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Is the Imposed Global “Laissez-faire” Socio-economic System Responsible for the Latest Financial Crisis?*

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Abstract: The intension of this work is to determine the elements that caused the current “planned” and prospective problems to the U.S. and consequently to Europe, and to all economies of the world, due to the inhumane globalization. A recent historical retrospect of the problem is presented and a theoretical model is used to measure the benefits (gains) and costs (losses) to society by considering some objective macroeconomic variables and their deviations from the target ones. The global uncertainty had increased the price of gold and the U.S. debts and deficits had caused the depreciation of the dollar, which with the help of speculators have heightened the price of oil. The deregulation in financial markets and institutions and the easy money policy had increased lending, corruption, speculation, innovations, prices in financial and real assets (even in food) had caused enormous bubbles, which some people (the world planners = “the wise men”) burst them in 2008 and created the worst financial crisis, following by the first most severe recession (depression) in the 21st century. This moral and political crisis of the laissez-faire socio-economic system led the western free-market economies (especially Euro-zone) into the recent and continued deep recessions, enormous unemployment, annihilation of their wealth, and complete distrust for the financial markets. Some nations got closed to bankruptcies, many lost their sovereignty, and a new cold war has appeared. Hence, we face, today, an absolutely uncertain future with these interdependences among nations that the world leaders accepted without any resistance.

Key words: estimation; forecasting; open-macroeconomics; policy-coordination; efficiency

JEL codes: C13, C53, F41, F42, G14

1. Introduction: A Recent Historical Retrospect of the Financial Problem

The latest financial crisis can be blamed on many factors and even on some particular “players” in governments, in regulatory institutions, and in the laissez-faire system per se. These ineffective (corrupted) players contributed to a common cause of illusion, to a cyclical pseudo-euphoria, and to the abandonment of our traditional value system. The global uncertainty, which has been cultivated since 1980s with absurd deregulation

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and excessive debts² (Reagan, Bush I, Clinton, and Bush II), due to the forcefully and undemocratically imposed globalization,³ is growing and the news from all sources (even though that they are controlled, “politically correct”) were revealing this planned crisis. Behind these politicians, their ignorant advisers, and their imposed policies are humans and history. Of course, a question remains in every individual; where all this money from the financial markets has gone? Who is in control of our leaders? Why the system has failed? For how long are we going to support an antihuman socio-economic system? The battle for the past is determining the battle for the present and the current battle will affect the future battle.

The major recent conflicts in our world are the followings.⁴ The war in Iraq, (even the former Secretary of State, Madeleine Albright, called Iraq the “Greatest Disaster” in the U.S. foreign policy),⁵ the chaos in Pakistan, the Afghanistan turmoil and the shift of the war, there, from Iraq, the Middle East disorder,⁶ especially lately, with the Israeli bombing campaign and invasion in the Gaza Strip, which lasted for three weeks and the current embargo of Palestinians. The American interference in Europe, the suspicious antiterrorism policies which have infringed civil liberties,⁷ the creeping war with Iran and other “evil” nations, the rising of piracy from Somalia that threatens international trade, the growing Chinese superiority and aggressiveness (China will be the future threat for the west),⁸ and the Indian outsourcing. Also, the corruption in business and politics, the fraud in financial markets (especially, hedge funds = “the big lie”), the insider trading,⁹ the inflated credit ratings and accounting data, the bribes from companies to government officials to win contracts, the outrageous, anti-social, and unjustifiable executives’ pay in our (value-free) free-market system and in some educational institutions. At the same time the low wages and without any other benefits employment for many workers, the losses of the private pension plans and the dry out social security systems, the negative effect on endowment funds, the immorality, the reanimation of the cold war, terrorism, poverty,¹⁰ famine, overconsumption,¹¹ waste, debts, illegal migration,¹² crime, loss of jobs,¹³ and the international political, economic, and social fears (neo-barbarism)¹⁴ have negative effects on the

² Financial theories were recommended 100% debt (tax payers are subsidizing its cost), as the optimal capital structure, which is wrong because it increases the firm’s risk, the market risk, the systemic risk, and finally, the social risk. By the way, the U.S. debt continuous, the same way, even with President Obama.

³ “The publics of the world broadly embrace key tenets of economic globalization but fear the disruptions and downsides of participating in the global economy. In rich countries as well as poor ones, most people endorse free trade, multinational corporations and free markets. However, the latest Pew Global Attitudes survey of more than 45,000 people finds they are concerned about inequality, threats to their culture, threats to the environment and threats posed by immigration. Large majorities feel that faith in God is a necessary foundation for morality and good values, and similar majorities believe society should reject homosexuality. Together, these results reveal an evolving world view on globalization that is nuanced, ambivalent, and sometimes inherently contradictory.” (*The Pew Global Attitudes Project*, October 4, 2007).

⁴ Documentations for all these events are available from the author upon request. The working paper is 96 pages long and due to space limitations they are omitted, here.

⁵ www.Bloomberg.com, November 10, 2008.

⁶ A former Army engineer was arrested on charges he gave classified nuclear-weapons documents to Israel. (*The Wall Street Journal*, April 23, 2008, pp. A1 and A2).

⁷ See, *The Wall Street Journal*, March 14, 2008, pp. A1 and A3.

⁸ Lawmakers said multiple congressional computers were hacked by people inside China, suggesting a search for lists of dissidents. (*The Wall Street Journal*, June 12, 2008, pp. A1 and A4).

⁹ See, www.Bloomberg.com, October 19, 2009.

¹⁰ In the wealthiest country of the world, the U.S.A., 10% of the Americans (31.5 million people) are receiving federal food-stamp benefits, an all-time high. (*The Wall Street Journal*, December 12, 2008, p. A1).

¹¹ Over 34% of Americans are obese and 32.7% are overweight, according to the latest government healthy survey. (*The Wall Street Journal*, January 10-11, 2009, p. A1).

¹² Federal officials said work can resume on a virtual fence along the Mexican border. (*The Wall Street Journal*, February 18, 2009, pp. A1 and A6). The problem is very serious for Greece, because she cannot put any fence to keep out illegal immigrants that Turkish smugglers ship to the thousands Greek islands daily. See, “Thanos Plevris” in Newspaper *City Press*, September 18, 2009.

¹³ The unemployment rate in some EU regions has reached 40% and in England, there are cities with 50% unemployment. TV News *ALTER*, September 10, 2009.

faithless (neo-liberal) U.S.,¹⁵ European nations, and the rest of the world.

Further, the illusions and delusions in our “accredited” education have deteriorated the educational system and the true knowledge. The crude oil prices hit \$144.15 per barrel on July 3, 2008. The stock markets fell around the world,¹⁶ the dollar declined,¹⁷ and the gold hit a record \$1,562.50 per ounce (4/29/2011).¹⁸ The U.S. economy started slowing sharply since the fourth quarter of 2007 ($g_{GDP} = -0.2\%$) until the second quarter of 2009 ($g_{GDP} = -0.74\%$)¹⁹ and the inflation in the last two months of 2007 was exceeded 4.1%, it fell to 3.85% in 2008, to 2.7% in 2009, and to 1.4% in 2010. Then, first, second, third, and fourth quarters of 2009, the growth was (-6.43%, -0.74%, 2.24%, and 5.55% respectively) and the unemployment rate from May to October 2009 was increasing (from 9.4% to 10.1%). Lately, the U.S. economy expanded at a 3.7%, 1.6%, 2.6%, and 3.1% annual rate in the first, second, third, and fourth quarter of 2010 (averaged 2.8% in 2010). The growth in the first quarter of 2011 fell to 1.8%. Prices were going up drastically even though officials in every country manipulate the price indexes, trying to reduce inflation risk premium, hence, interest rates, pessimism of their citizens, and “improve” the financial markets. Also, tremendous debts²⁰ and deficits,²¹ a credit-crunch (due to major problems in the mortgage market), and closed to zero savings shake the financial institutions and the global “integrated” financial system. A recession and an enormous unemployment, which is growing (with its unique characteristic the millions of jobs lost), has started in December of 2007 and is getting worse; has to wake up policy makers and to find ways to stabilize this planned inhumane “glob-onomics”. Over all, the lack of regulations, the same kind of people working for the Financial Market (Wall Street) and then, they were appointed to the Federal Reserve, the government or to the regulatory agencies. These people care only for their interest and their group’s interest and not for the country’s interest and the citizens’ interest; they have created this current financial crisis with their speculations, their corruptions, and their “long-term objective”. The U.S. economy is sinking (and people do not want to realize it, “*stourthokamilismos*”) because it depends only on financial services and on nothing else (no autarky and diversification in production); the primary (agriculture) and secondary (manufacturing) sectors have been abandoned, and its international policy is becoming from bad to worse.

¹⁴ China executed more people than any other country in 2007. Iran ranked second-highest and the U.S. fifth. This is our civilization in this gloomy 21st century. (*The Wall Street Journal*, April 15, 2008, pp. A1 and A10).

¹⁵ Nearly half of adults in the U.S. have switched from the faith, in which they were raised or have dropped any religious affiliation, a survey found. (*The Wall Street Journal*, February 26, 2008, pp. A1 and D1).

¹⁶ The U.S. financial market peaked on October 9, 2007 (DJIA was 14,164.53) and troughed on March 9, 2009 (DJIA was 6,547.05); it declined by -7,617.48 points or -53.78%, and with calendar days to bottom 517. (www.Bloomberg.com). The loss of wealth was in tens of trillion of dollars, which was enormous for poor investors (from their private pension plans).

¹⁷ From 0.8525 \$/€ (October, 2000), the dollar fell to 1.6001 \$/€ (April, 2008); a depreciation by -87.70%. (www.Bloomberg.com). Lately, due to the enormous deficits and debts in the Euro-zone (PIIGS), the overvalued euro started to depreciate and reached 1.1960 \$/€ (6/7/2010). Now, is back to 1.4511 \$/€ (6/9/2011). (www.Bloomberg.com). The Chinese Prime Minister visited Greece and said, he will support euro and will invest in Greek government bonds. (*TV News ALTER*, October 3, 2010).

¹⁸ Gold prices have risen more than 477% in the last ten years an indication of high uncertainty for the investors, speculators, and opportunists. (www.Kitco.com and www.Bloomberg.com, 4/29/2011).

¹⁹ The real GDP growth was 2.1% p.a. in 2007, it became negative -0.8% p.a. in 2008, and fell to -2.4% in 2009. For the 3rd quarter of 2008, it was -2.7%, in the 4th one fell to -5.4%; in the 1st of 2009 became -6.43%, and in the 2nd one of 2009 was -0.7% (recession). See, Bureau of Economic Analysis (www.bea.gov and www.economagic.com).

²⁰ The credit cards rate is 30% p.a. for the poor people, due to high risk premium. We overcharge the poor and small businesses with high risk premia and at the same time, we tax them by buying lottery tickets (state taxes). The national debt was on June 9, 2011: \$14.348 trillion. (The estimated population of the United States is 310,723,405 so each citizen’s share of this debt is \$46,177.61. The National Debt has continued to increase an average of \$3.96 billion per day since September 28, 2007).

²¹ The U.S. began its fiscal year with a record \$237.2 billion budget deficit in October 2008, reflecting bailout spending. (*The Wall Street Journal*, November 14, 2008, p. A1). U.S. congressional analysts were expected even more red ink; a record \$1.4 trillion deficit for fiscal 2009, which complicated President Barack Obama’s efforts to pass his \$3.55 trillion budget plan for 2010. The federal budget deficit fell to nearly \$1.3 trillion for fiscal 2010.

In 1987, the Reagan administration removed Paul Volcker²² as chairman of the Federal Reserve Board and appointed Alan Greenspan in his place. Greenspan did a very “good” job, as it was planned.²³ “By the late 1990s, Greenspan’s papal-size reputation for infallibility made insiders wary of challenging him. And then there was his masterful ability to silence internal critics when he grew weary of them.”²⁴ He presided over two financial bubbles (the high-tech bubble of 1990s popped in 2000-2001 and the housing bubble burst in 2007-2008). The first responsibilities of a central bank should be to maintain the stability of the financial system, to sustain consumers’ and investors’ confidence, and to maximize social welfare for the country.²⁵ If banks lend on the basis of artificially high asset prices, the result can be a meltdown because the economy cannot generate this in real wealth²⁶ (it creates only an artificial market wealth, paper or accounting wealth that some can take advantage of it and become billionaires by selling these close to zero intrinsic value financial assets, for hundreds of dollars per share). To avoid the high-tech bubble, we could have increased interest rate, increased margin requirements to 100%,²⁷ and controlled speculation through regulations. To deflate the housing bubble, we could have curbed predatory lending to low-income and high-risk households and prohibited other insidious practices (payment with commission to loan officers, no-documentation or “liar” loans, interest-only loans, no-down payment loans, etc.). In February 2006, when Ben Shalom Bernanke took over the Fed, he told during the ceremony: “My first priority will be to maintain continuity with the policies and policy strategies established during the Greenspan years.”²⁸ Also, when Bernanke was at his ultimate interview for the Fed²⁹ and was in the Oval Office with Bush, the president talked about “social security privatization at the time”.³⁰ Of course, an economy, like the U.S. or the world economy should not rely on the instincts of a single man, the Fed’s chairman.

On November 15, 1999, Congress repealed the Glass-Steagall Act of 1933 and the Financial Services Modernization (Gramm-Leach-Bliley) Act was passed.³¹ This new Act of deregulation changed the entire financial culture. Commercial banks were before not high-risk ventures, but they were managed hard-working people’s deposits very conservatively and the government would pay off in case of banks’ default (FDIC insurance). Investment banks were managed rich people’s excess wealth, who can take bigger risks (risk-seekers) in order to get bigger returns (or losses, which their costs are insignificants for these affluent people). Since 1999, when investment and commercial banks are the same institutions, it started a demand for the kind of high returns that could be obtained only through high leverage, cheating, manipulating, lying, and risk-taking. Also, in April

²² Paul Volcker had reduced inflation from 12% to 4%, had increased employment, and was in favor of regulations in financial markets. Reagan (those behind Reagan) wanted someone who believes in free-market and in globalization, which could deteriorate U.S. prosperity and control, so people can go against their own government and their own country. Then, the ground would be free for the new socio-politico-economic system: the global government.

²³ Between 1986 and 1995, the government shuttered more than 1,000 Savings & Loan Associations with assets totaling over \$500 billion, for a total cost that ended up at about \$150 billion for the taxpayers.

²⁴ See, Wessel (2009, p. 125).

²⁵ But, Allan Meltzer has said that “Throughout its postwar history, the Fed has responded to the interests of large banks and Congress, not the public”. See, Wessel (2009, p. 157). Also, President Woodrow Wilson had said that the U.S. is controlled by its financial system.

²⁶ The real wealth can be created through production of goods mostly and services, that is added to the existing assets of the economy, and it generates the realistic (fair) compensation of these factors of production, which owned by individuals (private) and the government (public).

²⁷ Margin requirements are 50% since January 3, 1974. See, Rose and Marquis (2008, p. 404).

²⁸ Wessel (2009, p. 67) says that because his middle name translates as “peace”, he is inclined by nature to seek harmony (sic).

²⁹ The other finalists were, Gregory Mankiw, John Taylor, Marty Feldstein, and Stephen Friedman. See, Wessel (2009, p. 83).

³⁰ See, Wessel (2009, p. 77).

³¹ “This was the culmination of a \$300 million lobbying effort by the banking and financial services industries and spearheaded in Congress by Senator Phil Gramm”, as Stiglitz (2009), who had opposed the repeal of Glass-Steagall Act, said.

2004, the Securities and Exchange Commission at a meeting³² allowed big investment banks to increase their debt-to-capital ration (from 12/1 to 30/1 or higher), so that they could buy more mortgage-backed securities and inflated the housing bubble even more in the process. The most important challenge was that posed by derivatives in the 21st-century deregulated markets.

On June 7, 2001, came the Bush tax cuts, especially for upper-income Americans and corporations. But the rich people do not spend more, when their taxes are falling, then this fiscal stimulus did not help the economy. Consequently, the real stimulation was left to the Fed (monetary one), which reduced interest rates and provided a very high liquidity that made money readily available in financial and mortgage markets (even to those who would normally not be able to borrow). Then, the war in Iraq, the high budget deficit to finance it (and all the other open fronts around the world), depreciated the dollar and increased the oil and commodity prices.³³ These succeeded in forestalling an economic downturn and household saving rate plummeted to zero and during 2005-2006 became negative.³⁴ It was clear that U.S. were living on borrowed money, which was coming mostly from abroad. Also, the cut in tax rate on capital gains contributed to the crisis. Those who speculated and won were taxed more lightly than wage earners who simply worked hard. These policies encouraged leveraging, too, because interest on debt was tax-deductible (subsidized by tax payers). If someone borrowed a million to buy a home or took a \$100,000 home-equity to buy stocks, the interest would be fully deductible every year. All these policies were providing an open invitation to excessive borrowing and because banks are profit maximizing institutions, they were encouraging lending (today's people do not need any more encouragement for borrowing and consuming because they already, have become from persons consumers and spendthrifts).

In summer 2007, Bernanke assembled a group to deal with the emerging grim economic reality. They were, vice chairman Don Kohn, the levelheaded economist who had joined the Fed staff when Richard Nixon was president;³⁵ Kevin Warsh, the well-connected Gen-X banker who had come to the Fed from the White House shortly after Bernanke had;³⁶ and Tim Geithner, who was president of the N.Y. Fed and the baby-boomer protégé of Treasury secretaries Bob Rubin and Larry Summers. Frederic Mishkin who is Bernanke's friend was left on the sidelines. But, in their August 7, 2007 meeting, the FOMC left the interest rate unchanged at 5.25% saying that “although the downside risks to growth have increased somewhat, the committee's predominant policy concern remains the risk that inflation will fail to moderate as expected”.³⁷ The next day, Robert Rubin, the former Treasury Secretary and top Citigroup executive called Bernanke and said, “You did the right thing in not cutting rates”. On August 9, 2007, the French bank BNP Paribas made a startling announcement: it was suspending withdrawals from three funds that had invested in U.S. subprime mortgages. It could not put a value on the funds assets because of “the complete evaporation of liquidity in certain market segments of the U.S. securitization market”. This news was an unsettling to investors. Banks with cash husbanded it reluctant to lend even to other

³² During this meeting, the SEC argued for the virtues of self-regulation. This is impossible for every one and every institution because no one can effectively police himself. Self-regulation cannot identify systemic risks, since every one is using the same model, have the same objective, and act pro-cyclically.

³³ See, Kallianiotis (2008).

³⁴ The U.S. personal saving rate became in 2005M07: -1.4%, in 2005M08: -3.4%, in 2005M09: -0.5%, in 2005M10: -0.1%, in 2005M11: -0.2%, in 2005M12: -0.7%, in 2006M07: -0.3%, in 2006M08: -0.1%, and in 2007M11: -0.5%. (www.Economagic.com).

³⁵ Kohn (Alan Greenspan's closest adviser) had never worked outside the Fed. See, Wessel (2009, pp. 106-107). Kohn retired from Fed in June 2010.

³⁶ Kevin Maxwell Warsh resigned his position unexpectedly on March 31, 2011.

³⁷ See, Wessel (2009, p. 100).

banks because they were no longer sure they would get paid back.³⁸

In October 3, 2008, a bailout package passed, which provided \$700 billion to restore confidence in the U.S. economy. But the banks had made too many bad loans, which have created big holes in their balance sheets. Treasury Secretary, Paul Paulson, was buying up the bad assets and putting the risk onto American taxpayers, hoping that banks would use this money to restart lending, but some of this money was paid as dividends to their shareholders or bonuses to their executives. Of course, the economy had been sustained by excessive borrowing for many years (with a total government and private sector debt, including contingent liability as of January 1, 2010 of over \$156.2 trillion, \$508,972 per capita, 1,200% of GDP).³⁹ Also, unemployment⁴⁰ was increasing and personal income and consumption were falling. Exports were declining and the revenue for state, local, and federal government was diminishing. The confidence level of consumers and investors had reached the lowest level since the introduction of these indexes. All these contingencies were affecting negatively the financial sector of the economy, which is the only sector left to sustain production, growth, and employment for the deteriorating U.S. economy. The objective of the government, central bank,⁴¹ and the other authorities is to prevent crises, but these policy makers and regulators have lost power and consequently, control of the market and of the entire socio-political-economic system.

In summary, the global economy has sustained the most intense, destructive, and far-reaching financial shock since the Great Depression (the market, DJIA, declined then -89.2% and now -53.78%). A number of factors have contributed to it, from greed, corruption, deregulation, to risk-taking. The major financial institutions were not managing risk in a careful and prudent way. Credit rating agencies did not do their job impartially. Housing market has created a huge and risky bubble. Regulators were trusting financial markets that they were acting in favor of the social interest and they can be self-regulated. Corporate boards, executives, institutional investors, and government officials were maximizing their personal interest (there was a conflict of interest everywhere). But, at the core of this recent financial market crisis has been the discovery that tranches (structured securities) are actually far riskier than originally advertised.⁴² How is it possible that so many parties and entities did not have the capacity to analyze, foresee, and understand this tremendous risk of our global system that was transferring from one participant to the other, until some “smart” people decided to sell their overvalued and over-risky financial assets? Of course, by 2006, structured finance issuance led Wall Street to record revenue and compensation levels. Moody’s reported that 44% of its revenues came from rating structured finance products. By 2008, global issuance of collateralized debt obligations slowed to a crawl and Wall Street banks were forced to incur massive write-downs.⁴³ A huge fraction of existing products (“asset-backed securities”) saw their ratings downgraded.

³⁸ See, Wessel (2009, p. 101).

³⁹ See, *Grandfather Debt Summary Tables Report*, by M. W. Hodges.

⁴⁰ In October 2009, unemployment reached 10.1%. (<http://www.bls.gov>). Now (May 2011), it is 9.1% and does not seem that it is going to fall very soon and has affected negatively the stock market, the income, and the growth of the economy. (www.Economagic.com).

⁴¹ During a hearing on Capitol Hill, Alan Greenspan said that, “I have found a flaw” in our system. Congressman Henry Waxman pushed him responding, “In other words, you found that your view of the world, your ideology, was not right; it was not working”. “Absolutely, precisely”, Greenspan said. The evidence have shown to everyone that the philosophical systems (capitalism=the sub-culture of waste and communism = the sub-culture of oppression), which this (the same) group of people have imposed on societies for more than three centuries do not work, but satisfy their false needs for global hegemony and universal slavery. Of course, we (who know the truth) will say NO to them!

⁴² See, Coval, Jurek, and Stafford (2009) and Eiteman, Stonehill, and Moffett (2010, pp. 106-134).

⁴³ Rating agency revenues from rating structured finance products disappeared virtually overnight and their stock prices of these companies fell by 50%. See, Coval, Jurek, and Stafford (2009).

As the housing bubble burst, falling real estate prices reduced the value of houses (the collateral families had used to get mortgage loans) as well as the value of the mortgage-linked securities that banks held. The first phenomenon made borrowers much less appealing to lenders. The second ate into banks' capital cushion; with less capital and the prospect of even more losses in the future, banks grew reluctant to lend. That further weakened the economy. Thus, on August 9, 2007, the global financial system started to crack because financial institutions' holdings of mortgage-backed securities were worth less than they thought and had become very difficult to value. Banks' uncertainty about their own level of capital and their ability to borrow made them unwilling to lend. Some financial institutions began to have trouble finding the short-term financing that was essential for them to carry on their daily operations. Fed officials created new innovative lending procedures in the form of the Term Auction Facility,⁴⁴ the Primary Dealer Credit Facility,⁴⁵ and the Term Securities Lending Facility.⁴⁶ By lending both cash and securities based on collateral of questionable value, the Fed tried to bring order back to financial markets. The amounts involved were hundreds of billions of dollars.

This laissez-faire economic system turmoil of 2007, 2008, and 2009 has led the world to the most severe financial crisis since the Great Depression⁴⁷ and was threatening to have large and lasting repercussions on the real economy, especially on employment. The bursting of the housing bubble forced banks to write down hundreds of billions of dollars in bad loans caused by mortgage delinquencies and the stock capitalization of the major banks declined drastically. The low interest rate policy by the Fed and the transformation of the banking system contributed to the current crisis. The traditional banking model, in which the issuing banks hold loans until they are repaid, was replaced by the “originate and distribute” banking model, in which loans are pooled, tranced, and then resold via securitization. The creation of these new securities facilitated a large capital inflow from abroad. These financial innovations made the banking system very unstable and uncertain by transferring risk to others and led to an unprecedented credit expansion that helped feed the boom in housing prices and in all financial assets. Since summer 2007, the TED spread⁴⁸ started to widen, showing an increase in uncertainty, because during that period banks were charging higher interest for unsecured loans, which increased the LIBOR rate. Also, banks want to get first-rate collateral, which makes holding Treasury bonds more attractive and pushed down the Treasury bond rate. For these reasons, the TED spread widens in time of crises. In other words, the TED spread provides a useful basis for gauging the severity of the current liquidity crisis.⁴⁹

A positive think that appeared during this global downturn is economic nationalism. In the U.S., lawmakers

⁴⁴ Any one of the more than 7,000 commercial banks can bid in the auction mechanism to receive reserves from Fed since December 2007. This TAF removes the stigma associated with discount borrowing. The Fed started lending reserves in substantial quantities for relatively long periods (28 or 35 days). As the Fed increased lending, it reduced its outright securities holdings in equal measure, leaving the total size of the Fed balance sheet unaffected. See, Cecchetti (2009).

⁴⁵ The PDCF allows the 19 primary dealers, who are not banks, but are investment banks and brokers, and participate in daily open market operations and the Treasury auctions, to (from March 16, 2008) borrow directly from the Federal Reserve discount loans (like commercial banks) and pledge a relatively broad set of collateral including investment-grade corporate securities, municipal securities, mortgage-backed securities, and asset-backed securities for which a price is available. See, Cecchetti (2009).

⁴⁶ In winter 2008, the U.S. Treasury securities of all varieties became extremely scarce and these Treasuries are necessary as collateral on repurchase agreements. The Fed created the TSLF, which allows dealers to obtain Treasuries in exchange for “AAA/Aaa-rated private-label residential MBS (mortgage-backed securities) not on review for downgrade”.

⁴⁷ Here is the comparison of the bear markets during the Great Depression and the last one in the DJIA: Great Depression: Peak on September 3, 1929 (DJIA was 381.17), trough on July 8, 1932 (DJIA was 41.22), a decline by 339.95 points or -89.2%, and with calendar days to bottom 1,038. Current Credit Crunch: Peak on October 9, 2007 (DJIA was 14,164.53), trough on March 9, 2009 (DJIA was 6,547.05), a huge and drastic decline by 7,617.48 points or -53.78%, and with calendar days to bottom 517. See, Kallianiotis (2009).

⁴⁸ TED spread = $i_{LIBOR} - i_{RF}$, where RF is the 3-month U.S. Treasury bill rate.

⁴⁹ See, Brunnermeier (2009).

were pushing to bar foreign suppliers for stimulus-funded projects.⁵⁰ In Britain, workers at oil refineries and power plants walked off the job to protest the use of foreign labor. Spain was offering immigrants money to return home, while France was seeking to route many government-sponsored jobs to French companies.⁵¹ We hope the smaller countries in the EU to do the same and promote employment of their citizens, reduce crime, and protect the identity of their countries. Tariffs and other protections of the domestic economy are necessary, not only now, due to the recession, but always because countries have to support, first, their domestic economies and promote the welfare of their citizens. Free trade and free markets do not work in favor of the countries' citizens. The WTO called a meeting to discuss this recent wave of protectionist measures, as governments scramble to save key industries.⁵² The House passed a new \$819 billion stimulus bill, too.⁵³ At the same time, a growing number of states were running out of cash to pay unemployment benefits.⁵⁴ Czech President Klaus assailed the EU as undemocratic and said it should halt further centralization of powers.⁵⁵ European leaders called for a doubling of IMF funds to help bail out former communist and current EU economies.⁵⁶

The literature, regarding the financial crisis and its causes, is huge; the financial press (*The Wall Street Journal*, *The Financial Times*, *The New York Times*, etc.), and all the news extensively deal with the issues in question, here. Hellwing (1999) has developed political-economy arguments to explain various practices and regulations in corporate finance based on the contrasting interests and organization costs facing insiders versus outsiders. Irwin and Kroszner (1996) said that groups with completely unconnected interests may form “support trading” or “log-rolling” coalitions. Two groups may agree to support each other even if the members of one group are not affected by the regulations that the other group wants. Becker (1983) argues that competition among lobbying groups thus will lead to the most efficient (lowest deadweight cost) regulations being chosen, so there is a tendency for regulation to be “efficient” in this sense. Wittman (1995) concludes that both domestic institutions and outcomes are efficient. Many studies are saying that there are obstacles to optimal reforms, like Kroszner (1999) and others. Kane (1996) argues that bank regulators and beneficiaries of restrictions on the geographic expansion of banks purposefully misinformed the public and legislators about the costs of the regulations. Lown, Osler, Strahan, and Sufi (2000) say that mergers between BHCs and life insurance firms will produce firms that are less risky (and no less profitable) than those in either of the two individual industries.

Further, Brock, Durlauf, and West (2003) describe some approaches to macroeconomic policy evaluation in the presence of uncertainty about the structure of the economic environment. Greenspan (2004) said that monetary policy since 1979 has meaningfully contributed to the impressive performance of the economy. Chambers (2007) says that investment banks with this continuing globalization face challenges and uncertainty that will dictate their success or failure. Ross and Wolf (2007) proposed to companies to think beyond traditional business continuity planning and with a Risk Intelligent Enterprise to analyze their impact on people, processes, technology, and

⁵⁰ Also, the U.S. Commerce Department began an investigation into whether to impose antidumping duties on imports of some steel pipes from China. (*The Wall Street Journal*, October 8, 2009, pp. A1 and A6).

⁵¹ See, *The Wall Street Journal*, January 31-February 1, 2009, pp. A1 and A2. France tried to deport many Afghan illegal immigrants (TV News *ALTER*, 10/7/2009) and deported many Romas (Gypsies), too. (TV News *ALTER*, 10/8/2010).

⁵² See, *The Wall Street Journal*, February 6, 2009, pp. A1 and A6.

⁵³ See, *The Wall Street Journal*, January 29, 2009, pp. A1 and A3.

⁵⁴ See, *The Wall Street Journal*, February 6, 2009, pp. A1 and A3.

⁵⁵ Czech Republic had the Presidency of the EU during the first half of 2009. See, *The Wall Street Journal*, February 20, 2009, pp. A1 and A11.

⁵⁶ See, *The Wall Street Journal*, February 23, 2009, pp. A1 and A6. Greece, Ireland, and Portugal borrowed billions of Euros from the Troika (EU, ECB, and IMF).

facilities. Kumar (2007) says the globalization’s business-cycle links include many crosscurrents, creating uncertainty about how overseas events might impact the Texas economy. Veraciero (2008) illustrates how corruption can lower the rate of product innovation in industries, which result in a lower growth rate for the whole economy. Gavin (2009) discusses the massive purchases of private debt and the issue of hundreds of billions of dollars in short-term loans by the Fed and the effect of this policy on monetary base and on future inflation. Demyanyk (2009) analyzes the effect of the subprime lending on the increase of homeownership in the United States. Mayer, Pence, and Sherlund (2009) talk about the subprime and Alt-A mortgages and try to determine the reasons for their delinquency. Coval, Jurek, and Stafford (2009) discuss the transformation of trillions of dollars of risky mortgage securitization assets to be sold as safe instruments. Cecchetti (2009) covers the response of the Fed in the financial crisis. Brunnermeier (2009) presents the credit crunch and the mortgage crisis, which became a global financial crisis. Shin (2009) discusses the bank run of the U.K. Northern Rock Bank. Wessel (2009) gives a deep analysis of the current great panic. Kallianiotis (2010c) says that the current financial crisis was predictable. Kallianiotis and Harris (2010) discuss the problems of the free-market economic system.

The paper proceeds as follows. The second section describes the theoretical model and gives the methodology used for measuring the loss to society. The third one produces the main empirical results, which can predict the financial crises and recessions. The next section provides some public policy implications of globalization and deregulation. Finally, the last section presents the epilogue.

2. Theoretical Model and Methodology: A Loss to Society Function

The objective of individuals is the optimization of their utility (well-being), which includes different goods, services, leisure, values, knowledge, improvements, accession, interactions, sociability, freedom, rights, and other x_i ’s.⁵⁷ The individual is assumed to be rational, informed, knowledgeable, and wise.⁵⁸

$$\text{optimize } u^j = f(x_1, x_2, x_3, \dots, x_n) \tag{1}$$

subject to

$$\text{Social Benefits constraint } [S.B = f(u, d, i_{S-T}, i_{L-T}, \pi, \dot{q}, s, \dot{m}^s, \dot{t}a, \dot{n}d, g_{SMI})]$$

where, u^j = the utility of individual j, x_i ’s = the different goods, services, and other needs of an individual, and y ’s = the actual values of different macro-variables (u = the unemployment rate, d = risk or crisis factor, i_{S-T} = nominal short-term interest rate, i_{L-T} = nominal long-term interest rate, π = inflation rate, \dot{q} = growth of real output, s = saving rate, \dot{m}^s = growth of money supply, $\dot{t}a$ = growth of trade account balance, $\dot{n}d$ = growth of national debt, and g_{SMI} = growth of the stock market index).

The objective of every well-governed, developed, ethical, uncorrupted, and sociable democratic independent state is the optimization of its social welfare function (citizens’ utilities).

$$\text{optimize } W = f(u^A, u^B, u^C, \dots, u^N) \tag{2}$$

subject to

- Resources
- Endowments
- Technology

⁵⁷ A prudent individual tries to maximize his efforts to become a better (perfect) human being by undertaking different actions towards his only true objective. Of course, he faces many social constraints (influences) from the ignorant society and the “enemy”.

⁵⁸ As Kallianiotis (2010c) and Kallianiotis and Harris (2010) mention, too.

Tastes

Sovereignty

where, W = social welfare, $u^A, u^B, u^C, \dots, u^N$ = utility (happiness) of individuals A, B, C, ..., and N in the nation.

The goal of public policy is to pursue approaches, rules, and regulations, which should be evaluated from the point of view of the society’s well-being and not from the profit maximization of multinational institutions, firms, and risk-taking billionaires. The total welfare of a country (given the growth of population, the factor endowments, and the state of the economy) must be improved continuously. General concerns about the state of the economy or anxiety about crime rate, high risk, or job losses are negatively affecting the social welfare. Also, the measurement of social welfare requires some ethical and country-specific standards, which involve internal and eternal value judgments. As a welfare criterion, can be the growth of the wealth of the society (nation’s GNP), which increases employment ($u \cong 0$) and production (keeping prices stable). This implies that the income distribution will be ethical and just (not exactly equal). A high (out of control) growth can lead to reduction in social welfare, due to waste, pollution, large fluctuations of business cycles, and negative mental, physical, and spiritual effects on humans. Efficiency (saving of recourses) is very important in social welfare (respect of the creation and individuals). Financial markets stability (normal return) and low risk to attract long-term investments and prevent insiders, speculators and opportunists through regulations improves the wealth of the investors and their utility. We cannot accept an action, which increases some individuals’ utilities, while others utilities decrease as all individuals are equal (have the same “worthiness”). Thus, the criterion must be objectively measured and a Pareto-Optimal one,⁵⁹ so the public policy objectives must be,

$$\text{optimize } S.B = f(u^*, d^*, i_{S-T}^*, i_{L-T}^*, \pi^*, \dot{q}^*, s^*, \dot{m}^{*s}, \dot{t}a^*, \dot{n}d^*, g_{SMI^*}) \quad (3)$$

subject to

The State of the Economy (s_i, p_i)

where, $S.B.$ = social benefits (their optimal or target values), s_i = state i of the economy (boom, recession, etc.), and p_i = the probability of occurrence of state i.

The giant out-of-control private institutions and firms are concerned mainly about their profits. Their objective function does not include the variables of the social benefits (individuals’ constraints); for this reason regulations are absolutely necessary.

$$\max \pi_t = f(R_t, \bar{\xi}_t, w_t, i_t, \varphi_t, \sigma_t^2) \quad (4)$$

subject to

Social Constraints (regulations, transparency, risk-averseness, morality, ethics, social responsibility,⁶⁰ anti-trust laws, etc.)

where, π_t = profit (or the market value of liabilities and equity), R_t = revenue or earnings ($P_t Q_t$), $\bar{\xi}_t$ = executives’ compensation, w_t = real wage, i_t = cost of capital, φ_t = a firm specific effect, and σ_t^2 = a risk factor ($\sigma_t^2 > d^*$).

Private businesses are producing where marginal cost is equal to marginal revenue ($MC_t = MR_t$); actually, the uncontrolled private firm is becoming gradually a monopolist, producing the lowest output at higher prices, through the risk-seeking processes. Their first concern is the reduction of the labor cost, increase in earnings, the determination of CEOs’ pay by themselves, and the maximization of the market price of their stocks. When a state

⁵⁹ See, Kallianiotis (2009).

⁶⁰ Firms must care for the welfare of their employees, customers, investors, community, and environment.

does not optimize its social welfare and experiences tremendous social cost (welfare losses), the social benefits (full employment, low risk, moderate interest rates, price stability, balanced growth, high saving and closed to zero debts and deficits, reasonable money supply, and stability in financial markets), due to optimal public policy, must exceed the social costs. This stems from the deregulation and huge gaps between the potential economic values and the actual ones. The social benefits and costs can be measured with a social loss function. The loss to society function⁶¹ can be expressed as a weighted average of deviations in the important macro-variables (social benefits) from their targets (optimal values), like unemployment from its target, risk, interest rates (short-term and long-term), inflation, output, saving, money supply, trade balance, national debt, and financial market from their potential levels,⁶²

$$L = w_u(u - u^*) + w_R(d - d^*) + w_{i_{ST}}(i_{S-T} - i_{S-T}^*) + w_{i_{LT}}(i_{L-T} - i_{L-T}^*) + w_\pi(\pi - \pi^*) + w_q(\dot{q}^* - \dot{q}) + w_s(s^* - s) + w_m(\dot{m}^s - \dot{m}^{*s}) + w_{ta}(\dot{ta}^* - \dot{ta}) + w_{nd}(\dot{nd} - \dot{nd}^*) + w_{SMI}(g_{SMI}^* - g_{SMI}) \quad (5)$$

where, $\sum w_y = 1$, L = the loss to society, u = the unemployment rate, d = risk or crisis factor (TED spread = $i_{LIBOR} - i_{RF}$),⁶³ i_{S-T} = nominal short-term interest rate (federal funds rate), i_{L-T} = nominal long-term interest rate (Treasury bond rate or AAA corporate bond rate), π = inflation rate, \dot{q} = growth of real output, s = saving rate (as percentage of the disposable income), \dot{m}^s = growth of money supply, \dot{ta} = growth of trade account balance, \dot{nd} = growth of national debt, g_{SMI} = growth of the stock market index, an “*” on a variable denotes the target rate of the variable ($u^* \cong 0$, $d^* \cong 1\%$, $i_{S-T}^* \cong r^*$, $i_{L-T}^* \cong r^* + d^*$, $\pi^* \cong 0$, $\dot{q}^* \cong 3\%$, $s^* \cong 25\%$, $\dot{m}^{*s} \cong 4\%$, $\dot{ta}^* \cong 0$, $\dot{nd}^* \cong 0$, $g_{SMI}^* = 6\%$),⁶⁴ w 's = the weights, and r^* = the real risk-free rate of interest ($= i_{TB} - \pi$). Any deviation of the actual value of the above variables from their targets will cause a loss for the society.

The social objective will be the minimization of this social loss (L).⁶⁵ When social losses are increasing the financial market is deteriorating, the results tend to be the economic movement towards recession. The opposite occurs when the social losses are declining or social benefits are improving; the value of this social loss could predict the forthcoming bear financial market and the creeping recession. Public policies (monetary, fiscal, trade) have to work towards these target values of the variables. Individuals must try to satisfy the social objective of higher savings and lower debt; the government has to become more efficient, more independent, and to reduce its deficit and debt; private enterprises (especially, financial institutions) have to be regulated for the benefits of the people. Through incentives, regulations, education, and a more social policy, the social loss can be minimized and the economy could be at its potential level (absolutely full employment, $L \rightarrow 0$). Of course, when people are concerned about the security of their income, they make choices (such as delaying purchases, hoarding cash, distrusting each other) that are acts of self-preservation, but that worsen an already bad situation.

⁶¹ See, Kallianiotis and Petsas (2006).

⁶² See, Kallianiotis (2004a, 2004b and 2005).

⁶³ Unfortunately, the risk premia today are outrageous. For individuals and small businesses, they are up to 40%, which is a “legal” usury. Most U.S. states have usury laws that set maximum interest rates, often around 40% p.a. In the 1990s, payday lenders lobbied state legislatures to exempt them from usury laws. They argued that their loans help people in emergencies and high interest rates are needed to offset default risk. Many legislatures agreed to legalize very high rates. This is unethical and illegal for a welfare state and shows exactly the problems of our extreme economic system, the cruel capitalism. See, Kallianiotis (2002) and Ball (2009, p. 327).

⁶⁴ A negative deviation of the stock market index ($g_{SMI}^* - g_{SMI} < 0$) reduces the total social loss, but increases the riskiness of the financial market (due to the artificial high growth of the stock market, a bubble is creating and at it burst will cause a serious financial crisis), as it happened lately.

⁶⁵ Our objective must be to minimize the deviations from the target value of the variables. A negative deviation is reducing the overall social loss and a negative loss represents social benefits. We do not want a high negative L either because it means exaggeration, inefficiency, waste, and lack of optimality (Moderation is everything in our lives).

3. Empirical Results and Evidence

The data, taken from *economagic.com* and *imfstatistics.org* are monthly from 1960:01 to 2010:06. They comprise spot exchange rate (S), trade weighted exchange index for major currencies (XRI), money supply (M2), consumer price index (CPI), federal funds rate (i_{FF}), 3-month T-bill rate (i_{RF}), 3-month deposit rate (LIBOR) (i_{3mdl}), government bonds rate (i_{GB}), corporate bond rates (i_{AAA}) and (i_{BAA}), nominal (Y) and real GDP (Q), real risk-free rate of interest (r^*), risk premium ($d = \text{TED spread} = i_{LIBOR} - i_{3MTB}$ OR $d = P_{Gold}$),⁶⁶ exports (X), imports (M), current account (CA), unemployment rate (u), budget deficit (BD), national debt (ND), personal saving rate (psr), price of gold (P_{Gold}), price of oil (P_{oil}), and stock market index (DJIA) for the U.S. economy. An (*) on a variable denotes the target variables.

Table 1 The Loss to Society (L) Measures [eq. (5)] for the U.S.A.

Year		\bar{L}	σ_L	$CV = \frac{\sigma_L}{\bar{L}}$	Year		\bar{L}	σ_L	$CV = \frac{\sigma_L}{\bar{L}}$
1960	R	2.894	3.882	1.341	1986		2.921	6.904	2.364
1961	R	2.136	3.803	1.780	1987		4.713	10.019	2.126
1962		4.726	5.405	1.144	1988		2.865	3.902	1.362
1963		1.579	5.950	3.768	1989		2.497	5.776	2.313
1964		1.556	3.640	2.339	1990	R	5.892	7.603	1.290
1965		2.659	4.199	1.579	1991		2.809	6.208	2.210
1966		5.959	4.759	0.799	1992		4.623	3.730	0.807
1967		2.958	4.962	1.677	1993		3.584	3.737	1.043
1968		3.882	5.583	1.438	1994		3.719	4.810	1.293
1969	R	6.042	4.324	0.716	1995		0.857	2.988	3.487
1970	R	5.023	6.156	1.226	1996		2.268	3.977	1.754
1971		4.633	6.070	1.310	1997		1.909	7.084	3.711
1972		3.582	3.345	0.934	1998		4.080	9.691	2.375
1973	R	5.727	8.075	1.410	1999		2.712	5.163	1.904
1974	R	11.794	6.294	0.534	2000		5.142	5.460	1.062
1975		2.417	10.406	4.305	2001	R	5.894	7.438	1.262
1976		5.545	4.387	0.791	2002		7.509	6.428	0.856
1977		8.870	4.645	0.524	2003		2.649	5.691	2.148
1978		5.069	7.972	1.573	2004		6.045	2.868	0.474
1979		6.948	4.797	0.690	2005		5.206	4.138	0.795
1980	R	5.934	7.612	1.283	2006		2.349	4.140	1.762
1981	R	7.760	3.910	0.504	2007		4.008	4.788	1.195
1982	R	5.275	7.568	1.435	2008	R	9.166	7.665	0.836
1983		4.886	3.707	0.759	2009	R	4.045	10.601	2.621
1984		6.543	5.805	0.887	2010	ongoing	4.229	2.634	0.623
1985		4.320	4.040	0.935					

Note: $w_y = \frac{1}{11}$; this calculation has been done with Eq. (5); the average loss from 1960 to 2010:06 was $\bar{L} = 4.426$; and the average volatility of the loss was $\sigma_L = 6.029$; R= periods of recessions; CV = coefficients of variation. Source: www.economagic.com.

⁶⁶ The price of gold (P_{Gold}) increases drastically in periods of uncertainty, for this reason can be used as a proxy of measurement of risk. For example, when a suicide bombing killed former Prime Minister of Pakistan, Benazir Bhutto, on December 27, 2007, the gold price reached \$841.80 per ounce. (Bloomberg.com, 12/28/2007). Its highest value has been \$1,562.50 per ounce on April 29, 2011.

We started with the calculations of the loss to society function, eq. (5) and the results are presented in Tables 1 and 2. The results show that in periods of recessions and during bear markets ones the loss to society (L) was high (above the average, $\bar{L} = 4.426$ and $\sigma_L = 6.029$) and a recession was following them. During periods of bull markets, the loss was low. Thus, the economy has to improve its macro-variables with public policies bringing them towards their target values. A high social loss can predict the forthcoming financial crisis and the creeping recession. The contemporary economy is very sensitive to financial indicators (stock market indexes) and to “news”.

Table 2 The Loss to Society (L) Measures [Eq. (5)] for the U.S.A. during Periods of Recessions and Bear and Bull Markets Periods

Markets	Periods	\bar{L}	σ_L	Measurements	State of the Economy
R	1960:04-1961:02	2.894	3.882	low	(G ↓ , GNP ↓ = -0.53%, u ↑ = 6.90%)
↑ Bull	1960:02-1966:01	2.564	4.513	low	
↓ Bear	1966:02-1970:05	5.088	5.242	high	
R	1969:12-1970:11	5.533	5.240	high	(i ↑ , g_{GNP} ↓ = -0.16%, u ↑ = 5.9%, π ↑ = 5.04%)
↑ Bull	1970:05-1972:12	3.999	4.720	low	
↓ Bear	1973:01-1974:11	8.823	7.896	high	
R	1973:11-1975:03	8.761	7.185	high	(P_{oil} ↑ , G ↑ , g_{GNP} ↓ = -3.19%, u ↑ = 8.6%, π ↑ = 14.81%)
↑ Bull	1974:12-1987:08	5.299	6.277	high	
R	1980:01-1980:07	5.934	7.612	high	(g_{GNP} ↓ = -2.23%, u ↑ = 7.80%, π ↑ = 6.30%)
R	1981:07-1982:11	6.518	5.739	high	(P_{oil} ↑ , g_{GNP} ↓ = -2.64%, u ↑ = 10.8%, π ↑ = 6.99%, M^s ↓)
↓ Bear	1987:09-1987:11	17.786	12.543	extremely high	
R	1990:07-1991:03	5.892	7.603	high	(Production ↓ , AD ↓ , g_{GNP} ↓ = -1.36%, u ↑ = 6.8%, π ↑ = 3.53%)
↑ Bull	1987:12-1999:12	3.113	5.633	low	
↓ Bear	2000:01-2002:09	6.509	6.246	high	
R	2001:03-2001:11	5.894	7.438	high	(dot – com bubble , 9/11 , accounting scandals)
↑ Bull	2002:10-2007:09	3.818	4.591	low	
↓ Bear	2007:10-2009:03	10.119	7.090	high	
R	2007:12-2009:06	8.134	10.101	high	(housing ↓ , bank ↓ , credit ↓ , P_{oil} & P_{food} ↑ , stock markets ↓ , investment banks ↓ g_{GNP} ↓ = -3.66%, u ↑ = 10.1%, π ↑ = 2.76%)
↑ Bull	2009:04-2010:04	0.933	7.613	low	

Note: The calculation has been done with Eq. (5); the average loss from 1960 to 2010:06 was $\bar{L} = 4.426$ and the average volatility of the loss was $\sigma_L = 6.029$; ↑ denotes bull market; ↓ denotes a bear market; and R=periods of recessions.

Source: www.economagic.com and Wheelock (2010, p. 90).

Also, the correlation coefficients and a Granger causality test between all these variables show that the high federal funds rate and the high interest rates in general, the fall in the financial markets, and reduction in exports

have caused a decline in the U.S. production and income. The increase in unemployment and in L-T interest rate has affected negatively the stock market. The high income, the high risk, and the devaluation of the dollar have caused the increase in the price of oil. The price of gold (revealing high risk) went up, due to high debt, high income, and low interest rates. Unemployment has been caused by low production, high price of oil, high risk (price of gold), reduction of exports, increase in imports, and reduction in interest rates. Inflation has been caused by an expansionary monetary policy (reduction in federal funds rate), high income, high stock prices, high price of oil, high national debt, from imports, and high risk (high TED). Savings have declined, due to high stock prices (wealth effect), high debts, and high imports. National debt has been caused by high oil prices, high unemployment, high inflation, and low interest rates. Exports have declined, due to low production and high unemployment. Imports are increasing because of the high income, high price of oil, high inflation, and devaluation of the dollar. The current account deficit has been caused by uncertainty, high unemployment, and low production. The interest rates have been caused by production, financial markets, monetary policy, unemployment, prices, and risk. The dollar had devaluated (Figure 1), due to high income, risk, inflation, national debt, and monetary policy, but the trade account has not been improved because of the inelastic demand for imports, lack of domestic production, and the easiness of lending by banks. Finally, the risk (TED) has been caused by high income (high demand), high oil prices, high price of gold, high debts, and devaluation of the dollar.⁶⁷

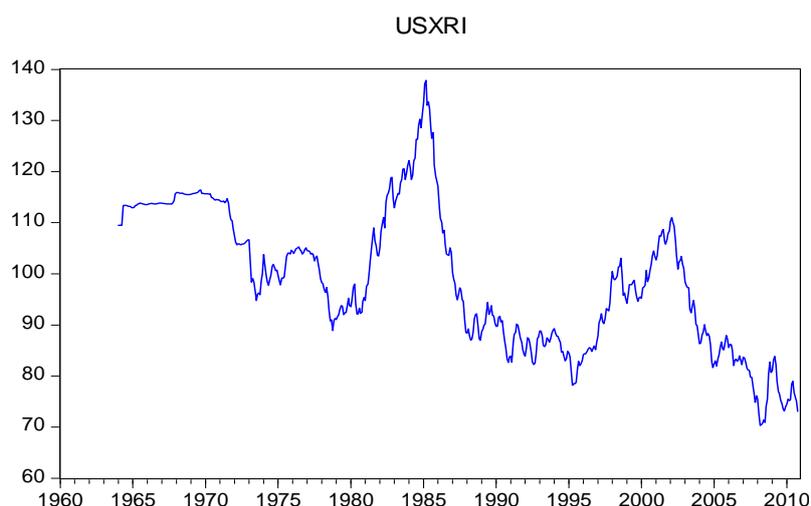


Figure 1 The Depreciation of the U.S. Dollar

Note: USXRI= U.S. Exchange Rate Index.

Source: BIS and www.economagic.com.

Finally, Figure 1 presents the value of the dollar by using an exchange rate index from BIS. The dollar was losing value since 2002 with the Iraqi invasion of the U.S. (the Muslim countries are now investing in Europe).⁶⁸ Figure 2 shows the growth of real income and the yield curve spread ($i_{10YTB} - i_{RF}$). As the YCS is increasing the economy is experiencing recessions. Figure 3, by using a Hodrick-Prescott Filter, gives the loss to society measures from Eq. (5), its trend and its cycle. It shows a little improvement at the moment (reduction in losses). Lastly, Figure 4 depicts the annual loss to society (L) and the exponential smoothing (Holt-Winters-No Seasonal),

⁶⁷ For more details, see, Kallianiotis (2010c, Tables 3a, 3b, and Graph 1).

⁶⁸ See, Kallianiotis and Petsas (2008).

which forecast the trend of the loss function. When the loss to society is increasing the financial market is falling and the economy is going into a recession. The graph shows that the economy was slowly been improving, but in 2010, the exponential smoothing started becoming positive again (the economy is still very weak).

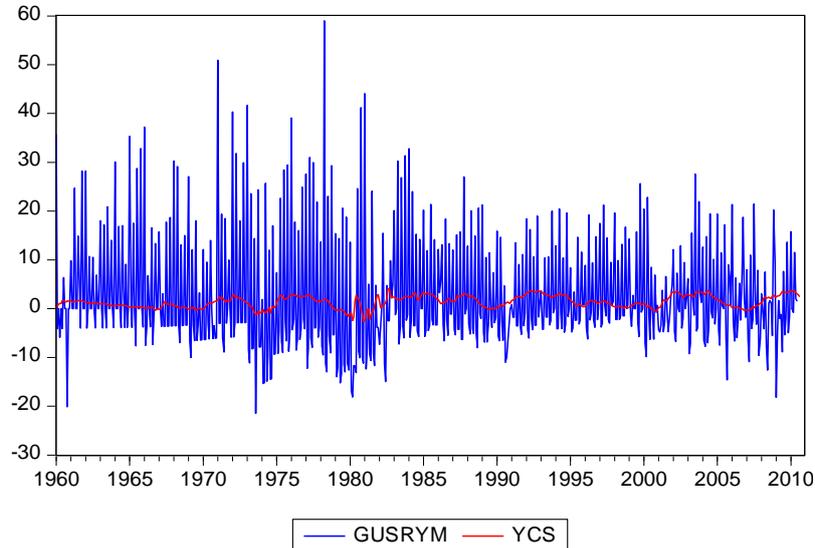


Figure 2 Real GDP Growth and the Yield Curve Spread

Note: GUSRYM=growth of the U.S. Real GDP and YCS=yield curve spread (US10YTB-STT3M).

Source: www.economagic.com.

Hodrick-Prescott Filter (lambda=14400)

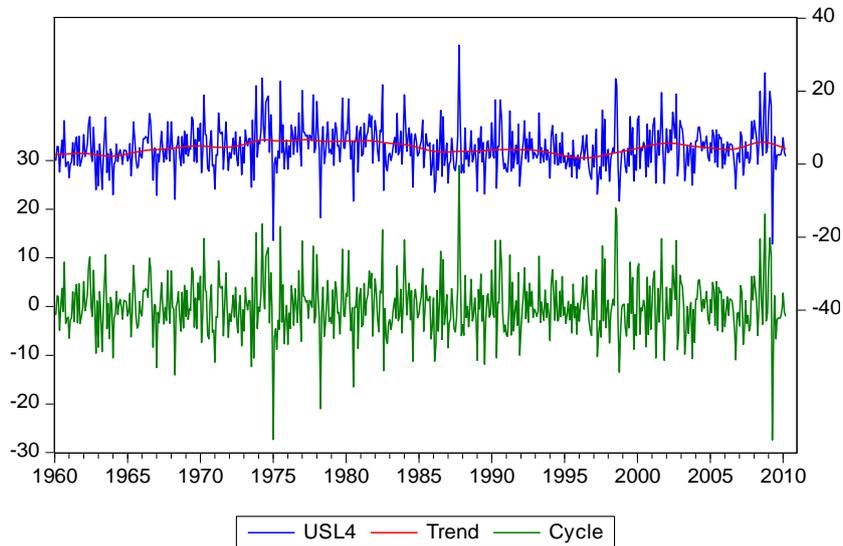


Figure 3 The Loss to the U.S. Society and the Hodrick-Prescott Filter

Note: Graph of Eq. (5) the Social Loss (L) for the U.S. economy (USL4).

Source: www.economagic.com.

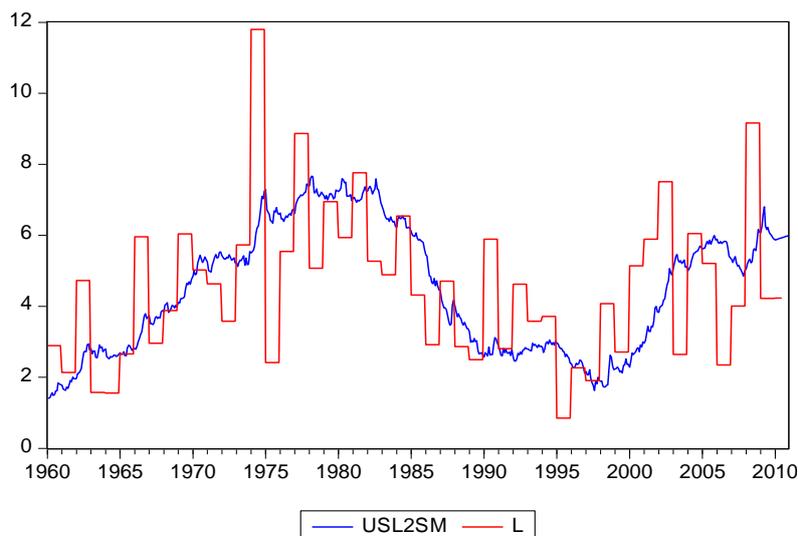


Figure 4 The Annual U.S. Loss to Society (L) and its Exponential Smoothing

Note: See, Figure 3; USL2SM= exponential smoothing (Holt-Winters-No Seasonal); and L= the annual measures of social losses. Source: www.economagic.com.

4. Globalization and Deregulation of Financial Markets

The events of the last three years and the current ones, which could destroy the international economic system, have proved the magnitude of the problem that globalization (combination of waste and oppression) has caused to all nations and especially to the U.S. economy, that is the victim and the sacrificer (with all these stranger people, who advise and decide about the future of the world) of the domestic economic welfare for the creation of a “global welfare”. It is very easy to fool some people, but Americans can be fooled all at once by a few manipulators of the truth and the objective in life. The world, currently, has found itself in the midst of the largest global financial crisis since the Great Depression of the 1930s, and this crisis has underlined the importance, that nations must be independent, self-sufficient, and in an autarky situation; following their own business cycle, their own value system, their own socio-economic structure, their own public policies, and being respectful even by their enemies. This is where we must stand today, after all these thousands of years of growth, civilization, knowledge, and above all, the revelation. The rest have no real value, only a market value, which actually is a bubble (a big lie).

Business managers have taken advantage of the phenomenon of globalization by exploiting factors of production, maximizing their compensations, increasing their power over the political leaders and the other authorities, and magnifying the uncertainty around the world. They are stretching the fingers of the “invisible hand” of our free-market system into every country. Socialist countries, atheist communist countries, under-developing ones, all have been persuaded that the market knows best. They embraced the system and joined the game, but we are not sure if they have learnt something from its current deficiencies. Managers by outsourcing their operations reduced their labor and material costs and increase their compensations, earnings, revenue, and shareholders return. The old economic theories and models can not apply to this unreal world, the “new world [dis]order”. If we do not bring back the social welfare that countries were experienced, before these uncontrolled liberalizations, deregulations, and innovations, of course, with some interdependence, fair competition, and ethical cooperation among nations, even protectionism if it is needed for the citizens’ well-being, this global crisis is

nothing compared with the next one.

When the current crisis began in the U.S. investment banking industry, there was some hope that the continued strong growth in the emerging giants (China, India, and Brazil) might be able to sustain global growth, as the more advanced economies slipped into recession, but the growth in emerging markets depends on their ability to sell to the richer countries. Unfortunately, globalization has made the ups and downs of economic activity (business cycles) very synchronized⁶⁹ and at the same time, diversification has become worthless. A country cannot become a net user of all commodities, but a producer and partially user and exporter of the excess production abroad.⁷⁰ Some people emphasize that globalization has reduced inflation,⁷¹ but inflation depends on domestic public policies and institutions and not so much on the openness of a country. The only thing that we are sure is that globalization has caused tremendous unemployment and has encouraged illegal migration, which has contributed to the imported unemployment, has reduced wages in the host countries,⁷² and has destroy the national identities of the host nations.

The structure of our international laissez-faire economy is very complex and there are participants who have superior knowledge, information, power, and other advantages above the average person and unfortunately, they abuse their power, acting against the less powerful and against the general public, and against the social interest. The market system is providing to them its structure, all these resources, capital, labor, land, institutions, instruments, and hundred of thousand of dollars salary and other benefits (for the CEOs). Businesses and their executives have to give back a “reward to society” for the benefits that they have derived from this free-market.⁷³ Then, this free-market benefits only businesses and is acting against the social interest; for this reason, it needs to be regulated. The financial markets and institutions are collecting the savings and use them to finance the country’s economy by creating jobs, income (wealth), and improve social welfare. By allocating the savings (domestic and foreign) to businesses and individuals and monitoring the use of these funds, the markets and their institutions play a very important role in the entire free-market system. Parts of the financial sector are unregulated today, due to an irrational deregulation that started in 1980 and continued up to the current crisis, three years ago (2008). Competition has been lost in this market, hostile takeovers are its trend and its pride, and expropriation and foreclosures are its most common functions, lately.

The economics of financial deregulations have been studied, but the assumptions of those researchers were unrealistic and heroic. Their results appeared to be wrong and opposite of what they were expected and recommended to the decision makers. Their analysis was a positive one and a “politically correct” one. Regulations and financial markets, and of course, the entire political economy of a country must be analyzed with the traditional normative analysis: What are the “optimal” regulations that will improve social welfare, stability, growth, employment, and democracy in our country? The government, the central bank (Fed) and the other

⁶⁹ There is a very high correlation ($\rho_{g_Y^A, g_Y^B} \cong +1$) across countries in production (output), but a small correlation in consumption because of the unfair distribution of this product and income that the countries are producing. Enormous exploitation of labor exists in almost every country (except CEOs and government officials). This is an anomaly that Backus, Kehoe, and Kydland (1992 and 1995) have documented.

⁷⁰ Then, $Y - E = T - G + S - I = X - M > 0$, and the country can survive financially.

⁷¹ But, Evans (2007) found that greater openness should be associated with higher, not lower, inflation.

⁷² Illegal migration has destroyed many countries, not because of the unemployment and low wages that has created, but the uncontrolled crime, ghettos, underground economy, deterioration of education, culture, language, and dilution of domestic civilization and identity of the nation.

⁷³ See, Kallianiotis (2002, p. 55). But unfortunately, the usury laws in the U.S. allow the outrageous and unethical 40% p.a. interest rates (sic). See, Ball (2009, p. 237).

regulatory agencies have to be involved in our financial system because the economy depends on this system. To improve an economy, we need a normative political-economy approach, where every one must be responsible for his role and his obligations towards the society. We did not come here to steal, loot, lie, bribe, pollute, waste, abuse, etc. without using our mind, our conscience, our inherited values and virtues, and without maximizing our objective utility function, which is to maximize our efforts to reach perfection. Then, because we do not know our ultimate objective, someone has to direct us and these are the laws, regulations, codes of ethics, social justice, traditional value system, and other ones imposed by governments (uncorrupted moral and ethical democracies), by educational system (value oriented education), by institutions, and by traditional families.

A reasonable question is: Why there have been so many deregulatory reforms in banking and financial services during the past 30 years? Kroszner (2000) is using five different approaches (“public interest”, “private interest”, “ideology”, “institutions”, and “leviathan”) to explain regulation and deregulation in financial institutions. Of course, the objective of every science is the improvement of social welfare (well-being) of the citizens (public interest) and nothing else. Then, regulations are necessary in banking and other financial firms to correct any market failures and protect uninformed or uneducated or entrusted consumers from harm. Public interest must be satisfied by regulating the free-market.⁷⁴ The private interest is deregulation, increasing their size, strength, and wealth, so they can avoid the coercive power of the government and capturing rents for themselves at the expense of the general public. These institutions become sufficiently powerful, so much as to influence the politicians and the regulatory bureaucracy, which serve at the end primarily, the interest of those subject to regulation. The supposed regulated market actually captures the regulators.⁷⁵

The effectiveness of the interest groups depends on their lobbying power. Businesses and producers of goods and services are more powerful and better organized than consumers, so regulations will benefit producers more than consumers.⁷⁶ For example, in the long legislative debates over the expansion of bank powers, banks, securities firms, and insurance companies organized powerful lobbying organizations to reduce regulations and they succeeded. Also, politicians are concerned about finding an optimal support coalition to promote their reelection chances, so they take into account the marginal costs and benefits to different groups. This explains why the banking and financial system had particular influence on politicians. Credit allocation through financial institutions can be an important implicit or explicit tool satisfying government’s industrial policy (redistribution of resources). For this reason, they must be compensated through protective regulation (deregulation). People working for the free-market (Wall Street and Banking) are very smart (cunning) and it is easy for them to find loop holes bidding the regulations (“brain spread”). Actually, the government has little incentive to enforce rules of sound financial institutions.⁷⁷ The codependence of the financial markets on the government and of the politicians on the Wall Street, will continue to allow problems to grow unchecked, as it happened during the

⁷⁴ Public interest can be satisfied by regulations, like deposit insurance, sufficient capital, low-risk investment, etc., which create a sound financial system and avoid spillover effects for the real economy.

⁷⁵ Pressure is exerted directly on politicians through campaign contributions or votes. The politicians, then, pass new statutes or pressure the regulators to act in favor of the interest group. In other cases, regulators were working before for the private sector and after leaving the government, they want to go back to this market, which provides these lucrative employment opportunities and the hundred of million dollars salaries. For this reason, they do not regulate their own clansmen.

⁷⁶ See, Stigler (1971). Unfortunately, labor unions and trade organizations are losing power every day and have been unable to develop effective lobbying bodies, lately. On the other hand, the Independent Bankers Association of America has been very effective at organizing and representing the interest of small banks, as Kroszner (2000, p. 26) is saying.

⁷⁷ Then, after this crisis, we will forget everything related with regulations, controls, and public interest (taxpayers benefits). We have lost control of this global market (globalization) and no politician can criticize or go against this trend. This is a “new age” virus and people are very weak spiritually to go against this evil movement.

current financial crisis. Then, governments will never avoid bailouts of the corrupted financial sector because of deregulation and their fears that the Main Street will be negatively affected by the financial market absurdity (seeking an unethical balance between lobbyists and voters).

It has been impossible for the average person to explain the widespread economic deregulation that has taken place during the past three decades and to understand the ideology of these people who act against the social interest. Their ideology might come from some kind of value-neutral political philosophy (liberalism, modernism, “new ageism”, globalism, etc.) and their enemy is the value-oriented government (conservatism, traditionalism, patriotism, spiritualism, etc.). With their ideology, they created an anti-humane legislative, cultural, educational, and social structure of excessive concentration of power in the hands of the financial elite (actually, they are people of the same origin, background, and beliefs) and no one can oppose their cruel establishment.⁷⁸ What constitutes ideology and why it acts against the social interest is something that has to do with their wrong philosophy in life; they ignore the ultimate objective of creation and the true aim of human beings.

To understand why there has been so much recent deregulation (regulatory reforms)⁷⁹ in financial institutions is difficult, if we would not consider the ultimate objective of the “world planners”. But, it is necessary to identify some of the factors that have contributed to these political-economic innovations and their unanticipated social losses and threat towards their own existence. The deregulations have caused serious economic shocks that altered the efficiency, effectiveness, and the effluence of financial sector on the real one. Technological changes had significant distributional consequences, new products and markets brought new constituencies, competition among institutions increased, and innovations affected the preexisting markets and institutions and caused shifts to risks from financial institutions to governments (to taxpayer individuals). Securitization of mortgages, loans, and consumer credit had become commonplace. Commercial paper and junk bonds provided competitive alternatives to traditional investments. Foreign banks and financial firms entered and were doing business in every country. Banks were starting selling insurance, too. The evolution of asset price bubbles, the trading and pricing of derivatives (redistribution of risk or zero-sum gain instruments), the impact of agency problems on the management of financial firms, the greed, the short-term thinking, the poor judgments of practitioners, and the participants self-interest created a very unstable financial system, which unfortunately, became global and this local crises spread to all over the world.⁸⁰ With all these philosophical, technological, economic, and legal changes, the old financial–real sector equilibrium was disturbed and the results are that the taxpayers have to bail them out. Economists had ignored the negative effects of deregulations and they were emphasizing issues on efficiency. The question is the same all over the world: How to maximize social welfare in a country, without making a single individual worse-off?⁸¹

As a result of bank failures and rapid Mergers and Acquisitions (M&A) activity, the number of banks and banking organizations fell by more than 36% between 1989 (12,728 banks) and 2010 (8,097 banks).⁸² Table 3

⁷⁸ Two examples of shifting ideology towards a pro-market one and against social interest (nations’ interest) are Ronald Reagan in the U.S. and Margaret Thatcher in England in 1980s. Identifying who were the driving forces behind their “new ideology” is not part of this work. Hopefully, the future historians will do this, if they will be allowed to reveal these actions of the “dark powers”.

⁷⁹ See, Rose and Kolari (1995, pp. 29-57).

⁸⁰ See, Cornell (2009). This sub-culture is actually a social waste, which has no future.

⁸¹ The criterion must be objectively measured and Pareto-optimal one. According to Pareto-optimal criterion any change in our social-economic system that makes at least one individual better-off and no one worse-off is an improvement in the social welfare. See, Kallianiotis (2009).

⁸² The current financial crisis caused the following failures in banks: 3 (in 2007), 25 (in 2008), 140 (in 2009), and 129 (in 2010); total: 297 banks failed in four years. The last data are on 10/1/2010. *FDIC, Historical Statistics on Banking*.

gives the largest bank failures from January 2007 to September 2010. Some 279 banks have collapsed since September 25, 2008, when Washington Mutual became the biggest bank failure on record. The recent recession and collapse of the housing bubble have cut bank-industry employment by 188,000 jobs (8.5%), since 2007, according to FDIC data.⁸³ The share of total nationwide assets held by the eight largest banking organizations nearly doubled over this period. Sophisticated financial technologies and innovations, such as derivatives contracts, off-balance-sheet guarantees, and risk management might have been produced more efficiently by larger institutions. Thus, deregulation of any restrictions on banks increased their sizes. The demarcation between banks and investment banks (Glass-Steagall Act of 1933) had started loosen since 1956 and 1970 with the Bank Holding Company Act and the Bank Holding Company Act Amendments, which allowed BHCs to underwrite certain eligible securities, including general obligation bonds, U.S. government bonds, and real estate bonds, that were exempted from the original Act. In the mid-1980s, the Fed and the Office of the Comptroller of the Currency (OCC) began loosening restrictions on greater bank participation in investment banking and insurance.⁸⁴

There are legitimate worries about the manageability of such complex enterprises that we have created the last ten years. The financial regulatory system had worked remarkably well in maintaining financial stability over the past sixty-five years, but in 1980s deregulation started and the system’s stability began to be threatened. Lately, the financial system collapsed and the government had to rescue it. The conservative think tanks criticized such rescues as the socialization of the financial institutions and an unwarranted government intrusion into the free market. Liberal think tanks criticized such rescues as a misuse of taxpayer money to protect rich bankers and financial speculators. At that moment, we had to rescue these institutions because they affect negatively the real sector of the economy, but we have to regulate them so the society can be sure that similar crisis will not happen soon (the traditional view). As the world (its “planners”) abandons humane social policies and embraces globalization, we will see more crises and worse than the current one. Unemployment is worse than inflation or financial market instability. We have to give priority to other indicators and not to the stock market indexes. A distress index,⁸⁵ which will measure unemployment, inflation, and debt, would be better for our society because it will measure social wealth. This wealth is the “safety net” of the citizens and has to be protected by regulating the institutions and prevent them to act inefficiently and unfairly for their suppliers of funds. These regulations have to be extended beyond banking and firms, which received rescue funds to the entire financial sector. The financial conglomerates that we created are too big to fail because they create thousands of unemployed people and destroy the confidence for our financial system by generating a financial panic, an economic turmoil, and a deep recession. We have to be careful after this crisis and not to repeat the mistakes of the last thirty years, but to learn the lessons of the current economic contingency.

⁸³ See, *The Wall Street Journal*, September 27, 2010, pp. C1 and C6.

⁸⁴ See, Lown, Osler, Strahan, and Sufi (2000, Table 2, p. 41).

⁸⁵ The social objective must be minimization of the Social Distress Index (SDI). $Min SDI = u + \pi + d$, where, u = unemployment rate, π = inflation rate, and d = total debt/GDP [public (including contingent liabilities) and private as a percentage of the GDP]. In the U.S. the index was in 2008: $SDI = 10 + 2.5 + 1,315 = 1,327.5$, which reveals that the country was extremely distressful (in very high risk). In August 2010, it was $SDI = 9.6 + 3.08 + 1,184.1 = 1,196.78$ and now (May 2011), it is $SDI = 9.1 + 5.17 + 1,162.04 = 1,176.31$, which is improved, except the Misery Index, which is deteriorated. (Source: www.economagic.com and *Grandfather Economic Report*).

Table 3 Largest 29 Bank Failures January 2007-September 2010

Bank Name	City	State	Total Assets (\$ Thousands)	Total Deposits (\$ Thousands)	Total branches	Total states with a branch	Entity Type
Washington Mutual Bank, FSB	Henderson	Nevada	\$350,890,182	\$210,626,236	2167	15	S
Colonial Bank, National Association	Montgomery	Alabama	\$22,962,845	\$16,242,689	301	5	C
IndyMac Bank, FSB	Pasadena	California	\$22,743,262	\$9,575,579	26	1	S
Downey Savings and Loan Association	Newport Beach	California	\$17,464,594	\$11,936,431	172	2	S
Guaranty Bank	Austin	Texas	\$16,920,624	\$9,362,598	152	2	S
Ohio Savings Bank, FSB	Cleveland	Ohio	\$16,605,531	\$11,188,582	56	3	S
BankUnited, FSB	Coral Gables	Florida	\$12,866,372	\$6,014,740	73	1	S
Westernbank Puerto Rico	Mayaguez	Puerto Rico	\$11,940,000	\$8,620,000	46	1	C
First Federal Bank of California, FSB	Santa Monica	California	\$10,256,842	\$5,542,113	32	1	S
Corus Bank, National Association	Chicago	Indiana	\$9,369,988	\$8,320,397	14	1	C
United Commercial Bank	San Francisco	California	\$8,280,022	\$5,497,301	47	4	C
Irwin Union Bank and Trust Co.	Columbus	Indiana	\$6,020,353	\$3,412,938	24	4	C
R-G Premier Bank of Puerto Rico	Hato Rey	Puerto Rico	\$5,920,000	\$4,250,000	46	1	C
California National Bank	Los Angeles	California	\$5,518,094	\$4,573,222	66	1	C
Franklin Bank	Houston	Texas	\$5,091,755	\$2,533,644	36	1	S
PFF Bank and Trust	Pomona	California	\$4,382,916	\$3,140,649	30	1	S
NetBank	Alpharetta	Georgia	\$4,151,957	\$2,726,334	1	1	S
Amcore Bank, National Association	Rockford	Illinois	\$3,800,000	\$3,400,000	72	2	C
Park National Bank	Chicago	Illinois	\$3,573,050	\$2,931,298	26	1	C
Frontier Bank	Everett	Washington	\$3,500,000	\$3,130,000	51	2	C
Riverside National Bank of Florida	Fort Pierce	Florida	\$3,420,000	\$2,760,000	60	1	C
Imperial Capital Bank	La Jolla	California	\$3,202,090	\$1,834,731	9	2	C
Midwest Bank and Trust Company	Elmwood Park	Illinois	\$3,170,000	\$2,420,000	26	1	S
TierOne Bank	Lincoln	Nebraska	\$2,800,000	\$2,100,000	69	3	S
La Jolla Bank, FSB	La Jolla	California	\$2,773,055	\$1,532,533	10	2	S
Eurobank	San Juan	Puerto Rico	\$2,560,000	\$1,970,000	27	1	C
San Diego National Bank	San Diego	California	\$2,356,452	\$2,055,567	21	1	C
Shorebank	Chicago	Illinois	\$2,160,000	\$1,540,000	15	3	C
Orion Bank	Naples	Florida	\$2,080,071	\$1,511,496	17	1	C

Note: S=savings institution, C=commercial bank, Ohio Savings bank was known as Amtrust.

Source: *Review*, Federal Reserve Bank of St. Louis, September/October 2010, p. 404 and FDIC, *Bank Failures in Brief*, October 2010.

Furthermore, credit default swaps (CDSs), which allow banks and other lenders to buy insurance against borrowers going bust, have caused serious problems to the borrowing countries and the financial markets. Europeans are asking for more regulations of these speculative instruments and more transparency, especially lately, with the PIIGS⁸⁶ in Euro-zone. Also, the EU was considering a ban on speculative derivative trades, including credit-default swaps, which have been blamed for worsening the crisis in Greece.⁸⁷ Unfortunately, Greek stocks and government bonds tumbled on mounting concern that the nation might struggle to meet its debt commitments as public finances were deteriorating. Greek government bonds fell the most in a year as Fitch Ratings downgraded the nation's credit.⁸⁸ Moody's Investors Service slashed Greece's credit rating to junk status on June 14, 2010 in a new blow to the debt-ridden country that is under international scrutiny after narrowly

⁸⁶ As PIIGS, they have been characterized by the market, Portugal, Ireland, Italy, Greece, and Spain.

⁸⁷ See, *The Wall Street Journal*, March 10, 2010, pp. A1 and A8.

⁸⁸ www.Bloomberg.com, December 8, 2009. This pressure on Greece is very suspicious. It seems that the dark powers want to accept Turkey into EU and they are afraid that Greece might provide objections. Every thing is controlled by the dark powers, today, and poor Orthodox Greece has to face their hatred.

avoiding default in May 2010.

The U.S. Federal Reserve’s “easy money” policies, during the first part of this decade (the Fed cut its target rate for overnight lending between banks to 1 percent in June 2003 from 6.5 percent in December 2000, and left it unchanged for the next year), caused the housing bubble and a tremendous borrowing by businesses and individuals (banks were offering loans without any exception to everyone).⁸⁹ Then, between June 2004 and June 2006, it raised the rate in quarter-point moves to 5.25 percent. In 2007, we started talking about the distressed mortgage market and the tremendous losses to financial institutions.⁹⁰ But, this must be expected because a medium house in the U.S. is \$200,000 (borrowing money), the mortgage rates about 7%, the property taxes (\$6,000),⁹¹ insurance, maintenance, and other costs made this poor individual to pay in 30 years 3 times the purchasing price (\$600,000) of this home. When he loses his job, due to our market oriented economy, everything is lost for him and his family. It seems that there is no real ownership in any of the two extreme systems (communism and capitalism). The cost of renting a house is much lower than the cost of owning one.⁹² European Union tries to impose a similar system to its country-members because they did not have so far property taxes and insurance on their homes.

The subprime⁹³ crisis in the U.S. national housing market was the worst in 20 years. The foreclosure wave that began in 2006 was sparked by problems with subprime mortgages. Most subprime mortgages are “hybrid” loans, which have a set interest rate for some initial period, say two years. After the initial period, the interest rate adjusts every six months for the rest of the loan’s term. Most commonly, this rate adjustment is tied to the 6-month LIBOR,⁹⁴ and the adjustable rate is usually 6% points above the LIBOR. The initial interest rates on subprime adjustable-rate mortgages (ARMs) were always markedly higher than the interest rates offered on prime mortgages.⁹⁵ The higher interest rates after adjustment in 2004 and 2005 were about 3 to 4 percentage points higher than the initial interest rate. The main problem in the subprime mortgage market is many borrowers’ inherent inability to afford the monthly mortgage payment, not the interest rate tied to the loan. Across the U.S., foreclosure rates on both subprime and prime mortgages had risen, and more foreclosures are expected in the near future, due to high uncertainty in the labor market. Lower market prices increase the probability that a borrower will have negative housing equity (HE), meaning that the outstanding mortgage balance (OMB) is higher than the house’s current market value (HCMV).

⁸⁹ The U.S. Federal Reserve’s “easy money” policies during the first part of this decade didn’t cause the housing bubble, former Chairman Alan Greenspan wrote in the *Wall Street Journal*. A surge in growth in China and other emerging markets led to an excess of savings that pushed global long-term interest rates down between early 2000 and 2005, Greenspan wrote in an article. That caused mortgage rates and the benchmark Fed-funds rate to diverge after moving “in lockstep” from 1971 to 2002, he said. The article is part of the former Fed chief’s defense against charges in books such as “Greenspan’s Bubbles” by William A. Fleckenstein that his policy of keeping rates too low for too long inflated the housing bubble. The collapse in the U.S. subprime-mortgage market led to about \$1.2 trillion in writedowns and the bankruptcy of Lehman Brothers Holding Inc. (www.Bloomberg.com, March 11, 2009).

⁹⁰ Bernanke did not think how bad things were and how much worse they would become, because he did not yet see the subprime mortgage mess, at that time.

⁹¹ Taxes must be put only on income and not on a home that a person needs to shelter his family. These policies do not improve social welfare, but instead increase individuals’ cost and stress, and make capitalism a value questionable system.

⁹² In 2009, the relative cost of owning versus renting is swinging back in favor of homeownership in some markets. See, *The Wall Street Journal*, February 25, 2009, pp. A1 and A3.

⁹³ The most famous of the credit scoring systems in use today was developed by Fair Isaac Corporation (FICO). The traditional cutoff for distinguishing between prime and subprime borrowers is a FICO scores of 620.

⁹⁴ In 2007, the 6-month LIBOR was 2.36625% and on October 3, 2008 had reached 4.13125%. (*The Wall Street Journal*, October 4-5, 2008, p. B13).

⁹⁵ For a 30-year subprime ARM originated between 2004 and 2007, the loan’s fixed interest rate the first two years ranged from 7.3% in 2004 to 8.6% in 2007. See, Foote, Gerardi, Goette, and Willen (2008, p. 8).

$$HE = HCMV - OMB < 0 \quad (6)$$

Of course, homeowners with negative housing equity do not routinely default on their mortgages. Only when adverse life events at the household level take place and affect negatively cash flows (job loss, divorce, unforeseen medical expenses, etc.), typically presage foreclosures. Default probabilities will rise when homeowners are in a position of negative equity because they will have trouble refinancing a mortgage or selling their houses. The homeowner's interest is to continue serving his monthly mortgage payment, but the business cycle does not allow him to fulfill this obligation. The majority of subprime borrowers had high Loan-to-Value (LTV) ratios, meaning little equity in the house at the time it was purchased; they did not fully document their assets and income, an omission that could mask other risk characteristics; and they had high debt-to-income ratios, meaning that the mortgage was financially burdensome under the best circumstances. Then, a household-level shock could prove to be a tipping point triggering eventual foreclosure.

Further, there are many arguments against the extreme executive compensations during the last years, but at the same time there are a few, who are in defense of these anti-social abuses of the “free-market” (value-free) laissez-faire socio-economic system.⁹⁶ The defenders say that “the U.S. economy has done extremely well, so the executives must get these compensations”. Of course, corporate profits have grown, but their growth is about the rate of growth of the economy. Then, CEOs have not added any exceptional value to the economy. In 1980, the compensation of the average chief executive officer was forty-two times that of the average worker ($\bar{C}_{CEO} = 42 \bar{w}$); the peak was in 2000 ($\bar{C}_{CEO} = 531 \bar{w}$); in 2004 it became ($\bar{C}_{CEO} = 280 \bar{w}$);⁹⁷ and in 2006 ($\bar{C}_{CEO} = 277 \bar{w}$). In 2007, the total revenue of the 500 largest companies in the U.S. was \$10,602 billion; their profit was \$645 billion, their profit as a percentage of revenue was 6.09%; the compensation of their CEOs was \$5.5 billion (maximum executive compensation was \$100.3 million), their 2nd executives received \$2.17 billion (maximum \$72.5 million), their 3rd executives received \$2.08 billion (maximum \$71.4 million), their 4th executives were compensated with \$1.74 billion (maximum \$58.4 million), their 5th executives cost \$1.66 billion (maximum \$49.1 million). Total pay to top five corporate executives was \$13.14 billion, which was 2.04% of the corporate profits.⁹⁸

Actually, who is to blame for the current financial crisis and the peculiar recession that it caused?

- (1) Countries who consume beyond their production ($E > Y$) and generate negative saving.
- (2) The U.S. households who have spent way beyond their means in recent years; they have to start saving and stop being “consumers”.
- (3) The banks that took the upside for themselves and left the downside to the taxpayers.
- (4) The monetary and fiscal authorities who did not intervene in the markets.
- (5) The regulators who extended homeownership to even those who could not afford it.
- (6) The theorists who recommend 100% debt.

⁹⁶ In addition, the inequality of labor market earnings in the U.S. has increased dramatically in recent decades. Closer examination of the data reveals two distinct periods of rising inequality: 1973-1989 and 1989-2005. The first period was one of diverging wages throughout the distribution, while the second was one of polarizing wage growth, in which job growth is concentrated among both highly education-intensive abstract jobs and comparatively low-education manual jobs. (David H. Autor, “Explaining Trends in Wages, Work, and Occupations”, *Chicago Fed Letter*, No. 261, April 2009). But, this current financial crisis will destroy the productivity of highly educated workers because they will be unemployed and will lose their training, their on job-practice, their updating, and their return on investments in higher education will decline. The growing importance of manual tasks will tend to increase the earnings of less educated workers; also, the high labor supply to services will keep wages low. Business schools will face big challenges very soon, too.

⁹⁷ See, Bogle (2005).

⁹⁸ See, Jerry Goldberg (www.jgfortunate2500list.com) and Kallianiotis (2010c).

- (7) The tax system, which allows the interest on business debt to be tax deductible.
- (8) The market who tolerate high leverage.
- (9) The executives who determine their own compensations in hundreds of millions of dollars.
- (10) The Congress who has been submitted to lobbyists and deregulated the financial markets.
- (11) The weak and immoral political leadership who cares only for its reelection.
- (12) The controlled educational system, which has become a value neutral professional schooling.

In March 2010, European politicians and regulators were initiating a continent-wide ban on speculative trading of sovereign credit-default swaps. Making it stick without the Americans could not work. Unfortunately, New York and London dominate swaps trading, and both have resisted greater regulation. Last year, U.S. regulators and Congress rejected a proposed ban on buying credit-default swaps without owning the underlying debt. Adair Turner, chairman of the U.K. Financial Services Authority, said on March 10, 2010 that these so-called naked swaps were not the “key driver” of the Greek debt crisis and it would be wrong to rush to ban them. (sic). The European Union’s top regulatory official, European Commission President Jose Barroso, said on March 9, 2010 that the 27-nation bloc will consider banning “purely speculative naked” credit-default swaps after German Chancellor Angela Merkel and French President Nicolas Sarkozy called for a crackdown on derivatives trading to prevent a rerun of the Greek crisis. European Commission officials are in early stage talks with euro-zone countries about setting up a “European Monetary Fund” to improve economic cooperation in Europe.⁹⁹ Also, the U.S. and European governments are moving toward a consensus on taxing large banks to cover the cost of any future bailouts rather than asking taxpayers to foot the bill, as happened in past banking crises.¹⁰⁰

Lastly, in a newly released transcript of a Federal Reserve Board meeting in March 2004, former Chairman Alan Greenspan argues against disclosing too much to the public lest the Fed “lose control of a process that only we fully understand.” This statement ranks as a sign of monumental arrogance for the controlled super-power. The context of Greenspan’s remark was a discussion over how much to reveal about the Fed’s thinking on monetary policy in general -not on mortgages in particular. But mortgages were part of the Fed’s monetary deliberations. Democrats and Republicans had been squabbling for weeks over how to ensure that bailouts would not happen in the future. Various bills would attempt to tie the government’s hands. The best way to do that is to discourage leverage. In other words, the federal government should make it expensive for banks to assume too much risk (whether on or off the balance sheet). Theoretically, a bank with too much debt would be punished by sharply higher borrowing costs (or by a cessation of credit altogether). But in the just-ended economic cycle, lenders and investment banks were extended cheap credit as if the supply were limitless. In the 1990s and 2000s, “new-age” financial theorists argued that, thanks to modern risk-management tools, the traditional fear of leverage was outmoded. Even the Securities and Exchange Commission bought into this nonsense. In 2004, it chose to lessen capital requirements on investment banks so long as the assets they owned were “liquid.” The upshot? The “liquidity” of their assets, including mortgage bonds, proved to be ephemeral. Their debts proved permanent and crushing. And post-crash, when the International Monetary Fund¹⁰¹ looked for indicators that predicted which banks would fail, it found, lo and behold, that the “basic leverage ratio” was the most reliable guide to a bank’s survival. To paraphrase a warning from the drug culture, “debt kills”. In 2004, the Atlanta Fed tried to warn the

⁹⁹ See, *The Wall Street Journal*, March 9, 2010, pp. A1 and A9.

¹⁰⁰ See, *The Wall Street Journal*, March 29, 2010, pp. A1 and C1.

¹⁰¹ We saw what they did to Dominique Strauss-Kahn (IMF Managing Director), who had superior information about the socio-economic system. He was arrested in New York City and charged with sexual assault in May 2011.

Federal Open Market Committee of the dangers in mortgages. Too bad they did not listen.¹⁰²

5. Epilogue and Concluding Remarks

The imposed “irrational exuberance” is over after three decades of deregulations, wastefulness, greediness, and corruption. But its negative consequences were expected because the economy and markets were too good to be true. We were living a big delusion (the “mised planet”) and this deceit is over for ever. The economic and social indicators reveal that the U.S. from a moral, ethical, and just superpower is becoming less and less competitive and less friendly with the rest of the world.¹⁰³ European Union (the forced integration of 27 nations, without referenda), with its debt crises and the common currency, is the worst “innovation” in human history. It is a mixture of twenty seven nations without domestic public policies, without self-determination, without sovereignty, and of course, without any future.¹⁰⁴ All these strange evolutions have increase the global uncertainty, have caused unemployment in EU¹⁰⁵ and the U.S., have reduced competitiveness, and have augmented anxiety and health problems (mental and physical) to citizens. The current fiscal austerity, imposed by the EU and IMF, will make the recession even deeper.¹⁰⁶ The global laissez-faire socio-economic system has failed and needs more government regulation and better corporate governance. The government had to bailout a corrupted financial system, even when the federal deficit and the national debt are astronomical.¹⁰⁷ But, it had no other option, except to “rob responsible Americans and pay the robbers of the financial market”.¹⁰⁸ Then, what are the social benefits? Why we need these global changes and “evolutions”, which are against humanity? The current financial crisis (with a combination of large failures, costly bailouts, and deep recessions) might be able to change the perception of the social welfare effects of the thirty years of deregulation. The Fed was instructed by Congress in 1977 to aim at “maximum employment” and “stable prices”, but it cares for price stability (Bernanke considers inflation target).¹⁰⁹ Can we continue to hope with the current leadership?

The current financial crisis had its origin (had been generated by the financial institutions) in the U.S. housing market. And this anticipated financial crisis together with the high debts and prices of energy and food (due to our lack of production and dependency on imports) brought the economy to a deep recession (severe

¹⁰² See, www.Bloomberg.com, May 7, 2010.

¹⁰³ The U.S.A. was the biggest economic power in the world and is declining daily. Greece was the biggest spiritual power on earth and is descending daily. We must grieve for the plight of these two nations and someone is responsible for this. The problem must be the bad and controlled leadership in these two “model” nations.

¹⁰⁴ For example, in EU, 73.8% are against privatization, 80.9% are against Turkey’s entrance to EU, 83.6% are against Euro-constitution (Treaty of Lisbon), 71.6% want to go back to their previous national currencies, 71.5% of Greeks are in favor of vetoing Skopje’s (Vardarska’s) entrance to NATO and EU, Europeans are against the independence of Kosovo, and 86.1% of Greeks are against the marriage of homosexuals. (www.e-grammes.gr, different polls). Europeans are actually against this “anti-European creature”, the EU.

¹⁰⁵ The main reason, for unemployment in Europe, is the illegal and uncontrolled immigration and also, the free mobility of factors, products, and services. Europe is in trouble to lose its thousands years old identity. The U.S. deported a record 392,862 illegal immigrants in fiscal 2010. (*The Wall Street Journal*, October 7, 2010, pp. A1 and A6).

¹⁰⁶ President Barak Obama worried about these austerities that the fragile world economy could slip back into recession as in the 1930s. He urged the G-20 leaders to continue some level of stimulative spending. (*The Wall Street Journal*, June 22, 2010, pp. A1 and A9). Also, he asked Merkel to help Greece and the Euro-zone nations to avoid bankruptcies, at a meeting in Washington, D.C., on June 7, 2011.

¹⁰⁷ The U.S. budget deficit for the 2008 was \$455 billion and the national debt was \$10,311 billion on October 15, 2008 and for the 2009 the deficit became \$1,400 billion (10.75% of GDP); on October 29, 2009 the debt became \$11,897 billion (91.42% of GDP). Now (10/8/2010), the budget deficit is \$1,300 billion (9.85% of GDP) and the ND is \$13,632 billion (103.34% of the GDP). See, www.Economagic.com.

¹⁰⁸ Dr. Shannon Grimes in *Tahlequah Daily Press*, September 25, 2008.

¹⁰⁹ The ECB, the Bank of England, and the Bank of Japan have only one explicit goal: price stability. See, Wessel (2009, p. 86).

unemployment). The failure of the unregulated large financial institutions increased the systemic [global systematic (markets)] risk and harmed other financial firms and finally, the real sector of the economy.¹¹⁰ Another important type of risk to the financial system has been the “counterparty risk”, which is the danger that a party to a financial contract will fail to live up to its obligations. Counterparty risk exists in large part because of asymmetric information. Individuals and firms know more about their own financial conditions and prospects than do other individuals, firms, and investors (i.e., investment banks that deal in complex financial contracts and the nature of risk they face is not obvious).¹¹¹

This latest lack of liquidity has negative, but rarely positive effects. One of the positive effects was that speculators using borrowed money were being forced out of the market.¹¹² The problem with our speculators has been created with the margin requirements, which is only 50%. To avoid this tremendous market risk, the margin requirements must be 100%. Regulation T of the Federal Reserve Board has to be revised. Also, the SEC must prohibit the short-selling.¹¹³ The anti-trust laws must be imposed on every firm. They cannot become giants and then, the Treasury and the Fed have to bail them out with our money (tax payers’ money). An increase oversight of the Treasury and the Fed is needed, speculation must be curbed, and futures market has to be regulated because they affect the spot market with their outrageous scenarios and price manipulations. CEO salaries are provocative for our welfare and just societies; then, limits on executive pay are necessary. Transparency and accountability for mortgage-fraud or other greedy actions by executives is important for the public to start trusting the markets. Investment banks and exotic types of financial instruments must be regulated, as the other financial institutions.

In addition, countries have to be self-sufficient (even exercising protectionism for their domestic industries),¹¹⁴ promoting, first, the primary sector (agriculture), second, the secondary one (manufacture), and lastly, the tertiary sector (services). An economy (state) specializing only in services has no future. The country must produce more goods and services than are needed for domestic consumption and export the excess production. The nation has to have a high saving rate, too (25% of the disposable income). The financial markets and the entire economy have to be controlled and every firm must comply with the socially imposed constraints. The ultimate objective of a country is maximization of its social welfare (minimization of the loss to society). We need a worldwide governmental intervention to support and regulate national banking systems and national investment banks, after the disappearance of all five international oligopolistic U.S. investment banks.¹¹⁵ The loss to society function predicts the bull markets and the recessions for the economy. Unfortunately, its exponential

¹¹⁰ Bullard, Neely, and Wheelock (2009) call this risk as “systemic risk” (= the possibility that a triggering event, such as the failure of an individual firm, will seriously impair other firms or markets and harm the broader economy).

¹¹¹ Today, through these excuses, they collect so many private and personal information regarding individuals, that we have lost completely our privacy. These out of control accumulations of information will cause serious security and safety problems to individuals and families in the near future.

¹¹² *The Wall Street Journal*, September 17, 2008, pp. A1 and A16.

¹¹³ The effort to quash short selling gained global momentum, as Australia, Taiwan, and the Netherlands announced restrictions. (*The Wall Street Journal*, September 22, 2008, pp. A1 and C1). In the U.S. most market participants are against changing these rules on exotic types of financial instruments. Morgan Stanley CEO, John Mack, went on the offensive, lobbying for intervention and rule changes targeting short selling. (*The Wall Street Journal*, September 19, 2008, pp. A1 and C3). One day later, the SEC said it will revise newly issued rules to curb short-selling, a move that caught participants off guard and prompted criticism. Nothing can be changed in the U.S. financial markets because today regulators were working for the financial market yesterday and this is their mentality, “free-market” and let the government find solutions for the country and the citizens (greediness and selfishness). (*The Wall Street Journal*, September 23, 2008, pp. A1 and A3).

¹¹⁴ Mexico said it will slap tariffs on 90 U.S. products after the U.S. thwarted a program that allowed Mexican trucks to transport cargo into the U.S. See, *The Wall Street Journal*, March 17, 2009, pp. A1 and A12.

¹¹⁵ New York’s Lehman Brothers filed for bankruptcy; Merrill Lynch and Bear Stearns were bought by Bank of America and JP Morgan Chase, while Goldman Sachs Group and Morgan Stanley—formerly the two largest investment banks—restructured themselves into bank holding companies. (*Minneapolis/St. Paul Business Journal*, October 21, 2008).

smoothing reveals that the economy is still experiencing high losses.

Lastly, the U.S. economy has two major problems; overconsumption (underproduction and waste of resources) and lack of savings (dis-saving and borrowing or spendthrift¹¹⁶). These cause current account deficits and capital account surpluses, which devaluated the U.S. dollar and affected negatively the financial markets, the interest rates, the national debt, the oil prices, the inflation, the employment, and the growth. We must learn that we cannot live beyond our means indefinitely. Actually, there is a vicious cycle in the economy. This latest planned and imposed on us crisis started with high energy prices, it continued with a deteriorating housing sector, it followed with an ill-functioning financial market, it reached a slowing consumer and business spending, and it ended to a severe recession (the first depression of the 21st century). Without an investment in sustainable development, without an increase in domestic production and reduction in imports, and without a pro-Americans policy, the U.S. will lose completely the competitiveness race. The global uncertainty, the deregulation of financial markets, the private monopolists (no one respects the anti-trust laws anymore), the corruption in business and politics, the illegal migration, and the other domestic problems, due to globalization and integration are going to change our economic system (many economic laws do not hold anymore and we have to bail out all these untrustworthy businesses) to a global anti-economic one. The only prediction that we can do for the future, after the current worst global recession,¹¹⁷ is that this value-neutral (laissez-faire) economic system will be the last in our socio-economic history, except if we will decide to go back to a value oriented system. These corrupted people in financial markets needs some knowledge in value-oriented welfare economics and business ethics.¹¹⁸ The current crisis was not an economic one, but a moral and political crisis, which was expected by every prudent person after all these intentional “mistakes” that were made since 1960s.

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¹¹⁶ See Kallianiotis (2007).

¹¹⁷ We have to do something to right the sinking ship of the economy. The first priority are humans (citizens of the country) and then the other secondary objectives (economic philosophies, international obligations, allies, agreements, etc.).

¹¹⁸ Business ethics are the company’s attitude and conduct toward its employees (safe working environment and job security, reasonable payment practices), its customers (safe products and good services), the community (protect the environment, provide employment, fair hiring practices, community involvement, compliance with the laws and regulations), its stockholders (normal return and low risk, normal, less than \$1,000,000 p.a., executive payments), and the nation (uncorrupted, engaged in national projects, employee benefit programs, and acting anti-cyclically). The father of the philosophy of Economics (mother of Finance) is Xenophon (434-355 B.C.), who has introduced this moral, ethical, and social discipline, *Oeconomicos* ➤ *Oikonomikos* = *Oikonomia* ②, from the words: *oecos* (= household) and *nemo* (= manage or distribute). This discipline ought to be improved with the new revealed knowledge and to minimize social problems and maximize social welfare. Unfortunately, what we did is exactly the opposite; we maximized social problems (uncertainty, financial distress, unemployment) and minimized social welfare (by pursuing a minority’s corrupted self-interest).

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Counterparty Risk in Credit Default Swaps Markets, Multiple Questions to Be Checked

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Abstract: One of the most striking financial developments of recent decades is the tremendous increase in credit derivatives as tools allowing a financial institution to unbundle the nominal amount of a loan from its associated credit risk. The Credit Default Swap “CDS” constitutes the major type of this market. Financial markets innovate constantly and with each innovation, questions arise whether they are beneficial or not. With the ongoing internationalization debate about whether, and to what extent, unregulated CDS market are responsible for the recent financial crisis, the assessment of the risks associated with this trade belongs to one of the most stimulating topics in economics, business and international finance. This paper provides an in-depth looks critical review of literature on this subject. After defining and explaining what CDS and its counterparty risk are, we then link it to the recent financial turmoil especially the debate whether this unregulated market had aggravated the situation. After this, we will check the theoretical and empirical work done on the issue of linking the CDS counterparty risk to the financial stability. We conclude by identifying several avenues for future research.

Key words: credit default swaps; counterparty risk; financial crisis

JEL codes: G01, G10, G14, G28

1. Introduction

In the late 1990s and early 2000s, the most exciting developments in derivative markets have been in the credit derivatives area; banks have made extensive use of credit derivatives to shift the credit risk in their loans to other parts of the financial system.

A credit derivatives as a group of financial instrument is a security that allows investors to transfer credit risk to other investors who are willing to take it. Their purpose is to trade the default risk and to manage it differently to when it stays on the financial institutions’ balance sheet.

The credit derivatives area includes a variety of financial instruments, which have a common purpose but not necessarily common characteristics. Kiff, Michaud, Mitchell (2003) made an analytical review of Credit Risk Transfer “CRT” Instruments: forward agreements, swaps and options are the three main buildings for devising most credit derivatives.

Our aim in this paper is not to study all major types of credit derivatives. We will focus rather on Credit

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Default Swaps “CDS” as a major (they account 70% of credit derivatives market in 2007 according to Bank for International Settlements statistics) and recent type (its first version was in 1998) of CRT.

It is our purpose in this paper to present a comprehensive review of literature on this recent financial innovation, attempting to synthesize much of the recent work within common framework rather than summarizing the contributions of individual papers. Financial markets especially nowadays in a globalization and deregulation prominent world, innovate constantly and with each innovation, questions arise whether they are beneficial or not. It would be useful to check the effect of unregulated counterparty risk in CDSs markets on the financial stability.

The remainder of the article is organized as follows. After we define briefly the terminology, we will see in section 3 some of the debate over the role of CDSs markets in triggering the 2008 financial crisis. Section 4 provides analysis of counterparty risk in this market from many angle of observation. The last part concludes the paper.

2. Terminology Definition

In this section we will define CDSs markets and check over the literature some of the ongoing debate on the consequences of CRT for financial stability

2.1 CDS Definition

Heyde and Neyer (2010) defined a CDS as a type of over-the-counter (OTC), or non-exchanged traded contractual agreement in which one party (protection seller) promises to pay another party (protection buyer) in the event that a third party triggering a credit event such as bankruptcy, default payment, debt restructuring....

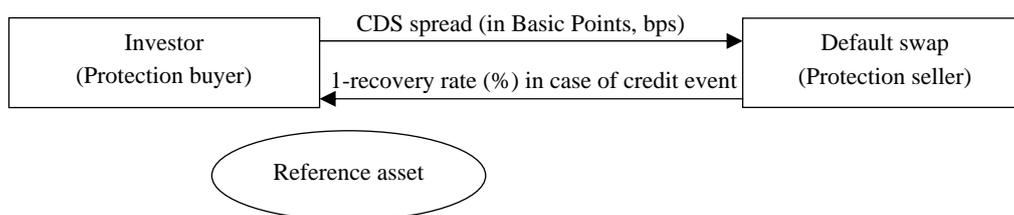


Figure 1 CDS Contract Mechanism in a Schematic Way

Note: This figure illustrates in a simple way the CDS swaps mechanism as the most common credit derivatives. The reference Asset could be either an entity (Entire Corporation or a sovereign) or an obligation (a loan, or a debt instrument like a bond).

Notice that in the figure, there is no line between reference asset and the investor because an important CDSs feature is that the protection buyer may not need to own or otherwise be exposed to the risk of the reference obligation and hence allows parties to trade (or speculate on) the credit risk of debt obligation such as bonds. That is what we called “Naked” or “speculative” CDS trading.

CDSs’ types differ according to the underlying debt that insure. The most common is the single-name CDS, which covers debt on corporate debt issuers either a single company or a country. The second type is the CDSs index, which covers debt on a composite of corporate entities up to 125 reference entities with some theme in common, such as all being American or European investment-grade companies or securities backed by mortgages. Currently, there are two main families of standardized CDS contracts (appeared in 2004 and marketed by the Markit Group): the Dow Jones CDX IG “include reference entities in North America and emerging market, and iTraxx families “include corporate reference entities in the European and Asian markets”. An additional category of CDSs reference asset-backed securities such as mortgage related Collateralized Debt Obligation “CDO”.

2.2 Debate over Credit Derivatives Markets

The credit derivatives markets have changed the risk management practices by the ability to trade credit risk in financial markets. The rapid growth of this market has evoked an ongoing debate on the consequences of CRT for financial stability. Some see that it could have a negative impact on the stability; others focused on the other hand on their beneficial impact for the efficiency of bank financing. This issue has received the attention of policy makers and researchers worldwide.

To make a view on the relevant literature about this debate, we will draw the following table.

Table 1 The Relevant Literature on the Consequences of CRT for Financial Stability

Author	Year	Negative impact	Positive impact
Santomero and Trester; Instefjord	1998; 2005	CRT increase bank's risk taking	
Morrison	2005	Credit derivatives can reduce welfare by leading to disintermediation	
Drucker and Puri	2006	CRT undermine relationship banking	
International Monetary Fund "IMF"	2006	CRT can reduce the transparency about who owns credit risk	
Brown and Wong	2002		Hedging and diversifying credit risk
Wagner and Marsh	2006		Shedding risk outside the fragile banking sector
Altman et al	1998		Entering into contingent contracts "off-balance-sheet" will offset the risk
Rule	2001		Allocation of risk among participants; capital requirements relief

Note: This table summarizes some arguments with and against the developments of this market. Arguments against the credit derivatives markets insist on their drawbacks sides by destabilizing the institutions, which buy credit risk, or by insisting that once a Financial Institution "FI" diversifies its risk, it will be encouraged to increase and take on new risks. However, the proponents of CRT emphasize on their beneficial effects, in particular the diversification of risk management.

3. Credit Default Swaps and the Recent Financial Crisis

The month of September 2008 was deeply marked by a profound global financial crisis. The financial crisis had begun in the second half of 2006 with the crash of real estate loans "the subprime" in the United States, which borrowers often with modest conditions have stopped repaying. What impresses is the extent of its spread, its impact on other markets, and uncertainty about the conditions of its outcome.

When it comes to assess the financial crisis causes, opinions differs:

- Some such as Jenkinson, Penalver, and Vause (2008) concentrate on the risky behavior taking by financial institution (irrational behavior and moral hazard problem, lack of transparency of new and complex product, the ability of banks to manage their exposures with their internal risk system based mainly on value at risk models) and the imperfections in the securitization process (information asymmetry, complexity of the process, drawbacks of risk segmentation);
- Others (Blunder-Wignall and Atinkson, 2009; Gramlich, 2007) focused on compensation schemes in the financial sector, which encouraged excess risk taking such as the unregulated OTC market, or poor underwriting standards and lack of regulation of mortgage brokers;
- Some scholars and law makers (Security Exchange committee "SEC", European Commercial bank "ECB") asked on the role have played the credit rating agencies during the crisis. They claimed that credit rating agencies had improperly managed conflict of interest and said the methodology used by them to approve the legality of the

structure product created and to rate the various seniorities of debt issued by Collateralized Debt Obligation “CDO” should be reviewed.

A discussion of the causes and consequences of the crisis is beyond the scope of this article, see for this purpose Brunnemeier (2008) who describe and analyze the many triggers and mechanisms by which the crisis has emerged and spread on the main financial places. We will focus instead on the debate, whether and to what extent, unregulated credit default swaps are responsible for the crisis:

- Many argued that systemic risk arising from CDSs would have exacerbated the crisis by creating asset bubbles (CDSs allow banks to lend more freely to unworthy “Junk” borrowers, and at lower interest rates to compete effectively with the market and with other FI such as mutual fund or investment bank), by altering the relationship banking as a main comparative advantage for banks over the other FI (see Boot “2000” article), and by letting few market participants to endanger the whole financial system “too big or too interconnected to fail”. In a related article, Coudert and Gex (2010) showed empirically the effects of big institution “case of GM and Ford” bankruptcy to the CDS markets. Thus, perhaps certain group of big market players such as “AIG, Lehman Brother’s” may have the appetite for risky bets, but should these bets fail (without properly anticipating the amount of collateral or the risk that its counterparties would be unable to pay), the whole financial system will bear the consequences;

- Others saw, on the other hand, CDS market has absorbed losses without significant contagion. Proponents of this market claimed that CDSs was not a cause for the crisis; it was just the effect of losses on mortgage securities. Borrowers who got benefit from the low interest rate, and the house booming period during the period 2002-2006 has continued to purchase more and more residential housing, driving up the value of most houses beyond their “fundamental value”. Thereby, contribute to form an asset bubble. In 2007, once sub-prime borrowers began to default on their obligation at an accelerating rate, the housing bubble burst. What have contributed the spread of the crisis are securitization and the CDO linked to mortgage risk real estate “subprime.” Investors, including most large financial institutions, had to write down the value of these toxic assets on their balance sheets to market value (fair value recent debate). Because of these write-downs, numerous large financial institutions became insolvent, including Bear Stearns, Freddy Mae, Fanny Mac, Lehman Brothers, Countrywide Mortgage, Merrill Lynch, and the list goes on.

As we remark, there is a debate over the role of CDS in the last financial crisis. If this hypothesis could be proved that “FI would not have purchased so many CDOs had they been unable to obtain CDS hedges”, then it logically follows that CDSs has been involved in the crisis. To our knowledge, there is no empirical evidence on this specific issue.

4. Counterparty Risk in CDS Markets

The main risk associated in CDSs markets are counterparty risk when one part of the contract cannot meet its obligation and systemic risk (sudden, often unexpected, events or series of events that damage financial markets, and thereby the efficient channeling of resources) caused by the interconnectedness of this market.

As the CDSs markets, is a non-standardized market “OTC” traded on an exchange and not on a regulated market, counterparty risk is high. There is no clearinghouse to underwrite commitments through a system of margin calls and collateral. Besides, it constitutes a channel of contagion of the type “cascade effect” to the financial system. The failure of a major play such as Lehman Brothers or AIG can thereby aggravate systemic risk.

Once the debate about the CDS's role in financial crisis seems to be over by admitting that it has contributed to enhance the impact of credit crisis, debate continues about the procedures should be taken to limit the drawback impact of its counterparty risk.

We will make a step toward this issue by checking the problem from a regulation (Part 1) and contagion (Part 2) point of view.

4.1 Counterparty Risk and Regulation Question

Critics of CDSs markets claimed that it has been allowed to become too large without proper regulation. Thus, the market has no transparency. Some scholars asked about the moral hazard problem when the protection buyer has more information upon the protection seller. In other words, there will an information asymmetry.

In CDS contract, both buyer and seller of protection experience the counterparty risk.

To mitigate the protection buyer counterparty risk, a protection seller may require an upfront payment from the protection buyer upon entering into the CDS.

To reduce counterparty risk's protection seller, CDS market participants sometimes require him to post collateral to protection buyer (usually the amount of collateral required reflects "the contracting parties assessment of the risk"). Say it differently, one the CDSs' spread increase, the amount of collateral should be delivered goes up and vice versa. The parties' adjustment collateral requirements may happen several times per day to account for fluctuations in market values of the CDS contract or changes in the parties' creditworthiness.

However, even with continual collateral adjustments, buyers have difficulty collecting sufficient collateral to account for jump-to-default risk. Further, according to International Standard Derivative Association "ISDA" margin survey 2009, more than one-third of OTC credit derivative exposure is not subject to any collateralization agreement, especially if the protection seller has a high rate (AAA). Thus, despite some mitigation through collateralization, a substantial amount of counterparty risk remains in the bilateral OTC CDS market.

After two decades of impassioned debate, researchers, regulators, legislators and market participants have yet to resolve the question of whether market participants and regulators should enforce authority over the market. The financial turmoil was the trigger to think deeply about this issue. One of the proposals is that the CDS contracts will be traded through a centralized counterparty (CCP), or clearinghouse. A CCP stands between both parties of the transaction so that each party deals only with the CCP and not with the other market participant. It will become the "buyer to every seller and seller to every buyer."

Several central clearinghouses have already been established in the United States "U.S." (Frank-Dodd Bill act that was signed into law in July 2010) and the Europe (European Commission 2009).

Does a Central Clearing Counterparty "CCP" of a particular class of derivatives such as CDS indeed reduce counterparty risk exposure? Is it better instead to eliminate the naked CDS trading or to increase capital reserve requirements for market participants involved in the purchase or sale of CDS tied to highly speculative debt? Nowadays, we found some literature (especially working papers) talking about the best way to regulate counterparty risk in CDSs markets.

For instance, Duffie and Zhu (2010) proved in their theoretical model that clearing different classes of derivatives such as CDSs, Interest rate Swaps (IRS) in different central clearing could increase counterparty exposures and collateral demands. Using recent data (year 2009) on the OTC derivatives positions of U.S. banks, they gave an illustrative example for their model. They recommend clearing different classes of derivatives (IRSs, CDSs) in the same clearinghouse. In a related article, Shadab (2010) argued that market participants and regulators should also be aware that the use of CCP might not fully address the counterparty risk and could even

increase the risk by introducing a new source of concentrated CDS exposure into the financial system and potentially undermine superior bilateral risk management practices. He suggested accounting rules instead.

Senior bankers said that not only has the CDS market functioned remarkably well during the financial crisis, but also CDSs contracts have been acting to distribute risk just as was intended. They concluded not CDSs themselves that need further regulation, but the parties who trade them.

Gex, Duquerroy and Gauthier (Banque de France, 2009) exposed the advantages and inconvenient of constructing CCP. Dickinson (2008) in his working paper encourages the idea of CCP.

4.2 Counterparty Risk and Financial Stability

The concept of stability is slightly vague and difficult to define. What we are interested in is the systemic risk: “the risk in which the default of a firm or a group of a firms will result in the failure of the financial system as a whole”.

In 2008, the subprime crisis spilled over and became the catalysts for a much broader global financial crisis. Much of the intervention by the Treasury and the Federal Government has been motivated by the main objective of avoiding broader contagion and spillovers to other markets and sectors of the economy.

In their article Kaminsky, Reinhart and Vegh (2003) made a literature fully review on the main possible channel of contagion. The first channel is described as a liquidity shock across all markets. The second channel of contagion is described as the arrival of negative news “flight to quality” which affects the collateral values or cash flows associated with securities in other markets. The third mechanism of contagion is related to herding behavior when agents in a market are influenced in their investment choice by the choices made by others.

The fourth channel of contagion is through counterparty risk when firm’s financial distress or default has adverse effects on other firms, because of their business relationships. Jarrow and Yu (2001) have measured this type of contagion through counterparty risk in the pricing of bonds and credit derivatives such as CDS.

CDSs markets constitute a fertile field to exploit the contagion channel through counterparty risk especially due to the interdependence of firms, which push the credit spreads to co-move during crises. In this market, one market participant in naked CDSs can be both buyer and seller of protection to offset its position. In an illustrative way, if we took the example of Goldman Sachs (Table 2) as a major CDS buyer, we notice that the reference entity has 9,895 outstanding CDS contracts referenced to it with a net notional value of \$6.5 billion, but a gross notional value \$94.0 billion. This means that the average CDS referenced to Goldman has been offset fourteen times; thus, fourteen firms are linked together on this chain of transactions. The participants in the CDS market are some of the most interconnected in the entire economy. Moreover, we can conclude from Table 2 that roughly ten counterparties trade over 80% of the CDS volume. Should one of these firms fail (due to any number of reasons), the CDS market, would perhaps crash immediately. As for example, the failure of Lehman Brothers, which was a major counterparty players on CDSs markets has immediately raised concerns about whether it can fulfill its obligation. The same question could be posed to the collapse of American Investment Group “AIG”.

Jorion and Zhang (2007 and 2009) have mainly provided empirical evidence of contagion through counterparty risk by making a correlation test between counterparty default and CDS premium. They found a positive relation, which means that counterparty risk constitutes a potential additional channel of credit contagion. In a related article, Coudert and Gex (2010) studied using a sample of 226 CDSs on major US and European firms the effect of General Motors and Ford crisis in 2005 to the whole CDSs markets. They found a significant rise in correlations during the crisis episode, which confirm the hypothesis of CDS market is subject to contagion effect through its counterparty risk.

Table 2 Top 25 CDS References Entities by Net Notional Value of Potential Default Payouts

	Contracts	Net Notional (USD)	Gross Notional (USD)	Reference entity
1	3,355	17,033,411,245	151,640,355,977	Republic of Italy
2	1,975	14,103,459,173	63,690,626,218	Kingdom of Spain
3	8,959	11,809,245,999	87,508,812,002	General Electric Capital Corporation
4	11,851	11,358,811,789	149,362,956,266	Federative Republic of Brazil
5	738	9,854,708,920	37,735,584,839	Federal Republic of Germany
6	5,885	8,748,365,784	68,481,187,868	Deutsche Bank AKTIENGESELLSCHAFT
7	7,898	7,678,846,427	111,979,517,282	Russian Federation
8	1,118	7,557,555,369	35,601,996,464	Hellenic Republic
9	10,067	7,188,002,666	93,273,636,461	Morgan Stanley
10	9,895	6,500,381,025	94,039,544,028	The Goldman Sachs Groups, Inc
11	14,285	6,310,120,101	190,812,225,523	Republic of Turkey
12	10,015	6,262,327,065	95,031,516,396	Merril Lynch & Co., Inc
13	515	5,906,755,480	21,649,394,270	French Republic
14	4,636	5,383,948,996	51,553,104,051	Republic Of Korea
15	11,938	5,221,086,007	84,992,389,586	Country Wide Home Loans, Inc
16	600	5,203,043,051	16,412,127,895	Republic of Austria
17	4,263	5,084,065,164	44,552,698,284	Barclays Bank PLC
18	774	4,885,595,283	24,526,177,517	Republic of Portugal
19	7,935	4,739,446,163	49,084,672,672	SLM Corporation
20	6,502	4,731,325,037	66,637,537,330	Citigroup Inc
21	2,450	4,722,693,035	18,491,414,194	Berkshire Hathaway Inc.
22	2,915	4,704,229,570	30,997,897,750	UBS AG
23	6,885	4,660,998,294	67,930,286,934	Deutsche Telekom AG
24	5,957	4,634,987,364	53,274,505,998	MBIA insurance corporation
25	628	4,600,476,623	17,295,994,579	Ireland

Source: DTCC Deriv/SERV Trade Information Warehouse Reports, DTCC Website, available online at <http://www.dtcc.com/products/derivserv/data/index.php>.

This table presents the top 25 reference entities by net notional value (as of Nov. 14, 2008). One market participant in naked CDSs can be both buyer and seller of protection without limits to offset its position. For example Goldman Sachs (see row 10) as a major CDS buyer, has 9,895 outstanding CDS contracts referenced to it with a net notional value of \$6.5 billion, but a gross notional value \$94.0 billion. This means that the average CDS referenced to Goldman has been offset fourteen times; in other words, fourteen firms are linked together on this chain of transactions.

Theoretically, Heyde and Neyer (2010) have analyzed the consequences of CDS for the stability of the banking sector (banks as both buyer and seller for CDS). They found that CDS create a possible channel of contagion because they imply that banks have contingent claims on each other. Allen and Carletti (2006) worked in the context of a bank as a main buyer and insurance as a seller for CDS. They showed that risk transfer between the banking sector and the insurance sector could lead to contagion from the insurance to the banking sector as the credit risk transfer induces insurance companies to hold the same assets as banks. If a crisis happened to the insurance sector, insurance companies will have to sell these assets forcing down the price, which implies the possibility of contagion to the banking sector since banks use these assets to hedge their idiosyncratic liquidity risk.

We did not find in the literature neither theoretical nor empirical work, which analyze the context of hedge funds or monoeline insurers as a main counterparty in CDSs markets.

5. Conclusion

Credit derivatives allowed market participants to trade and manage credit risk in much the same way as market, interest rate or foreign risk. According to DTCC and British Bankers' Association, the most commonly used credit derivatives instrument is the Credit Default Swaps capturing nearly more than half of the credit derivatives market's share.

We made in this article a short survey of the literature about CDS. We defined it in the first section as an insurance contract that provides insurance against the risk of a default by particular company. It includes single-name credit default swaps, basket credit default swaps, and CDSs indexes. Then, we saw some literature of the debate over its advantages and disadvantages to the health of the financial system.

CDS transactions are traded almost exclusively in the OTC market. Some scholars have argued that this unregulated market is not transparent, and pricing information on CDS is not publicly available. Thus, they saw that this opaque market has contributed to the recent financial crisis. Others saw that CDSs market do not constitute a cause for the crisis but rather an effect for the tremendous increase of risky assets related to mortgage securities. In section II, we linked the CDS market to the recent crisis and we discover that to answer the question whether it has contributed to the crisis or not we had to prove empirically if the FI would not have purchased so many CDOs had they been unable to obtain CDS hedges.

A special attention is made to the counterparty risk in CDS market by checking it from two different but complementary aspects: regulation and contagion angles of observation.

We admit that the issue of counterparty risk in CDSs markets needs further analysis by seeing in an empirical part the effect of this risk on financial stability (especially the contagion effect). Then, addressing the regulation measure should be taken to mitigate with the lowest cost possible the counterparty risk in CDSs markets.

Answering to the subject of contagion and regulation in CDSs markets will have a great utility to policymakers because CDS protection sellers were not required by law to set aside capital to meet their obligations (jump-to-default risk). What is more, regulators and market participants were seemingly unaware of the risks that particular institutions (e.g., AIG) had accumulated through their CDS exposures. In addition, the empirical findings could be used to improve the specification of default correlations (by introducing the correlation effect), thus better diversified credit portfolios.

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Transaction Function of the Firm

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Abstract: The aim of the present research is the development of analytical performance of the transaction function permitting to predict development of the institutional environment of the managing subjects¹. Due to this investigation the transactional costs will be proportional to an amount of the economic agents, who have concluded the contracts with the concrete firm, and are inversely proportional to an amount of the made contracts and informal institutions of such agreements.

Key words: institutions; transactional costs; economic agents; contracts; informal institutions

JEL codes: D00, D21

Transaction are the initial units of the traditional institutional analysis mirroring outcomes of the ratios of the individuals by production and consumption of the boons and, from here, containing principles of conflict, relative dependence and order. At the same time, the function simulation of transaction till now has not received the due development in the world economic literature.

The prompt development of the institutional economics theory has reduced in an inconsistency between the accumulated arsenal of resources of institutional performance of real economic activity and possibility of the analytical prognosis of development of the institutional environment. If the neoclassical performance about activity of the firms bases on theoretical developments of production function, the institutional simulation till now has no the analytical function circumscribing changes of transactional costs. The researches, published in the economic literature, of the transaction function, in the greater degree, carry quality character and have no possibilities of a quantitative analysis.

The purpose of the present research is the development of analytical performance of the transaction function permitting to predict development of the institutional environment of the managing subjects.

The logic of research, apparently, should be following. Let's analyze an essence of transactional costs and possible model performances of transactional function, then, outgoing from classical definitions of transactional costs, we shall present most common view of the transactional function and we shall discuss advantages and limitations of offered performance.

Let's mark, that the production functions, traditionally used in the economic theory, from the Cobb–Douglas equation up to their further development as CES-functions simulate the process of industrial activity as aggregate outcome of usage financial and manpower. The classical performance of production function as the Cobb-Douglas equation expresses dependence of production Q from the nested capital K and utilized manpower L :

$$Q = A L^\alpha K^\beta \quad (1)$$

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where A : aspect ratio; α, β : coefficients of elasticity of usage labor and financial resources accordingly.

Being empirically defined for the concrete corporation, the equation (1) enables to estimate, as the size of production will vary at change of an amount of a used labor or capital.

Let's mark, that each economic subject carries a cost to produce any boon. The costs appear as expenditures for processing of raw material and materials, more often payment of a labor, the reimbursing of a wear of inventory etc. As a result of such expenditures happens physical transformation of the boons. From here, the expenditures of raw material and materials, labor and capital, directional on change of physical and other material properties of the boons, are named as transformational costs.

The complicating of economic life has forced the scientists to convert steadfast attention to high costs, which should be carried to the subject for protection of the property right and control behind quality of delivered production. Apparently, such costs on the contents essentially differ from usual transformational costs. They are bound not to change of properties of the economic boons, and with the fact of carrying out of the market transactions and protection of property right. Therefore they name as transactional costs.

The concept of transactional costs was injected by J. Commons and then by R. Coase. It utilized for an explanation of existence of such outline, opposite to the market, as the firm. R. Coase linked derivation these "islands of consciousness" to their relative advantages by way of saving on transactional costs. Specificity of operation of the firm he saw in suppression of the price mechanism and replacement by its system of an internal administrative control.

Within the framework of the modern economic theory a transactional costs have received set of treatments.

So, K. Arrow defines a transactional cost as a cost of maintenance of the economic system. K. Arrow compared operation of transactional costs in economy to operation of friction in physics. On the basis of the similar suppositions the outputs are done that than closer economy to model of a common equilibrium, the below in it a level of transactional costs, and on the contrary.

In treatment of D. North a transactional costs «consist of costs of a rating of useful properties of the object of exchange both costs of support of the rights and enforcement to their observance». These costs are a source of social, political and economic institutes.

In the theories of some economists a transactional cost exist not only in market economy (R. Coase, K. Arrow, D. North), but also in alternate ways of economic organization, and in particular in a planned economy. So, maximal transactional costs are observed in a planned economy that eventually defines its inefficiency.

The theory of transactional costs is one of the most actual directions of researches in modern institutional economic theory. As a rule, under transactional costs the expenditures on compilation of the draft contract, carrying out of negotiation and support of guarantees of implementation of the agreement, bound with poor adapting to unexpected events of an expenditure, expenditures on suit, organizational and working costs, expenditures, bound with precise execution of the contract obligations, expenditure on search and processing of the necessary information are understood.

R. Coase writes, that a transactional costs is " ... costs ... conjugate with clearing up what appropriate prices" and "inevitable in the market a cost of carrying out of negotiation and conclusion of the contracts on each transaction of exchange".

Uncertainty, bound with lack of the information, reduces in lowering management efficiency by the firm and losses of a complete control above contract processes. The absence of the necessary information causes both direct losses, and origin of the missed benefits. On the contrary, usage of particular information advantage allows

considerably to lower a transactional costs, to strengthen positions in the market and to increase efficiency of inner firm processes.

The lowering of transactional costs, in opinion of many contributors, is the major purpose and outcome of operation of economic institutions. Firm, as long-term institutional form of organization of the economic ratios, not only tests needs for information resources, but also with existence provides lowering those costs, which could be suffered in case of organization of the same economic ratios by a different way, rather than as the firm. The ordering of operation of the firm reduces in transition of some information needs in a routine rank that provides lowering their cost. At the same time, the opportune implantation of innovational processes, including in the field of information support, can reduce in obtaining particular advantage and promote not only optimization of information exchange, but considerable quality yank, output on a new level of the economic ratios.

In the economic literature, as a rule, select five types of transactional costs:

(1) Cost on information retrieval. If the speech goes about the businessmen, they should carry a cost on search of the goods for purchase and potential seller, learning of his business reputation or, opposite, on search of customers for the goods and services.

(2) Cost of a rating and quality control. Due to standardization of methods of a rating the appropriate expenditures are insignificant for the mass goods of daily demand, but are appreciable enough for more composite technical goods.

(3) Cost of support and conclusion of negotiation.

(4) Cost of protection of property right. To them refer costs on compilation of the contract or preparation of constituent documents of the corporation, registration of the agreement or new firm, protection of property right in the judicial order or different ways.

(5) Cost of protection from opportunism behavior. Under opportunism behavior any deviation from observance of conditions of the contract or unwritten agreement is understood. Therefore violation by the worker of the duties is the same form of opportunism behavior, as delivery of the goods of inadequate quality.

In Figure 1 the limiting costs of decrease of environmental by a factory and cumulative limiting costs of contamination for the inhabitants near a factory of terrain represented.

When the factory has unlimited freedom to pollute an environment, its owners do not undertake any gains for limitation of contamination and will reject soiling in an atmosphere until the point Q_2 will be reached, which the limiting value of contamination for the manufacturers is equal to zero. The cumulative limiting costs of the population are equal this point to a segment BC, and exuberant social costs of contamination-square of a delta circuit ABC. This outcome is inefficient till the Pareto, as the equality of limiting social benefits both costs is not observed, and usage of air as a resource does not represent the greatest value.

The Figure 1 shows, that in an interval between Q_1 and Q_2 the damage plotted to the population by contamination, exceeds a cost of a factory, conjugate with clearing. Why the inhabitants of terrain do not pay to a factory compensation for limitation of a level of contamination up to Q_1 ? The answer that in the given model misses a number of limitations, for example such of transactional costs, as a cost of collective operation of the population, or legal limitations, i.e., the model is inexact. The addition of necessary limitations will reduce the given model in the equilibrium Pareto-status.

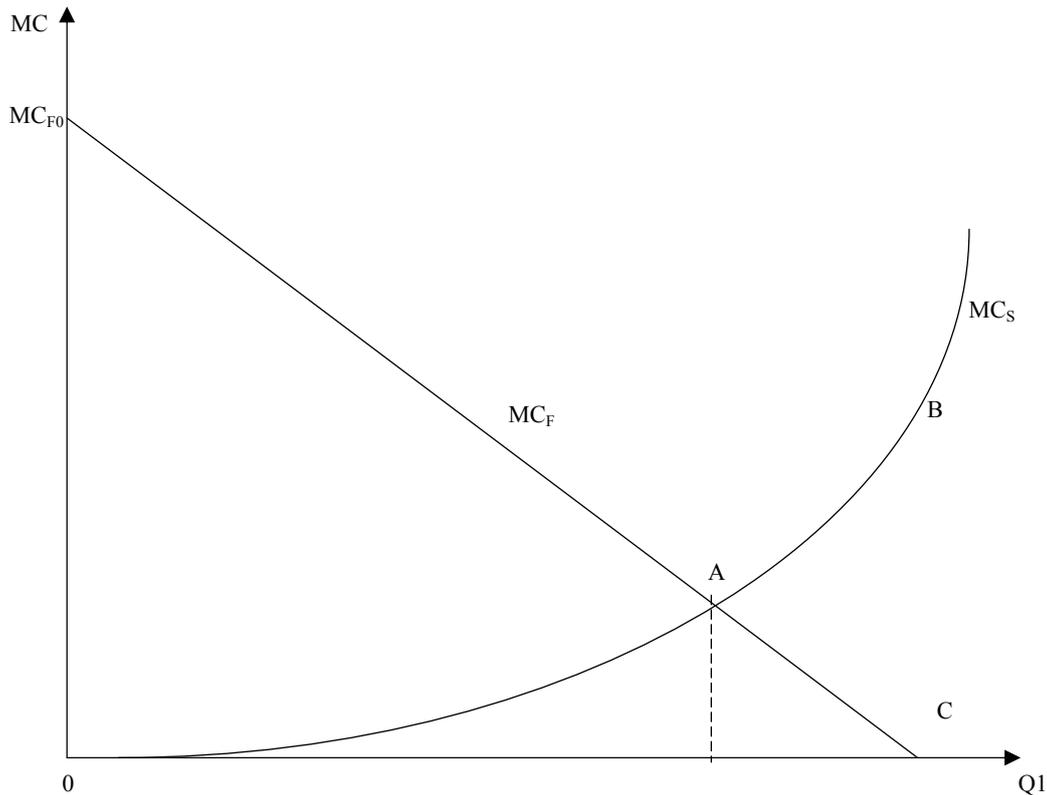


Figure 1 Efficiency of a Factory at Decrease of Contamination Environments [10]

Note: MC_F : limiting costs of a factory on decrease of contamination of the environment; MC_S : limiting social costs of contamination for the inhabitants of terrain; Q : value of contamination of the environment.

On an example of the reduced model it is visible, that to possibilities of the theory of transactional costs the availability to check of the statements about human behaviour is necessary to refer at alternate sets of limitations. Thus the greatest long of transactional costs is made by costs on information retrieval.

What possible formalizing of the function of transactions?

Unfortunately, in the majority of researches of transactional costs of their functional connection from various parameters carry quality character. So, J. Benassy, studying competitive market mechanisms, has shown, that a market equilibrium between sentence of the goods and ability of the buyers gain these goods should to outgo from the strategic function of correspondence of the price messages from the different players of the market, however author was restricted only to common view of functional connections of the transaction supporting the given market signals.

In research of E. Heinesen the possibility of simulation of the transactional function of macro economical institutional changes surveyed. In operation of Ch. Kolstad and M. Turnovsky the guessed transaction for information alignment of the prices of the goods of various quality are considered, and the supposition about necessity of introduction of the transactional function circumscribing to the speaker changes asymmetrical information in the market is done.

The special urgency the introduction of the function of transaction gains in the market of transactions, so here it is necessary to realize information retrieval, to carry out negotiation on optimal to wages between the employer and worker. In research of F. Alvarez and M. Veracierto is shown, that in the market of transactions the simulation

of functional connections of transaction from several of inner parameters will allow to work out fluidized policy of regulation of the labor ratios.

The matching of corporations of USA and Japan on transactional costs of maintaining of the partner ratios has designated for S. Globerman, Th. Roehl and S. Standifird a problem of creation of the function of transaction. However, authors were restricted in the research only to listing of costs, which can derivate a functional connection of transaction from parameters of interaction between corporations.

The transaction function of money is parsed in research of J. Vuchelen and L. Hove. In the given operation is shown, that the introduction euro as uniform payment for Europe unity has required considerable transactional costs, which description is possible and at a model level.

In paper of E. E. Rahardjo, D. Mirchandani and K. Joshi are considered a transactional cost on search and rating of efficiency of Internets-sites in Indonesia and it is scored, that the rating speakers of change of similar costs is possible on the basis of introduction of the function of transaction. The similar simulation of transaction for handle of stream of the goods with the help of taxes represented in recent research A. Cunha, however here again obvious sort of the transaction function is not considered.

The attempt of formalizing of the transaction function F represented in the known monograph of A. Furutbotn and R. Richter, where the costs of the buyer of production Y_c functionally depend on costs of the manufacturer of production Y_p :

$$Y_c = F(Y_p) \quad (2)$$

Then the condition necessary for support production sales, maximizing profit of the trade corporation, will look like:

$$dY_c/dY_p = P_p/P_c < 1 \quad (3)$$

where P_p, P_c : price of production of the manufacturer and customer, accordingly.

The relation (3) illustrates the known fact of exceeding of costs of a customer above costs of the manufacturer on the value of costs of transaction in this case equal to the income of the trade corporation. At the same time, the indicated approach does not give possibility of simulation of obvious sort of the function of transactions.

The analysis of the published researches on introduction of the function of transaction shows, that, apparently, the obvious performance of sort of the similar function is possible on the basis of classical definitions of an essence of transactional costs with the subsequent verification of a designed relation.

The classical definition of transactional costs belongs to T. Eggertsson: "In common words a transactional cost essence of an expenditures originating, when the individuals exchange property rights on economic assesses and provide the exclusive rights". However he scores, that legible determination the transactional costs do not exist, as well as in the neoclassical theory is not present correct definition of production costs. R. Matthews has offered the following definition: "Fundamental idea of transactional costs that they consist of costs of compilation and conclusion of the contract, and also costs of supervision behind observance of the contract and support of its running in contrast to manufacturing costs, which essence a cost purely executions of the contract".

Last definitions allow selecting three key dependences of transactional costs from parameters of economic systems. Agrees T. Eggertsson, a transactional cost are directly proportional to an amount of the economic agents concluding the contracts among themselves. And according to definition of R. Matthews, transactional cost is inversely proportional to an amount of the made contracts and installed norms providing execution of the given contracts.

If under the made contracts to understand formal institutes (institutes-settled norms of interaction between

the economic agents), and under the norms providing execution of the given contracts - informal institutes, it is possible to simulate at a quality level dependence of transactional costs from main institutional parameters of economic systems.

In this case, the transaction function by analogy to the equation (1) will look like the following:

$$C = B N^\lambda / (F^\mu + I^\nu), \quad (4)$$

where C : transactional costs of the corporation (economic agent generally); B : aspect ratio, gauged in terms of costs; N : amount economically of fissile agents (actors) which have concluded the institutional agreements with the corporation (or the particular agent); F : amount of formal institutes (contracts); I : amount of informal institutes; λ, μ, ν : coefficients of elasticity of usage of actors, formal and informal institutes for creation of the institutional environment.

In the equation (4) the formal and informal institutes represented as additive addends, as they supplement, but the various directions of economic activity do not overlap by the norms. Or else, in each concrete situation the contract ratios can be defined as formalized (classical and neoclassical) norms, or as informal arrangements between the economic agents.

As it is visible, as against production function (1), in which the production is estimated, in the transaction function (4) should be featured a transactional costs as the quantitative characteristic of the process of realization of transactions. In this case, arguing minimization of transactional costs is possible.

For example, a certain firm installs the business ratios with the several economic agents. The relation (2) demonstrates that the level of transactional costs will be minimized at the least amounts of the formal agreements and informal institutes between the corporation and agents. If to formal institutes it is possible to refer norms of compilation of the contracts, support of execution of the contracts, quality control and protection of property right, to informal institutes it is necessary to refer norms not obtained fixings in the formalized contracts. Apparently, to transactional costs of creation of informal institutes concern information retrieval, search of the buyers and sellers, preparation of negotiation and protection from opportunism. Certainly, in each concrete case the set of formal and informal institutes is defined by the usual structure of the institutional environment.

By what image it is possible to prove the equation (4)? The most correct approach to the proof of sort of the transaction function lays in a set of the necessary statistical information with a further improvement of coefficients of elasticity and sort itself of the transaction function. Production of the task of serious empirical research here sees.

But also at a quality level it is possible to prove possibility of existence of offered sort of the transaction function. Really, classical graph (Figure 1) about equilibrium of transactional costs of the corporation and of institutional environment demonstrates propagation of limiting social costs of the population at increase of contamination of terrain. Differently, a transactional cost increase at increase of number of the people involved in the process of solution of ecological problems. Therefore, the increase of an amount economically reduces the fissile agents involved in creation of the institutional environment, in proportional increase of transactional costs on creation and maintaining given of institutional structure.

On the other hand, the empirical analysis of dependence of transactional costs from a level of introduction of informal norms has revealed their inverse ratio. In the Figure 2 the outcomes of empirical research of factor handle before contract opportunism of the workers represented. From all diversity of the endogenous opportunism forms of the workers the form of unfavorable takeoff as most determined and verifiable was selected.

Level of opportunism R defined as the ratio of change of outcomes of activity of the worker, gauged, for example, size of not issued production ΔQ as a result of unfavorable takeoff to potentially possible outcome of activity Q , multiplied on 100%:

$$R = (\Delta Q/Q) \cdot 100 \% \quad (5)$$

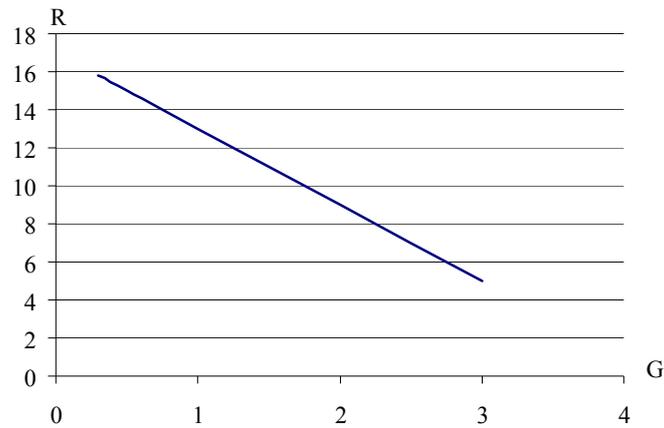


Figure 2 Dependence of a Level of Unfavorable Takeoff R of The Workers from a Rating of Institute of Selection of Frames G on a Five-Mark Scale, %

The outcomes of empirical research have shown that the level of unfavorable takeoff of the workers is reduced at improvement of professional activity of a staff department. Therefore, a transactional cost on selection of the workers by that will be lower (at decrease of a level of unfavorable takeoff), than above level of normalization of activity of a staff department of the corporation. And these norms can carry informal character defined by psychological specificity of operation with various categories of the workers, acting on the corporation.

The similar dependence can be observed at formal institutions of activity of the managing subject. In the Figure 3 the dependence of a long of the employees of firm occupied with operation with the information, from an amount of administrative links represented.

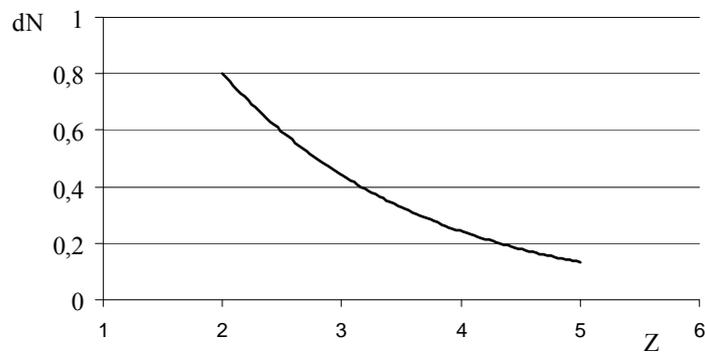


Figure 3 Dependence of a Long of The Employees of The Corporation Occupied with Operation with the Information dN from an Amount of Administrative Links Z

The analysis of the represented dependences shows, that the increase of an amount of administrative links on firm reduces in decrease of number of the experts on operation with the information, and the given dependence has exponential character. Therefore, the increase of an amount of the formalized institutes (control links) reduces in decrease of transactional costs, bound with support of activity of the experts on operation with the information.

What main outputs can be made of offered sort of the transaction function?

At first, the introduction of analytical sort of the transactional function completes build-up of a tool means of a rating of economic activity of the firm, started from the Cobb-Douglas production function.

Secondly, the build-up of the transaction function provides creation of prognoses ratings at research of the

institutional environment of the firm. Differently, the prediction of the investments in a transactional cost is possible on the basis of a rating of an amount of the attracted economic agents and transactions in the formal and informal sort.

Thirdly, the performance of obvious sort of the transaction function stipulates distinction of maximization of output and minimization of appropriate transactions. Really, if in production function as independent by change production of the corporation appears, and effect variables are a labor and capital, the transaction function features dependence of transactional costs from an amount of the economic agents, and also formal and informal institutions and the lowering of transactional costs is predetermined both amount of the agents, and transactions between them.

Thus, the development of analytical performance of the transaction function allows predicting development of the institutional environment of the managing subjects, and, as a corollary to provide reasonable managing in real sector of economy.

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Microfinance and Small Economies: Leveraging Remittances in Latin America and the Caribbean

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Abstract: Around 200 million people live outside their home countries, some 3 percent of the world's population. More than 30 million Latin American and Caribbean people live outside of their country in places like the United States, Italy, and Spain, as well as Argentina, Costa Rica, and the Dominican Republic. Trends developing over the past few years show remittances to be very important to small developing countries. According to the World Bank, remittances have increased ten-fold from \$30 billion in the mid 1990s to over \$300 billion in 2007, and it is estimated that 10 percent of the world's population benefit from these money transfers. Remittances have been and will continue to be a major source of capital inflows for developing small economies, impacting millions of households. This paper examines the impact of remittances in leveraging the efforts of small nations in Latin America and the Caribbean (LAC) by examining the resulting multiplier effects on economic growth through domestic consumption and investment. It analyses data of worldwide remittances flows to developing countries in 2006 and provides evidence of the importance of remittances to smaller developing LAC nations, such as Grenada, Honduras, El Salvador, and Nicaragua, in comparison to larger and more developed countries like Brazil and Mexico.

Key words: microfinance; remittances; small developing economies; Latin America and the Caribbean

JEL code: F

1. Introduction

There are more than 200 million immigrants throughout the world. Supply-push factors like inequalities of living standards and the increased lack of economic opportunities in developing nations continues to support migration patterns from less developing countries, especially small countries, to larger developed ones. More than 30 million Latin American and Caribbean people live outside of their country in places like the United States, Italy, and Spain, as well as Argentina, Costa Rica, and the Dominican Republic.

Remittances continue to be an important source capital inflows and economic development, particularly in smoothing out consumption and increasing physical, as well as social investment. In some instances, remittances account for larger flows of capital than development aid or foreign direct investment. According to the World Bank, remittances have increased ten-fold from \$30 billion in the mid 1990s to over \$300 billion in 2007, and it is estimated that 10 percent of the world's population benefit from these money transfers.

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In 2006, migrants sent around \$300 billion back to their home countries, Latin America and Caribbean (LAC) nations received \$68 billion in remittances. Mexico took in \$24.3 billion or 36 percent of total remittances, South America also collected \$24.3 billion, followed by Central America with \$11 billion, and the Caribbean with \$8.3 billion. Small developing LAC countries received over \$18 billion or 27 percent of the total. In some of these countries, remittances make up a significant portion of their GDP:

- In Central America, Honduras received almost \$2.3 billion in remittances, which is close to 25 percent of its GDP. El Salvador took in over \$3.3 billion which is 18.2 percent of its GDP. Honduras took in over \$2.2 billion which is about 25 percent of its GDP.
- In the Caribbean, Grenada collected over \$162 million in money transfers equal to 31.2 percent of GDP, and Saint Vincent and the Grenadines received \$123 million, or 26.4 percent of its GDP (IFAD, 2007).

Remittances have been and will continue to be a major source of capital inflows for developing small economies, impacting millions of households. Castello and Boike (2011) point out the importance and the impact that these remittance flows, and the resulting multiplier effect on economic growth through domestic consumption and investment, have on the economies of these countries.

This paper examines the importance of microfinance and remittances to small developing nations in Latin America and the Caribbean region. The impact of remittances is shown in leveraging the efforts of these nations to alleviate poverty and support micro-enterprises, in the direct contribution to domestic consumption and investment, and in the development of new financial products and services to meet the needs of those at the bottom of the pyramid. Remittances are necessary to the well-being of millions of people, particularly small developing economies. Money transfers allow the poor to be more productive, while contributing to the economic growth of small developing countries as these capital flows have a much larger multiplier effect through increased consumption and investment (Castello and Boike, 2011).

Section II looks at the evolution of microfinance in LAC and reviews the literature of remittances and economic development in the last decade in the region. Section III analyses data of worldwide remittances flows to LAC countries in 2006, highlighting the importance of remittances to smaller developing nations, such as Honduras, El Salvador, and Grenada, in comparison to larger and more developed countries like Brazil and Mexico. Section IV provides some concluding remarks and recommendations.

2. Microfinance and Remittances

Microfinance provides loans and financial services (savings accounts, insurance, and remittances) to people unable to secure these services in the formal financial system. Microfinance providers empower the transient poor by smoothing out their consumption patterns and harnessing their entrepreneurial spirit. Microfinance is a bottom-up approach to spark economic growth and development. During a 20 year span, from the 1950s to 1970s, government grants and subsidies, non-government organizations (NGOs), and international donors funded microcredit programs amassing huge losses targeted to small and marginal farmers. During the 1970s, credit programs in Bangladesh and Brazil provided small loans to poor women based on solidarity group lending, targeting those who would use the funds in income generating activities and for direct consumption. Pioneers in these early efforts, Projecto Uno in Brazil and Grameen Bank in Bangladesh emerged as leaders of microcredit in their respective countries (Berger, 2006).

By the 1990s, it became apparent that the emerging microfinance markets would be unable to sustain their

rapid growth by depending solely on either government, private, and international donor funding. Microfinance institutions (MFIs) developed a new social-consciousness-driven private sector business model, mixing non-profit and for-profit market principles to drive long-term sustainability by widening and deepening microfinance services to include not just the loans originally offered, but also insurance, savings, and remittances services (Castello and Boike, 2011).

By 2006, the microfinance industry had grown into a \$17 billion industry with more than 3,300 MFIs serving 133 million clients in all regions and most developing countries of the world (Standard & Poors, 2007). In Latin America and the Caribbean, the microfinance sector had a portfolio of \$7.5 billion with almost 700 MFIs serving seven million customers through the region.

Cull, Demirguc-Kunt, and Morduch (2009, p. 170) write:

“This banking success should be celebrated. They pave the way for broadening access to finance for hundreds of millions, perhaps even billions, of low-income people who today lack ready access to formal financial services. Such access on its own is not yet proven to increase economic growth or to reduce poverty on a large-scale level and, as a general proposition, we doubt that it will accomplish those goals on its own, but we know it can increase economic growth or reduce poverty on a significant scale in small developing economies (emphasis added).”

The billions in annual remittances, unlike foreign aid, go directly to families that use them for consumption and investment in areas such as food, clothing, housing, schooling, health services, and micro-enterprises.

2.1 Remittances, Development, and Literature Review

Castello and Boike (2011) write microfinance and remittances play an important role in the well-being of many recipients worldwide, particularly for families in small nations. These money transfers tend to be in small amounts which are mainly used for consumption and social investment, and are less used for income-generating and job-creating investment. In general, remittances have a larger multiplier effect in small developing economies than larger ones.

Labor migration and remittances are not a panacea for developing nations; they are simply another development tool that can be leveraged as an important economic, human capital, and social safety net for poor families. Newland (2007) states that it is unrealistic to expect the flow of remittances to solve the economic problems and low rates of investment in poor regions until both macroeconomic issues (such as lack of infrastructure and rampant corruption) and microeconomic issues (such as lack of financial institutions and markets, access to credit, education and training, and entrepreneurial skills) are addressed. Evidence that remittances are having a positive impact at the household, community, and country level is overwhelming in all continents in the past decade, particularly in the region of Latin American and Caribbean:

- Cox Edwards and Ureta (2003) conclude remittances lower the peril of leaving school early in El Salvador.
- Zarate-Hoyos (2005) shows the positive role of hometown associations in leveraging remittances in Mexico.
- Borraz (2005) shows a positive and small effect of remittances on child human capital in Mexico.
- Adams (2006) shows evidence of the positive linkage between remittances and the household globally.
- Fajnzylber and Lopez (2007) found that remittances improved children’s health in Nicaragua and Guatemala.

Other economists have presented evidence of the positive impact of remittances in regions like Eastern Europe, Mediterranean, Middle East, and North Africa¹. In short, remittances arise from migration and are the

¹ See Mochebelele and Winter-Nelson (2000), Leon-Ledesma and Pirasha (2001), Glytsos (2002), Adams and Page (2003), Nyberg Sorensen (2004), Lucas (2006) and Ratha (2007).

financial contribution of migrants back to the development of their countries. These capital flows are critical for the success of developing nations (particularly small ones), regions, and local communities.

The positive remittance multiplier effect is well documented in Mexico where \$1 of remittances increases GDP by a factor of \$3 (Durand, Parrado, and Massey, 1996). Taylor (2006) also writes that \$1 of remittances may create \$2-\$3 of new income in the recipient country. Thus, we can extrapolate the multiplier effect in small developing economies, Honduras, Nicaragua, and Grenada, will be even more significant to the economy as a whole than larger ones, Brazil and Mexico.

3. Remittances, Small Economies, and Data

Data on remittances is available from several sources, including World Bank, International Monetary Fund, Inter-American Development Bank (IDB), Consultative Group to Assist the Poorest (CGAP), International Fund for Agricultural Development (IFAD). This examination makes use of the 2006 data compiled by IFAD, which is an organization whose “mission is to enable poor rural people to overcome poverty.” The data used was published by IFAD in *Sending Money Home: Worldwide Remittances Flows to Developing Countries* (2007) with the support of IDB, CGAP, and other international organizations. The data includes 136 small and large developing countries in five regions of the world, Africa, Asia and the Pacific, Europe, Latin America and the Caribbean, and the Near East, and provides information on the flow of remittances to each region and country, and the percentage of remittances to GDP per country. Using the IFAD data and readily available population data for Latin America and the Caribbean, the data includes 29 small and large developing countries, and this examination explores the question: do remittances matter more for small developing countries than larger countries in LAC? If answered in the affirmative, a logical extension of the concept is how to best leverage the impact of remittances through microfinance products and financial services in small LAC developing nations.

3.1 Small Developing Economies, Remittances Data and Results

Literature on the economic implications of the size of nations and remittances is scarce. The data on remittances, growth, and development show a great degree of heterogeneity of outcomes across countries and regions. The importance of money transfers in small developing nations is very significant when compared to larger ones.

For this examination, a population size of 10 million or less will serve as the definition of a small economy². Using these criteria, the data can be divided into 19 small countries and 10 large ones (data is not available for three small and one large country, reducing the sample size to 25; 16 small nations and 9 large ones).

Figure 1 below shows the mean of the percentage of remittances to GDP across the LAC region. Overall, large developing nations have an average of 3.17 percentage of remittances to GDP, while small developing economies have an average of 13.02 percentage of remittances to GDP, more than 4 times greater than the larger economies. All nations have an average of 9.47 percentage of remittances to GDP.

Figure 2 sets the scene with a plot of percentage of remittances to GDP against the country size, for all countries (for display purposes, the graphs in Figures 2, 3, and 4 have been cut off at populations of 140 million, however all data points noted above are included in calculating the trend line.) The percentage of remittances to GDP is on the vertical axis, while population is in the horizontal axis. The downward sloping line shows a link

² In defining a “small nation”, several criteria are considered. See E. F. Schumacher (1973), Naisbitt (1994), and Castello and Ozawa (1999).

between percentage of remittances to GDP and country size. This result makes sense, even though small developing nations only received 27 percent of total remittances, since they represent a much larger percentage of their respective economies. For example, Mexico and Brazil, the two largest recipients of remittances, receiving \$24.3 and \$7.4 billion respectively, or a combined \$31.7 billion, which only represents 2.9 percent and 0.3 percent of their GDP; while all small economies received over \$18 billion, or 13.02 percent of their economies. Thus, the impact of remittances and the multiplier effect on El Salvador, Honduras, Nicaragua, and Grenada is much more important for their development than for Brazil and Mexico.

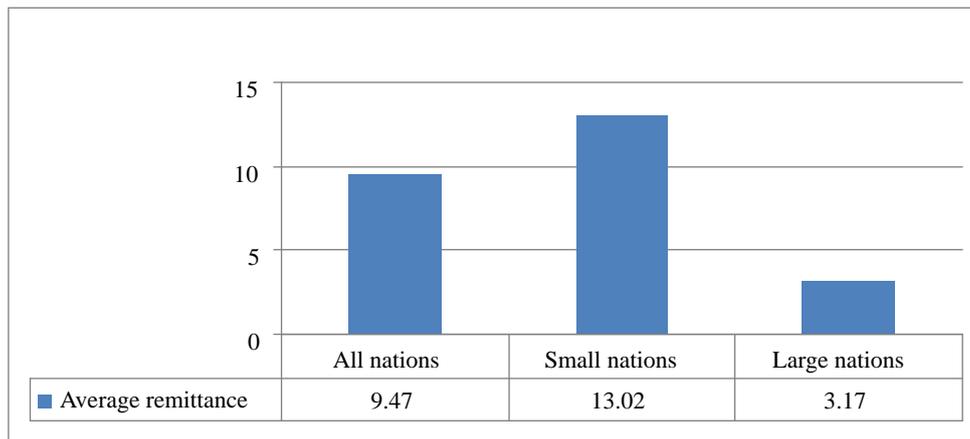


Figure 1 Average % Remittances by Size Groups

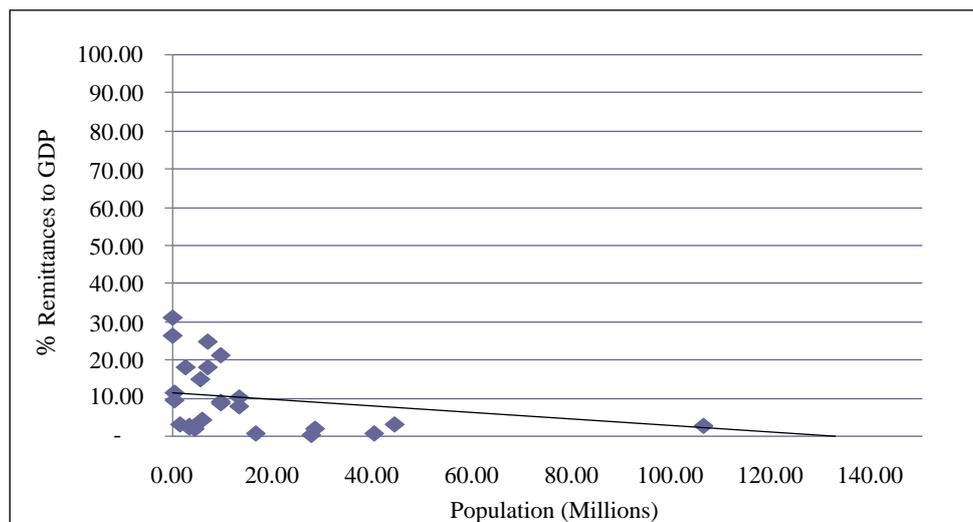


Figure 2 Nations and % Remittances to GDP

Note: Brazil is not shown in figure 2, but it is included in the correlation analysis.

Figure 3 shows a correlation between percentage of remittances to GDP and population within the subset of small countries (population of 10 million or less). In this case, there is a much steeper downward sloping line suggesting once again the significance of remittances for small developing countries across LAC. For example, the small economies percentage of remittances to GDP is 31.2 in Grenada, while in Honduras is 24.8; and 18.2 in El Salvador.

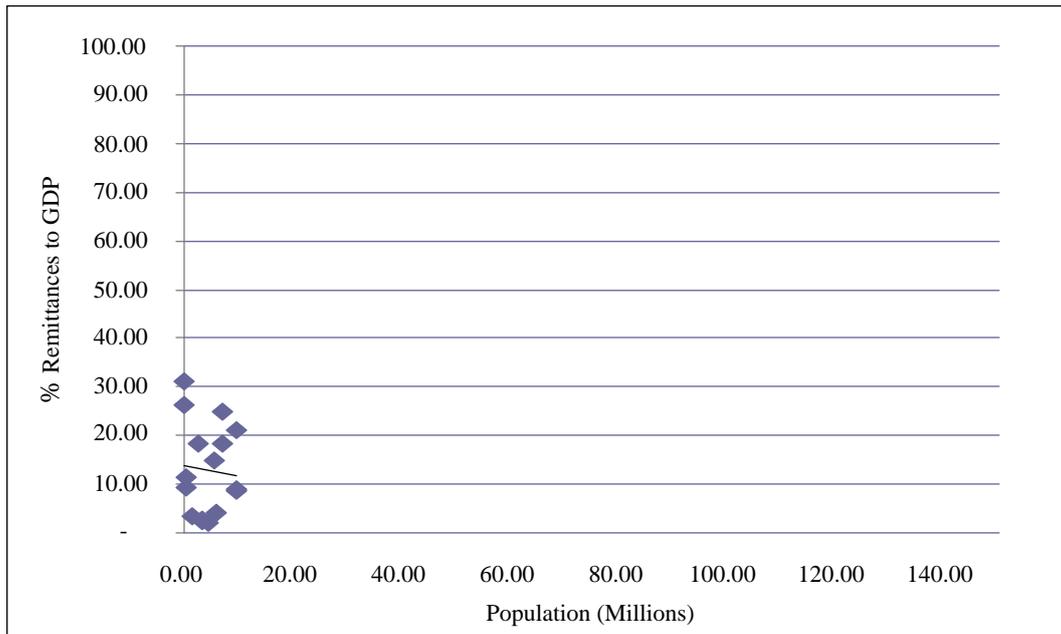


Figure 3 Small Nations and % Remittances to GDP

Figure 4 shows a plot of percentage of remittances to GDP and population within the subset of large nations. The gently downward sloping line shows a rather weak link between money transfers and large nations, as expected. This result confirms the results above where percentage of remittances to GDP is only 3.17 for large LAC countries.

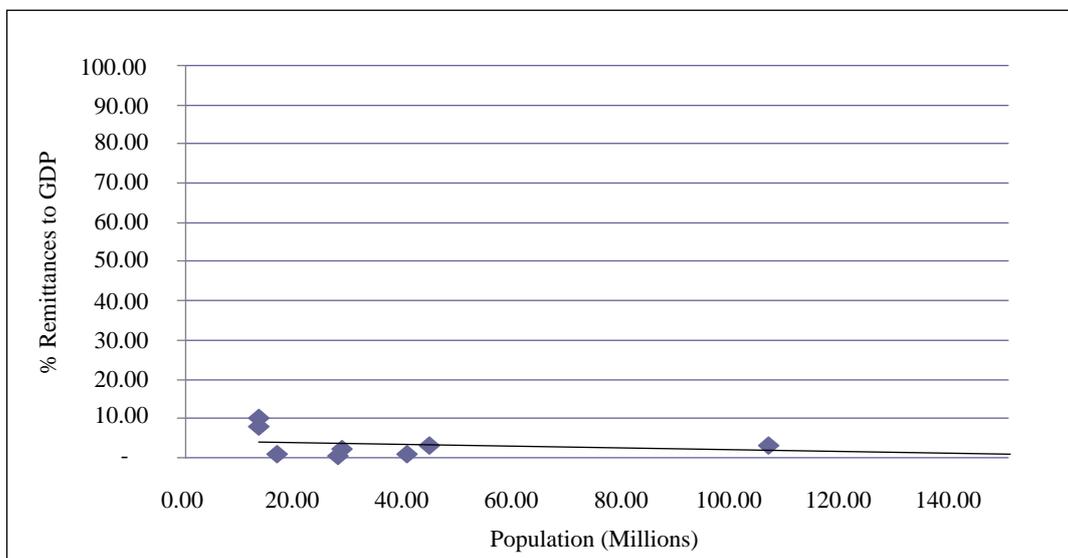


Figure 4 Large Nations and % Remittances to GDP

Note: Brazil is not shown in Figure 4, but it is included in the correlation analysis.

In summary, worker’s remittances have a significant positive impact on small economies, providing an income stream that accelerates human capital development, smoothes out consumption, and reduces poverty conditions.

3.2 Leveraging Remittances and Multiplier Effects

Remittances can accelerate the pace of financial democratization and the modernization of the financial sector in developing countries. For example, these nations can benefit from higher savings and human capital investment, increased micro-enterprise activity and investment, higher bank deposits, and a higher multiplier effect (Castello and Boike, 2011).

In small developing countries, migrant remittances can create income multipliers. Taylor (2006) writes a \$1 of remittances from international migrants can create \$2 to \$3 of new income in receiving areas. Household recipients of remittances are more likely to spend this money on goods and services supplied by other in their communities. For example if 50 cents out of every dollar is spent locally the multiplier effect would create \$2 in spending power for every dollar sent in remittances.

According to IFAD (2007), 80 to 90 percent of remittances are spent on consumption yielding a multiplier effect of 6.67 (assuming an average marginal propensity to consume of 0.85). Looking at a few examples:

- Grenada is the smallest developing LAC nation with the largest percentage of remittances (31.2) to GDP in Africa. The country received \$162 million in remittances in 2006 potentially generating a future income multiplier effect equal to \$1,080 million or 3.08 times GDP.
- Saint Vincent and the Grenadines received \$123 million in remittances or 26.4 percent of GDP, with a potential income multiplier effect of 1.76 times GDP.
- Honduras with remittances equal to \$2,286 million, 24.8 percent of GDP, would have a future income multiplier effect of 1.65 times GDP, while Mexico with remittances equal to \$24,354 or only 2.9 percent of GDP with a potential income multiplier effect of .19 times GDP.
- Nicaragua received \$798 million or 14.9 percent of GDP with a possible future income multiplier effect of .99 times GDP, while Brazil with remittances equal to \$7,373 million or only 0.3 percent of GDP would have a future income multiplier effect of just .02 times GDP.

Jaramillo (2005) writes that microfinance has an important role to play in the reduction of transaction cost and increasing the leverage of the economic impact of remittances. Miller-Sanabria (2006) explains MFIs need to reap economies of scale and efficiency through integration of technological advances, increases in product innovation, and the globalization of services and remittances.

Despite the enormous leverage potential of remittances, there is a continuing shortage of distribution channels. The vast majority of remittances are cash to cash instead of account to account. Converting remittances to account to account transactions could decrease transactions cost and increase financial leverage. Some notable small economies, such as Mongolia, Bolivia, Bosnia, and Nicaragua, are in a better position to leverage remittances due to their higher microfinance penetration rate and highly developed microfinance sectors (Rhyne and Otero, 2006).

Remittances are becoming an effective tool for the democratization of financial services by banking the unbanked and bringing people to the formal financial sector. Overall, large LAC nations have an average money multiplier of 0.21 of GDP, while small developing LAC economies have an average money multiplier of 0.93 of GDP, more than 4 times greater than the larger economies.

Castello and Boike (2011) write remittances will continue to increase capital flows to developing countries as the sector continues to mature by:

- The increased downscaling of banks and other financial institutions.
- The upgrading of NGOs, cooperatives, and credit unions.

- The integration of technological advances, new credit methodologies and electronic cash payments and transfers.
- The increased collaboration among NGOs, MFIs, local banks, and international banks in new product development and technological innovation.

In short, microfinance will continue to channel remittances to the real economy with innovation in savings, insurance, consumption and business loan products and will increase the leveraging effects of money transfers through consumption and investment multiplier effects in countries like Grenada with a multiplier of 3.08, compared to Brazil's multiplier of 0.02. (See Table 1)

Table 1 Money Multipliers for Latin American and Caribbean Nations

Small nations	Multiplier	Large nations	Multiplier
Grenada	3.08	Guatemala	0.67
Saint Vincent	1.76	Ecuador	0.52
Honduras	1.65	Colombia	0.22
Haiti	1.41	Mexico	0.19
Jamaica	1.22	Peru	0.14
El Salvador	1.21	Argentina	0.08
Nicaragua	0.99	Chile	0.05
Belize	0.76	Venezuela	0.03
Barbados	0.63	Brazil	0.02
Dominican Rep.	0.60		
Bolivia	0.58		
Paraguay	0.29		
Trinidad Tobago	0.22		
Panama	0.19		
Uruguay	0.17		
Costa Rica	0.13		
Small	0.93	Large	0.21

4. Concluding Remarks and Recommendations

Remittances increased ten-fold over a period of ten years, and small developing countries in Latin America and the Caribbean received 27 percent of the total remittances in that time, with remittances growing to over 30 percent of GDP within certain countries. These money transfers have been and will continue to be a major source of capital inflows for developing these small economies, and will reach millions of households in the next decade. The importance of such flows and the potential multiplier effect cannot be understated for these countries. While labor migration and remittances are not a panacea for the poor, the cash flow provides another development tool that can be leveraged as an important economic, human capital, and social safety net for poor families. The evidence generated in the last decade showing the positive impact of remittances at the household, community, and country level is overwhelming.

From the work of Taylor (2006), we can extrapolate that the multiplier effect in small developing LAC economies will be more significant to their economies as a whole than in the larger economies. This paper has considered the evidence that remittances do matter more for small developing countries than larger ones and

presented money multiplier results supporting the importance of leveraging money transfers through product and technological innovation in these smaller developing nations.

Despite the enormous leverage potential of remittances, adequate distribution channels are in short supply. Most remittances are cash to cash, but they can make a quick and smooth transition to account to account transactions in the next decade by increased competition in the microfinance sector, continued integration of technological advances of MFIs and other financial institutions, and increased collaboration among social, local, and global financial players bringing new product loans and channels of intermediation to the remittances market. Money transfers are subject to decrease in 2009 due to worldwide economic conditions, but in the long term, it should be anticipated that migrants will continue to send money home, providing a lifeline to the poor and much needed capital inflows to developing countries, particularly small ones.

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Appendix and Data:

Data compiled by IFAD, an organization that enables the rural poor to overcome poverty. These data was published by IFAD in *Sending Money Home: Worldwide Remittances Flows to Developing Countries* (2007) with the support of IDB, CGAP, and other international organizations. These data include remittance flows for 136 small and large developing countries in five regions of the world, Africa, Asia and the Pacific, Europe, Latin America and the Caribbean, and the Near East in 2006.

Table 2 2006 Worldwide Remittance Flows to LAC Nations

Country	Population (millions)	Remittances (US\$ millions)	GDP (%)
Latin America & The Caribbean		68,062	
Mexico		24,354	
Mexico		24,354	2.9
Central America		11,031	
Belize	0.3	139	11.4
Costa Rica	4.5	444	2.0
El Salvador	6.9	3,328	18.2
Guatemala	13.4	3,557	10.1
Honduras	7.1	2,286	24.8
Nicaragua	5.6	798	14.9
Panama	3.3	479	2.8

(to be continued)

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South America		24,298	
Argentina	40.3	1,650	0.8
Bolivia	9.5	972	8.7
Brazil	187.7	7,373	0.3
Chile	16.8	1,024	0.7
Colombia	44.5	4,516	3.3
Ecuador	13.3	3,162	7.8
Guyana	0.7	466	N/A
Paraguay	6.1	650	4.3
Peru	28.7	1,921	2.1
Suriname	0.5	1,133	N/A
Uruguay	3.3	479	2.5
Venezuela	27.9	950	0.5
Caribbean		8,379	
Barbados	0.3	292	9.4
Cuba	11.3	983	N/A
Dominica	0.07	181	N/A
Dominican Rep.	9.8	2,739	9.0
Grenada	0.1	162	31.2
Haiti	9.6	1,049	21.1
Jamaica	2.7	1,924	18.3
St. Vincent & the Grenadines	0.1	123	26.4
Trinidad & Tobago	1.3	655	3.3

Sources: International Fund for Agricultural Development, 2007. "Sending Money Home: Worldwide Remittance Flows to Developing Countries", Rome, Italy: IFAD, and http://en.wikipedia.org/wiki/List_of_countries_by_population.

Marketing Practices for Promotion of Rural Tourism:

A Study on Kamarpukur, India

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Abstract: Marketing plays a vital role to develop the rural tourism and encourage the tourists to visit the rural destination and involve the rural people to enhance their socio economic condition as well. The purpose of this study is to explore three research questions about marketing strategies, about marketing tools and integrated promotional strategies in general and in this particular destination. This study aims to analyze with the help of a questionnaire of 150 respondents. The data collection instruments were developed to systematize the collection of data and to ensure that all the respondents are asked the same questions and in the same order to analyze their perception through 5 points Likert scale. There is a great scope of rural tourism because every village has unique art, culture, folklore, heritage, and lifestyle and so on. Due to lack of proper marketing practices, rural tourism has facing different problems to pursue parallely with the main stream entrepreneurs. So creation of tourist interest is necessary for promoting rural tourism. In this context AIDA model emphasizes this particular issue, for identifying perceptions of tourists 7Ps' marketing elements has discussed. This paper attempts to extract the strategies formulation of marketing practices for development of rural tourism destination at Kamarpukur in particular and over all marketing practices in general.

Key words: rural tourism; 7Ps' marketing mix model; AIDA model; integrated marketing communication

JEL codes: M31, R11

1. Introduction

Tourism is now a booming fastest growing industry next to the oil & jewelry industry. In the next few decades' tourism will acts as a potential role in different fields like human resource, economic growth of a country, improve the wealth and productivity. Impact of tourism on rural India has a great potentiality. Because each and every village has unique culture, traditions, food habit, folklore, craft, languages, etc all of which would be a great interest to the National & International visitors.

Tourism turns the largest industry worldwide in terms of employment and gross domestic product. The tourism industry has been growing rapidly as well as changing at a fast pace. As more people are interested in spending

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holiday in nature, ecotourism as well as rural tourism has become one of the segments of the tourism industry. This creates opportunities in areas characterized by natural attractions, wildlife and wilderness habitats, agriculture, farm stay, local craft, bird watching, local cuisines etc. Local communities may benefit in economic terms as well as create an employment opportunities and commitment to conservation and sustainable development.

Tourism has various dimensions in various aspects like economic, social, demographic, technological, geographical, cultural, natural, and so many fields. The attractions of tourists are also has been grownup on the above stated types of dimensions. Tourism now also laid down emphasis on the rural areas. In the context of socio-economic objectives it is necessary to take vital steps which are constructive and positive. Rural Tourism is a dynamic sector in local economics where farming, forestry or other traditional activities sustain the importance. The obvious and rapid development of rural tourism gains deserved attention from social science.

Tourism is also an employment oriented sector also. It is estimated that hotel and catering sector provide more than 10% of the total employment generated by the tourism industry. There is an opportunity which supplies various goods, needed for tourism product may be in the position to open avenues of employment.

Rural parts generally following kinds of products are available viz. historical, heritage, natural based, medication based, religious based, cultural based and man made. Which have got a great potential with respect development of tourism, also if certain constraint are removed this could be developed to their fullest excellent and there are certain great examples and certainly few countries where will showing public and political will these things have been made possible. Rural tourism has remained neglected in India for variety of factors like lack of infrastructure, civic amenities, lack of publicity, and peoples' ignorance in accessibility to tourist location. As a result, tourists from home country and overseas countries prefer to visit urban tourist sites. Therefore, in India we observe that there is tourist congestion in urban, religious and historical sites and simultaneously innumerable tourist sites remain unknown and unnoticed in the rural belts of our country. This paper has observed that a tourist site, which was, once located in extreme rural location has come to limelight due to its historical importance or publicity by the local government and they have developed into a tourist village with variety of improvements in civic amenities, road and rail connection, hospitality and cottage industry. Successful rural tourism development is certainly impossible without good knowledge and assessment of its environment and research-based marketing solutions.

2. Survey of Literature

According to R. N. Kaul (1985) points out that "one of the reasons for travel has been the desire to widen one's knowledge and understanding about other peoples, places and countries, study their culture, customs, ways of life and heritage, and satisfy ones curiosity about them. As per Scheme of Rural Tourism: "any form of tourism that showcase the rural life, art, culture, heritage at rural location there by benefiting the local community economically and socially as well as enabling interaction between tourists and locals." According to Campbell (1999) et al., "development of rural tourism in Costa Rica found that though the residents there have a positive attitude towards tourism they had limited awareness of employment and investment opportunities. He also highlighted that for the communities to further benefits from tourism it was essential that some amount of formal planning and interventions are done by the Govt".

Krippendorf has defined marketing in tourism as follows:

“Marketing in tourism is to be understood as the systematic and the coordinated execution of business policy by tourist undertakings whether private or state owned at local, regional, national or international level to achieve to optimal satisfaction of the needs of identifiable consumer groups and in doing so to achieve an appropriate return.”

According to Philip Kotler et al. (2002), any place that is able to clearly communicate its distinctiveness can compete in tourism, as long as it consistently offers something attractive and remains accessible.

Robert & Hall (2004) has defined that “there is a need for rural tourism to be differentiated from main stream tourism, eco-tourism, and geo-tourism” and is argued that the context of rural tourism challenges the “Traditional” approach the marketing.

According to Beeton & Sue (2004), “Branding has become a central element of tourism destinations, with image being the singular most significant element of brand, which needs to be very seriously considered in the context of rural tourism. Therefore it is a salient to look at the images presented by the popular, mass media and consider how they relate to tourism in general and more specifically in rural tourism”.

In the point of view of advertising Middleton & Clarke (2001) stated “one classic communication tool used by marketing managers as part of marketing campaigns to develop awareness, understanding, interest and motivation amongst a target audience”. Tradition marketing concepts is focus on the product, but the concepts have been transit to customers’ satisfaction (Kuo, 2003). In the point of view of promotion, Huang (2002) mentioned that the sales for tourism industry is via surveys, analysis and forecast the tourism market, tourism product design, packaging and, pricing; Further promote tourism commodities, trading techniques, documents or transfer service through value-added upgrade to explore, and expand and meet the travel consumer goods or travel to the tourist demand business services. Zeithaml (1988) mentioned that from the consumer’s point of view price is a consumer to get a product to be abandoned or the price of sacrifice. “Price” is the most important factor affecting the profitability of companies, which is one of factors considered for the consumer decision-making. A brief retrospective of the literature in marketing reveals for developing marketing programmes (Mc Cleary, 1987, Frechtling, 1987), identifying the tourist or segmenting the market (Crask, 1981; Calatone & Johar, 1984; Woodside & Jacobe, 1985), advertising/communications and conversion studies (Woodside & Motes, 1981).

3. Research Questions

The objective of this study is to gain a better understanding on marketing practices in tourism industry with special emphasis on Kamarpukur.

For this purpose we need to answer the following questions:

- Research Question#1: What are the marketing strategies used for promotion of Tourism potential at Kamarpukur?
- Research Question#2: What are the marketing tools used for Kamarpukur Tourism?
- Research Question#3: What are the integrated marketing strategies for tourism development?

4. Methodology

This paper is organized as follows. The first part provides an overview of rural tourism and its impact in a general conceptual framework. In the second part of this study discusses about different models of marketing framework in the context of rural tourism promotion in particular. This study also provides an analysis of rural

tourism promotion through three marketing promotional strategies. Sources of secondary data collected were reports, articles, publications and other documents and websites. In order to gathering information in the context of marketing with special reference to 7Ps concept a survey of questionnaire was used with ordinal scale. The Sample size was restricted to 150 respondents and 78 questionnaires were distributed for analysis the potentialities of 7Ps elements. In the conclusion part discussed about data collected from diverse sources to draw a meaningful solution and figure out suggestion for promotion of rural tourism marketing.

5. Theoretical Framework

5.1 Marketing of Rural Tourism: A Framework

Indian Tourism appreciated the importance of promotion and launched the “Incredible India” and “Athithi Devo Vava” campaigns (English: “The guest is God” or “Guest become God”) is a Sanskrit verse, taken from an ancient Hindu scripture which became part of the “code of conduct” for Hindu society. Athithi Devo Vava regards a procedure of the Host-Guest relationship. Recently it has also become the tag line of India’s Ministry of Tourism’s campaign to improve the treatment of tourists in India; the Indian version of Peter Drucker’s customer satisfaction slogan, “The customer is king” which are credited for successful promotion, selling, repositioning and revitalizing the brand–“Indian Tourism” or “Incredible India”, through world class promotion campaigns and effective selling strategies conducted under its umbrella.

Tourism is mainly service based sector and intangible too so it is quite difficult and challenging task to market the intangible product than tangible product like FMCG and automobile. Marketing is widely undertaken by management of the attraction itself. It may be done by different ways like: through product development, providing better service quality, promotion through media (TV, Radio or Newspaper), through internet.

Marketing is a way of thinking about a situation that balances that needs of tourists with services or variety of recreations available in the destinations. The concepts of products life cycle and positioning are useful to underscore the proper placement of tourism products on the market and to suggest the appropriate marketing policies and strategies resulting from that decisions. Marketing involves several activities establishing the marketing objectives, formulating the marketing strategies, preparing and implementing the promotion programs and providing appropriate tourists information series. We have to plan for attracting the domestic and international tourists for visit the rural tourist destination. An important function of marketing is providing appropriate and valuable information to tourists before and after they arrive at their destinations. Various types of information should be available the general geographical, historical and cultural background of the area, the attractions, facilities and series and there costs etc. that are available. Target customer, i.e., here tourists are more likely to extend their stay in a rural area if they have sufficient information about destination and various activities and attractions as well.

5.2 Promotional Strategic Models

Model 1: 7Ps’ Framework (see Figure 1)

4Ps’ concept is a traditional concept which indicates Product, Promotion, Price, Place but three additional variables are included in this framework, i.e., People, Physical evidence and Process. The significance of this extension is high degree of public relation between tourism industry and prospective tourists. (see Table 1)

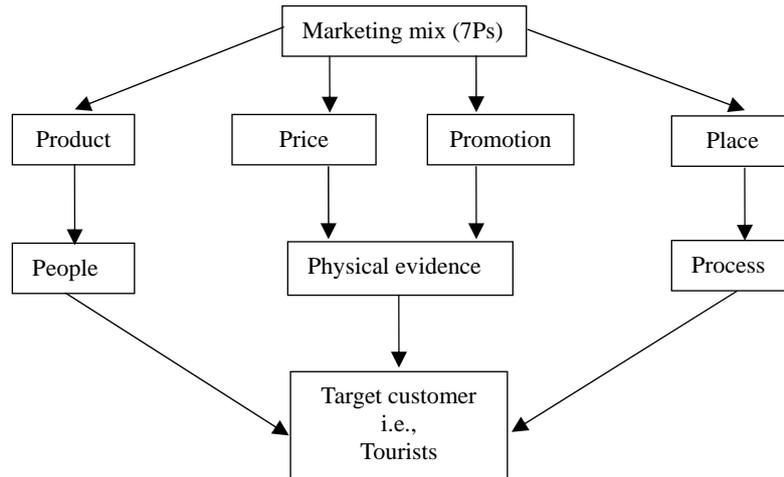


Figure 1 7 Ps' Framework of Tourism Services

Table 1 7 Ps' Elements of Tourism Sector

Product	Price	Promotion	Place	Physical evidence	Process	People
Scenic value	Revenue oriented	Fairs and trade show	Availability	Water Bodies	Training	Training & Reward system
Cultural assets	Competition oriented	Exhibitions	Accessibility	Wildlife	Administration	Commitment to customer service excellence
Agricultural products	-	Entertainment	-	Mining & Minerals	Planning & Strategizing	Guide
Horticultural products	-	Advertising	-	Art & Craft	Recruitments	Travel Agent
Forestry assets	-	Brochure	-	-	Distribution	Manager
Special facilities	-	-	-	-	Purchasing	Employees
	-	-	-	-	Service delivery	-

Model 2: Aida (Awareness, Interest, Desire & Action)

AIDA model is a vital marketing element generally adopted by advertisers to stimulate a purchase awareness, interest, desire, and action. The main aim of this model is promotional objective. Proper advertising has a considerable effect on the guest behavior. Awareness is the first step of AIDA model aims at spreading the information or awareness about the tourism products or about the destination or other facilities provided to the target guests. Interest in the tourists mind can develop through a catchy baseline, highly informative brochure, highlighting the main features or privileges of ancillaries or auxiliaries services. Developing desire is followed by action step. According to Stephen (2009), Influence is a most powerful factor for purchasing tourism products and services. Following factors exerts a powerful influence on the decision to purchase tourism products and services:

- The personality of purchaser
- The point of purchase (PoP)
- The role of the sales person
- Whether the individual is a frequent or infrequent purchaser of holiday products
- Prior experience

AIDA Model has been identified to discuss on the three stages, i.e., Cognitive Stage (where the customers become aware of the product/services), Affective Stage (where the customer forms opinions and feelings) and Behavioral Stage (where the customer takes in the final decision of either going in or rejecting the offer of the product/service). (see Table 2)

Table 2 AIDA Model

Cognitive Stage	
AIDA Model: This stage basically makes the customer get acquainted of the product/ service	Attention: The customer becomes aware of the product/service.
Affective Stage	
AIDA Model: This stage basically makes the customer get the know how on the product/ service	Interest and Desire: The customer develops and interest and desires to go in for the product/service.
Behavioral Stage	
AIDA Model: This stage basically makes the customer finally act upon.	Action: The customer finally goes in for the product/service.

Since attention to Interest and Desire to Action is a continuous process, a failure in any one of the stages can lead to non purchase of the product/service. In the Attention Stage the customers and even the potential tourists are not made aware on the Tourism opportunities and the possible facilities available to reach the tourist destination. Even the customers or the potential tourist do manage to get the awareness of the Tourist Destination due to the information clutter but the tools are not sufficient or strong enough to initiate an interest followed by the desire to avail the product/service. The poor Tourist inflow is the result of the lack of customized product/service information that need to be made available to generate interest of the target audience which has a mix of price, quality and safety. For promotional activity through AIDA model is an effective promotional tool. For capturing attention effective brochures is an effective medium. An effective brochures grab the attention through different message, different recreational evidence, services, booking. All these kind of information create interest to plan the proposed vacation by the tourists. Interest in the desired vacation or in purchasing product, the offer must be stimulated through informative brochures, and illustrations to reach the desired destination i.e action.

Model 3: Integrated communication strategic models

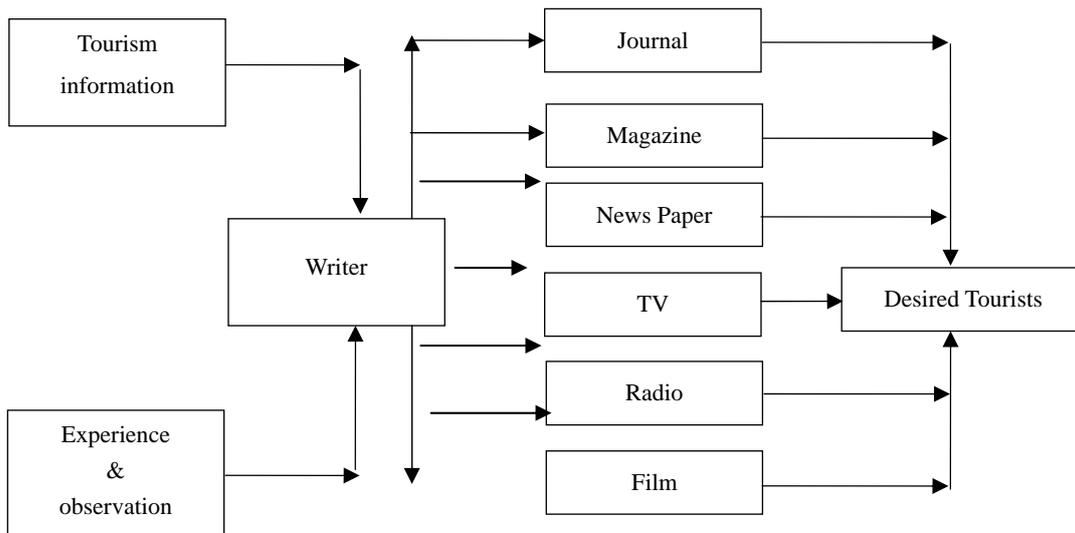


Figure 2 Procedures of Integrated Communication Strategy

Travel writing also emphasizes to providing more information regarding the destination. The desired tourists want to read these elements which already stated (see Figure 2) not only for the sake of knowledge but also for acquaintance about the destination and what kind of recreational activities they can utilize.

One of the vital communication strategy introduced by Rowley (1998) in “Designing Communication Strategies” presented below:

- Identify Target Audience
- Determine Communication Objectives
- Design the message
- Select Communication Channels
- Establish Promotional budget
- Decide on Promotion Mix
- Measure Result

Coltman (1989) comments that potential customers “will compare the brochure of one destination or supplier with the brochure of its competitors, and it is likely that the one with the best brochure will receive the business”. For many potential visitors the brochure they possess actually represents the product or destination they are purchasing. Another important factor is image, because it influences destination selection. Formal sources of information, like brochures, and informal sources, for example relatives and friends, have an influence on image formation in a tourist destination (Beerli and Martin, 2004; Crompton, 1979; Etzel and Wahlers, 1985). The stage in formulation of the marketing communication strategy includes five steps as suggested by Czinkota and Ronkainen (2001), and is shown below:

(1) First Stage–Asses Marketing Communication Opportunities: Since the marketing environment is dynamic, i.e., change is elemental, the opportunities must be constantly monitored and that the opportunities need to be tapped with a proper need analysis of the customer based on their buying behavior and characteristics.

(2) Second Stage–Analyze Marketing Communication Resource: Money as a resource is of prime importance in execution of the marketing campaign as designed because the market is run by certain rules which may go well or may not be conducive in nature and hence the company need to tide over such uncertain events and situation.

(3) Third Stage–Set Marketing Communication Objectives: A common objective is necessary to strengthen the campaign and the basic need of the marketing communication. Based on the market segment slight variations may be needed but the core theme or the objective need to be integrated.

(4) Fourth Stage–Evaluate Alternative Strategies: Alternative strategies need to be evaluated in order to analyze the degree of exploring the opportunities by the company.

(5) Fifth Stage–Assign Specific Marketing Communication Tasks: The task assigned need to be oriented towards the strategy of push or pull.

As stated above services are intangible. Though customers (tourists) may not able to judge the core offering itself and the quality of the services until they visit the destination. So it is necessary that service providers should keep the evidence for convince the prospective visitors. Service providers should carefully manage a set of visual and experiential clues to communicate the visitors what they can expect. So flexible communication opportunities may enable to capture target customers. Such flexible communications may be through internet, banners so on. To assign alternative strategies and specific marketing communication tasks in the context of tourism industry tour operators should focus on multitasking and multi skilled personnel, developing business strategies, operational

skills to deliver the core services of tourism industry to satisfy the tourists. So lack of ability of above stated five key stages might adversely affect the success of tourism business.

6. When Tourism Market is Ready?

Tourism market depends on balanced itineraries. A panel including the Ministry of Tourism's Rural Tourism team USAID & MRT staff evaluated itinerary based on following criteria:

- Consistency with the overall rural tourism strategy
- Proximity to an international gateway
- Diversity of local resources
- Existing infrastructure, primarily accommodation, but also restaurants, guides, & activities
- Safety and security

Again itinerary consists major attractions of interest, service quality of accommodation, transportation and different types of supply chain activities and interaction privilege with the guest and host community. When all kinds of above ingredients are provide with balanced cost to the tourists then it becomes a well organized tourism market which turns to published a Brochure for particular destination.

7. Kamarpukur: A Rural Tourism Destination

Kamarpukur is situated in the extreme West of Arambag Sub-division of Hooghly District, West Bengal in India with Bankura district in the West and South Midnapore in the North. It is surrounded by three rivers like Damodar, Kansabati and Darakeswar. Considering its geographical location and historical importance, Kamarpukur has taken a vital position in the road map of rural tourism in West Bengal. Although this tourist spot is of religious importance, it nature-lovers' paradise as if Jilimili, Susunia and Mukutmanipur are located in crow's flight from tourists' main destination of Kamarpukur. In other words, it may be said that the tourists visit Kamarpukur for religious purpose and thereafter cover the neighboring tourists locations in one go. Lord Sri Sri Ramakrishna (1836-1886) the great religious clairvoyant was born in Kamarpukur in the district of Hooghly in West Bengal, India. Swami Vivekananda the disciple of Sri Ramakrishna had spread the message of his Master in the country and beyond it to the western countries. The Ramakrishna Mission Kamarpukur is the Holy Birth place of Sri Ramakrishna and the centre was affiliated to the Headquarter of Ramakrishna Math and Ramakrishna Mission, Belur Math in 1947. This Holy Place turns into a pilgrimage as well as a tourist destination.

In Kamarpukur, rural based tourism, nature based tourism and spiritual tourism are related with each other. When addressing about rural tourism market, it is necessary to include information about rural or nature based tourism. Due to the immense growth of rural tourism market in different parts in India, Kamarpukur with the abundance of natural based attractions and the contribution of stakeholders has developed marketing strategies to promote itself as the leading rural tourism destination in West Bengal. Nowadays rural tourism is a major special key factor to contribute in national income as well as to develop under developed region. Due to the diverse geographical features of Kamarpukur have various attractions to capture the target guests. Popular activities at Kamarpukur as a rural tourism activities bicycle rides, tree house recreation, yoga vacations, bush walking, farm holiday, horse cart rides, craft market, fishing, bird watching.

Marketing plan would first involve producing high quality but cost effective promotional materials like

brochures, folders, direct mail material, display materials all of which come under the printed material category. Brouchers are one of the principal display aids for tourist organization which could be local national and international. Good quality of brouchers on the villages of Kamarpukur as a spiritual and rural destination may be produced containing detailed tourism information regarding accommodation, prices travel, schedules, attractions, for tourists in the villages and the pattern of different activities available including auxiliary and ancillary services through illustrations, roadmap, and graphic design of the cover and the layout of the brouchers and other promotional tools (see Table 3).

Table 3 The Key Promotional Tools of Tourism and Leisure Industry

Sl. No.	Promotional Tools	Comments
1.	Media Advertising	Television, press, radio, billboard and the internet, also tourists board and travel related guides, books and brochures that sell advertising space
2.	Public Relation	All media exposure appearing as editorial not as paid for advertising space, includes 'ambush' and 'guerrilla' marketing
3.	Personal selling	Meetings, workshops, telephone contact aimed at distribution and trade purchasing to sell on to end users also aimed at consumers.e.g.at travel agents
4.	Sales Promotion	Short term incentives to induce purchase-aimed at wholesalers retailers & consumers
5.	Price discounting	A common form of sales promotion aimed at wholesalers, retailers and consumers
6.	Distribution Channels	Systems by which consumers access products and services including computerized network
7.	Familiarizes on trips	Educates and rises product awareness through sampling-aimed at wholesalers, retails and opinion of formers
8.	Exhibition and Shows	Venues for displays and distribution aimed at wholesalers, retailers and consumers
9.	Sales Literature	Brochures, leaflets and others print used as a selling and booking tools
10.	Merchandising and PoP Display	Atmospherics, store layout, posters, displays and other materials to create image
11.	Direct Mail	Part of the wider activity of direct marketing
12.	Sponsorship/Special events	Community based activities, sports and music events and good causes

Source: Nigel Morgan (2003): Advertising in tourism and leisure, British Library Cataloguing in Publication.

Public relation plays a very vital role in the promotion activity of any tourist destination. Well executed PR Cell may be established with the support of the Ramakrishna Math. This PR Cell will be organized with the private and public participation. This Public Relation Cell can help through different rendering services to improve the better service quality like provide tourist guide , 24 × 7 information provide, guide should be well acquaintance about the destination and he/she must know two or three foreign languages. According to Kotler (2000) MPR consists of a set of tools that can be classified under the acronym of PENCILS. In this context it can be classified as:

P= Publications (Travel magazine, attractive travel broachers, travel road map, publish article about the destination in airbus or train magazine)

E= Events (attractions of local festivals, rituals, craft or trade show, performing folk lore)

N= News (favorable stories about the destination)

C= Community involvement activity (local participation, local Government participation)

I= Identity of media (travel cards, travel post card)

L= Lobbying activity (favorable and unfavorable activity of legislations, Sanctions of Government funds)

S= Social responsibility activity (education, development of SHG)

Apart from the above mentioned marketing functions other strategies may be entrusted to promote like:

- Liaison with different transportation sectors like airlines, railways etc.
- Participation in Travel or Trade fairs or Exhibitions
- Develop website is extremely necessary for cyber savvy visitors
- Attractive advertisements in news paper and magazines to create attention about this destination
- The front-line employees should be knowledgeable about your community and should promote other stores, attractions and amenities to visitors to keep them in the area longer
- Photographs used for tourism purposes should have a “wow” appeal in the viewer and should make the viewer want to go to the place depicted
- Promoting through website includes both online and offline strategies. Online strategies include search engine optimization, banner ads, multiple points of entry, virtual marketing, strategic partnership and affiliate marketing

7.1 Data Analysis: Awareness about Kamarpukur: Sources of Information

There are different pattern of sources of information gathered from respondents.

In terms of source of information used , most of the tourists get information WOM (28%) as the best source of rendering information due to most of the tourists covey about the destination as derived from survey followed by the general books (20%), travel exhibition (15%), travel agent (11%), TV (10%), travel journal (9%), advertisement in magazine (4%), tourism office (3%). (See Figure 3)

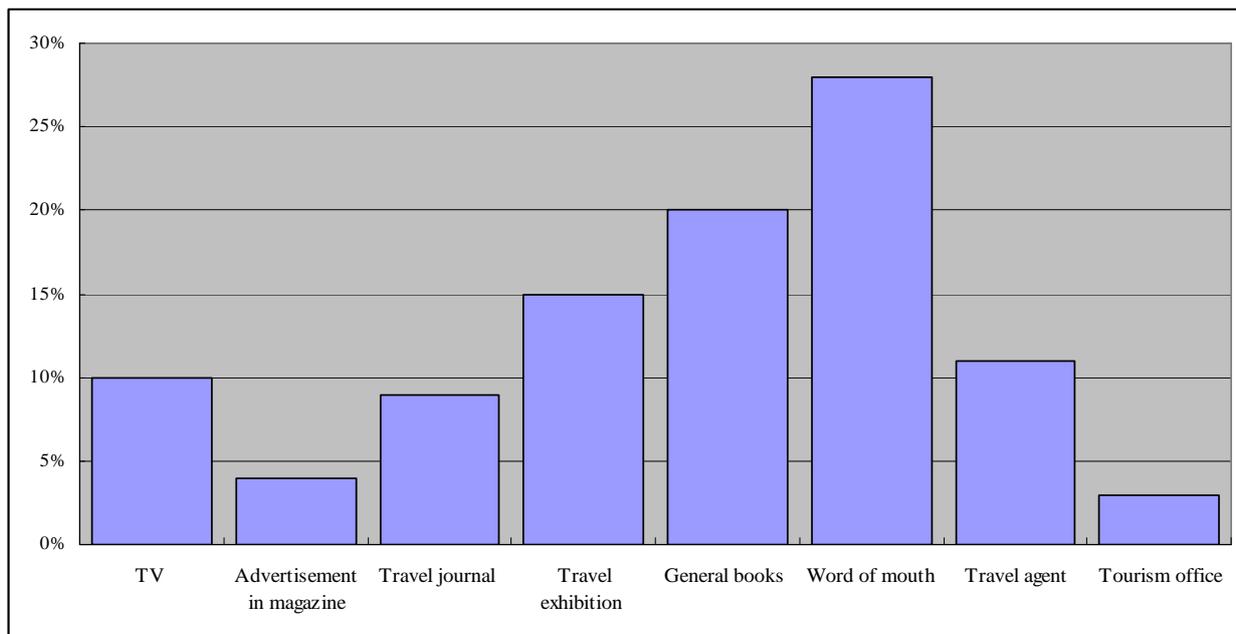


Figure 3 Source of Information about Kamarpukur

7.2 Empirical Study of Marketing Mix

For analysis the gathered data a 5 point Likert Scale was used. The range of Likert scale starting from very good-5 (more than 80%), good- 4 (more than 60% but less than 80%), satisfactory-3 (more than 40% but less than 60%), average-2 (more than 20% but less than 40%), unsatisfactory-1 (20% and less). The following diagram depicts that the highest score in service marketing mix elements i.e., 7Ps belong to product, price, place, promotion, people, process, physical evidence. (see Table 4)

Table 4 7Ps Classifications of Tourism Elements Available at Kamarpukur

Product	Cultural assets, Agricultural products, Scenic value, Handicraft,
Price	Revenue oriented, Room price, Price of food and beverages,
Promotion	Fairs and trade show, Exhibitions, Broachers, Advertising, PR Cell, television and radio,
Place	Availability on demand, parking facilities,
Physical evidence	Water Bodies, Rest house, availability of guide, attractive guest house, good room service facilities, pleasant atmosphere,
Process	Administration, Easy booking,
People	Politeness, responsible skilled personnel, rapid willingness and attentiveness to the customer.

In the point of view in product five parameters were selected to analysis this dimension of marketing mix. The score of Scenic value is high due to it is a vital rural tourism product as per respondents and the lowest score belongs to other rural tourism elements available at Kamarpukur. Few respondents complained about sometimes they were deprived from various allied or auxiliary tourism elements from host communities (see Table 5).

Table 5 Rank and Score of Product

Parameters	Score	Ranking
Other Rural tourism elements	3.0	4
Cultural values	3.3	3
Scenic value	3.7	1
Handicrafts	3.5	2

Table 6 reveals in the context of price in four parameters were selected. Among these parameters room price is very nominal or low according to the respondents. In order to accommodate the tourists for their brief stay at Kamarpukur, Ramakrishna Mission runs two big guesthouses. There are private hotels and restaurants at Kamarpukur who take care of large number of tourists. Transportation Cost is comparatively high as per respondents. Most of the respondents shared their view in the context of handicraft that the price of handiwork at Kamarpukur and outside Kamarpukur quite same. Low prices would easily and quickly attract clients, but this is an inefficient way to seek for sustained success in the market (Vitkienė, 2002; Kotler, 2003).

Table 6 Rank and Score of Price

Parameters	Score	Ranking
Food	4.0	2
Room Price	4.2	1
Transportation Cost	3.5	4
Handicraft Price	3.6	3

In the point of view of place in 7Ps context (see Table 7), five parameters were selected. Among these parameters car parking facilities were given highest score and communication facilities were given the lowest score. Kamarpukur gets overcrowded at the time of celebration or on festive occasion tourists who came with their cars, found it easy to park. Different recreational facilities are available at Kamarpukur according to respondents like Meditation Hall, Yoga Centre, Indoor Game Centre, Bird Watching, Cycle Riding, Fishing and so on. On the other hand communication facilities and availability on demand services are not so satisfactory due to lack of up dated technological application and easy accessibility of different forms of tourism services also low scores too. Some respondents depict that when they want to move from one destination to another tourist destination some times monopoly attitude exist in the service providers like rickshaw puller, taxi/cab etc.

Table 7 Rank and Score of Place

Parameters	Score	Ranking
Easy accessibility	3.6	3
Car Parking	4.5	1
Communication Facilities	3.1	5
Recreational Facilities	4.2	2
Availability on demand services	3.3	4

In the context of promotion of marketing mix dimension (see Table 8), four elements were selected. Among four parameters PR Cell has the highest score and publications has the lowest score. According to respondents Public relation plays a very vital role in the promotional activity of any tourist destination. At Kamarpukur, well executed PR Cell may be established with the support of the Ramakrishna Math as per respondents. Respondents have agreed that Fairs & Trade shows or quality Brochures carry more weightage than publications. According to them Fairs & Trade shows/Brochures have stronger impact in their minds compared to any publication. Good quality of Brochures on the villages of Kamarpukur as a spiritual and rural destination may be produced containing detailed tourism information regarding accommodation, prices travel, schedules, attractions, for tourists in the villages and the pattern of different activities available including auxiliary and ancillary services through illustrations, roadmap, and graphic design of the cover and the layout of the Brochures.

Table 8 Rank and Score of Promotion

Parameters	Score	Ranking
Fairs & Trade shows/Brochures	3.5	2
Advertising	3.4	3
PR Cell	4.1	1
Publications	3.2	4

Physical Evidence is one of the vital elements. Attractive environment of meditation belongs to highest score and lowest score belongs to availability of guide. Rural recreation and room service facilities were satisfactory. According to respondents at Kamarpukur guide is necessary for provides assistance, information and cultural, historical and contemporary heritage interpretation to people on organized tours, individual clients, educational establishments at religious and historical sites, and other significant interest (see Table 9).

Table 9 Rank and Score of Physical Evidence

Parameters	Score	Ranking
Rest house	3.2	4
Guide	2.0	5
Room service facilities(lighting, bath ,etc)	3.9	2
Attractive environment of meditation	4.3	1
Rural recreations	3.7	3

In the process dimension has three parameters (see Table 10). Among them highest score belongs to easy booking and lowest score belongs to Government sanctions. Most of the Government officials agreed to offer their full support to the safety and security of the community development subject to government sanction of the requisite fund.

Table 10 Rank and Score of Process

Parameters	Score	Ranking
Personnel Participation to care guest	3.8	2
Easy Booking	3.9	1
Govt. Sanctions	3.1	3

In the point of view of people score ranking in this dimension Ramakrishna Mission belongs to highest score and Local Community belongs to lowest score. A survey on possible community development was conducted on four elements namely, Ramakrishna Mission, Local Community, Local Government, and Tourist Pilgrims. All the respondents of Ramakrishna Mission were found to be involved in the effective utilization of rural human resource and organizing the available funds. Respondents in the local community showed a keen interest for direct involvement in community development. Respondents in the local government agreed to offer their full support to the safety and security of the community subject to government sanction of the requisite fund. Respondents of the tourist pilgrims were found to be regular dedicated visitors who directly participated in community building by rendering various services like one who was a doctor offered treatment to the sick while the teacher tutored. The community also economically benefits highly from the visits of these tourist pilgrims as the pilgrims indulge in lavish local purchases of the indigenous handicrafts (see Table 11).

Table 11 Rank and Score of People

Parameters	Score	Ranking
Local Community	3.5	4
Local Government	3.6	3
Ramakrishna Mission	3.9	1
Willingness to help by Host Community/Tourist Pilgrims	3.8	2

8. Discussions

Implementation of marketing philosophy has different advantages. Management realize first the consumer needs (i.e., here the needs of the tourists) of particular tourism products and services. These products may be architectural resources, natural resources, cultural resources, food, accessibility, accommodation, transportation etc. The classical approach of marketing is to produce the goods/services and sell to consumers. This concept no longer exists in tourism industry. Marketing in tourism industry is a difficult task and challenging too. Different tourism product/services available in urban tourist destination which are easy to accessible but at rural tourism destination it is very complex task to satisfy consumers, due to different needs, tasks, attitudes, expectation & patterns of behaviors.

From the above study the following issues clearly emerge:

- The above empirical study revealed that advertisement in magazine and general books aren't a novelty anymore, however they are often in wrong place and hard to see. Again the potential of TV commercials has not been exploited yet and it would be very useful. A promotional leaflet received by mail is relatively cheap promotion (Konciute, 2002). But in this study area WOM is a useful promotional medium. According to respondents, they got information on this particular destination from acquaintances, relatives, colleagues etc. They also received very little information from advertisement in magazine and tourism office. Ramakrishna Mission

annually publish booklet containing detail information and distribute to potential tourists through trade and fair show and Ramakrishna Mission office for better service quires. The organization also has website www.rkmkamarpukur.org.

- In the context of product dimension quality of rural tourism allied or auxiliary elements available in the study area should improve by providing proper infrastructure. It has been observed that modern culture and fashion exploit the rural culture .Most of the respondents eager to enjoy the rural traditional culture & rituals but they deprived from particular enjoyment.

- It has been observed that Ramakrishna Mission Kamarpukur contributes to a different product portfolio. Its strategic objective is to develop marketable products based on the strength of tourists' inflow.

- Pricing policy revealed that in the study area there is no existence of discount system or rebate system. It is an evidence of the price of services and products are fixed. It has been observed that price of food, room price and price of the handicrafts are fixed. But transportation costs some times fluctuate. Respondents argued that product/services should meaningful with its price.

- In the point of view of place guests are overall satisfied but promotional activities should improve to capture the target audience. There is no such attractive advertisement for promotion. Ramakrishna Mission participate different handicraft fair or trade show this strategy is not sufficient for promotion.

- In the point of view of physical evidence and process this study clearly emerged that Kamarpukur has a large space to provide an abundance of natural amenities and open place. The open space affords by guests the opportunity to full utilization of their holiday trip. It is an ideal destination for rural tourism according to respondents. Implementation of successful process requires a systematic approach through service quality, task analysis etc. It has been also observed that Ramakrishna Mission follows a strict management process in all activities which help to provide better services.

- In the context of people the above study reveals that local community has economically benefited highly from the visits of tourist pilgrims as well as the stakeholders community development participation. Local handicraft artisans are benefited by their lavish purchase of handicraft.

- It has been observed that there is no such channel intermediaries for capturing the target market in the study area.

9. Conclusion

In conclusion we can say that the rural tourism potentials of West Bengal in particular and India in general is very vast and varied. Effective marketing strategies are the key for the promotion of rural tourism in any country and India has no exception to it. With the rapid growth in the Tourism Industry the need for marketing is necessary and in particular all communications related to marketing with an objective of reaching the target audience. Organizations and companies have to be market oriented and pay exact attention to customers needs in future (Walker et al., 2001). Marketing is a way of thinking about a situation that balances that needs of tourists with services or variety of recreations available in the destinations. Various types of information should be available the general geographical, historical and cultural background of the area, the attractions, facilities and series and there costs etc. that are available. Target customer i.e. here tourists are more likely to extend their stay in a rural area if they have sufficient information about destination and various activities and attractions as well. In this paper at Kamarpukur as a rural tourism destination as well as over all marketing point of view in the context of marketing

mix was investigated. These controllable different marketing mix dimensional factors help to plan and recognize as well as implementation marketing strategies to develop Kamarpukur as a model Rural Tourism Destination. Rural tourism is expected to emerge as an important key factor for sustainable human development including poverty alleviation, employment generation, environmental re-generation and development of remote areas and empowerment of women if proper marketing or promotional activities carried out.

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Challenges and Opportunities for Developing Countries from Medical Tourism

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Abstract: Wikipedia defines “Medical Tourism” as the act of traveling to other countries to obtain medical, dental and surgical care. Rapid expansion of facilities for patients abroad has helped to spur this industry’s growth. Regardless of the destination, U.S. citizens are increasingly embracing the benefits of medical tourism due to dramatically rising U.S. healthcare costs. Medical care in countries such as India, Mexico, Thailand and Singapore can cost as little as ten percent of the cost of comparable care in the U.S. for some procedures. Statistical analysis revealed the costs to be significantly lower for many of these countries. Currently, patients from U.S., Canada, Europe, Australia and the Middle East appear to be traveling to destinations in Asia such as India and in Central America such as Mexico for medical care. Medical tourism can offer opportunities to developing countries to make improvements in their country and the host country can enjoy the economic benefit from medical tourism. However, there are also some challenges they may face from medical tourism. This paper discusses the opportunities and the challenges resulting from medical tourism for developing countries.

Key words: medical tourism; healthcare costs; developing countries

JEL codes: P46, Z10, Z19, N75, N76

1. Introduction

What is medical tourism? Deloitte Center for Health Solutions (2008) defines Medical tourism as a process of leaving home for treatments and care abroad or elsewhere domestically. Wikipedia defines “Medical Tourism” as the act of traveling to other countries to obtain medical, dental and surgical care. A Healthcare Magazine in India says “Medical Tourism can be broadly defined as provision of cost-effective private medical care in collaboration with the tourism industry for patients needing surgical and other forms of specialized treatment.”

Rapid expansion of facilities for patients abroad has helped to spur this industry’s growth. Regardless of the destination, U.S. citizens are increasingly embracing the benefits of medical tourism. Previously, “inbound” medical tourism was more prevalent where patients from other countries traveled to U.S. to receive advanced medical care. For years many medical tourists came to the United States to obtain care that was not available in

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their country or to obtain quicker access to services (Fried, 2009). He reports an estimated 400,000 patients coming to United States annually to obtain medical care. Today, “outbound” medical tourism is becoming equally prevalent where U.S. patients are traveling abroad for medical care due to the impact of dramatically rising U.S. healthcare costs. According to Fried (2009), such patients include patients who have limited or no insurance or lost their insurance; patients working for selected self-insured organizations with connections to facilities abroad; patients whose insurance companies take advantage of foreign facilities; and patients seeking care that may not be available in the United States for regulatory reasons such as ban on abortions, etc. He reports an estimated 750,000 Americans traveled abroad for care in 2007 and claims this number is expected to increase to 6 million by the end of year 2010. Currently, patients from U.S., Canada, Europe, Australia and the Middle East appear to be traveling to destinations in South and Southeast Asia such as India and in Central America such as Mexico for various medical and surgical procedures.

Frequently performed, common medical procedures and medical services in Medical Tourism include plastic surgery, ophthalmology (such as cataract removal), cardiothoracic surgery, joint replacement, dermatology procedures, dentistry and dental surgery, orthopedic surgery, certain transplants and nuclear medicine. The various specialties covered by Medical Tourism are dermatology, neurology, neurosurgery, ophthalmology, oncology, orthopedics, rheumatology, endocrinology, ENT, pediatrics, pediatric surgery, pediatric neurology, nephrology, gynecology and even psychiatry. To some extent general medicine and general surgery disciplines are also included.

2. Reasons for Increase in Medical Tourism

Medical care for some procedures in countries such as India, Mexico, Thailand and Singapore can cost as little as ten percent of the cost of comparable care in the U.S. The price is remarkably lower for a variety of services and often includes airfare and stay in a resort hotel making interest in medical tourism strong and positive (Keckley and Underwood, 2008). For example, in 2005 the average cost of a procedure such as the “Heart Bypass” was \$27,000 in the U.K, \$23,000 in France, \$24,000 in the U.S. while the cost in India was only \$7600 as reported by a student in his unpublished class project on healthcare costs in 2007. The average cost of hip replacement was reported to be \$16,000 in the U.K, \$14,000 in France, \$28,000 in the U.S. while the cost in India was \$5700. For a procedure such as the cataract surgery, the cost was \$5,000 in the U.K, \$3,000 in France, \$4,000 in the U.S. while the cost in India was only \$1200. Table 1 provides a brief comparison of the costs of few of the dental procedures between USA and India. Table 2 shows a comparison of costs of certain selected procedures for UK and India while Table 3 illustrates comparison of costs for a variety of countries such as Mexico, Costa Rica, India, Thailand and Korea with the United States. Finally, Table 4 offers a basic comparison of common procedure pricing between U.S. and “Overseas Hospitals.” This clearly shows that cost savings could be easily achieved if a person is willing to travel for medical care.

Although, costs of different procedures could vary from country to country we feel that they are significantly lower in “Medical Tourism” (developing) countries. To test this, cost data for selected procedures in USA (1), UK (2) and India (3) shown in Table 5, was used to conduct Analysis of Variance (ANOVA) (Anderson et. al., 2010). Randomly selected procedures, their costs in the respective countries and the results of the “Randomized Block Design ANOVA procedure” are shown in Table 5. The null and the Alternate hypotheses for the test were:

$$H_0: \mu_1 = \mu_2 = \mu_3$$

H_a : At least one of the means is different.

where μ_1 is the average cost for USA;

μ_2 is the average cost for UK;

μ_3 is the average cost for India.

Based on the results of ANOVA, the null hypothesis of equality of means was rejected at a significance level of 0.05 ($p = 0.00025$) indicating comparatively significantly cheaper medical care in India. Similar results were found for Mexico and Singapore. Multiple comparison procedures revealed that μ_3 was significantly different from μ_1 and μ_2 . However, μ_1 and μ_2 were not significantly different from each other. This confirmed that medical care cost can be significantly lower in India which may be a major reason for recent increased tourism.

Table 1 Brief Comparison of The Costs of Few Dental Procedures between USA and India

Dental procedure	Cost in US (\$)*		Cost in India (\$)*
	General Dentist	Top End Dentist	Top End Dentist
Smile designing	-	8,000	1,000
Metal Free Bridge	-	5,500	500
Dental Implants	-	3,500	800
Porcelain Metal Bridge	1,800	3,000	300
Porcelain Metal Crown	600	1,000	80
Tooth impactions	500	2,000	100
Root canal Treatment	600	1,000	100
Tooth whitening	350	800	110
Tooth colored composite fillings	200	500	25
Tooth cleaning	100	300	75

Source: http://www.medical-tourism-india.com/india_vs_USA.htm.

Table 2 Cost Comparison-India vs. United Kingdom

Procedure	UK (\$) Approx	India (\$) Approx
Open Heart Surgery	\$18,000	\$4,800
Facial Surgery and Skull base	\$13,000	\$4,500
Neurosurgery with Hypothermia	\$21,000	\$6,800
Complex spine surgery with implants	\$13,000	\$4,600
Hip Replacement	\$13,000	\$4,500
Simple Spine Surgery	\$6,500	\$2,300
Simple Brain Tumor:		
Biopsy	\$4,300	\$1,200
Surgery	\$10,000	\$4,600
Parkinson's:		
Lesion	\$6,500	\$2,300
DBS	\$26,000	\$17,800

Source: <http://www.indian-medical-tourism.com/medical-tourism-india-price-benefits.html>.

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Table 3 Cost Comparison: USA vs Mexico, Costa Rica, India, Thailand, Korea

Medical Procedure	USA	Mexico	Cost Rica	India	Thailand	Korea
Angioplasty	Up to \$57,000	\$17,100	\$14,000	\$10,000	\$9,000	\$21,600
Heart Bypass	Up to \$144,000	\$21,100	\$26,000	\$10,000	\$26,000	\$26,000
Heart Valve Replacement	Up to \$170,000	\$31,000	\$31,000	\$3,000	\$24,000	\$38,000
Knee Replacement	Up to \$50,000	\$11,500	\$12,000	\$9,000	\$14,000	\$19,800
Hip Resurfacing	Up to \$30,000+	\$13,400	\$13,000	\$10,000	\$18,000	\$22,900
Hip Replacement	Up to \$43,000	\$13,800	\$13,000	\$10,000	\$16,000	\$18,450
Special Fusion	Up to \$100,000	\$8,000	\$16,000	\$14,000	\$13,000	\$19,350
Face Lift	Up to \$15,000	\$8,000	\$6,500	\$9,000	\$8,600	\$5,000
Breast Implants	Up to \$10,000	\$9,000	\$4,000	\$6,500	\$5,700	\$13,600
Rhino Plasty	Up to \$8,000	\$5,000	\$6,000	\$5,500	\$5,400	\$6,000
Lap Band/Bariatric	Up to \$30,000	\$9,200	\$9,000	\$9,500	\$14,000	\$11,500
Hysterectomy	Up to \$15,000	\$7,500	\$6,000	\$7,500	\$7,000	\$11,000
Dental Implant	Up to \$2,000-10,000	\$1,000	\$1,100	\$1,000	\$1,000	\$2,000

Note: These prices are as of 2010. Source: <http://www.medicaltourism.com/compare-cost.php?lang=en>.

Table 4 Cost Estimates of Medical Treatment in USA and Abroad (Foreign Countries)

Procedure	Cost in U.S.	Cost abroad
Orthopedic		
Hip Replacement	\$40,000-\$65,000	\$7,000-\$13,000
Hip Resurfacing	\$50,000-\$60,000	\$8,000-\$12,000
Knee Replacement	\$45,000-\$60,000	\$7,500-\$12,000
Neurology		
Spinal Fusion	\$80,000-\$100,000	\$6,000-\$10,000
Total Spinal Disc Replacement	\$100,000-\$150,000	\$8,000-\$12,000
Discectomy	\$20,000-\$24,000	\$5,000-\$7,000
Cardiology		
Angioplasty	\$50,000-\$65,000	\$5,000-\$7,000
Heart Bypass	\$90,000-\$120,000	\$10,000-\$18,000
Heart Valve Replacement	\$125,000-\$175,000	\$13,000-\$18,000
Gynecology		
Hysterectomy	\$18,000-\$25,000	\$4,000-\$7,000
Cosmetic		
Face & Neck Lift	\$8,000-\$15,000	\$2,500-\$4,000
Breast Augmentation	\$6,000-\$12,000	\$3,500-\$5,000
Tummy Tuck	\$6,000-\$12,000	\$3,800-\$5,200
Liposuction/Area	\$2,000-\$3,000	\$800-\$1,200
Dental		
Dental Implants/Tooth	\$3,000-\$5,000	\$800-\$2,000
Dental Crowns	\$800-\$1,200	\$200-\$600

Source: <http://www.medretreat.com/procedures/pricing.html>.

Table 5 Results of ANOVA

Procedure (Cost in Thousands \$)	USA	UK	India			
Open Heart	100	43	7.5			
Knee Replacement	48	52	6.3			
Hip Resurfacing	55	48	7			
LA Hysterectomy	22	24	4			
Lap Cholecystectomy	18	20	3			
Spinal Decompression Fusion	60	65	5.5			
Gastric Bypass	65	70	9.5			
Summary	Count	Sum	Average	Variance		
Open Heart	3	150.5	50.16667	2177.583		
Knee Replacement	3	106.3	35.43333	640.5633		
Hip Resurfacing	3	110	36.66667	672.3333		
LA Hysterectomy	3	50	16.66667	121.3333		
Lap Cholecystectomy	3	41	13.66667	86.33333		
Spinal Decompression Fusion	3	130.5	43.5	1089.25		
Gastric Bypass	3	144.5	48.16667	1127.583		
USA	7	368	52.57143	769.2857		
UK	7	322	46	357.6667		
India	7	42.8	6.114286	4.791429		
Source of Variation	SS	df	MS	F	P-value	F crit
Rows (Procedures)	3809.25	6	634.8749	2.555503	0.078585	2.99612
Columns (Countries)	8848.747	2	4424.373	17.80902	0.000256	3.885294
Error	2981.213	12	248.4344			
Total	15639.21	20				

Note: ANOVA: Two-Factor Without Replication.

Waiting times could be another reason for medical tourism. In UK, the waiting time for many procedures can range from three months to over a year. In medical tourism countries, the waiting times can be practically zero. Other reasons for the increased medical tourism could be the improvement in the quality of medical facilities and related infrastructure, reputation of the Asian medical professionals, physician specialties along with the cost savings. Most countries also offer a variety of tourist and pilgrim destinations. India additionally offers holistic healthcare management addressing the mind, body and spirit along with a warm reception to western foreigners.

3. Current Status of Medical Tourism in India

Medical tourism in India generated approximately \$333 million in the year 2003. About 150,000 foreigners from various parts of the world visited India specifically for receiving medical care, the recovery and the tourism. It was estimated by the government of India that this industry will grow to anywhere between \$1.2 billion to \$2.4 billion by the year 2012. The domino effect of medical tourism in India has also been enormous. For example, the domestic air travel, hospitality, domestic tourism, shopping of other goods by foreigners on the way home, all significantly increased.

4. Why India or Mexico?

Fried (2009) suggests that management and medical expertise are rapidly improving in some of the developing countries. This seems to be true of India and to some extent of Mexico. India is not a third world country with an underdeveloped economy anymore (Chopra, 2009). Since its independence in 1947, the quality of Indian medical schools, medical education and medical facilities has steadily improved over the years. They are producing better graduates who are helping them earn excellent reputation in the world medical community. Many have migrated to Europe and the United States for their medical careers. Salsberg and Grover (2006) report that International Medical Graduates (IMGs) represent 25 percent of all new physicians entering the residency programs in the U.S. and represent approximately a quarter of practicing physicians (Association of American medical Colleges, 2007). It is easily seen that the reputation of the Indian medical professionals, the physicians, the specialists, nursing and other supporting staff has been on the rise during the last decade.

Both India and Mexico offer a variety of tourist destinations which are appealing to many people all over the world. India has many heritage hotels which are palaces converted into hotels with the western style amenities and food, and other services such as concierges, tour guides, etc. Mexico offers easy convenient access across the border at many points for U.S. travelers. Both offer a friendly political climate. In addition, most foreigners visiting the country receive a warm reception with friendly helping attitude from businesses as well as the locales.

Another reason is the language. There is no language barrier for U.S. or many European travelers who speak English—English is widely spoken in India. Also, there are many foreign language institutes that have sprung up in India recently that promote languages like German, French, Spanish, Chinese, Japanese and Russian. Most professional in Mexico have a working knowledge of the English language.

In addition, India offers holistic healthcare addressing the mind, body and spirit. There are many centers throughout the country that offer training and practice of Yoga and the meditation, reported to promote better health. India also offers access to other Indian systems of medicine such as “Ayurvedic medicine” and clinics for body cleansing and promoting better health.

5. Challenges and Opportunities

Medical tourism can offer opportunities to developing countries to make improvements in their country. Economic gains from medical tourism can be very big incentives for a country to invest in improvements to the infrastructure, rural and urban planning and for improving medical facilities as well as the supporting services required to provide a quality experience to the medical tourists coming to the host country. This may result in a great benefit for the host country itself. To a small extent, medical tourism may help the host country keeping their medical graduates in the land. Fried (2009) reports that of the IMGs practicing in the United States, 60 percent are from lower income countries and these are the countries that can not afford to export their healthcare workforce (Fried and Harris, 2007). Although the host country can enjoy the economic benefit from medical tourism there are some challenges they face in the wake of medical tourism such as:

- (1) Maintaining quality of healthcare service: pre-, during, and post-surgery
- (2) Maintaining quality and training of medical staff
- (3) Maintaining quality of medical facilities
- (4) Handling of post-surgery or post-procedure complications or side effects

- (5) Handling of negligence, malpractice or false advertising
- (6) Handling of a patient death. What is the jurisdiction? Home or host country?
- (7) Sharing of financial burden. Insurance company in the home country.
- (8) What is covered under the insurance plan? Handling of paper work.

Dealing with the insurance company in another country can be a challenge or at least at times may not be simple and easy. Security of patients during the tourism part of the visit can also pose a challenge due to possible hostage taking, terrorism, kidnapping, etc. In addition, quality and safety of transportation, security and safety at the hotel where the medical tourists are staying must also be evaluated. Also, the issue of accreditation can not be ignored. Joint commission on accreditation of Healthcare Organizations emphasizes focus on patient rights and quality of medical and nursing staff. The host country must constantly ensure that the patient rights are honored and quality is maintained.

Another challenge is “dealing with the criticism of medical tourism”. From the point of view of the social effects of medical tourism, some argue that it has an impact on the quality and delivery of medical services to the local population. There are times when some local patients “get put on the back burner”. Some have criticized medical tourism for subsidizing the patients from wealthier industrialized nations at the cost of local patients. This delicate issue, although a challenge, needs to be examined very carefully by the host country.

6. What Needs to Be Done?

Is there a need for a watch-dog agency to supervise this uncontrolled industry? Is there a need for bi-lateral or multi-lateral agreements or arrangements among countries to assure the quality and performance of medical tourism services? We would think so. The initiative must come from the host country government.

To promote medical tourism, the host country can undertake improvements in infrastructure, transportation, security etc. How can the government establish priorities? Which cities get attention first? Different cities probably get different number and type of medical tourists requiring different medical services. The host country government can look at not just the number of medical tourist visiting the city or the region but their net economic impact on the city or the region. Then, the “A-B-C analysis” approach in operations management can be employed to create category “A”, category “B” and category “C” cities or regions with highest priority going to category “A” listing. Priorities established then can be used for allocation of resources for improving infrastructure, facilities, and tourist spots, and for improving security and safety of visiting medical tourists. The eventual goal should be to cover cities and regions in all three categories.

The host country can also initiate research on the experiences of the past patients who had visited the country for medical tourism. The focus of such studies should be on various aspects of the medical treatment they received such as:

- (1) Patient recovery—how good was the recovery, how quick?
- (2) Post-surgery side effects—temporary, short-term, long-term
- (3) Patient prognosis
- (4) Level of patient satisfaction—pre and post surgery/medical service
- (5) Level of patient satisfaction with medical and support staff
- (6) Level of patient satisfaction with medical facilities

In addition the studies should also investigate “Level of Satisfaction” with the Tourism part with questions

regarding:

- (1) Satisfaction with immigration upon arrival
- (2) Satisfaction with hotel/boarding
- (3) Satisfaction with transportation, infrastructure
- (4) Opinions about personal safety

Medical tourism appears to be here to stay. The host country government can develop a set of standards by collaborating with non-governmental organizations. A strategic alliance of hospitals, domestic/international tour operators, airlines, insurance providers, accreditation agencies and government agencies can be important for the “Medical Tourism” industry to operate effectively and efficiently. Will a close monitoring of the industry by the government be a good idea? May be if they let the free market play out. This may help the host countries maximize the benefit of medical tourism in spite of the challenges.

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Consumer Attitude, Trust, Perceived Risk and Internet Banking Adoption in Uganda

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Abstract: Purpose: The purpose of this study was to examine the relationship between consumer attitudes, trust, perceived risk and internet banking adoption in Uganda. Design/methodology/approach: Using 274 respondents from a sample of 384 commercial bank customers, this study adapts a cross sectional and correlational design. Findings: The study posts a positive relationship between consumer attitudes, trust and internet banking adoption and a negative relationship between perceived risk and internet banking and explains 46.1% of the variance in internet banking adoption in Uganda. Limitations: Study was cross-sectional, which measures the intention only at a single point in time hence may suffer from cross-sectional's attendant limitations. Originality/value—Contributes to dearth of existing literature on internet banking—largely focuses on consumer attitudes, trust and perceived risk separately using Uganda's experience. Implications—Recommends the necessity for bankers and policy makers of developing trust by secured and private internet banking systems for their customers. As our model explains only 46.1% of the variance in internet banking adoption in Uganda is concerned, future research should be directed at establishing other factors that could explain the remaining 53.9%.

Key words: consumer attitudes; trust; perceived risk; internet banking; Uganda

JEL code: O33

1. Introduction

Many commercial banks in Uganda value electronic banking in the improvement of profitability and the overall efficiency (Abaasa, 2007) and so as elsewhere, have allocated substantial resources to this area to support a more reliable and quicker transfer of information to customers (Straub, 2007; Daniel, 1999; Thornton and White, 2001). However, reports have shown that internet banking in Uganda has not been widely adopted by banks' customers (Ndiwalana, 2008; Tabaza, 2006) which makes it hard for banks and other interested parties to design interventions that would enhance the diffusion of internet banking (Kisaame, 2010)

Extant literature (see for examples, Chiu, 2005; Schlosser, 2003) identify attitudes towards internet banking to be the consumer's positive or negative feelings related to accomplishing the banking behavior on the internet, inferring that customer attitudes can affect the adoption of internet banking. In addition, Wong, (2004) finds that

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attitude affects trust and perceived risk towards internet banking adoption as is lack of security and privacy over the internet an obstacle to internet banking adoption has been (Bhimani, 1996; Cockburn and Wilson, 1996; Quelch and Klein, 1996). Together, trust and perceived risk reduction are very critical factors in electronic banking since they reduce the social complexity for the internet banking and drive to the achievement of electronic goals and without them, there is a failure of such goals and relations, (Morgan and Hunt, 1994).

The purpose of this paper therefore is to examine the influence of consumer attitude, trust, and perceived risk on internet banking adoption in Uganda. The significance of this paper lies in its benefit to its stakeholders. The paper exemplifies the necessity for bankers and policy makers of developing trust by secured and private internet banking systems for their customers

The paper is organized into five sections:

The first section is a brief overview of the research study, the second section is informing literature and development of hypotheses; the third is research methodology, fourth is analysis and presentation of findings, and the fifth is a discussion, conclusions, research implications and suggested areas for further research.

2. Informing Literature and Development of Hypotheses

Technology Acceptance Model is one of the most utilized models for studying internet-banking acceptance (Al-Gahtani, 2001; Venkatesh and Davis, 1996; Davis et al., 1989). Technology Acceptance Model involves two primary predictors for the potential adopter that is perceived usefulness and perceived ease of use of technology as the main determinants of the attitudes toward a new technology. Perceived Usefulness is the degree to which a person believes that using a particular system would enhance his or her job performance while Perceived Ease of Use is the degree to which a person believes that using a particular system would be free of effort (Davis, 1989). These two beliefs create a favorable behavioral intention toward using the Information Technology that consequently affects its self-reported use (Davis et al., 1989). This paper marginally differs from this model's proposed predictors and instead adopts Customers' attitudes, trust and perceived risk as predictors of internet banking adoption for primarily three reasons:

(1) Attitude is one of the fundamental factors influencing consumers' buying behavior and have, therefore, attracted considerable attention from researchers probing the behavior of bank customers and their relationship with these institutions. According to Venkatesh et al., 2003, attitude toward internet banking is defined as an individual's overall affective reaction to using the internet for his/her banking activities. Fishbein and Ajzen (1975), argued that attitude towards behaviour is made up of beliefs about engaging in the behaviour and the associated evaluation of the belief. They defined attitude as an individual's positive and negative feelings (evaluative affect) about performing the target behaviour. The attitude theory suggests that the more favorable attitude a person has towards a given product or service, the more likely that person is to buy or use the product or service, (Ajzen and Fishbein, 1980). Attitudes are said to develop over time through a learning process affected by reference group influences, past experience and personality (Assael, 1981). Byers and Lederer (2001) concluded that changing consumer behaviour and attitudes rather than banks' cost structure determine the adoption of internet banking. In 2002, Howcroft found there are several factors predetermining a consumer's attitude towards online and mobile banking such as a person's demographic, motivation and behavior towards different banking technologies and individual acceptance of new technology. Earlier Rogers (1983), Taylor and Todd (1995) had

suggested that the different dimensions of attitudinal belief toward an innovation could be measured using the five perceived attributes (relative advantage, compatibility, complexity, and trialability) of the innovation.

(2) The concept of consumer-perceived risk has been widely dealt with in the literature and has been shown to influence consumer behaviour to varying degrees and in varying contexts (Cunningham et al., 2005; Mitchell, 1998). Consumer behavior researchers most often define perceived risk in terms of the consumer's perceptions of the uncertainty and potential adverse consequences of buying a product or service (Littler and Melanthiou, 2006). Cunningham et al. (2005), Pavlou (2003), Salam et al. (2003), and Schlosser et al. (2006) argued that perceived risk as an important factor influencing online consumer behavior. This is because in the online environment, criminal acts can be performed with extremely high speed, and without any physical contact (Cheung and Lee, 2006). If an unauthorized individual is able to get access to the online banking portfolio of a user, a considerable amount of financial information may be jeopardised and there might be considerable financial losses.

(3) Internet trust enables favorable expectations that the internet is reliable and predictable and that no harmful consequences will occur if the online consumer uses the internet as a transaction medium for financial transactions (Krauter and Faullant, 2008).

Whereas Technology Acceptance Model (TAM), suggests that a prospective user's feelings/attitudes toward using a given technology-based system/procedure represent major determinants as to whether or not he/she will ultimately use the system (Davis, 1993), the importance of the internet to users' banking needs relates to the advantages that accrue to the users of the technology in question. According to Tornatzky and Klein (1982), relative advantage is an important factor in determining adoption of new innovations. In general, perceived relative advantage of an innovation is positively related to its rate of adoption (Rogers, 1983; Agarwal and Prasad, 1998). Similarly, as internet banking services allow customers to access their banking accounts from any location and at any time of the day, it gives advantage to customers to be able to manage their finances properly and in a more convenient way. In Tornatzky and Klein's (1982) meta-analysis of innovation, innovation was more likely to be adopted when it was compatible with the individual's job responsibilities and value system. Customers always adapt to systems that are easy to use (Lederer et al., 2000; Cooper & Zmud, 1990) and hence they will always require trials (Rogers, 1983; Agarwal & Prasad 1998; Tan & Teo 2000).

Attitudes towards new technologies have been linked to a set of personal characteristics: Satisfaction/dissatisfaction with current banking services, reference groups (Lewis, 1991) comparison to other customers (Polatoglu & Ekin, 2001), importance of service to customers (Joseph & Stone, 2003). Karjaluoto (2002) showed that prior experience with computers and technologies and attitudes towards computers influence both attitudes towards online banking and actual behaviours. Their study revealed among these factors, prior computer experience had a significant impact on online banking usage while positive personal banking experience seemed to have had an effect on both attitudes and usage and satisfied customers tend to keep up with their current delivery channel. We then hypothesize that:

H₁: There is a positive relationship between Consumer Attitude and Internet Banking Adoption

Previous research (Sathye, 1999; Gerrard & Cunningham, 2003; Lee, 2005; Cheng, 2006) in countries with different levels of E-commerce adoption shows that perceived security risk is an important predictor of internet banking adoption. Sathye (1999) investigating internet banking adoption by Australian consumers identified security concerns as one of the obstacles to adoption. In Singapore Gerrard and Cunningham (2003) found security concerns over internet banking high in both adopters and non-adopters. Lee (2005) found USA consumers

with greater concern over transaction security and monetary benefits among prospective adopters than current adopters when choosing an internet based banking service. Cheng (2006) found perceived web security to be a significant determinant of customer's acceptance of online banking finding also that customers tend to increase purchases only if they perceive that credit card number and other sensitive information is safe. Therefore, the different types of perceived risk have a significant influence on the adoption of the channel, as they become a barrier to performing internet banking transactions (see for examples, Gerrard & Cunningham, 2003; Hewer & Howcroft, 1999; Polatoglu & Etkin, 2001; Suganthi, 2001; Pikkarainen et al., 2004; Mukherjee & Nath, 2003; Aladwani, 2001; Ba, 2001).

The issue of perceived risk adoption arises because economic transactions involve risk (Humphrey and Schmitz, 1998). This is particularly true in the case of online banking, where the bank and the customer are physically separated, contingencies are difficult to predict and incorporate into terms and conditions, relationships are difficult to monitor, and cyber-laws are not well-defined. The heightened risk perceptions of customers affect the level of internet banking adoption. When processing online information, customers may often perceive that there is a high level of risk even though the risk level may be actually low. Clay and Strauss (2000) and Ba (2001) argued that one of the customers' main concerns would be security of the bank's network. When customers are transmitting personal financial data over the electronic network, there are risks that unauthorized parties could intercept this information.

Perceived risk reduction proves critical in an uncertain and risky environment (Mayer, 1995) as is the case in Uganda. Perceived risk in Uganda has been exacerbated by electronic bank fraud. For example, Bank of Uganda warned the public against fraud in the Automated Teller Machines (Walusimbi, 2010). In Stanbic bank, criminals harked into the bank's records to create records showing that Ugx.10b was deposited that very day into that account at the Iganga Stanbic Bank branch. Stanbic Bank could have lost sh5b, had they allowed one of their clients to withdraw it as he had requested. The account had been opened the day before and the money's origin could not be traced (Namubiru, 2008). Security issues have caused the rate of internet banking adoption in Uganda to be low for example it was anecdotally concluded that the predictive potential of internet banking in Kampala is still low at 30%, 40% less than the prediction by 2010 (Namirembe, 2009).

As pointed out by Krauter and Kaluscha (2003), online transactions always take place in that risky environment where anonymity, lack of control and potential opportunism are always involved. Perceived risk can also cause customers to reject new technology-based service delivery. Bradley and Stewart (2002), Mukherjee and Nath (2003) and Wang (2003) found the risk associated with possible losses from the online banking transaction is greater than in traditional environments. Although studies showed perceived risk as an important factor that influences online banking adoption (Gerrard and Cunningham, 2003; Hewer and Howcroft, 1999; Polatoglu and Etkin, 2001), only limited work has been carried out to identify risk dimensions in this context (Littler and Melanthiou, 2006). Moreover, it is also crucial for managers to understand the barriers to internet banking adoption in order to assign resources effectively to obtain competitive advantages and increase efficiency in the banking system. Accepting the key role of perceived risk in online banking adoption, finding an operational segmenting variable that could both reduce consumers risk perception and positively influence internet banking adoption, would be of great managerial interest (Lassala-Navarr, 2008). Hence we hypothesize that:

H₂: There is a negative relationship between perceived risk and internet banking adoption in Uganda

Elsewhere studies have proved the significant relationship between trust and electronic banking or any

e-commerce adoption. Trust occurs when one party has confidence in an exchange partner's reliability and integrity (Morgan and Hunt, 1994). For example, Chen and Barner (2007) found that trust significantly important on online purchasing intention, web site loyalty (Flavian and Guinaliu, 2006), online banking commitment (Mukherjee and Nath, 2003), electronic banking adoption (Rexha, 2003) and behavior intention to adopt online information service (Chen and Corkindale, 2008). Studies of online banking (Kassim and Abdulla, 2006; Kim and Prabhakar, 2000; Mukherjee and Nath, 2003) have shown that trust is a critical factor in stimulating online banking operations. The uncertainty that an individual often assumes makes trust a necessary component (Gerrard and Cunningham, 2003; Pikkarainen, 2004). Otherwise the consumer is reluctant to use online banking services (Kassim and Abdulla, 2006; Mukherjee and Nath, 2003). Lack of trust is a critical issue that needs addressing pertaining to the internet banking adoption (CommerceNet, 1997). Gummerus et al. (2004) mentioned that lack of trust has been one of the most significant reasons for customer not adopting online services involving financial exchanges. Researchers have suggested that online customers generally stay away from vendors whom they do not trust (Reichheld and Scheffer, 2000).

H₃: There is a positive relationship between Trust and Internet Banking Adoption

3. Methodology

A cross sectional research design was used. The study was both descriptive and analytical; in that it described and analyzed the relationship between the study variables. Correlational design was adopted to establish the relationship between customers' attitude, risk perception and internet banking adoption. A regression analysis focusing on consumer attitudes, trust, and perceived risk was made to establish the extent to which they contribute internet banking adoption. The study population comprised of 3,563,753 account holders in the major commercial banks in Uganda. Population was targeted from 19 out of 23 registered commercial banks operating in Uganda (Bank of Uganda Report, 2008). The sample size of the respondents was 384 respondents selected basing on the table for determining sample size by Krejcie and Morgan (1970). Mc Call (1994) supports this by stating that a researcher needs to get the appropriate sample size in terms of accuracy and cost putting into consideration the subject matter of investigation.

Simple random sampling design was used to select respondents from 19 commercial banks in Uganda. Simple random sampling was used because it minimizes bias and simplifies analysis of results Hand (2008). Convenient sampling was later used to select the respondents from the commercial banks. Customers were accessed from the banking floor and ATM machines hence the sample was selected, as was readily available (Bryant, 2003).

Primary data was obtained through the use of self administered questionnaire following the systematic and established procedures as suggested by Churchill (1979), Garbing and Anderson (1988). Data was collected using well formulated questionnaire. The questionnaire was validated and pre tested. The self-administered questionnaire was used as a tool for data collection because it is quicker in getting data from the respondents (Bakkabulindi, 2004). Validity of instruments was obtained using the Content Validity Index (CVI). It was performed on the constructs to ensure that the scale items are meaningful to the sample and capture the issues that were measured. Reliability of the instruments was ascertained using the Cronbach's coefficient alpha (Cronbach, 1946) to test for the internal consistency of the scales used to measure the variables. Alpha coefficient of above

0.5 for individual test variables was accepted meaning the instrument was valid (Nunnally, 1978). The results in the table below show the validity and reliability values of the variables that the researcher set out to study

Table 1 Reliability and Validity

Variables	Anchor	Cronbach alpha	Content validity index
Consumer attitudes	5 Point	0.630	0.783
Trust	5 Point	0.782	0.769
Perceived risk	5 Point	0.710	0.800
Internet banking adoption	5 Point	0.845	0.692

The Reliability and Validity results in the table above showed that the instrument was both reliable and valid since the variable coefficients were above 0.6 in both cases.

Scales from previous studies was used to measure the study variables. All items were anchored on a five-point Likert scale ranging from 1 = strongly disagree to 5 = strongly agree. Customer attitude was measured basing on the scales developed by Lai and Li (2005), Wu and Chen (2005), Chau and Lai (2003), Fishbein and Ajzen (1975) and Taylor and Todd (1995). Risk perception was measured basing on a five item scale adapted from Awamleh and Fernandes (2006), Meuter (2005), Cheung and Lee (2001), Flavian and Guinaliu (2006), Janda (2002), and Littler and Melanthiou (2006). Trust was measured basing on a five item scale adapted from Donney and Canon (1997), Kumar (1995), Roy (2001), Morgan and Hunt (1994), Moorman et al. (1993), Hewett and Bearden (2001), and McKnight and Chervany (2002). Internet Banking Adoption was developed according to Eastlick and Lotz (1999, Venkatraman (1991), Shimand Drake (1990), and Tan and Teo (2000).

Data from the field was compiled, sorted, and coded to have the required quality, accuracy and completeness. Data was entered into the computer system using the Statistical Package for Social Sciences (SPSSv16.0) for analysis. Correlation analysis was carried out to establish the strength of the relationship between variables. Multiple regression analysis was also carried out to determine extent to which independent variables influence the dependent variable.

4. Analysis and Presentation of Findings

The majority of the respondents were in the 18-25 year age bracket (43.0%) while on the other hand, those in the 36-40 year age group comprised 7.0% of the sample. In addition, those in the 26-30, 31-35 and 40 years and above age brackets, constituted 22.5%, 18.3% and 9.2% respectively. Thus, we would expect that since the majority of the commercial banks' clients are in a dynamic age, they could easily learn and understand the internet banking infrastructures put in place by commercial banks. With regard to sex of the respondents, the majority of the respondents were females (52.8%) The marital status indicated that majority of the respondents were single (56.0%) further confirming the age majority age bracket. The respondents were fairly educated -56.7% had degrees meaning that most bank customers can easily understand the functioning of the infrastructures put in place by commercial banks such as ATM operations.

In order to initially discern the relationship between Consumer Attitudes, Trust, Perceived risk and Internet Banking Adoption, the Pearson (r) correlation tests were carried out given the interval nature of the data and the need to test the direction of relationships between the study variables. The table below shows the results of the tests.

Consumer Attitude, Trust, Perceived Risk and Internet Banking Adoption in Uganda

Table 2 Showing the Relationship between Variables

	1	2	3	4	5	6	7	8
Complexity-1	1.000							
Value towards Banking needs-2	0.267**	1.000						
Compatibility-3	0.321**	0.421**	1.000					
Trialability-4	0.182**	0.261**	0.345**	1.000				
Consumer attitudes-5	0.390**	0.716**	0.748**	0.700**	1.000			
Trust-6	0.248**	0.367**	0.303**	0.243**	0.407**	1.000		
Perceived Risk-7	-0.276**	-0.225**	-0.261**	-0.244**	-0.372**	-0.305**	1.000	
Internet Banking Adoption-8	0.379**	0.548**	0.478**	0.309**	0.608**	0.495**	-0.387**	1.000

Note: ** Correlation is significant at the 0.01 level (2-tailed).

The results from the table above show that consumer attitudes are positively related to the trust that individuals have towards internet banking adoption ($r = 0.407^{**}$, $p < 0.01$). The results further show that the components of consumer attitudes that is, Complexity, Value towards Banking needs, Compatibility and Trialability were all positively related to Trust with the following parameters ($r = 0.248^{**}$, $p < 0.01$), ($r = 0.367^{**}$, $p < 0.01$), ($r = 0.303^{**}$, $p < 0.01$) and ($r = 0.243^{**}$, $p < 0.01$) respectively. The results further show that Consumer attitudes are negatively related to the level of perceived risk, that is, the consumer's perception of the uncertainty and potential adverse consequences of buying the internet banking service ($r = -0.372^{**}$, $p < 0.01$). The results further show that the components of Consumer Attitudes i.e. Complexity, Value towards Banking needs, Compatibility and Trialability were all negatively related to perceived risk with the following parameters ($r = -0.276^{**}$, $p < 0.01$), ($r = -0.225^{**}$, $p < 0.01$), ($r = -0.261^{**}$, $p < 0.01$) and ($r = -0.244^{**}$, $p < 0.01$) respectively. The results further reveal that trust is positively related to Internet banking adoption ($r = 0.495^{**}$, $p < 0.01$). Perceived risk is negatively related to internet banking adoption ($r = -0.387^{**}$, $p < 0.01$). Finally we post a positive relationship between consumer attitudes and Internet banking adoption ($r = 0.608^{**}$, $p < 0.01$). The results further show that the components of Consumer Attitudes i.e. Complexity, Value towards Banking needs, Compatibility and Trialability were all positively related to perceived risk with the following parameters ($r = -0.379^{**}$, $p < 0.01$), ($r = 0.548^{**}$, $p < 0.01$), ($r = 0.478^{**}$, $p < 0.01$) and ($r = 0.309^{**}$, $p < 0.01$) respectively. We use regression analysis to determine explanatory power of Consumer Attitudes, Trust and Perceived Risk on the Internet Banking Adoption.

Table 3 Multiple Regression Analysis

Model	Unstandardized coefficients		Standardized coefficients	T	Sig.
	B	Std. error	Beta		
(Constant)	1.772	0.204		8.679	0.000
Consumer attitudes	0.388	0.044	0.461	8.887	0.000
Trust	0.190	0.038	0.257	5.035	0.000
Perceived risk	-0.069	0.025	-0.140	-2.826	0.005
Dependent variable: Internet banking adoption					
R square	0.467		F change	75.939	
Adjusted R square	0.461		Sig.	0.000	

The results above show that consumer attitudes (Beta = 0.461), Trust (Beta = 0.257) significantly and positively affected internet banking adoption and therefore hypotheses 1 and 3 are supported, while Perceived

Risk affect internet banking negatively (Beta = -0.140) supporting hypotheses 2. The results above show that Consumer Attitudes, Trust and Perceived Risk if well managed can improve the rate of Internet Banking Adoption by 46.1% (Adjusted R Square = 0.461). Among the three variables, it was noted that addressing Consumer Attitudes (Beta = 0.461) should take priority over Trust (Beta = 0.257) and Perceived Risk (Beta = -0.140) if the Internet Banking is to be successfully adopted. The Adjusted R^2 gives us the idea of how well our model generalizes and ideally we would like its value to be same, or very close to, the value of R^2 - R^2 being a measure of how much of the variability in the internet banking adoption is accounted for by the consumer attitude, trust and perceived risk. Our results show that difference for the final model is a fair bit ($0.467-0.461 = 0.006$ or 0.6%). This shrinkage means that if the model were derived from the population rather than sample, it would account for approximately 0.6 percent less variance in the outcome.

5. Discussion, Conclusion and Recommendations

The significant positive relationship between consumer attitudes and internet banking adoption implies that when the consumer attitude is good, the rate of internet adoption is likely to be high. When customers believe that internet banking is the easiest, convenient, flexible and efficient way of conducting banking transactions, they are likely bound to adopt it. This result is consistent with earlier studies (Davis, 1993; Lockett & Litter, 1997; Daniel, 1998; Karjaluoto, 2002; Sathye, 1999). However, Howcroft (2002) pointed out that attitude towards new technologies may also be linked to a set of personal characteristics for example he found out that younger consumers value the convenience or time saving potential of online and mobile banking more than older consumers. Younger consumers also regarded the lack of face-to-face contact as less important than older consumers. Given that the majority of our respondents were between the ages of 18-25 years, our results may not be surprising but further vindicates Howcroft (2002).

As consumer attitude has been found to correlate positively with trust it is implied that when customers believe that Internet banking fulfils the commitments and promises it assumes and that it is reliable, sincere, confidential and has the necessary abilities to carry out its work, they are likely to adopt it. This finding is consistent with Krauter and Faullant (2008) who found out trust enables favorable expectations that the internet is reliable and predictable and that no harmful consequences will occur if the online consumer uses the internet as a transaction medium for his financial transactions. The study done by Davis (1989) found out that Perceived ease of use and perceived usefulness have a positive influence on trust as it promotes a favorable impression towards the initial adoption of the service. It is also in line with Lee and Turban, 2001 who found out that various performance measures such as network and download speed, navigability, reliability, connectivity and availability to evaluate electronic transactions influence internet banking adoption. However, our results are at variance with Igbaria (1997); Nielsen (2000) who found that ease of searching, transaction interaction, broken links and navigation have all been associated with changes in online trust. This study therefore advances the debate concerning this area, as empirical findings are equivocal

The findings of the study indicate that there is a negative relationship between Consumer Attitude and Perceived Risk, implying that consumer attitudes are negatively affected by the level of perceived risk. For example when customers are not sure of the security, privacy of the internet banking transactions, it is most likely bound to affect the rate of internet banking adoption. The result is consistent with Cunningham (2005), Pavlou

(2003), Salam (2003), Schlosser (2006), Cheung and Lee (2006), Howcroft (2002) and Aladwani (2001), who found out that perceived risk is an important factor influencing online consumer behavior but ignored independent explanatory power of perceived risk to internet banking adoption.

The negative relationship between Perceived Risk and Internet Banking Adoption implies that the higher the perceived risk, the lower the rate of internet banking adoption. For example when the security, performance and privacy risks about internet banking transactions are high, the rate of internet banking adoption is likely to be low. Although the finding is in line with Ba (2001) who found that when customers feel that an online bank has a poor or bad reputation, they would be discouraged from using that service, ours seems to mirror the events preceding this research in the banking sector. There had been widespread bank crimes/frauds and this might not have been a mere perception but real. Yet the significant positive relationship between Trust and Internet Banking Adoption implies that when consumers trust the security, privacy of internet banking, they are likely bound to adopt it. In line with Yousafzai (2003) who found out that trust in electronic banking and its infrastructure reduces customers' transaction-specific uncertainty and related risks associated with the possibility that a bank might behave opportunistically, Krauter (2008), Bejou (1998), and Diacon and Ennew (1996) supported this.

We conclude that consumer attitude, trust and perceived risk *visa a vis* internet banking adoption in Uganda does not differ materially from previous studies elsewhere. Attitudinal, trust and banks risk profiles (operationalized by customer's perceived risk) are important for the criterion variable of internet banking adoption. We therefore recommend trust building among the customers should be a major concern for the service providers while improving the usefulness of the system. Commercial banks in Uganda should ensure security and privacy of their banking customers. Security features should be considered an important issue by banks because internet banking users are more favorably inclined toward using it when they perceive that the information provided during the banking transactions is secure, and third parties will not have access to it. Changing consumer attitudes towards internet banking should be put into consideration as bank managers place more emphasis on the awareness of Internet banking adoption while educating individual customers on its existence and benefits. User awareness of Internet banking services can be increased through putting in place community based workshops and through various social networks and channels, such as word of mouth and informal seminars before introduction of new technology. Bank managers should develop a system that provides up to date and relevant financial information with good user interface consistency in order to enhance trust. Bank managers should monitor and evaluate the usage of the implemented technologies. This can be done by identifying the number of customers using a given technology and how often it is used, with such a measure in place. Information Technology bank managers should therefore get feedback on which technology that should be improved and then later plan for their business without wastage of resources. Commercial banks should make the internet banking interface for the customer more attractive and easier to navigate in order to increase the adoption rate of internet banking. As our model explains only 46.1% of the variance in internet banking adoption in Uganda is concerned, future research should be directed at establishing other factors that could explain the remaining 53.9%.

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