapore and Hong Kong - are all 'either city states or exemplary nation states whose experience cannot easily be generalised'. A close analysis of the World Bank's data reveals that 'it is not possible to reach any strong conclusions based on the comparison of the moderately outward and the moderately inward-oriented countries'. Hans Singer argues that the correlation between export promotion and growth is strong only when external conditions are favourable. Paul Krugman criticises the subjective criteria used to classify states as outward- or inward-oriented and notes that 'the decision to classify South Korea as 'open', for example, has raised many doubts'.

Nicholas Stern echoes the views of many other critics when he criticises the World Bank survey as being too one-sided in its presentation of the results.

'*Unfortunately enthusiasm for the viewpoint being espoused led to a somewhat unquestioning view of the evidence (to put it charitably)*'.

Furthermore, even if the Asian tigers' success is due to their outward orientation, it does not follow that other developing countries can do the same. Richard Pomfret calls this the fallacy of composition argument - that 'a simultaneous increase in supply by many countries differs in effect from a few countries' increased supply'. Pomfret concludes, however, that the 'empirical evidence for or against the fallacy of composition argument is inconclusive'.

- If developing countries' demand grows, they will not necessarily import more from us.

A more fundamental problem with the proposition is the fact that, although we may be able to boost developing countries' demand for imports, we have no guarantee that they will consequently import more from us. Most of the added demand is likely to be for goods produced in other developing countries, or indeed in other developed countries.

This argument can be expounded using game theory. Let us examine, for example, the hypothetical situation where Ireland attempts to increase Ghana's demand for Irish products by importing an extra $100 billion from Ghana. For the purposes of this analysis, we shall take the view that this increase in the level of Irish imports imposes costs on Ireland (in the form of lost jobs, for example). As Section I concluded this will eventually lead to an increase in Ghana's demand for foreign goods. However, only a small proportion of those goods is likely to be Irish.

Table 1 below shows the payoff matrix for this situation. The payoffs have been calculated assuming that an increase of $100 billion in imports from Ghana will ultimately lead to an increase of $150 billion in exports to Ghana. It is assumed that 2% of this increase (that is, $3 billion) will be bought from Irish producers.

**Table 1**

| | | Rest of the World | |
|---|---|---|---|
| | | Import | Protect |
| Ireland | Import | -94 , 194 | -97 , 147 |
| | Protect | 03 , 47 | 00 , 00 |

As Table 1 illustrates, no matter what the rest of the world does, it is never in Ireland's interest to import from Ghana in the expectation of higher future exports because the costs of such a policy to Ireland will always outweigh any corresponding benefits. This arises because the gains from the policy, while very high, are non-exclusive. The situation is similar in many respects to the problem of paying for public goods. If Ireland were to adopt a policy of importing from Ghana in the hope of higher future exports the rest of the world would free-ride and reap most of the benefits, to Ireland's cost.

Although it appears to be in the interest of the rest of the world to import from Ghana as they will always be better off importing that country's produce then protecting against it, the rest of the world will not pursue such a policy because it is not a single actor - rather, it consists of a large number of economies, each of which faces a payoff matrix roughly similar to Ireland's. For example, if we take the case of the United States, which accounts for 40% of Ghana's exports, Table 2 shows that it would never be in America's interests to import from Ghana.

**Table 2**

| | | Rest of the World | |
|---|---|---|---|
| | | Import | Protect |
| U. S. | Import | 20 , 80 | -40 , 90 |
| | Protect | 60, -10 | 00 , 00 |

In contrast, if we look at the OECD countries as a group, the results are very different. Assume, for example, that the OECD expects to import 70% of Ghana's future exports.

**Table 3**

| | Rest of the World | |
|---|---|---|
| | Import | Protect |

| | | | |
|---|---|---|---|
| OECD | Import | 110 , -10 | 5 , 45 |
| | Protect | 105 , -55 | 00 , 00 |

In this case, it is in the OECD's interest to import from Ghana, because the gains (measured in terms of extra exports to Ghana) outweigh the costs.

This analysis shows that it is unlikely to be in the interest of any small economy to import from developing countries in the hope that they will be able to export more in future, because only a small proportion of the gains from such a policy are likely to accrue to the country which bears the cost of this policy. If a large group of countries (such as the OECD) pursues such a policy, however, it is more likely to be to their advantage.

It is important to note that our expected share of the rise in Ghana's imports will not simply correspond to our current share of imports to Ghana. A number of other factors need to be taken into account.

The most important of these factors is the income elasticity of Ghana's demand for goods produced in Ireland. Our success in building trade links with companies in Ghana will also have an effect. Porter's Diamond is useful here in attempting to calculate the proportion of Ghana's imports sourced in Ireland.

The relatively recent emergence of Regional Trade Blocs further complicates matters. Many development economists believe that Regional Trade Blocs offer 'better prospects for a balanced and diversified development than the current almost exclusive reliance on the very unequal trading relationships that they individually engage in with the developed nations'. Through regional trade blocs, less developed countries can avail of many of the gains from specialisation, scale economies and international competition without fear of deteriorating terms of trade or protection from developed countries. If Regional Trade Blocs become more prominent in the future, any attempt by developed countries to increase demand for their produce by importing more from developing countries is likely to fail, as countries like Ghana would be more likely to import from within their RTBs.

However, while Regional Trading Blocs and collective self-reliance were buzzwords of development economics in the 1970s, the 1991 World Development Report points out that the share of intra-union trade in developing countries' trade flows decreased practically everywhere during the 1980s.

In conclusion, economic theory suggests that, while importing from less developed countries will ultimately boost their demand for foreign goods, this will be less the case for a small developed economy than for a large developed economy or the OECD as a whole.

## Section III

The hypothesis that has been developed so far in this paper will now be tested against empirical evidence. The relationship between imports from less developed countries and exports to less developed countries will be examined. The a priori expectations of this analysis, derived from the preceding theory, are that a strong correlation will exist. Furthermore, the analysis suggests that the relationship will be strongest when a large group of industrialised countries is examined; for the purposes of this paper the OECD will be taken. The relationship will also be stronger for a larger economy than for a smaller one; here, the United States and Ireland will be compared.

In order to test these predictions, three simple regressions will be performed. The first will attempt to measure the relationship between OECD imports from Africa and African imports from the OECD. The variables in the first regression are as follows:

| | |
|---|---|
| Dependent variable: | OECD exports to Africa (Y) |
| Independent variables: | OECD imports from Africa ($X_1$)<br>Overall world trade ($X_2$) |

The second model will measure the relationship between Irish imports from Ghana and Ghana's imports from Ireland. The variables are as follows:

| | |
|---|---|
| Dependent variable: | Irish exports to Ghana (Y) |
| Independent variables: | Irish imports from Ghana ($X_1$)<br>Overall world trade ($X_2$) |

The third regression will measure the relationship between the United States and Ghana. The variables for this regression are as follows:

| | |
|---|---|
| Dependent variable: | US exports to Ghana (Y) |

Independent variables: US imports from Ghana ($X_1$)
Overall world trade ($X_2$)

The qualitative analysis in Sections I and II suggest that the relationships in Model 1 and Model 2 will be the most and least significant respectively.

*The Model*

The ordinary least squares estimation technique has been employed in this study. This has yielded a line of best fit corresponding to the data. The form of the model in this multiple regression is shown below:

$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \mu$

$\mu$ represents the error term of the regression or the residual. The investigation will arrive at an estimate of the sign, size, and significance of the unknown parameters $\beta_0$, $\beta_1$ and $\beta_2$.

*Regression Results*

The estimation of the regression line was achieved using the SPSS econometric package, using 23 observations of annual data from 1972 to 1994. The results of the regression are as below. The lines of best fit have been estimated as:

*Model 1*: $Y = 5151.491469 + 0.690107\ X_1 + 2.159948\ X_2$

*Model 2*: $Y = -2.795222 + 0.143713\ X_1 + 0.002016\ X_2$

*Model 3*: $Y = 34.437398 + 0.016403\ X_1 + 0.254672\ X_2$

*Model 1*:

| Variable | ß | T |
|---|---|---|
| $X_1$ | .690107 | 10.037 |
| $X_2$ | 2.159948 | 1.955 |
| Constant | 5151.491469 | 1.826 |

$R^2 = 0.92575$

*Model 2*:

| Variable | ß | T |
|---|---|---|
| $X_1$ | .143713 | 2.625 |
| $X_2$ | .002016 | 4.319 |
| Constant | -2.795222 | -3.799 |

$R^2 = 0.85096$

*Model 3*:

| Variable | ß | T |
|---|---|---|
| $X_1$ | .016403 | 3.467 |
| $X_2$ | .254672 | 2.937 |
| Constant | 34.437398 | 1.935 |

$R^2 = 0.53586$

## Evaluation

The evaluation will deal with the results of the multiple regression, which will be compared with those postulated by the theory, and the derived t-statistics. The null hypothesis that there is no statistical relationship between the X and Y ($H_0$: $\beta = 0$) will be considered. A parameter estimate is deemed statistically significant if the t-statistic associated with it, at a particular significance level, causes one to reject the null hypothesis.

*Model 1*

The correlation coefficient indicates that 92% of the variation in Y can be explained by the linear influence of the X variables. The estimate for $\beta_1$ is statistically significant at the 5% significance level. However, there is quite a high level of multicollinearity present in this model, as a regression of $X_1$ on $X_2$ yielded an $R^2$ of 0.52155.

*Model 2*

The correlation coefficient, $R^2$, indicates that 85% of the variation in Y can be explained by the linear influence of the X variables. The estimates for $\beta_1$ and $\beta_2$ are statistically significant at the 5% significance level. This supports the proposal that is being tested. However, it should also be noted that there is also a high level of multicollinearity present in this model - a regression of $X_1$ on $X_2$ yielded an $R^2$ of 0.65097.

*Model 3*

The correlation coefficient indicates that 53% of the variation in Y can be explained by the linear influence of the X variables. The estimates for $\beta_1$ and $\beta_2$ are statistically significant at the 5% significance level. These results go against the a priori expectations of the study, as the influence of US imports from Ghana on US exports to Ghana is less than in the Irish case. There is effectively no multicollinearity present in this model as a regression of $X_1$ on $X_2$ yielded an $R^2$ of 0.02253.

The empirical evidence tends to support the hypothesis insofar as it shows a relationship between imports from developed countries and exports to developed countries, and that this link is greater for the OECD as a whole than for either of the smaller developed economies examined.

Curiously, the connection was not as strong for the United States as it was for Ireland. This went against the a priori expectations of the study because Ghana's imports from the US are about eight times its imports from Ireland. This aberration could probably be explained by an examination of the income elasticities of Ghana's demand curves for American and Irish products. It is quite possible that demand for Irish products (such as beef) is more income elastic in Ghana than demand for American products (such as high-tech manufactures).

## Conclusion

The analyses in Sections I and II of this paper concluded that developed countries could increase less developed countries' demand for foreign goods by importing more from them. This would ease their balance of payments difficulties, encourage them to be more outward looking and possibly lead to export-led growth.

However, it was noted that this is not a viable policy from the perspective of an individual industrialised country. Any country which pursued a policy of importing from less developed countries for this motive would not necessarily reap the benefits.

The empirical study in Section III seemed to support the theoretical conclusions. A strong relationship was found to exist between OECD imports from Africa and African imports from the OECD. In accordance with the theoretical conclusions, a weaker link was found when individual OECD members were looked at. Curiously, the relationship was not as strong between the US and Ghana as that between Ireland and Ghana, even though a large proportion of Ghana's imports come from the United States. The explanation for this empirical anomaly inevitably lies with factors beyond the remit of this analysis and so the task of uncovering them is left to another study.

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**Data Sources**

**IMF**: *Journal of International Financial Statistics*.

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# The Export Performance of Turkey Following Trade Liberalisation


## Selen Sarisoy - MLitt.



A radical change in Turkey's export policy began in 1980, necessitated by a poor economic performance in the 1970s. In this paper, Selen Sarisoy discusses this change in export policy since Turkey's economic liberalisation in 1980.


### Introduction

This study will focus on Turkey's export performance after the 1980 foreign trade liberalisation.

The export performance will be analysed under four sections:

- commodity composition of exports;
- comparative advantage;
- geographic distribution of exports;
- intra-industry trade.

A special emphasis will be given to changes in Turkey's export performance after 1980 vis-à-vis the 1970s.

### Background

Turkey is situated between West and East bringing many different cultures together. Although 99% of the population is Muslim, Turkey is, and has always been, a Western-oriented secular country. Turkey is a typical middle income developing country with a population of 60 million and a GDP of 169.3 billion US$ in 1995.

Although trade liberalisation attempts started in the 1970s, these attempts were generally unsuccessful as they were only short-term solutions to balance-of-payments and foreign exchange problems (Baysan and Blitzer, 1991). By the end of the 1970s, Turkey faced severe economic problems. Despite the unfavourable external environment, policy makers attempted to maintain or even accelerate aggregate economic growth through inflationary policies, heavy foreign borrowing and postponement of structural adjustments. These unsustainable expansionary policies led to increasing inflation and unemployment, coupled with shortages and labour unrest (Baysan and Blitzer, 1990).

This political and economic turmoil finally led to the realisation that changes were required. Starting in January 1980, a series of comprehensive economic policy changes were introduced. In the long-term, reform policies aimed to change the structure of the economy from etatism to a market structure with the objective to render a more efficient allocation of resources through the price mechanism. In the short-term, the target was to ameliorate the balance-of-payments situation through export growth and to achieve international creditworthiness. The steps followed to achieve the short-term objectives were the adoption of a flexible exchange rate policy, more effective export promotion measures to promote export growth, and gradual import liberalisation (Baysan and Blitzer, 1990). This move towards greater freedom of trade created the necessary external environment to enable Turkey to benefit from trade gains. Unlike the 1970s, the 1980 reforms changed the economy and liberalised trade permanently by reducing or eliminating protectionist measures (Baysan and Blitzer, 1991).

By liberalising imports, Turkey became more open to foreign trade. The openness of any economy involves the absence of restrictions on the movement of goods and factors of production, such as tariffs and quotas to protect domestic industry. Openness, by definition, is more than the existence of trade (Geary, 1991). The extent of openness can be calculated by the ratio of exports and imports to GDP (Greenaway and Sapsford, 1996). Turkey's ratio of exports and imports to its GDP was 17% in 1970. The ratio rose to 20% in 1980 and 34% in 1995 (Figure 1). Reduction or elimination of tariffs and quotas, and the movement of resources from import-substituting activity to the growth of export industries were the main contributing factors in the liberalisation of imports.

**Figure 1**: The ratio of exports and imports to GDP in Turkey, 1970-1995.

Apologies - graph awaiting insertion.

Source: **Author's calculations, OECD Economic Survey of Turkey (various issues).**

### Export Performance Analysis

*Commodity Composition of Exports*

Before 1980, the commodity composition of Turkish exports was concentrated on agricultural products. In 1970, agricultural products constituted 75% of exports. Although the share of agricultural products declined steadily towards the end of the 1970-79 period, Turkey remained mainly an agricultural products exporter. The share of processed and manufactured products rose steadily from 19% in 1970 to 35% in 1979. Mining and quarrying remained at around 6% during this period. Within the processed and manufactured products category, processed agricultural products (such as olive oil, sugar, food and beverages) took the highest share, followed by textiles. In the second half of the 1970-79 period, the share of textiles increased faster than that of agricultural processed products, an increase from 4% in 1970 to 17% in 1979.

The analysis of commodity composition of exports indicate that Turkey, as a land and labour abundant country, specialised in resource and labour-intensive industries, where it had a comparative advantage. Therefore, Turkey was a net exporter of agricultural products and a net importer of industrial products in the 1970s.

After 1980, the commodity composition of exports changed dramatically. Manufactured products replaced agricultural products in export commodity structure. The share of agricultural products in total exports fell from 57% in 1980 to 16% in 1995. Despite the fall in percentage share, the value of agricultural products in US$ doubled between 1980 and 1995. The share of manufactured products (excluding agricultural manufactured products) increased steadily from 29% in 1980 to 69% in 1991. Among manufactured products, the traditional export sector, textiles, constituted the highest share. Textiles increased from 15% in 1980 to 32% in 1991. Among other traditional export industries, 'hides and leather' was among the fastest growing industries following the non-traditional 'iron and steel' industry. Post-1980 commodity composition was altered by the emergence of non-traditional export industries such as iron and steel, rubber manufactures, non-ferrous metals, chemicals, glass, ceramics and the brick-tile industry. Iron and steel exports grew from 1% in 1980 to 11% in 1991.

The reason for the change in the commodity composition of Turkish exports was the new development strategy, which targeted industrialisation through export growth (Taskin and Yeldan, 1996). Resources were thus reallocated from the agricultural sector to industry. As the above analysis indicates, Turkey was exporting mainly resource-intensive agricultural products in the 1970s, labour-intensive textiles, together with leather and hide in the 1980s, while rapidly growing capital-intensive export industries emerged in the 1990s.

## Comparative Advantage

According to the Heckscher-Ohlin theory, the determinants of traded good industries are identified by their factor contents. Countries that are rich in certain factors will export goods that make use of the abundant factors intensively. While Ricardian comparative advantage is confined to labour productivity, where only one factor of production is considered, the Heckscher-Ohlin theory develops comparative advantage from a unidimensional theory to a multidimensional one.

The result of the preceding analysis on the composition of export commodities indicates a change in the factor composition of the export products. In the 1970s, on average 65.5% of export products were resource-intensive (agricultural products and non-ferrous metals), while 13% were labour-intensive (textiles and leather and hides) and 2.8% (iron and steel, rubber and plastics, industrial chemicals, glass and ceramics) were capital-intensive. After 1980, the share of resource-intensive industries declined to 21% , while the labour-intensive industries' share increased to 37%, and the non-traditional, newly emerging capital-intensive industries accounted for 19% in 1991. Although government policy targeted industrialisation through export growth, the share of labour-intensive sectors still accounted for most of the exports in the 1990s and the capital accumulation has not been satisfactory (Taskin and Yeldan, 1996).

The question arises as to whether the change in factor contents was an indication of a change in the comparative advantage of export industries for Turkey. One method to analyse a country's comparative advantage is to calculate the Revealed Comparative Advantage (RCA). RCA indexes were calculated for the period 1980-1990 by Togan (1994). According to the calculated indexes, Turkey's comparative advantage was in explosives, inorganic chemicals, clothing, iron and steel, non-ferrous metals and rubber manufactures, to cite a few. Therefore, for this period, some of the areas where Turkey's comparative advantage lay were labour-intensive sectors (such as clothing), but most were in capital-intensive sectors.

The commodity composition of Turkish exports for 1980-1990 period indicates that Turkey's exports in the above-mentioned sectors increased rapidly. However, the industries excluding iron and steel constituted only a very small percentage in total exports. By the end of 1980s, the textiles sector was still the major export item among manufactured products, which had a high, but falling RCA index value. According to the RCA index values, for the 1980-1990 period, Turkey should have exported more capital-intensive products but like many developed and developing countries, Turkey protected its labour-intensive industries by giving them preferential treatment in terms of export subsidies (Togan, 1994).

Two important conclusions can be drawn from the analysis of comparative advantage. The first conclusion is that comparative advantage is dynamic. As RCA indicates, Turkey has a traditional comparative advantage in textiles, but this advantage is decreasing. The newly emerging export sectors such as iron and steel, chemicals, non-ferrous metals and rubber manufacture had increasing RCA values that indicated increasing comparative advantage. The second conclusion is that comparative advantage is not given, it is made. As stated earlier, government policy reallocated resources from agriculture to the manufactured products industry. This, in return, altered Turkey's comparative advantage from resource-intensive to labour-intensive, and further to capital-intensive sectors.

## Geographical Distribution of Exports

For the pre-1980 period, OECD countries were the most important markets for Turkish exports. Exports to OECD countries increased from 430 million US$ in 1970 to 1.4 billion US$ in 1979. The share of exports to the OECD countries amounted to 73% in 1970, 70% in 1975, and 64% in 1979. In 1979, the percentage share of exports to EEC countries was 49%. In the second half of the 1970s, the exports to Middle Eastern and North African countries increased. In 1974, the share of the Middle East was 4% and by 1979 their share reached 14% (Table 1).

**Table 1.** Geographic distribution of exports, 1970-79.

| Geographic Region | 1970 | 1971 | 1972 | 1973 | 1974 | 1975 | 1976 | 1977 | 1978 | 1979 |
|---|---|---|---|---|---|---|---|---|---|---|
| EEC | 60% | 62% | 61% | 67% | 47% | 44% | 49% | 50% | 50% | 49% |
| other OECD | 13% | 11% | 12% | 11% | 24% | 26% | 26% | 21% | 18% | 15% |
| OECD (total) | 73% | 73% | 73% | 78% | 71% | 70% | 75% | 71% | 68% | 64% |
| Eastern Europe | 14% | 12% | 10% | 8% | 6% | 7% | 9% | 10% | 16% | 13% |
| Middle East | - | - | - | - | 4% | 12% | 8% | 14% | 12% | 14% |
| Other | 13% | 15% | 17% | 14% | 19% | 11% | 8% | 5% | 4% | 9% |
| TOTAL | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |

**Source:** Own calculations, OECD Economic Survey of Turkey (various issues).

In the post-1980 period, the share of exports to the Middle East and North African countries continued to increase. However, the OECD countries still accounted for most of the export destinations (Table 2).

**Table 2.** Geographic distribution of exports, 1980-1995.

| Geographic Region | 1980 | 1985 | 1990 | 1995 |
|---|---|---|---|---|
| EEC | 43% | 40% | 53% | 51% |
| other OECD | 15% | 11% | 15% | 13% |
| OECD (total) | 58% | 52% | 68% | 64% |
| Eastern Europe | 17% | 4% | 8% | 3% |
| Middle East | 22% | 41% | 19% | 15% |
| Other | 3% | 3% | 5% | 18% |
| TOTAL | 100% | 100% | 100% | 100% |

**Source:** Author's calculations, OECD Economic Survey of Turkey, various issues

The number of trading partners is a sign of diversification for a country. As the number of trading partners increases, the country's export portfolio becomes diversified. If a country is trading with only one partner, it is vulnerable to changes in the partner's economy and trade policies. As the geographic destinations of exports widen, the country becomes less vulnerable. It is possible to measure the degree of vulnerability of a country by a 'geographic concentration index', first developed by Hirschman (1945) (Togan, 1994). The Gini-Hirschman coefficient, the index of the country's geographic concentration is calculated as:

$$U_g = 100 \sqrt{\sum}^{m} (X_k / X)^2$$

Where:

$U_g$ = The Gini-Hirschman coefficient

$X_k$ = The value of exports to country k

X = Total value of the country's exports

m = number of countries

*Note:* The higher the value of $100\sqrt{(1/m)}$, the more concentrated the country's exports are.

As can be seen in Table 3, Turkey diversified its exports geographically towards the end of the 1970s compared to 1969 and 1970. However, although the number of export markets increased by 32% from 1979 to 1994/1995, exports became less diversified in 1994/1995. This is due to the increased value of exports to the OECD countries.

**Table 3.** The values of geographic concentration index, 1969-70, 1978-79, 1994-95.

| YEAR | Number of Export Markets | Index |
|---|---|---|
| 1969 | 65 | 29.727 |
| 1970 | 66 | 29.016 |
| 1978 | 69 | 28.003 |
| 1979 | 69 | 28.633 |
| 1994 | 91 | 29.888 |
| 1995 | 91 | 31.332 |

Source: Author's calculations using OECD monthly averages, series A.

*Intra-Industry Trade*

Intra-industry trade is the 'exchange of similar products of a given industry' and can be measured by the Grubel-Lloyd index (Williamson and Milner, 1991). The OECD data for the period 1986-1995 classifies exports and imports into the 10 single-digit categories of the Standard International Trade Classification (SITC) which can be used to calculate the Grubel-Lloyd index using the following equation:

Grubel-Lloyd index = 1- ($|X-M|$ / (X+M))

where;

X = The value of exports

M = The value of imports

Table 4 illustrates how the manufactured goods classified as SITC 6 consistently had a high G-L index, an indication of intra-industry trade. Another SITC group indicating high intra-industry trade was beverages and tobacco (SITC 1). Calculating the Grubel-Lloyd index using single digit SITC classification is probably misleading since each classification is aggregated, with many industries classified under one category. Therefore, this table should not be used to prove where intra-industry trade lies. Rather, it should be used to indicate where more detailed analysis should be based. Manufactured goods classified chiefly by material (SITC 6) include leather, leather manufactures, rubber manufactures, textiles yarn, fabrics, glass, glassware, pottery, cement, iron and steel and non-ferrous metals.

**Table 4.** G-L index for single-digit SITC categories.

| SITC classification | 1986 | 1988 | 1990 | 1992 | 1994 | 1995 |
|---|---|---|---|---|---|---|
| 0 Food and live animals | 0.25 | 0.14 | 0.68 | 0.35 | 0.25 | 0.60 |
| 1 Beverages and tobacco | 0.62 | 0.81 | 0.86 | 0.96 | 0.49 | 0.54 |
| 2 Crude minerals | 0.84 | 0.73 | 0.62 | 0.42 | 0.42 | 0.36 |
| 3 Mineral fuels | 0.16 | 0.20 | 0.12 | 0.12 | 0.12 | 0.12 |
| 4 Animal and vegetable oil | 0.72 | 0.55 | 0.64 | 0.73 | 0.57 | 0.68 |
| 5 Chemicals | 0.41 | 0.60 | 0.42 | 0.34 | 0.37 | 0.29 |
| 6 Manufactures goods | 0.81 | 0.82 | 0.93 | 0.93 | 0.83 | 0.97 |
| 7 Machinery | 0.19 | 0.30 | 0.22 | 0.28 | 0.37 | 0.35 |
| 8 Miscellaneous manufactures | 0.38 | 0.30 | 0.40 | 0.39 | 0.35 | 0.41 |
| 9 Commodities not classified elsewhere | 0.75 | 0.67 | 0.48 | 0.24 | 0.19 | 0.57 |

**Source:** Own calculation using OECD, Foreign Trade by Commodity, Series C.

**Note:** Index ranges from 0-1. Higher levels of intra-industry trade are indicated as index approaches 1.

Analysis of more detailed classifications indicates that intra-industry trade is highest in the iron and steel industry (SITC 67), followed by glass and ceramics (SITC 664, 665, 666), non-ferrous metals (SITC 68) and rubber manufactures (SITC 62). Comparatively, intra-

industry trade in textiles (SITC 65) remained low over the period. Overall, high intra-industry trade lies in non-traditional and newly emerging exports industries.

The scale economies of iron and steel, rubber manufactures, and glass and ceramics, may be just one cause of intra-industry trade. Krugman (1979) stated that because of scale economies in varieties produced, there was larger output and greater variety with international trade. So, 'economies of scale can be shown to give rise to trade and to gains from trade even when there are no international differences in tastes, technology or factor endowments' (Krugman in Pomfret, 1991). However, given the fact that Turkey's major trading partners are industrialised countries, it is unlikely that the condition of 'same technology of factor endowments' will hold. Turkey does not have the same capital accumulation and production technology as her industrialised trading partners. Therefore, two probable hypotheses remain to explain intra-industry trade: the intermediate goods theory and the neo-factors proportion theory.

Intermediate goods theory relates the Heckscher-Ohlin model to processes rather than to products. The production of most final goods involves a series of intermediate stages of production. Comparative advantage may therefore dictate that the location of the various processes should be in different countries, exploiting different factor endowments (Williamson and Milner, 1991). After import liberalisation, Turkey imported raw materials and new technology, especially in the capital-intensive sectors and exported finished products in the same sector (Baysan and Blitzer, 1991).

The neo-factors proportion theory explains the two-way trade flow between developed countries and developing countries by quality differentiation. Based on this theory, Turkey and the OECD countries may trade the same good. The difference is the proportion of factors of production used to produce the product. Capital-rich OECD countries will use more capital-intensive technology, while Turkey will employ more labour since capital is relatively more expensive to produce this product. Therefore, the same product produced by the OECD countries will be regarded as better quality since its production is more capital-intensive.

Intra-industry trade in such sectors will emerge because developed countries will specialise in a high quality version of the product while the developing nations will specialise in lower qualities of the same product. High-income consumers in the developing country will demand the high quality version of this product. Therefore, developed nations will export their products to developing countries, and in return import a lower quality version of the same product from the developing world.

These hypotheses may explain the intra-industry trade in iron and steel, glass and ceramics, and rubber manufactures. The intra-industry trade in non-ferrous metals could be a mere statistical error due to over-aggregation in the SITC category. The same division (SITC 68) includes silver, platinum, copper, nickel, aluminium, lead, zinc, tin, uranium and its alloys. Exporting silver and importing uranium would erroneously appear as intra-industry trade. The beverages and tobacco (SITC 1) division consists of non-alcoholic and alcoholic beverages as well as manufactured and unmanufactured tobacco. Therefore, a desire for variety, product differentiation and the intermediate goods theory can explain the existence of intra-industry trade for this category.

Turkey's exports increased from 2.9 billion US$ in 1980 to 21.6 billion US$ in 1995 with an average growth rate of 15 percent. The most important result of the liberalisation program has been Turkey's spectacular export performance, especially the growth of exports of manufactured products. The change from agricultural exports to exports of manufactured products utilised Turkey's dynamic comparative advantage perfectly, but within manufactured products, labour-intensive sectors still have the largest share.

## Conclusion

In the 1990s, the structure of Turkish exports experienced a period of transition. As capital-intensive industries emerge as important export industries, and capital accumulation increases, Turkey's exports will move towards capital-intensive sectors. The rise of capital-intensive export industries does not mean that labour-intensive export industries will perish. Turkey can sustain its comparative advantage in labour-intensive industries, such as textiles, by value adding. Higher quality, value added labour-intensive products should target countries with higher income elasticities for such products.

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# The Multi-Fibre Arrangement - A Thread of Protectionism

## Samantha Smith - Senior Sophister

The Multi-Fibre Arrangement has been the most significant restriction on developing countries' exports of textiles and clothing. Samantha Smith compares the effects of the MFA on the Republic of Korea and Bangladesh, and accounts for their very different performances under the MFA.

### Introduction

Over the years economic theory has widely documented the potential gains from trade among two or more countries. Ricardo (1963) proposed that countries that specialised in the good in which they had a comparative advantage and then traded such goods, could yield substantial benefits from this behaviour. Comparative advantage in the production of a good is equivalent to the concept that the opportunity cost to the country of producing that good is relatively low (Brenton et al, 1997). The Heckscher-Ohlin model proposes that the source of this comparative advantage lies in the countries' relative stocks of factors of production. This means that a country with a relatively abundant capital supply will find it cheaper to produce goods whose production requires much capital and little labour compared to a good calling for a more unskilled, labour-intensive production process. The theorem thus states that each country will specialise in and export the good that is intensive in its abundant factor (Williamson and Milner, 1991).

Since the end of World War II, the world's economies have paid more attention to the importance of the global market and the gains to be reaped from pursuing one's comparative advantage and engaging in international trade. Successive rounds of the General Agreement on Tariffs and Trade (GATT) have heralded increasing liberalisation of the international market. Even by 1974, tariffs on trade in manufacturing had been cut to near 6%, from an average level of 40% in the 1940s (World Bank, 1987).

However, one important exception to this trend of freeing up international trade has been the textile and clothing market. The textile and clothing industry is one whose production process is highly intensive in unskilled labour. Since this is a factor with which developing countries are relatively well-endowed, exports of textile and clothing products are argued to have been the "obvious choice for Third World countries in the drive to industrialise"[1]. Yet from the beginning of the 1980s, the developed world has placed increasingly restrictive protectionist measures against their imports of textiles and apparel from developing countries under the auspices of the Multi-Fibre Arrangement (MFA).

Given that both theory and behaviour have supported the process of pursuing one's comparative advantage and engaging in free trade, one might expect that blocking trade via the MFA in the one area where the developing world has a comparative advantage must have had a devastating effect on their efforts to develop and grow economically.

This discussion explores this issue with specific reference to two developing countries - the Republic of Korea and Bangladesh. The experience of the Republic of Korea - one of the newly industrialising countries (NICs) - would seem to suggest that the protectionist forces of the MFA had little negative impact on the economy. The way in which the Republic of Korea reacted to the MFA measures will be used to outline how an economy responds to the imposition of quotas. In contrast Bangladesh appears to have been seriously affected by the MFA restrictions, in line with one's expectations, and the reasons for this will be explored. Bringing the experience of these two countries together (despite seemingly contradictory evidence) points to the harmful effects of protectionist measures such as the MFA on the ability of developing countries to gain from international trade.

### The Origins and History of the MFA

From 1963 to 1976, imports of textiles and clothing by developed countries from the less-developed world increased by 14.1%, and by 1986 the developing world's share of world exports in this industry reached 33.4% (Trela and Whalley, 1990). Since production of these goods was in line with the comparative advantage of the developing countries, they were able to supply at a lower unit labour cost than the companies in the developed countries (World Bank, 1995). As a result, import-competing firms feared that this rise in imports from the cost-competitive developing world would threaten their jobs and the viability of their textile and clothing industry. These producers thus lobbied for protectionist measures against imports of textile and clothing products.

Under such intense pressure government policy makers in the developed countries (e.g. UK, US and France), conceded to the demands. Trade in textiles and apparel was not subject to the normal GATT free trade rules, until the Uruguay Round in 1991 (Grimwade, 1996).

Thus the first Multi-Fibre Arrangement was devised in 1974. It was an extension of a previous arrangement known as the Long-Term Agreement (LTA), which originated from the "Short Term Arrangement Regarding International Trade in Cotton Textiles" (STA). The MFA is made up of a series of bilaterally negotiated quota restrictions on trade in textiles and clothing between individual developed

country importers and developing country exporters. Under the quota, the exporter is allowed to supply a certain volume of textile and clothing products up to a specified ceiling, and it is up to the exporter to allocate the quota allowance among its domestic producers.

Since 1974, the MFA has been renegotiated four times and each modification has brought with it increasingly restrictive measures - covering a broader range of products, and reducing any flexibility provisions in the system. In 1986, when MFA IV was negotiated, coverage was extended to additional fibres, silk, ramie, linen and jute. By 1994, MFA IV involved eight importers and 31 developing, Central and Eastern Europe countries. During the Uruguay Round, the decision was taken to phase out the MFA over a ten year period, in order to bring trade in textiles and clothing gradually into line with the rest of industrial trade under formal GATT rules and procedures (Hoekman and Kostecki, 1995). The following section will focus on the experience of the Republic of Korea under this MFA regime until 1994.

## The Republic of Korea and the MFA.

In 1945, Korea was divided into two economic units, North and South Korea. South Korea with an extremely high population density - was among the world's poorest countries (Todaro, 1997). Yet despite possessing limited agricultural and natural resources, economic growth over the past 30 years has been spectacular. From 1960 to 1994, real GDP per capita increased from US$690 to US$10,656 (UNDP, 1997). Annual growth of GNP per capita was 7.3% for the period 1965-1980, reaching 8.2% in the years 1980-1993 (UNDP, 1997).

This growth was principally due to the pursuit of industrialisation via export promotion. During the period 1965-1993, exports grew by over 20% per annum (Todaro, 1997), of which the export of textiles and clothing played the major role (Hamilton and Kim, 1990). In the early 1970s, this industry's share of total exports was 38.7%, and by 1975, it was contributing to nearly 20% of the total value added of the manufacturing sector and employing 25% of its workers (Hamilton and Kim, 1990).

In the 1980s then as with the other NICs - Hong Kong and Taiwan - exports of textiles and clothing from the Republic of Korea came under MFA restrictions. In 1981 (under MFA II), 73% of Korean exports of such goods were subject to MFA quotas, and by 1987 (under MFA IV) this had risen to 97%. A high quota utilisation rate indicates that the quotas were binding, in other words restraining the volume that suppliers wanted to export. From 1981 to 1987, these rates were over 90% with regard to Korean exports to both the United States and the United Kingdom. Estimates of the 'import tariff equivalents' of the US MFA restraints on Korea range from 30% in 1982 to 44% by 1984 (Hamilton and Kim, 1990). Given the severity of restrictions imposed on exports from the Republic of Korea, it is not surprising that MFA quotas have been cited as the biggest obstacle ever faced by Korean textile and clothing producers (Hamilton and Kim, 1990).

As noted in the introduction, the experience of the Republic of Korea highlights the typical reactions of a country to the imposition of a quota. First, since export quantities are restricted, share of the protectionist markets is expected to fall - as shown by Table 1, which deals with the two main export markets, US and EC, for the three NICs.

**Table 1**: Changes in the import market share of suppliers in textile products that were under binding restrictions for the Republic of Korea, Hong Kong and Taiwan in the US and EC markets, 1981-87.

| | **US IMPORT MARKET SHARE** | |
|---|---|---|
| **SUPPLIER** | **1981** | **1987** |
| The Three | 55.11 | 43.45 |
| Korea, Republic of | 15.14 | 11.21 |
| Hong Kong | 22.78 | 17.28 |
| Taiwan | 17.19 | 14.96 |
| | **EC IMPORT MARKET SHARE** | |
| | **1981** | **1987** |
| The Three | 13.07 | 10.48 |
| Korea, Republic of | 3.71 | 2.90 |
| Hong Kong | 7.29 | 5.83 |
| Taiwan | 2.07 | 1.75 |

*Source*: Erzan et al. (1990)

Second, producers seek to diversify production into goods that are not subject to quota restrictions. However, the imposition of quotas speedily followed this process such that by 1987, out of a total 111 categories of clothing textile products, 75 were under bilateral quotas.

Third, given that the MFA quotas were placed on volume rather than value of exports, product upgrading provided a means of raising the income earned on a consignment of goods. By increasing the quality and hence the value of goods, producers could gain without increasing the quantity of goods exported. Experience of developing country suppliers as a whole indicates the use of product upgrading to circumvent the quantity restrictions of quotas (Erzan et al., 1990).

Fourth, overseas subcontracting was pursued by the Republic of Korea in order to seek out other geographic locations that were not subject to the bilateral agreements. Over the 1980s, the number of foreign investments made by the Korean textile and clothing industry rose significantly, between 1983 and 1988 for example, the number of clothing projects increased from two to 21, and many of these investments were located in Bangladesh. However as soon as the suppliers in these new locations became successful exporters, MFA quotas were imposed (Erzan et al, 1990).

Fifth, during the early periods of the MFA, exporters were allowed some flexibility in the use of the quotas, for instance advance use of the next year's quota, or carrying over an unused portion of the previous year's quota. This lessened the severity of the impact of the MFA on the production process and allowed some room for Korean exporters to respond to the changing market demand conditions. Unfortunately, with subsequent renegotiations of the MFA (MFA III and IV), these flexibility provisions were reduced and finding ways to circumvent the quotas became increasingly difficult (Trela and Whalley, 1990).

However, despite these problems, during the 1980s the volume of Korean textile and clothing production doubled, while the volume of their exports trebled (Hamilton and Kim, 1990). By 1986, the Republic of Korea was second only to Italy as the largest net exporter of clothing and textiles in the world (Chisolm et al., 1986). The country succeeded in moving from near-destitution in the 1940s to being one of the 10 largest trading economies in the world (Todaro, 1997).

The one main feature that adequately accounts for the ability of the Republic of Korea to grow despite MFA protectionism concerns the country's most abundant asset - labour, which in contrast to many other developing nations, is highly educated and productive. Even back in 1970, adult literacy was already 86% of the population (UNDP, 1997). Chisolm et al. (1986) noted that in the 1980s, Korean employees worked longer hours than anywhere else in the world.

Thus Trela and Whalley (1990) argued that with this relatively high skilled labour force, and the significant amount of entrepreneurial flair therein, the country was well-equipped to diversify out of the single process, unskilled, labour-intensive production into more capital-intensive production. In this way the country engaged in a structural shift in its comparative advantage towards more skill- and capital- intensive processes (Hamilton and Kim, 1990. An example of this can be seen in the increase in recent years of imports of chemicals for producing man-made fibres and of textile machinery - reflecting the change in the nature of textile production away from unskilled-labour-intensive processes.

Perhaps then, as some economists have argued, the trade restrictions on textiles and clothing have actually encouraged the developing countries to pass through the stages of industrialisation more quickly by forcing them to adapt their comparative advantage to suit the global market conditions. Thus, they have advanced by improving the labour market quality in line with more skill-intensive production (Trela and Whalley, 1990). If this were the case however, how is it that a country like Bangladesh, which is similar in many ways to the Republic of Korea, has not managed to replicate the gains from the export-led strategy of the first NICs (Chisolm et al, 1986)?

## Bangladesh and the MFA.

In the 1960s and 1970s, Bangladesh , like the Republic of Korea of the 1940s was one of the poorest and most densely populated countries in the world, had a very large pool of labour and was lacking in non-energy minerals and other natural resources (Economist Intelligence Unit -EIU, 1996). From 1965 to 1980, GNP per capita contracted by 0.3% per annum, 88% of the labour force worked in subsistence agriculture, adult literacy was only 24% of the population, and life expectancy at birth was a mere 39.6 years (UNDP, 1997).

For many decades Bangladesh relied heavily on its exports of raw jute and jute products. However with the constant threat of serious flooding that can instantly destroy crops, declining jute fibre prices and a significant decrease in world demand, the contribution of the jute sector to the economy's ability to grow and develop has deteriorated (Spinanger, 1986). Thus attention turned to the role of the manufacturing sector in driving the much needed export-oriented growth.

In particular, the textile and clothing industry was focused on, its requirements being "consistent with Bangladesh's comparative advantage".[2] In 1978, less than twelve garment companies existed. By 1985, with the help of Korean investment, there were 450 companies in operation and 300 in the pipeline. 140,000 workers were employed, with a capacity of three million garments a year (Spinanger, 1987). The industry was earning US$116 billion in 1985, and contributed to 12% of total national export earnings (World Bank, 1995). While the exports of raw jute grew by only 2.6% between 1984-85, the exports of garments grew by a spectacular 71.3% (EIU, 1986).

The huge success of this industry reflects the ability of the entrepreneurs in Bangladesh to recognise where its comparative advantage lay - i.e. where the factor intensity (unskilled-labour-intensive) aligned perfectly with the relative factor supplies of the economy (Spinanger, 1987). However, as early as 1984, France and the UK imposed MFA quotas on Bangladesh and later the US did likewise (World Bank, 1987).

These bilateral agreements were extremely restrictive, unlike the more flexible restraints placed on the NICs in the early stages of the MFA programme. For example the US arrangement allowed only a 6% growth rate in MFA imports from Bangladesh - yet from 1981 to 1984, this measure had shown a 386.4% rate of growth (World Bank, 1987)! Furthermore this agreement was very detailed, restricting imports down to 7-digit SITC (Standard International Trade Classification) categories - for example a quota was placed not only on shirts, but on shirts made from dyed yarn in particular sizes - "so detailed an arrangement would make diversification into uncontrolled goods well nigh impossible".[3] In the years 1985-87, over 90% of US imports of textile products from Bangladesh were subject to quotas, and the average rate of quota utilisation was about 95% (Erzan et al, 1990).

The immediate impact of the MFA restrictions on Bangladesh was to cause a large number of factories to close. Consequently, workers were laid off leaving thousands of females (representing 84% of the industry's workforce) destitute. Banks stopped lending due to uncertainty over the future, and investments in the industry ceased (Chisolm et al, 1986). Scarce managerial ability was absorbed in the administration of the quota allocation system, and efforts to diversify into unrestricted products were blocked by the restrictiveness of the quotas.

In more recent years, producers have looked to product upgrading as the direction for future growth of the industry. The silk and leather industries are areas where trade restrictions are minimal, and thus Bangladeshi entrepreneurs have diverted production in this direction (World Bank, 1995). In this light, surely Bangladesh can follow the Republic of Korea's experience, as the latter found ways to adapt to the MFA quotas by moving to higher quality production in more capital- and skill-intensive products?

Unfortunately, nearly 30 years after the initiation of growth in exports of textiles and clothing, Bangladesh has not benefited from anything like the growth experience of the NICs. Bangladesh is still one of the poorest countries in the world, as indicated by the comparative profile below.

**Table 2**: Comparative economic and social indicators for Bangladesh, India and the Republic of Korea.

| Indicators | Bangladesh | India | Republic of Korea Korea |
|---|---|---|---|
| GNP (US$) 1994 | 26.6 | 278.7 | 366.5 |
| GNP annual growth rate (%) 1980-93 | 4.5 | 5.0 | 8.7 |
| Real GDP per capita (PPP$) 1989 | 820 | 910 | 6,117 |
| Population below poverty line (%) 1980-89 | 86 | 48 | 16 |
| Adult Literacy rate (%) 1994 | 37 | 51 | 98 |
| Life expectancy at birth (years) 1994 | 56.4 | 61.3 | 71.5 |

*Source*: UNDP (1997)

Note in particular that the Bangladeshi adult literacy rate was only 37% in 1994 (UNDP, 1997). This simple statistic points to a fundamental difference between the experience of Bangladesh and that of a country like the Republic of Korea in trying to expand and diversify its exports in the face of MFA restrictions. Korea, with its highly educated labour force, was readily equipped to enter into higher quality, more skill-intensive production processes. Bangladesh on the other hand still maintained a comparative advantage in terms of unskilled labour, and had not yet "acquired the expertise to diversify".[4] This is made evident by the situation today where an acute shortage of skilled labour has emerged as the garment industry moves towards product upgrading - in contrast to the still-abundant supply of unskilled workers (World Bank, 1995).

Hence while the Republic of Korea was ready and able to be encouraged by the MFA regime to adapt to its comparative advantage, Bangladesh was forced to seek other methods of export promotion, for instance leather and silk, where its most abundant factor could not be fully absorbed. In this way, unless one has unique advantages such as Korea's highly educated labour force, the MFA restraints "seem likely to push countries up the ladder of comparative advantage faster than market forces would take them into products which are too capital- and technology-intensive for their present resource endowments' (World Bank, 1987).

Thus, instead of the MFA encouraging Bangladesh to speed up its process of industrialisation, as suggested earlier, it has frustrated its comparative advantage. Trela and Whalley (1988) estimated that if all developed countries' restrictions on textiles and clothing were removed, exports of these products from Bangladesh could increase by 70%. The welfare effects for Bangladesh of removing the MFA quotas were estimated at US$0.223 billion. While significant, these figures are likely to have underestimated the true cost of the MFA protectionism measures for Bangladesh, in terms of retarding its economic development (Grimwade, 1996). This is indicated by the fact that Bangladesh's poverty status in the world has scarcely improved over the last 3 decades (UNDP, 1997).

Furthermore, it is not argued here that countries like the Republic of Korea did not suffer at all from the MFA regime - far from it. According to Trela and Whalley (1988), the growth of the Republic of Korea's textile and clothing export market could have been even greater than it was under MFA restrictions - an increase of nearly 210% with an estimated welfare gain of US$0.817 billion.

## Conclusions

It can be seen that countries do take into account where their comparative advantage lies when pursuing a development strategy. In the case of developing nations who have an abundant supply of unskilled labour, the textile and clothing industry - intensive in this factor - has played a significant role in their quest for export-led growth (Trela and Whalley, 1990). Unfortunately for the success of these development strategies the Multi-Fibre Arrangement was introduced as a protectionist measure by developed nations in the 1970s.

This investigation has looked at the ways in which an exporting country - Republic of Korea - responds to the imposition of MFA quotas on its production, in terms of among other measures, product diversification, and overseas subcontracting. The unusual ability of Korea to adapt to the quotas by moving into more capital- and skill-intensive production was observed. The case of Bangladesh, however, highlighted the fact that altering one's comparative advantage to suit market conditions is not always immediately possible. In this way, the MFA cannot be seen as a favourable force in terms of encouraging the transition to higher skill-intensive methods of production. As Bangladesh has illustrated, the country may simply not be ready. With the majority of the population working in agriculture, Bangladesh needed time to accumulate an industrial workforce before any further advancement of skill was possible (Chisolm et al, 1986).

This discussion has highlighted the retarding and growth effects of the MFA on the NICs, exemplified by the Republic of Korea, and the devastating impact of the MFA on a developing country like Bangladesh which is "attempting to exploit its primary resource - vast supplies of labour - to build itself an industrial base" (Chisolm et al, 1986, p.37). It was thus a happy moment for all involved when with the conclusion of the Uruguay Round in 1994, the MFA's thread of protectionism was finally severed.

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# Competition Policy - The Essential Ingredient for an Integrated Europe


## Christine Davin - Junior Sophister



Christine Davin discusses the nature of competition policy and its importance in securing a strong position for the European economy in the world. She then discusses the two proposed mergers of four Irish accountancy firms one of which, it is known, will go ahead, whilst the other has been cancelled.


### Introduction

EU competition policy has always been an important policy tool for the European Commission. In these times of growing Euro-activity, competition policy has increased significantly in importance. It will continue to be used within European economies as we move towards a single currency and beyond.

In this essay, I will begin with a discussion of what exactly competition policy is and where it came from. I will analyse it under different headings and finally assess its importance within the European economy, now, and in the future. In terms of implications for business, I will be concerned primarily with the Irish economy, using an example of competition policy at work in Ireland.

### What is Competition Policy?

Competition policy officially came into effect with the Treaty of Rome in 1957. At that stage there were six members of the European Community, none of whom had a formal policy of any kind. Initial policy was loosely based on US anti-trust policy of the time. The European Commission formulates policy at a supra-national level in conjunction with national policy. It has become one of the most developed and recognised areas of European policy.

Articles 85 and 86 of the Treaty specifically cover competition policy:

- Cartel Rule (Article 85): This prohibits any agreements and practices which restrict and distort competition in the EU, and which 'may affect trade between member states' Exemptions apply if the agreement between firms improves production, distribution of goods, or promotes technical progress. This article applies only to firms that have a market share of greater than 5% in the EU, and where turnover is greater then five billion ECU. Any firms that do not fall into this category are exempt. This article attacks restrictive agreements like large mergers and so prevents market dominance;

- Monopoly Rule (Article 86): This bans the misuse by a firm of its dominant position in the market, where trade between member states is affected. This specifically covers traditional monopoly behaviour, where firms with a monopoly position restrict production in order to keep prices high. This article has also been used to restrict merger behaviour where a dominant position results.

Other areas mentioned in the Treaty, which also come under the heading of competition policy, are:

- State Aids (Articles 92-94): State aids, which serve to distort competition within industry, and which affect trade between member states, are prohibited. 'State aids provide artificial advantages not available to competitors.' Exemptions apply where regional or sectoral aids are compatible with the common market and where governments are providing aid to poorer regions within member states;

- Technical Standards (Articles 100-102): some technical standards within the community can constitute non-tariff barriers to trade between countries. These restrict competition and so are prohibited;

- Research and Development: Firms may co-operate in R&D because this will generally increase efficiency within the industry. Co-operation allows firms to maximise any economies of scale and saves resources by avoiding duplication of research.

Generally it is felt that the level of state aid in Europe is too high. Critics feel that such measures give an unfair advantage to certain firms and constitute a form of protectionism. The aim at the moment is to decrease the level of aid granted in the Union.

## Why Competition Policy?

The European Commission formulates competition policy at a supra-national level and so is above national law. Member states also have their own authorities at the national level. The consequent policy is a result of many negotiations between the two. The European Court of Justice monitors the Commission.

Competition policy gives a set of 'well developed and effective competition rules, without which the market would not function properly and consumers cannot reap the benefits which they normally derive from the free market system'. A strong competition policy is an effective tool in the move towards an integrated European market. Cartels or restrictive agreements are prohibited, meaning the market can operate normally and remain open to outside pressures. 'Consumers get the full benefits of a healthy and competitive market. It allows a wide choice of goods and services, available at lowest possible prices.'

## Procedures

The Commission must be notified in advance of any agreements that may violate the Treaty. Staff representing the Commission have the right to investigate any company without any advance warning. Usually, violations that are discovered are solved by voluntary policy changes on the part of those involved. Otherwise the Commission is free to impose fines of up to 10% of annual company turnover, as well as demanding policy changes. A company may appeal to the Court of Justice if they do not agree with Commission findings.

Other policies (such as agriculture, trade and transport) feed into competition policy. As Pelkmans says, in establishing an internal market in areas such as trade and transport, competition policy can be applied to facilitate the harmonisation process, by removing barriers, for example. The more competition policy is used at this early stage, the less chance there is of it being needed to promote or restore competition at a later date. The exemptions are included to ensure that efficient market winners are not penalised.

## The Importance of Competition Policy

Competition policy is becoming more important as we move towards the year 2000. Current trends show an overall increasing level of globalisation and hence competition. As Europe becomes more internally integrated, the focus must move onto the external environment. Future policy must increase competition and improve competitiveness of EU goods and services in terms of US and Japanese goods and services. 'Increasing competition puts a downward pressure on prices and costs'.

When EMU is fully implemented there will be an increase in competitive pressures. With a common currency, prices will be fully transparent within the Union. European producers will no longer be able to benefit from price distortions due to currency fluctuations. Customers will clearly be able to see any price differences. This will increase internal competition.

In 1993 the commission completed a White Paper on growth, competitiveness and employment in the EU. Its general goal was to foster an increase in competitiveness within Europe. This goal has been a dominant one throughout the 1990s, especially in smaller countries such as Ireland. 'A competitive environment is basic to an efficient allocation of resources, and stimulates investment innovation and R&D.'

*Implications for European Business*

Competition policy is important and useful in European businesses for many reasons. In this section, I will list some relevant uses of the policy and discuss its importance.

As already mentioned, we are moving towards an era of global competitiveness. With the US and Japan, Europe will be one of the major players in the world economy. Europe must be ready to align itself beside

these two other major economies. Successful implementation of the single currency, and the completion of the single market will make Europe united and powerful. However, competition policy will play a part in helping Europe improve its global competitiveness. Europe needs a strong competition policy, implemented at a European level, and supported by national governments. This centralised policy must work on the idea of competitive rather than comparative advantage. As the White Paper states, competitive advantage is based much more on corporate strategies and public policy, as opposed to endowments of natural resources. The onus is thus on both European and National institutions, as well as the European companies themselves to formulate and implement a strong competitive element for advancement into a level of international competition.

At the moment Europe is competing poorly with the US and Japan in terms of the price and quality of its goods and services. Labour productivity is relatively low and European companies are not able to tap into the new high growth areas of the world market. Typically, state welfare payments in some European countries are very high. This increases the cost of labour, making it expensive compared to the USA and Japan. Generally there is not enough investment at the European level to foster a competitive spirit.

The Competitiveness Advisory Group (CAG) was appointed by the President of the Commission to look into competition vis-à-vis the rest of the world. According to a report by the National Economic and Social Forum (NESC) on EU integration and enlargement, the CAG has seen a need for policy action at both National and European level. The CAG advised a co-ordination of member states, the Union, and other social and economic partners. This follows on from the themes and suggestions in the White Paper.

In December 1996, a Dublin meeting of the European Council decided that there should be a regular check of the Union's competitiveness on a world-wide level. This meeting also decided that competition policy has an increasingly important role when considered alongside trade, industrial, and technical policy. It was felt that competition policy could be enhanced by 'developing benchmarking as a tool for regular monitoring and evaluation of EU competition against the strongest world economies.'

As the single market programme continues, competition policy must be built up in both an internal and external dimension. Factor mobility needs to increase, again both internally and externally. Generally Europe must create a strong and competitive industrial infrastructure.

In his paper for the ESRI entitled 'Ireland and Europe - Challenges for a new century'; Rory O'Donnell mentions some areas that are affecting competition within the European business environment. These include:

- demographic developments and trends;
- emerging social class structure;
- high rate of unemployment;
- developing a political process capable of formulating and implementing strategic policies[13]

Small European countries, like Ireland, have a very low level of innovation and technological development. They have a high dependence on indigenous economic activity. Although not every member state has these problems, they are still substantial in weakening the internal level of competition within the Union.

O'Donnell suggests that improvements can be made. These include reforming the tax system, switching from grants to equity for indigenous industries and increasing the focus on growth areas within the economy.

An Eastward enlargement of the Union, implementation of a single currency, completion of the single market, economic forces, cultural forces and the question of European identity - these are all future pressures for the Union, even before globalisation is considered. Building a competitive environment for the EU, despite these pressures will be a problem. In the long run, it is hoped that 'the completion of the internal market is sufficient to re-establish the competitiveness of Europe, and to unleash forces of innovation and growth.'

## A Working Example of Competition Policy

Lately the Irish economy has seen an increase in merger and acquisition activity. It was recently announced that of the six largest accountancy firms in the country, four hope to merge in the coming months to form two separate identities. KPMG/Ernst and Young, and Price Waterhouse/Coopers and Lybrand are the two proposed mergers.

If the mergers go ahead they will create two very powerful and very large identities. This will cause a large divide in the accountancy market, which is more commonly made up of many small consultancy firms. The mergers may lead to a decrease in competition within the market, which could cause fees to increase. There is a further danger that customers may be drawn to the large, well known firms, that can offer them a wider range of services for the same money.

Within the accountancy profession there are ethical guidelines that protect against the conflict of interests that mergers sometimes produce. In conjunction with this, the European Commission is currently investigating both mergers. They will not be allowed to proceed if the Commission deem them to be anti-competitive, regardless of the shareholder's opinion.

Such a development has serious implications for the businesses concerned. No matter how beneficial or profitable the mergers may be, they will not be allowed to proceed if the Commission decides they violate competition policy. For the larger companies involved in the mergers, they lose the chance to increase their profits, their power, their share of the market, their market capitalisation, and they may even experience a decrease in shareholder wealth as a result of not being able to merge. On the other hand the smaller companies are protected. They do not have to worry about being completely overshadowed by a company that would be too large for them to compete with. Two very large companies will not dominate the market, and prices will not rise as there will be no reduction in competition.

It could be argued that in this case the policy is being used as a form of protectionism. However, even if the merger is prevented from going ahead the market will still be comprised of large and small companies. The smaller companies are not being given any special treatment; they will have to survive in the market in just the same way as before. However, they are spared from competing with a monopoly type power which would distort competition, and push the smaller firms out of the market.

As Competition Commissioner Karel Van Miert said in a speech in 1997, competition policy is 'applied to ensure that markets are kept open and that protectionist measures are never applied by companies.' Van Miert continues, stating that any new form of policy which emerges must 'emphasise economic analysis whilst furnishing business with a sufficient level of legal certainty'.

## The future of competition policy

Competition policy in the past has been relatively successful. However, the European economy faces new challenges as it moves towards the 21$^{st}$ century. The nature of competition policy needs to be adapted to deal with these new demands and pressures, so that the emerging Europe can be powerful both on an internal and an external level. This will help in achieving increased economic prosperity, to the benefit of all the citizens of the Community.

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# The Status of Women in Developing Countries: An Econometric Study


## Dier Ngor - MLitt.



The Women Status Index is increasingly recognised as an indicator of the economic and social well-being of women, and indeed of the population as a whole. Dier Ngor investigates some of the factors affecting the index, but stresses the importance of omitted qualitative influences.


### Introduction

The improvement of living conditions for people in developing countries has long been recognised as one of the most central challenges facing policy makers in developing countries and the concerned bodies in the world at large. Though this problem affects almost all sections of the people, women are recognised to be among the most disadvantaged groups. Jazairy[1] persuasively summarised the status of women in developing countries. He concluded that women, as poor people in developing countries, live under the same conditions as men, but suffer additional social and policy biases.

However, the status of women varies significantly among developing countries. The main objective of this paper is to discuss and explain this variation. The paper will attempt to apply econometric methods to argue that this situation is explained by different factors which most of the developing countries share.

### Status of Women in Developing Countries

As mentioned in the introduction, the status of women in developing countries has been deteriorating sharply in the last few years. Jazairy[2] estimated the number of rural women living below the poverty line at 564 million in 1988. This represented an increase of about 47 percent above the figure in 1965.

There are many possible explanations for this worsening situation. Concentrating on the experience of my country, the Sudan, many factors (with direct or indirect implication to the status of women) can be mentioned. Education is a privilege that is still reserved particularly for men. The country's civil wars have provoked a dramatic deterioration of the national economy and spurred the diversion of limited resources disproportionately towards defence expenditure. These factors and more have had drastic effects on the quality of public services such as health and education. Constrained as they are by the political and economic situation, women in developing countries also suffer from social and cultural biases. These factors differ from country to country and can be used to explain the variation in the status of women.

Developing policies for improving the situation must take into account the effect of each of these factors. This paper will explain the quantitative method for measuring the status of women, and a description of the chosen explanatory variables will be provided. This will be followed by a discussion of the regression results and a conclusion of my findings.

*The Dependent Variable: Women Status Index (WSI)*

This index (denoted by 'Y' in Appendix 1) was developed by the International Fund for Agricultural Development (IFAD).[3] The variable is a composite indicator of women's conditions in developing countries. However, as Jazairy admitted, the index only included factors for which data were available. Gaps were bridged with the World Bank and UNDP estimates.

The WSI takes values between zero and one. The closer the index of a particular country to one, the better is the status of women in that country. From a sample of fifty developing countries, a wide variation from one country to another is observed. The essence of this analysis is to explain this variation.

*Explanatory Variables*

This section outlines which explanatory variables will be used in the regression to explain the variation in the index. As stated earlier, several factors, quantitative and qualitative, contribute to the current situation. Though qualitative factors, for instance religion, are important to the status of women in these countries, they have been omitted to simplify the analysis, and so two quantitative variables have been chosen. The first explanatory variable, $X_1$, is the Gross National Product (GNP) per capita per annum. $X_2$ is the percentage female adult literacy rate (Appendix 1).

Since these two factors are perhaps positively related to the status of women, and indeed to the status of all groups of the population, one would expect the regression to show positive coefficients for the Xs.

### Results and Discussion

In order to estimate the parameters, the following model was assumed:

$Y = ß_0 + ß_1X_1 + ß_2X_2 + u$

The regression analysis was performed on the SPSS package (see Appendix 2a) and the multiple regression equation is as follows:

$Y = 0.347 + 0.168X_1 + 0.314X_2$

$R^2 = 0.65$

It is interesting to note that the coefficients of both Xs are positive, confirming my expectations. Given the *t*-values of 1.499 and 6.616 for $ß_1$ and $ß_2$, with probabilities of 0.1407 and 0.000 respectively, we will not accept the hypothesis that $ß_2$ is equal to zero at a 95% confidence level. However, we will accept the hypothesis that $ß_1$ is zero at the same confidence level.

*Interpreting the Coefficients*

The equation suggests that the effect $X_2$ (percent female adult literacy rate) has a greater effect on the index than that of $X_1$ (GNP per capita). This makes sense given the extent of the uneven distribution of incomes in developing countries. Therefore, holding other things constant, educated women should be expected to have better opportunities and, as a result, a better quality of life.

Using this equation to make inferences about the future, we can predict that a one-percentage increase in the female adult literacy rate will result in an increase in the WSI (allowing for the effect of GNP per capita, or holding it constant). If we consider countries with the same level of GNP per capita, the one with the higher rate of women adult literacy can be expected to have a higher WSI.

Of a group of countries with the same rate of women adult literacy, it was originally expected that the one with the lower GNP per capita would have a lower WSI value. However, the low t-value for GNP per capita indicates that this expectation is unfounded. Consider the WSI levels of for instance, Argentina (0.708), Barbados (0.732), and Dominica (0.723). Although the GNP per capita levels vary dramatically: 0.252, 0.601 and 0.168 respectively, the adult women literacy rate is consistently high: 0.95, 0.99 and 0.99. This illustrates the strong relationship between the WSI and the adult women literacy rate, as well as the weak relationship between the WSI and GNP per capita. Interestingly, China has the highest WSI level, though their women adult literacy rate is relatively low. Cultural equality between men and women in this country may explain the situation.

The constant term in the equation can be interpreted as the WSI level that a country with zero GNP per capita and 'no-education' for women would have. This may seem strange, but could be acceptable if we assume that they are completely dependent on outside help. It may also explain the factors that are not included in the model.

The $R^2$ is a summary measure that tells us how well the sample regression line fits the data. The result of the regression produces a value of 0.65. This tells us that about 65% of the variation in Y is explained by the variables $X_1$ and $X_2$ jointly.

*The Simple Regressions*

It is helpful to observe the effects of the explanatory variables separately, as the multiple regression may not have distinguished the separate effects. The simple regressions equations are as follows (see Appendix 2b):

$Y = 0.463 + 0.6X_1$ $R_1^2 = 0.32$

$Y = 0.345+ 0.355X_2$ $R_2^2 = 0.63$

Although there is no change in the sign of the coefficients, these simple regression equations tell us slightly different things. The positive $X_1$ coefficient in the simple regression is significant (t-value = 4.796) and the $X_2$ variable remains significant.

The values of $R^2$ provide us with more information as to how much each of the Xs explains the variation in the index, Y. $R_1^2$, (Y regressed on $X_1$) is 0.32, indicating that 32% variation of Y is explained by $X_1$. $R_2^2$, (Y regressed on $X_2$) is 0.63, which means that 63% variation is explained by $X_2$. Thus, the results confirm the significance of $X_2$, and suggest that the $X_1$ variable is more important in explaining the variation of Y than the multiple regression suggested.

*Relationship Between the Xs*

To assess whether multicollinearity exists between the explanatory variables, $X_1$ was regressed on $X_2$. The resulting $R_x^2$ (see Appendix 2c) is 0.32, implying a degree of multicollinearity that helps account for the varying significance of the $X_1$ variable between the multiple and simple regressions.

## Conclusion

Regression methods were used to explain how GNP per capita and female adult literacy rates explain some of the variation of the status of women in developing countries. The analysis shows the importance of these variables to any policy directed towards

improving these conditions. However, the two variables do not explain the whole situation. The picture will remain incomplete until further variables, particularly qualitative ones are included, as women in developing countries suffer from many forms of bias.

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## Appendix 1

**Women Status Index, GNP per capita and the percentage adult literacy rate among women in a sample of 50 developing countries**

| | | Y | $X_1$ | $X_2$ |
|---|---|---|---|---|
| | Afghanistan | .222 | .016 | .08 |
| | Algeria | .439 | .236 | .37 |
| | Angola | .501 | .056 | .33 |
| | Antigua | .684 | .369 | .97 |
| | Argentina | .708 | .252 | .95 |
| | Bangladesh | .296 | .017 | .22 |
| | Barbados | .732 | .601 | .99 |
| | Belize | .543 | .150 | .91 |
| | Benin | .379 | .039 | .16 |
| | Bhutan | .403 | .018 | .10 |
| | Bolivia | .494 | .057 | .65 |
| | Botswana | .529 | .101 | .69 |
| | Brazil | .644 | .216 | .76 |
| | Burkina Faso | .447 | .021 | .06 |
| | Burundi | .478 | .024 | .26 |
| | Cameroon | .493 | .101 | .55 |
| | Cape Verde | .547 | .068 | .39 |
| | C. A. Republic | .038 | .29 | N/a |
| | Chad | .304 | .016 | .11 |
| | Chile | .645 | .151 | .96 |
| | China | .825 | .033 | .56 |
| | Colombia | .645 | .118 | .87 |
| | Comoros | .490 | .044 | .40 |
| | Congo | .534 | .091 | .55 |
| | Costa Rica | .694 | .169 | .93 |
| | Côte d'Ivoire | .077 | .31 | N/a |

| | | | | |
|---|---|---|---|---|
| | Cuba | .805 | .150 | .96 |
| | Cyprus | .740 | .626 | .83 |
| | Djibouti | .448 | .043 | .09 |
| | Dominica | .723 | .168 | .99 |
| | Dominican R. | .072 | .77 | N/a |
| | Ecuador | .599 | .112 | .80 |
| | Egypt | .493 | .066 | .30 |
| | El Salvador | .636 | .094 | .69 |
| | E. Guinea | .425 | .041 | .20 |
| | Ethiopia | .227 | .012 | .38 |
| | Fiji | .576 | .152 | .81 |
| | Gabon | .605 | .297 | .53 |
| | Gambia | .527 | .020 | .15 |
| | Ghana | .406 | .040 | .43 |
| | Grenada | .682 | .172 | .98 |
| | Guatemala | .465 | .090 | .47 |
| | Guinea | .351 | .043 | .17 |
| | Guinea-Bissau | .019 | .17 | N/a |
| | Guyana | .643 | .042 | .95 |
| | Haiti | .474 | .038 | .35 |
| | Honduras | .521 | .086 | .58 |
| | India | .491 | .034 | .29 |
| | Indonesia | .482 | .044 | .65 |
| | Iran | .478 | .150 | .39 |

Y: Women status index

$X_1$: Gross National Product (GDP) per capita per annum (in $10,000s)

$X_2$: Percentage female adult literacy rate

**Sources:** Jazairy, Idris (1992), World Bank Tables (1993)

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## Appendix 2a

| Variable | ß | SE (ß) | T value | T Prob |
|---|---|---|---|---|
| $X_1$ | .167848 | .112004 | 1.499 | .1407 |
| $X_2$ | .313573 | .047395 | 6.616 | .0000 |
| Constant | .347526 | .023481 | 14.800 | .0000 |

*Y regressed on $X_1$ and $X_2$*

Multiple Regression .80620

$R^2$ .64996

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## Appendix 2b

| Variable | ß | SE ß | T value | T prob |
|---|---|---|---|---|
| $X_1$ | .600047 | .125115 | 4.796 | .0000 |
| Constant | .463595 | .021463 | 21.600 | .0000 |

*Y regressed on $X_1$*

Multiple Regression .56917

$R^2$ .32396

| Variable | ß | SE ß | T value | T prob |
|---|---|---|---|---|
| $X_2$ | .354998 | .038995 | 9.104 | .0000 |
| Constant | .344796 | .023712 | 14.541 | .0000 |

*Y regressed on $X_2$*

Multiple Regression .79576

$R^2$ .63324

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## Appendix 2c

| Variable | ß | SE ß | T value | T prob |
|---|---|---|---|---|
| $X_2$ | .246800 | .049613 | 4.974 | .0000 |
| Constant | -.016264 | .030168 | -.539 | .5923 |

*$X_1$ regressed on $X_2$*

Multiple Regression .58324

$R^2$ .34017

# Mortgage Interest Tax Relief - Aspects of Equity and Efficiency


## Anne Nolan - Senior Sophister



MITR was introduced to help and encourage home ownership. It favours high-income earners disproportionately, but is politically difficult to reform due to its popularity. Anne Nolan examines the equity and efficiency issues and suggests reforms.


### Introduction

The central aim of Irish housing policy is outlined as 'enabling households to obtain housing of an acceptable standard at a reasonable cost'. A secondary aim is the stimulation of owner-occupation. It is with this secondary aim that I am concerned in this paper. The state supports this sector of the housing market with policies relating to mortgage interest tax relief (MITR), imputed income and capital gains. It has been argued that the existence of MITR combined with an absence of taxation of imputed income and capital gains confers an unfair advantage on those in the owner-occupied sector in Ireland. It can also be shown that government policy in relation to the three policies contributes towards inefficiencies in the operation of the Irish housing market. In Ireland, 80% of all households are owner-occupiers, in contrast with 55% in France and only 30% in Switzerland. The purpose of this paper is to examine the equity and efficiency issues associated with MITR and the extent to which the existence of MITR contributes towards the high owner occupancy rates in this country. Brief reference will be made to imputed income and capital gains in the final section, discussing possible directions for reform.

### Equity and Efficiency

Equity or fairness consists of two concepts, horizontal equity and vertical equity. Horizontal equity is the equal treatment of comparable individuals. In relation to housing, those individuals on similar incomes with similar characteristics, such as similar family composition, should derive the same net benefits from the system. The principle of horizontal equity advocates the equal treatment of comparable people, regardless of their housing tenure. Vertical equity is the differential treatment of those in different circumstances: those on a higher income should pay a greater proportion of their income in tax and derive less benefit from, for example, subsidies, etc. than those on a lower income. Efficiency refers to the allocation and production of resources that maximise the welfare of society. Does the existence of MITR result in the inefficient production and allocation of housing resources?

### Tax Relief

Tax reliefs reduce the tax liability of an individual by a given amount. MITR is a discretionary tax relief in that it is only available to those who borrow money to purchase or make improvements to their own home. Tax reliefs are designed to induce certain behavioural responses on the part of the individual in question. Tax laws reflect in part the values of the society in which they operate, and the availability of MITR reflects a general belief in the desirability of an owner-occupied housing sector. The subsidisation of private housing is justified on two grounds. The first is that the consumption of housing services produces a positive externality for society at large. However, it is hard to envisage that in the absence of MITR, the consumption of housing services would decline dramatically. Secondly, the purchase of a house is an investment, as it is not only a source of income but also a store of wealth. If individuals are willing to save for their own future, that is by reconverting their assets (although the numbers that actually trade down upon retirement are small), then the argument suggests that the government should actively encourage this behaviour.

### ortgage Interest Tax Relief

MITR is available to all owner-occupiers 'in respect of interest on money borrowed for the purchase, repair, development or improvement of your main residence here in Ireland or in the UK'. It is an indirect subsidy to the private housing sector. Up to a certain maximum allowable level of mortgage interest (£5,000 for a married couple, £3,800 for a widow(er) and £2,500 for a single person), tax relief at the standard rate of income tax (26%) is available (see table 1, column A). If the mortgage holder first claimed MITR more than five years ago, the maximum interest levels are further reduced to 80% of the relevant interest level plus an additional reduction of £200 for a married person (see column B) and £100 for a single or widowed person.

**Table 1**

| | A | B |
|---|---|---|
| Mortgage Interest Paid | £6,500 | £6,500 |
| Maximum Allowable Interest | £5,000 | £5,000 |
| Maximum Allowed Under 80% Rule | N/A | £4,000 |
| Less Further Deduction | N/A | £200 |
| Interest Allowed For Tax Relief | £5,000 | £3,800 |
| **MITR @ 26%** | **£1,300** | **£988** |

Up to 1994, MITR was available at the individual's marginal tax rate. The 1994 Budget introduced the gradual introduction of standard rating of MITR. This had the effect of reducing the effective marginal tax rate at which MITR could be claimed, from 48% in 1993/1994 to 26% in 1997/1998. The development was as follows:

**Table 2**

| Tax Year | Interest @ 48% | Interest @ 26% | EMTR |
|---|---|---|---|
| 1993/1994 | 100% | 0% | 48% |
| 1994/1995 | 75% | 25% | 42.75% |
| 1995/1996 | 50% | 50% | 37.5% |
| 1996/1997 | 25% | 75% | 32.25% |
| **1997/1998** | **0%** | **100%** | **26%** |

The result of the above two changes has implications for equity and efficiency (discussed below), but the most direct effect has been a reduction in the cost to the Exchequer of MITR. In 1980, MITR cost £24m, rising to a high of £216m in 1993, and is projected to fall to £109m in 1998. However, the number of claimants has steadily increased with 365,000 claiming MITR in 1997, compared to 285,000 in 1985.

Before discussing the equity and efficiency issues associated with MITR, it is important to outline the MITR system in operation in the UK. It is believed that 'it is only a matter of time before the system in operation in Britain is introduced here'. The mortgage interest tax relief at source (MIRAS) system in the UK is an agreement between the Treasury and the various lending institutions. Instead of deducting the tax relief from taxable income as is done in Ireland, the tax relief is an explicit public expenditure to the lender who then uses this extra revenue to charge the borrower a lower interest rate. It is less beneficial to taxpayers than the Irish system since taxpayers pay tax on a greater proportion of their income. However, mortgage holders who do not pay tax benefit from the lower interest rates (accepting that this group is probably quite small).

## Equity Issues in Relation to MITR

The two developments noted above, namely the restriction of the amount of interest available for relief and the standard rating of MITR were introduced mainly on equity grounds. MITR was vertically inequitable because it was a regressive subsidy. It was found that 17% of all claimants for MITR in 1993 were earning more than twice the non-agricultural wage, yet they accounted for 24% of the total expenditure associated

with MITR. In general, the larger a person's income, the greater the value of his mortgage and therefore the more likely he was to be able to claim the maximum amount of relief.

MITR is only available on the interest payments on an individual's main residence. However, there is an anomaly in the system, in that if a person is rich enough to buy a second house, why should this person be allowed to retain the right to claim MITR on interest payments for his first home?. Finally, MITR is a subsidy that is only available to those who have the resources available to enter the housing market in the first place. Should subsidies and aid towards housing provision not be directed more towards those who are at a disadvantage when it comes to providing decent accommodation for themselves and their families?

Married and non-married couples are treated identically. However, the Irish MITR system is fairly equitable in terms of horizontal equity: inequity occurs when those in other housing sectors are compared to those in the owner occupied sector. Up to 1995, mortgage holders could receive tax relief on their mortgage repayments whereas in the private rented sector, only those over 55 could receive tax relief on the basis of their rent payments. In 1995 rent relief was extended to all tenants. However, the maximum limits are considerably smaller than those for MITR (£1,000 for a married couple and £500 for a single or widowed person). While we cannot compare rent with interest payments on a mortgage, it does seem that mortgage holders receive a greater benefit from tax relief than do tenants in private rented accommodation.

## Efficiency in Relation to MITR

Efficiency in the context of housing taxation and subsidisation refers to the situation in which the production of housing resources and their subsequent allocation results in the highest possible level of societal welfare. A perfectly competitive housing market is characterised by competing landlords and a private sector free of government intervention. However, certain features of housing itself (for instance large sunk costs and investment status) necessitate government intervention. Government intervention inevitably leads to distortions in the production and allocation of housing resources.

The existence of MITR leads to a number of inefficiencies:

- Rented dwellings and owner-occupied dwellings are close substitutes and if one is subsidised while the other is not, purchasers will want to buy the subsidised good. The introduction of tax relief for rent payments in 1995 has reduced this imbalance.

- The existence of MITR encourages owner-occupiers to consume beyond their needs. It gives an incentive for owner occupiers to take out a mortgage that qualifies for the maximum amount of relief. Such behaviour distorts the allocation of housing resources. Ideally a consumer should consume only in relation to his need. The existence of MITR leads to an over-consumption of housing resources, a result that is not Pareto-efficient.

The above distortions in respect of allocation create difficulties in the supply side of the market. Since MITR is available to everyone who buys a house, it has been suggested that it has increased house prices. However, MITR is only one of a number of factors contributing towards high house prices, and to suggest that MITR alone causes exorbitant house price inflation is an over-simplification.

Is it necessarily in the best interests of society to encourage owner-occupation? Does the favourable treatment of owner-occupation in comparison with other capital assets distort the investment market? Tax neutrality suggests that all assets should be treated equally in terms of taxation and subsidisation, yet this is obviously not the case in Ireland.

Environmental issues concerning land usage should prompt the government to rethink its attitude towards owner occupation. Owner occupation favours the construction of individual homes, which reduces the population density, thus reducing the efficiency of public transport as well as contributing towards the expansion of towns and cities and the spread of 'bungalow blitz'.

## Reform of the MITR System

Measures to reform the MITR system should address the equity and efficiency concerns outlined above. The lowering of the allowances and the restriction of MITR to the standard rate of income tax increases equity and efficiency in the operation of the MITR system. Most housing commentators are against the abolition of MITR, as this would disadvantage first time buyers to a greater degree than those with more established mortgages, thus violating the principles of Pareto-efficiency. Further restriction of the MITR system is generally advocated with particular attention to limiting MITR to the first five years of a mortgage, as is the case in New Zealand.

It is agreed that an integrated approach encompassing MITR, imputed income and capital gains reform is necessary. A general housing tax is seen by many(eg FFS, Kleinmann, CHAS, Commission on Taxation) as a workable solution. Such a tax would be levied on all owner occupied property, calculated on the basis of the capital value of the property tied to a real money market interest rate (to cover taxation of imputed income and capital gains). MITR would still be available, but only at the standard rate of income tax with restrictions on the amount of applicable interest. It has also been suggested that the responsibility for the collection of such a tax (and consequently for the redistribution of the revenues) should be vested in the local authorities. This could contribute towards greater efficiency in the local housing markets as well.

## Conclusion

Owner-occupancy in Ireland is actively encouraged through a variety of government supports, the most important being MITR and the absence of taxation on imputed income and capital gains. MITR was shown to be both vertically and horizontally inequitable as well as inefficient in various aspects of its administration. However, recent changes have reduced the inequalities and inefficiencies to a certain extent. Measures for reform include the continuation of restricted MITR and the imposition of a general housing tax which would tax imputed income and capital gains, at present untaxed. However, the popularity of owner occupancy in Ireland may be as much a result of historical and cultural factors as financial incentives, and the government must bear this in mind when designing policies which impact on the owner occupied housing sector.

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# Irish Income Tax - Is It a Good System?

## Ronan Clarke - Senior Freshman

In 1789, Benjamin Franklin stated: 'in this world nothing can be certain except death and taxes'. Ronan Clarke discusses the equity issues regarding the Irish income tax system and argues that (like death) it's simply not fair.

Income tax is an emotive issue in every country, and Ireland is no exception. It involves states using coercion to appropriate a fraction of people's earnings in order to finance government spending. This implies a huge responsibility on taxing authorities to carry out the operation in a manner that is fair, or at least acceptable to the majority of taxpayers. The purpose of this essay is to examine whether or not the Irish income tax system is a good system. Thus, the issue of fairness is crucial and will be the central theme.

Adam Smith's canons of taxation of 1776 provide certain criteria by which a tax system can be assessed, and this essay discusses them. In doing so it will examine definitional problems associated with the term 'good tax system' and ask whether such a system is possible in practice. Turning to the income tax system in Ireland, this essay will look at issues such as the size of the tax base and proposed reforms. It will conclude that the system is flawed and resistant to change. Far from being fair, the best the government can hope for is that the tax regime is accepted.

Smith's canons of taxation can be considered under the headings of equity, efficiency, and ease and cost of administration. The principle of equity raises the most fundamental problems in terms of the vagueness and contestability of the concept of fairness. According to Smith, horizontal equity and vertical equity respectively require the equal treatment of similar incomes and an appropriate degree of inequality in the treatment of different incomes.

The most obvious problem arises in interpreting and applying the latter. An appropriate degree of inequality can have very subjective interpretations. However, even the seemingly innocuous concept of horizontal equity is not uncontested. For instance, as Allen points out, one could plausibly hold the view that equity is best served by 'making tax payment proportional to the degree of benefit derived from government expenditure'. In this case a person's income is not considered directly relevant and horizontal and vertical equity are of no consideration.

Although there is an attractive simplicity to this notion, its unpopularity would doubtless make it unworkable, but it does serve to highlight the ambiguities surrounding the concept of fairness. According to Ruane and O'Toole, equity suggests a progressive tax structure, which considers an individual's ability to pay and applies higher rates of tax to higher incomes and this is generally accepted.

In Ireland, the system of taxation nominally embodies the principle of progressivity, although it can be more accurately described as a crude approximation of the concept. Income is taxed at two incremental rates, but only after a series of allowances, exemptions, reliefs and exclusions, which greatly reduce the sum of taxable income in the economy, have been applied. The aggregate of taxable income is termed the tax base and its size determines which tax rates must be applied to raise a given amount of revenue required by the government.

Consequently, given an inability or unwillingness to reduce the size of public spending, any measure which serves to narrow the tax base will necessarily impose a burden of higher rates on taxpayers, and conversely, a reduction in tax rates will necessitate a wider tax base. Using this analysis, we can see how concessions which apply only to some taxpayers must be subsidised by all other taxpayers. This insight makes the need for justification on the grounds of fairness all the more urgent.

As well as automatic personal allowances, which apply to all, an individual can further limit the amount of tax he or she pays by, amongst other things, contributing to a private pension or health insurance. Such concessions can be justified on the grounds of promoting desirable behaviour or generally furthering

government goals with regard to efficiency and equality. Much harder to justify, however, are tax reliefs, for example, for buying apartments in designated areas or investing in the film industry.

If the tax system were truly progressive, all tax-payers could derive similar benefit from sheltering some of their income in this manner and so benefit to the amount at which that extra income would have been taxed - that is, the individual's marginal tax rate. In Ireland, it is argued with strong justification that the higher one's marginal rate, the greater the relative benefits from concessions. Thus, the degree of fiscal privilege afforded by the system is positively correlated to the individual's income.

Earning a high income very often gives an individual a degree of discretion over how and when they earn their money, as well as access to professional advice on how to minimise tax liabilities. According to the Revenue Commissioners' estimation, 17% of people with incomes over £250,000 pay tax at an effective rate of 20% or less. The adverse effect of these factors can be seen in the narrowness of the tax base, and in particular, the high marginal rates of taxation which apply to it.

Irish income tax rates of 24% and 46% are not particularly high in comparison with other European countries. For instance, the corresponding upper rates in the UK and Denmark are 40% and 60% respectively. The problem in Ireland is that the higher rate applies at relatively low levels of income. Before last December's budget, a single person in Ireland with basic allowances started paying tax at the upper rate once their income exceeded a mere £9,900. The corresponding figures for the UK and Denmark are £29,000 and £24,779.

Although the recent budget took two percentage points off both tax rates, the accompanying increase in personal allowances (extra £250 for a single person) and widening of the standard rate band (extra £100 for a single person) were slight and did little to ameliorate the situation outlined above. In fact, 38.2% of tax-payers will pay tax at the top rate in the coming tax year, an increase of 1.2% over the current year. In any case, it should be noted that some increase in allowances and bands is necessary just to compensate for the effects of inflation.

The issue of tax reform encapsulates the controversies surrounding income tax more than any other. In the 1980s, the trend in Britain and the US was towards cutting tax rates, and the current government in Ireland is committed to doing the same. In 1981 President Reagan cut the top personal rate from 70% to 50%. Proponents of such cuts draw theoretical justification from the Laffer curve, which explains that discretion over tax payments at very high income levels means tax revenue can rise after rates are cut.

However, more considered analyses of tax systems look beyond such rudimentary measures. In 1980, the Commission on Taxation was established here in response to widespread disquiet in the PAYE sector. It proposed a wide range of reforms which would have changed the Irish tax system beyond recognition. The Commission advised that all exclusions and concessions be abolished and a single rate of tax be applied to a broad definition of income.

Under the Irish tax code, only money earned from work is defined as income and taxed accordingly. Money earned from other sources such as gambling or capital gains, although it confers the benefactor with the same spending power as income, is either taxed under a different heading or not at all. So, two individuals with identical command over society's scarce resources may be required to make different contributions to the state because of the source of their spending power. The reduction of the capital gains tax rate from 40% to 20% in the budget, which means such income is now taxed at a rate lower than income tax, must be seen as a further step away from the concept of a broad definition of income.

Implementation of the Commission's proposals would surely have benefited the majority of tax-payers by widening the tax base, but would have been unpopular with those who benefit most from the current system. The fact that they were never seriously acted upon raises questions about the political will to pursue equity in the Irish tax system. The two tax amnesties in recent years raise further questions in this regard. While the amnesties certainly contributed to exchequer revenues in the short run, they may have a greater long run cost in terms of undermining the confidence of ordinary tax-payers in the system.

Given the gap between the principles which should govern a good tax system and the features of the Irish tax regime identified above, how can such a system persist? The answer is one of interpretation. If we choose to define 'good tax system' as meaning one that is absolutely fair then we must be guided by the equity principle

at all times. If however, we view a good system as one that is workable and provides government with the resources it needs, then we can settle for one that is accepted by the majority of tax-payers without unrest or widespread evasion. Unfortunately, successive governments in Ireland appear to have settled for the latter.

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# Alternative Taxation Policies to the 1998 Budget: A Microsimulation Analysis

## Ronan Burke - Senior Sophister
## David Brocklebank - Senior Sophister

The 1998 Budget was seen as an opportunity to reduce the increasing gap between rich and poor in Ireland. David Brocklebank and Ronan Burke use microsimulation analysis to test alternative taxation polices to the budget and find evidence to suggest that it was an opportunity spurned, in the above context.

## Introduction

This paper sets out a new approach to the analysis of the 1998 budget. Until recently, questions about the impact of tax and welfare changes have been examined using supposedly 'typical' family circumstances as hypothetical examples. This procedure can be highly misleading because of the limited representation of the 'typical' case. Microsimulation modelling offers a solution to these problems. In this paper, we will analyse alternative budget strategies using this technique. Specifically, we will consider the effects of allocating the resources available on budget day towards two alternatives, increasing allowances and increasing bands.

The structure of the analysis will be as follows. In the first section, the economic and political considerations of the 1998 budget are explored. Then we deal with microsimulation analysis and the model which we are employing. Finally, in the last two sections, two specific applications of microsimulation analysis are considered. The first application shows the policy implications of the government adopting an alternative budget strategy of increasing allowances while maintaining tax rates at their pre-1998 budget levels (reform policy 1). The second approach considers the implications of the government adopting a strategy of widening bands but, similarly, maintaining tax rates at their pre-1998 budget levels (reform policy 2).

## Background to the 1998 Budget

To analyse any budget without due regard for the economic and political climate prevalent at that time is of limited value. What differentiates the 1998 budget from budgets of recent years is that the Minister for Finance had more money at his disposal. The primary catalyst for this tax revenue buoyancy is the healthy economic environment in which we currently find ourselves. Over the past three years the economy has grown at an average rate of more than 7% a year, a positively East Asian pace. Tax cuts totalling £517m in a full year and £282m in spending increases guaranteed the most generous Budget package since the economic recovery in 1990. The Minister's self stated objectives were:

- Control of public spending;
- Correction of tax inequality;
- Overdue acknowledgement of the elderly.

Our analysis focuses exclusively on the correction of tax inequality. Put simply, the choice confronting the Minister was either to reduce tax rates, widen bands or increase tax allowances. Some believe that the choice of rate reductions may have

been motivated by political considerations. This was the first budget of the new Fianna Fáil/Progressive Democrat administration and many of the tax measures implemented stem from pre-election agreements. The populist's approach would be to reduce rates as workers see themselves better off under such a scenario. Rates apply at the margin and when cut, the gain from every extra pound earned appears to be more tangible.

## Microsimulation

As alluded to in the introduction, microsimulation provides a mechanism for analysing the impact of a policy change on a large number of households. Conventional analysis focuses on a small number of 'typical' households, thus limiting the quality of the analysis. For example, reaction to the budget changes in taxation tends to focus on its impact on a one earner married couple with two children, taxed under the PAYE schedule. Less than one family in twenty actually falls into this category, and those that do, differ widely in terms of income, housing tenure and other characteristics relevant to their tax liabilities. Microsimulation models are employed to surmount the limitations of using hypothetical cases to illustrate the impact of tax changes.

Microsimulation involves simulating the impact of tax and benefit changes on a large-scale sample of households, using micro-level data on individual and family incomes and other characteristics. These microsimulation tax benefit models take account of a large scale representative sample of the population. They can also help to identify the overall pattern of gains and losses across income deciles and can help to assess the impact of policy changes on financial incentives to work.

SWITCH (Simulating Welfare and Income Tax Change) is a tax benefit microsimulation model developed by the Economic and Social Research Institute (ESRI) and the Department of Social Welfare. It is based on a 1987 survey of more than 8,500 adults and 4,600 children in 3,300 tax units. The data was updated in 1994 to account for the increase in registered employment, the fall in average family size, the growth in income and the changes in income tax and social welfare policy. The basic unit of analysis in the model is termed the tax unit (i.e. whether a married couple or a single person etc.). A dependent child is defined as a child under 15 years, or over but still in full time education. As we will show, this particular definition has an impact on our analysis.

SWITCH requires the user to input a baseline policy and a reform policy. These two policies are then compared at a tax unit level and summary output is generated indicating the impact of the policy change at a macro-level. This shows the cost of the reform policy, the income distribution effects and the impact of this policy on marginal and average tax rates. In the following analysis, the 1998 budget is used as a baseline and the reform policies are compared against it. The reform policies and their comparison against the current budget will be discussed in due course.

The SWITCH model has a number of limitations. SWITCH is based on a database of households dating from 1987. Although this data has been updated to 1994 household data, there is an obvious time lag. It could be argued that within this time frame, the structure of the economy has changed. This factor may inhibit the value of the observed results. Another limitation of SWITCH is the fact that it is a static model and does not incorporate behavioural responses into the model. The ESRI has used a simplified version of SWITCH to examine issues related to the impact of tax reform on male and female labour supply within married couples. Third generation models, which apply embedded econometric models estimating behavioural responses, have been developed in the USA and the UK. The ESRI is developing a new model incorporating labour supply responses. However, within the version of SWITCH currently available, labour responses are assumed to be zero.

The following analysis is revenue neutral. This means that the net cost to the

exchequer of implementing the reform policy over the baseline policy (Budget 1998) is nil. If the policies were not revenue neutral, then it would be inappropriate to compare both.

## Reform Policy 1: Increasing Personal Allowances

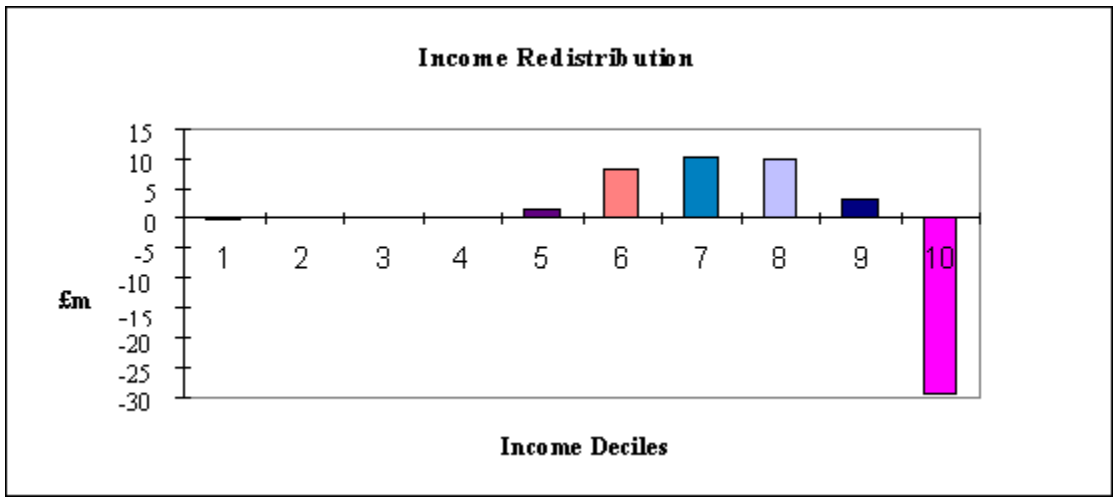
In this section, we will model the alternative policy of increasing personal tax-free allowances instead of cuts in the taxation rates. According to our model it would be possible to increase the personal allowance to £3,715 while maintaining revenue neutrality. This represents an increase of £565 per person per annum.

**Table 3.1** Policy Comparisons: Increasing Personal Allowances

| **Policy** | **Budget '98** | **Reform Policy 1** |
|---|---|---|
| Standard Tax Rate | 24% | 26% |
| Higher Tax Rate | 46% | 48% |
| Standard Band (Single) | £10,000 | £10,000 |
| Personal Tax Free Allowance (Single) | £3,150 | £3,715 |

The above policy change, although small in a macroeconomic context, does have an impact on income distribution. One can immediately deduce from Figure 1 below, that reform policy 1 favours those in middle income deciles more than those on very high incomes. This is because those on middle to upper incomes will not benefit from the budget tax cuts to the same extent as those on higher incomes. In modelling the comparisons between the Budget '98 and reform policy 1, we can clearly observe the income redistribution impact of the policy. This can be shown by reference to the equivalent net income module of SWITCH.

**Figure 1:** Increasing Personal Allowances: Equivalent Net Income Gain by Income Decile in £ Million per Year



Equivalent net income is net income adjusted for family size and composition, to take into account the fact that, other things being equal, larger families have greater needs than smaller families. It can be thought of as 'income per head' where the first head counts as 1, a second adult as 0.66 and all children as 0.33.

The policy change has no significant impact on those in lower income deciles. This arises because they are in receipt of social welfare benefit and therefore do not fall into the income tax net. It should be noted that those in the lowest income decile will lose marginally in absolute terms. A plausible explanation, given the tax unit specified earlier, is that a young unemployed person living at home may lose certain benefit entitlements as the net tax unit income rises because of the tax change. Therefore, under reform policy 1, that individual may lose marginally because of an anomaly in the benefit system. Interestingly, changes in Budget '98 meant that Family Income Supplement (FIS), an in-work benefit available to those on low incomes, is calculated on a net rather than a gross basis. FIS may act as a cushion, shielding those on low incomes from any change in taxation policy, since their entitlement is calculated on their income after tax. This factor may help to explain why the policy change has no impact up to the fifth decile.

However, as Figure 1 shows, those in the middle to upper income deciles may gain from the policy change while those in the top income decile stand to lose almost £30m. This indicates that the decision in the 1998 Budget to opt for rate cuts rather than an increase in Reform Policy 1 was a redistribution of income from those in the middle to upper deciles to those in the top decile.

It is useful to clarify how different tax units might be affected by the impact of reform policy 1. Table 2 classifies tax units by their tax unit type and the percentage income gained or lost per week due to reform policy 1.

Table 2 indicates that of the 1.6m tax units in the country, 1.4m will gain or lose less than one percent of their net income owing to the policy change. Almost 17 percent of single employed persons will gain between 1-5 percent of their net income while only 3 percent will lose the same amount. Interestingly, 5 percent of single unemployed persons will lose between 1-5 percent of their net benefit. Since the benefit system is held constant and those who are unemployed are not liable for taxation, this result may be surprising. However, this confirms our previous analysis in relation to the income loss of the lowest decile. Our analysis centres upon the income loss for young unemployed persons living at home who lose because the family income rises. This is confirmed in Table 2, by the loss associated with the tax unit type, single unemployed, the tax unit by which all young single unemployed persons living at home are classified.

**Table 2:** Increasing Personal Allowances: % Gain/Loss of Income by Number of Tax Units Classed by Tax Unit Type (In Thousands)

| Status | <-1% | <1% | <5% | Total Tax Units |
|---|---|---|---|---|
| Single Employed | 15.9 | 375.8 | 78.2 | 469.9 |
| Single Unemployed | 8.6 | 152.3 | 2.0 | 162.9 |
| Single Earner with Chl. | 0.9 | 18.3 | 0.1 | 19.3 |
| Single Non-earner with Chl. | 0.0 | 28.8 | 1.0 | 29.8 |
| Single Retired | 0.0 | 183.6 | 5.2 | 188.8 |
| Single Earner Couple w/o | 1.6 | 49.7 | 17.2 | 68.5 |

| | | | | |
|---|---|---|---|---|
| Chl. | | | | |
| Single Earner Couple with Chl. | 4.0 | 218.2 | 21.4 | 243.6 |
| Dual Earner Couple w/o Chl. | 1.8 | 26.1 | 4.3 | 32.2 |
| Dual Earner Couple with Chl. | 4.9 | 80.3 | 5.0 | 90.3 |
| Dual Earner Couple(1 person assisting relative) | 0.5 | 40.8 | 6.5 | 47.8 |
| Unemployed Couple w/o Chl. | 0.0 | 9.9 | 0.0 | 9.9 |
| Unemployed Couple with Chl. | 0.0 | 81.6 | 0.0 | 81.6 |
| Head of tax unit retired | 0.4 | 82 | 1.7 | 84.1 |
| Others | 1.4 | 83.8 | 5.9 | 91.2 |
| All | 40.0 | 1431.3 | 148.6 | 1619.9 |

## Reform Policy 2: Widening Bands

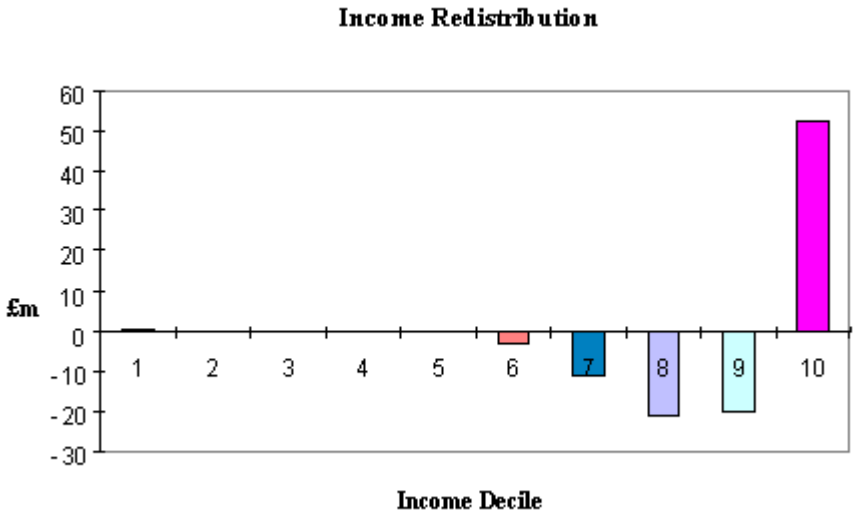
In this section, we model the impact of channelling revenue buoyancy into widening bands. In the following analysis, the baseline policy is the '98 budget and the reform policy is the '98 budget with tax rates at pre-budget levels but with a wider standard band. The model indicates that with revenue neutrality the Minister could have increased the standard tax band by £2,715 over and above the increases in Budget '98.

**Table 3:** Policy Comparisons: Widening Bands

| **Policy** | **Budget '98** | **Reform Policy 2** |
|---|---|---|
| Standard Tax Rate | 24% | 26% |
| Higher Tax Rate | 46% | 48% |
| Personal Tax Free Allowance (Single) | £3,150 | £3,150 |
| Standard Band (Single) | £10,000 | £12,715 |

The income distribution effects of such a policy are presented in Figure 3. They indicate that widening the bands would result in a gain to those in the highest income decile at the expense of those in the other upper deciles. As expected, the lower income deciles would be unaffected by this alternative policy, holding all other variables constant. This arises because their income does not exceed £10,000.

**Figure 3:** Widening Bands: Equivalent Net Income Gain/Loss by Income Decile In £ Million per Year




It is again useful to observe how different tax units might be affected by the impact of reform policy 2. Table 3 classifies tax units by their tax unit type and the percentage income gained or lost per week due to reform policy 2.

Table 4 indicates that of the 1.6m tax units in the country, 58% will gain or lose less than one percent of their net income, owing to the policy change. Almost 45% of single employed persons will gain between 1-5% of their net income while only 10% will lose the same amount. Only 0.35% of tax units lose more than £10 per week, while 3.8% of tax units gain more than this amount per week. Overall, Table 4 shows that status (as defined in the table) is less important than income in analysing the impact of an increase in the bands. It is for this reason that comparing gains\losses due to the policy change classified by tax units is less meaningful than the previous comparison with income distribution.

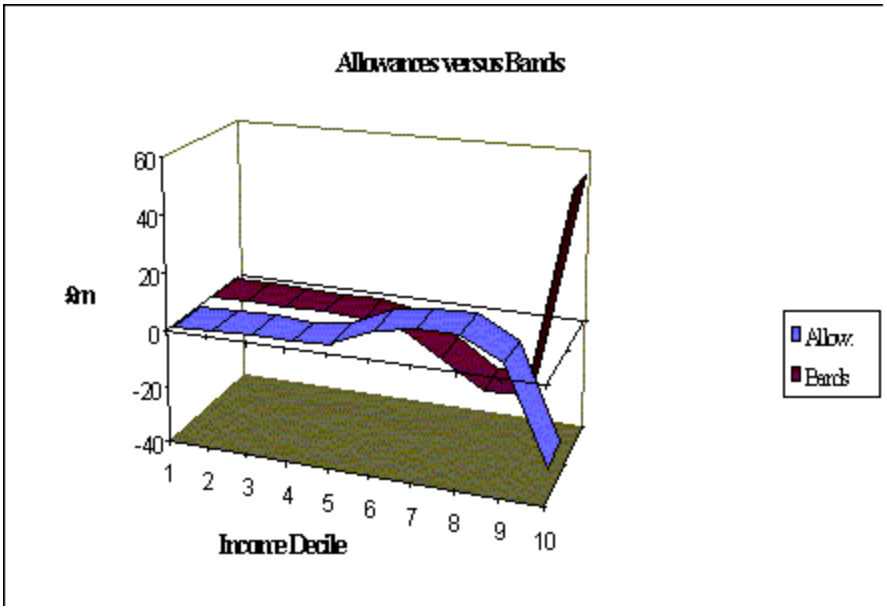
**Table 4:** Widening Bands: % Gain/Loss by Number of Tax Units Classed by Tax Unit Type (in Thousands)

| Status | < -10% | < -5% | < -1% | <1% | <5% | <10% | >10% | Total Tax Units |
|---|---|---|---|---|---|---|---|---|
| Single Employed | 2.4 | 1.0 | 206.8 | 160.3 | 51.4 | 48.1 | 0.0 | 469.9 |
| Single Unemployed | 0.0 | 0.0 | 1.9 | 160.4 | 0.3 | 0.2 | 0.2 | 163 |
| Single Earner with chl. | 0.0 | 0.7 | 4.1 | 8.3 | 1.6 | 4.6 | 0.0 | 19.2 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Single Non-earner with chl. | 0.0 | 0.0 | 2.0 | 27.0 | 0.7 | 0.1 | 0.0 | 29.8 |
| Single retired | 0.0 | 0.0 | 15.4 | 169.8 | 1.5 | 2.1 | 0.0 | 188.9 |
| Single Earner couple w/o chl. | 0.8 | 7.7 | 27.2 | 26.8 | 1.0 | 1.5 | 3.5 | 68.5 |
| Single Earner couple with chl. | 1.5 | 34.4 | 79.1 | 84.5 | 7.4 | 12.7 | 21.0 | 243.6 |
| Dual Earner couple w/o chl. | 0.0 | 6.0 | 7.1 | 2.4 | 2.5 | 4.8 | 9.3 | 32.2 |
| Dual Earner couple with chl. | 1.1 | 15.2 | 18.5 | 8.1 | 4.7 | 17.5 | 25.1 | 90.3 |
| Dual Earner couple(1 person assisting relative) | 0.0 | 2.0 | 9.8 | 31.9 | 0.3 | 2.4 | 1.5 | 47.8 |
| Unemployed couple w/o chl. | 0.0 | 0.0 | 0.7 | 9.2 | 0.0 | 0.0 | 0.0 | 9.9 |
| Unemployed couple with chl. | 0.0 | 0.0 | 0.1 | 81.5 | 0.0 | 0.0 | 0.0 | 81.6 |
| Head of tax unit retired | 0.0 | 4.8 | 5.5 | 71.5 | 0.2 | 0.1 | 2.0 | 84.1 |
| Others | 0.0 | 0.0 | 5.4 | 85.3 | 0.1 | 0.4 | 0.0 | 91.2 |
| All | 5.7 | 74.8 | 383.7 | 927.1 | 71.7 | 94.3 | 62.6 | 1619.9 |

We have seen that increasing personal allowances results in gains for the middle to upper income deciles at the expense of the highest decile. Increasing bands reverses this outcome because those in the highest decile gain while those in the middle to upper deciles lose. This is shown in Figure 4.

**Figure 4:** Income Distribution Comparison between Increased Personal Allowance And Widening the Standard Band




## Conclusions

As mentioned in the introduction, the purpose of this analysis was to examine the income distribution effect of using alternative budget strategies, increasing personal allowances and widening the standard taxation band. Under reform policy 1, increasing allowances, both the middle and upper income earners will gain at the expense of the top decile. However, the reverse is true under reform policy 2, increasing bands. While both these options were available to the Minister for Finance, he chose neither. Instead, he opted to substantially reduce the standard and higher rates of taxation, while making only minor adjustments to personal allowances and standard bands. While these policies had some impact on low income earners, we believe that the diversity of measures introduced has diluted the focus of the amount available. We feel that the scope for increasing the well-being of lower earners and for introducing fundamental reform to tackle the problems faced by them has been limited by Budget 1998. Using the alternative budget strategy, increasing allowances would have a positive effect on middle income earners. Perhaps this policy should have been employed, if the government believes that the best and fairest route to tax reform is to maximise benefits to lower income earners. Our analysis concurs with that of the ESRI who indicate that increasing personal allowances is the most redistributive taxation reform for low to medium earners. This position was further endorsed by the Working Group on the Integration of Taxation and Social Welfare Systems and, more recently by the National Economic and Social Council, which stated that the superiority of increased personal allowances should be a principle guiding income tax reduction in the coming years. This analysis is by no means complete. The issues of labour supply and incentives have been omitted. Further work on the topic is required, before any definitive conclusions may be reached.

This publication includes results based on SWITCH, the ESRI tax-benefit model, described in Simulating Welfare and Income Tax Change, by T. Callan et al., Dublin: ESRI, 1996. No responsibility for these results is accepted by the ESRI or by the authors of the model software.

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# An Act with Taste and Teeth

## Cliona McNally - Senior Sophister

The Irish whiskey market has been dominated by Irish Distillers for many years. Cliona McNally's case study discusses the IDG/Cooley case from both an economic and legal perspective. Her anlaysis sheds some light on the broader aspects of competition policy.

'The Authority has shown that the Act has teeth as well as a taste for blended whiskey'. remarked Ken Murphy in response to the ruling on Notification No. CA/62/93 - Irish Distillers Group (IDG) plc./Cooley Distillery plc. This is the case, which has the dubious distinction of being the first merger to be found offensive by the Competition Authority. In this paper, I intend to examine and assess the economic and legal arguments presented by the IDG/Cooley and contested by the Competition Authority. I will, then, follow the repercussions the decision has had on the firms, in particular Cooley Distillery, and on the market.

An accurate definition of the market is crucial in any merger case. However, as the companies invariably have different definitions than the regulatory authority this can be problematic. Strangely, Cooley and IDG differed in their interpretations to each other as well. At the oral hearing, Dr. Teeling, of Cooley Distillery, declared that the relevant market was the world spirit market while Mr. Burrows, on behalf of IDG, claimed that they regarded the market as being the world whiskey market. However, they concurred that it was the perception of the companies themselves, which was the significant factor in determining the definition of the market.

IDG submitted a report compiled by the Henley Centre to support their claim that Irish whiskey was not the relevant market. The report argued that Irish whiskey drinkers consumed a wide range of drinks and that all alcoholic drinks should be considered part of the same market. This assertion was based on research of beer right through to fruit juice, and mineral water consumption during the past month. Anyone surveyed as having drunk various drinks from wine, whiskey and consumed the product in the past month, fell under the general category of Irish whiskey drinker. To me this is a rather spurious argument as there is no indication that when a person enters an off-licence or bar, wine competes head on with whiskey. The figures seem to show merely that during a month people consume many different things. Common sense would have suggested this to be the case. Firstly, it is clear that all alcoholic drinks are not substitutes, as personal tastes and preferences vary considerably - for example, beer and spirits are not as substitutable as are two types of lager. Also, it does not clarify what a true lover of whiskey would regularly substitute to when whiskey prices increase in a non-transitory manner beyond their budget constraint. Thus, the Competition Authority did not accept this argument as valid, especially as the report showed that since 1991 Irish whiskey prices rose in comparison to Scotch but without loss of market share. In addition and somewhat conversely, the report showed that of all the 'individuals in the survey who cited Irish Whiskey as the drink consumed most often, less than 2% had drunk Scotch once a month or more frequently.' A third party submission supported this, arguing that there was almost no cross price elasticity between Scotch and Irish whiskey.

The Irish Whiskey Act of 1980 requires whiskey to be distilled in Northern Ireland or the Republic of Ireland and matured in wooden casks in the state (or NI) for a minimum of three years. Thus to a certain extent Irish whiskey is a unique and rare product. Cooley Distillery whiskey is even rarer due to the fact that it is the only other whiskey that may be called 'Irish' apart from IDG's brands. For this reason the Authority found that drinkers would be more likely to substitute between Cooley and IDG. The brand would therefore 'have a far greater impact on the price and level of sales of IDG's products than would the entry of a new brand of imported whiskey.' Therefore the Competition Authority concluded that the relevant market definition was Irish whiskey within the state.

IDG claimed that one of its main motivations for buying Cooley was to protect its own quality brand image; the purchase was a form of damage control. Cooley distillery produces a product which is double distilled, like a scotch, and all of IDG's whiskeys are triple distilled. IDG feared that Cooley's financial difficulties would lead to this whiskey being sold at cheap prices which have negative repercussions upon their own brands as Cooley's brands were inferior. They claimed that the market was saturated and there was no market

for Cooley's products. The Competition Authority found that Cooley's brands were not inferior, merely different, and this variety benefits the consumer.

'*Cooley has a number of things in its favour. Its single malt is a delicate distillate of some finesse ... The grain whiskey - to go into the John Locke blend which is on the way - is among the most flavoursome and beautifully textured I have tasted. But Cooley's greatest coup is its peated Irish malt, the only one in living memory, which is a masterpiece.*'

As they fulfilled the terms of the Irish Whiskey Act (1980) they were entitled to sell as such. In addition, there was evidence of a domestic and international market for the products contrary to what had been claimed, as submissions from the domestic Molloy group (liquor outlets), US, and German companies asserted. The third party submissions highlighted the salient point that if Cooley had gone into receivership then IDG could have acquired the whiskey stocks, presuming that they would be willing to pay more than any other party, at a much lower price. This suggests that their motivation was not acquiring Cooley as a means of quality control but as a form of competition control.

Another economic argument, which has found use in the courts, is that of the degree of concentration in a market and how a merger would affect this. Clearly this relies heavily on how the market is defined. IDG and Cooley argued that the degree of market concentration would not be affected in any significant manner and their justification for this was that IDG already had 47% percent of the total sales of spirits compared with less than a paltry 1% which was Cooley's. The Competition Authority's response was that in light of its definition of the market, being that for Irish whiskey, the takeover of all Cooley assets by IDG would result in a return to a monopoly situation, as Cooley Distillery is the only distillery which manufactures Irish whiskey that is not owned by IDG. Also the inflated price that IDG was willing to pay for Cooley and all its assets, indicates their willingness to pay for the cost of maintaining their monopoly (£24.5 million being the total cost to IDG after all obligations have been discharged) - in other words, it seems a prime example of rent-seeking. Both a dominant position in the market and also a monopoly position would have resulted. The removal of Cooley would be the end of the meagre amount of competition which was present and would hail the elimination of 'potential competition'. This area was addressed by the Authority in the case of Nallen O'Toole where it was indicated that competition shows the potential for competition also. Given Cooley's production capacity it is clearly a potential competitor. Dr. Teeling informed the Authority that Cooley had hoped to achieve sales on the domestic market, after four years, of 8% of the 1992 sales. The Authority decided that allowing the arrangement to proceed would eliminate any possibility of this potential being fulfilled, (e.g. by investment by an overseas drinks producer) and thus inhibiting competition.

Another important issue at stake was the fact that IDG intended to buy all of Cooley's distilling equipment, plant, and sister companies' whiskey stocks, mature or not, and thus in one fell swoop create a significant barrier to entry by any other prospective producer. Third parties submitted that 'the time taken to build a new distillery, coupled with the requirement that the plant would have to operate for a number of years before any product would be ready for sale, meant that it would take at least five years before any new competitor could enter the market'. Due to the high entry costs and the long run sunk costs, before sales could reach break-even, the finance required presents a significant barrier to entry. Coupled with the blatantly anti-competitive statement by Mr. Richard Burrows (IDG), that IDG had no use for the distillery and were buying it so that no one else could, this could be construed as a possible abuse of a dominant position to prevent or at least deter future entry. In the Sculley Tyrrell decision an important consideration in the issuing of that licence was the fact that it 'would be unlikely to prevent, restrict or distort competition where there were no significant impediments preventing new competitors from entering the market.' This is clearly a different scenario.

The Competition Authority has expressed various pertinent views in other cases which are relevant to the Cooley/IDG case. In Sculley Tyrrell, the Authority stated that 'the Authority believes that in a highly concentrated market a merger which results in even a relatively small increase in the market share of one of the larger firms merits closer examination.' IDG accounts for 46% of the Irish spirits market, 72% of the gin market, and crucially 76% of the whiskey market and almost 100% of the Irish whiskey market. Mergers below this margin were per se not anti-competitive yet the Competition Authority decided that the notification, however, did fall foul of the Competition Act.

Section 3(1) of the Competition Act defines an undertaking as:

'*a person being an individual, a body corporate or an unincorporated body of persons engaged for gain in the production, supply or distribution of goods or the provision of a service.*'

Thus, it is clear that IDG and Cooley both being corporate bodies engaged in production for gain are considered undertakings covered by the Act. However, the issue of defining an undertaking can often be as difficult and contentious a definition as that for the relevant market.

Section 4(1) of the Competition Act states that:

'*all agreements between undertakings, decisions by associations of undertakings and concerted practices which have as their object or effect the prevention, restriction or distortion of competition in trade in any goods or services in the State or in any part of the State are prohibited and void.*'

IDG submitted that the agreement about which they notified the Authority was not a merger or takeover and therefore should be certified. The reasoning presented to the court was that the actual takeover would be effected by individual agreements between IDG and individual shareholders and, as they were not 'undertakings' these agreements were not notifiable. The Authority was not impressed with this piece of verbal quick-step, stating that if IDG had actually done what they asserted, that is 'isolated arrangements peripheral to their merger with no anti-competitive effect' and had chosen to notify only these, then the Authority would consider that 'a waste of time, and if deliberate an abuse of its procedure'. In fact what the notification contained was an agreement which bound IDG to making a takeover bid, and to the terms under which the offer would proceed. Thus it was judged to be an agreement between undertakings. The requirements of the Letter of Agreement were stringent, providing an exclusive dealing arrangement between Cooley and IDG during the offer period which naturally did not help Cooley's ailing condition (although IDG did buy some whiskey stocks to tide them over). In addition, an addendum to the offer document was that 'the directors of Cooley will enter into a covenant with IDG not to compete in whiskey manufacturing to the extent permitted by law'. This appears to be a very definite restriction on future and potential competition, as the directors in question, especially Dr. Teeling, would have learnt a lot from their foray into the industry and could quite conceivably have returned in future years to set up, or aid, a viable competitor. However, the Authority did not take to task this aspect of the document.

The proposed buyout did not meet the requirements specified in section 4(2) for a licence. This section allows for a licence to be granted even if the proposed agreement is found to offend section 4(1). It allows for the consideration of other mitigating factors which may show that the agreement is in the interests of aggregate social welfare. In particular those which

*'contribute to improving the production of goods or provision of services or to promoting technical or economic progress, while allowing consumers a fair share of the resulting benefit and which does not: ...(ii) Afford undertaking the possibility of eliminating competition in respect of a substantial part of the products or services in question.'*

It is evident that IDG's proposed shutdown of the plant does not improve any of the requisite categories and indeed, offends against (ii) as it removes all of Cooley's products from the market.

Cooley and IDG contested that Cooley would go into receivership in the near future and with reference to the 'failing firm' defence from the US it was argued that the merger should be allowed to proceed. The key areas of note are that the firm would be unable to meet its financial obligations in the near future, and that it had made 'unsuccessful good faith efforts to elicit reasonable alternative offers of acquisition that would keep it in the market and pose less severe danger to competition than does the proposed merger' (Department of Justice Merger Guidelines 1984). This proposed merger ensured that Cooley products and assets would exit the market. Changes in Business Expansion Scheme (BES) legislation forced Cooley into substantial borrowing. With the result, it found additional resourcing, which was needed to reach new markets, very difficult to obtain. Dr. Teeling declared that £9 million would be required. The fact that Cooley was for sale at various stages since 1991 was cited, and articles in newspapers were produced as further evidence that the firm was indeed on the verge of collapse. However, third party submissions contested that sufficient 'good faith efforts' had not been used to source another buyer as parties in the US had expressed interest in acquiring Cooley in 1993 and the directors had not been interested. A cynical mind might suggest they were aware they could hold out for a better offer. A German distributor along with others expressed its interest in Cooley and its willingness to invest in inventory and advance promotion of the products. This casts further doubt on the

viability of the failing firm defence but it is true that there was no proof at the time that this would be sufficient to see Cooley back on track.

## The Result

It is said that the proof is in the pudding. Similarly the truth of Cooley's 'inevitable downfall' is to be found in its present state, which I hasten to add is not liquidation. The following is an assessment of the short and long term effects of the Competition Authority's decision on the firm, industry and market.

Cooley announced a £1.9 million rescue package when the Authority's judgement was made. Cooley was also due a £600,000 termination payment from IDG if the deal did not go ahead but as Cooley had to buy back the £615,000 of whiskey purchased by IDG it found itself owing £15,000 instead. Changes in the 1993 Finance Act increased the ceiling for the amount of money that can be invested in any one company from £500,000 to £1 million which gave the Cooley group the opportunity to raise another £3 million in the BES. 'They are a string of pearls' commented a Cooley spokesman. In March 1994, Cooley Distillery signed a contract worth $7 million (£4.86 million) to supply the Kilbeggan brand of blended whiskey to Heaven Hill Distilleries. Cooley received £1.18 million of that sum up front, in addition Heaven Hill agreed to finance the promotional end for Kilbeggan in the US. Heaven Hill, being the largest independent distiller and the eighth largest supplier in the States is a significant partner to gain. In August of the same year, Cooley signed a joint venture company (Moet Hennessy Distribution and United Distillers) for its brands Kilbeggan and Tyrconnell and within five years they hoped to take 20% to 25% of the French market. This will take Cooley's products into head-to-head competition with IDGs' who in conjunction with their owners, Pernod Ricard, had almost exclusive supply of the market. A month later in September 1994, Cooley signed a distribution agreement with Tobacco Distributors Ltd. for the sale of all its products on the domestic market. This distributor had 4,000 accounts and supplied 12,000 licensed premises at the time of the agreement. John Teeling commented that the organisation had 'integrity, resources and competence', the three things Cooley needed, and that he hoped to capture 10% of the domestic market annually. In June of 1995, Cooley joined forces in a ten-year agreement with Invergordon Distillers to supply bulk whiskey for the company to blend and bottle for British retailers to sell as an own brand. This good news goes on in a similar manner with an own label deal with Tesco's, and distribution in the UK of Kilbeggan and Tyrconnell with Waverly Vintners (March 1996).

So with the benefit of hindsight it seems that the Authority was perfectly correct in its assertion that Cooley was a potential competitor. How does face value measure up to the experiences of Dr. John Teeling, a founding director? The short-term result was catastrophic with a share price reduction from £1.80 to 35p. The long-term financial damage was very serious. The workers are on part-time work with no hope of full-time in the near future and he remarks that they might have been better off as well. However, he believes the decision was an excellent one for the consumer, industry and nation.

> '*Prices have fallen, there is a far greater variety of products, quality employment is growing as greater emphasis is placed on marketing, exports are up and there are more whiskey based products, e.g. cakes, sweets and jam.*'

In the short run, the UK and France benefited with a great increase in competition resulting from the introduction of Cooley's own brand label. In the long run Cooley have established themselves in many markets and significantly Dr. Teeling comments that 'IDG have to compete very hard with us.'

The policy implications are clear from a social planner's point of view, especially with the benefit of hindsight: jobs were saved and more variety resulted in the whiskey and spirits markets and spin-off product markets. Most importantly, given the brief of the Authority, the decision ensured more competition on domestic and international markets.

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# Fiscal Policy in Post-Independence Ireland

## Richard Doyle - Junior Sophister

At the beginning of Ireland's independence fiscal policy was the means to a balanced budget. Over the years, the role of fiscal policy was broadened before diminishing in later decades. Richard Doyle traces the evolution of fiscal policy in post-independence Ireland and concludes that there is little opportunity for a return to an active fiscal policy.

### Introduction

As a newly independent country, Ireland gained sovereignty over economic policy from 1922. One instrument of economic policy, over which it gained control, was fiscal policy. This can be defined as any change in the level, composition or timing of government expenditure or any change in the burden, structure of frequency of taxation. The topic of fiscal policy covers many important aspects of the Irish economy. This essay will trace the evolution of fiscal policy over the years 1922 to 1998. It will concentrate primarily upon government expenditure given its greater prominence within the realm of fiscal policy, but will also highlight aspects of taxation that warrant attention. The essay will not concern itself so much with the level of expenditure relative to GDP nor the absolute levels of taxation or expenditure. Rather, it will concern itself with the background to, expectations of and consequences of fiscal policy. The coverage of fiscal policy, government intervention, taxation and economic history is implicit throughout the essay, while the aspect of European integration will be dealt with in an analysis of the future of fiscal policy. Using the headings as a guideline, the essay will examine the thrust of fiscal policy in post-independence Ireland. In particular, it will show the rise and fall of fiscal policy as a policy instrument over this period.

### The Balanced Budget

Cumann na nGaedhael provided the first Free State government. It came to power in 1922 and remained there until 1932. Given the political upheaval, which provided the background to its reign, the government's overriding objective was to ensure political stability for the fledgling state. Accordingly, economic policy did not change dramatically. In addition to this, Cumann na nGaedhael's support was from big farmers whose needs were low taxes and a corresponding low level of social services. This shaped the background to the party's fiscal policy.

Under Cummann na nGaedhael, public expenditure reached its peak at £39m in 1924 and declined thereafter to £25m in 1930. This mirrored the trend in taxation, which fell from £30m to £24m over the same period. This ensured a slight imbalance in the budget, though the commitment to the balanced budget was beyond doubt. In 1924, Industry and Commerce minister, McGilligan said that:

> '*It is no function of the government to provide work for anyone...people may have to die in this country and die through starvation*.'

This statement is indicative of the government's view that intervention in the economy to provide jobs or social services was well outside the remit of fiscal policy. The government's fiscal policy was aided by the prevalence of emigration at the time. As better welfare services were available elsewhere, the government was under less pressure to engage in welfare expenditure here.

Given the desire to restrain public expenditure, taxation was kept low. This was motivated to an extent by the State's determination to show her erstwhile mistress, Britain, that Ireland was capable of fiscal discipline. It was also motivated by a desire to minimise the costs to export industries by low taxation as well as the hope that Anglo-Irish capital would remain in the country. As an example of the commitment to low taxation, income tax was reduced from 5s to 3s in 1926. As this was 6d less than England, it must have created a good impression there. In those days, income tax accounted for only 20% of total tax with the remainder coming from customs, excise and indirect taxes. Farmers were favoured by the tax system: in 1926 agricultural land was derated, while farmers paid little or no tax.

The fiscal policy of the government between 1922-32 ensured a balanced budget. This helped stabilise the embryonic state. The taxation structure favoured the established, while the refusal of the government to spend significant amounts of social expenditure resulted in hardship for many, such as pensioners.

## A Broadening of the Perspective

The next twenty years saw a widening of the parameters, within which fiscal policy operated. The new government of Fianna Fáil came to power in 1932. With it came a broadened fiscal policy. The government followed the world-wide trend and its own ideology by erecting tariffs. Aware that the outgoing government had lost popularity due to its austere limits on social expenditure, the new government aimed to increase those limits. However, this would not unbalance the budget as the state was prepared to raise tax levels too.

Illustrative of the government's fiscal intentions was the decision to exclude Sean MacEntee, Minister for Finance and self-proclaimed upholder of fiscal rectitude, from the Economic Committee. The thirties saw decisive increases in social expenditure. Between 1932 and 1942, 12,000 houses a year were built while both unemployment assistance and old age pensions were increased. Though Keynes's speech at U.C.D in 1933 may have tempted some, his alluring claim that government money spent 'would make unnecessary any dole' was resisted. The harsh conditions caused by the economic war and the tightening of the immigration laws in America may also have influenced the government's fiscal policy, particularly its social expenditure. As a result of the taxation increases offsetting the rise in expenditure, the aggregate of current budget deficits was a mere £16m in 1946.

This low aggregate is also partly due to economising during the war. The Department of Finance saw the war as an opportunity to restrain expenditure, which only increased from £48m to £64m during it, while it decreased as a percentage of GDP. The main reason for this economising, however, was Ireland's low defence expenditure. Despite this, there were suggestions that fiscal policy could be raised to a new level. Professor Smiddy, de Valera's economic advisor made the bold suggestion of an unbalanced budget, while Lemass favoured an expansionist policy. Indeed, 1946 saw the establishment of the departments of health and social welfare, as well as the introduction of children's allowances. The adherents to fiscal virtue stood firm, with MacEntee opposing such social expenditure, as it would necessitate higher tax, which he claimed would lead to 'mass poverty and mass unemployment'.

In 1950, there was an important change in the framework of fiscal policy. Popular demand for consumer and capital goods, as a result of the rationing during the war was strong and in that year the government recognised its responsibility to:

> '*promote by an enlightened budget and investment policy, the continuous and efficient use of natural resources of men and material*'.

This was the year of the State's first formal capital budget. Representative of the change was finance minister, McGilligan (he of 'the people may starve' quote) who claimed that the value of expenditure should be measured not merely in terms of social stability but also expanding national income. Significantly, capital expenditure was now to be financed by borrowing rather than current revenue.

Thus, the period 1932-51 ended as it began: with a small measure of fiscal policy expansion. Furthermore, the period showed influential people being converted to the potential of fiscal policy.

## A Missed Opportunity?

The fifties are often regarded as a lost decade because of the huge number of Irish people who emigrated. It can also be seen as a lost decade in that fiscal policy could possibly have been used to great effect. Domestically, unemployment was rising and industrial output falling while external developments such as the Korean war and Ireland's balance of payments deficit exacerbated this. Unlike the seventies, Ireland's economy was relatively closed and the rest of Europe was booming. This was the background to the challenge facing fiscal policy, which could have taken an expansionary path.

However, it did not. As mentioned, the economy was relatively closed. Tariffs reached their highest level in the history of the state in 1956-7, thus continuing to supply a large proportion of tax revenue. From 1952, fiscal policy was highly deflationary, caused by a worry about Ireland's unfavourable balance of payment's deficit. Despite the depressed conditions, fiscal policy remained deflationary with housing expenditure being cut back. In 1952, income tax rose by a shilling, while price increases were imposed upon drink, bread and petrol. The policy of austerity continued in 1956 under Finance Minister Sweetman, who implemented additional taxes.

This deflationary policy served to further accentuate the depressed conditions of the economy. Whitaker would later lament 1952 and 1956 as opportunities foregone in the context of demand management.

## Innovation

The depression of the fifties meant that something had to change. Fiscal policy underwent a metamorphosis due to Whitaker's 'Economic Development', a landmark in Irish economic history. This document recommended tax relief to encourage foreign companies to Ireland, the abolition of tariffs and the embrace of free trade. Significantly, it recognised that fiscal rectitude alone wasn't adequate anymore and it recommended productive rather than social expenditure.

The next fifteen years proved to be ones of high growth, though what actually happened was that both productive and social expenditure rose, rather than just the former. Reflecting this, the early sixties saw both capital and current expenditure grow strongly. In the latter years of the period, Ireland's prosperity and growing population put pressure on public expenditure, yet the current balance remained intact. Tariffs fell due to Ireland's preparation for the EEC, 'Economic Development' and the Anglo-Irish free trade agreement of 1965. The small tax base served to limit the scope of government expenditure, though this was addressed with the introduction of turnover taxes in 1960 and PAYE in 1963. Consequently, the period saw little borrowing.

The innovative nature of this period altered the perception of fiscal policy by widening its scope. However, as late as 1966, Lynch asserted that:

> *'No such justification for what is called 'deficit financing' exists in this country today'.*

Furthermore, Lee claims that Lemass's expansionism cannot be used to justify 'later borrowing binges'.

## Activism

The Keynesian theory first expounded in Ireland in 1933 finally became endemic to Irish fiscal policy in the seventies. The consequences of this radical change in fiscal policy would be immense. The pressure of imminent EEC membership and a perception that the economy lacked buoyancy were prevalent at the time.

Thus, in 1972, despite the Central Bank's warning that a commitment by the trade unions to wage moderation was a prerequisite to expansionary fiscal policy, the government abandoned the convention of balancing current expenditure with current revenue. The planned current deficit of 1972 was £35m. The oil crisis of 1973 ensured the continuation of the expansionary fiscal policy and though taxation was increased it was insufficient to eliminate the deficit. This was because the Minister for Finance considered large tax increases to be inflationary, because of their impact on wage claims. At this stage, social insurance became compulsory for all employees, though farmers remained effectively outside the taxation system. The 1975 budget saw the introduction of a sum allocated for additional public service pay. This was the first occurrence of such an allowance. Tax reform was attempted with the overhaul of the income tax system in 1977, yet there remained a reluctance to raise taxes to the level necessary to eliminate the deficit. The realisation that fiscal policy was limited in the context of world developments became apparent in the mid- seventies, which was reflected in the tightening of fiscal policy in 1976 and 1977. If this tightening had continued, then the public finances would have been restored to health. Instead, an election and the consequent change of government in 1977 proved to be a watershed for fiscal policy.

The incoming government managed to outdo its election commitment to cut taxes and raise expenditure. Despite the prediction of rapid economic growth, a large fiscal stimulus took place. This was, in the words of Bradley et al:

> *'an unbridled pro-cyclical discretionary fiscal expansion'.*

The government was determined to compensate for the 'massive underspending' of the previous government and did so by public service job creation and an increase in capital expenditure. Various indirect taxes were cut, while the lower interest rates reduced the cost of debt service, hence borrowing became more attractive. Despite the Central Bank's warning, no instrument to restrain pay was implemented, resulting in a doubling of public service pay between 1978 and 1981. By the time the second oil crisis occurred in 1979, fiscal policy had run out of steam, due to its pro-cyclical usage over the previous two years.

The seventies ensured the bankruptcy of fiscal policy as a policy instrument, because of its large deviation from a neutral stance. The shift of resources from the private sector to the public sector dented the economy's competitiveness. Whitaker recognised the problem by stating that, 'only through a misunderstanding of Keynes' could the governments of the seventies have adopted the practice of financing current deficits as well as capital deficits by borrowing. In mitigation, one can say that even the best fiscal management during the turbulent seventies would not have prevented damage to the Irish economy.

## Paralysis

The experience of the seventies effectively straitjacketed fiscal policy for the coming years, yet no measure in the eighties made any inroads into remedying this. In effect, fiscal policy had lost its discretion; it was now pre-determined by the fiscal imbalance.

Though the short-lived government of 1981 introduced a restrictive supplementary budget, the deficit remained stubbornly high at 7.5% GNP. The government's task was made more difficult by the climbing interest rates and debt service, which accounted for a large part of government revenue. This mini-budget was typical of governments of the early eighties in that taxation was increased but expenditure remained high. This fiscal policy failed because there simply was no revenue buoyancy. The reluctance to cut expenditure is understandable, yet would ultimately cost the economy; the finance minister's claim that such a policy of 'harsh measures' could cause 'severe hardship' ignored the reality of the time. The iron will to cut public expenditure was absent: in 1982, the political parties agreed that fiscal rectitude was essential, yet the date for the elimination of the budget deficit was postponed from 1986 to 1987. Furthermore, what cuts were made were in the area of investment rather than current expenditure.

Little progress was made on the fiscal deficit due mainly to the vicious circle of high taxation and depressed buoyancy. The years 1980 to 1987 merely saw a consolidation of the fiscal legacy of the seventies: paralysis.

## Expansionary Fiscal Contraction and Stability

The last ten years have seen a restoration of the public finances. The background to this restoration was conducive to the task: the punt was devalued in 1986, oil prices collapsed and interest rates also fell. Thus, the government was able to cut its expenditure by 3%. A tax amnesty was granted in 1988, which resulted in a significant boost to the economy. This can be primarily attributed to the massive injection of confidence that the economy received from fiscal responsibility and also to the 'crowding in' effect. However, fiscal policy was relaxed with special pay awards to doctors and teachers, while increases in expenditure since 1991 have been hidden by revenue buoyancy. Nonetheless, current finance minister, McCreevy seems very aware of the dangers of repeating the mistakes of the seventies and eighties. This leaves fiscal policy with its integrity restored but in a limited state.

## European Integration and the Future

Despite the slight relaxation of fiscal policy during the nineties, the future of Ireland as a European nation suggests that the days of fiscal policy as a policy instrument are gone.

Having ratified the Maastricht treaty in June 1992, the government is determined that Ireland will join Economic and Monetary Union (EMU) from the outset. Indeed, having comfortably satisfied the convergence criteria, Ireland is now, barring an unforseen disaster, a certain EMU founder member. One might argue that a government might exploit these criteria by maintaining a deficit close to the 3% limit. This is not viable as the cyclical nature of the economy ensures the necessity of running a low deficit or a surplus during a boom. Furthermore, if the government breaches the 3% limit, then it will be subject to the harsh fines of the Dublin summit stability pact. Hence, fiscal policy will be constrained to a large extent on the expenditure side.

Taxation may well follow. Neo-functional integration theory suggests that economic and monetary union will create an impetus for integration in related areas via the spillover effect. This would take the form of harmonisation of tax rates, bands and allowances. Indeed, it has already been proposed as a Franco-German initiative. It also seems likely, given the annoyance of other member states at discriminative measures, such as Ireland's 10% corporation tax rate for certain sectors of the economy.

Therefore, European integration suggests a bleak future for fiscal policy. The government will lose its ability to significantly alter taxation and public expenditure, thus ensuring the end of fiscal policy as an active policy instrument.

## Conclusion

This essay has examined fiscal policy, in its guise of taxation and public expenditure, in Ireland over the post-independence years. In the beginning, the aim of fiscal policy was a balanced budget, regardless of the cost. Over the next forty years, the remit of fiscal policy was broadened gradually without ever embracing Keynesianism. When it did, its activism lasted for a relatively short period, the decade of the seventies. The misuse of Keynesian theory during this period effectively ensured fiscal policy's end as an active policy instrument. Fiscal rectitude returned after this abortive experiment, which ensured stability. A look to the future and in particular, European integration, suggests that no opportunity exists for a return to the use of an active fiscal policy.

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# A Critique of Orthodox Labour Wage Theory

## Alan Stuart - Senior Sophister

Equilibrium in the labour market is assumed to be optimal and self-adjusting in classical labour theory. Recognising this assumption as simplistic, Alan Stuart presents a critique of orthodox labour wage theory and discusses some alternatives.

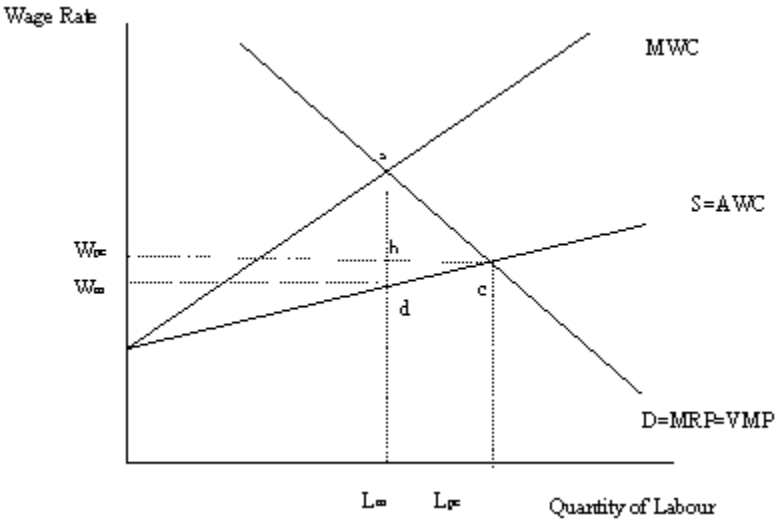
Too often in economic analysis, labour market equilibrium is portrayed by a simple model of perfectly rational individual firms and individual workers coming together in a competitive market, where each economic agent is assumed to be motivated to maximise his own utility and arrive at a market clearing wage rate and employment level. Equally, it is too frequently assumed that any shocks to labour supply or demand necessitate adjustments in the wage rate until the labour market once again reaches competitive Walrasian equilibrium. Such a simple approach to the labour market, based upon marginal productivity theory, ignores a huge variety of specific traits associated with labour as a tradable economic commodity. Only recently have the assumptions underlying orthodox wage theory been relaxed and attention been devoted to other sub-optimal methods, of reaching equilibrium in specific labour markets, that have greater empirical validity (Thurow 1995). This paper illustrates how the body of criticisms levied against orthodox tâtonnement theory provided by labour economists could complicate labour market analysis, and investigates whether these criticisms are valid.[1]

## Institutionalism in Labour Markets

The main area where orthodox theory has come under attack has been through the institutionalist view of labour markets. Its basic tenet is that collective bargaining on behalf of trade unions renders the assumption of individual 'atomised' wage bargaining unrealistic (Carlin and Soskice, 1990). A simple description offered by some advocates of collective bargaining is that employers' associations and trade unions shift supply and demand curves to their consciously determined wage rate to clear the market (Brue and McConnell, 1995). Others consider it highly improbable that the wage rate resulting from collective bargaining will be the same as that which would emerge in a competitive setting, and consequently the level of unemployment would be different in the two scenarios (Masters; Moser and Reynolds, 1991).

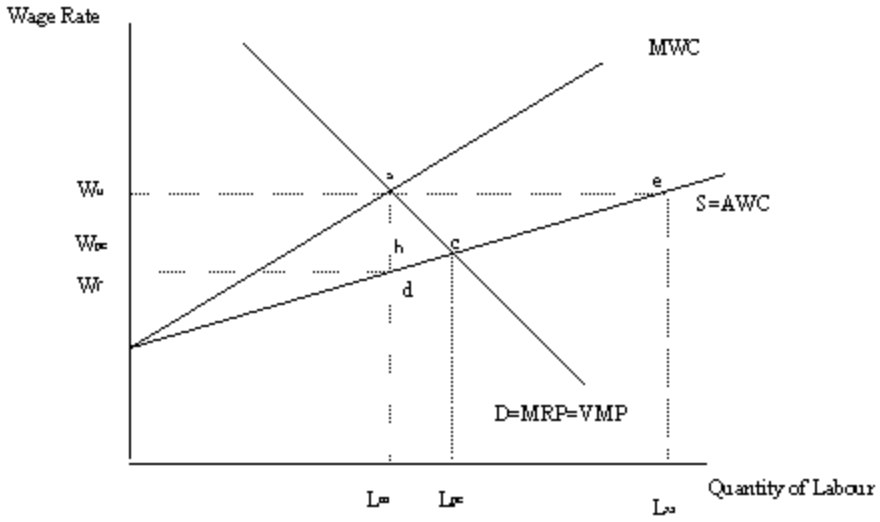
A major issue in relation to the institutionalist viewpoint derives from theory regarding the nature and purpose of trade unions, with the point being that there is no single raison d'être of unions and that they may sometimes trade-off wage rate maximisation for reasons connected with the social and political welfare of members. Prominent industrial relations author Michael Salamon (1992) expresses trade unions' goals as follows, and claims that they are usually in conflict with each other: collective power, economic regulation, job regulation, social change, member services, and self-fulfilment of members. Robert Frank, in particular, has emphasised the importance of 'status' in the choice of jobs by certain unions which in certain circumstances overrides wage preferences (Elliott, 1991). Even when we safely assume that individual workers, and their collective organisations, wish to, ceteris paribus, optimise their wage rate, there are a number of ways of analysing why the labour market will not necessarily reach an allocatively efficient equilibrium. A thorough analysis of two of such situations, monopsony and bilateral monopoly, can illustrate this point (Varian, 1990 and 1992).

## Monopsony and Bilateral Monopoly Models




Monopsony in a labour market is a realistic assumption, since firms which have a sole right or ability to sell a particular commodity (i.e. goods market monopolies) will conversely be the sole buyers of the specific skilled workers relevant to that industry (i.e. labour market monopsonists). The equilibrium in a labour market monopsony is shown in Figure 1 above. The model requires two assumptions. The first assumption is that the firm's marginal revenue product (MRP) curve is coincident with the firm's short-run demand for labour curve (D). The second assumption is that the monopsonist is selling its product in a perfectly competitive market, so that the firm's marginal revenue is equal to the price received for each unit. A corollary of the second assumption is that the firm's marginal revenue product curve (marginal revenue ´ marginal product of labour) also coincides with its value marginal product curve (price ´ marginal product of labour). The marginal wage cost curve lies above the average wage cost curve because the firm must pay a higher wage to attract more workers, and (in the absence of an internally segmented labour market) pay this higher wage to all workers employed. The monopsonist's marginal condition equates MRP and MWC at point *a* and employs $L_M$ units of labour, but needs to pay only $w_M$ to each worker. The monopsony equilibrium wage and employment are lower than their perfectly competitive equivalents ($w_{PC}$ and $L_{PC}$). Total efficiency loss is shown by the area *abcd*. Triangle *abc* represents the loss of consumer surplus and triangle *bcd* the loss of producer surplus (adapted from Brue and McConnell, 1995). Seen in this context, it has been suggested that a minimum wage would stimulate competition in labour markets rather than reduce it (Hosford, 1997).

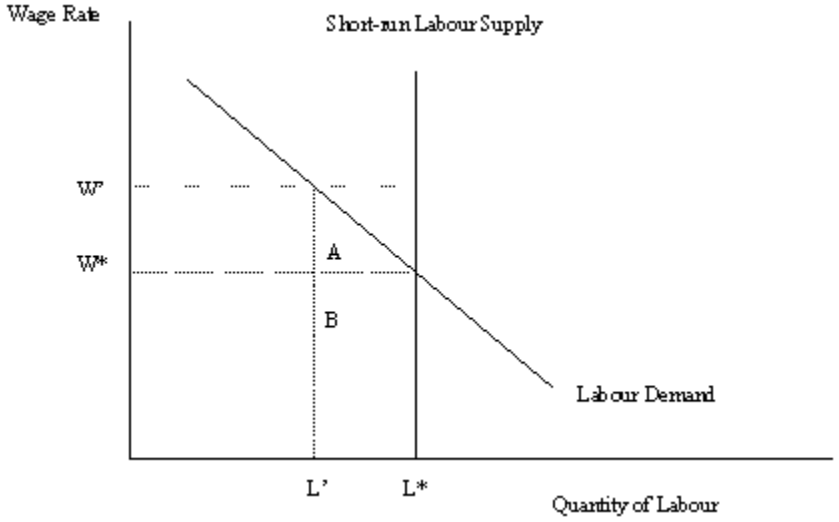
**Figure 2**: Bilateral Monopoly




Another quite feasible inefficient outcome is that of bilateral monopoly, illustrated in Figure 2. In such situations, the firm is the sole buyer of the relevant specialised skilled labour needed, and a craft union or enterprise union is the sole seller of that labour. If it could, the union would set a wage level where marginal wage cost equals marginal revenue product, although this would lead to an excess employment level of *ae* and an equally large social loss to that described for monopsony above. Here, depending upon the relative bargaining power of the union and the firm, the locus of all possible wage market equilibria lies between $w_u$ and $w_f$ (the two wage rates preferred by the union and the firm respectively) and employment between $L_m$ and $L_{pc}$. Thus, in general, a bilateral monopoly will be more efficient and closer to competitive equilibrium than a monopsony market situation due to the Galbraithian countervailing power of the union (Schuster, 1983). Bilateral monopoly can approach real industrial collective bargaining structures in many industrial relations instances (Stuart, 1997).

## Lagged Short-Run Labour Supply

Figure 3: Lagged Short-run Labour Supply

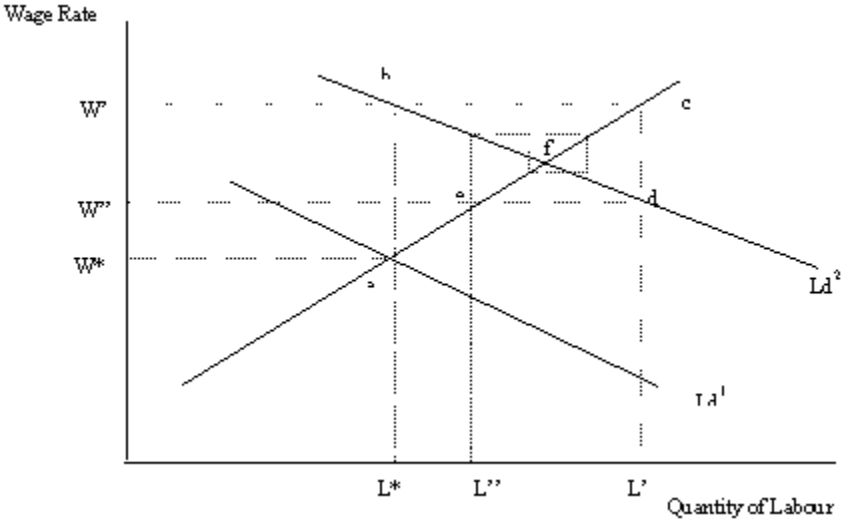



Orthodox wage theory also assumes away the difficulty in dynamic supply adjustment to long-run labour market equilibrium and the efficiency loss associated with labour supply inelasticity. As Figure 3 illustrates above, a vertical labour supply curve can

result in inefficiency if the wage rate is above equilibrium and the curve does not adjust to clear the market. Since firms only demand L' of labour at wage w', causing unemployment due to excess supply of L'L*, there would be a gain of area B to workers if employment was at its equilibrium level of L*. Firms' marginal willingness to pay for an extra unit of labour (represented by the demand curve) is greater than the wage they would have to pay to workers for the extra labour (w*), so firms' net gain is equal to area A. Therefore, the total dead weight loss of inelastic supply, failing to adjust, is equal to areas A and B, or mathematically the integral of the section of the demand curve between L' and L*. Since the supply curve between the origin and L* is coincident with the horizontal axis, area A can be seen as consumer surplus loss and area B as producer surplus loss.

## The Cobweb Theory

**Figure 4:** Convergent Cobweb Supply Effect




A more advanced method of assessing lagged labour supply adjustment, adapted by labour economists, is the cobweb theory. The theory describes how an initial unexpected outward shift in the labour demand curve leads to prices fluctuating in a "cobweb" pattern, until the long-run equilibrium is achieved. In figure 4, this situation is illustrated (adapted from Brue and McConnell, 1995). The initial shift in demand leads to a shortage of labour, so that in effect there is a vertical short-run labour supply curve at L*. The combination of the labour shortage and short-run inelastic supply raises the short-run equilibrium to point *b* on the demand curve, at a higher wage of w'. However, this high wage rate leads to an increase in the number of workers willing to work and L' workers will eventually fill the market. The supply response equates to a shift rightwards in the vertical short-run supply curve to L'. Yet, now that the quantity of workers employed is again temporarily fixed, a surplus of *bc* workers occurs at w'. To eliminate the surplus the wage rate drops to w'', which leads to workers slowly exiting the market until only L'' workers are employed. The resulting labour shortage once again leads to a wage cycle until long-run equilibrium is finally attained at point *f*. This model disregards rational expectations and utilises an adaptive expectations approach to describing labour supply adjustment (Carlin and Soskice, 1990).

## Criticisms of Cobweb Theory

Although the evidence for the applicability of the model has dissipated in most efficient labour markets, it can still be used to describe supply adjustments in markets which require heavy investment in human capital and training time (Freeman, 1976). It is also interesting to note that the convergent model described here contrasts with

the divergent or oscillating models that would chaotically result from certain combinations of supply and demand elasticities (Jackman, Layard and Nickell, 1991). The idea that a conventional perfectly competitive approach to labour market equilibrium may only apply to certain labour markets leads to the next criticisms outlined in this paper.

## Internal Labour Markets and Dual Labour Markets

A growing group of internal labour market theorists have criticised the neo-classical perspective of continuous open job competition. They have proposed that job ladders involving a sequential progression of jobs, based upon seniority and investment in human capital, exist in many large firms involving different activities (Brue and McConnell, 1995). Consequently, jobs at the bottom rung of the job ladder (called a port of entry) are fought for competitively in an external labour market, since the firm must compete with other firms which are hiring the same kind of unskilled, unspecialised labour. On the other hand, an internal labour market which determines the recruits for higher positions on the job ladders is governed by administrative rules and seniority specific to the particular firm in question, and not the tâtonnement of external labour markets. Mulvey (1978) tried to illustrate this outcome as being Pareto sub-optimal by having a wage preference path not coincident with the output expansion path in a particular industry.

The two basic reasons for internal labour markets are that the skills required for some more senior and specialised jobs are specific to each firm and can only be learned by people within that firm; and to get a return on human capital investment, firms must employ workers for a significant period of time (Brue and McConnell, 1995). Although the resulting internal labour markets are said to allocate inefficiently, when viewed over time there are advantages which some authors refer to as dynamic efficiency. Such temporal efficiency results from the positive externalities associated with the reduced human capital investment for firms using internal labour markets and the job security and promotions which workers receive in internal labour markets, which are beneficial to both firms and workers (Salamon, 1992).

Some labour economists even extend the internal labour markets idea into a theory of segmented dual labour markets, consisting of primary and secondary labour markets. Primary labour markets are characterised by employment stability, the presence of job ladders, strong and effective trade unions and efficient management, while secondary markets have the opposite characteristics (Brue and McConnell, 1995). Although some criticise dual labour market theory for being undeveloped and excessively Marxist or Galbraithian, there has been increasing evidence of empirical validity for the idea, due to certain industry structures and selective efficiency wage practices. Seasonal or cyclical variation in some industries will naturally lead to the development of secondary markets, while closed shop practices have proved an indomitable barrier to mobility in others. The central tenet of the argument is that, while predominantly classical wage characteristics can be seen in secondary markets, this is not the case in primary markets. (Masters, Moser and Reynolds, 1991).

## Efficiency Wage Theories

In internal labour market and dual labour market theory the source of the market imperfection and involuntary unemployment lies in human capital costs and the ability of 'insider' employees to influence wage levels. In efficiency wage models, the source is the asymmetric information between employees and firms regarding their profitability (Lindbeck and Snower, 1986). Efficiency wage models explain how it is in the firm's best interests to pay a wage above the market clearing equilibrium rate in order to optimise the marginal revenue product of labour.

A number of different microeconomic underpinnings have been found to explain the

phenomenon (Akerlof and Yellen, 1986). The threat of shirking on the job may prompt firms to pay an additional wage to eliminate the 'moral hazard' of employee dishonesty and improve the general morale of workers in the firm (Shapiro and Stiglitz, 1984). A corollary of this argument is Stoft's 'cheat-threat' theory which states that if the economy is nearing full employment, the threat of being fired for being caught cheating is less serious to employees, so they must be paid extra to dispel thoughts of dishonest behaviour (Stoft, 1982). Salop (1979) takes a different approach by emphasising the lower labour turnover costs associated with the decreasing quit rates, which in turn result from the above market-clearing wage rates.

A more sophisticated argument developed by some, like Weiss (1980), is that of adverse selection. Assuming that workers' abilities and dependability are positively correlated to their reservation wages, firms pay an efficiency wage in the hope of attracting the best workers. If workers underbid the efficiency wage, they stand the possibility of being regarded as 'lemons' by firms and will become involuntarily unemployed. Nevertheless, the lack of willingness to fire unproductive workers by some American firms prompted Akerlof to even suggest a sociological model based upon raising the standards of group work norms by above equilibrium wages that defies neo-classical wage theory.

An explanation for efficiency wages in less developed countries, described by Leibenstein (1986), especially relevant in the agricultural sector, says that workers need to be paid enough to be well-fed and clothed even if this means paying them a wage above their marginal product of labour, which in many sectors is even zero. All these efficiency wage models account for Pareto sub-optimal equilibria even in the absence of institutionalist or insider/outsider structures.

## Conclusion

Taken together, the criticisms of orthodox wage theory illustrate how, in capitalist economies, labour market inefficiencies will arise in the absence of intervention. The simplicity of classical wage theory must be expanded upon to include the specific characteristics associated with labour as an economic commodity. While there has been disagreement over the degree to which labour market imperfections help in understanding the relationships between money, income, and unemployment, there are few adherents to the belief that neo-classical wage theory in its entirety can explain labour markets' operation. For example, many industrial relations authors claim that the worst inefficiencies and inequities of collective bargaining have been mitigated with the rise of firm-specific 'co-determination' structures in many countries (Bean, 1994). More theoretical and empirical research into the criticisms outlined in this paper is needed before any effective policy measures to boost employment can be derived.

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# The Difficulties of Imposing Universal Labour Standards

## Graham Stull - Senior Sophister

The Western World is generally considered to be modern and progressive. One manifestation of this is its desire to impose universal labour standards. Graham Stull highlights the difficulties associated with the imposition of such labour standards and finds it to be inefficient and illogical.

### Introduction and Definitions

The term 'Labour Standards' is being used to refer to minimum codes of employment relations, prescribed by legislation and enforced by sanction or through rewards which apply within an industry, a country, or between countries. Before identifying what labour standards are, it is first necessary to explore their intent and explain the theoretical justification behind them.

There are two theoretical justifications for the existence of universal labour standards in the global economy. The first is that the existence of high standards in some countries and their absence from others may give rise to unfair trade practices through competition from firms that allegedly base their comparative advantage on low labour standards.

It is thus a plea for a 'level playing field' in the labour markets of countries that trade. Following this argument to its logical conclusion, we might expect labour standards to assume many forms, such as:

- International Charters on hiring and firing practices;
- Trans-industry global pay agreements, including minimum/maximum wage requirements;
- Prescribed working time and overtime charters;
- Equality of Opportunity;
- Health and Safety regulations;
- Minimum/maximum age requirements.

The problems, both in terms of efficiency and equity, which this absolutist approach to labour standards presents, will be explored in the next section. It should be immediately evident though, that although much support for the International Labour Organisation (ILO) and labour standards in general can be traced to thinking along these lines, there are few, and none in the school of economics, who would be prepared to stand behind an argument of this nature, once it had been unveiled in all its flagrant incongruity.

The second theoretical justification for the existence of universal labour standards, which is more widespread, is the theory that focuses "on the basic human rights dimension of certain labour standards" . Part XIII of the Treaty of Versailles, which provides the constitution for the ILO, expresses these sentiments:

> "*The High Contracting parties, moved by sentiments of justice and humanity...agree to the following...*"

The OECD Report of Trade Work and Labour Standards has, on foot of this, selected four labour standards which they term as 'core' labour standards, which "embody

basic human rights as exemplified in the Declaration of the World Social Summit". They are:

- Freedom of association;
- Elimination of exploitative forms of child labour;
- Prohibition of forced labour;
- Non-discrimination in employment.

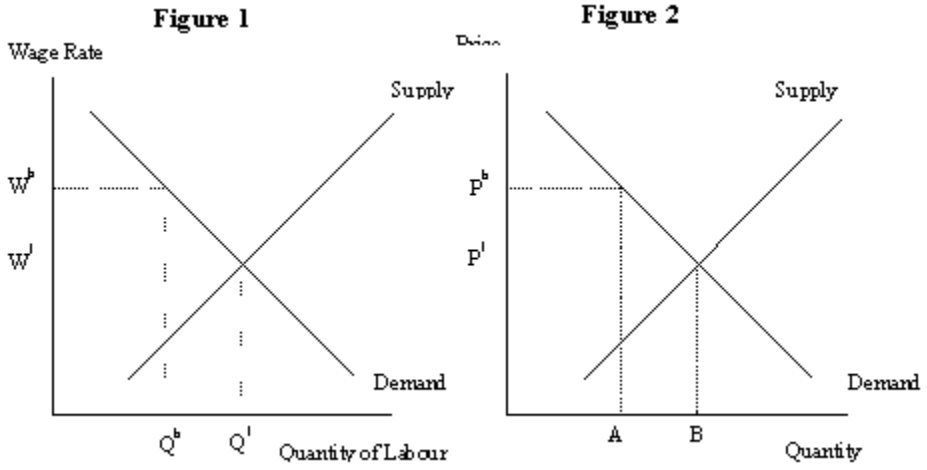
It distinguishes these from other labour standards, such as minimum wage laws and legislation governing working time, which they regard as unrelated to basic human rights. In the third part of this essay I shall examine the humanitarian aspect of labour standards in terms of general welfare criteria and economic efficiency. I will use the OECD core standards as benchmarks.

## The Level Playing Field Argument for Labour Standards

Enshrined in this approach "is a concern about the terms of trade, that is, whether disparate environmental and labour standards allow fair competition". Central to any such perspective is a conception of what 'fair' competition really means. The level playing field conception suggests that there is some immutable characteristic of labour, as a factor of production, which differentiates it from enterprise, capital, or natural resources. For example, it would be argued that the use of child labour in producing exports confers an 'unfair' advantage. On the other hand, it seems ludicrous to talk of Canada possessing an unfair competitive advantage over Saudi Arabia in the exportation of timber. Equally, no one would entertain the idea of imposing a legislative restriction on clever ambitious Americans because it was supposed that the USA had an unfair competitive advantage in the area of innovative entrepreneurship.

If we ignore for a moment what this 'immutable characteristic of labour' might be, it quickly becomes apparent that the list of labour standards in the first section can almost be extended to infinity. This is because almost every aspect of legislation impinges, in one way or another, on the demand and supply of labour, and hence has the potential to affect the comparative advantage of that country. Even where the ILO can succeed in regimenting international labour to a perfect degree, it will succeed only in eliminating that one particular form of competitive advantage. Trade between nations will remain unequal, as it always has been.

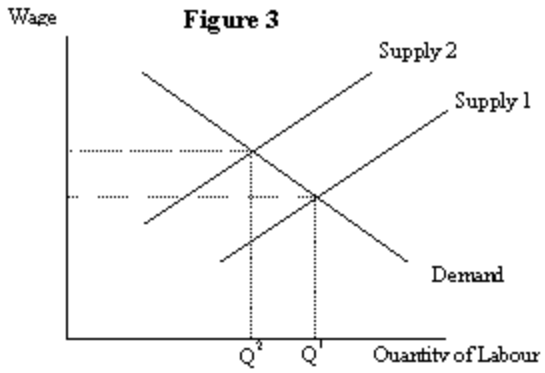
This works to the direct detriment of countries whose 'inferior' labour standards were a result of the need to foster competitive advantage where natural resources, economies of scale and other factors were lacking. Welfare losses occur to the



consumer in the high-standard country and low-standard country alike, as when prices rise, quantity on the world market falls. The situation can be summarised in the above graphs.

Figure 1 shows the labour market for the low standard country in equilibrium at $W_l$. The ILO imposes a minimum wage at $W_h$. This creates unemployment of $Q_hQ_l$. Figure 2 shows the world market for the good produced. The contraction in employment and the higher wage in the low-standard country cause the supply curve to shift upwards. AB is the loss of total product; triangle CDE is the welfare loss to world consumers.

As this simple graph shows, the imposition of a universal minimum wage represents a net loss to the low-standard country where the market equilibrium wage is above this, and a loss to the consumers in the high-standard country as well. If we consider the case of a universally imposed maximum work week, the analysis is similar, except that the supply of labour in the low-standard country contracts, as expressed by the movement from $Supply_1$ to $Supply_2$ in Figure 3. Here, at least, no unemployment occurs directly, but the world consumers still suffer from higher prices, and the low-standard country still loses its competitive advantage. This may cause unemployment. In addition, it can be argued that workers in low-standard countries are suffering a welfare loss, as they would, ceteris paribus, choose to work longer than the maximum working week hours. This 'underemployment' is expressed by $Q_1Q_2$ is Figure 3.




Another facet of the level playing field argument is that there is no logical requirement for the standards to be imposed across industries, rather only within them. Thus, it may be acceptable that, in agriculture, unskilled child labourers of all countries may toil away, but in manufacturing, a global minimum age requirement exists. The unequal imposition of standards within countries and between industries will in itself be the source of market distortion, for no two countries have the same proportions of industry within their economies.

Amsden looks at pegging real wage increases to the growth in labour productivity as a similar 'playing field' style standard. She concludes that this is also bad for low-standard economies.

Returning to the question of the immutable characteristic of labour, I feel there are two reasons why competitive advantage derived from labour is considered differently to competitive advantage derived elsewhere.

- Because it is the form of competitive advantage possessed by developing economies, and because labour and employers in developed countries are better organised, more powerful and in a better position to campaign for their interests, this difference is artificially fabricated in the ideology of trade to defend the latters' interests. One notes, for example, that the ILO was founded in Versailles, not in Delhi or Harare. As Bhagwati (1995) points out in his argument against the proposed Social Clause of the WTO, this manifests itself in its most extreme

form because "the choice of standards chosen for attention...is...clearly biased against the poor countries in the sense that none of the problems, where many of the developed countries would be found in violation, are meant to be included in the Social Clause";

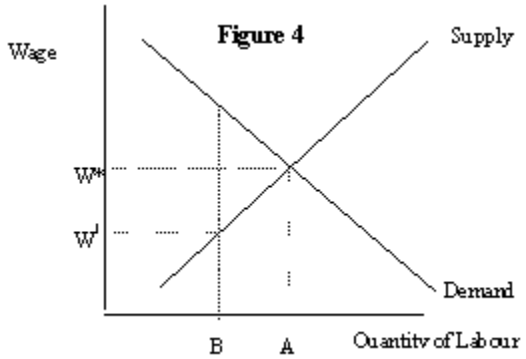
- Because human beings are motivated by a general concern for their fellow kind. Thus human compassion forms the distinction between this and other factors of production. This complex issue requires addressing within a multi-disciplinary framework. However, from an economic point of view, it seems fair to say that where this argument is to hold, it is necessary that the welfare gains to the low standard country arising from the enjoyment of the human rights embodied in the labour standard be greater than the welfare loss resulting from higher prices to consumers, unemployment, and the loss of competitive advantage. The only exception to this is where so-called 'basic human rights' are at stake. Thus, the denial of 'basic human rights' cannot be conceived of in welfare terms, it must rather be regarded as an absolute given. To deal with basic human rights, we will need to move into the second theoretical justification for labour standards.

## Basic Human Rights Arguments for Labour Standards

As mentioned above, the OECD has published a recent report in which four labour standards informed by basic human rights are alluded to.

The first of these is the right to free association and collective bargaining. To begin with, let us assess the extent to which free association affects wage equilibrium and hence competitiveness. Then, we will consider the nature of free association as a basic human right.

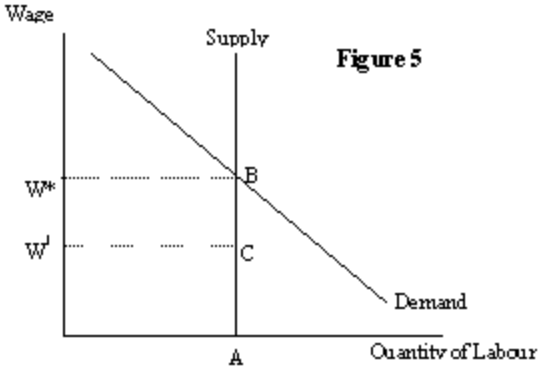
Taking as our point of departure the perfectly competitive labour market, our analysis tells us that the intersection of employers' demand for labour and employees' supply of labour will yield an optimal wage and employment equilibrium, quite without the need for free association or collective bargaining. However, this model depends on certain assumptions which do not always hold true. Specifically, it assumes all parties have access to perfectly correct information, it assumes mobility into and out of the industry, and it assumes a large number of buyers and sellers (of labour). Taking the last of these assumptions to task, we will assume an industry that is a monopsonist buyer of labour (i.e. where employers organise and cooperate to set wage rates and/or employee quotas). If employers excercise monopsony power and only buy labour at a lower wage rate than the market level, classical thinking suggests sellers of labour will shift to other industries; or simply choose to work less hours. This is represented by the movement from A to B in Figure 4, and embodies another assumption, that of mobility into and out of the market.



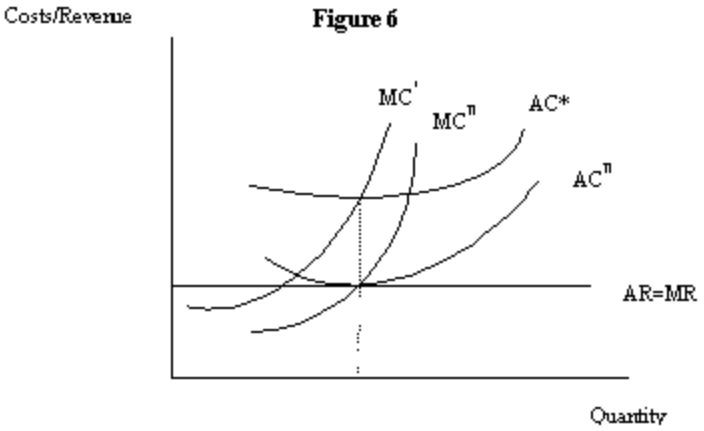

There are a number of good common sense reasons to challenge this assumption. In reality, one industry may dominate a whole geographic region or a whole lifestyle, making it impossible for an individual to conceive of alternative employment. Similarly, the prospect of trading labour for leisure at lowered wage rates - while fine

in an economics textbook - is less inviting to the large proportion of the world's population living below the poverty line.

All this suggests that in fact a vertical supply of labour curve is more appropriate in many economies with low labour standards. Figure 5 shows that in such a situation, employers can use monopsony power to purchase labour at a below-equilibrium wage rate, while quantity of labour employed remains constant at A.




The area W*W1BC is the monopsonist's rent enjoyed by the buyer of labour. Imagine now that the monopsonist, though also a local monopolist, trades the good he produces on a perfectly competitive global market. He is therefore a price-taker, represented by the horizontal Average Revenue/Marginal Revenue curve in Figure 6, AC* and MC* represent the cost functions which face the producer at market equilibrium wage rates. At this level, the producer produces at Q*, where costs exceed revenues, and so goes bankrupt. But if he can buy labour at W1, he may employ the monopsonist rent to lower costs and so faces the cost function AC"MC", at which point his level of profit is sufficient to remain in business.



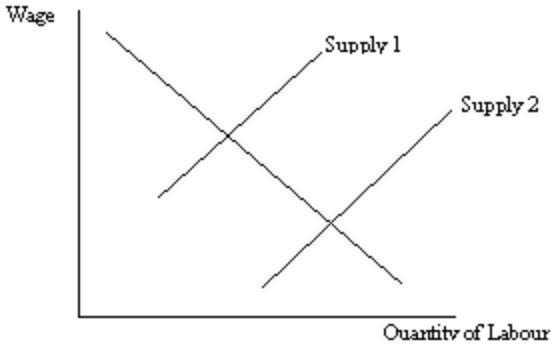

It is easy to see that the absence of free association, in this case, is what provides the local monopolist with his competitive advantage, without which he may well go under - taking with him all the 'unionised' workers. Clearly, this type of competitive advantage is being used in export processing zones in countries like Bangladesh, Mauritius, Pakistan and Panama, where 'special restrictions apply' to the rights of free association in those zones.

Having examined the way in which enforced freedom of association can damage low-standard economies, let us turn to the 'basic human right' aspect of the argument. The very fact that not all workers are considered eligible for this basic human right, even in the highest of high standard countries, suggests it may not be a basic human right at all. For instance, members of the US Marine Corps may never enjoy this basic human right, nor is the practice enshrined in the medical code of

ethics under which doctors function. Likewise, the unemployed and those outside the formal economy (black economy workers, housewives, etc.) are given no guarantee to enjoy this 'basic human right'.

2) The next 'basic human right' that the OECD refers to is the elimination of exploitative forms of child labour. Let us begin by analysing the detrimental economic effects on the low-standard country. If we assume some portion of child labour (and therefore of the total labour supply) is 'exploited', its elimination will cause a contraction in the supply of labour causing the real wage rate to rise, as in Figure 7. This in turn will affect the country's competitiveness internationally, while at the same time forcing those children into unemployment.

**Figure 7**




Examining the 'basic human rights' aspect of child labour, two question marks hover over the OECD's formulation. First, what is exploitation? Second, what is a child? The OECD report makes no coherent attempt to answer the first question, though some vague reference is made to "heavy loads, physically demanding tasks, long hours, and work related hazards". If this is so, why is it only children who enjoy the basic human right of freedom from exploitation? Surely protection against health hazards is as much a basic human right - to be enjoyed by adults as well as by children? The second problem, of how to define a child, is equally as severe. Ultimately, there can never be a clear distinction between child and adult. It must always remain a function of a society's particular cultural orientation, and as such may never conform to an ILO international standard.

Finally, if the OECD report is only condemning 'exploitative' forms of child labour, then it is tacitly acknowledging that there exists such a thing as 'non-exploitative' forms of child labour. From the absolutist point of view of the humanist, this seems a hard position to defend.

3) Prohibition of Forced Labour is the least controversial of the OECD's four labour standards. From an economics perspective, the utility of workers can never be maximised where they are coerced into employment, as choice is itself an important form of utility, and because where compulsion exists, free will would de facto yield another wage/output position. From a humanitarian point of view, it does not seem difficult to defend the position that slavery is wrong. In addition, as Haggard argues, "standards such as freedom from forced labour...are unlikely to greatly affect the overall competitiveness of even the most repressive countries."

4) Non-discrimination in employment is the final labour standard that the OECD mentions. From the perspective of first economic principles, the abolition of discrimination on the basis of sex, race, and ethnic origin will always make sense where it can be shown that no real differences exist between such categories in terms of ability to do the job. At the risk of sounding sexist, racist, and xenophobic, I would venture to suggest that this will not always be the case. For example, a builder who requires workers to lift granite blocks may find the inability to discriminate against

female applicants a serious impediment to profit maximisation.

From a social or humanitarian perspective, it could be argued that the employer has a duty to work around these problems, even where profit loss is the result. But this is a normative decision, relying on a particular view of life prevalent in the West, but by no means shared by all cultures on the planet. It is as equally true to say that, where a particular society deems it appropriate, the exclusion of women from the workplace, though not strictly economically efficient, serves a valuable social function in the same way.

## Summary and Concluding Statements

There are two approaches that can be taken to the issue of universal labour standards. The first uses the level playing field argument. This in turn can be based on the desire of highly organised employers and workers in some countries to safeguard their interests, to the detriment of others. I have shown how such arguments make little sense and are inefficient.

Where playing field arguments are based on the desire to ensure increased welfare to workers in low standard countries for humanitarian reasons, I have shown that this will only hold true where the gains outweigh the losses. I have illustrated in the case of minimum wages, working week restrictions, free association and child labour laws how these loses can arise. It remains only to be said that where gains do outweigh losses, the country should normally be in a position to implement labour policies of its own accord, without the 'help' of the ILO. To the extent that non-democratic regimes impinge upon such political implementation, perhaps the international community could better expend its energy in addressing these democratic deficits. This would serve to tackle the root of the problem, instead of meddling in the local economy - which is only the symptom.

The final argument for labour standards derives from a belief in certain 'basic human rights' that informs a body of core labour standards which all humankind has the right to enjoy. To conceive of human rights as efficient, even where their existence reduces the welfare of those who 'enjoy' them, runs contrary to the doctrine of utilitarianism upon which many economic theories are based. I therefore reject this position. I have, also, shown how the OECD's attempt to wield such arguments results in certain contradictions and inconsistencies. This serves only to exemplify the fact that, as our Mary Robinson is discovering, there is no such thing as 'basic human rights'. As Bhagwati (1995) writes:

> "*...the reality is that diversity of labour practice and standards is widespread in practice and reflects, not necessarily venality and wickedness, but rather diversity of cultural values, economic conditions and analytical beliefs and theories concerning the economic consequences of specific labour standards.*"

We live in a world where multiple cultures flourish, each with its own conception of what human rights are. To impose the Western cultural mould on the world is yet another example of cultural colonization.

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# The Declining Economic Position of Men

## Brendan Connolly - Senior Sophister

The economic well-being of men has recently been eroded by increasing rates of female participation in the labour force and the phenomenon of non-employment among men. Brendan Connolly discusses this decline in the economic position of men, with particular reference to Ireland. His conclusion is that the process is likely to continue.

*'The composition of unemployment has shifted towards less skilled workers, who suffer comparatively long spells of joblessness and whose rewards from work have fallen sharply. In both these respects, they resemble the growing class of men who have simply withdrawn from the labour market'.*

The 1970s and 1980s marked a striking break from the historic pattern of soaring real earnings of less skilled workers in the twentieth century. Until then, natural labour market forces, in conjunction with the pressures imposed by wage setting institutions, seemed to promise a bright economic future for the less skilled. The last 20 years however, have seen substantial declines in the average levels of real earnings among the less skilled, which contrasts with the increasing earnings of more skilled and educated males, to show an ever widening wage earnings gap.

It does not necessarily follow that the overall economic position of the less skilled has worsened. The decline in wages received by the less skilled could have been associated with the increased hiring of those workers. Had more men among the less skilled obtained jobs, the change in the economic welfare of all less skilled men would not be clear (Blackburn, 1990). The opening quotation suggests the decline of the economic position of the unskilled on two levels. Firstly, the incidence of unemployment among the group has increased proportionately more than other occupational groups. Secondly, and less obviously, there is the increasing phenomenon of non-employment as people 'withdraw from the labour market'. This is more subtle and constitutes a hidden form of unemployment. The non-employment rate captures the effects of both unemployment and non-participation and reflects lower rates of labour force participation as well as higher rates of unemployment (Murphy and Walsh).

I will examine the Irish economy in relation to these issues, comparing domestic trends with international ones, and outline some causes and effects of the declining economic position of men.

### Underlying Theory

International patterns of unemployment show rising joblessness to be concentrated among groups with declining real wages. In contrast, groups with constant or real rising wages show stable or declining unemployment and non-participation. A logical conclusion therefore, is that secular increases in both unemployment and non-participation are demand driven. Based on observable indicators of skill, such as experience and education, it is well known that unemployment is greater among less skilled individuals. The 1966 Irish census showed a 21% unemployment rate among those in 'depressed occupations' compared with an overall rate of 6.3% in non-agricultural occupations.

To understand why joblessness has risen, we must explain why it has risen only among less skilled persons. Long-term patterns of joblessness suggest comfortable changes in labour demand favouring more skilled workers. The American experience provides evidence to support the 'de-industrialisation' thesis - namely the view that the shift from manufacturing employment to 'post-industrial' service work has had a negative effect on employment and wages. Employment has been stable or declining in the manufacturing industries where wage inequality is relatively low, while it has been growing rapidly in the services sector where it is considerably higher. Thus the pattern of employment has moved away from industries, that were dominated by male labour without formal qualifications, resulting in a 12% decline in employment for the unqualified group relative to graduates in the U.K.

There was an even greater movement away from low skilled work within industries. Not only did mining and construction firms contract in size, they also reduced employment of unqualified male labour by more than the average. It is important to discover what lies behind this inter- and intra-industry move from unskilled labour. Contrary to a widely held belief, Robert Kuttner states that changing technology is not the main explanation for the inequality of wages in America. Many analysts of wage inequality, both liberal and conservative, contend that the main cause is the interplay of globalisation and technology. In this view, skills matter more than ever and U.S. workers who were once overpaid, relative to their skills, are now being compensated according to global norms. One plausible model that links external product markets to internal labour markets is the Heckscher-Ohlin general equilibrium model. This model operates over a time period that is sufficiently long to allow costless detachment of workers and capital from their original sectors. According to the model, the news of economic liberalisation in, say Eastern Europe, is carried to the U.S. and European labour markets by declines in the prices of labour intensive tradeables. This, coupled with the de-industrialisation thesis, paints a forbidding outlook for the unskilled.

### The Irish Example

The above does not fully hold in the Irish economy. Huge multinational (MNC) investment in pharmaceutical and technology fields have produced a 'stop-gap' in the de-industrialisation process. Production plants, such as those of Intel and IBM, employ workers at the lower end of the earnings spectrum in a production process that involves a narrow skill scope. The longstanding trend of decreasing employment for unskilled workers has not been dramatically halted because these MNC production workers are classified as skilled or semi-skilled. This claim is often refuted as spurious on the basis of the lack of transferability of skills involved. In line with this trend, the proportion of the live register that is unskilled has declined over the same period. It would seem therefore, that 're-categorisation' of unskilled workers massage the estimates to reveal less harsh statistics.

Although there is no doubt that the shift in aggregate employment has occurred from production to services, demand factors alone do not explain the declining fortune of the unskilled. Attention must be focused on changes in the relative number of unskilled men due to the quality of their schooling and also on changes in the supply of other workers who might be relatively close substitutes for the less skilled.

Blackburn and Freeman suggest that the interaction between demand side industrial shifts and supply side educational requirements results in the degree of wage erosion being monotonically related to the level of schooling completed. Disaggregating the mean real annual earnings for U.S. workers by education and by industry between 1973 and 1987, they found that the real wage for workers without high school qualifications had dropped to 82% of its 1973 value. The corresponding ratio for those with high school diplomas was 94%.

The conclusion of the study was that those people whose education went beyond the high school diploma were able to maintain their real mean earnings in contrast to the uneducated. The incidence of higher overall wage inequality is directly related to the increasing rewards for college education and the increasing penalties attached to not completing high school. Overall wage differentials between college graduates and high school drop outs also grew by a staggering 38% in the same period.

The Irish situation is very similar to the international example. The unqualified find it harder to get a job than do other job seekers, and equally, they are also more likely to lose a job and become unemployed. The magnitude of their relative disadvantage is remarkably similar in both respects. Comparison with those with Leaving Certificate qualifications shows the unqualified to be half as likely to get a job when unemployed and twice as likely to lose a job and become unemployed.

Labour market differentials (such as those between different educational qualifications) widen through time. Education and early labour market history influence the duration of unemployment and also the kind of job the individual acquires. Poor education generally leads to jobs that are of poor quality. Such jobs are likely to be short lived and so, a pattern emerges to reinforce the effect of poor education - one of long spells of unemployment followed by short periods of unskilled employment. People's labour force histories become poorer in the sense of making them less attractive to employers. State training and 'back to work' schemes do not seem to be greatly effective. Even for these schemes, the likelihood of entering training is linked to educational qualifications - the higher the qualifications, the more likely is entry to such a scheme. Negligible long-term effects on employment exist for these schemes because those who entered a job directly from training were just as likely to lose it again as those who had entered directly from unemployment.

This demand-oriented thesis is far more plausible than the argument that increases in inactivity among men are labour supply responses by the individuals concerned. This view states that as a society becomes wealthier, people may be in a position to choose to work less, retire early or adjust patterns of labour supply within the household. This would reveal declining activity rates to be consistent with efficient optimising behaviour on behalf of the individual, but unfortunately itis not backed by convincing empirical evidence. In their examination of the British labour market, Schmitt and Wadsworth show that the share of unqualified workers in the population has fallen sharply, which is inconsistent with the idea that people 'choose' to work less. Increased educational attainment reduced the number of workers without formal education in their study by 56%. Their conclusion was that inactivity has risen primarily within skill and age groups and not because there are more individuals in the population who are prone to inactivity. This fall in participation has, not surprisingly, been confined almost exclusively to those who lack any formal qualifications.

Participation estimates have always been a contentious issue. The British estimate of the economically inactive has consistently exceeded the number classified as unemployed, with the result that the official unemployment rate seriously understates the extent of joblessness. A shrinking working population is supporting a growing non-working population. The conclusion is that high unemployment rates have depressed male labour force participation rates. In other words, inactivity has risen because more members of the high-risk groups (those without formal qualifications) have withdrawn from the labour force, not because the at-risk population has grown. Again, the Irish example is not quite so straightforward.

## 'Work is the Curse of the Irish Drinking Class'

The 1974 ESRI report on unemployment between 1954 and 1972 noted:

> '*There seems to be little basis for the belief that our registered unemployment consists...of a hard-core of 'chronically unemployables' who will not be drawn into the employed labour force even in the tightest labour market*'.

The more recent picture is quite different and in the absence of tight labour markets, quite a high proportion of our unemployed has been labelled 'unemployable'. Of 20 OECD countries in 1994, only Finland and Spain surpassed Ireland's unemployment and non-employment rates. Ireland's trend of rising male non-employment is similar to widely observed international trends. There is also some evidence from international studies that high unemployment rates depress male labour force participation rates. Ireland is an exception

to this generalisation. Indeed, Ireland has remarkably high labour-force participation rates in view of the high unemployment rate. Reasons for this may include the high mobility of labour in the Irish economy. The effect of altering the definition of unemployment, by treating 'discouraged' workers as unemployed rather than inactive, is to raise the unemployment rate by about 8% in 1996 - from 11.9% to 12.9% (Walsh and Murphy, 1997).

## Working Women

On an international scale, the increase in female participation is the single most important development in the labour market over the last 40 years. Between 1980 and 1992, women accounted for 60 percent of the increase in the U.S. workforce and 66 percent of the increase in the European. Since the end of the Irish recession in the late eighties, the number of women at work here has also increased steadily. Over the same period, a decline in female unemployment rate relative to the male rate was observed. In 1983, the female rate was 17% higher than the male, but since 1992 the male rate has been marginally higher (Walsh and Murphy). The majority of the rise in participation amongst women has come from those who previously looked after the home. However, rising unskilled male unemployment cannot be explained by a decrease in their labour supply due to increased female labour force participation. Neither have female wages reduced male labour supply through wealth and substitution effects within households. This is due to the fact that the largest increases in women's participation and income occurred in the households of high-wage men, who exhibit stable employment patterns. Thus, not only has the distribution of employment across skill groups become progressively unequal, this rising inequality has been reinforced by the concentration of employment in two earner households.

A view of Irish occupational trends shows that the female share of total employment is expected to increase fastest in what were traditionally considered 'typical male occupational jobs'. These jobs are in the manual supervisory area in which women were very poorly represented in the past. Women are also expected to gain more jobs than men in managerial, professional and brokering occupations. In short, female employment growth is almost double the average in fields, such as the managerial and professional areas, that require highly qualified workers.

To further highlight the declining economic position of men, women's share of employment in declining areas, in which men traditionally dominate (i.e. labouring) is also increasing. This means that men now have increased competition for the limited number of jobs in this area, which for an increasing proportion of male workers, is the only source of employment left.

## 'A woman's work is never done...a man is drunk from sun to sun'

The problem for men is not just that women are taking more jobs; it is that significant proportions of men are dropping out of the job market altogether as women enter it. The percentage of working-age men in the EU outside the labour force rose from just 8% in 1968 to 22 percent in 1993. There are numerous explanations for female success in business at the expense of men. They tend to be better educated; they stay in jobs longer (especially women with children); low-paid jobs are growing quickly and women are more ready to accept them than men. An obvious response to such shifts in female economic activity might be for men to move into areas of the economy that are expanding. But, despite the claim that concepts like 'man's work' or 'woman's work' are outmoded, men on the whole are not doing this, as is evident from their labour force decisions. Men continue to spurn even well paid work in areas dominated by women. An EU report on 'Occupational Segregation of Women and Men' noted that male manual workers are 'willing to undertake low-paid and low-skilled jobs provided they are not feminised'. The bottom line always seems to be the same: for economic and social reasons, men are suffering at the hands of women, with unskilled and ill-educated men being hit disproportionately hard.

Having outlined the evidence of international trends of rising male joblessness, as accounted for by rising unemployment and non-participation, and having also dismissed the idea of decreasing male labour supply as optimising behaviour within households, it is peculiar to find that household incomes and living arrangements of the long-term unemployed have remained stable over time. This would seem to suggest that a declining economic position doesn't necessarily imply a declining social position. For, as a group, unskilled jobless workers don't become poorer. Theory suggests that a long-run decline in the demand for various types of labour may increase the natural rate of unemployment because the rewards of employment decline for marginal workers. So it must be the case therefore, that the marginal worker endeavours in some other form of earning activity with higher relative economic rewards than are on offer in the legitimate job market. Reductions in the legitimate earning opportunities for low skilled men led to a decrease in the hours worked for those at the bottom of the wage distribution (leisure is obviously a normal good in this case). This finding is consistent with an increased allocation of time to crime among American men according to Freeman. He discovered that for many young men, illegal work may be temporary or transitional work that supplements difficult, low-wage or otherwise unsatisfactory work. For others, legal work provides alternatives to riskier illegal work or perhaps broadens markets for sellers of illegal goods or services.

American data show that incarceration figures have tripled in the last twenty years while the crime rate stabilised and in some instances increased. It is fair to deduce from this evidence that men respond substantially to the economic returns of crime. The supply of crime is elastic due to the low reservation wage of committing crime, given by depressed labour market wages. The blunt economic reality of crime seems to be that while non-working women are mothers, non-working men are, quite simply, a blight.

## Social Welfare

The implications of joblessness for society must not be understated. An American study has established a link between unemployment and family break-up insofar as joblessness reduces the attractiveness of men as marriage partners. Only 61% of the unemployed in America were married in 1989. Men generally link employment and marriage; that is, men who cannot support a family are usually

less likely to form one. Dr. Patrick McKeon of Aware Depression Support, recognising the acute link between unemployment, depression, and suicide, stressed the necessity of understanding the feelings of 'the guy who lost his job...that commits suicide'. Both these issues result in a downward spiral of serious social issues that are often misdiagnosed. Rather than being poverty issues, the problems discussed in most cases have economic foundations. The ESRI study of crime in Ireland remarks:

> *'Poverty and the consequent limitation of opportunity are not enough to produce a conspicuously high rate of criminal behaviour. Even the notorious 'poverty in the midst of plenty' will not necessarily lead to this result. But where poverty and associated disadvantages in competing for the cultural values approved for all members of society are linked with a cultural emphasis on pecuniary success as a dominant goal, high rates of criminal behaviour are the normal outcome'.*

Similarly mass unemployment (not poverty) can destroy the institutions that enforce social behaviour, such as small clubs, firms, informal networks and above all, the family, as discussed above.

## Solutions

As always, the problem diagnosis is far easier than the resolution. Such a multi-faceted issue requires careful attention and strategic focus.

The ESRI point to the need to address the problems of early or unqualified school leavers, before they leave school. It argues that while much concern is focused on this cohort at ages 15 and 16, the genesis of the problem, which arises at much younger ages (4-10), is for the most part ignored. It would be far cheaper and more effective in the long run to intervene at an earlier age by investing more heavily in education. To consolidate this point, it is worth remembering that long-term results of after school training programmes are, for the most part, inconclusive. This highlights the importance of early intervention in education, which is bound to be less expensive and more effective. The issue of long-term unemployment and non-participation is of paramount importance. In order to improve future employment prospects, maintaining a worker's attachment to the labour force must be a priority. Educational attainment seems to be the single most important factor likely to influence the chances of reintegration in this regard.

Labour market inefficiencies that lead to a glut of predominately low skilled jobless men must be tackled. One solution favoured by Blackburn et al. is to increase the tightness in the overall labour market. This is occurring in the U.S. for a number of reasons. Firstly, labour market entry has declined in accordance with the 'baby boom' pattern of the 1970s (birth rates declined substantially in the late 70s, from all time high rates). Secondly, incidence of education among young men is increasing in some instances. If labour demand can grow at a reasonable pace in this environment, employment and earnings of less educated men will also grow. This scenario in isolation, however, is not enough.

More general and far reaching social and economic changes are necessary to rehabilitate less skilled males. Legitimate work must be made more attractive to youths than crime. A carrot and stick policy must be pursued in this instance by:

- Increasing the penalty for crime;
- Increasing legitimate opportunities for the less skilled.

This is a huge problem, considering that men under the age of 24 are responsible for 50% of America's violent crime. There would simply be widespread reluctance by employers to ignore poorly educated youths, regardless of training schemes or newly acquired skills. The carrot and stick may not work every time.

## The Irish Rover

I have shown that the Irish employment and labour force situation, more often than not, displays traits similar to international ones. Nevertheless, certain quirks do arise from time to time. Agriculture as a predominant, though declining industry provides one such divergence from the convention. But by all accounts, the employment problems of the less skilled outlined in this essay are not as severe in the Irish economy. FÁS Director General, Mr. John Lynch, has expressed his concern that there will be a shortage of 'less qualified' unskilled workers in the Irish economy in the years ahead. Recently, the migration flow (which has served as a kind of economic safety valve in the past) has changed direction - more people are moving to Ireland than are leaving. These days, American firms advertise in Boston newspapers to fill vacancies in their Irish businesses. This change is not merely at the top end of the job market either.

Despite the apparent bias towards top management and professionals, employment growth in the 1990s is more evenly spread across occupational groups than it was in the previous two decades. This trend is perhaps cyclical in nature and a product of the 'Celtic Tiger' boom in the Irish economy. The long-run will undoubtedly result in more flexible wages (downward) and labour markets will clear at a natural rate of unemployment, higher than the short-term rate experienced during the boom. Part of the reason for this, is the failure of FÁS to recognise and tackle the real problem of Irish long-term unemployment through retraining programmes, as outlined in an effort to counter hysteresis effects. Instead, FÁS suggests increased participation rates (via more women) in the labour force as a way to cope with the labour shortages of the unskilled, when this clearly compounds the problems for the jobless. Unemployment has not declined sufficiently because the economy's 'burgeoning demand for labour' has been met by rising participation in the labour force and the changing pattern of migration, as we have already discussed.

## Conclusion

In conclusion, standard supply and demand factors explain the increase in non-employment. Evidence of sluggish real wage growth and rising wage inequality over the past 20 years has revealed increases in long-term unemployment and non-participation. Such joblessness is concentrated among groups of men with declining real wages, so the effect is doubly harsh. On the other hand, the labour market is increasingly friendly towards women, though men make more money internationally. Furthermore, there are a growing number of men who are outside the labour market are in a position to which, unlike their female couterparts, they are wholly accustomed. The decline of the economic position of men shows no sign of abating.

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