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## 2002

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# IS THE GOVERNMENT SIZE OPTIMAL IN THE CASE OF JORDAN?

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## **ABSTRACT**

This paper examines whether the government spending in the case of Jordan for the period 1975-1996 is optimal or not. This goal was achieved using the methodology suggested by Barro (1990) and Karras (1993, 1996). According to "Barro Rule" the government services are optimally provided when their marginal product is equal to one. The regression results found that the government services are productive. It also estimated the government size, on average, at 10.4 percent (±3 percent).

## **INTRODUCTION**

Most of developing countries lack a stable and sustained source of revenues. In most parts these revenues are insecure and volatile. This will affect the allocation of resources. The purpose of this paper is to examine whether the government spending is optimal or not in a specific case. This goal will be achieved using the methodology suggested by Barro (1990) and Karras (1993, 1996). This methodology is applied to the case of Jordan.

The paper will be organized as follows. Section 2 presents the Barro/Karras model in its application to Jordan, while the data used will be discussed in section 3. The empirical results will be discussed in section 4. Finally, summary and conclusion will be presented in section 5.

## THE MODEL

The model employed here is based on Karras (1996, 1997). Karras' empirical work was based on the theoretical work of Barro (1990). A study by Barro (1990) examined the issue of whether the government expenditures relative to the national output are optimal. He showed that government expenditures are optimal if their marginal product is equal to one. He also showed how productivity of the government and its size affect the economic growth.

In an empirical study of thirty-seven countries using Barro's Rule, Karras (1993) examined the effect of government expenditures on employment and output. He found that persistent changes in government expenditures have a greater effect on output and employment more than a temporary changes. In addition, he also examined the relationship between the government spending and economic growth. His findings support the hypothesis that the output elasticity of government consumption is positive and inversely related to the government size.

In another study, Karras (1996) investigated the role of government expenditures in the production process. Using the "Barro's Rule", Karras estimated the optimal size of the government and their productivities for 118 countries for the period 1960-1985 <sup>1</sup>. He found that the government expenditures are significantly productive. In addition, his findings showed that the government expenditures are, on average, overprovided in Africa, underprovided in Asia, and optimally provided elsewhere. Also, his results support the hypothesis that the marginal productivity of government spending is inversely related to government size.

In one additional study, Karras (1997) investigated the role of government spending in the production process and whether the size of the government expenditures is optimal in twenty countries in Europe for the period 1950-1990. Using the same theoretical framework in the 1996 study, he found that the government services are significantly productive in Europe, while there is

no statistical evidence that government services, on average, are not optimal. In addition, his findings suggest that there is some evidence supporting a negative relationship between the productivity of government spending and the size of government.

The model on which the Karras (1996, 1997) studies are based assumes a production function for the country:

$$Y = F(K, L, G/L) \tag{1}$$

where Y is real GDP,

K is capital stock,

L is employment, and

G is government expenditures.

By differentiating Equation (1) with respect to time and dividing by Y, we get

$$(\Delta Y/Y) = \alpha(\Delta L/L) + MP_K(\Delta K/Y) + MP_G[(\Delta g/g)(G/Y)]$$
(2)

where á is the output elasticity of employment,

MPK is the marginal product of capital,

MPG is the marginal product of government expenditures,

g = G/L, and

(G/Y) is the size of government expenditures relative to real GDP.

Using Equation (2), we can estimate the following parameters: á, MPK, and MPG. Also, using the estimation of Equation (2), we can see whether the government services are productive. To do so, we need to test the following hypotheses:

Ho: MPG = 0, means that government expenditures are not productive,

H1: MPG > 0, means that government expenditures are productive.

In addition, an empirical estimation of the parameters in Equation (2) allows testing the hypothesis of whether the government size is optimal. That is, Barro's rule says that the size of government (G/Y) is optimal if MPG = 1. This means that if a \$1 increase in government expenditures increases output by the same amount (a \$1), then the government expenditures are optimal. But, if the output increases by more than a \$1, the government spending is underprovided. While, if the output increase by less than a \$1, then the government spending is said to be overprovided. In other words, we need to test the following hypotheses, using Equation (2):

Ho: MPG = 1, means that government spending is optimal,

H1: MPG < 1, means that government spending is overprovided; or

H1: MPG > 1, means that government spending is underprovided.

In order to estimate the optimal government size, we need to introduce the following modifications:By definition,

$$MP_G = \gamma / s \tag{3}$$

Where  $\tilde{a} = (\partial F/\partial G)(G/Y)$  is the output elasticity of G, and s = (G/Y) is the size of government expenditures relative to real GDP.

Then differentiate Equation (1) again with respect to time and divide by Y, and write it by substituting the above expressions given in Equation (3), as follows:

$$(\Delta Y/Y) = \alpha(\Delta L/L) + MP_{\kappa}(\Delta K/Y) + \gamma(\Delta g/g)$$
(4)

where á, MPK, and ã are the parameters to be estimated.

#### **DATA**

The data used in this study come from four different sources: 1) the International Financial Statistics Yearbook 1997 published by the IMF; 2) the Department of Statistics (Jordan)- various issues; 3) the Central Bank of Jordan--various issues; and 4) The World Development Report. The data are available on real GDP, Gross Capital Formation (K), Employment (Labor force as proxy for L), and Government consumption (G) for the period 1975-1996.

## **EMPIRICAL RESULTS**

Table 2 shows the estimation results of Equation (2). The estimation of this equation helps in testing the hypothesis of whether the government services are productive. The estimated coefficients are positive. However, only the marginal product of government services is significant (P-value <0.05). The estimated value of the output elasticity of labor (á) is (0.00036 and insignificant), while the marginal product of capital (MPK) is (0.1146) (with a P-value <0.06). The estimated value of the marginal product of government services (MPG) is (0.63) which is positive and also significant. Thus we conclude that the government services are productive, i.e., the government consumption contributes to the production.

Table 2 The Marginal Product of Government Services in Jordan For The Period 1975 - 1996						
	á		$MP_K$	$MP_G$	$\mathbb{R}^2$	R <sup>2</sup> -adj.
	0.00036		0.1146	0.6349	0.6819	0.6289
	(0.0002	9)	(0.0576)	(0.2791)		
T-Stat.	1.22		1.99	2.27		
P-value	0.24		0.06	0.03		
No. of Observations: 22						

Notes: The dependent variable is real output growth.

The estimated standard errors are in parentheses.

The equation includes a constant but its value is not reported here.

Table 3 shows the estimation of Equation (4). The estimated coefficients are all positive. However, only the output elasticity of government services ( $\tilde{a}$ ) is significant (P-value < 0.002). Using the estimated value of the output elasticity of government services ( $\tilde{a}$ ), we can test whether the government size is optimal or not. The regression results in Table (3) show that the optimal government size is 10.4 percent (with  $\pm 3$  percent). Thus we can conclude that the government services have been overprovided in Jordan (MPG =0.54 <1).

Table 3 The Optimal Government Size in Jordan For The Period 1975 - 1996					
	á	$MP_K$	ã	$\mathbb{R}^2$	R²-adj.
	0.00037	0.046	0.104	0.76	0.72
	(0.00025)	(0.053)	(0.029)		
T-Stat.	1.45	1.21	3.61		
P-value	0.16	0.24	0.002		
			•	•	

No. of Observations:

22

Notes: The dependent variable is real output growth.

The estimated standard errors are in parentheses.

The equation includes a constant but its value is not reported here.

## **SUMMARY AND CONCLUSION**

Based on annual data for Jordan for the period 1975-1996, the regression results show that the government services are productive. According to "Barro Rule" the government services are optimally provided when their marginal product is equal to one. The results suggested that the government services are overprovided, and the optimal government size is estimated, on average, at 10.4 percent (with  $\pm 3$  percent). The results may be affected if we had a large data set and it may be useful to disaggregate the government spending into both investment and consumption spending and see how this will affect the economy.

## **ENDNOTES**

The author wishes to thank Dr. Gail Blattenburger for helpful comments and suggestions. Karras estimated the average government size for Jordan for the period 1960-1985 to be 21.16 percent.

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## THE LONG RUN RELATIONSHIP BETWEEN GOVERNMENT EXPENDUTRES AND ECONOMIC GROWTH CASE OF JORDAN

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#### **ABSTRACT**

Using data from the Jordanian economy, the paper conducts a causality test of the Wagner's Law which states that there is a relationship between the growth in government expenditures and the economic growth. The findings of the study show that the growth in the economy Granger causes the growth in the government sector. Thus, the Wagner's Law applies to the case of Jordan. Using co-integration technique and the VAR model, the study suggests that there is a uni-directional relationship between the economic growth and the growth in the government expenditures.

## INTRODUCTION

The size of the government expenditures in Jordan has increased since 1969. With respect to the government services, its contribution to the GDP in the years 1969, 1980, and 1990 was 27.2 percent, 28.5 percent, and 30.9 percent, respectively (Penn Tables). The purpose of this paper is to examine the relationship between the government size and the economic development in the case of Jordan. This goal will be achieved using the methodology suggested by Wagner (1893), and Islam and Nazemzadeh (2001). This analysis will be in the framework of "Wagner's Law" that suggested that there is correlation between the relative size of government sector and the economic development in the country. That is, there is a tendency for the government sector to grow as the national income grows. So this paper will test empirically whether or not a causal relationship exists between the size of the government sector and the growth of the economy.

Review of the literature shows mixed support of "Wagner's Law" which suggests that there is a relationship between the relative size of the government and the economic growth. Conte and Darrat (1988) conducted an empirical study on the OECD countries for the period 1960-1984 to test whether there is Granger causality relationship between the growth in the public sector and economic growth in these countries. Their findings showed that the growth in the government sector had mixed impact on the rate of economic growth, and that in most of the OECD countries had no clear effect on the growth rate in their real income. Other study on the Canadian economy for the period 1947-1986, Afxentious and Serletis (1991) have empirically tested the Granger-Sims causality relationship between government expenditure and gross domestic product. Their findings indicated that neither Wagner's hypothesis, which runs from GDP to government spending, nor the reverse causality, which runs from the government spending to GDP, is statistically supported. In addition, Yousefi and Abizadeh (1992) tested Wagner's Law using data over the period 1950-1985 for each of the randomly selected 30 states of the U.S. economy. The empirical findings of their study indicated that Wagner's Law is valid for 70 percent of the cases considered in the study, i.e., in 21 out of the 30 states selected randomly. In another study, Abizadeh and Yousefi (1998) have empirically tested the Wagner's Law on the South Korean economy and they concluded that government expenditures have not contributed to economic growth in the case of South Korea. An empirical study on the U.S. economy by Islam and Nazemzadeh (2001) shows that a long run relationship exists between the relative size of the government and the economic development. It

also shows that there is a uni-directional causal relationship between the relative size of the government and the economic development and that relationship goes from economic development to the relative size of the government.

The paper will be organized as follows. Section 2 presents the data used in the study. Methodology will be discussed in section 3, while the empirical results will be discussed in section 4. Finally, summary and conclusion will be presented in section 5.

## **DATA**

Data used in the study were extracted from various sources. These include the Central Bank of Jordan, Jordan Department of Statistics, and the international financial statistics. The study covers the case of Jordan over the period of 1969-1999. This study uses the relative size of government expenditures (GSIZE) and the real GDP (RGDP) to examine the causal relation between them. Note that LGSIZE and LRGDP are used as proxy for "ln GSIZE" and "ln RGDP", respectively.

## METHODOLGY1

## Unit Roots And Co-integration Tests For Long-Run Equilibrium

The two variables xt and yt are said to be cointegrated if (1) the two are nonstationary and integrated of the same order (that is, the same order of differencing is required to produce stationarity); (2) there exists a long-run equilibrium relationship; and (3) the error term is stationary. The application of the cointegration technique thus presupposes the nonstationarity of variables under consideration. Therefore, this study first tests for unit root in spot and forward premium rates for all countries under study before it tests for cointegration.

The unit root tests, developed by Fuller, 1976, Dickey & Fuller, 1979 & 1981, Said & Dickey, 1984, and later refined by Phillips & Perron, 1988, examine whether a time series is stationary by taking into account the heteroscedasticity in the time-series data. If the unit root hypothesis is rejected, it means that a time series is stationary. If the unit root hypothesis is not rejected, the series is non-stationary. Testing for the presence of one unit root can be made by the following model (Fuller 1976 and Dickey and Fuller 1979, 1981):

$$Yt = \beta 2yt-1 + et$$
  $t = 1, 2, ..., T$  (1)  
 $Yt = \beta 0 + \beta 2yt-1 + et$   $t = 1, 2, ..., T$  (2)  
 $Yt = \beta 0 + \beta 1t + \beta 2yt-1 + et$   $t = 1, 2, ..., T$  (3)

where Yt is the variable being tested for unit roots,  $\beta 1$  or  $\beta 2$  are the regression coefficients, and et is the random error term which is normally distributed with a mean of zero and variance  $\sigma 2$ . The t-test statistic for the null hypothesis

H0: 
$$\beta = 1$$
 is  $(\beta-1)/s(\hat{\beta})$ 

where  $s(\beta)$  is the standard error of the regression coefficient  $\beta$ . The Zt statistics is modification of the Dickey-Fuller t-statistics suggested by Phillips & Perron, 1988 which allows for autocorrelation and conditional heteroscedasticity in the error term of the Dickey-Fuller regression. The Z $\alpha$  statistics, also suggested by Phillips & Perron, 1988, is a similar modification of the test statistics N( $\beta$ -1), where N is the number of observations. Fuller, 1976 tabulates the critical values of the sample distribution of the regression using the Monte Carlo experiments. Then, the critical values are compared with the calculated values to test the null hypothesis. If the null hypothesis fails to be rejected, this conclusion implies the presence of a unit root in the time series, rendering it nonstationary (random walk). If the null hypothesis of a unit root in government spending and real GDP is not rejected, this result implies that the consecutive changes in government spending and

real GDP over the period are random. On the other hand, to examine the long-run relationship between government spending and real GDP the cointegration test will be applied.

The cointegration technique, pioneered by Granger, 1983 and Engle & Granger, 1987, offers an alternative in time-domain time series analysis. The cointegration analysis is a convenient tool to examine the presence of an equilibrium relationship between two sequences of random variables consistent with short-run dynamics. In this approach, the existence of a long-run relationship between two nonstationary processes is tested by examining the stability of deviations from the relationship. This process uses coefficients estimated by fitting static regressions.

It is frequently of interest to test whether the set of variables is cointegrated. This test may be desired because of the economic implications as to whether or not a system being tested is in equilibrium in the long-run. Testing for cointegration combines the problems of unit root tests and tests with parameters unidentified under the null hypothesis.

In a bivariate case, if two variables are integrated in the same order, they may be cointegrated, i.e., there may exist a long-run equilibrium relationship between them. This relationship is true if, and only if, there exists a stationary vector zt which is a linear combination of the two series xt and yt.

A variable z is said to be integrated of order  $d[z\sim I(d)]$  if it has a stationary, invertable, non-deterministic autoregressive moving average (ARMA) representation after differencing d times. Two variables x and y, where both are I(1) processes can be considered. Following Granger (1986), if there exists some constant a, such that

$$Zt = xt - ayt$$

if I(0), then x and y are said to be cointegrated of order zero, where a is the cointegration parameter.

Number of tests have been proposed in the literature to determine if x and y are cointegrated (a useful summary is given in Granger, 1986). The present study concentrates on two tests: the augmented Dickey-Fuller (ADF) and Phillips and Perron test of residuals from the cointegrating regression. The cointegrating regression for the present model has the following form:

$$xt = \alpha + \beta yt + \varepsilon t$$
 (4)

Stock, 1984 has demonstrated that when xt and yt are cointegrated, OLS estimates of  $\beta$  are consistent and highly efficient.

Given OLS estimates of the residual series £t, tests of cointegration proceed by setting the null hypothesis that xt and yt are not cointegrated.

H0: xt, yt not cointegrated

The test of H0 is enforced by constructing DF and ADF statistics. These tests are computed by first running the following regression (Granger & Engle, 1987 stated that the procedure can also be used to determine the order of integration of a raw data series, although the critical values differ):

$$\Delta \varepsilon_{t} = \alpha + \beta_{0} \varepsilon_{t-1} + \sum_{j=1}^{\rho} \beta_{j} \Delta \varepsilon_{t-1} + g_{t}$$
(5)

The test statistics are computed as the ratio of  $\beta 0$  to its estimated standard error. The order of  $\rho$  is set to ensure that the estimated residual series, gt, are white noise. If  $\rho = 0$ , the estimated t ratio is known as the DF statistics; for  $\rho > 0$ , the t ratio is known as the ADF statistics.

## **EMPIRICAL RESULTS**

## **Unit Root and Cointegration Results**

Table 3 reports the unit root results using both the ADF and PP tests. The ADF and PP test reveals that the null hypothesis of unit root is accepted for GSIZE and RGDP variables because the

calculated values are less than the corresponding McKinnon (1991) critical values for the levels of the variables. For the first difference of the variables, the calculated values exceed the critical values, thus rejecting the null of unit roots for the first differenced series.

Table 3 also indicates that the null hypothesis cannot be rejected; the levels of GSIZE and RGDP contain stochastic trends. Thus, it is entirely possible that the inference using the t-distribution, which indicates that the RGDP have significant forecasting ability for GSIZE, could be highly misleading. The findings that unit roots in GSIZE and RGDP cannot be rejected indicate that the usual methodology of regressing the level of GSIZE on the RGDP is not able to provide evidence that the RGDP has any ability to forecast future GSIZE. Thus, this paper looks at another methodology, such as co-integration, to examine the relationship between RGDP and GSIZE.

Given that the GSIZE and RGDP are all I(1) processes, one can then proceed to test for cointegration. The present study concentrates on two tests: ADF and PP tests of residuals from the cointegration regression. The ADF and PP tests on the residual from the long-run equation are presented in Table 4. The results from both tests suggest that the residual series is stationary. This is because the null of unit root is rejected at the 1% Mckinnon critical value. Based on this result, it is concluded that the LGSIZE and LRGDP variables are co-integrated.

The conclusion from Tables 3 and 4 is that the hypothesis of no co-integration between LGSIZE and LRGDP could be rejected in the case of Jordan on the basis of the Augmented Dickey-Fuller test results. These results mean LGSIZE and LRGDP have ability to predict each other.

## **SUMMARY AND CONCLUSION**

This paper investigates the applicability of Wagner's Law in the Jordanian economy. Using co-integration technique and the VAR model, the study suggests that there is a uni-directional relationship between the economic growth and the growth in the government expenditures. Thus, the findings of this study support the hypothesis of the Wagner's Law which states that the growth in the economy causes the growth in the government expenditures.

The results of the VAR model shows that, in the short run, economic growth explains the movements in the government expenditures. Furthermore, the findings of the time path analysis conclude that after a transitory period of a positive shock to real GDP, the impulse function in the Jordanian economy would later become a large positive and permanent in the long run. This positive long run effect of real GDP on the government expenditures support the uni-directional causality between the two variables in the short-run as well as in the long run.

The unit root results indicate that the government expenditures and economic growth are non-stationary in their levels but stationary in the first difference. On the other hand, findings of the co-integration analysis show that government expenditures and economic growth are co-integrated. Thus, these results support the Wagner's hypothesis as a long-run equilibrium.

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Table 1 F-statistics for tests in which all lags of designated variables have zero coefficients				
Variable				
Equation	LGSIZE <sub>t-4</sub>	LGDP <sub>t-4</sub>		
LGSIZE	6.54 <sup>a</sup>	3.34 <sup>b</sup>		
<u>LGDP</u>	<u>1.54</u>	7.54 <sup>a</sup>		
<sup>a, b</sup> indicate F statistics is significant at 1% and 5%, respectively.				

Table 2 Percentage of 24-Month Forecast Error Variance Explained by Innovations in Each Variable Based on Two-Variable Innovation Accounting Using LLGSIZE and LGDP.				
	By Innovations in Variables			
Explained	LGSIZE	LGDP		
	(%)	(%)		
LGSIZE	75.94	24.04		
LGDP	5.05	95.95		

Table 3. Unit Root tests for LGSIZE and GDP					
Variable	ADF	PP	Accept/Reject H <sub>0</sub>		
LGSIZE	-2.15	-1.60	Accept		
RGDP	-0.57	-0.33	Accept		

## **ENDNOTE**

1 The methodology and results of the VAR model are not reported in this version due to space limitations.

# CURRENT AND FUTURE STATUS OF INFORMATION SYSTEMS (IS) CURRICULUMS AND PROGRAMMING LANGUAGES: INSTRUCTORS PERSPECTIVES

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## **ABSTRACT**

Will the future workplace utilize older tools and methods of processing? Will universities make the appropriate decisions regarding the proper training of future IS employees? Should traditional methods be eliminated from the university curriculum or should they be retained? Is Cobol dead or is there still a need to provide training for this language? These and many other questions related to programming languages in IS curriculum represent challenges that are facing IS curriculum development and delivery. This paper is an attempt to explore and analyze the current and the future status of IS curriculum and programming languages from instructors perspectives. Survey questionnaires were randomly distributed to faculty members in IS programs in the United State Universities. The results of this study showed that general trends represented the most important factor that affects the status of the programming languages in IS curriculums. This was true for both graduate and undergraduate IS programs regardless of whether the programs were adequately staffed. Java ranked as the most important current and future language in IS curriculums, followed by C++. Approximately, thirty percent of those surveyed indicated that Cobol had been eliminated from IS programs, while more than one third of the respondents indicated that Cobol was still required.

# THE MONETARY APPROACH TO BALANCE OF PAYMENTS: A REVIEW OF THE SEMINAL SHORT-RUN EMPIRICAL RESEARCH

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## **ABSTRACT**

This paper provides a review of the seminal short-run empirical research on the monetary approach to the balance of payments with a comprehensive reference guide to the literature. The paper reviews the three major alternative theories of balance of payments adjustments. These theories are the elasticities and absorption approaches (associated with Keynesian theory), and the monetary approach. In the elasticities and absorption approaches the focus of attention is on the trade balance with unemployed resources. In the monetary approach, on the other hand, the focus of attention is on the balance of payments (or the money account) with full employment. The monetary approach emphasizes the role of the demand for and supply of money in the economy. The paper focuses on the monetary approach to balance of payments and reviews the seminal short-run empirical work on the monetary approach to balance of payments. Throughout, the paper provides a comprehensive set of references corresponding to each point discussed. Together, these references exhaust the existing short-run research on the monetary approach to balance of payments.

## INTRODUCTION

This paper provides a review of the seminal short-run empirical research on the monetary approach to the balance of payments with a comprehensive reference guide to the literature. The paper reviews the three major alternative theories of balance of payments adjustments. These theories are the elasticities and absorption approaches (associated with Keynesian theory), and the monetary approach. In the elasticities and absorption approaches the focus of attention is on the trade balance with unemployed resources. The elasticities approach emphasizes the role of the relative prices (or exchange rate) in balance of payments adjustments by considering imports and exports as being dependent on relative prices (through the exchange rate). The absorption approach emphasizes the role of income (or expenditure) in balance of payments adjustments by considering the change in expenditure relative to income resulting from a change in exports and/or imports. In the monetary approach, on the other hand, the focus of attention is on the balance of payments (or the money account) with full employment. The monetary approach emphasizes the role of the demand for and supply of money in the economy. The paper focuses on the monetary approach to balance of payments and reviews the seminal short-run empirical work on the monetary approach to balance of payments. Throughout, the paper provides a comprehensive set of references corresponding to each point discussed. Together, these references exhaust the existing short-run research on the monetary approach to balance of payments.

## DIFFERENT APPROACHES TO THE BALANCE OF PAYMENT ANALYSIS

Three alternative theories of balance of payments adjustment are reviewed in this chapter. They are commonly known as the elasticities, absorption, and monetary approaches.

## The Elasticities Approach:

The elasticities approach applies the Marshallian analysis of elasticities of supply and demand for individual commodities to the analysis of exports and imports as a whole. It is spelled out by Joan Robinson (1950).

Robinson was mainly concerned with the conditions under which devaluation of a currency would lead to an improvement in the balance of trade. Suppose the trade balance equation is written as:

X = value of exports
IM = value of imports
BT = balance of trade
BT = X - IM (1)

In this context, it is generally assumed that exports depend on the price of exports, and imports depend on the price of imports. These relations are then translated into elasticities, by differentiating the above equation with respect to the exchange rate. A criterion for a change of the balance of trade in the desired direction can be established, assuming that export and import prices adjust to equate the demand for and supply of exports and imports.

The effect of a devaluation on the trade balance depends on four elasticities: the foreign elasticity of demand for exports, and the home elasticity of supply, the foreign elasticity of supply of imports, and the home elasticity of demand for imports. For the special case where it is assumed that the trade balance is initially zero and that the two supply schedules are infinitely elastic, the elasticities condition for the impact of a devaluation to be an improvement in the trade balance, is that the sum of the demand elasticities exceed unity. This has been termed the "Marshall-Lerner condition."

This special case and the assumptions behind it should be viewed against the background of the time they were developed, the great depression of the 1930s. The theory adopted Keynesian assumptions of wage and price rigidity and mass unemployment and used these to extend the Keynesian analysis to the international sphere.

Under Keynesian assumptions of sticky wages and prices, devaluation changes the prices of domestic goods relative to foreign goods, i.e., a change in the terms of trade, in foreign and domestic markets, and causes alterations in production and consumption. This in turn has an impact on the balance of trade.

It is important to note the following two characteristics of the special case of elasticities approach: (i) Any impact of the devaluation on the demand for domestic output is assumed to be met by variations in output and employment rather than relative prices, with the repercussions of variations in output on the balance of payments regarded as secondary. This is made possible by the assumption that supply elasticities are infinite. The assumption of output and employment being variable proved highly unsatisfactory in the immediate postwar period of full and over-full employment. (ii) The connections between the balance of payments and the money supply, and between the money supply and the aggregate demand, are ignored. This is made possible by the assumed existence of unemployed resources, as well as by the Keynesian skepticism regarding the influence of money.

A notable shortcoming of the elasticities analysis is its neglect of capital flows. Even though the adherents of the elasticities approach were attempting to guide the policy-maker in improving the country's balance of payments, their focus, nevertheless, was on the balance of trade (net exports of goods and services). For the special case mentioned above, this is traceable to the emphasis in Keynesian analysis given to aggregate demand (of which net exports are a component).

Before we close this section, one important point has to be mentioned. In the literature, the elasticities approach is often mistakenly referred to as being a partial equilibrium analysis. This type

of argument is based on the fact that in the special case elasticities of supplies of export and imports are assumed to be infinite, the effect of changes in the quantity of goods and services exported and imported are independent of, or are not sensitive to, the happenings elsewhere in the economy; e.g., the change in income which results from the change in exports does not have an effect on imports. The important point to note is that, whereas the special case of infinitely elastic supplies of exports is a partial equilibrium analysis, the general case is not. In general, the elasticities approach considers the usual demand and supplies for imports and exports where they are obtained on the basis of the production possibilities curve of domestic economies, like any usual general equilibrium analysis, everything depends on the happenings elsewhere in the economy, i.e., general equilibrium analysis.

## The Absorption Approach:

The absorption approach was first presented by Alexander (1952). He sought to look at the balance of trade from the point of view of national income accounting:

Y = domestic production of goods and services

E = domestic absorption of goods and services, or domestic total expenditure

BT = balance of trade<math>BT = Y - E (2)

The above identity is useful in pointing out that an improvement in the balance of trade calls for an increase in production relative to absorption.

When unemployed resources exist, the following mechanism is visualized: the effect of a devaluation is to increase exports and decrease imports. This in turn causes an increase in production (income) through the multiplier mechanism. If total expenditure rises by a smaller amount, there will be an improvement in the balance of trade. Thus, the balance is set to be identical with the real hoarding of the economy, which is the difference between total production and total absorption of goods and services, and therefore equal to the accumulation of securities and/or money balances. In the presence of unemployment, therefore, devaluation not only aids the balance of payments, but also helps the economy move towards full employment and is, therefore, doubly attractive.

Suppose, however, that the country is at full employment to begin with. It cannot hope to improve its trade balance by increasing real income. Here, it has to depend on its ability to reduce absorption. How can a devaluation achieve this? Alexander argued that the rise in the price level consequent upon the devaluation would tend to discourage consumption and investment expenditures out of a given level of income. One way this will happen is through the "real balance effect" – a reference to the public's curtailment of expenditure in order to rebuild their stock of real cash balances that was diminished by the increase in the price level.

However, under conditions of full employment, a devaluation cannot be expected to produce, by itself, the desired extent of change in the overall balance. The reduction in the public's expenditure in order to build their money balances will have to be supplemented by domestic deflationary policies, the so-called "expenditure-switching" and "expenditure-reducing" policies. This, of course, is because the balance of trade cannot be improved through a rise in the output level.

The absorption approach can be said to work only in the presence of unemployed resources. The absorption approach is a significant improvement over the special case of the elasticities approach in one important sense, this is its view of the external balance via national income accounting. In this manner, the approach relates the balance to the happenings elsewhere in the economy rather than taking the partial equilibrium view of the special case of the elasticities approach in analyzing the external sector in isolation.

## The Monetary Approach:

The "monetary approach" is so called because it considers disequilibrium in the balance of payments to be essentially, though not exclusively, a monetary phenomenon. To say that something is essentially a monetary phenomenon means that money plays a vital role, but does not imply that only money plays a role. The monetary approach takes explicit account of the influence of real variables such as levels of income and interest rates on the behavior of the balance of payments.

The elasticities and absorption approaches are concerned with the balance of trade while the monetary approach concerns itself with the deficit on monetary account. In principle, this balance consists of the items that affect the domestic monetary base.

In general, the approach assumes full employment and emphasizes the budget constraint imposed on the country's international spending. It views the current and capital accounts of the balance of payments as the "windows" to the outside world, through which an excess of domestic stock demand for money over domestic stock supply of money, or of excess domestic stock supply of money over domestic stock demand for money, are cleared. Accordingly, surpluses in the trade account and the capital account, respectively, represent excess flow supplies of goods and of securities, and as excess domestic demand for money. Consequently, in analyzing the money account, or more familiarly, the rate of increase or decrease in the country's international reserves, the monetary approach focuses on the determinants of the excess stock demand for, or supply of, money.

This theory divides the country's monetary base into foreign assets and domestic assets of the monetary authorities. An increase in foreign assets of the central bank is achieved when the central bank purchases foreign exchange or gold. Under pegged exchange rates, the central bank buys foreign exchange in order to prevent the national currency from appreciating in the foreign exchange market. The central bank's purchase of foreign assets increases its domestic monetary liabilities by the same amount.

An increase in domestic assets of the central bank is achieved when the central bank purchases bonds from the fiscal branch of the government (the treasury), or from the public. The central bank's purchases of domestic assets (e.g., bonds) increases its domestic monetary liabilities, i.e., the monetary base, by the same amount. The excess supply of money has to be matched by an equivalent excess demand for goods and/or securities. This is because the budget constraint deems that the public's flow demand for goods, securities, and money – assuming that these three encompass all that the public demands – should add up to the public's total income. Therefore, with an unchanged level of income, an excess supply of money has to be matched by an equivalent excess demand for goods and/or securities. Viewing the economy as a whole, what does the excess demand for goods and securities imply? In a closed economy, an excess demand for goods would lead to an increase in the domestic price level and a consequent fall in the real money balances the public holds. An excess demand for securities would increase their price (decrease the interest rate), increasing desired money balances. Price and interest rate changes eventually cause the existing nominal money supply to be willingly held by the public. However, in a small open economy with fixed exchange rates, the domestic price level has to maintain at parity with the price level in the rest of the world, and the domestic price of securities (and therefore the interest rate) is determined by the price of securities (and therefore the interest rate) in the world as a whole. So, in the absence of sales of domestic assets by the central bank, the desired level or real money balances is achieved by importing goods and/or securities from abroad. This creates a deficit in the money account, resulting in a fall in foreign assets of the central bank and, therefore, in the money supply.

The monetary approach is seen to have an appreciation of the inter-related nature of the various markets. The monetary approach insists that "when one market is eliminated from a general equilibrium model by Walras' law, the behavioral specifications for the included markets must not be such as to imply a specification for the excluded market that would appear unreasonable if it were made explicit." The monetary approach focuses on stock and flow equilibrium, with emphasis on

stock equilibrium for money. In this way it considers inter-relationships among various markets and, therefore, the inter-relationship between stock and flow equilibrium. The stock-flow consideration of the monetary approach is in fact the essential difference between the monetary approach and the elesticities and absorption approaches, where the latter two consider the flow equilibrium only.

The monetary approach, like the absorption approach, stresses the need for reducing domestic expenditure relative to income, in order to eliminate a deficit in the balance of payments. However, whereas the absorption approach looks at the relationship between real output and expenditure on goods, the monetary approach concentrates on deficient or excess nominal demand for goods and securities, and the resulting accumulation or decumulation of money.

The monetary approach looks at the balance of payments as the change in the monetary base less the change in the domestic component:

H = change in the quantity of money demanded

D = domestic credit creation

BP = DH - DD (3)

where the "italic D," i.e., D, appearing in front of a variable designates the "change" in that variable. That is, D is the first difference operator: DX = X(t) - X(t-1).

Putting just monetary assets rather than all assets "below the line" contributes to the simplicity of the monetary approach. Other things being equal, growth in demand for money, and of factors that affect it positively should lead to a surplus in the balance of payments. Growth in domestic money, other things being equal, should worsen it. Thus, the growth of real output in a country with constant interest rates causes its residents to demand a growing stock of real and nominal cash balances. This means that the country will run a surplus in the balance of payments. In order to avoid a payments surplus, the increase in money must be satisfied through domestic open market operations. To produce a deficit, domestic money stock must grow faster than the growth of real income.

This analysis suggests that if a country is running a deficit, then assuming that the economy is growing at its full-employment growth rate with a given rate of technological progress, it should curtail its rate of domestic monetary expansion. Use of other measures like the imposition of tariffs, devaluation or deflation of aggregate demand by fiscal policy can succeed only in the short run.

The decision on which variables are exogenous and which are endogenous is made in the following manner: real income is assumed exogenous in the long run. Also, in the long run, prices and interest rates are exogenous for small countries. Thus, the quantity of money demanded is exogenous. The monetary approach assumes that the domestic assets component of the monetary base is unaffected by balance of payments flows. This (the domestic assets) is the variable which the monetary authorities control, and, thereby, indirectly control the balance of payments.

Under fixed exchange rates, a small country controls neither its price level nor quantity of domestic money in anything but the short run. Its money supply is endogenous, and what it controls by open market operations is simply the international component of the monetary base. In a system of flexible exchange rates, the focus of analysis shifts from determination of the balance of payments to the determination of the exchange rate.

## ALTERNATIVE APPROACHES UTILIZED IN THE CASE METHOD: THEIR PHILOSOPHICAL FOUNDATIONS

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## **ABSTRACT**

The purpose of this paper is to provide an ordering of the philosophical foundations of the alternative approaches utilized in the case method and the types of cases used. The paper is based on the premise that foundational philosophies or worldviews underlie educational philosophies, and that educational philosophies favor certain instructional methodologies. It, therefore, starts with the discussion of how any foundational philosophy or worldview can be positioned on a continuum formed by four basic worldviews or paradigms: functionalist, interpretive, radical humanist, and radical structuralist. Then, it discusses the major educational philosophies and their correspondence to these paradigms, namely: realism; idealism and pragmatism; reconstructionism; and Marxism. It notes that each educational philosophy favors a certain instructional methodology and when any instructional methods are utilized, they are used within the bounds of the same educational philosophy. Specifically, the paper shows how different educational philosophies imply alternative approaches to the utilization of the case method and the types of cases used.

## INTRODUCTION

Professional bodies, accounting educators, and practitioner groups have internationally focused much attention on the need for significant changes in the delivery of accounting education. One of their common recommendations is the need to use more case-based teaching in the curriculum.

In response, accounting education has reflected, among others, on several different areas relevant to the case method of teaching and learning. However, to the best of the author's knowledge, there does not exist any work in accounting education which is directly related to the philosophy of the case method of teaching and learning. This paper takes a first step towards filling this void.

The purpose of this paper is to provide an ordering of the philosophical foundations of the alternative approaches utilized in the case method and the types of cases used. The paper is based on the idea that foundational philosophies or worldviews underlie educational philosophies, and that educational philosophies favor certain instructional methodologies.

The paper discusses the major educational philosophies and their correspondence to the paradigms, namely: realism, idealism and pragmatism, reconstructionism, and Marxism. It notes that each educational philosophy favors a certain instructional methodology and it emphasizes that each educational philosophy favors a certain instructional methodology and when any instructional methods are utilized, they are used within the bounds of the same educational philosophy. Specifically, it shows how different educational philosophies imply alternative approaches to the utilization of the case method and the types of cases used.

## **EDUCATIONAL PHILOSOPHIES**

Any educational philosophy is the application of a foundational philosophy to educational problems. The practice of education, in turn, leads to the refinement of philosophical ideas. The

philosophy of education becomes important when educators recognize the need for thinking clearly about what they are doing and to see what they are doing in the larger context of society. Educational philosophy is not only a basis for generating educational ideas, but also a basis for how to provide the desired instruction, i.e., instructional methodology.

## **Realism and Education**

Realists strongly promote the study of science and the scientific method. They believe that knowledge of the world is needed for humankind's proper use of it for his or her survival. The idea of survival has important implications for education. It places self-preservation as the primary aim of education.

Realists maintain that knowing the world requires an understanding of facts and classifying knowledge obtained about them. Schools should teach essential facts about the universe and the method of arriving at facts. Realists place enormous emphasis upon critical reason based on observation and experimentation.

Realists emphasize the practical side of education. Their concept of "practical" includes education for moral and character development, where moral education is founded on knowledge itself. Realists' essentials and the practicalities of education lead themselves further. They proceed from matter to idea, from imperfection to perfection, and all to the good life.

Realists promote the education which is primarily technical and leads to specialization. The idea of specialization is the natural outcome of the efforts to refine and establish definitive scientific knowledge. The expansion of our knowledge can be accomplished by many people, each one working on a small component of knowledge.

Realists support the lecture method and other formalized methods of teaching. They maintain that such objectives as self-realization can best occur when the learner is knowledgeable about the external world. Consequently, the learner must be exposed to the facts, and the lecture method can be an efficient, organized, and orderly way to accomplish this. Realists insist that any method used should be characterized by the integrity which comes from systematic, organized, and dependable knowledge.

Realists consider the role of the teacher in the educational process to be of primary importance. The teacher presents material in a way which is systematic and organized. He or she promotes the idea that there are clearly defined criteria making judgement about art, economics, politics, and education. For example, in education there are certain objective criteria to judge whether particular educational activities are worthwhile, such as type of material presented, how it is organized, whether or not it suits the psychological make-up of the learner, whether the delivery system is suitable, and whether it achieves the desired results.

Realism results in practices with five formal steps of learning: preparation, presentation, association, systematization-generalization, and application. This is due to the realists' desire for precision and order. These desires are found in such school practices as ringing bells, set time periods for study, departmentalization, daily lesson plans, course scheduling, increasing specialization in curriculum, pre-packaged curriculum materials, and line-staff forms of administrative organization.

## **Idealism and Education**

Idealists believe that truth cannot be found in the world of matter because it is an everchanging world. Truth can be attained in the world of ideas, which are of substantial value and endurance, if not perfect and eternal.

Idealists believe that the aim of education should be the search for wisdom and true ideas. This leads to the development of mind and requires character development, as the search for truth demands personal discipline and steadfast character.

The concept of "self" lies at the center of idealistic metaphysics and, therefore, at the center of idealistic education. Self is the prime reality of individual experience and, hence, education becomes primarily concerned with self-realization. Idealists view self in the context of society and the totality of existence.

Idealists believe that human development and education stand in a dialectical relationship with respect to each other. Education is the process of a learner growing into the likeness of a universe of mind, i.e., an infinite ideal. Idealists view the student as one who has enormous potential for both moral and cognitive growth. The teacher guides the immature learner toward the infinite. To guide the student, the teacher should possess the necessary knowledge and personal qualities. Idealists favor a more philosophically-oriented teacher.

Idealists favor holistic curriculums. Idealists stress that a proper education includes study of classical writings, art, and science. The aim is to teach students to think and to demonstrate creative and critical thinking. Idealists believe that much of the great literature of the past is relevant to contemporary problems since many of these problems have been debated extensively by great philosophers and thinkers.

Idealists believe that the best method of learning is dialectic. The dialectic is a process in which ideas are put into battle against each other with the more substantial ideas enduring in the discussion. Essentially, it is a matter of disputation and only if ideas emerge victorious there is some reason for believing in them. It is a way of looking at both sides of the question and allowing the truth to emerge. Through this critical method of thinking, individuals can develop their ideas in ways that achieve syntheses and develop universal concepts. Idealists have a high regard for the inner powers of human beings, such as intuition. They believe that dialectic is the proper tool for stimulating intuition.

Idealists favor discussion-oriented learning methodologies. They might use the lecture method, but it is viewed more as a means of stimulating thought than merely passing on information. Idealists also utilize other methods like projects, supplemental activities, library research, and artwork.

## **Pragmatism and Education**

Pragmatism seeks out the processes which work best to achieve desirable ends. Pragmatism examines traditional ways of thinking and doing to reconstruct approaches to life more in line with contemporary conditions.

Pragmatists stress that educational aims grow out of existing conditions. They are tentative and flexible, at least in the beginning. People - parents, students, and citizens - are the ones who have educational aims, and not the process of education.

Pragmatists point out that the philosophy of education is the formation of proper mental and moral attitudes to be used in tackling contemporary problems. When social life changes, the educational program must be reconstructed to meet the change.

For pragmatists, the process of education is fulfilled only when the student really understands why he or she does things. School fosters habits of thought, invention, and initiative which assist the individual in growing in the desired direction. School is a place where the other environments which the student encounters - the family environment, the religious environment, the work environment, and others - are combined into a meaningful whole.

Pragmatists do not view education as preparation for life, but as life itself. The lives of learners are important to them. Thus, educators should be aware of the background, interests, and motivations of the learners. Pragmatists believe that educators should also look at learners in terms of their cognitive, physical, emotional, and all their other factors. Pragmatists maintain that individuals should be educated as social beings, capable of participating in and directing their social affairs.

Pragmatists champion a diversified and integrated curriculum. It is composed of both process and content, but it is not fixed or an end in itself. Pragmatists recommend developing a "core" approach to curriculum. Learners can select an area of concentration or "core" for a period of study such that all other subject areas revolve around it. Learners are capable of knowing the general operating principles of nature and social conditions, which serve as general guides for participation.

Pragmatists adhere to action-oriented education. They suggest an activity-oriented core approach. School can arrange for students to reconstruct past events and life situations in order to better appreciate the difficulties involved in a given actual situation. Learners become involved with the fundamentals of knowledge in a practical and applied way so that the usefulness of knowledge becomes more apparent to them. This approach demonstrates the relationship of various disciplines, shows the wholeness of knowledge, and helps learners to utilize it in novel and creative ways when tackling problems.

Pragmatism is closely linked with reconstructionism in education in some aspects. However, pragmatists are often critical of the excesses of reconstructionism.

## **Reconstructionism and Education**

Reconstructionists believe that society is in need of constant reconstruction or change in order to adequately deal with social problems to make life better than it is.

Reconstructionists stress that education and schools should be viewed in the much wider societal context. Radical changes in education cannot occur without radical changes in the structure of society itself. Educational reform follows social reforms and rarely, if ever, precedes or causes it. Therefore, an educator must be both an educator and a social activist.

Reconstructionists believe in the ideals of world community, brotherhood, and democracy. Schools should promote these ideals through curricular, administrative, and instructional practices. Schools cannot be expected to reconstruct society by themselves, but by the adoption of these ideals, they can serve as models for the rest of society.

Reconstructionists are critical of the teaching methods presently used at all levels of education. These methods promote traditional values and attitudes underlying the status quo and reinforce resistance to change. For instance, where teachers are viewed as dispensers of knowledge and students as passive recipients of knowledge, students uncritically accept whatever is presented. This results in producing students who think in the same way and who are uncritical of society, the economy, and the political structure.

Reconstructionists hold that teachers should begin by focusing on critical social issues not usually found in textbooks or discussed in schools. Teachers must become critical, analytical, and discriminating in judgement. They should encourage similar development in students. Reconstructionists believe that such a development in class can be brought about by the discussion methodology, including the case methodology. In this way, teachers help develop democratic approaches to social problems by enabling students to deal with social life intelligently. In fact, democratic procedures should be utilized on every level of schooling. This implies that students play an active part in the formulation of all objectives, methods, and curricula used in the educational process.

Reconstructionists believe that curriculum should be action-oriented by engaging students in projects such as collecting funds for worthy causes, informing the citizenry about social problems, and engaging in petition and protests. Reconstructionists favor students' participation in society, where they can both learn and apply what they learn. A curriculum which engages students in some social activity can produce far more learning than any sterile lecture in a classroom.

Reconstructionists favor a world curriculum which is future-oriented. They encourage reading the literature of other nations that deals with issues on a worldwide basis. They recommend teachers to be internationally oriented and humanitarian in their outlook.

## **Marxism and Education**

Marxists find the definition of education which limits the term to the school system as too narrow since it leaves out the learning which Marxists regard as fundamental (see, for example, Brosio (1998) and McLaren (1998)). They see the world as it is in order to change it. Therefore, they regard education as those processes which contribute to the formation and changing of a person's consciousness and character. Consciousness is based on the worldview, and character involves how a person behaves in relation to that worldview and society. In this, Marxists not only combine education and socialization, but also impart to them the necessary critical perspective in the light of Marxist goals. To be able to impart such perspectives in class, Marxists favor the lecture methodology.

Marxists agree that the most obvious agent of education is the school. However, they doubt whether the really important learning takes place there. Other agents include the family, youth organizations, peer groups, work, the mass media, religious institutions, trade unions, political parties, and armed forces. These educative agents are classified as socializing agents. Work is the most important socializing agent for those who perform it.

Marxists' vision of communism as a period when man becomes increasingly self-conscious and self-determining has important implications for education. This performs both as a criterion for judging current efforts and as a guide for setting aims and methods. Communism is the movement that abolishes the present state of affairs, including the activities of both teacher and students throughout the process. In fact, the relationship is dialectical: a change of social circumstances is required to establish a proper system of education, and a proper system of education is required to bring about a change of social circumstances. This implies that the major concern of education should be moral-political; the development of the socialist consciousness.

Marxists are careful about the ideology an individual adopts. School is the crucial agency within which the conflict of class values is worked out. The ruling class ideology consciously or unconsciously permeates the school system. It is a reflection of the interests of the dominant class, but is also accepted by wide sections of other classes.

Marxists' concepts of the relationship of the proletariat and permanent revolution have profound implications for education. Democracy can only be learned through the practice of democracy, and this must apply to schools as well as to all other sectors of society. The rotation of positions of responsibility and control is essential if people are to learn to exercise power. The spread of information in open government and the discussion of matters before policies are formulated are considered as constituting both education and execution. The performance of ordinary, manual labor by government and industrial leaders is an essential educational process, but the converse, government and management by the masses, is also essential if society is to become really classless.

## INTEGRATION OF THE DCF, WACC, AND NPV WITH THE EMH: THE ROLE OF NO-ARBITRAGE CONDITION

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## **ABSTRACT**

The purpose of this paper is to integrate the discounted cash flow method (DCF), the weighted average cost of capital (WACC), and the net present value (NPV) rule of capital budgeting, with the efficient markets hypothesis (EMH). The paper accomplishes this by noting that in efficient markets the no-arbitrage condition is satisfied. The paper, therefore, starts with a state preference model and shows when "states" are replaced with "time periods" then the state preference model is replaced with the DCF model. It then uses the state preference model to define the no-arbitrage condition and shows again when "states" are replaced with "time periods" then every exchange would constitute a zero NPV transaction. It then emphasizes that in finding the component costs of capital and the WACC, zero NPV calculations are performed. That is, the WACC is based on the EMH. Finally, the paper discusses how the use of the WACC in a positive NPV project might be reconciled by recourse to the micro-economic partial equilibrium analysis. At the end, the paper also reflects on the coverage of current introductory finance textbooks with respect to the issues discussed.

## **INTRODUCTION**

The purpose of this paper is to integrate the discounted cash flow method (DCF), the weighted average cost of capital (WACC), and the net present value (NPV) rule of capital budgeting, with the efficient markets hypothesis (EMH). The paper accomplishes this by noting that in efficient markets the no-arbitrage (NA) condition is satisfied. The paper, therefore, starts with a state preference model and shows when "states" are replaced with "time periods" then the state preference model is replaced with the DCF model. It then uses the state preference model to define the NA condition and shows again when "states" are replaced with "time periods" then every exchange would constitute a zero NPV transaction. As is well known, the component costs of capital are calculated and used to find the WACC. To calculate the component costs of capital, the market value of the capital component is set equal to the present value of the expected cash flows to be exchanged with respect to that capital component and, therefore, all the component costs of capital calculations constitute zero NPV calculations. Therefore, the WACC in based on the EMH. Finally, this WACC is applied to the NPV rule of capital budgeting to decide with respect to the investment in real assets. A positive NPV is inconsistent with the EMH, as noted above, and, therefore, the application of the WACC within the positive NPV framework may seem inconsistent. However, this might be reconciled in the micro-economic partial equilibrium framework. That is, where all markets are efficient except for the real asset under consideration.

Over the years, introductory finance textbooks have improved their exposition of a variety of topics and are currently in good standing. This paper also reflects on the current textbook integration of the DCF, WACC, and NPV with the EMH.

## THE STATE PREFERENCE MODEL AND THE DCF

Consider a single-period, state-contingent-claims model with M risky securities and S states. Let A be the (MxS) security payoff matrix, where element  $a_{ms}$  is the payoff of security m in state s,  $A'_s = (a_{1s}, \ldots, a_{Ms})$  is the M-vector of claims paid on the M securities if state s occurs,  $x^l = (x^l_1, \ldots, x^l_M)$  is the investor l's portfolio order, and  $p = (p1, \ldots, pM)$  is the vector of security prices. Note that all vectors, when used in vector or matrix multiplication, are column vectors unless they are labelled as row vectors by a prime, (').

Ross (1976) has shown that the NA condition is equivalent to: there exists a vector d>0 such that Ad = p. That is, any element in d acts as a one-period discount rate and gives the present value of \$1 in a particular state, s, which is in one period from now. They are, in fact, the Arrow-Debreu securities

In the above state preference model, if "states" are replaced by "time periods" then the state preference model is replaced by the DCF model. That is, any element in d acts as a one- or multiperiod discount rate and gives the present value of \$1 which is in some specific future period. On the replacement of "states" by "time periods" see Prisman (1990).

## THE NA CONDITION AND THE NPV

A significant literature now exists that examines the role of the NA condition. This section reviews the standard definition of the NA condition. It notes that it is defined in efficient markets. It also emphasizes the role of the NA condition for the existence of equilibrium.

Consider the state preference model defined previously. Dermody and Prisman (1993) define the NA condition as the satisfaction of:

$$\max_{x'} \left\{ -x^{t'}(p) \quad s.t. \quad x^{t'}A \ge 0 \right\} = 0 \quad and$$

$$x^{t'}A = 0 \quad for \ every \ optimal \ solution \tag{1}$$

The economic interpretation of (1) is straightforward and intuitive: every portfolio that generates a positive cash flow in one future state, and a non-negative cash flow in every other state, must have a positive price; and every portfolio that generates a zero cash flow in every future state must have a zero price.

Condition <sup>(1)</sup> is equivalent to Ross' (1976) classic definition. It requires that: every portfolio  $x^l$  satisfying  $x^rp>=0$  and  $x^rA>=0$ , must also satisfy  $x^r=0$  and  $x^rA=0$ . Or: the absence of a trade x for which:  $x^rp<=0$ ,  $x^rA>=0$ , for all s, and at least one inequality is strict.

Alternatively, the optimal value of the following maximization problem is zero:

$$\max\{-x^{i'}p\} \qquad subject \ to \qquad x^{i'}A \ge 0 \tag{2}$$

Ross (1976) has shown that the NA condition, as defined in (2), is equivalent to:

there exists a vector 
$$d > 0$$
 such that  $Ad = p$  (3)

The duality theory of linear programming provides a method of proving the existence of the desired price vector p and importantly, allows the properties of p to be revealed more explicitly. Employing

Farkas' Lemma (Actually, a slight modification of Farkas' Lemma is employed. See, for example,

Gale (1960)), condition <sup>(1)</sup> holds if and only if (iff): there exists a vector d>0 such that Ad=p.

Thus, every vector which is a strictly positive linear combination of the columns of A, satisfies (1). Note that, since  $a_{ms}>=0$  for all m and s and no row of A is zero, for every vector d>0, each element of the vector p is strictly positive (i.e., p>0) if p = Ad. Condition (1) is therefore informative regarding the equilibrium price vector that may prevail in a financial market (Ardalan and Hebner (1998)).

The NA condition is a necessary condition for the existence of equilibrium. This is because as long as there are arbitrage opportunities, equilibrium cannot exist. Geanakoplos and Polemarchakis (1987) have shown that, under certain conditions, the NA condition is both necessary and sufficient for the existence of equilibrium.

Prisman (1986) expresses the NA condition in terms of present values (Dermody and Prisman (1993) have shown that (3) and (4) are equivalent):

there is 
$$a d > 0$$
 such that  $\max_{x} \left\{ -x^{t'} p + x^{t'} A d \right\} = 0$  (4)

Any element in d in (4) can be regarded as the present value of a \$1 in state s. The sum of terms in braces in (4) shows the net present value of portfolio  $x^l$ . Where, the net present value is composed of the algebraic sum of the cost of  $x^l$ , and the discounted value of the payoffs to x (Dermody and Prisman (1993) have shown that (4) implies (2) without appealing to linearity). According to (4) the net present value is zero. It should be noted that this net present value is defined in a one-period multi-state state preference framework.

In the above state preference model, if "states" are replaced by "time periods" then the zero net present value in the state preference framework is replaced by the zero NPV in the multi-period framework. In this framework, there are S time periods and the vector d translates into the vector of S discount factors for which the NA condition is satisfied, i.e., condition (4) is met, and the NPV is zero. Therefore, in efficient markets, where the NA condition is satisfied, all exchanges are zero NPV transactions.

## TEXTBOOK TREATMENT OF THE ISSUES

Over the years, introductory finance textbooks have improved their exposition of a variety of topics and are currently in good standing. This section reflects on the current textbook integration of the DCF, WACC, and NPV with the EMH.

This study examines twenty-four current introductory finance textbooks published by major finance textbook publishers, i.e., those who were present at the latest annual Financial Management Association meeting. The textbooks are: Besley-Brigham (1999), Block-Hirt (2000), Brealey-Myers (2000), Brealey-Myers-Marcus (2001), Brigham-Gapenski (1999), Brigham-Gapenski-Ehrhardt (1999), Brigham-Houston (2001), Chambers-Lacey (1999), Damodaran (2001), Eakins (1999), Emery (1998), Emery-Finnerty (1997), Emery-Finnerty-Stowe (1998), Gallagher-Andrew (2000), Gitman (2000), Keown-Petty-Scott-Martin (2001), Lee-Finnerty-Norton (1997), Levy (1998), Moyer-McGuigan-Kretlow (2001), Ross-Westerfield-Jaffe (1999), Ross-Westerfield-Jordan (2001), Scott-Martin-Petty-Keown (1999), Van Horne (1998), and Van Horne-Wachowicz (2001).

All textbooks, but three, discuss the efficient markets hypothesis. The excepted textbooks are: Besley-Brigham (1999), Gallagher-Andrew (2000), and Van Horne-Wachowicz (2001). All twenty-four textbooks discuss both the NPV rule of the capital budgeting and the WACC. However, none of them discusses their underlying assumptions and relationships.

To further improve current introductory textbooks, the paper recommends a fuller integration of different topics discussed in the same textbooks. Of course, textbooks should improve their

exposition not by the use of sophisticated techniques such as the NA condition, but by simpler and more intuitive approaches. Following the recommendation would result in both a better understanding of the topics and a more comprehensive grasp of the subject matter by students.

## **CONCLUSION**

The purpose of this paper was to integrate the DCF, the WACC, and the NPV rule of capital budgeting, with the EMH. The paper accomplished this by noting that in efficient markets the NA condition is satisfied. The paper, therefore, started with a state preference model and showed when "states" are replaced with "time periods" then the state preference model is replaced with the DCF model. It then used the state preference model to define the NA condition and showed again when "states" are replaced with "time periods" then every exchange would constitute a zero NPV transaction. It then emphasized that in finding the component costs of capital and the WACC, zero NPV calculations are performed. That is, the WACC is based on the EMH. Finally, the paper discussed how the use of the WACC in a positive NPV project might be reconciled by recourse to the micro-economic partial equilibrium analysis. At the end, the paper also reflected on the coverage of current introductory finance textbooks with respect to the issues discussed.

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## ANALYSTS' RESPONSES TO ALTERNATIVE METHODS OF REPORTING UNREALIZED GAINS AND LOSSES ON DERIVATIVES

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## **ABSTRACT**

With the publication of two statements on accounting for derivatives (SFAS 133 and SFAS 138), the Financial Accounting Standards Board (FASB) has taken another substantial step on the path toward its goal of requiring the reporting of all financial instruments at market value, generally with unrealized gains and losses included in income. This study investigates whether reporting an unrealized gain or loss in a separate line item on the income statement, as opposed to disclosure only in a footnote, affects how financial analysts use and evaluate information on such gains and losses. The vehicle for this research is unrealized gains or losses on derivatives. The study consisted of short financial analysis cases, presented to financial analysts and executives primarily through mail surveys. Each subject received one of the four different possible combinations of derivative gain or loss and disclosure type. When the unrealized derivative gain/loss was included as a separate line item in the income statement, analysts included the gain/loss significantly more often in their P/E ratios, and were more likely to list the derivative as a factor affecting their investment recommendation, than when the derivative gain/loss was disclosed only in a footnote. Moreover, regardless of disclosure type, analysts included unrealized losses on derivatives in their P/E ratios significantly more often than unrealized gains, and were more likely to list the derivative as a factor affecting their investment recommendation when there was a loss as opposed to a gain. Perhaps more interesting, given the FASB's disclosure rules in Statement 133 (FASB 1998), was the fact that when the gain/loss was presented as a separate line item in the income statement a substantial minority of analysts (44 percent) chose to exclude the gains from their P/E ratios, whereas only 17 percent chose to exclude losses. Finally, results from a subset of participants who were asked to think aloud while analyzing the case suggest that analysts are less likely to consider information regarding derivatives when it is contained only in a footnote. In addition, the protocols suggest that if participants acquire the information on derivatives, they

This study contributes to knowledge in the area of financial statement disclosure in two primary ways. First, it provides evidence with respect to disclosure alternatives for unrealized derivative gains and losses that is consistent with inferences drawn from prior capital markets studies regarding disclosure issues, and indicates that disclosure format may affect analysts' use of information, contrary to a strict interpretation of the efficient markets hypothesis. Second, it suggests that a substantial minority of analysts seem to prefer to exclude unrealized derivative gains and losses, particularly gains, when evaluating earnings for analysis, especially if the amount of those gains and losses is clearly disclosed and readily available. This further supports the need for full disclosure of unrealized derivative gains and losses included in income.

may give as much as, if not more consideration to that information, and evaluate it more negatively,

when it is disclosed in a footnote rather than on the income statement.

## ROSETTA MORTUARY INC.

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## CASE DESCRIPTION

This case focuses on a funeral service business. It provides an opportunity to study the challenges faced by a minority businessman in developing, growing, managing, and selling a business. The objective of the case is to provide an opportunity to apply valuation methods and develop disposition options for the business as part of the owner's retirement and estate planning. The owner's status in the Black community and his commitment and loyalty to that community add complexity to the identification of alternatives for selling the business.

Rosetta Mortuary Inc. is based on field research and is appropriate for courses in entrepreneurship, management principles, marketing principles, and financial planning. The case can be used at the senior undergraduate and graduate levels. The case should be distributed at least one week in advance to provide adequate student preparation. The case is designed to be completed, typically, in one or two 50-minute class sessions or one 90-minute class period, dependent on the questions assigned.

## **OVERVIEW SYNOPSIS**

Rosetta Mortuary Inc. is the only minority-owned funeral home in the small city of Bristol, Virginia. It has served the community within a 25-mile radius of Bristol for more than 50 years. Patrick Harvey Rosetta, its founder and owner, needs to determine the value of his business and make arrangements for its sale. None of Mr. Rosetta's children is prepared to take over the business.

Mr. Rosetta is a pillar of the community and model of business success for several generations growing up in the small, slowly growing city. He is reluctant to sell the business to one of the national companies seeking to establish a nationwide mortuary chain. Selling the business to a national chain would mean that the small number of minority-owned businesses would diminish further. He believes that the special quality of service provided by knowing the people and the community would disappear. Mr. Rosetta is 80 plus-years old and needs to provide for retirement for his wife and himself. Disposal of the business is also necessary to reduce the complexities of estate planning.

# BREAKING WITH TRADITION: MOTIVATING GENERATIONS X AND Y BUSINESS STUDENTS

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## **ABSTRACT**

In today's universities, marketing classes are usually taught to young adults who are members of either Generation X or Y. These students have often been dubbed as indolent, inattentive and disinterested, proving to be a challenge for their professors. The traditional structure for marketing classes has been that of a professor (the sage on the stage) who presents theoretical material in a lecture format and gives periodic exams over material covered in lectures and the textbook. Many professors have also recently begun using ancillary materials such as PowerPoint slides and videos provided by textbook manufacturers.

It is common to hear professors who use this traditional pedagogy complain that students in Generations X and Y do not comprehend or retain material covered in class. The professors blame the lack of comprehension on the laziness and apathy of their students. Instead of faulting the students, the authors propose that it may be that traditional teaching methods are major reasons that reaching Generations X and Y has become such a challenge.

In this paper, the authors have presented values of Generations X and Y discovered in a survey of undergraduate students that need to be considered by professors as they develop their courses. Teaching is more effective when pedagogical strategies are linked to generational values. Research has shown that Generations X and Y are two distinct generations with very different motivations (Lovern, 2001; Wolburg and Pokrywczynski, 2001); this creates a unique challenge when both generations are in the classroom. In their research, the authors learned that Generations X and Y share four common values that impact how they learn. Based on the results of their survey, the authors propose that certain teaching methodologies are more effective than others in motivating college students to comprehend and retain information. The survey found that students were more motivated to learn when marketing classes were personal, interactive, stimulating and practical. The authors will examine each of these values as they impact course content and the delivery of information.

# INVESTIGATING THE STOCHASTIC NATURE OF CONSUMER SEARCH TERMINATION

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## **ABSTRACT**

Previous studies of consumer search have often ignored the stochastic element in the search process leading to biased results. This study develops a stochastic model of search that incorporates the effects of time elapsed since commencing search, individual and product characteristics and unobserved heterogeneity.

Results indicate substantial duration dependence. Perceived benefits of search, size of the evoked set and the quality of past experience are found to be important determinants of the hazard function. The findings also highlight the importance of accounting for unobserved heterogeneity and the sensitivity of the parameter estimates to the specification of its distribution.

## INTRODUCTION

What causes a customer to terminate his search process and purchase? This is a pervasive question faced by numerous marketing managers. Many studies have documented the effects of consumer characteristics on the extent of information search for durable products as well as patterns of search across information sources (Punj & Staelin, 1983; Beatty & Smith, 1987; Srinivasan & Ratchford, 1991; Putsis & Srinivasan, 1994). However, to date, there has been little significant work documenting the termination of consumer search and final purchase. In addition, contemporary marketing literature on the extent of search does not explicitly model the fact that the duration of search is a stochastic process. Thus, a consumer may terminate search early if he/she got lucky and chanced on a good deal early in the search process or he/she may be unlucky and not obtain an acceptable offer until late in the search. A complete model of search behavior would account for this stochastic element.

Another shortcoming of the literature on search is that it fails to model the possible effects of unobserved heterogeneity. The most common method of accounting for observed heterogeneity is to include consumer, retailer and product characteristics in the model, and to estimate how the measured extent of search varies with these variables. However, given the difficulty of determining and measuring these characteristics, there are likely to be many variables that affect search that are unmeasured. A complete model of search behavior would explicitly model the effect of this unobserved heterogeneity, and failure to do so may contaminate the estimates of the included variables (Heckman & Singer, 1984).

This study focuses on the rate of search termination and its determinants, using a stochastic model of search within the framework of a conditional hazard function. The probability of search termination is modeled as a function of the duration of search, measured consumer characteristics and unobserved factors.

## **HAZARD FUNCTION**

Hazard function models have been used extensively in economics and statistics literature especially in the areas of research on job search, employment and unemployment (Lancaster, 1985; Flinn & Heckman, 1982).. It has been used in studies in inter-purchase times in marketing (Jain & Vilcassim, 1991) but never in the area of search. Since the hazard function can be thought of as the rate at which an event occurs, its application in this area of search termination is very appropriate.

For the purpose of this study, let the random variable T be the time a consumer spends searching for external information before purchasing an automobile. Duration T spans between the interval  $[0,\infty)$ . The hazard function 1

 $\lambda(t)$  can therefore, be defined as:

$$\lambda(t) = \lim_{\Delta t \to 0} \frac{\Pr(t < T < t + \Delta t \mid T > t)}{\Delta t}$$
(1)

Equation 1 indicates that the hazard function simply specifies the instantaneous rate of search terminating at time t, given that the consumer is still searching at t. In other words, conditional on the consumer not having purchased, the hazard function measures the likelihood of search ending at time t.

Since there are likely to be individual differences in the rate of terminating search, how individual characteristics enter into the hazard model needs to be specified. Also, since identifying all relevant characteristics is difficult, if not impossible, unobserved or unmeasurable heterogeneity needs to be taken into account. Accordingly, the conditional hazard, conditioned on a vector of consumer characteristics X, and on unmeasured heterogeneity  $\theta$  is specified as (Flinn & Heckman, 1982; Heckman & Singer, 1984):

$$\lambda(t \mid X, \theta) = \lambda_0(t) \quad \phi(X, \beta)\psi(\theta), \tag{2}$$

where  $\lambda o$  is the baseline hazard corresponding to  $\phi = \psi = 1$ ;  $\beta$  is a vector of parameters corresponding to the consumer characteristics X;  $\theta$  is unobserved heterogeneity. The observed and unobserved heterogeneity act multiplicatively on the hazard function and in effect serve to shift the hazard from its baseline.

For the specification of the measure of covariates, the commonly used form is adopted:

$$\phi(X,\beta) = \exp[X\beta] \tag{3}$$

Since the expression exp(.) is always positive, the hazard function is automatically nonnegative and finite for all X and  $\beta$ . Following Heckman and Singer (1984) and Jain and Vilcassim (1991), the unobserved heterogeneity shall be specified as follows:

$$\psi(\theta) = \exp(c\theta) \tag{4}$$

where  $\theta$  is the individual heterogeneity that remains constant within each spell and c is the associated coefficient.

Finally, the baseline hazard is parameterized in as general a form as possible. To this end, the Box-Cox formulation is adopted because the most commonly used probability distributions are nested within this general form.

$$\lambda_0(t) = \exp\left[\gamma_0 + \sum_{j=1}^{J} \gamma_j \frac{(T^{\varepsilon_j} - 1)}{\varepsilon_j}\right]$$
(5)

The baseline hazard captures the time elapsed since embarking on search and T is the duration of search. Here again, the expression exp(.) ensures the non-negativity of the baseline hazard and, hence, the hazard. Two commonly used distributions in studies on duration, namely the

Weibull and Erlang-2, are used in this study. These are nested in the Box-Cox formulation and statistical tests can, therefore, be performed to test their suitability.

The parameter estimates are obtained by maximizing the likelihood function across all N individuals in the sample (Details of estimation derivation are included in the full paper):

$$L(Y) = \prod_{i=1}^{N} \int_{\theta} [\lambda(t \mid X, \theta) \exp(-\int_{0}^{t} \lambda(u \mid X, \theta) du) dG(\theta)]$$
(6)

The specification of  $G(\theta)$  is approached in two ways. First, following past research a standard normal distribution is adopted (Massy, Montgomery and Morrison 1970). Second, a non-parametric approach is used in which the structural parameters and the distribution of the unobserved covariates of the model are jointly estimated. Results for the two approaches will be compared.

## DESCRIPTION OF COVARIATES AND DATA

Search is defined as the effort directed toward the acquisition of marketer and non-marketer dominated information from the external environment. It begins when need triggers the serious consideration of a purchase and ends with the actual purchase transaction (Beatty & Smith, 1987; Srinivasan & Ratchford, 1991). The hazard rate is modeled as the dependent variable. In essence, the hazard can be thought of as the rate of terminating search and is inversely related to duration.

The variables included in the study are consumer, product and demographic factors. Variable names are included in parenthesis.

- 1. Amount of Experience (AMOUNT, +) Consumers who have experience in buying cars are likely to develop simplifying procedures that reduce the amount of time required to reach a decision.
- 2. Perceived Risk (RISK, -) is a measure of the consumer's belief of the chance of incurring a physical, financial, performance and convenience loss (Peter & Ryan, 1976; Srinivasan & Ratchford, 1991).
- 3. Evoked Set (EVOKE, -) is the number of models included in the individual's consideration set.
- 4. Perceived Benefits of search (BENFT, -) is a measure of a consumer's perception of potential gains from search. For example, the consumer may benefit in the form of obtaining a better price or a more satisfactory model.
- 5. Interest (INTRST, -) in the product class would result in more time spent collecting information (Maheswaran & Sternthal, 1990; Srinivasan & Ratchford, 1991).
- 6. Knowledge (KNO, +) is the knowledge and understanding that an individual has of a product within a particular product class (Beatty & Smith, 1987; Brucks & Schurr, 1990). It enables the person to process information more efficiently by excluding irrelevant information.
- 7. Positive experience (EXPER, +) with the product reflects the quality of past experience with the previous car and the dealer or manufacturer. Positive experience manifests itself in simplified decision processes often based on simplistic rules (such as purchasing the same brand of car or buying from the regular dealer).
- 8. Price (PRICE, -). This is defined as the net price after taxes. Consumers tend to spend a long time searching for items of higher value.
- 9. Discount (DISCOUNT, +). This is the combined total manufacturer and dealer discounts. Discounts act as incentives to purchase. Larger discounts would encourage consumers to terminate search and complete the purchase transaction.

- 10. Age (AGE, +) reflects the lifestage of an individual. Older individuals tend to engage in less search (Srinivasan & Ratchford, 1991).
- 11. Education (EDU, -) is used as a proxy measure of an individual's ability to collect, process and use external information (Ratchford and Srinivasan, 1993).

While all attempts have been made to adequately measure and include variables that might account for heterogeneity, it is expected that there remain some factors which are unaccounted for or unmeasurable. The heterogeneity factor, c, captures these unexplained effects and leaves the estimated parameters unbiased.

The data set used in this study is a subset of a data set obtained through a mail survey of people who registered new cars in May in a northeastern SMSA and were listed with the R.L. Polk Company. In total, 1,401 responses were obtained, representing a response rate of 46 percent. After eliminating all cases with any missing data, 1024 usable cases remained. These were employed in the analysis.

#### **DISCUSSION**

Equation (6.) is estimated using the iterative maximum likelihood procedure. While several commonly used distributions for the hazard function were estimated, the Weibull hazard gave the best results. Results for this model are displayed in Table 1.

Table 1 Parameter Estimates				
Variables	(a) No Heterogeneity	(b) Standard Normal	(c) Non-Parametric	
Intercept	4.570****	22.798****	9.052****	
ln t	$0.249^{++}$	4.426++++	3.356****	
KNO (+)	$0.885^{++}$	4.921****	3.688****	
EXPER (+)	$1.225^{++++}$	1.206++	6.261****	
AMOUNT (+)	$1.085^{++++}$	0.461	2.695****	
RISK (-)	-0.453	-2.219****	-1.279**	
EVOKE (-)	-2.459++++	-13.913****	-11.752****	
BENFT (-)	-3.588++++	-16.371****	-14.438****	
INTRST (-)	-0.830****	-2.558****	-1.705****	
PRICE (-)	-1.259+++	-1.054 <sup>+</sup>	-1.437***	
DISCOUNT (+)	$0.964^{++}$	1.412**	$3.009^{++++}$	
AGE (+)	$1.150^{++++}$	7.199****	$3.440^{++++}$	
EDU (-)	$0.618^{+}$	2.892****	0.865	
HETEROGENEITY FACTOR (c) -		3.887****	14.305****	
Negative Log Likelihood	1624.39	1617.64	1606.0	

This table reports results for three different specifications of the unobserved heterogeneity factor, namely a specification that does not account for unobserved heterogeneity, another that assumes standard normality, and finally a non-parametric specification that represents heterogeneity in terms of a discrete distribution of mass points

Looking across the columns in Table 1, the duration term (coefficient of lnt) is seen to be significant at the 0.001 level. It takes on the values of 0.25, 0.54 and 3.36 under the no heterogeneity, standard normal and non-parametric specifications respectively.

The hazard is positively related to lnt in Table 1, implying that the longer the time elapsed while searching, the greater is the likelihood of terminating search. For the non-parametric heterogeneity case, the estimated coefficients of lnt exceeds one, implying that the second derivative of the hazard with respect to time is positive. This means that the hazard increases at an increasing rate.

The covariates with the strongest effects on the duration of search are perceived benefits of search and size of the evoked set, both of which tend to lower the hazard and lengthen the search. As expected, both amount and type of experience are associated with an increased hazard, and hence a shorter duration of search. The effect of the covariate interest is significant at the 0.001 level. Interest in a certain product class encourages more external search for information. Past research indicate that knowledgeable consumers experience pleasure in collecting and processing information (Maheswaran & Sternthal, 1990). The results are similar to Srinivasan and Ratchford (1991) who have shown that the interest a consumer has for a certain product class is a major motivator of search. It follows, then, that greater interest leads to a lower probability of terminating search or lower hazard values.

While these results are in general agreement with past studies of search effort for automobiles, this study has the advantage of controlling for changes in the hazard through time, and for unmeasured heterogeneity. The estimated effect of several of the covariates changes considerably when heterogeneity is taken into account, indicating that it is important to control for unmeasured heterogeneity when studying the determinants of search.

The heterogeneity factor, c, shown in Table 1 is significant at the 0.001 level in both the standard normal and non-parametric specifications, thereby rejecting the null hypothesis of no heterogeneity. This implies that unobserved heterogeneity has a positive impact on the hazard function and if unaccounted for will contaminate the parameter estimates (Heckman & Singer, 1984). While the more flexible non-parametric model yields a higher log likelihood than the model with normal heterogeneity, the two models are not nested, and no formal significance test for their difference was run.

#### CONCLUSION

This study attempted to model the stochastic nature of search. One of its contributions is to provide a framework within which three distinct effects on the hazard function can be examined. They are the effects of time, the influence of observed product and consumer motivational factors and the significance of unobserved or unmeasured heterogeneity.

The results show significant amounts of duration dependence and point to duration as a major determinant of the rate of terminating search. The effects of time elapsed since commencing search is biased when unobserved heterogeneity is not taken into account.

Another important finding relates to the magnitude and nature of the unobserved heterogeneity. This component is found to be highly significant and exerts substantial impact on the parameter estimates. The results highlight the importance of accounting for unobserved heterogeneity and the sensitivity of parameter estimates to the specification of its distribution. Problems associated with the assumption of standard normality for the unobserved heterogeneity are also presented.

Covariates that exert the largest impact on the hazard function are found to be the perceived benefits of search and the size of the evoked set. Price and amount of discount are also found to be significant. Of the demographic characteristics, age is found to be positively related to the hazard while education is not significant.

Due to the nature of the data, this study restricts itself to a single spell. Assuming that consumers build up an inventory of knowledge and experiences, which impact on future actions and choices, it would be interesting to build and estimate a model incorporating several spells.

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### ANNUAL EARNINGS FORECASTS USING CPS DATA

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#### **ABSTRACT**

One important reason to examine how earnings develop over time is that they play a crucial role in how much money is paid into the Social Security system. Together with the levels of benefits, the height of Social Security contributions determines the liquidity of the system in the future, an issue which is debated extensively in political circles, scholarly journals, and the popular press. Policy makers who are required to make decisions today about the form of the Social Security system tomorrow are in need of information about the amounts of money which are likely to be paid into the system. This paper, by applying a flexible method to historical data, provides such estimates.

I use historical data from the March Current Population Survey, beginning with survey year 1964. The analysis starts by assigning every individual in the data to a sex-by-age-by-education cell for each year of the data set. There are 132 cells per year, based on two genders, eleven age groups, and six levels of education. The ultimate variable of interest for this project is the amount of total earnings per year which is equivalent to the sum of earnings of all 132 cells. For each sex-by-age-by-education cell, earnings in a given year can be written as the product of four factors: The number of individuals in a cell in that particular year, that cell's employment ratio (i.e., the fraction of individuals within a cell that work), average number of hours worked per year, and that cell's average wage. I determine the historical trends over time by computing growth rates of the employment ratio, the average number of hours worked per year, and the average wage of each cell. The growth rate used is geometric on annual levels, i.e., the most recent periods are weighted more heavily than less recent years.

I then go on to make projections into the future, up to and including the year 2050. For the population forecast, the Middle Series of the Bureau of the Census is used. For the three other components of earnings, I apply the computed growth rates to the observed values of the variables of interest in the last year of historical data to make the extension into the future. In doing so, I impose several economically plausible restrictions, e.g., in cases in which the employment ratio forecasts for a sex-by-age-by-education cell exceeds unity, the forecast is set to one. It is then possible to calculate total earnings in a given year by multiplying the forecasted values of the four components so that the product makes up a cell's annual earnings. Finally, total annual earnings forecasts are obtained by summing the earnings forecasts for all the sex-by-age-by-education cells.

I find that there is a clear upward trend in total earnings, i.e., my estimates indicate that there will be an increase in the amounts that are paid into the Social Security system in the future. This would allow more generous benefits and/or an increase in the liquidity of the Social Security system which is an issue which has received much attention lately. For the interpretation of these results, one must bear in mind that the increase in total earnings is partially due to a substantial increase in the population. Thus, the increase in overall earnings will be partially, but not totally, offset by an increase in the number of individuals who will potentially become eligible for Social Security benefits later in their lives. Also, it has been shown that due to the increase in the dispersion of wages and earnings, an increasing portion of total earnings is in excess of the Social Security Taxable Limits. Thus, policies might need to be adjusted to take full advantage of the projected increase in overall earnings.

## SERVICE QUALITY OF INTERNET RETAIL STORES

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#### **ABSTRACT**

E-commerce application development is a growing aspect of information systems management activities within many organizations. However, the development of e-commerce applications is still mostly as hoc and there is no systematic approach to e-commerce development. This paper proposes that an effective e-commerce application could be developed based on customers' perception on service quality. A service quality model SERVQUAL and its implications to e-commerce development is discussed. A set of design attributes are derived from the model and applied to online retail store design.

#### **INTRODUCTION**

E-commerce application development is a growing aspect of information systems management activities within many organizations. Millions of such applications have been developed in the past ten years. Given the growing importance of e-commerce applications, little is known about how those applications should be developed. Researchers and practitioners have commented that e-commerce applications are different from traditional information systems applications and the traditional systems development methodologies may be inappropriate for e-commerce applications.

In the online environment, the e-commerce applications can be regarded as a service and users are consumers. In addition to selling goods and services over the Internet, each e-commerce application actually delivers a special service for its customers (Zhang & von Dran, 2001). The quality of this service plays a similar role as the quality of services to consumer in the traditional retail stores. However, without face-to-face human interaction in the online environment, Web developers are facing the challenge of how to design an effective e-commerce application to improve service quality. Previous studies have provided some design guidelines for Web developers; however, most of them are based on heuristics or rule of thumbs. These studies did not identify design features that contribute to customer satisfaction or service quality expectation. A recent study reported that online stores invest an average of \$24 to acquire a new customer (Ranganathan & Ganapathy, 2002). To attract and retain customers while realizing a good return on their investment, online stores must focus on the quality of their service. The purpose of this study is to conduct a systematic examination of Web design features that can be used in the design of online retail stores to improve service quality.

#### LITERATURE REVIEW

In the e-commerce environment, the applications can be regarded as a service and the users are customers. Even though the customers may receive a physical product at the end of transaction, the purpose of the application is to complete the purchase transaction. According to Kolesar and Galbraith (2000), all e-commerce transaction is service transaction and the benefits of the application to the customer are not in the purchased good but in the performance of the transaction. Service quality of the e-commerce transaction plays a similar role as it is to customers in traditional stores. Therefore, it is necessary to understand the concept of service quality when designing e-commerce applications.

The concept of service quality is not a new for information systems (IS) researchers and Many IS researchers have applied models in the marketing field to provide information on user satisfaction within the information system functional areas (Kettinger & Lee, 1994; Aladwani & Palvia, 2002). One of the most often used models is the SERVQUAL instrument (Parasuraman, et al., 1988). The original objective of SERVQUAL was to provide an instrument for service quality measurement that could be used across a broad range of industries with only minor modification. SERVQUAL to date has been applied across a range of private sector organizations and not-for-profit organizations. It is generally recognized that there are five dimensions that consumers evaluate service quality. They are: tangibles, reliability, responsiveness, assurance, and empathy (Parasuraman, et al., 1988). Tangibles are the appearance of the store's physical facilities, equipments, and communication materials. Effective tangible reassure the customer that the service experience will be satisfactory. Reliability refers to the ability to perform the promised service dependably and accurately. Responsiveness is the willingness to provide appropriate service to customers. Assurance is the knowledge and courtesy of employees and their ability to inspire trust and confidence. Empathy is the individual attention organizations are able to provide to their customers.

Given the popularity of SERVQUAL in the marketing and information systems literature, this paper proposed that an effective online store could be designed based on the SERVQUAL model. In order to understand customer's needs in the online environment, it is important to understand how customer evaluates a store's service quality. If Web designers know what customers expect from the store and identify the factors in the development process, they can analytically follow through in developing e-commerce solution. The research propositions are as follow:

- A majority of online stores display their products in a visually appealing way (Tangibles).
- A majority of online stores show their willingness to provide appropriate service for their customers. (Responsiveness)
- A majority of online stores provide sufficient information to their customer to increase the level of trust and confidence customers have to the stores. (Assurance)
- A majority of online stores have the ability to perform the promised service dependably and accurately. (Reliability)
- A majority of online stores are able to accommodate customers' individual needs. (Empathy)

#### INTERNET STORE DESIGN FEATURES AND SERVICE QUALITY

The design features related to the five dimensions of service quality can be identified from previous studies on traditional retail store design. Much research has been done on retail store design and evaluation. Lindquist (1975) examined consumer behavior research and proposed a set of retail store attributes. Jarvenpaa and Todd (1997) surveyed 220 shoppers and identified several factors that affect consumer behavior. Liang and Lai (2002) adopted a consumer choice model and derived several features and guidelines for online bookstores design. Spiller and Lohse (1998) adopted Lindquist's store attributes in their study of Internet retail stores classification. They modified Lindquist's original attributes to classify Internet retail stores into five categories: merchandise, service, promotion, navigation, and user interface. Design attributes identified by previous research were used in this study as the basis to examine additional factors which may contribute to the success of online stores. The attributes been adopted are grouped by the following five service quality dimensions.

Tangibles: In the context of e-commerce, the designers should display the products and services in a visually appealing way. A Web site should trigger a customer's interest in the store. With advanced multimedia technology, Web site should try to make the products visually tangible.

In fact, information-based products such as music, movie, and software may become more tangible in the online environment where customer can sample or download a trial version of the product. Design attributes to be considered should include: banner ads, product image browse function, and related products link.

Responsiveness: Web designers should design a site that allows customers to received adequate service and support easily. Responsiveness can be facilitated through a variety of attributes such as access to live customer representative via phone, customer service e-mail support, and a FAO section.

Assurance: It refers to the consumer's level of trust and confidence on the store. Web designers should provide information about the competence, security, and reputation of the store. These include product satisfaction guarantee, product return policy and return mechanism, and company information such as mission statement, history, and policies.

Reliability: It is the store's ability to perform promised services dependably and accurately. Web designers should include features such as secure order and payment system, online order tracking system, and guarantee product delivery time.

Empathy: Web sites should provide features to accommodate customer's individual needs. These include features to allow customers to shop in different mode, to accept multiple credit cards and payment methods, and to offer gift services.

#### DATA COLLECTION AND ANALYSIS

Online stores were analyzed based on the features discussed in the previous section. The online stores were collected from the business directory at <a href="https://www.yahoo.com">www.yahoo.com</a>.

The analysis was carried out by considering the results from two perspectives. First, we examined the results from the survey as a whole. By averaging the results across all web sites we can establish a benchmark level of current web development practice. We can also look at the design features used by the Web sites to identify current trends. Second, we analyzed the web sites based on the size and product type of the stores to identify what types of companies are most successful. The results of this content analysis will be presenting at the conference.

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## TELECONFERENCING IN AN ACADEMIC ENVIRONMENT: IMPLICATIONS FOR BUSINESS EDUCATION

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#### **ABSTRACT**

Teleconferencing has expanded the way business constituents communicate and conduct daily operations on both domestic and international levels. This study examined the effectiveness of using teleconferencing as a pedagogical strategy in business education through a review of theoretical literature and surveying end users at two major universities. The results were used as supporting rationale for setting up a teleconferencing "smart classroom". Infusing technology into the classroom bridges the gap between business enterprises and universities, between business professionals and students and between theoretical and experiential learning.

#### INTRODUCTION

The global marketplace advances day by day into an increasingly interdependent, information-based, knowledge-driven economy. Those who understand interactive media and use it to enhance their knowledge are the best prepared to take advantage of emerging complex media systems. Guiding educational agendas worldwide, teleconferencing has challenged the pedagogy of traditional teaching. It offers educators a technological means to bridge the gap between academe and business organizations domestically and internationally. It affords a medium to combine theoretical constructs with practical applications allowing for exchanges between universities and business enterprises. Information exchange and creative programming results in a "win-win" relationship for both entities.

Teaching methods have always been a big issue in education and involve direct dialogue between instructor and student. Today, however, technology has transformed class instruction. The traditional lecture is now supported by a spectrum of equipment ranging from "low-tech overhead projectors" to fully equipped teleconferencing rooms offering students and instructors new ways of presenting topics. The excitement comes from the fresh format in which the information can be presented. Critical thinking and problem solving activities in real time with industry leaders during an actual class session is a reality. Students can signal in on a course related panel discussion, speech, or seminar and interactively ask questions of professionals associated with their area of study. This can be particularly cost effective in terms of expense, travel time, distance and capacity building with multiple publics.

This study discusses the evolution and various forms of teleconferencing, its common usages and impact on traditional teaching. As a point of focus, the study examined the experiences of professors and students using teleconferencing in the Schools of Business and Pharmacy at two major southeastern universities. The purpose was to review the lessons learned to determine the value added of incorporating teleconferencing as part of the business management classroom instruction.

#### **DEFINITION OF TERMS**

The term, "teleconferencing", refers to two-way electronic communications between two or more groups, or three or more individuals, who are in separate locations. It affords the ability to

create a social presence that resembles face-to-face meetings (continuous presence) that enables conferees to see facial expressions and physic demeanor of remote participants (Parker 1983).

Providing the opportunity for live discussion and immediate feedback teleconferencing can be used for lectures, seminars, tutorials, exams, management meetings, job interviews, briefings, research meetings, project management and other collaborative ventures. "The benefits for learners are as much social as they are strictly pedagogic" (LTSS, 2002). Consequently, "although technology is an integral part of distant education, any successful program must focus on the instructional needs of the students, rather than on the technology itself. It is essential to consider their ages, cultural and socioeconomic backgrounds, interests and experiences, educational levels, and familiarity with distant education methods and delivery systems" (Schamber, 1988).

#### THEORETICAL FRAMEWORK

"Computer-mediated conferencing (CMC) is unique among distant education media because of its ability to support high levels of responsive, intelligent interaction between and among faculty and students while simultaneously providing high levels of freedom of time and place to engage in this interactivity" (Anderson, Archer, Garrison & Rourke, 2001). These characteristics are advancing computer conferencing as the dominant choice for distant learning in many institutions.

The "Journal of Distance Education" presents a model of the teaching and learning transaction that capitalizes on the ease and abundance of interaction that occurs with technology such as computer conferencing. This model was specifically designed to guide the use of computer conferencing to support critical thinking in higher education. In this model, learning occurs in a community of inquiry composed of instructors and learners as the key participants in the educational process. The model assumes that in this community, learning occurs through the interaction of three core components: cognitive presence, teaching presence, and social presence (Anderson, et al, 2001).

For purposes of this study, the focus was on the development of social presence as the theoretical framework. Social presence is defined as the ability of learners to project themselves socially and emotionally in a community of inquiry. "The function of this element is to support the cognitive and affective objectives of learning." Social presence supports cognitive objectives through its ability to instigate, sustain, and support critical thinking in a community of learners. "It supports affective objectives by making the group interactions appealing, engaging, and thus intrinsically rewarding, leading to an increase in academic, social, and institutional integration and resulting in increased persistence and course completion" (Anderson, et al., 2001).

The genealogy of the construct, social presence, can be traced back to Mehrabian's concept of immediacy, which he defined as "those communication behaviors that enhance closeness to and nonverbal interaction with another" (Mehrabian, 1969). His research suggested that nonverbal cues such as facial expressions, body movements, and eye contact increase the sensory stimulation of more affective and immediate interactions. Communication theorists who studied a variety of media including facsimile machines, voice mail, and audio teleconferencing in organizational settings followed up Mehrabian's work. Short, Williams, and Christie postulated that the inability of these media to transmit nonverbal cues would, as Mehrabian had shown, have a negative effect on interpersonal communication (Short, Williams & Christie, 1976).

Andersen looked at the role of immediacy in postsecondary education and proposed the following definition of teacher immediacy: "Teacher immediacy is conceptualized as those nonverbal behaviors that reduce physical and/or psychological distance between teachers and students". Anderson found that engaging in eye contact with students, adopting a relaxed body posture, using gestures, and smiling, improved students affect toward the practices promoted in the course, the subject matter of the course, and the course instructor (Anderson, et al., 2001)

The premise of this study is supported by the theory that teaching immediacy has a positive correlation to the effectiveness of teleconferencing. Sanders and Wiseman studied immediacy

indicators individually and found a significant correlation between praising students' work and the three measures of learning (Sanders & Wiseman, 1990). The importance of reinforcement to collaboration is supported by sociological theory. Social interaction theorists such as Mead and Cooley contend that the human needs for affiliation and self-esteem are fundamental to the basic physiological needs (Sanders & Wiseman, 1990). They point out that these needs can be satisfied only through interaction with others. From this perspective, the theory of social presence enhances the development and maintenance of interpersonal interaction in text-based computer conferencing.

#### **METHODOLOGY**

In order to solicit feedback on the effectiveness of teleconferencing as an effective pedagogy for business education, surveys were distributed to three different programs in two different universities using teleconferencing for in-class instruction. The method of data collection consisted of an interrogation/communication study in which data was collected through personal interviews as well as self-administered surveys. The population studied encompassed the faculty and students at the two universities. The sample from the population consisted of students from the School of Pharmacy, Mass Media Department at one institution and the School of Business Distant Learning Center at the other institution. A Likert summated rating scale was used to collect and gather information from the respondents. The scale consisted of statements that expressed either a favorable or unfavorable attitude toward the population of interest. Each response was given a numerical score to reflect its degree of favorableness. The respondents were assured of their responses remaining confidential through a statement of confidentiality form as well as a disclosure statement printed on the instrument.

#### **CONCLUSION**

Even though the universities studied have the technology available for teleconferencing, very few professors or students could attest to their opportunity for hands-on experience with it. They were unaware of the multiple usages to enhance the business education instructional delivery program by bringing state-of-the-art resources and ideas into the classroom.

Technological advancements will continue to upgrade teleconferencing methodologies and market demands will also make the technology more affordable to educational institutions. Students in a senior level business management courses were exposed to a teleconferencing room and a mock interview via satellite. The interest, enthusiasm and energy level were great. The ability to fully incorporate technology in a meaningful way enhanced the learning. "Like other aspects of society, teleconferencing is in transition. It is an industry marked by new technologies, new applications, and new suppliers". (Parker) A need exists in business management education to creatively use technology to inform as well as elevate the quality of undergraduate business education.

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# WILL AFRICAN-AMERICANS BENEFIT FROM PRIVATIZED SOCIAL SECURITY?

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#### **ABSTRACT**

The need for reform within the Social Security system is well known and is now being debated and discussed in nearly all areas of U.S. society. The concern is that the system will be insolvent in approximately 30 more years. As a result, the need for reform is seen as urgent. At the highest levels of U.S. government there is a building momentum to partially privatize Social Security. That is, working Americans would be allowed to control a portion of the taxes now paid into the system. Such control would lead to actual ownership of that portion of workers' contributions, and it is argued that the ultimate benefit or receipts from Social Security under privatization would be greater than is possible under the current system. It is also argued that partial privatization would provide greater benefit to African-Americans, a segment of the society that not only receives a lower return from contributions to Social Security but has a much higher poverty level than other groups of both workers and retirees in the U.S. It is our contention that partial privatization of Social Security, especially as a potential benefit to African-Americans, must be examined in light of a wide combination of factors. Factors related to U.S. capital market participation, social history, and demographics.

#### INTRODUCTION

In May 2001, President George W. Bush named a "bipartisan commission" to structure the details of how Americans may voluntarily divert some of their Social Security contributions into private investments. On December 11, 2001, the commission unanimously approved recommendations that would allow younger workers to invest a portion of their Social Security contributions in the stock market. (Charlotte Observer, 12/12/01, p. 13A.) The commission proposed three alternatives for the establishment of individual investment accounts within the retirement system for the President's consideration. Guaranteed retirement benefits would be reduced for those who elect to create an individual account under each of the plans.

	Table 1
	Three Proposals for Private Investment Accounts
Plan 1	Voluntary option to invest 2% of payroll in a personal account rather than the traditional Social Security system.
Plan 2	Voluntary option to invest 4% of payroll, up to \$1,000 annually.
Plan 3	Voluntary option to invest an additional 1% of payroll in a personal account, with a match of up to \$1,000 per year, financed by 2.5% of payroll diverted from worker's contribution.
	Source: USA Today, December 12, 2001, p. 10A.

The motivation to privatize, at least a part of Social Security contributions, is driven by the desire to insure a continuing safety net for American workers. The 1998 Social Security Trustees

Report, released April 28, 1998, reveals that the retirement program is actuarially bankrupt. (Mitchell and Davis, 1998) If changes to the current system are not implemented:

- Social Security benefits will exceed projected payroll tax collections in 2013.
- The Social Security Trust Fund will go bankrupt in 2032.

President Bush has rejected traditional solutions. Instead, he has embraced the concept of partial privatization. It is his belief that allowing Americans to voluntarily divert some of their Social Security contributions into private accounts affords the best opportunity for younger workers to receive future benefits on par with or even greater than those received by current recipients.

#### THE PRESENT RESEARCH

Much has been written about the current state of the Social Security system. Further, there are numerous articles assessing the pros and cons of privatization. There are compelling arguments for and against privatization. It is not our intent to take a side in this debate. Rather, we will provide data and information that demonstrate a pressing need for a financial education initiative as a vital part of any privatization plan. The low level of capital market participation and conservative investment practices of African-Americans as well as those on the low end of the earning spectrum coupled with the original intent of social security as a safety net warrant such an initiative. Accordingly, the question is, "Will African-Americans benefit from privatization?"

#### TRADITIONAL VS. PRIVATIZED SOCIAL SECURITY

Social Security is the primary source of support for retired African-Americans, providing approximately 50 percent of their income. (New York Amsterdam News, 11/12/98.) It is the 'safety net' envisioned by President Roosevelt in his 'New Deal' policies of the 1930's. Contributions are made through an individual's working life and benefits are received during one's retirement years assuring at least a life free from poverty.

The overall benefit of the Social Security system to the recipient is greatly dependent upon life expectancy, level of earnings during the employment years, level of education, and gender. For African-Americans, especially males, these characteristics translate into a lower 'rate of return' from a lifetime of Social Security taxes paid. A shorter life expectancy means the individual collects less of the dollars paid into the system over a lifetime of work.

At present there is political momentum for the Social Security system to privatize a portion of the contributions made by workers. In other words, a portion of the Social Security tax would be 'owned' by the taxpayer. The taxpayer could invest those dollars in the capital markets within some guidelines and restrictions. The immediate effect would be the opportunity for each worker to earn a rate of return superior to the rate provided by the current system and to have property rights to the private/individual account thereby creating wealth that would go beyond the life expectancy of the taxpayer.

#### A KEY ARGUMENT FOR PRIVATIZATION

Proponents of privatization suggest that the inequities of the current Social Security system for African-Americans are a major reason why privatization should be implemented. According to Smith and Conrad, Feb. 1999, African-Americans should consider privatization of the Social Security system for the following reasons:

1. The expected rate of return under the current system is lower for African-Americans than for other groups.

- 2. A privatized system would afford a property right (i.e. the transfer of assets from one generation to the next.)
- 3. The pool of capital generated by the funds invested in private Social Security accounts might be mobilized to aid the economic development of African-American communities.

Tanner (2001) argues that African-Americans are disadvantaged under both the current Social Security system and many of the proposed (i.e. traditional) solutions to the impending financial crisis. He believes African-Americans would benefit, however, from privatization.

Tanner (2001) compared the monthly benefit for an African-American worker born in 1970 who earns \$13,500 per year under the current system with alternative investment strategies within a privatized account.

Table 2 Comparison of Monthly Social Secur	rity Benefit	
Current System Bond Fund, 4% Real Rate of Return 50/50 Stock/Bond Allocation, 5.75% Real Rate of Return Stock Fund, 7.5% Real Rate of Return	\$886 \$1,189 \$2,266 \$4,501	

Letourneau (2001) concluded that the benefit received by African-Americans from privatization would vary greatly among workers depending on average compensation. He estimates that one would be able to accumulate \$200,000 at age 67 based on the following assumptions.

- Annual earnings of \$40,000 in constant, inflation adjusted dollars.
- A 2% annual contribution (\$800) for 43 years.
- An inflation adjusted annual rate of return of 7.3165% (based on an 11% average annual rate of return and 4% rate of inflation).

Clearly, the assumptions one uses are critical in contrasting benefits under privatization to those under the current Social Security system. Two key assumptions are the selected asset allocation and projected returns for each asset class. Asset allocation refers to the mix of portfolio assets among cash, bonds and stocks. An expected rate of return must then be assumed for each of these three classes.

African-Americans tend to be more risk averse and have a greater proportion of their monies tied up in their home and depreciating assets such as their cars. Historically, they have had a preference for insured savings vehicles (i.e. savings accounts and certificates of deposit), insurance products and real estate investments as opposed to investing in equities.

It would appear that a conservative asset allocation (i.e. relatively smaller allocation to stocks and larger allocation to bonds and cash) should be used in projecting the prospective benefits that African Americans would receive from privatization.

Per Morningstar, a leading provider of mutual fund and stock research, the S&P 500 generated a total return of (14.32%), (5.39%) and 6.8% for the 1, 3 and 5 year periods ended 5/20/01. The prevailing thought among academicians and financial planning practitioners is the equity risk premium will be much lower going forward than it has been in the past. Accordingly, the expected return from the stock market is expected to average in the single digits for quite some time. Perhaps, a lower rate of return assumption should be used in light of current and forecasted economic and market conditions.

#### **CONCLUSION**

We believe the following components will be required if African-Americans are to benefit from privatization.

- A strong financial education initiative to explain the potential benefits of privatization must be undertaken.
- There should be a limited menu of investment options from which workers can allocate their account balance.
- Workers should have access to investment professionals who will provide objective advice regarding asset allocation and investment selection.
- Access to monies should be severely restricted prior to retirement or death.
- Fees and expenses must be low in order not to take an inordinate bite out of the value of smaller accounts.

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# EARNINGS QUALITY AND DEFINED-BENEFIT PENSION PROFIT CENTERS

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#### **ABSTRACT**

This paper identifies economic and financial reporting trends that have produced profit centers from defined benefit pension plans. Rising investment returns and interest rates incorporated into actuarial assumptions increased spreads between pension asset and liability balances. New pension programs such as cash balance pension plans further reduced pension obligations. Statement of Financial Accounting Standards No. 87 has served as the conduit for deferral of pension profits to supplement and manage future earnings. The article concludes with discussion of potential effects of negative economic conditions on future financial results of pension profit centers.

#### INTRODUCTION

Variables such as employee turnover, salary levels, employment years, and life expectancy estimations determine defined-benefit (DB) pension funding requirements. Balance sheets partially disclose funding levels of these private retirement plans following financial reporting guidelines promulgated under Statement of Financial Accounting Standard (SFAS) No. 87. SFAS No. 87 also recognizes pension expense in conjunction with economic changes in plan asset and obligation balances.

Depressed portfolio valuations resulting from the economic recession of the early 1990s coupled with generous benefit grants in lieu of wage increases fashioned numerous underfunded pension balances during initial SFAS No. 87 implementation. However, surging market returns during the second half of the 1990s enabled corporate managers to more favorably reflect pension plan financial positions under SFAS No. 87 procedures.

This manuscript attempts to identify unparalleled economic circumstances, pension funding decisions, and contractual agreements that combined to establish profit centers to significantly affected corporate earnings. Pension benefit topics specifically examined include:

- Creation, maintenance, and expansion of pension profit centers under the SFAS 87 financial reporting framework to provide noteworthy improvements in operating profits, along with mechanisms to manage pension income effects over extended reporting periods;
- Implications of changing economic conditions on future pension plan financial reporting.

#### SFAS NO. 87: THE PENSION PROFIT CENTER TOOL

Improved returns on plan asset investments and benefit cutbacks stimulate pension plan profit centers. These events widen spreads between pension plan assets and liabilities. SFAS No. 87 procedures can exacerbate pension profitability figures and defer investment gains over numerous reporting periods. These income smoothing techniques have allowed large companies to enhance reported pension income totals in spite of economic downturns (Weil, 2001).

Another financial reporting concern rests with classification of pension income on the income statement. Pension expenses have traditionally been included with employee fringe benefit costs in calculating operating income while investment income has normally been excluded from

primary operating profits. Recognition of pension income from investment gains would appear to be more closely associated with external economic activities, rather than controllable operating results. It can be also be argued that surplus returns from pension trust funds represent legal claims of active employees and retirees, rather than shareholders.

On the other hand, Singh (2000) states that new pension profit centers reflect significant and somewhat disturbing trends in management philosophy that pension asset surpluses belong to shareholders, rather than employee beneficiaries. Recent pension income figures have frequently been incorporated into operating income results, albeit consistent with treatment of pension expenses as operating costs under the SFAS 87 model. This logic permits excess pension investment returns to directly impact operating income while raising investor concerns as to earnings quality (Weil, 2001). Including pension profits as part of operating income could mislead investor perceptions of operational performance while achieving forecast profit figures that optimize executive stock option and bonus compensation wealth.

Several recent events have revealed shareholder apprehension regarding potential relationships between pension profits, earnings quality, and executive compensation. Upon urging by the Securities and Exchange Commission, IBM agreed to explicitly report pension return contributions to overall profits within the management discussion section of its 2000 10-K filing (Bulkeley, 2002). McDermott International Inc. disclosed plans to exclude future pension income totals from senior executive compensation formulas (Schultz, February 2002). Perhaps most importantly, Standard and Poor (S&P) announced that it would deduct pension costs but exclude pension plan gains from operating earnings calculations used to compute financial ratios for its stock index members (Sender, 2002). This plan will likely impact negatively on price/earnings ratios and stock valuations of some S&P members while potentially impacting future financial reporting in general.

#### Table 1

Title of Table: Components of SFAS No. 87 Pension Expense (Income) Measurement

- Annual service cost
- 2. Interest accrual on beginning period projected benefit obligation
- Actual return of pension plan assets
- 4. Amortization of prior service costs or givebacks
- 5. Amortization of unexpected actuarial gains and losses

Table 1 illustrates the five major components of pension recognition on income statements according to SFAS No. 87 guidelines. Items 1, 2, and 4 in Table 1 are generally associated with increased projected benefit obligations and resultant pension expense recognition. Actual return on plan assets represents the major offset to pension expense calculations.

Actuarial amendments of plan asset and liability values determine the fifth pension expense/income element. These actuarial gains and losses typically offset each other with minimal impact on overall pension expense amounts. However, some companies have realized significant unexpected gains by increasing estimated plan return rates while reducing PBO amounts with higher interest settlement rates and extended life expectancy projections. These cumulative gains are deferred until reaching a "corridor" threshold based upon a percentage of beginning-of-period plan assets or PBO values. Actuarial gains exceeding this threshold figure are amortized over estimated average remaining service years per active employee and can be stretched over many years by lengthening these employee service period projections.

Another pension income source can emerge from plan amendments of prior service benefits. In recent years, temporarily frozen pension benefits have often been associated with cash balance

pension plan adoptions. Reporting entities may classify these modifications as benefit givebacks, consequently reducing prior service PBO values. Although benefit givebacks are deferred similarly to unexpected actuarial gains and losses, they are not subject to threshold barriers but can be immediately recognized as pension credits over estimated remaining employee service years. This methodology can permitted companies to immediately recognize and manage pension expense or, in many instances, pension income.

#### FUTURE FINANCIAL IMPLICATIONS FOR PENSION PROFIT CENTERS

Overfunded pension plans, higher equity investment proportions, benefit cutbacks, and rising interest rates brought about favorable conditions for pension income growth during the 1990s. However, these favorable economic conditions mask financial risks for current and retired employees, sponsoring organizations and shareholders. Higher concentrations of equity holdings in pension trust portfolios not only increase investment risk, but ongoing bear markets could rapidly shrink deferred pension profits and long-term earnings growth for shareholders. Inferior pension fund returns from recent economic downturns my intensify pressure to reinforce SFAS No. 87 measurement maneuvers with additional early retirement proposals, cash balance conversions, changes in actuarial assumptions, or decreases in eligible compensation/multiplier formula variables.

Diminishing plan asset growth could also be accompanied by higher pension liability amounts as interest rate reductions attempt to stimulate economic activity during recessionary periods. These joint situations could ultimately transform many overfunded (asset) plans into underfunded (liability) status on corporate balance sheets. Poor economic circumstances could also force companies with previous self-funding plans to divert vital operating cash flows toward meeting federally mandated pension funding requirements.

A recent Bear Stearns study has warned investors of impending pension earnings declines under long-term recessionary conditions (Brown and Weil, 2001). Using standardized assumptions, Bear Stearns analysts predicted potential pension income decreases could cut overall earnings by more than 5% in 2002. Further projections suggested that pension profit contributions to earnings of large DB companies could be halved during 2003.

#### **CONCLUSION**

Many companies took advantage of investment opportunities during the previous decade to significantly supplement their operational profits with returns from pension plan portfolios. Despite public assertions that overfunded pension funds protect future benefit payouts, pension profit centers have also contributed to the achievement of executive bonus and stock option performance earnings targets. According to Schultz (February 2002, A6), "cutting pensions for regular workers indirectly boosts compensation (based upon earnings), and thus the pensions of top executives". Pension profit centers have also permitted businesses to bury lucrative underfunded executive pension arrangements within overfunded employee fund asset balances partially instituted by cutbacks in DB benefit obligations. While economic conditions drive pension income centers, accounting procedures initially designed to expand pension plan disclosures within financial statements have perpetuated pension income contributions to earnings data, particularly during economic slowdowns.

While allowing companies to defer pension costs during periods of moderate investment returns, the Financial Accounting Standards Board has inadvertently supplied blueprints for banking pension gains associated with excess fund profits and benefit cutbacks in the name of generally accepted accounting principles. It remains to be seen if these past pension income decisions will return to haunt executives, shareholders, employees, and retirees under long-term adverse stock market conditions.

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### FOXCALL, INC.

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#### CASE DESCRIPTION

Foxcall, Inc. integrates concepts from accounting practice, auditing theory, and business ethics. The case is designed to supplement instruction by focusing on three primary objectives. First, the case exposes students to issues related to acceptable financial reporting practices and fraudulent reporting practices in U.S. corporations. Second, the case augments student awareness of the issues surrounding the expectations gap between the auditor's responsibility for fraud detection and the public perception of that responsibility. In addition, the case encourages students to evaluate the effectiveness of audit analytical procedures in signaling the presence of fraud. Lastly, the case provides an opportunity to identify ethical dilemmas in management and propose various solutions. The case is appropriate for undergraduate junior and senior level courses and first and second year graduate levels. The case should be distributed at least two weeks in advance to provide adequate student preparation. The case is designed to be a "medium-length" case and can be completed, typically, in one or two 50-minute class sessions or one 90-minute class period, dependent on the questions assigned and the pedagogy.

#### **OVERVIEW SYNOPSIS**

Foxcall, Inc. increases the awareness of fraudulent financial reporting by providing a real-world scenario of a company charged by the Securities Exchange Commission for materially misstating financial statements. Foxcall, Inc. was developed from SEC versus Collins Industries and SEC versus Joseph S. Hebb (SEC Accounting and Auditing Enforcement Releases). Collins Industries is a manufacturer of vehicles (e.g., ambulances, school buses). The case shows how, during the fiscal year ended October 31, 1997 and the first quarter of 1998, Joseph Hebb (Eugene Winston), CFO, and other top management defrauded investors by falsifying accounting records. The CFO and other officers collaborated in deleting accounting records, fabricating documents to reflect transactions that had not taken place, and concealing evidence of improper conduct from the independent auditors. Collins submitted false financial results and misleading disclosures to the SEC in forms 10-Q and 10-K. The SEC charged Collins and its officers with violating antifraud, reporting, record-keeping and internal controls provisions of the federal securities laws in connection with efforts to increase the company's sales and earnings. The case highlights the fraudulent reporting practices and the ethical dilemma of the CFO (Eugene Winston).

### EXPLORING THE ELUSIVE GENDER PAY GAP

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#### **ABSTRACT**

Claims of gender pay inequity based on reports published by the United States Bureau of Labor Statistics are a regular commodity. These claims, focusing primarily on Fortune 500 companies and professional sports, do not provide detailed statistics for relevant comparisons. A more thorough exploration of public and private sector organizations raises questions about the veracity of "common knowledge" with regards to gender pay inequity.

#### INTRODUCTION

Women's advocacy groups have long claimed that women do not get paid the same as men in the same position (Will, 1999). The United States Bureau of Labor and Statistics' report for last year stated that for the median annual wages of males and females who work fulltime, women made 75 cents for every dollar men made (Schmid, 2001). Advocacy groups intent on furthering their cause are quick to embrace aggregate presentations of data as evidence of pervasive and systemic discrimination against women. The AFL-CIO and the Institute for Women's Policy Research released a report that concluded if women received fairer wages, the state of Michigan could cut the poverty rate among families headed by single mothers by three-fifths (Casarez, 1999). Interestingly enough, this report also acknowledged that wage gaps reflect more than discrimination in the workplace. Factors such as differences in education, training and experience were considered salient components of the wage equation. Also rejecting the notion that women make choices between high pay and other rewards, the National Committee for Pay Equity (a coalition of labor unions, women's groups, and other organizations) is sponsoring Equal Pay Day. The apparent raison d'etre of Equal Pay Day is to convince legislators to ignore market forces and mandate government determined pay scales (Hausman, 2001). Considering the magnitude of the implications raised by the topic, the purported gender pay gap deserves further exploration. By use of examples in the public and private sectors, this paper will explore the impact of differences in education, training and experience on wages.

#### **PUBLIC SECTOR**

#### **Federal Government**

In an effort to establish pay equality, the United State government passed the Equal Pay Act of 1963. This act requires that women be paid the same as men for equal or "substantially equal" work. The government has embraced this act in their pay grades and pay scales and therefore, pay for all federal jobs is based on several factors, none of which is gender. The 2001 Base General Schedule Pay Scale for federal jobs explicates the different job groups, pay levels and wage steps. An explanation of how this system works argues against the notion of unequal pay for substantially equal work. First, jobs are assigned to different groups such as clerical, management, technical or medical. Next, group qualifications standards are established for each pay level in that group. These standards are based on education, experience and time in position. These standards are explicit and do not allow room for any type of discrimination. There are also wage-steps for each

pay grade and these steps are performance and time-of-service related. The argument made with this system is that clerical and administrative support jobs, which are typically staffed by women, hold a lower pay classification than other male-dominated jobs. While an interesting argument, switching the level of analysis from within job equity to between job equity is inappropriate. Furthermore, the point system of job analysis supports the current pay system utilized by the Federal Government.

#### **Public Education**

The public education sector, like the Federal Government, has endeavored to remove any hint of bias in its pay schedules. This neutrality in their pay structure is maintained primarily because the salary schedules are a statutory requirement of the state. For example, administrators in Texas' public secondary schools are required to abide by the state mandated salary schedule and any local pay increase must be applied evenly over the pay scale. The pay scale is based on years of service and type of advance degree held and therefore does not allow administrators the opportunity to pay different amounts based on gender. A cursory search of the fifty states revealed that all states base their pay scale on years of service and degrees held. One of the unique situations facing the education sector is the shortage of teachers, which throws an entirely new kink in the wage wars. Women are currently receiving a majority of the Bachelor's and Master's degrees awarded and since the pay for educators at public schools at the secondary level requires a Bachelor's degree, most of the new graduates are being hired in at the lowest possible pay rate because the state mandates that the school district follow the salary schedule (Furchtgott-Roth, 2000). This places a downward draw on the pay equity comparisons (Will, 1999).

Professors at post-secondary institutions are also regulated by a pay scale and this scale does not allow for discrimination based on sex. Since women have only recently began to earn advanced degrees and enter the professorial ranks, they are faced with the same problems that women receiving their undergraduate degrees are faced with – no experience compared to the men that have been in the field for several years. A 1998 study by the American Association of University Professors revealed that women fill 56.3 percent of all university faculty positions, up from 22.5 percent in 1975. The study also states that women professors are paid an average of \$170 less per week than men. This disparity does not include the factor that 33.8 percent of the women professors are lagging behind on years of service and therefore will be paid less (Casarez, 1999). It is apparent that women who have just started teaching are basically performing the same task as men who have been teaching for many years, but the law allows for advanced pay based on years of service. This does not mean that women are being discriminated against, but instead all professors are being rewarded for longevity and experience

#### PRIVATE SECTOR

Some experts claim that the wage gap exists in the private sector because a disproportionate number of women work in service, sales, or clerical jobs. The rational behind this choice for many women is that these jobs allow work flexibility, part-time opportunities and second incomes. Since these jobs generally require fewer entry-level skills, they carry a lower pay rate. The National Committee on Pay Equity reports that more than 61 percent of women hold service, sales, or clerical positions (Economics, 2001). The U.S. Department of Labor, Bureau of Labor Statistics provides a more detailed analysis based on occupation. According to the Bureau women hold 98.9 percent of the available secretarial positions and 96.7 percent of the available receptionist positions. Another factor in the "pay gap" can be attributed to the realization that more than 70 percent of part-time workers are female (Working, 2002).

#### **Fortune 500 Companies**

The number of women chief executives in the Fortune 500 rankings for 2001 has doubled from the previous year – from two to four (Ossorio, 2001). A salary comparison of two established female CEOs with two male CEOs from companies with comparable revenues will be instructive. It's useful to note that all four CEOs have the education and experience to support their title and position.

First, is Carleton S. Fiorina. Ms. Fiorina is the Chairman, President, and CEO of Hewlett-Packard Company, ranked twenty-eighth on the Fortune 500 list. Ms. Fiorina holds a bachelor's degree in medieval history and philosophy from Stanford University; a master's degree in business administration from the University of Maryland; and a master of science degree from MIT. Fiorina also has approximately 25 years of relevant experience (Hewlett, 2001). Her annual compensation, according to the schedule 14(a) security and exchange commission filings for the year 2001, was approximately \$14,767,854. Also note that she received \$65 million in stock options in 1999. In comparison, Richard B. Priory is the Chairman, President, and CEO of Duke Energy Company, ranked fourteenth on the Fortune 500 list. Mr. Priory graduated magna cum laude from West Virginia Institute of Technology with a bachelor of science degree in civil engineering; received a master of science degree in engineering from Princeton University; is a registered professional engineer in North and South Carolina; is a graduate of the University of Michigan's Public Utility Executive Program and Harvard University's Advanced Management Program; and received an honorary doctorate of science degree from West Virginia Institute of Technology. Mr. Priory has 31 years of experience in the field of engineering and has been with Duke Energy Corporation since 1976 (Duke, 2001). His annual compensation according to the schedule 14(a) security and exchange commission filings for the year 2001 was approximately \$8,831,475.

The second female executive officer is Andrea Jung. Ms. Jung is the Chairman and CEO of Avon Products, Inc., ranked 302 on the Fortune 500 list. Ms. Jung is a magna cum laude graduate of Princeton University and has been with Avon Products, inc. for six years (Avon, 2001). Her annual compensation according to the schedule 14(a) security and exchange commission filings for the year 2001 was approximately \$5,871,550. In contrast,

Mark Pigott has been Chairman and Chief Executive Officer of PACCAR, currently ranked 295 on the Fortune 500 list, since January 1997. He has also been a Vice Chairman of the Company; Executive Vice President; and Senior Vice President dating back to 1989. Mr. Pigott's annual compensation according to the schedule 14(a) security and exchange commission filings for the year 2001 was approximately \$4,083,020.

In both of these comparisons the female CEO is being compensated at a higher rate than her male counterpart. The magnitude of the disparity would seem salient enough to overcome the industry effect.

#### **Professional Sports**

Professional sports have probably spent the most time of any industry defending its position with regards to pay discrimination. While professional athletes are paid handsomely, a gender pay gap does exist. This gap is due to the disparity in the popularity of male oriented sporting events versus female oriented sporting events (Pipe, 1999). The salary that an athlete is paid is based on the number of fans the athlete will bring to each game and the number of games the athlete helps the team win. If more fans attend games, then revenues increase and profits increase. This, in turn, allows the team owner to pay the athlete a higher salary. One professional sport that allows for a direct male/female pay comparison is professional basketball.

The National Basketball Association (NBA) and Women's National Basketball Association (WNBA) allow for a direct comparison. The two leagues even have the same chief executive officer. The average salary for a female professional basketball player during the 2000 season was

\$55,000 (Knight, 2000). The average salary for a male professional basketball player for the 1999-2000 season was \$3,522,134 (NBA Basketball Fan, 2001). While a significant difference does exist between the leagues, other market factors justify this. First, the average ticket price in 2001 for a WNBA game was only \$15.50, compared with \$51.02 for NBA games (Andersen, 2001). Next, the average attendance at a WNBA game was 10,207, compared with 16,870 for the NBA (News, 1999; NBA Basketball Player, 2001). Also, the NBA plays 50 more games per season than the WNBA. This raises the annual revenue disparity between the leagues to \$43,035,370. Additional NBA revenue sources, such as the four year \$2.64 billion pack inked with Turner Sports and NBC in 2000 for television rights further justifies the pay disparity between leagues and validates macroeconomic theory.

#### **CONCLUSION**

On the average women are paid less than men, but this is not necessarily discrimination and the statistics should not be presented so simplistically as to support such a claim. Research to support the claim that men tend to base their decision on monetary compensation and women base career decisions on non-monetary considerations has already been done (Hausman, 2001) but nobody seems to use that to explain the difference in average annual incomes for men and women. Advocacy groups continue to make the claim that women are making less for doing the same job than men are but no information could be located that compared individuals in similar positions with the same amount of education, time with the company, and experience to support such a bold accusation. Several company web sites that displayed the pay scales for their employees were also visited and every one based pay on years of service and educational background. According to the United States Bureau of Labor and Statistics the number of females in the workforce has increase by 33 million individuals over the past 30 years, whereas the male population of the workforce has only increase by 23 million individuals over the same time period. The fact that the high paying jobs require experience and that women did not start actively entering the work force until 1970 does indicate an experience difference. Experience is not the only factor that accounts for the pay gap, but it does account for part of it.

Based on this exploration, sufficient evidence was found to support the claim that women receive equal pay for "substantially" equal work. Information was presented on how federal jobs are classified and how the pay scale works and how it would be very difficult for anybody to be discriminated against in their system. Statistics have been given to support the reality that more women work in the service sector than do men and this is a possible explanation for the pay difference on average. Next, information presented in regards to chief executive officer's pay shows that female CEO's are being paid equally and at times more than their male counterparts. Education is the next area addressed and several information sources were addressed to support the fact that the education sector basis its pay on type of degree, years of service, and highest degree attained. Also, state teacher salaries are constant over all fifty states, based on the research conducted, and not a single state varied from the years of service requirement. Finally, professional athletes have the most noticeable difference in pay, as many athletes have pointed out, but the disparity in pay is based on market demand for male professional sporting events.

With the realization that discrimination in women's pay is neither pervasive nor systemic, a greater challenge is presented to contemporary women. The nature of the challenge is to know and understand herself. With this self-knowledge comes the wisdom to make life choices, and the clarity of purpose to understand the impact of these choices. For career oriented women the choices culminate with the education, training and experience necessary to run an organization. For other women, their focus is on the family. Patricia Hausman, of the National Advisory Board of the Independent Women's Forum, states "... women with children work fewer hours, accumulate less experience, and take more extended leaves from the workplace — all of which limit their advancement" (Hausman, 2001). She further contends "While sometimes a necessity, these are

often choices gladly made by women who consider being with their children more important than maximizing earnings" (Hausman, 2001).

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Available upon request.

# THE DILEMMA OF GOVERNANCE IN LATIN AMERICA

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#### **ABSTRACT**

The last decades of the 20th century have seen the institutions of governance in Latin American countries affected by small macroeconomic achievements and reduced economic growth, and the development of an extremely fragile democracy. The implanting of the new model of neoliberal state consolidation has come at high cost, and has not produced either the expected strengthening in the political, economic and social spheres, or the expected gains in efficiency, equity and freedom. This so-called economic liberalization has generated institutional instability in the structure and functions of the state, limiting the reaches of democracy and legality, and ensuring that the effects of the associated managerial orientation which has transformed public administration are largely negative. Looking forward into the 21st century, a pessimistic prediction is that these tendencies will continue, producing similar unstable mixes of democratic populism and oligarchic pragmatism. More optimistically, the Latin American states may come to see that genuine social development is necessary for sustained economic growth, and introduce policies to achieve that outcome.

#### SOME MEASURES OF ECONOMIC, SOCIAL AND POLITICAL MALFUNCTIONING

The globalization processes surprised Latin American countries because they didn't have the political-economic mechanisms and the necessary institutions to assimilate its effects in such a way as to achieve social justice in the distribution of the wealth that was created. The challenges posed for Latin America by globalization require a further revision of the romantic utopias that came first with the Bolivarian independence of the early 1800s and subsequently with several popular revolutions in various parts of the region.

Whatever its benefits, globalization clearly has perverse effects. The 100 biggest transnational companies now control 70% of world trade, although a significant relationship does not exist between the growth of world trade and world gross product. The volume of the financial economy is 50 times more than that of the real economy. Most significantly for present purposes, the market value of the 1000 biggest companies (\$US23,942,986 million) is equivalent to 11.8 times the gross internal product of all the Latin American countries, and the market value of General Electric alone (\$US520,250 million) is equivalent to the gross internal product of Mexico. Any one of the 23 most powerful multinationals has superior sales to what Mexico exports. Again, the value of 9,240 commercial coalitions and acquisitions throughout the world in 1999 reached \$US2,963,000 million, compared with the annual gross internal product of all the countries of Latin America and the Caribbean calculated by the World Bank to be \$US1,769,000 million (3).

A brief survey by Lazcano (2000) of the impact of globalization on the pattern of development in Latin American countries identifies several other outcomes:

- economic dependence on the exterior, particularly the United States and the European Union, has deepened;
- financial crises, devaluations and bank rescues have concentrated the wealth in less than 10% of the population;

- economic growth has slowed, productive plant has been destroyed, and underemployment and unemployment have increased;
- the northwards flow of Mexican (and other Latin American) workers (ie to the United States) has increased;
- privileges have been granted to foreign capital in relation to the financial system and the servicing of the external and internal debt;
- economic integration has been towards the outside, with economic disintegration internally;
- the possibility of a sustainable development pattern and the range of options in economic policy-making has been reduced.

In all these ways the social fabric of Latin American countries has been disrupted, the income of the general population reduced, local wealth transferred to the exterior, poverty levels expanded, and indigenous inhabitants excluded from the social pact.

#### **KEY CHALLENGES FOR THE FUTURE?**

The role of the state, and of the public sector which most directly supports and serves that role, is central to each of the three big challenges Latin America faces as it enters the new millennium. These challenges affect the economic, the social and the political spheres respectively, although of course there are many connections between them. The first is to achieve sustainable economic growth within the market economy; the second, to achieve fair and equal distribution of available income; and the third, to remove the obstacles that block development of state institutions that will allow a higher degree of democratic participation in governance.

#### ECONOMIC POLICY AND SOCIAL DEVELOPMENT

Sadly, it seems that the implementation of policies that reduce social inequalities enters into conflict with the logic of capital accumulation. Thus the privatization of public enterprises and the associated destruction of productive chains have together resulted in a growth of unemployment and an increase in numbers below the poverty line. The lack of appropriate employment opportunities is one of the main concerns of Latin Americans at the turn of the century (Duryea & Székely, 1998). Not enough employment is generated, and only a few individuals have access to well remunerated work.

The economic cycles of Latin America in the 1990s have allowed an average growth rate of 3.2% that has achieved little for the poorest sections of the population. The growth rate has slowed in the last few years, and this is likely to continue into the new century due to the pressures of globalization as described above. Financial crises continue, making it difficult to maintain macroeconomic stability. These negative results widen social dissatisfaction and lead to social protest demonstrating wide dissent against the newly adopted economic policies

The inability of governments to overcome such problems points to the lack of appropriate governance arrangements. In some areas, the rule of government is virtually absent, and chaotic situations have arisen marked by mass illegality and barbarism. Governance, in terms of the capacity of the state to solve the problems of society, is reduced to arrangements among different political-elite groups.

Poverty and inequality are of course not new in Latin America, and their earlier manifestations have been explained as the result of a pattern of Iberian colonization (Pinto & Di Fillipo, 1979). While this doesn't explain why the former colonies of the British, French and others in the Caribbean and Latin America also have much poverty, Yañez (2000) discerns an Iberian institutional plot that favoured the formation of economies with high transaction costs, ill-defined property rights and incomplete markets where inequality and exclusion are the norm. As former Spanish President Felipe González put it, the first challenge for the prevailing Latin American

economic pattern is to put an end to poverty, whose continuing existence explodes the neoliberal economic model (Sosa Flores, 2000).

It is broadly acknowledged by academics and intellectuals that the Latin American social structure is a "pigmentocracy" whose peak is represented by the direct descendants of the Spanish aristocrats, of tall stature and clear skin, well educated and owners of the production factors of earth and capital. At its base are placed the direct descendants of the indigenous population, lower in stature and with dark skin. Between these two strata is the big band of mestizos or mixed-bloods. The Spanish settlers used military force and the powers of the state to assure their economic and political dominance over the lower-strata majorities (Chua, 1998: 17-18).

The persistence of this social stratification until the present time is one of the causes of social exclusion and it constitutes a serious problem for good governance: the dominant social stratum owns the major corporations and the main means of production. But the market is n:ot the source of its dominance, and so the new competitive atmosphere of globalization could be its tomb. Equally, marketization can open up opportunities for the disadvantaged groups that previously had no opportunity to participate actively in the economy.

Globalization certainly imposes pressures, but many of the sources of poverty are internal to Latin American society: lack of knowledge, education and science, lack of capital equipment of all types, lack of incentives for individual action (except for those in big government or big corporations), lack of institutions that protect people's lives and their property, generally absence of the "rule of law", and often predatory governments. Public policies are needed to address all these issues.

Latin American countries require with urgency and with anguish a new development paradigm, and it is most likely to come by means of alliances among public and private sectors. Positive government is essential, but the companies that have benefited from privatization must participate in full measure. This new paradigm should allow and measure increments in wealth that are not disassociated from measures of monetary growth, population growth and debt. The systems and practices that fail in the current hegemonic paradigm point the way to eventual change and the instituting of the new paradigm.

The low efficiency of public administration in the social arena in the last two decades must be overcome. While priority was given to macroeconomic reform, social expenditure did rise by almost 25%---but the return on that investment was very low, due to diverse factors such as corruption. Investment in human capital through attention to the education and health systems has provided only temporary relief because it has not been appropriately institutionalized: through Latin America the real expense per capita in education and health in 1995 hardly reached the levels of 1980, because there were no increments in the per capita income (Ocampo, 1998: p.34). The "welfare state" was never deeply entrenched in any Latin American country, and what little of it there was is being dismantled by the neoliberal economic model. Existing programs to combat poverty offer only a temporary palliative through the provision of social security nets: they are focused on the consequences of poverty and not its causes.

All this must be changed. The proposal of Attanasio and Székely (1999: p.361) for a dynamic attack on poverty involves abandoning the focus on the family income and its distribution. The focus must instead be on the access of the poor to property, on the better use of asset-generating revenues, and on the accumulation and use of those assets to generate income-earning production. These investigators argue convincingly that the process of human capital formation is decisive for the development of Latin America and for the elimination of its poverty.

#### PARTICIPATION AND DEMOCRATIC GOVERNANCE

The demand for democratic participation in Latin American countries is at the same time a demand for transparent public administration. In its attempt to move away from authoritarian

government, it represents a search for a way of providing the new development model with a genuine social identity.

The monetarist and neoliberal economic policies which have driven the changes to the Latin American state over the last two decades hold the expectation that those changes will make it more efficient and more effective. They have certainly made it smaller and thinner; and the globalization processes they are associated with reduce its sovereignty. That is the external attack; it is also being attacked from within by the economic and political malfunctioning that results. The fact is that, despite the efforts to democratize, most of these states continue to be strongly centralized, their governments permeated by anti-democratic traditions and controlled by the political elites which perpetuate existing relationships and the socio-economic and regional inequalities (Schönwalder, 1997). In an atmosphere of neopatrimonial clienteles, these political elites benefit from the economic inefficiency. This situation is aided by the disconnection between the budgeting, planning and procurement systems which govern the application of financial resources—high levels of technocracy operate here—and evaluation of results; the latter already shows up many limitations and deficiencies, but the evaluation process is still in its infancy. All this must change too if there is to be genuine political and social reform.

There has been some reform of electoral processes. But more than that is needed in the new century: legitimacy of government requires that the reformers must enhance the democratic participation of citizens in the processes of government itself. They must be enabled to exercise their citizen rights, to inspect and criticize the public function, and to participate in the design of policies and programs affecting their communities. Norms of reciprocity between governments and citizens must be established, such as are envisaged in Putnam's (1993a, 1993b, 1995) nomination of institutions to develop social capital---nets of civic commitment---such as neighbourhood associations, cooperatives, sports clubs and mass political parties.

Even as their capacities to make these changes have been diminished by two decades of neoliberalism, Latin American governments are being required to alleviate the imbalances caused by the market, to deepen the processes of economic restructuring and to redefine property relationships (Adelman, 1998). The processes of transition to democracy have had some successes. Thus democratization of Latin American society recovered where it had been eliminated, as for example in Argentina, Brazil and Guatemala, and has been deepened where certain democratic manifestations already existed, as in Colombia, Costa Rica, Mexico, the Dominican Republic and Venezuela. However, the advance and consolidation of Latin American democracy will occur only when it is thoroughly thought through and implemented as a regional strategy of development.

One significant analysis (Cavarozzi, 1992) leads to the conclusion that the dominant theoretical perspective during this period saw the installation and consolidation of the institutions of political democracy as an isolated process separate from the main causes and effects of the transition that was taking place. This analysis suggests that what is now needed is to move consciousness of this political reform to central stage, so that the continuation of authoritarian management systems is reversed and a new womb of political-social and economic relationships constructed. The democratizing wave must not be allowed to be blunted by recurring economic crisis.

This will involve a recognition that the capacities of the state have been weakened to such a degree that the military are presently increasing their activities to provide emergency services, and that this tendency must be reversed before provision of the full range of assistance programs required for civil society can make headway (Franck, 1999). The military have been called in or they have themselves volunteered, importantly to control the explosive violence, but also to fill the vacuum left by the weakening of the traditional state. The economic elites must be brought to support instead the participatory democracy, which they too often perceive as a threat to their own interests.

The main challenge is to make the state responsible to the society, the social groups and the citizenry in general. The society will support a government that attends to its necessities, but it will

oppose and even rebel if these necessities are not satisfied. The globalization processes that have weakened the Latin American state in their pursuit of modernization must be turned to support social development. They must understand that the political and civil conscience of those who suffer the effects of the application of regressive economic policies will seek to find refuge in the territorial base of democracy, and that these people need to be assisted to develop their own autonomy and promote actions of self-management (Almeyra, 1999).

#### INTO THE 21ST CENTURY: THE DILEMMA OF GOVERNANCE IN LATIN AMERICA

The low level of governance in Latin America has its antecedents in the weaknesses of the economic, social, cultural and educational policies which existed despite the past strong presence of the authoritarian state and its governing institutions. Sadly, as we have seen, the new economic policies associated with the neoliberal transition of the late 20th century, which weakened that state, did nothing to remove these governance deficits.

What is now required is to develop a critical appreciation that the prevailing international economic system, which mortgages the future of big sections of the population, needs to change. Latin America cannot effect this change alone, but it can exert much more pressure on the levers which have designed and presently perpetuate that system if it now begins consciously to reform its governance along the lines indicated here. The centre of this debate on governance involves questioning the global economic pattern implemented in the last two decades that has given dominance to the market, and recognising the imperative need to correct the social imbalances it has generated.

Quality governance certainly favours economic growth, but it also demands sustained social development. Economic development needs to be seen as a step towards a higher level of life, to be taken in the smallest possible time and at the smallest possible cost. It is thus a means, not an end in itself. If it has any validity as a process, it must be accompanied by social development, which involves better distribution of income. More generally, it involves an increase in the good of mankind, facilitating constructive coexistence of each member of the population with every other member. Imperatives are participation in community activities and the mutual help that insists on the validity of law and the democratic way of life; to achieve these standards, the horizons of education and culture must be opened and enlarged (Servitje, 1999). In these terms, the results obtained in Latin America over the last 20 years must be seen as very disappointing, and they point clearly to what needs to be done to improve standards of governance in the future.

There are many governance weaknesses to be overcome. Why were public and private investments in Mexico in 1996 less than the annual levels of the 1970s and 1980s? A serious study of the Mexican case (Glen & Sumlinski, 1998; also Standard & Poor's, 1997) points to several main problems: official and private corruption, the traffic of influence, the corruption and inefficiency of judicial organs, the influence of drug cartels, deficiencies in internal security in the form of guerilla groups operating in rural areas, violence in the big cities. Another study (Brunetti et al ,1998a), based on a survey of private sector views of the governments of Central American states (including Mexico, Costa Rica and Jamaica), sought to evaluate the institutional quality of the various countries and located significant obstacles to business opportunity in the rate of crime and robbery, inadequate infrastructure, inflation, corruption and poor financing. All this points to a high degree of risk associated with a government's capacity to establish macroeconomic stability (cf Malvin, 1985; also Brunetti et al, 1998b). Removing sociopolitical uncertainty must be an important component of all efforts to reduce the burden of these existing problems, and central to that cause must be the strengthening of education and health programs and basic social services to support the reduction of poverty. Such policies are essential to modify the economic environment so that a diverse range of individuals will be able to take advantage of opportunities to behave

entrepreneurially and contribute broadly to the combined objective of economic growth and social development.

Is the process of selling strategic public enterprises to the private sector likely to be reversed? In their privatization programs, Latin American governments have destroyed the assets of nations, gambling on an assumed prosperity expected to come from globalization processes. Now, it would seem, a better future rests in the possibility that the provision of social welfare and other essential collective goods for a stable democracy may come from state actors and institutions forging close and mutually constructive links with private actors whose cooperation will be essential if political stability is to be achieved and economic growth restored. A non-partisan strategy will be required. It must be recognized that all will benefit from such privileged connections between the actors of the state and those of the private sector, and this will not happen unless and until there is developed and entrenched a theory and a policy that stresses the importance of a sense of community identity and yet is tolerant of differences among the diverse members of that community.

The paradox is that, contrary to the principles of neoliberalism that postulate the free market, democracy and individual freedom, the recent reformations of the Latin American state have been implemented under practices of authoritarian government. Also, the interventions that have taken place (such as those under the authoritarians Salinas in Mexico and Menem in Argentina, dictator Pinochet in Chile or the delegate democracy of Fujimori in Peru) have accentuated the practices of a strong presidentialism, cronyism, corporatism and populism. The delegate democracy is a perverse form of democratic governance, maintaining existing iniquities. In the Latin American states at the turn of the century, tendencies sprout toward a system of public administration characterized by an oligarchic pragmatism that still personalizes presidential power. However, the resurgence of populism is another present possibility in Latin America, as in the recent case of Venezuela.

The processes of economic liberalization do not bring the benefits expected in economic growth, distribution of wealth or depression of poverty, and the advance of the processes of democratization is slow. The results appear in the tensions and social and political conflicts which have such serious implications for governance. Moreover, in the resolution of the various conflicts, the Latin American states are losing efficiency and effectiveness because they have fewer resources, insufficient and inadequate means, and reduced autonomy for the formulation and implementation of policies.

The hope for the future is that the causes of this decline will be clearly recognised, and that governments will turn towards the strengthening of social development and social cohesion, which will then surely promote also the cause of economic growth. To do this, they will need to be far more selective in choosing which components of the globalizing process they wish to support; they will need to be stronger in standing against components which restrict their own developmental opportunities. A future in which these things happen may restore for Latin Americans the dream of a democratic Bolivarian utopia.

#### **NOTES**

"Coronelismo" comes from the Portuguese version of the military rank of colonel. Most of the military officers on the winning side of the revolutionary wars in Latin America lacked formal military education; nonetheless, when they won, they held power over a region and controlled most of the political, social and economic activities within it, so that the lives of ordinary people depended on their decisions. "Caudillismo", from the Spanish word Caudillo, is a spontaneous political leader emerging from the aristocracy---mainly descendents of the Spanish or Portuguese conquerors---and rewarded with political power after the various Latin American wars of independence and revolutions. Both groups exercised authoritarian power and frequently abused ordinary people and their properties.

- This finding needs to be read in the light of Hopkins's conclusions (1991, 1996).
- Not surprisingly these relativities, being so unfavourable to Latin America, have attracted a large literature in that region. These comparisons drawn from eg Barros, 2000; Brito, 1999; Castillo & Romero, 1990; Contreras, 2000; Cason & Brooks, 2000; Daniels, 2000; Enriques Cabot, 2000; González Amador, 2000; Peón Solís, 1999; Rugman & Hodgetts, 1997: pp.44-45. See also EFTA, 1995.

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