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The Politics of American Aid and Conflict in Northern Uganda

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Introduction

The United States' Senate has recently passed legislation calling for President Barack Obama to develop a more comprehensive plan of action that will address the ongoing violence in Northern Uganda. While the authors of the Lord's Resistance Army Disarmament and Northern Uganda Recovery Act 2010 may have good intentions, the push for America to play a more decisive role in the conflict has come two decades too late and at a time when the rebel group, the LRA, has left the country. While the violence has largely subsided in the North, the conflict is not yet over. The rebel group continues to massacre communities in the Central African Republic and the Democratic Republic of the Congo. Until recently, a vague and noncommittal foreign policy, support for a semi-authoritarian regime, and generous donations of aid have characterized the United States' reactions to the atrocities committed in the Acholi sub-region of Uganda. This violence erupted in the country's Northern districts almost immediately after President Museveni took power in 1986. The LRA leader, Joseph Kony, has since terrorized Acholi communities in the name of liberating them from Museveni's dictatorship. Most famously, he has abducted an estimated 30,000 children to use as sex slaves and soldiers, forcing them to torture and kill their relatives and fellow children (Doom & Vlassenroot, 1999). Kony has also orchestrated several massacres, in which his army hacked and clubbed to death hundreds of victims. This conflict has quickly escalated into a "severe humanitarian crisis, with thousands killed, hundreds of thousands of civilians injured, and between 1 and 2 million internally displaced, while famine and illness" have ravaged the population (Tripp, 2004, p. 22). Despite the severity of the situation, both the American and Ugandan government have largely failed to bring the conflict to an end. Instead of taking action, the United States has chosen to condone Museveni's undemocratic and corrupt policies by giving his regime a substantial amount of aid and military assistance with no strings attached. While this support has and continues to make a significant difference in many Ugandans' lives, US foreign assistance has also played a complicated role during and after the conflict. At the international, national, and local level, aid and the politics that envelop aid have perpetuated the conflict and have created an environment conducive to violence rather than improve the living standards of Northern Ugandans. Articles from Ugandan newspapers and interviews with participants support this theory—many interviewees discussed the undemocratic nature of Museveni's government, government corruption, and the extent to which they hold aid agencies accountable rather than the current regime in power.

Theoretical Background

Many scholars, including, most prominently, Jeffery Sachs, champion foreign aid, arguing that it has an enormous potential to end cycles of poverty, catalyze economic development, cultivate civil society, and establish democratic political and social norms. For Sachs and others, foreign aid represents "an international transfer of resources that would not have taken place as the result of market forces," which "includes grants and loans made at subsidized interest rates, provided by governments or by international financial institutions" as well as "technical assistance and debt relief" (Goldsmith, 2001a, p. 412). Seen from this perspective, the underlying logic of aid lies in its capacity to provide a disadvantaged nation with the most basic capital necessary for its development. Sachs points to a small village in Kenya, Sauri, as a positive example of the effects of foreign investments in agricultural methods, health, education, and infrastructure. He asserts that "with fertilizers, improved fallows, green manures and cover crops, water harvesting and small-scale irrigation, and improved seeds, Sauri's farmers could triple the food yields per hectare and quickly end chronic hunger," and improved "storage facilities would allow the village to sell the grain over the course of months, rather than all at once, thereby getting more favorable prices" (Sachs, 2005, p. 233). Development of stronger educational systems and vocational training programs, he adds, would create a new generation of empowered students with the skills necessary to develop local leadership and solutions to community problems. By strengthening these human resources, "foreign aid could conceivably have additional unintended benefits for democracy," because "better educated and healthier people, in turn, may make better informed and more active citizens, who are the lifeblood for democratic institutions" (Goldsmith, 2001b, 137). Yet the United States' aid to Uganda has not generated such benefits, chiefly because the American government has failed to attach conditions that would both address realities on the ground and encourage economic liberalization and democracy. In Uganda, US aid has ultimately created more problems than it has addressed.

Rather than facilitate development in Uganda, US aid has instead legitimized and propped up a government that relies on undemocratic practices to maintain power. As it has in other nations, America could have used its aid as leverage to compel Museveni to democratize and adopt a multi-party system of government. Such assistance programs could, for instance, ensure that "responsibilities of African governments are carried out competently as well as conducted in a transparent and accountable manner," which would "make it more difficult for state elites to make public policy decisions to the advantage of individuals and groups supporting the government in power" (Tangri & Mwenda, 2005, p. 450).

Employed in this fashion, US aid has the potential to trigger reforms to open Uganda's closed political system. Yet American presidents have instead demonstrated both a willingness to condone Museveni's actions and to reward his resistance to democratization with funding. In 1993, for instance, the US Agency for International Development (USAID) gave Uganda $25 million to increase and diversify agricultural exports, and in 1994 America gave an additional $8 million to support the Uganda Primary Education Reform Program (Ofcansky 1996, p. 130). With these aid packages, Museveni has been able to portray himself as an effective leader who has worked to improve the Ugandan economy and its national educational system. Without this assistance to mask his incompetence, Museveni may very well have lost support from his constituents, who may have been more willing to overthrow him and install a more capable leader. In this East African nation, then, US foreign aid has ultimately consolidated Museveni's political dominance, and has done little or nothing to foster democracy and democratic institutions (Tangri & Mwenda, 2005). Indeed, this support has given the Ugandan President a “security complex” by which he feels that he can ignore internal pressures to create a larger space for opposition, and this has created "conditions in which conflicts in the region can only thrive" (Onyango, 2004, p. 46).

Aid from the United States and other Western donors has, moreover, perpetuated the LRA conflict by supporting a regime that has greatly limited the extent to which political opposition leaders can peacefully and democratically express their views. Instead, many opposition groups, particularly those in the North, have resorted to violence. The Ugandan political system reflects a long history of patronage politics, whereby officials use state resources to gain more clients, who in turn support and, more specifically, re-elect, their patron. Such practices are rooted in colonial legacies, which also "effectively created a socioeconomic division between the North and South that consequently led to an economic marginalization of the North and a further development of the South" (Doom & Vlassenroot, 1999, p. 8). Thus, politicians in power distribute rewards based on regional and tribal affiliations, while the political opposition from other districts, namely the North, are left with nothing. Since Museveni took power, "the alienation of political forces in Uganda has become more extreme and accusations that the [National Resistance Movement] NRM government is mainly for the people from President Museveni's region are more common," and this "growing alienation of political forces [has] led to more rebel groups and violence in Uganda" (Hauser, 1999, p. 636).

In the more specific and practical realm of Uganda's political system, Museveni's failure to establish free and fair elections during most of the conflict further marginalized Northern rebel groups. Until recently, the Ugandan President had banned political parties and effectively created a one-party state. The 2002 Freedom in the World report found that Ugandans did not have the ability to elect their own leaders through democratic competition, because the government had rigged past elections. The document also cited a 1999 Human Rights Watch report, which "concluded that 'the NRM has consolidated its monopoly on political power through exclusive access to state funding and machinery, widespread and sometimes compulsory political education programs,'" and by appointing the electoral commission ("Freedom in the World: Uganda," 2002). Given this legacy, those politicians who do represent an opposition and who challenge the status quo have perennially faced arrest and physical harassment. With no forum to voice opposition, many from the North, including voices associated with the LRA, have responded to their marginalization with violence.

US aid may have also undermined any incentives Museveni might have contemplated for bringing an end to the conflict in the North. Instead, Uganda's widespread high-level government corruption suggests that Museveni and his top officials have likely embezzled a portion of the aid packages given to Uganda with the intention of helping him suppress violence. As such, aid may have actually motivated the President to neglect the conflict-ridden North. The 2000 Transparency International Corruption Percentage Index ranked Uganda in the bottom ten countries (“Corruption Perceptions Index,” 2000). In this East African country, corruption has long characterized the politics in Kampala, and many top officials have used their power and position for personal gain. "By enabling individual power-holders to divert political resources into their own hands," the top "political leadership has been able to retain their loyalty and keep them within the ruling coalition" and, simultaneously, "individual government ministers as well as senior bureaucrats and military officers have channeled part of their corruptly obtained monies to ensure that the government remains in power" (Tangri & Mwenda, 2006, p. 104). Yet when Museveni came to power, he promised to end corruption, and while he has established “certain legislative measures in place to combat corruption,” the “resources to enforce them are lacking" (“Freedom in the World: Uganda,” 2009). For instance, the 1995 Constitution established the Inspectorate of Government (IG) to prevent and punish corruption, but the IG head has always been a member of the NRM. It has rarely investigated cases that involve high-level party members (Tangri & Mwenda, 2005, p. 461). Foreign aid has ultimately fuelled this cycle of corruption by expanding the capital available to these officials. Some scholars argue that, in the 1990s, during the conflict, aid-related corruption was so widespread that local primary schools received only 20 cents of every US aid dollar (Moyo 2009, p. 53). Yet, America has continued to give assistance “to help Museveni fight the LRA”, and so long as the aid keeps coming, it remains unlikely that top politicians will push to end the violence in the North and stabilize the region.

Additionally, aid has encouraged Museveni to ignore a conflict that has affected only those in his political opposition, and thereby eliminating them as a viable threat. The British colonizers only crystallized pre-existing divisions between the North and South, and more specifically between the Baganda and Acholi. By giving privileges to the South and by neglecting the North, the British established a political system of inequality. As a result, in its post-independence history, Uganda has experienced persistent and recurring ethnically- and regionally-motivated violence. For instance, Idi Amin's "brutality and buffoonery made world headlines as hundreds of thousands of people were killed," and Milton Obote tortured and murdered 250,000 people at the beginning of his second regime (“Freedom in the World: Uganda,” 2002). Museveni's politics have only differed from his predecessors in that he targets the North for political oppression. Many Acholi, for instance, believe that "Museveni created the [IDP or internally displaced person] camps to neutralize them as a source of political opposition" (Green, 2009, p. 118-19). He has prolonged the conflict, they argue, so that he can justify spending on his political base--the army. Northerners have often asked: "How can the President support the SPLA (the Sudanese People’s Liberation Army), the RPF (the Rwandan Patriotic Front) and Kabila (Joseph Kabila, President of the Democratic Republic of Congo) and still pretend that he is lacking the means to protect the Acholi from the LRA?" (Doom & Vlassenroot, 1999, p. 32) Without US assistance, the situation would have been different. Foreign aid has funded the IDP camps, food relief, and medical care. With the camps paid for, his political base satisfied, and his opposition successfully quieted and marginalized, what motivation does Museveni have to bring an end to the conflict?

After two decades of conflict, the situation of underdevelopment in local communities has remained unchanged, chiefly because people do not hold Museveni's government accountable for its failures to end the conflict and to provide services. Aid has undermined this accountability. From the beginning of the conflict in 1986 to 2007, Uganda received a total of roughly $17.4 billion in aid, which represented over half of the nation's annual budget ("UN Data: A World of Information, 2009). Dependence on American and other nations' assistance "structures accountability as something between the executive branch of government and aid donors rather than between state and society," and this accountability between the state and civil society is a fundamental component of a democracy (Brautigam & Knack, 2004, p. 265). The absence of a more democratic relationship occurs because foreign aid is an "unearned" source of income; the revenue does not come from taxes but from donors. "At no time," then, do African states "establish a major tradition of providing goods and services in exchange for taxes and fees," and so "foreign aid stymies the very values of responsive and efficient government it is meant to foster" (Goldsmith, 2001b, p. 127). In the North, Acholi communities—communities affected most by the conflict---have failed to hold the appropriate actor accountable: Museveni's government. Instead, these people have often looked to NGOs and the aid agencies of foreign donors rather than the President to end the conflict. With no one holding him accountable, Museveni risks little political capital in perpetuating the conflict. Yet why has the United States, which claims to expand "democracy and free markets, while improving the lives of citizens in the developing world," continued to fund such an undemocratic regime? ("This is USAID," 2009)

America's need to justify its economic and political donor stipulations—more so than its desire to maximize the potential benefits of aid--has shaped its aid policy to Uganda. The West has poured billions of dollars into African nations' development since their independence, but after decades of failures, various observers began to question the capacity of foreign aid to address these countries' problems. During these unsuccessful years, many scholars began to criticize the United States for forcing economic reforms on Africa. Their main arguments "were that these programs did not work and that donors imposed dangerous and useless goals on weak countries" that might, in the long term, undermine their development (Hauser, 1999, p. 633-34). Instead of helping Africa industrialize, the economic reform efforts attached to aid, scholars argued, have centered on “resurrecting the primary-product export economies that existed at the time of independence” (Haberson & Rothchild, 2009, 43). Such reforms have clearly benefited American businesses, which have continued to rely on Africa for cheap prices of raw materials. US corporations can manufacture products and sell the secondary goods back to the developing countries for higher margins of profit. To justify the implementation of these economically-beneficial programs, the United States desperately needed to find a success story. Then, donors could claim that aid failures were a result of uncooperative recipient governments rather than the economic conditions that they attached to aid. Uganda fit this Western definition of success. In just four years, from 1991-1995, the country's Gross Domestic Product (GDP) had grown at an annual rate of 4-6 percent, and its per capita GDP growth averaged 3 percent per year in real terms. And from 1994 to 1995 alone, Uganda's GDP doubled its expected growth rate of 5 percent (Hauser, 1999, p. 633) Following Uganda's adoption of free-market reforms encompassing economic liberalization, privatization, and the reform of public enterprise, Museveni earned accolades from many in the West (Onyango, 2004). Former Secretary of State Madeleine Albright went as far as to hail Uganda as a "beacon of hope" (Mugisha, 2004, p. 140). The United States, then, has little motivation to admit fault and alter aid policies that benefit its economy in a way that would pressure Museveni to end the conflict and establish democratic policies. America will continue giving unstipulated aid to Uganda.

Beyond these economic motivations, the United States has had a vested interest in maintaining Uganda as an ally in the War on Terror against its neighbor and long-time enemy, Sudan. Because the Northern Sudanese government in Khartoum had harbored Osama Bin Laden and other Islamic terrorist suspects, America "categorized Sudan as a 'state sponsor of terror' and applied multilateral sanctions" in 1993, and President Bill Clinton "authorized providing military assistance to Eritrea, Ethiopia, and Uganda in order to contain" the Sudanese threat (Huliaras, 2006, p. 710). After September 11, 2010, the United States' focus on Sudan and its civil war intensified as President George W. Bush fixated on eradicating terrorism. The Islamic government's ties with radical Arab movements in the Middle East further motivated Bush to take a keen interest in the region (Collins, 2007). Yet due to past experiences in Somalia, the American government has since demonstrated a hesitancy to directly intervene in the internal conflicts of African nations or in highly localized conflicts between African states. The United States, then, had to devise a strategy that allowed it to discretely fund the Sudanese People's Liberation Army (SPLA), the rebel group fighting the Northern government. Because its conflict has been closely connected to Sudan’s civil war, America looked to Uganda.

To pursue its geopolitical interests in the region, the United States has relied on Uganda's past relationships with and policy toward Sudan. Uganda has backed SPLA leader, John Garang, for decades and, in response, Khartoum has funded the LRA. Specifically, Uganda has given the SPLA shelter in the North, and the Islamic Sudanese government has provided the LRA with land mines, anti-personal mines, and training facilities (Doom & Vlassenroot, 1999). Funding for the SPLA, however, increased under Museveni's regime, "a fact that coincided with a more active Western interest in fighting what is considered to be the scourge of Islamic fundamentalism” (Onyango, 2004, p. 41). Thus, the United States gives a significant amount of military aid to Museveni, which he will then ship north to the SPLA under the guise of sending vehicles and equipment to fight the LRA (Clark, 1998). The Ugandan conflict has provided a sufficient justification for shipping military assistance to the North. To maintain this relationship, America must also placate Museveni by funding his regime. This "lack of donor political conditionality on Uganda," has largely been "due in part to the fact that donors, particularly the US and Great Britain, [have] relied on President Museveni's leadership in the region for their foreign policy goals" (Hauser, 1999, p. 634). US foreign aid, donated to maintain Uganda's loyalty and support of the SPLA, has ultimately propped up a corrupt government that perpetuates the LRA conflict by forcing marginalized political opposition to resort to violence. This aid has further prolonged the war by undermining the level to which Acholi communities hold Museveni accountable for failing to bring an end to the conflict.

Methods

Because most Northern Ugandans have benefited from foreign aid, I could not simply ask them if that assistance had, in their view, perpetuated the conflict and created an environment conducive to violence. Instead, I examined their perceptions and the views conveyed in Ugandan newspapers of seven factors that have contributed to such a volatile atmosphere and have motivated opposition to respond with violence. These components or indicators include: the extent to which aid has legitimized Museveni’s regime, the existence of a space for political opposition, marginalization based on ethnicity and region, corruption, NGOs and aid agencies, accountability, and the role of the US assistance in Uganda’s political development and its Northern communities.

Participants

A total of eleven individuals, consisting of four residents of Gulu, a town in northern Uganda; four local leaders; two national government leaders; and one United States Agency for International Development (USAID) representative, agreed to participate in the study. Here, a leader can be defined as any individual that holds a prominent and influential position within the community, which includes but is not limited to political, social, religious, and intellectual figures. Only two of these six local and national leaders are women, and two of the four Gulu residents are women. In total, then, four women and seven men participated in the study. With the exception of the USAID representative, all subjects are Ugandan citizens, and all live in the North. The participants' ages ranged from 22 to 57. Their socioeconomic backgrounds also varied, but I interviewed neither impoverished nor extremely wealthy Ugandans. All participants spoke fairly good English, which generally indicates a high level of education relative to the rest of their community.

The focus on Gulu residents and local leaders is appropriate, chiefly because Northern Ugandan communities have previously responded to political exclusion with violence. These leaders presumably speak for and represent their communities, and would, thus, articulate opinions that have circulated among their constituents. Indeed, local perceptions of these seven indicators have and will continue to significantly affect the relationship that exists between foreign aid, the LRA conflict, and Museveni's government. For example, if foreign aid has provided Museveni with the resources to maintain power and the Acholi believe that his government excludes them, then members of these communities may return to the bush to fight. Likewise, if communities persist in holding NGOs and aid agencies accountable for building roads and schools, they will never pressure Museveni to change, and he will continue to pursue undemocratic and corrupt policies. The actors at this most basic level ultimately represent a political force for change, and their perceptions can help explain why so much has remained unchanged in the Acholi sub-regions of Uganda.

I also interviewed government officials working for Museveni and an international aid representative to determine if their opinions regarding the indicators differed from local perceptions. These national-level actors generally develop and implement government policies, while foreign donors devise aid strategies that either condone or support recipient countries' laws. In Uganda, the existence of a "disconnect" between these national-level actors' and local communities' views may have helped prolong the conflict and contributed to an environment conducive to violence. For instance, if the United States prioritizes its strategic interests and condones Museveni's corruption, American donor policy will remain unchanged and continue to feed the violence. If government ministers believe that Museveni has not established a climate not favorable to political opposition, it is unlikely that they would push for free and fair elections. And, if Gulu residents still feel excluded from the political process, they may resort to violence. Thus, to fully understand the complex relationship between foreign aid, Museveni's government, and conflict, I had to examine the dynamics between international, national, and local actors.

Interview Procedures

To collect qualitative data, I read Ugandan newspapers and conducted semi-structured interviews in a location of the subjects' choosing for approximately one hour. The objective of this particular method centers on understanding an individual's opinions and feelings about a specific topic. Because I wanted to study the complex relationship between public opinion, foreign aid, conflict, and politics, I expected that participants' views would be equally complicated and would often need clarification. Thus, I decided to rely on a somewhat flexible data-collecting method. To conduct semi-structured interviews, I prepared a general outline of questions, but I rarely phrased questions the same way for each individual. Nevertheless, all questions measured participants' perceptions of the benefits and drawbacks of foreign aid, the role of the United States in Uganda, the level of corruption in Museveni's government, political marginalization, and accountability. I also frequently stopped to ask follow-up questions, clarify a participant's comment or to fully discuss a topic raised by an individual's answer.

Because I wanted to employ a flexible methodology that still minimized researcher bias, I decided to employ neither structured interviews nor unstructured (focus) interviews. Instead, I wanted to achieve a balance between the two research approaches. Structured interviews and surveys emphasize standardization and consistency as a means to eliminate researcher bias. Such methods ensure that I could attribute the variability in my results to my independent variable rather than to confounding variables. Had I adopted them for this project, their structures would have precluded a subject's stray comment or chance observation and my own ability to discuss and explore such answers further. This method also would have limited the scope in which my participants could have discussed the topic, and it would have prevented me from gaining a complete understanding of the individuals' views on the subject. While I did want the ability to deviate from a pre-determined set of questions, I did not want to conduct a wholly unstructured or focus interview. Researchers generally employ these more "spontaneous" methods to discuss a series of events or experiences rather than a single topic and, so, they do not prepare a set of questions to ask the participant. The interview flows more like a conversation. Yet this method often produces unfocused data and researcher bias. I, however, sought to examine individuals' opinions on the specific but complex topic of foreign aid rather than a participants' narrative, and so I chose not to use such methodologies

I also decided to conduct individual interviews rather than focus groups. I anticipated that private conservations rather than more public discussions would allow participants to discuss somewhat taboo subjects. Many of my target participants are members of either the local government or national government and, thus, some individuals may have found it difficult or awkward to answer questions regarding corruption, free and fair elections, and marginalization. Also, several leaders may have wished to remain anonymous. Sharing their opinions before a focus group would have jeopardized their confidentiality and, probably, for some, their jobs. Moreover, a focus group would have greatly hindered my ability to ask participants to clarify their answers, and explore a single persons' perception of the subject matter.

Findings

Perceptions of Aid and Aid-Related Factors of Conflict in Northern Uganda

Although various scholars have argued that the difficulties US assistance has created will ultimately outweigh the benefits that it has generated, participants generally spoke of the real advantages foreign aid had conferred on their communities. Specifically, when asked if aid had created any problems, all Gulu residents said that the assistance had, instead, brought their communities only benefits. Robert Omony, for instance, emphasized numerous positive effects of aid. He told me that he and his community had "survived the war because of NGOs," because "they provided food and money for peace talks, and [because] they helped a lot with the region's HIV/AIDS problem" (Robert Omony, interview, April 2010). While they did demonstrate a more vigorous inclination to criticize foreign aid, leaders at all levels also acknowledged both its positive effects and the gratitude that their communities had for donors. Samuel Otim (interview, April 2010), a Gulu District Officer, said that "aid has helped alleviate our poverty and [has improved] our education system," because "NGOs have helped build schools and classrooms, provided teacher accommodation, and provided desks and chairs." Both international aid workers and national government officials echoed such sentiments. USAID Deputy Country Representative John Gattorn (interview, 2010) said that the Acholi "feel overwhelmingly grateful and positive" for the aid. Psychologist Abraham Maslow's hierarchy of needs explains the tendency of the participants, specifically community members and leaders, to focus on foreign aid's benefits rather than its shortcomings. In his 1943 paper titled *A Theory of Human Motivation*, Maslow argues that people will try to satisfy basic physiological needs before turning to safety, love and belonging, esteem, and self-actualization needs (Mazlow 2000). To apply Maslow's insights to Uganda, then, people will first focus on obtaining food and water before they secure political freedoms. Such motivations may have prevented Gulu residents from acknowledging aid's negative effects. In the eyes of community members, what does it matter if aid facilitates corruption when they lack access to clean drinking water?

While it was difficult to measure perceptions of the extent to which foreign aid has legitimized Museveni's regime in a region of the country that has never supported his government, recent Ugandan newspapers articles reflect how aid has provided Museveni with the resources to maintain power. For instance, an article that appeared in an April 2010 issue of *The East African*, "U.S. Comes to the Rescue of a Country's Troubled Health Sector," discusses the United States' decision to fund the IntraHealth project, which seeks to provide access to healthcare among the country's rural poor. In total, America gave the Ministry of Health $11 million to help "advance recruitment and retention rates for health staff by setting up better payroll systems and [to] promote a healthy work environment" (Nakkazi, 2010). The United States also recently gave the Gulu district $1.3 million to improve its education system by building 68 teacher's houses, 40 classrooms, and 20 primary schools (Ocowun, 2010). In both instances, aid has enabled Museveni's government to provide services that it should have provided on its own and, thus, this aid has legitimized his regime. Aid donors have "weakened the resolve of African states to act on behalf of their citizens," and development assistance "has had the perverse and unintended political effect of reinforcing despotic rule" (Goldsmith, 2001a, p. 421). As long as America continues to give the economic assistance that Museveni needs to provide basic services, it remains unlikely that the President will change corrupt and undemocratic policies that have motivated political opposition to resort to violence.

The perceptions of Gulu residents and three local leaders reinforced the study's proposed theory that Museveni had marginalized and largely excluded their communities, which represent Museveni's oppositional base, from the political process. When asked if politicians could speak openly and compete in free and fair elections, Evelyn Piranok (interview, 2010), a dressmaker, responded that "politicians can talk but they are not safe," and that "elections are not good, because even if we elect someone, Museveni will steal it," which is "why people are going back to the bush to fight." A community leader, Rosalba Oywa (interview, 2010), echoed these complaints. She said that elections had never been free and fair due to vote buying and other irregularities. She added that "Ugandans live in great fear. They should not be saying anything negative about the government, because they will be wrongly framed if they do" (Rosalba Oywa, interview, 2010). The former Chief Mediator between the Ugandan Government and the LRA, Betty Bigombe (interview, 2010), said that "people have felt marginalized for years," and that "was the reason for the war." Newspaper stories confirm these attitudes about marginalization and the suppression of political opposition. Just recently, the police arrested the leader of the Forum for Democratic Change (FDC) opposition party, Dr. Kizza Besigye. During a presidential campaign rally, Besigye allegedly told his followers to break the thumbs of NRM party members. Such comments, the police have argued, could incite violence and are, thus, illegal (Felix & Bareebe, 2010). In response to his investigation regarding such accusations and other comments, according to another story in *The Monitor*, "Besigye said 'the collapsing NRM regime' will always intimidate and arrest people like him who have devoted their lives to educating Ugandans about the wrongs of the system" (Wandera & Bareebe, 2010). How can communities in the North and other regions of the country feel included in the political system after a history of one-party rule and when many of their leaders have been wrongly arrested?

The findings of scholars and Transparency International are reflected in participants' perceptions of corruption in the Ugandan government. Specifically, community members and their leaders perceived high levels of aid-related corruption within Museveni's government. When asked if the President was pocketing the aid and enriching himself, Evelyn (interview, 2010) responded, "Of course Museveni is benefiting more than the people who are poor because he is a corrupt man." Similarly, Rosabla, a community leader, discussed the extent to which government officials have embezzled funds intended for her community. To these communities, corruption and government policy have become synonymous terms. National government officials also acknowledged the pervasiveness of corruption within their government, and John (interview, 2010), the USAID representative, said that "corruption is basically the system here." Participants may hold these opinions because, after years of promises, Museveni's regime has done little to combat corruption, and the government has yet to prosecute a single top-ranking official (Tangri & Mwenda, 2006). Instead, the Acholi people have seen aid donations increase from $1.9 million in 1986 to $1.7 billion in 2007, but they have enjoyed little improvement in their communities ("UN Data: A World of Information," 2009). They have watched their politicians in Kampala grow wealthier while their incomes have remained stagnant. Such experiences have led members of these communities to believe that Museveni has personally benefited from military assistance and foreign aid. If this is indeed the case, the President would have little motivation to end a conflict that has brought and continues to bring significant donations of aid to Uganda.

Because it was difficult to ask participants if Museveni had intentionally prolonged the conflict as a means to eliminate the North as a viable political threat, the study, instead, explored participants' perceptions of the politics of regionalism as a foundation for the larger argument that Museveni had intentionally perpetuated the conflict. All participants at the local level believed that the President supported other regions of the country, specifically the West, far more than the North. For instance, Charles Okello (interview, 2010) said that "Museveni favors other regions before the North, which is the least favored." Dorothy Akot added that while Museveni does give to the North, he does not give very much. She said that other parts of Uganda had much better jobs, roads, and hospitals (Dorothy Akot, interview, 2010). Local leaders reiterated these sentiments. They said that their communities largely believed that Museveni had neglected the North. Ugandan newspaper articles expanded upon these feelings of exclusion and addressed the broader argument that Museveni deliberately prolonged the conflict as a means to further marginalize his political opposition. A recent news story reported that Uganda People's Congress (UPC) leader, Olara Otunnu (interview, 2010), said that "Museveni used the war to justify why he could not allow Ugandans to have a genuine multiparty democracy or federal system," and that "Museveni would say that could wait because the government was preoccupied with finishing the rebellion." Such opinions stem from the colonial practice of divisionism. The British exacerbated pre-existing regional tensions by favoring the South over the North with regard to economic development and political rights (Doom and Vlassenroot, 1999). This division became ingrained in Uganda's post-colonial political culture and remains a fundamental issue in contemporary Ugandan politics. Specifically, "regionalism and ethnicity continue to be the usual means of determining who gets what in the political and economic regions" (Hauser, 1999, 635).

Hence, the Acholi recognize that they represent Museveni's political opposition, and they may feel that, in so far as Museveni is a member of a tribe that has long opposed the North, he has largely ignored the region's troubles.

Upon examining the extent to which Northern communities hold NGOs and foreign aid agencies accountable for government services, the study found a complex trend. To some degree, participants do hold Museveni accountable for his failure to provide resources and services. When asked who to blame for the under-development in the North, most participants blamed the government. However, if asked who they turn to first if they have a problem, all participants said NGOs and aid agencies. Robert's comment characterized the responses of the majority of his fellow community members. He said, "When people go to the government, it is not very fast and it takes a lot of time, but the NGOs are fast," and, so, he added, "Why waste time going to the government?" (Robert Omony, interview, 2010). Rosalba also noted that NGOs and aid agencies have completely replaced the government in the realm of effective services and resources. The government, she indicated, is no longer responsible to the people (Rosalba Owya, interview, 2010). Thus, a dissonance exists in the participants' opinions: while people blame Museveni and his government for his failures, they fail to hold his government accountable. Instead, they tend to hold NGOs and aid agencies accountable, by first asking these organizations, not their government, to build schools, hospitals, and roads for their communities. Participants' previous experience with these organizations may have caused this pattern of responses. The flow of capital into the North has been "little affected by government efficiency," and so "there is little incentive to improve state capacity" (Brautigam & Knack, 2004, p. 265). Because participants have relied on NGOs and aid agencies for economic support, they will likely pressure these organizations to improve their capacity before they pressure Museveni's government.

Numerous scholars have examined the motivations behind America's generous aid donations, and many have pointed to the United States' economic and geopolitical interests in Uganda. However, such arguments carry little weight on the ground in Gulu. Only two local leaders and the USAID representative addressed America's strategic use of foreign aid. When asked why the United States gave such significant amounts of aid to her country, Rosalba responded, "Because of Uganda's position. It is situated next to Sudan, which the US blacklisted because of its Islamist government," and, as she pointed out, "support to the SPLA from Uganda is actually from the US" (Rosalba Owya, interview, 2010). She added that America is not ignorant of the problems aid has created in Uganda, but that the United States turns a blind eye because of its own interests. John (interview, 2010) stated that, "As much as [USAID workers] want to stay out of politics, the truth is that we are at the center of it." The remaining participants all gave various explanations that touched on Ugandans' cooperation, Americans' humanitarian nature, the conflict, and Museveni's policies. Evelyn (interview, 2010), for instance, said that Americans gave generous aid donations to Uganda, "because they are good, and they think of us as their people too. They care about us." Maslow's theory of human motivation may again explain why Ugandans may not recognize this strategic function of assistance. Only when their most immediate needs are satisfied can these communities really explore the larger, more abstract issues tied to aid. Until then, they may only understand aid's benefits rather than its larger, geopolitical and economic nature. Such motivations remain largely irrelevant to the majority of these participants.

Disconnects Between Local, National, and International Perceptions

Because "disconnects" in perceptions may heighten the Acholis' feelings of marginalization and exclusion, the study examined the extent to which local, national, and international actors' views differed. The study found that, despite expectations of identifying disparities between the goals of USAID endeavors and local perceptions of these efforts, these two participant groups' held similar views. This lack of discrepancy may be attributed to the USAID representative's distance from official policy and policy makers in Washington, D.C. The data, however, did indicate significant differences between national government officials' perceptions and local communities' opinions regarding political exclusionary practices and corruption. Discrepancies of opinions in these subjects, combined with the already existing problems that aid has created, have arguably exacerbated the situation in the North. If national leaders fail to listen to local communities, these communities may feel that violence is the only means to having their "voice" heard in Kampala.

The majority of community members and leaders expressed frustration with the government's policies of marginalization and conditions for political opposition, but national-level officials stated nearly the opposite. All Gulu residents emphasized both that elections were not free and fair and that political opponents cannot speak openly. Robert (interview, 2010), specifically said that "a leader has never been thrown out of power by a vote." Local leaders' statements largely reflect these views. Samuel, the Gulu District official, said that a true democracy does not exist in Uganda. Instead, he argued that people have feared and will continue to fear the government. Only David Labeja (interview, 2010), a news editor for a government-funded radio station, believed that members of the political opposition could speak their mind as long as they did so within the boundaries of the law. The Regional District Commissioner, Walter Ochora, disagreed with the majority of these local sentiments. He argued that Museveni did allow the political opposition to express their views. However, he said that "the opposition takes advantage of these freedoms," and that "they abuse the freedom of speech" (Walter Ochora, interview, 2010). By altogether denying practices of political exclusion, this government official's statement only exemplifies Museveni's policies of marginalization.

While national-level government officials did acknowledge corruption, they all denied that Museveni was corrupt. Betty, for instance, stated that corruption is deeply ingrained within Uganda's political system. But when asked if Museveni was personally embezzling a portion of the aid donations, she responded, "Museveni is not benefiting. I have met him many times, and he is discouraged with the situation" (Betty Bigombe, interview, 2010). Walter held a similar opinion. He said that corruption was pervasive, but that it was limited to the accounting officers and did not extend to Museveni (Walter Ochora, interview, 2010). Because Museveni appointed these participants, they may benefit from corruption and, thus, may have been unwilling to accuse the President. Local leaders, however, perceived corruption to be rampant. Martin Mapenduzi (interview, 2010), Gulu's District Council Speaker, said that it is not just Museveni's government that is corrupt—the President, himself, he asserted, is corrupt. When I asked a community member, Charles (interview, 2010), if he thought that Museveni was corrupt, he replied, "I do not just think it. It is true." These communities may become increasingly frustrated with their national government officials' refusal to acknowledge corruption within high-ranking politicians, and such high levels of aggravation produce an environment that is conducive to violence.

Conclusion

After two decades of devastating violence and billions of dollars in foreign assistance, much in Northern Uganda has remained largely unchanged. The region continues to face many significant challenges including poverty, corruption, patronage politics, a lost generation of youth, an absence of basic infrastructure, and an under-developed education system.

Why, then, have these generous donations failed to improve the standards of living in Acholi communities when similar amounts of assistance have achieved successful results in other East African nations? In Uganda, academic literature suggests that America's strategic use of foreign aid implementation policies has ultimately subverted aid's capacity to benefit the country's northern regions. US assistance has prolonged the conflict and fostered an environment conducive to violence by legitimizing Museveni's government. His regime has established policies of corruption and marginalization that have left political opposition with few alternatives to violence. Moreover, by undermining government accountability, NGOs and aid agencies have restructured the relationship between the state, civil society and donors. Rather than push the state for change, Acholi community members first approach NGOs with their needs. Thus, these communities have directed their efforts towards the wrong actor, and they have yet to pressure Museveni to fully address the conflict and its effects. Interviews with Gulu district members and leaders give some support this theoretical claim. Their statements illustrate perceptions of the prevalence of Museveni's corrupt policies of exclusion and of a lack of accountability. To fully address this situation, change must occur from both the bottom and top. Community members must begin to hold Museveni accountable for his failures. Yet for this mobilization to occur, the United States must reconstruct its foreign aid strategies to include stricter political conditions. Despite this recent bill, the Lord's Resistance Army Disarmament and Northern Uganda Recovery Act 2010, and Hillary Clinton's promise to oversee the upcoming elections, it remains unlikely that America will change its aid policies and risk losing a regional ally, especially with the current situation in Somalia.

Recommendations

In response to the conflict in Northern Uganda, the United States has given both military assistance and generous aid donations, but this aid has, in theory, only prolonged the violence. Local perceptions of regionalism, corruption, government accountability, and US aid suggest that a change in aid implementation strategies must occur. To realize the full potential of aid, the American government must first listen to what these communities have to say—what they need, what needs to be fixed, and who should get the aid. As Americans, we have the tendency to believe that we have all of the answers to the problems of the developing world, but we have yet to fully capitalize on the experience and local knowledge of northern Ugandans, themselves. The United States must also alter its foreign policy from one that responds to conflict and underdevelopment to one that prevents such problems from arising. Americans must realize that while such strategies may require significant start-up costs, they will be more cost-efficient in the long-term. For instance, if America focused on establishing real democracy in Sudan rather than its own interests, the United States may not have had to give such large amounts of military assistance to Uganda and the SPLA to fight the government in Khartoum. Hence, had the United States tied aid directly to promoting stability and democracy in Uganda and Sudan, the US would not now, amidst its "War on Terror," be in a position of appeasing Museveni. The development of such a free and open political system, then, may have prevented the LRA from organizing recruits by appealing to their sense of exclusion. Moreover, donors should attach conditions to foreign aid that both address the recipient country's needs while calling for the government to implement more democratic traditions. America, then, should not simply give millions of dollars free of restrictions to Museveni. Instead, USAID and other US aid agencies should develop implementation strategies that require Museveni to adopt anti-corruption laws, make a space for political opposition, establish a tradition of peaceful political turnover, create a merit-based rather than patronage-based recruitment system, and promote free and fair elections. Such measures would successfully address and combat feelings of political exclusion that ultimately motivate communities to respond with violence.

Because NGOs and aid agencies have undermined the extent to which communities hold the government accountable, donor aid policies must also restructure the relationship between donors, the state, and civil society. In a functioning democracy, the government answers to its citizens but, in Uganda, the state answers to donors rather than to its civil society. These communities, in turn, largely look to NGOs and aid agencies to provide services. Thus, the Acholi have long held the wrong actor accountable—donors. As a result, they have done little to pressure the government to end the conflict and its practices of marginalization. To establish a healthy civil society and end this cycle—a key component to democracy—America must create smarter aid policies. The USAID Deputy Country Representative in Gulu suggested that his institution and other donor organizations should work with the Ugandan government to establish a more transparent system. In place, but ignored, he argued, is a potentially functional approach: villages and parishes create development strategies that they submit to higher levels of government until the plans reach the national level (John Gattorn, interview, 2010). Rather than subvert this strategy and undermine government capacity, NGOs and aid agencies should adhere to this policy. Local communities, then, would have a forum in which to express their concerns and contribute to the national plan. When problems arise, these citizens can then blame the government rather than aid agencies and NGOs.

References

Brautigam, D. A. & Knack, S. (2004). Foreign Aid, Institutions and Governance in Sub-Saharan Africa. *Economic Development and Cultural Change, 52, 255-285.*

Clark, J. F. (1998). The Clinton Administration and Africa: White House Involvement and Foreign Affairs Bureaucracies. *Issue: A Journal of Opinion, 26, 8-13.*

Collins, G. (2007). Incorporating Africa's Conflicts into the War on Terror. *A Journal of Social Justice, 19, 397-406.*

Doom, R. & Vlassenroot, K. (1999).Kony's Message: A New Koine? The Lord's Resistance Army in Northern Uganda. *African Affairs, 98, 5-36.*

Freedom House. (2002) *Freedom in the World: Uganda.*
http://www.freedomhouse.org

Freedom House. (2009) *Freedom in the World: Uganda.*
http://www.freedomhouse.org

Goldsmith, A. A. (2001a). Donors, Dictators, and Democrats in Africa. *The Journal of Modern African Studies, 39, 411-436.*

Goldsmith, A. A. (2001b). Foreign Aid and Statehood in Africa. *International Organization, 55,123-148.*

Green, M. (2009). *The Wizard of the Nile: The Hunt for Africa's Most Wanted.* Northampton: Olive Branch Press.

Haberson, J. and Rothchild, D. (Eds.) (2009). *Africa in World Politics: Reforming Political Order.* Boulder: West View Press.

Huliaras, A. (2006). Evangelist, Oil Companies, and Terrorists: The Bush Administration's Policy towards Sudan. *Orbis, 50, 709-724.*

Hauser, E. (1999). Ugandan Relations with Western Donors in the 1990s: What Impact on Democratization? *The Journal of Modern African Studies, 37, 621-641.*

Maslow, A. (2000). *Classics in the History of Psychology.* C. D. Green, (Ed.). Toronto: York University.

Moyo, D (2009). *Dead Aid: Why Aid Is Not Working And How There Is A Better Way For Africa*. New York: Farrar, Straus and Giroux.

Mugisha, A. (2004). Change in Uganda: Museveni's Machinations. *Journal of Democracy, 15,140-144.*

Nakkazi, E. (2010, April 26). U.S. Comes to the Rescue of Country's Troubled Health Sector. *The East African.* Retrieved From http://allafrica.com/stories/2010042607

Ocowun, C. (2010, February 25). U.S. Aid Gives Gulu Sh2.8 Billion for Schools. *The New Vision.* Retrieved from http://allafrica.com/stories/201002260143.html.

Ofcansky, T. P. (1996). *Uganda: Tarnished Pearl of Africa*.
Boulder: Westview Press.

Oloka Onyango, J. (2004).“New Breed” Leadership, Conflict, and Reconstruction in the Great Lakes Region of Africa: A Sociopolitical Biography of Uganda's Yoweri Kaguta Museveni. *Africa Today, 50, 3-28.*

Sachs, J. D. (2005). *The End of Poverty: Economic Possibilities for Our Time*. New York: Penguin Books.

Tangri, R. & Mwenda, A.M. (2005). Patronage Politics, Donor Reform, and Regime Consolidation in Uganda. *African Affairs, 104, 449-467.*

Tangri R. & Mwenda, A.M. (2006). Politics, Donors, and the Ineffectiveness of Anti-Corruption Institutions in Uganda. *Journal of Modern Africa Studies, 44, 101-124.*

Transparency International. *Corruption Perceptions Index.*
2000. <http://www.transparency.org>

Tripp, A. M. (2004). The Changing Face of Authoritarianism in Africa: The Case of Uganda. *Africa Today, 50, 3-26.*

USAID. *This is USAID.* 2009. Retrieved from
http://www.usaid.gov/about_usaid/

UN Data: A World of Information. (2009) *Official Development Assistance and Official Aid (Uganda).*http://data.un.org/Data.aspx?q=+aid+uganda

&d=WDI&f=Indicator_Code%3aDT.ODA.ALLD.CD %3bCountry_Code%3aUGA

Wandera, D. & Bareebe, G. (2010, April 9). Besigye Stands By Lake Lease Remarks. *The Monitor.* Retrieved from http://allafrica.com/stories/201004121118.html

Warom, Felix & Bareebe, G. (2010, April 7). Besigye Faces Fresh Police Investigation." *The Monitor*. Retrieved from http://allafrica.com/stories/201004070020.html

Interviews

Gulu Residents:

1. Dorothy Akot
   Occupation: Student
   Gender: Female
   Age: 24
   Consent Given: April 20, 2010
2. Charles Okello
   Occupation: Senior Driver
   Gender: Male
   Age: 45
   Consent Given: April 19, 2010
3. Evelyn Piranok
   Occupation: Dressmaker
   Gender: Female
   Age: 22
   Consent Given: April 20, 2010
4. Robert Omony
   Occupation: Student
   Gender: Male
   Age: 23
   Consent Given: April 19, 2010

Local Leaders:

1. Name: Rosalba Oywa
   Occupation: Retired Teacher and People's Voice for Peace Administrative Staff
   Gender: Female
   Age: 57
   Consent Given: April 21, 2010
2. Name: David Labeja
   Occupation: Newspaper Editor for Radio Rupiny
   Gender: Male
   Age: 31
   Consent Given: April 19, 2010
3. Martin Mapenduzi
   Occupation: District Council Speaker
   Gender: Male
   Age: 31
   Consent Given: April 19, 2010
4. Samuel Otim

Occupation: District Officer
Gender: Male
Age: 42
Consent Given: April 21, 2010

National Leaders:

1. Name: Walter Ochora
   Occupation: Resident District Commissioner
   Gender: Male
   Age: 50
   Consent Given: April 26, 2010
2. Betty Bigombe:
   Occupation: Consultant to the World Bank and Former Chief Mediator between the Ugandan Government and LRA
   Gender: Female
   Age: 56
   Oral Consent Given: April 28, 2010

USAID Representative:

1. Name: John Gattorn
   Occupation: USAID Deputy Country Representative
   Gender: Male
   Age: 40
   Consent Given: April 26, 2010

The Science behind "Organic": Conflicts among Government Standards, Public Perceptions, and Scientific Findings

Catherine Ferrara

Introduction

Organic food certification and labeling became a U.S. policy in 2002, following more than a decade of debate about what practices and materials to allow in organic production. The final ruling included a list of synthetic and natural substances allowed and not allowed in processes labeled as organic, a hierarchy of three labels for products with varying amounts of organic ingredients, and procedural and administrative instructions on obtaining certification. Essentially, a food product can be labeled and marketed as "organic" if at least 95% of its ingredients are produced without genetic modification, irradiation, biosolid fertilizer, or antibiotics. Although the USDA "makes no claims that organically produced food is safer or more nutritious than conventionally produced food," public perceptions of products with the organic label are generally that they are less harmful to human health and the environment than their unlabeled conventional counterparts. Scientific research performed on the safety, nutrition, and environmental impact of organic foods and practices have provided results that generally reflect these perceptions but also highlight conflicting and incomplete knowledge of the subject. In light of these findings, organic regulators might consider policies to promote consumers' access to current scientific information as well as more a more informative labeling scheme. The present organic labeling standards, having been developed from industry standards rather than science and public interests, fail to fairly inform consumers as to how their food options reflect their concerns and values.

History of the Term "Organic"

Although agricultural practices have sustained human life for millennia, we have only recently developed a significant concern with the definitions of and differentiations between various agricultural methods. In the United States, the term "organic" has borne the brunt of these concerns, having been adopted, defined, and redefined by small groups of farmers as well as states and the federal government. This process has been affected by the economic interests of the organic industry and the health and environmental interests of consumers, and the current national standard definition of "organic" has not quelled discussions of its changing identity.

Bioethicists Peter Singer and Jim Mason highlight the recency of our interest in the particular term "organic," stating that "until the middle of the twentieth century, ['organic'] simply meant something living or derived from living matter" (2006, p. 198). Indeed, it was not until the 1942 publication of J.I. Rodale's *Organic Gardening* magazine that the term took on a specific definition relating to farming methods (particularly soil health in light of the post-war fertilizer boom) and eventually the foods they produced. Over the coming decades, the popularization of the term and the organic movement led to associations of farmers adopting "organic" in a broad sense (Singer & Mason, 2006, p. 198). For example, the International Federation of Organic Agriculture Movements (IFOAM), a large-scale umbrella organization for promoters of the movement, defined "organic agriculture" as:

> "an agricultural system that promotes environmentally, socially, and economically sound production of food, fiber, timber, etc. In this system, soil fertility is seen as the key to

> successful production. Working with the natural properties of plants, animals, and the landscape, organic farmers aim to optimize quality in all aspects of agriculture and the environment" (quoted. in Singer & Mason, 2006, p. 199).

However, such a general definition relying on subjective phrases like "sound production," "natural properties," and "optimize quality" still left the question of processes' and products' "organic" status largely up to a debatable values system.

By the 1970s and -80s, when consumers were beginning to find organic food among their produce options, the inconsistencies between promoters' definitions of "organic" started to become a concern. With over forty private and state-level certification systems in the United States, including the well-known Demeter Association and California Certified Organic Growers, there were variations in certification standards and labels. Without federal regulation, producers could even label their foods as organic without receiving certification (USDA Foreign Agricultural Service, 2001). As this system grew, it created confusion for consumers and resulted in lawsuits (Fedoroff, 2004, p. 248), which prompted interest in a centralized and enforced set of organic standards among consumers, producers, and the federal government.

The first party to take action was a body of representatives of the organic industry – the Organic Food Production Association of North America (OFPANA), which was established by IFOAM and would eventually become the Organic Trade Association. In 1988, OFPANA produced a set of guidelines on the ideals of organic farming, which were meant to direct but not define regional organic certification standards (DiMatteo & Gershuny, 2007, p. 255). OFPANA members created these guidelines based on an examination of "certification standards and programme information from every known certifier in the USA and Canada" (DiMatteo & Gershuny, 2007, p. 256). Although this nonprofit group's methodology was thorough, it was not science-based or specific enough in its recommendations to serve as a set of national standards.

Federal Response to Calls for Labeling

The federal government began its venture into organic industry standards when Congress passed the Organic Food Production Act (OFPA) as part of the 1990 Farm Bill. OFPA's official purposes were to:

> "(1) establish national standards governing the marketing of certain agricultural products as organically produced products; (2) assure consumers that organically produced products meet a consistent standard; and (3) facilitate commerce in fresh and processed food that is organically produced" ("National Organic Program; Proposed Rule," 1997, p. 65850).

To accomplish these goals, OFPA created the National Organic Program (NOP) as a part of the United States Department of Agriculture's Agricultural Marketing Service. The NOP was to be comprised of the Secretary of Agriculture and a National Organic Standards Board (NOSB) of advisors.

The NOSB's membership reflected an array of parties interested in the organic industry, but did not give much of a voice to the science community. Of the fourteen members the Secretary of Agriculture would first appoint in 1992, there would be four organic farmers, two organic processors, one organic retailer, three environmental and resource conservation experts, and three public and consumer representatives; but only one would be an "expert in the field of either toxicology, ecology, or biochemistry" ("National Organic Program; Proposed Rule," 1997, p. 65851). The composition of this policy advisory group reflects the pre-standards view of the organic labeling issue as primarily a concern of traditional agricultural ideals and their relationship to mass marketing. Prioritization had clearly been given to the protection of food producers from competitors wanting to use low-standard organic labels, and to the protection of consumers from this potential fraud. The NOP did not consider the relevant science of "organics" – products' health and environmental effects – as the basis for consumers' concerns.

By 1994, the NOSB developed draft recommendations on the actions and allowances that constitute "organic" processes. The Board's original methodology was similar to that of OFPANA – reviewing "standards previously established by other organic organizations to determine for which subject areas position papers would be developed" ("National Organic Program; Proposed Rule," 1997, p. 65851). In their establishment of a National List of synthetic substances approved and not approved for use in organic-labeled products, the NOSB saw the value of a more scientific viewpoints and commissioned technical advisory panels to assess the risks of the 170 substances under consideration ("National Organic Program; Proposed Rule," 1997, p. 65851). The compilation of the NOSB's recommendations on labeling, accreditation of certifiers, organic production processes, insect and plant disease treatments, livestock health, synthetics substances, and other relevant issues were then reviewed by the USDA's Agricultural Marketing Service and Secretary of Agriculture before their publication in 1997.

Public Reactions

During the 1990s, public interest in the labeling of organic products had grown, and when these recommendations, known as the first Organic Rule, were published in the *Federal Register*, they elicited "an unprecedented volume [hundreds of thousands] of comments… most of them critical" (Fedoroff, 2004, p. 248). Some of the most controversial allowances included organic labels for genetically-modified organisms

(GMOs), as well as foods that included certain synthetic compounds. People expressed aversion to the ideas of using biosolids (treated sewage sludge) to fertilize and irradiation to kill insects on organic produce. Additionally, people were concerned by the idea that livestock that had been given antibiotics could still be "organic" (USDA Foreign Agricultural Service, 2001). The USDA responded to this public demand for precaution by revoking its allowance of many of the above risks (Kirschenmann, 1998). The final Organic Rule, published in 2000, prevents GMOs, biosolid fertilizers, irradiation, and antibiotics for livestock in any product receiving an organic label (Fedoroff, 2004, p. 250).

One publically-opposed proposal – the allowance of certain synthetic compounds – was maintained in the final Organic Rule as well as the resulting National Organic Program (NOP). Established in 2002, the USDA's NOP includes the nationwide standards for the definition of organic products found in the final Organic Rule as well as the criteria for the three levels of organic labeling. Products labeled "100% Organic" promise to be made fully from ingredients that meet those established standards, while products labeled simply "Organic" can only claim to be made from ninety-five percent organic ingredients. The other five percent, however, must allowed by the USDA's National List of Allowable and Prohibited Materials, as originally proposed by the NOSB and approved of by the NOSB's science advisors. The final label, "Made with Organic Ingredients," requires that seventy percent of the products ingredients meet organic standards (USDA Agricultural Marketing Service, 2008). This hierarchy, descriptions of which provide no scientific evidence for the 70-, 95-, and 100-percent threshold decisions, has allowed the national labeling program to include somewhat of a spectrum of approval within a specific set of standards.

Perceptions of Labels' Implications

Twelve years of debates at the federal level following decades of discussions among farmers resulted in a seemingly simple labeling scheme representing hundreds of pages of rules. For consumers, according to the president of organic producer Stonyfield, "the word 'organic' is now more credible than ever" (Hirshberg, 2009, p. 56). Conceptions of that credibility, however, may be misplaced. Despite common perceptions that organic products are safer and healthier than their conventional counterparts for humans and the environment, the USDA "'makes no claims that organically produced food is safer or more nutritious than conventionally produced food. Organic food differs from conventionally grown food in the way it is grown, handled and processed'" (quoted. in Nestle, 2009, p. 213). The Organic Rules were not based primarily on scientific research, but rather on debates over traditional definitions. More recent and applied research provides some insight into the environmental and health effects of organic-labeled products.

Research surveys frequently show that people perceive organic products to be healthier and less environmentally-damaging than items produced through conventional means. A 2002 literature review conducted by the Department of Food Science at the University of Otago in New Zealand notes that,

> "in the USA, consumers who considered organic foods to be better than conventional foods believed that the following characteristics… were important when they purchased organic foods: safety, freshness, general health benefits, nutritional value, effect on environment, flavor, and general product" (Bourn & Prescott, 2002, p. 2).

Further studies have concluded that consumers generally prioritize health concerns, such as pesticide residues, over environmental concerns, such as carbon intensity or pollution, in their comparative judgment of organic and conventional foods (Bourn & Prescott, 2002, p. 2). These feelings are likely the results of media coverage of "food scares"; mad cow disease, *E. coli* outbreaks, and one particular 1989 media frenzy over Alar – a carcinogenic chemical used on conventional apple orchards – all inspired bouts of food awareness among Americans (Pollan, 2006, p. 152-153).

Although many food scares have resulted in rules to increase safety – the FDA banned the feeding of slaughter remnants to cows and the EPA banned the use of Alar (Pollan, 2006, p. 75, 153) – the original intent of the Organic Rule was to define the terms of "organic" rather than to provide organic products as safer options. In 2000, Secretary of Agriculture Dan Glickman stated, "The organic label is a marketing tool. It is not a statement about food safety. Nor is 'organic' a value judgment about nutrition or quality" (quoted. in Pollan, 2006, p. 179). Indeed, the Final Organic Rule cites not increases in health or safety but reductions in labeling fraud, administrative costs, and barriers to organic markets as its primary "benefit," and explains that food safety is out of its scope because foods qualified to be labeled "organic" may not necessarily modify their labels to include words like "healthy" or "pure," which are regulated separately ("National Organic Program; Final Rule," 2000, p. 80668, 80580). The document heavily references economic and legal research as opposed to scientific findings on safety issues of popular public concern. Nevertheless, consumers make these value judgments when they choose to pay for organic-labeled foods, believing they will be healthier or less environmentally-damaging than their conventional, lower-priced counterparts. The science explaining these value judgments, though somewhat new and unclear, could help consumers better understand what their "organic" purchases mean for their safety, nutritional, and environmental concerns.

Scientific Debates

Because the Organic Rule does not allow for the use of synthetic herbicides and most insecticides in organic-labeled ingredients, people tend to assume it is chemical-free and safe (Singer & Mason, 2006, p. 200). Most scientific research suggests this perception to be slightly optimistic, but not off-base. Often cited is a 2002 Consumers Union study of 90,000 samples of twenty fruits and vegetables, which found that 73% of conventionally-grown foods and 23% of organic foods contained pesticide residues (and the latter dropped to 13% - and the former dropped insignificantly – when long-lived banned chemicals like DDT, Dieldrin, and chlordane were excluded) (Baker et al., 2002). Differences in people's diets have been shown to produce measurable differences in these chemicals in their bodies. A 2002 University of Washington study of thirty-nine preschool-aged children divided among conventional and organic diets showed an average of six times the concentration of organophosphate pesticides in the urine of the conventionally-fed children (Curl et al., 2003). These results show that the official organic practice of agriculture without synthetic pesticides or herbicides do affect products and their consumers.

Some researchers, however, have called into question the assumption that these effects are beneficial or necessary to human health. According to geneticist Nina Fedoroff, Ph.D., "the question is whether the pesticide residues actually present on [conventional] foods in the supermarket are high enough to cause harm" (2004, p. 252). In a 1999 random sampling of 9,438 food products on the market, only 1.2% of fruits and vegetables were found to contain any chemicals at levels higher than their EPA tolerance levels as established by risk assessments (FDA, 1999). Perhaps the effects of reducing crops' chemical exposures to "organic" levels is insignificant to human health; little research has been done to determine the health effects of pesticide and herbicide exposure at levels below those of observed adverse effects, and some chemicals involved in conventional processes do not yet have risk assessment-based thresholds (Singer & Mason, 2006, p. 204).

Furthermore, there is some scientific evidence that processes that are not allowed for organic products may increase the safety of conventionally-produced foods. For example, Dr. Fedoroff notes that in the case of microbes like *Salmonella* and *E. coli*, which cause food poisoning and thousands of U.S. deaths per year, irradiation could significantly reduce risk (2004, p. 255). These microbes can come in contact with the food through manure, which many organic producers use as fertilizer. Although irradiation was originally allowed in the first draft of the Organic Rule, it was revoked following negative public comments with concerns about radioactivity. Dr. Fedoroff insists that this fear is unfounded at the levels of irradiation necessary for food, and that there are levels of irradiation "that [kill] harmful bacteria but [don't] heat the food enough to change its nutrition or taste" (2004, p. 256). The range of safety concerns in food production and consumption and the limited scientific data available make it difficult to justify organic or conventional foods as the "safer" choice.

The evidence that organic-labeled foods have higher nutritional quality than conventionally-grown foods is similarly unclear. One of the main challenges in studying this field is isolating the variables related to organic practices; genetics and environmental factors can significantly influence nutritional measurements like vitamin and mineral contents (Bourn & Prescott, 2002, p. 7). The University of Otago literature review cites studies that have "found no significant difference in the nutritional value [vitamins A, B_1, and C] of crops fertilized with manure-based composts compared with those treated with inorganic fertilizers" as well as ones that have found higher vitamin A and B levels in crops grown in manure than in chemically fertilized soil (Bourn & Prescott, 2002, p. 7).

Despite these overall conflicting findings, advocates of the nutritional benefits of organic foods have found increasing scientific support in research performed over the last decade. A 2003 study by University of California-Davis researchers found that fruits and vegetables grown by organic or sustainable (as distinct from Organic Rule-compliant) methods contained significantly higher amounts of vitamin C and polyphenols, the latter of which include antioxidants that combat cancer and microbial illness, than did those grown by conventional methods (Asami et al., 2003). Further studies have shown that these beneficial compounds are present in significantly higher concentrations in the bodies of people with organic diets than of those with conventional diets (Grinder-Pederson et al., 2003). Findings like these, however, have not been consistent enough to confirm an overall organic food nutritional benefit.

In addition to health and nutritional concerns, an increase in scientific and media attention to climate change has recently added sustainability and the environmentally-friendly agricultural practices to the public perceptions of the organic label. There is some evidence that organic farming is, in general, a less carbon intensive process than conventional farming due to its energy efficiency. The nonuse of synthetic fertilizers, which require significant amounts of energy to produce (Singer & Mason, 2006, p. 204), is one of the main reasons University of Essex researchers found that U.S. organic wheat production uses 68% of the amount of energy required for conventional U.S. wheat production (Pretty & Ball, 2001). Beyond efficiency, there has been research into the potential for organic farms to act as carbon sinks. The Rodale Institute, an organic farming education organization, completed a twenty-two-year field trial with which it concluded that "soil under organic agriculture management can accumulate about 1,000 pounds of carbon (3,500 pounds of carbon dioxide) per acre-foot of soil each year," and if all 160 million acres of corn and soybeans grown in the U.S. converted to these methods, "a potential for 580 billion pounds of excess carbon dioxide per year can be sequestered" (Hepperley, 2004).

Organic methods have also been shown to contribute significantly to climate change due to some inefficiencies. An organic label does not guarantee a local producer, and transportation of organic items results in carbon output worldwide (Pollan, 2006, p. 183). Additionally, it is not just carbon, but also methane, that contributes to the greenhouse effect. A study funded by the British Department for Environment, Food and Rural Affairs noted that organic cows' high fiber diet of grass and hay increases their methane release compared to that of non-organic cows, whose feed usually contains more starch. Furthermore, because the rules for organic cow products forbid the use of bovine growth hormone, more organic cows are needed to produce the same amount of milk as non-organic cows, and thus more methane is produced (Shepherd et al., 2003). Studies have yet to show organic farming methods' net influence on climate change.

Perceptions of "organic" as environmentally beneficial extend to more traditional concerns of water quality, soil quality, and biodiversity. Most studies confirm perceived benefits in these areas due to organic methods' low use of chemicals. For example, synthetic fertilizers contribute significantly to nitrogen runoff into water systems, but organic methods must avoid such fertilizers (Singer & Mason, 2006, p. 203). In a thirty-seven year comparison of two adjacent wheat fields in Washington, one under organic management and the other conventional, the organic field maintained more nutrients and lost 75% less topsoil due to its higher content of organic matter as opposed to synthetic fertilizer (Reganold et al., 1987). Finally, organic practices have been found to promote biodiversity; a five-year British study of 180 farms found significantly more plant, spider, and bird species among the organic sites and noted that "the exclusion of synthetic pesticides and fertilisers from organic is a fundamental difference between systems" (quoted. in "Organic farms 'best for wildlife'," 2005). Although the USDA terms of the organic label provide "no guarantee that a product comes from a farm in harmony with its environment" due to transportation needs and allowances for large-scale operations (Singer & Mason, 2006, p. 201), there seems to be general scientific agreement that most of the practices that qualify as "organic" result in environmental benefits.

The above scientific findings, which relate to public concerns about health and the environment, have little bearing on policy positions of the current industry-based organic labeling standards. The USDA maintains its "no claims" position that foods labeled as organic should not be thought to be any safer or more nutritious than those grown by conventional methods. The U.S. government has also not advocated for organic farming as an environmentally-beneficial (or detrimental) practice. As of 2003, the governments of the United Kingdom, France, and Sweden have taken similar neutral stances (UK Food Standards Agency 2003), showing that the public interest in the inconclusive scientific evidence on the implications of organic practices is being recognized internationally.

Scientific Limitations

Attempts to synthesize research on organic products' health and environmental impact have been limited by the variations in designs of these studies. The University of Otago meta-analysis on nutritional value notes that most previous studies had taken one of four approaches: chemical analyses, fertilizer effect studies, farm-based comparisons, and animal/human health effects studies. The authors found it impossible to compare findings across approaches, and challenging even to draw conclusions among studies within approaches due to variations in focus, technique, and results (Bourn & Prescott, 2002, p. 5-6). Presently, high costs and difficulties of conducting studies in this field likely contribute to these inconsistencies (Nestle, 2009, p. 213). Because this research has only relatively recently been attempted for national- and global-scale questions of health and environmental impacts, scientists' techniques have not yet reached the strength necessary to interpret or overcome the conflicting findings that have led to unclear answers about the effects of organic foods.

Although scientific investigation of organic food quality is a relatively new field, the research has come from a variety of sources. Academics, advocacy groups, and organic retailers have published small- and mid-scale studies. Notably, the U.S. government has not conducted any large-scale comparison study of organic and conventional practices, although the British government has funded and run long-term studies. Much of the recent research on the qualities and effects of organic foods has been undertaken by non-U.S. entities, particularly the British government and universities worldwide. Questions about organic foods and practices are becoming international concerns and scientific endeavors because of their potential for health benefits and agricultural sustainability.

Advocacy and Politicization of Science

Following a half-century of philosophy-based debates about the holistic benefits of organic farming methods, the past decade has seen an upwelling of scientific research on the subject around the world. While many results of this research support the notion that organic products are good for human health and the environment, the findings are not unanimous and are difficult to compare. Moreover, the intent of such studies often conflicts with the U.S. policy on the "organic" definition and label, which does not purport to imply such benefits. Some parties have politicized the findings to advocate their philosophic stances on organic practices by taking advantage of the science's early state and unclear relationship with public policy. Debates continue about how the science and policy should account for the holistic intentions of the original organic movement.

The incompleteness of the science addressing the health and environmental impacts of organic-labeled foods has allowed parties to stealthily advocate for their predetermined positions. Conflicting and unclear study results have provided evidence for and against the ideals of organic farming methods, sometimes even within the same studies. For example, the aforementioned Consumers Union finding that 23% of organic food samples contained traces of pesticides appeared in Peter Singer and Jim Mason's promotion of organic foods as well as Nina Fedoroff's criticism of the system. While Singer and Mason were able to say "only 23 percent of organically grown samples" contained residues (2006, p. 200), Fedoroff told readers that "23 percent of organic fruits and vegetables did contain traces of pesticides, including long-banned chemicals like DDT" (2004, p. 251). In using the available data to garner public support, advocates like Singer and Mason and Fedoroff have engaged in Roger Pielke's "politicization of science" by "looking to scientists to provide information that will help them to overcome or avoid politics" (Pielke, 2007, p. 35). Interest groups participating in the research, such as the Rodale Institute's study of an organic farm's carbon sequestration potential, also risk accusations of issue advocacy, because their published results consistently reflect their groups' missions despite conflicting findings in the field as a whole. In the absence of policy options currently relying on this research, these advocates' success can only be judged in their influence on public opinion. With the demand for certified products growing at an estimated ten percent annually (Millstone & Lang, 2003), advocates of the positive health and nutritional benefits of organic foods appear to be projecting a notion of scientific support onto consumers. In a field so historically rooted in philosophical positions and traditional practices, advocacy is to be expected, especially at this inconclusive stage in the science.

Also at work on organic product science are the academic and government-funded researchers who have primarily filled the role of science arbiters. In addressing topics like the presence of pesticides and nutrients in foods, these researchers have taken on questions of public concern. As Pielke contends, many of their conclusions attempt "to remain above the political fray" by presenting conflicting findings and avoiding specific policy recommendations (2007, p. 16). For example, the Washington study on soil erosion concluded simply that "in the long term, the organic farming system was more effective than the conventional farming system in reducing soil erosion, and, therefore, in maintaining soil productivity" as opposed to implying a net benefit to U.S. agriculture if policies increased organic practices (Reganold et al., 1987, p. 370). The lack of policy-based science in this field may be a result of the public's general acceptance of the organic labeling rules due to the historical and current advocacy for organic practices.

Complicating the debate over the organic label are notions of social welfare in the organic ideal. In the original IFOAM definition of "organic agriculture," "socially and economically sound production" was noted as a priority alongside environmental concerns (quoted. in Singer & Mason, 2006, p. 199). The organic industry deemphasized its social goals beginning in 1988, when OFPANA decided to remove labor standards from its organic label guidelines because "the organic label could not be used to redress every problem in the food system, and enforcement would present major obstacles" (DiMatteo & Gershuny, 2007, p. 256). Small farmers have accused the final Organic Rule of taking a similar stance, citing their use of phrases like "grown without chemicals" or "free of antibiotics" to promote their products; they avoid the word "organic" because of the cost and administrative time necessary to obtain official certification (Fromartz, 2002). The high costs of organic-labeled products compared to their conventional counterparts have also raised concerns about social justice. Presently, the potential benefits of organic products are inaccessible for poor consumers, whose financial means constrain them to the cheaper conventional options. If consumption of fruits and vegetables were to decrease among the poor due to the price increases associated with the organic label, these people would face undue health burdens because of their economic status (Fedoroff, 2004, p. 254). These issues reflect the argument that the NOSB did not sufficiently consider social and economic implications when creating the terms of organic certification.

Conclusions and Policy Recommendations

Ultimately, it is difficult to conceive of a policy solution to the conflicting health, safety, and environmental implications of the organic label and the debate over how that label should reflect the philosophical organic ideal. Although scientists can and should continue to search for a comprehensive understanding of how organic products differ from conventional ones, the common questions of public interest – health and environmental effects – are trans-scientific and therefore preclude clear policy answers from science. Notions of concerns like "safety" and "impact" are socially-constructed and value-based, as are the discussions of social responsibility in agricultural practices, so even the most thorough risk assessments would not be able to overcome people's differing views of these notions to suggest a unanimously-approved organic policy. Nevertheless, scientific research continues to increase our understanding of food products' effects on human and environmental health, and the public continues to seek a labeling scheme that presents these findings.

The most important course of action at this time is to promote a clearer understanding of the organic label and the most recent scientific findings among the public. The organic certification label does not clearly communicate the USDA position of neutrality on the potential health or environmental effects of the product, nor does it explain the differences between the “100% Organic,” “Organic,” and “Made with Organic Ingredients” labels. With increasing media attention being placed on “food scares” and the benefits of “environmentally-friendly” daily living decisions, it is not surprising that consumers assume that the USDA organic label signifies a wise choice for their health and the planet. Additionally, the most readily-available information on this subject currently comes from publications by issue advocates, while the science arbiters’ more comprehensive findings remain among the like-minded minority in academic journals. Because of this information imbalance, many consumers are making uninformed decisions, despite notions to the contrary. To correct for this miscommunication, policymakers could consider alternatives to the presentation of information – whether through amendments to product labeling regulations or systems of public access to the developing science. As concerns regarding health and the environment grow in light of research and advocacy, the public deserves to be able to understand how their food options reflect existing scientific knowledge and their values.

References

Asami, Danny K. et al. (2003). "Comparison of the Total Phenolic and Ascorbic Acid Content of Free-Dried and Air-Dried Marionberry, Strawberry, and Corn Using Conventional, Organic, and Sustainable Agricultural Practices." *Journal of Agricultural and Food Chemistry*, Vol. 51.

Baker, Brian P. et al. (2002). "Pesticide residues in conventional, IPM-grown and organic foods: Insights from three U.S. data sets. (Summary)" *Food Additives and Contaminants*, Vol. 19, No. 5. http://www.consumersunion.org/food/organicsumm.htm.

Bourn, Diane and John Prescott (2002). "A Comparison of the Nutritional Value, Sensory Qualities, and Food Safety of Organically and Conventionally Produced Foods." *Critical Reviews in Food Science and Nutrition*, 42(1).

Curl, Cynthia, Richard Fenske, and Kai Elgethun (2003). "Organophosphate Pesticide Exposure of Urban and Suburban Preschool Children with Organic and Conventional Diets." *Environmental Health Perspectives*. Vol. 111, No. 3. http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1241395/pdf/ehp0111-000377.pdf.

DiMatteo, Katherine and Grace Gershuny (2007). "The Organic Trade Association." In Lockeretz, William (Ed.). *Organic Farming: An International History*. Cambridge, MA: CAB International.

FDA (1999). "Pesticide Residue Monitoring Program." http://www.fda.gov/Food/FoodSafety/FoodContaminan tsAdulteration/Pesticides/ResidueMonitoringReports/ucm125168.htm

Fedoroff, Nina (2004). *Mendel in the Kitchen: A Scientist's View of Genetically Modified Foods*. Washington, DC: Joseph Henry Press.

Fromartz, Samuel (2002). *New York Times*. As summarized in Fedoroff, p. 250-251.

Grinder-Pederson, Lisbeth et al. (2003). "Effect of Diets Based on Foods from Conventional versus Organic Production on Intake and Excretion of Flavonoids and Markers of Antioxidative Defense in Humans." *Journal of Agricultural and Food Chemistry*, Vol. 51.

Hepperley, Paul (2004). "Organic Farming Sequesters Atmospheric Carbon and Nutrients in Soils. (Executive Summary)" The Rodale Institute. http://strauscom.com/rodale-whitepaper/.

Hirshberg, Gary (2009). "Organic—Healthy Food, and So Much More." In Weber, Karl (Ed.). *Food, Inc*. New York: PublicAffairs.

Kirschenmann, Frederick. "The Organic Rule: An Opportunity to Test the Precautionary Principle." Science & Environmental Health Network: The Networker, Vol. 3, No. 1, March 1998. http://www.sehn.org/Volume_3-1.html#a4.

Millstone, Erik and Tim Lang (2003). *The Atlas of Food*. London: Earthscan.

Nestle, Marion (2009). "Eating Made Simple." In Weber, Karl (Ed.). *Food, Inc*. New York: PublicAffairs.

"National Organic Program; Final Rule." *Federal Register*, Vol. 65, No. 246, December 21, 2000.

"National Organic Program; Proposed Rule." *Federal Register*, Vol. 62, No. 241, December 16, 1997.

"Organic farms 'best for wildlife'." BBC News. August 3, 2005. http://news.bbc.co.uk/2/hi/uk_news/4740609.stm.

Pielke, Roger A. (2007). *The Honest Broker: Making Sense of Science in Policy and Politics*. Cambridge University Press.

Pollan, Michael (2006). *The Omnivore's Dilemma: A Natural History of Four Meals*. New York: The Penguin Press.

Pretty, Jules and Andrew Ball (2001). "Agricultural Influences on Carbon Emissions and Sequestration: A Review of Evidence and the Emerging Trading Options." Center for Environment and Society Occasional Paper 2001-03, University of Essex.

Reganold, John P., Lloyd F. Elliot, and Yvonne L. Unger (1987). "Long-term effects of organic and conventional farming on soil erosion." *Nature*, Vol. 330.

Shepherd, Mark et al. (2003) "An Assessment of the Environmental Impacts of Organic Farming." Department for Environment, Food and Rural Affairs, project OF0405. http://orgprints.org/6784/2/OF0405_909_TRP.pdf.

Singer, Peter and Jim Mason (2006). *The Way We Eat: Why Our Food Choices Matter*. New York: Rodale, Inc.

UK Food Standards Agency (2003). "Is organic better for you?" http://www.food.gov.uk/news/newsarchive/2003/jun/cheltenham.

USDA Agricultural Marketing Service (2008). "Organic Labeling and Marketing Information." http://www.ams.usda.gov/AMSv1.0/getfile?dDocName=STELDEV3004446&acct=nopgeninfo.

USDA Foreign Agricultural Service (2001). "U.S. Organic Proposed Regulation Published. http://www.fas.usda.gov/htp2/circular/1998/98-02/nop.html.

America’s Newest Health Crisis: The Childhood Obesity Epidemic

Brent Palmer

The State of Childhood Obesity in America

The data on childhood obesity points to a frightening conclusion: America’s children are in the midst of a serious health crisis. According to data from the National Health and Nutrition Examination Survey (NHANES), the prevalence of childhood obesity has increased dramatically over the past thirty years. The study measures children’s obesity based on a standardized measure known as the body mass index (BMI). BMI is a measure of weight in relation to height used to determine weight status. Although the BMI does not account for body fat percentage, an omission that causes some individuals, such as athletes, to be misclassified, the ease with which it can be applied to large amounts of readily available height and weight data make it ideal for large scale studies. To classify a child as obese, one must plot the child’s BMI value on the Center for Disease Control (CDC) growth charts and derive the child’s corresponding BMI percentile. If the child’s score is at or above the 95^{th} percentile for his or her age and sex group, he or she is categorized as obese. Using this measure of obesity, the study determined the change in childhood obesity rates by comparing BMI-for-age values from the 2003-2006 NHANES to the BMI-for-age values for the 95^{th} percentile of the distribution derived from the 1976-1980 NHANES. The substantial increase in the number of individuals with BMI values above their corresponding 95^{th} percentile BMI-for-age value in the 1976-1980 survey shows that the prevalence of childhood obesity has increased. More specifically, for American children aged 2–5 years, prevalence increased from 5.0% to 12.4%; for those aged 6–11 years, prevalence increased from 5.0% to 17.0%; and for those aged 12–19 years, prevalence increased from 5.0% to 17.6% (Ogden et al. 2008). In other words, using the 1976-1980 NHANES cutoff weights for obesity, more than one in six U.S. children and adolescents (aged 6-19 years) are obese, a threefold increase since the 1970s. Sadly, the trend is getting worse, and childhood obesity rates are continuing to rise. The proportion of obese children (aged 10-17 years) hit 16.4% in 2007, up from 14.8% in 2003, translating into a stunning 10.58 million obese American children in 2007 (Bethell 2010).

These staggering statistics have serious long-term effects, because obese and overweight[1] children are much more likely to become obese adults. In fact, 80% of individuals who were obese between ages 10 and 15 were obese in adulthood (Whitaker et al. 1997). This link between childhood and adult obesity is very troubling, because obesity (at any age) severely increases health risks. The risks associated with obesity are so severe that many believe that by the end of 2010, the condition will overtake tobacco as the leading cause of death in the United States (Phelps 2009).

However, the rising death rates from obesity are just one part of this public health issue. The other equally disturbing consequence of this epidemic is the growing number of people living with the condition. Approximately 70% of obese children have one or more additional risk factors for type 2 diabetes and heart disease, such as hypertension and high cholesterol, and almost 40% have two or more additional risk factors (Freedman et al. 2007). These increases in risk factors translate into rising health care costs because “the costs attributable to obesity are almost entirely a result of the costs generated from treating the diseases that obesity promotes” (Cawley 2010). As a result, “per capita medical spending for the obese is $1,429 higher per year, or roughly 42 percent higher, than for someone of normal weight” (Finkelstein 2009).

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[1] Overweight is defined as having a BMI-for-age percentile at or above the 85th percentile but below the 95th percentile.

Furthermore, in 2008, the annual medical burden of obesity rose to almost 10% of medical spending ($147 billion), leading experts in the field of health economics to declare that "without a strong and sustained reduction in obesity prevalence, obesity will continue to impose major costs on the health system for the foreseeable future" (Finkelstein 2009).

From an economic perspective, this last point highlights the most important aspect of the childhood obesity epidemic: not all of the costs of obesity are borne by those whose decisions create the costs. In other words, obesity imposes external costs on society. According to a 2002 RAND Health study, when compared with normal-weight individuals of the same age and sex having similar social demographics, obese people suffer from an increase in chronic conditions of approximately 67% and spend 77% more on medications. These increases translate into higher health care costs and higher insurance premiums, both of which have adverse effects on the welfare of the entire population. For example, in 2008, obesity-related illness cost Medicare $19.7 billion and Medicaid $8 billion (Finkelstein 2009). This $30 billion cost was borne by the general population, whose tax dollars fund these federal and state health insurance programs. In addition, private health insurance plans paid $49 billion to treat obesity-related illness in 2008 (Finkelstein 2009). As a result, some of this cost also was borne by the non-obese in the form of higher group health insurance premiums (Cawley 2010). Given the current state of health care reform, under a system with universal coverage, the general population, both obese and nonobese, would bear even more of the external burden of obesity. In the absence of obesity, Medicare and Medicaid spending would be 8.5% and 11.8% lower, respectively (Finkelstein 2009). In light of these externalities, effective policy aimed at combating the obesity epidemic must focus on internalizing these external costs.

So how can the American people stop the rise of childhood obesity and curtail its effects on our already rapidly increasing health care spending? Before addressing that question, we must understand the underlying causes and characteristics of the epidemic.

The Nature of the Problem

According to one neoclassical theory of obesity (Philipson and Posner 2008), technological change provides the best explanation for the rise in obesity rates. Technological advancement increases income levels, which increases the opportunity costs of exercising. Additionally, technological improvements in agriculture have increased crop yields and decreased food prices, allowing people to consume more for the same cost. Thus, the rise in obesity has been the result of both increased consumption and decreased exercise.

However, this theory is not useful for analyzing childhood obesity, because it views the condition as a function of a choice between caloric consumption and expenditure. For economists who view man as a rational actor, this theory is a valid way to model the behavior of adults. Yet, applying it to childhood obesity is problematic because it requires us to unrealistically assume that children are also rational actors. If Americans viewed children as rational decision makers, we would have no need for the numerous age-restriction laws governing driving, consent, voting rights, and the consumption of tobacco and alcohol. By forbidding these activities until a certain age, these laws inherently state that children under the age restrictions are unable to make optimal decisions regarding their actions.

Beyond this unrealistic rational assumption, applying this neoclassical theory to childhood obesity is also problematic because it neglects the many external constraints placed on children’s decisions. If we divide a child’s day into thirds: a third at school, a third at home, and a third asleep, we quickly realize that there is hardly any room for choice at all. On the consumption side, when children eat meals at home (dinner and maybe breakfast) their food choices are determined by their parents, and when they eat meals at school (lunch and maybe breakfast), their choices are limited by the types of foods available at their school. On the caloric expenditure side, environmental factors outside a child's control, such as access to parks and other recreational facilities, place constraints on children's ability to exercise.

Thus, in order to uncover the causes of the recent rise in *childhood* obesity, we must investigate the epidemic within the framework of a theory of obesity, which focuses on the external factors and incentives that promote obesity rather than viewing the problem as a function of choice. Given that the fundamental cause of obesity is a caloric imbalance, which occurs when a person consumes more calories than he or she expends, the recent rise in childhood obesity means that incentives are in place in American society that promote caloric imbalances in our nation's youth.

Trends and Incentives

In order to gain a deeper understanding of these incentives, we must take a closer look at the trends within the epidemic and determine the groups that are most affected. Although childhood obesity in the United States has increased across all ethnic groups and both genders, the prevalence of the epidemic is not evenly distributed. Rates of childhood obesity are especially high among specific socioeconomic, ethnic, and racial groups, as well as within certain geographic regions. For example, the children most likely to be obese are among the poorest, publicly insured, black and Hispanic children (Cawley 2010). Moreover, the states with the top five childhood obesity rates were all in the Southeast (Bethell et al. 2010).

Children in these groups often live in low-income communities, which face the most serious obstacles to overcoming obesity. For example, low-income communities have one third as many supermarkets as wealthy communities

(RWJF 2005). Instead of supermarkets, these neighborhoods feature an abundance of fast-food restaurants, which provide less healthy foods at lower prices. Low-income neighborhoods also lack access to safe parks and recreational spaces where children can play and be active. The effects of these factors are profound, and the concentration of the obesity epidemic among poor and minority children has seen the largest growth in the last 5-7 years.

The challenges facing low-income communities highlight the major causes for childhood obesity: consuming unhealthy foods and lack of physical activity. These two factors, which are exaggerated in low-income communities, are common across all of America's obese children. Even wealthy children are eating more unhealthy foods. In fact, Piernas and Popkin (2010) found that non-Hispanic white males from families with high income and education levels actually ate more unhealthy foods (as measured by an increase in snacking) than black or Hispanic children of the same age.

Causes

American kids have not always been fat. So what has changed in the past thirty years that is causing our nation's children to consume more unhealthy foods and engage in less physical activity?

The most likely cause for the increase in unhealthy food consumption in both high and low-income populations is the result of U.S. agricultural policy. Since the 1970s, U.S. agricultural policy has incentivized the production of corn and wheat crops, which are common inputs for high calorie foods such as snacks, sweets, and other junk food. In 2002, the U.S. Department of Agriculture admitted that the prime factor behind soaring obesity rates was a 300-calorie jump in how many calories the U.S. food supply delivered to the average eater (Wallinga 2010). The oversupply of food has caused inflation-adjusted food prices to fall over the last 30 years

(Dentzer 2010). The relatively low prices of sodas and other junk foods compared to that of healthier foods provides incentives for people to consume cheaper unhealthy alternatives. Specifically, junk food prices greatly decreased relative to healthy food prices. For example, from 1985 to 2000, the inflation-adjusted price of soda fell 24%, while that of fresh fruit and vegetables rose 39% (Wallinga 2010). According to Lakdawalla and Philipson (2002), the declines in food prices accounted for 41-43% of the rise in children's BMI from 1981-1994. This trend has also been exacerbated by the interaction between several recent behavioral changes in our society. Some of these behavioral factors include increased portion sizes for food and beverages, the rising prevalence of prepared foods, and an increase in away-from-home meals (Institute of Medicine 2005). Moreover, the decline in food prices has a much greater affect on families of low socio-economic status (SES), whose demand curves for food are relatively more sensitive to prices than families of higher SES, which may explain the epidemic's concentration in low-income and minority groups.

Although the increasing caloric supply, declining food prices, and behavioral changes are the most well-documented causes for the increase in unhealthy food consumption, childhood obesity has become an epidemic because the incentive structure in place in our society negatively influences the caloric expenditure side of the obesity equation as well. According to the CDC, one study found that daily physical education participation among adolescents dropped 14 percentage points over the last 13 years — from 42% in 1991 to 28% in 2003. In addition, black and Hispanic children are much less likely to report involvement in organized physical activity, as are children with parents who have lower education and income levels, a trend that is consistent with the increased prevalence of childhood obesity within these groups (RWJF 2005). On a related note, as physical activity has declined, sedentary behavior has increased. In 2005, for children aged 8-

18 years, the time spent consuming media averaged more than 3 hours a day (Roberts et al. 2005). This is particularly telling considering the findings of Dietz et al. (1985), which point to a positive association between the increased prevalence of obesity in children and time spent watching television.

This research shows that the childhood obesity epidemic is not the result of any one factor. Instead, it is the by-product of the interaction of many factors, whose effects vary across socioeconomic, ethnic, and racial groups. Considering that obesity is fast becoming the most deadly threat facing the American population, it is also clear that something must be done to combat this epidemic. Many economists, health care professionals, and politicians have answered this call, and there are numerous plans afloat proposing various ways to solve the crises. In the next section I will evaluate these proposals based on their costs, benefits, and potential effectiveness, and explore why some believe that there is no need for public intervention, even in the face the overwhelming evidence.

The Question of Government Intervention

Even though the negative effects of obesity have been extensively researched, some oppose collective or government action because they believe that obesity is the result of a lack of personal responsibility rather than the result of external factors. This view has persisted, even in the face of mounting contradictory evidence, because it is deeply rooted in the individualistic aspects of American society and reinforced by the nation’s merit-based capitalistic system. A country founded on freedom also holds taking responsibility for one’s actions as a core value. If the America dream is the belief that hard work and self-discipline light the pathway to success, then the belief also holds in the negative sense: laziness and unruly behavior lead to failure. Moreover, the personal responsibility argument remains active in the debate because it provides ample political ammunition for Big Food lobbyists who oppose government action in the industry. By claiming the obesity problem is one of "personal responsibility," these lobbyists are able to paint government actions aimed at fighting obesity, such as soda taxes, as infringements upon our freedom. As a result, until recently, much of government anti-obesity policy has focused on educating individuals in an effort to convince them to change their behavior. Yet, regardless of one's stance on the normative debate over personal responsibility and obesity, three positive facts remain: the individual education approach is not working, the obesity epidemic is spreading, and health care costs are rising.

For economists, who by their nature shy away from normative debates, the personal responsibility argument is problematic on positive grounds for several reasons. First, the personal responsibility argument does not recognize the external costs of obesity, such as higher health care costs and higher insurance premiums, both of which decrease societal welfare. When negative externalities are present in a market system, the deadweight loss traditionally associated with government intervention is offset by the gains from mitigating the externality. Thus, from an economic perspective, government action is necessary to internalize these external costs.

A second positive objection to the personal responsibility argument comes from the results of recent biological and behavioral research on the causes of obesity. These studies have shown that although some cases of obesity may be linked to genetics, the driving factor behind the obesity epidemic is the modern food environment itself. As Jonathan Bor (2010) explains, "For most of human history, the ability to gain weight enabled humans to survive food shortages by tapping energy reserves stored in body fat. Today, an overabundance of calorie-rich foods enables calorie intakes that can overwhelm the body's weight-regulatory system." Once we recognize that modern humans are not evolutionarily predisposed to deal with today's food environment, the argument for personal responsibility seems very weak. It is unfair to expect people, especially children, to be able to regulate their instinctual needs while surrounded by unhealthy food options.

This does not mean the government should be in the business of telling people what to eat. Instead, according to leading experts in the field of health economics, the most effective anti-obesity approach must merge personal and collective action in ways that best serve the public good. The ideal result would be to craft policies that make it easier to be personally responsible. In other words, anti-obesity policies need to realign incentives so that personal behavior, safe conditions, and an environment that promotes healthy choices combine in complementary ways (Brownell et al. 2010). Nevertheless, finding the right balance between regulation and reliance on personal responsibility is always a difficult task. However, recently economists have taken up this problem and developed a framework for crafting policy that is both health maximizing and politically palatable.

Libertarian Paternalism

Unlike smoking tobacco and drinking alcohol, the two activities that lead to the other leading causes of death, eating is an essential part of living. As a result, an outright ban on eating, similar to the prohibition of alcohol in the 1920s, is a ludicrous proposal. Nevertheless, since people must eat, and they seem to be eating too much, policymakers must walk a thin line between incentivizing healthy choices and preventing people from providing for themselves and their families.

Two leading behavioral economists, Richard Thaler and Cass Sunstein, have recently developed a concept known as libertarian paternalism to help indentify an optimal middle ground. Libertarian paternalism is predicated on the understanding that choices must be made, but holds that the environment affects the content of choice. The concept is libertarian in its emphasis on preserving an individual's freedom to choose, and paternalistic in the sense that it advocates influencing choices in a way that will make choosers better off, *as judged by themselves* (Sunstein and Thaler 2008).

One of the most useful aspects of Thaler and Sunstein's work on libertarian paternalism is their research on choice architecture. Numerous studies of the science of choice continually find that for a given choice, behavioral tendencies lead a large number of people to select the default option. With this in mind, choice architects, the agents in charge of crafting the way various options are presented, have immense power to effect change by manipulating the default options. Most importantly, the changing of default options is a politically neutral proposal in the sense that it changes behaviors without restricting freedom. In the fight against childhood obesity, Thaler and Sunstein would categorize policymakers as choice architects because they have the power to change the incentive structures and default options present in our society that promote the two underlying causes of childhood obesity, increased consumption and decreased exercise. With these considerations in mind, let us now look at specific policy proposals aimed at curbing the spread of the childhood obesity epidemic.

Policy Proposals

According to Eric Finkelstein, a leading health economist and director of the Public Health Economics Program at RTI International, in the fight against childhood obesity, "Real savings are likely to be achieved through reforms that reduce the prevalence of obesity and related risk factors, including poor diet and inactivity" (Finkelstein 2009). Although there are numerous federal and state policy proposals aimed at combating these two issues, the most popular fall into four categories: improving school nutrition, menu labeling, changing food industry marketing practices, and taxes and subsidies.

Improving School Nutrition

As discussed above, children spend approximately one third of their day at school. Within this environment, their choices regarding what to consume and how much to exercise are limited by what their schools offer. On the consumption side, American school food policy dates back to The National School Lunch Program, which was signed into law in 1946, in order to help feed hungry kids who needed the extra calories (Kalb 2010). However, today it serves 31 million kids, many of which are suffering from the opposite problem (Kalb 2010). The program, in its current form, falls under the jurisdiction of the U.S. Department of Agriculture (USDA), and all food and beverages available through the USDA's school breakfast and lunch programs must meet federal nutrition standards (Larson and Story 2010). Unfortunately, school meals often fail to meet these federal standards. "Almost 42% of schools do not offer any fresh fruits or raw vegetables on a daily basis" (Kalb 2010). Even in the schools that do provide healthy meals, many still provide unhealthy choices to our nation's kids in the form of unregulated alternative lunch and snack choices known as "competitive foods."

A recent study found that one in five elementary schools, one-third of middle schools, and half of all high schools have a school store, a canteen, or a snack bar where students can purchase food or beverages (Larson and Story 2010). Moreover, vending machines, another source of competitive foods, can be found in 17% of elementary schools, 82% of middle schools, and 97% of high schools (Kalb 2010). Considering increased snacking is one of the major causes of the rise in both childhood and adult obesity, and the average school day is only six hours, some argue that there is no need for snack food vending machines or competitive foods to be there at all. If regulations governing the nutritional content of school meals and the availability of competitive foods were passed and strictly enforced, our nation's kids would benefit from these policies because they change the set of default choices.[2]

One glimmer of hope in the fight against childhood obesity is that the gains from providing better choice architecture and assigning healthier default choices in our nation's school system have found their way from the academics to those in Washington. Recently, Secretary of Agriculture Tom Vilsack called on Congress to grant him the authority to create a stronger link between local farmers and school cafeterias, set national standards regarding competitive foods, and increase meal-reimbursement rates so that schools can buy higher-priced healthier foods, including whole grains, fruits, and vegetables (Kalb 2010). If Congress heeds his call, these new policies will provide a better environment for America's children, which in turn would promote healthier choices, healthier lifestyles, and a reduction in childhood obesity.

Despite these recent steps, policy aimed at reducing consumption only tackles half the problem because America's schools are also coming up short when it comes to caloric expenditure. According to the U.S. Department of Health and Human Services, all children ages 6-19 should get sixty minutes of moderate to vigorous activity daily. However, only one third meet this recommendation, and 25% of adolescents do not achieve this level on any day (Freiden 2010). Part of the reason for this startling disconnect between recommendation and reality is the No Child Left Behind Act, which ties funding to academic performance. As a result, many schools cannot afford, academically or financially, to offer physical education classes or recess, despite the many studies that show the

[2] On a personal note, removing the vending machine in the Kirner-Johnson building would have significantly decreased the number of Twix bars consumed while writing this paper.

positive impact of exercise on academic performance (Kalb 2010).

If policies were passed to ease the financial burden facing these schools, allowing them to provide physical education course and recess, this would be the most cost effective way to prevent childhood obesity. A recent study of the cost-effectiveness of various obesity prevention methods found that the Coordinated Approach to Child Health (CATCH) is the most cost effective way to prevent childhood obesity. CATCH is "a comprehensive intervention to promote healthy eating and physical activity in elementary schools, which costs $900 per QALY[3] saved (Cawley 2010)." Other policies are much more expensive. Thus, as Cawley explains, his findings prove the adage that "prevention is cheaper than cure."

Menu Labeling

Current legislation already openly acknowledges that the market for food is plagued by problems of asymmetric information. However, there is still room for new policies aimed at removing asymmetries from the market, especially regarding food consumed at restaurants. Although the "Nutrition Facts" panel provides information on the nutritional value of packaged food, at present, there is no similar federal standard for restaurant foods.

From an economic perspective, this is another area ripe for government intervention because it would impose only a tiny direct cost on producers in the form of menu adjustments, but has large positive potential effects for consumers. Many studies have shown the effects of using visual cues as a way to change behavior (Sunstein and Thaler 2008). Given these

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[3] Quality adjusted life year (QALY) is a measure of the outcome of actions (either individual or treatment interventions) in terms of their health impact. If an action gives a person an extra year of healthy life expectancy, that counts as one QALY. If an action gives a person an extra year of unhealthy life expectancy (partly disabled or in some distress), it has a value of less than one. Death is rated at zero

findings, a law requiring restaurants to place calorie counts next to menu items will likely change the tastes of consumers (and consequently their demand curves). Ideally, their consumption would shift from higher calorie foods toward healthier choices. Menu labeling is a food environment change that makes being personally responsible easier, because it provides consumers with better information about what they are eating. It also increases the effectiveness of efforts to improve nutrition and personal health education in schools. In other words, menu labeling would provide an opportunity for children to actually use the knowledge they have gained in the classroom about diet and nutrition in "the field." One can look to New York City as proof of this argument in practice. The city recently required fast-food chain restaurants to list the calorie counts of their food servings on menus and menu boards.

Food Advertising to Children

Another rationale for government intervention is to protect consumers from acting irrationally. Irrationality is difficult to define and always a touchy subject.
However, when it comes to children, as we have already seen, society believes they are not capable of making optimal choices when it comes to a whole host of activities. With that in mind, it seems strange that the government allows the food industry to spend $1.6 billion a year advertising their products to children, considering the findings of a 2009 study published by leading health economists at Yale University, which revealed a near perfect overlap between the cereals with the worst nutrition ratios and those marketed most aggressively to children (Brownell et al. 2010). Given the abundance of food marketing to children, its not surprising that a ban on television advertising could have very positive effects on childhood obesity. In fact, it is estimated that such a ban in would reduce the prevalence of obesity by 18% among children ages 3-11 and by 14% among children ages 12-18 (Cawley 2010).

However, the exact effects are difficult to measure, because exposure to ads is correlated with a sedentary lifestyle and other factors that contribute to obesity (Cawley 2010).

Taxes and Subsidies

According to economic theory, the final policy category is the most traditional response to externalities in a market system. The large external costs imposed on society by obesity provide a justification to tax the behaviors or goods that contribute to its prevalence. Right now, the sugar-sweetened beverage industry is the number one target. According to Frieden, Dietz, and Collins (2010), sugar-sweetened beverages constitute nearly 11% of children’s total calorie consumption, and each addition daily serving of sugared soda increases a child’s risk of obesity by 60%. These facts have led to many recent soda tax proposals in Congress and in state Senates across the country, including in New York. Currently, the leading proposal is a one-cent per ounce tax on beverages with added sugar or other caloric sweeteners, with all or part of the revenue designated for obesity prevention programs or subsidies for healthy food such as fruit or vegetables (Brownell et al. 2010). According to Kelly D. Brownell, the founding director of the Rudd Center for Obesity and Food Policy at Yale University, the tax on soda could reduce consumption by 23%, which would ultimately save about $150 billion over 10 years in health care costs (Kalb 2010).

Despite these significant benefits, many oppose the tax because they believe it is regressive. Although it is true that low-income individuals are the largest purchasers of sugar-sweetened beverages, Brownell and others counter with the point that the obesity epidemic is also regressive; the poor are hurt the most by obesity. As Frieden, Dietz, and Collins (2010) explain, “If proceeds from taxes were used to support obesity prevention (for example, physical education in schools or farm-to-market incentives to increase fruit and vegetable consumption), public support for taxation would increase further." Thus, any wealth loss can be offset if the revenue from the tax is used to subsidize healthy foods to make them more affordable, or to open supermarkets in low-income communities to reduce the food desert problem.

In addition to imposing new taxes, significant gains could be made by rethinking the subsidies that are currently in place and the incentives they promote. Frieden, Dietz, and Collins (2010) believe that "subsidies that indirectly promote consumption of unhealthy food, such as sales tax exemptions for soda and snack food common in many states, should be eliminated to increase prices and reduce consumption." Providing subsidies instead to local farmers would provide incentives for them to grow fruit and vegetables. This would decrease the price and increase the consumption of healthier foods, an outcome similar to the result of the soda tax policy discussed above.

Concluding Remarks

Going forward, it is clear that significant policy changes need to be made in order to fight the epidemic of childhood obesity. Indeed, many countries have already implemented several of the policies mentioned above. Sweden and Norway recently banned food companies from advertising during television shows viewed by children under age 12. The French removed 22,000 vending machines from schools and replaced them with water fountains. Some countries, such as Denmark, have gone further than these initiatives. In 2003, the Danish government banned trans fatty acids, and later this year they plan to implement a tax on saturated fats (Kalb 2010).

The bottom line is that countries all over the world are stepping up to the plate and making tough policy decisions to fight the childhood obesity epidemic, with the framework of libertarian paternalism in mind. It is time for America to do the same. Future policies must change the incentive structure of our society so that the default options are healthy options.

When default options are healthy options, personal responsibility and government action work together, anti-obesity measures are more effective, and we have a chance to begin reversing the rise in childhood obesity.

References

Bethell, C., et al. (2010). National, state, and local disparities in childhood obesity. *Health Affairs* 29, 347-356.

Bor, J. (2010). The science of childhood obesity. *Health Affairs* 29, 393-397.

Brownell, K.J. et al. (2010). Personal responsibility and obesity: A constructive approach to a controversial issue. *Health Affairs* 29, 379-387.

Cawley, J. (2010). The economics of childhood obesity. *Health Affairs* 29, 364-371.

Dentzer, S. (2010). The child abuse we inflict through child obesity. *Health Affairs* 29, 342.

Dietz, W. H, & Gortmaker S. L. (1985). Do we fatten our children at the television set? Obesity and television viewing in children and adolescents. *Pediatrics* 75, 807–812.

Finkelstein, E.A., et al. (2009). Annual medical spending attributable to obesity: Payer-and service-specific estimates. *Health Affairs* 28, 822-831.

Freedman D.S., et. al. (2007). Cardiovascular risk factors and excess adiposity among overweight children and adolescents: the Bogalusa heart Study. *Journal of Pediatrics* 150, 12–17.

Frieden, T.R., Dietz, W., & Collins, J. (2010). Reducting childhood obesity through policy change: Acting now to prevent obesity. *Health Affairs* 29, 357-363.

Institute of Medicine (2005). *Preventing childhood obesity: Health in the balance*. Washington, D.C: The National Academies Press,..

Kalb, C. (2010). Culture of corpulence: American innovations in food, transportation, and technology are threatening to supersize us all. *Newsweek,* March 14,

Lakdawall, D., & Philipson, T. (2002). The growth of obesity and technological change: A theoretical and empirical examination. National Bureau of Economic Research Working Paper.

Larson, N., & Story, M. (2010). Are 'competitive foods' sold as school making our kids fat? *Health Affairs* 29, 430-435.

National Center for Health Statistics, Centers for Disease Control (2011). NHANES data on the prevalence of overweight Among children and adolescents: United States, 2003–2006. Health E-Stat, available at http://www.cdc.gov/nchs/data/hestat/obesity_child_07_08/obesity_child_07_08.htm

Ogden, C.L., Carroll, M.D., & Flegal, K.M. (2008). High body mass index for age among U.S. children and adolescents, 2003–2006. *JAMA*. 299,2401–5.

Phelps, C. E. (2009) *Health economics, 4th ed.* New York: Pearson Education Inc.

Philipson, T, & Posner, R.A. (2008). Is the obesity epidemic a public health problem? A review of Zoltan J. Acs and Alan Lyles's *Obesity, business and public policy. Journal of Economic Literature.* 46, 974-982.

Piernas, C., & Popkin, B.M. (2010). Trends in snacking among U.S. children. *Health Affairs* 29, 398-404.

The Robert Wood Johnson Foundation (RWJF) (2005). *A nation at risk: Obesity in the United States.* Princeton, N.J.: The Robert Wood Johnson Foundation.

Roberts D.F., Foehr, U.G., & Rideout, (2005). Generation M: Media in the lives of 8 to 18 year-olds. Menlo Park, CA: The Henry J. Kaiser Family Foundation.

Sunstein, C.R., and Thaler, R.H. (2008). Nudge: Improving decisions about health, wealth, and happiness. New Haven, CT: Yale University Press.

Wallinga, D. (2010) Agricultural policy and childhood obesity: A food systems and public health commentary.*Health Affairs* 29, 405-410.

Whitaker R.C., et. al (1997). Predicting obesity in young adulthood from childhood and parental obesity. *New England Journal of Medicine*; 37,869–873.

Capital Market Liberalization in China: Opportunities and Dangers

Chris Shi

Capital market liberalization[4], or financial globalization, is one of the most controversial aspects of globalization. On one hand, financial globalization makes it easier for funds to flow in and out of a country's borders, allows transfers of technological and managerial expertise, and lowers the cost of capital. Capital account liberalization also provides an opportunity for a country's currency to be accepted outside its borders, making trade transactions easier and less costly. On the other hand, however, capital market liberalization, especially that of short-term capital flows, can add to instability within the financial system. Historically, capital market liberalization has been associated with crises in industrial as well as emerging economies. According to the Bank of International Settlement, in many countries in Scandinavia, Latin America, and Asia over the past few decades,, financial globalization has given rise to capital inflows that were too large for the countries' financial systems to absorb safely (Icard, 2002). When these capital inflows stopped or reversed, the result was an impaired financial system. However, when studying capital market liberalization, one should distinguish between the two types of capital flows, foreign direct investments (FDI) and short-term speculative capital flows. While FDI has proved to be largely beneficial to emerging markets, short-term capital flows have posed somewhat of a challenge to many economies. In liberalizing its capital markets, China should continue to reap the benefits of FDI while paying close attention to the risks associated with short-term capital flows, and should minimize these risks through

[4] See Appendix: glossary

fiscal and monetary policies.

In the first section of the paper, Iexplore the history of capital market liberalization, and the arguments for and against it. Advocates of financial globalization turn to the neoclassical model that predicts higher output and greater efficiency in a flat financial world, whereas those who caution against capital market liberalization point to the numerous economic crises that were in part caused by financial globalization, most notably the 1997 Asian economic crisis.

The next part of the paper distinguishes between two types of capital flows, foreign direct investments (FDIs) and short-term capital flows that are speculative in nature. I argue that FDIs are more consistent with the neoclassical model, and are usually channeled into real investment activities that improve the total factor productivity of an economy. The most remarkable example of this is China, a country that has benefited tremendously from FDIs in the past few decades. At the same time, I agree with many economists that short-term speculative capital flows are volatile and bring considerable instability to the financial system. Without a sound macroeconomic environment and an effective regulatory framework, liberalization of short-term speculative capital flows can lead to large-scale economic crisis with irrevocable consequences. Ilooked further into the Asian economic crisis, its background and impacts, and how capital market liberalization precipitated the crisis.

The last section of the paper is dedicated to China, a country with a sizable economy but relatively primitive capital markets. Historically, China has welcomed foreign direct investments while remaining closed to other types of capital flows. Following its entry into the WTO in 2001, China entered a new phase in its financial liberalization. In this section of the paper, I explore the progress China has made towards capital market liberalization, the risks associated with it, and how the Chinese government can establish a regulatory framework that maximizes the benefits of financial globalization.

History of Capital Market Liberalization

The history of capital market liberalization reflects the recurring difficulties faced by policy makers and the different approaches they adopt to confront these difficulties. Since the mid-1980s, the most recent wave of financial globalization has been characterized by an increasing level of capital flows among industrial as well as emerging economies.

Among the most ardent supporters of capital market liberalization are the IMF and the U.S Treasury (Stiglitz, 2004). The argument for financial globalization, comparable to that for globalization in general, is largely based on a conventional neoclassical model, which predicts that capital market liberalization leads to higher output and greater efficiency. In addition, the neoclassical model predicts extensive risk sharing across countries in a flat world for finance (Stulz, 2005). In other words, financial globalization enables investors worldwide to share and dilute risks across different countries, and allows capital to relocate to where productivity is highest. Therefore, countries have the opportunity to access the international capital markets and reap the benefits of their respective comparative advantages such as advanced technology or cheap labor.

for example, capital inflows play an important role in the economy by bridging the gap between demand and supply of capital. It is hard to imagine an U.S economy without these foreign capital injections into U.S corporations, not to mention the trillions of U.S Treasury Bills held by foreign investors.

In addition to the neoclassical theory, those in favor of financial globalization argue that it will lead to economic growth through maximizing GNP, creating a macroeconomic environment that is attractive to business, providing an additional source of funding, and stabilizing the economy through diversification (Stiglitz, 2000).

First, the argument for financial globalizationglobarlization states that countries should be concerned with their Gross National Product (GNP) rather than their Gross Domestic Product (GDP). GNP measures the income produced by the citizens (within and outside the border) of a country whereas GDP measures the income produced by individuals and corporations (regardless of nationality) within a country's border. Thus, income produced by an American in France would be considered a part of U.S's GNP, but not GDP (it is considered a part of France's GDP). Therefore, citizens as well as corporations should relocate capital to where the rate of return is highest. In other words, by allowing funds to enter and leave foreign capital markets, GNP is maximized by financial globalization. Secondly, because capital market liberalization allows funds to flow freely in and out of a country, international competition for funds requires governments to create an economic environment that is more attractive to business. This benefits a country directly through attracting more foreign investment and indirectly through providing a more business-friendly platform for domestic corporations to grow and prosper. Additionally, open capital markets can serve as an additional source of funding for investment projects. For example, as mentioned before, foreign investment (in the form of stock and bond securities) serves as a crucial source of funding for U.S corporations. Finally, advocates of this theory claim that capital market liberalization is self-stabilizing through diversification. In other words, if a country's economy is in a downturn, wages and cost of production decrease due to falling prices. Moreover, if the government tries to stimulate the economy by lowering interest rate, the cost of capital declines as well. A lowered cost of production, along with the cheap cost of capital, will attract foreign funds into the country and help stabilize the economy.

Bekaert, Harvey and Lundblad (2003) found that on average, equity market liberalization lead to a 1% increase in annual real economic growth. However, despite the strong theoretical suggestions, evidence demonstrating that capital market liberalization promotes economic growth, especially growth in developing countries, is relatively limited. In fact, it was the IMF, among all, that stated in a 2003 research paper that "it is difficult to detect a strong and robust casual relationship between financial integration and growth" and that "Contrary to theoretical predictions, financial integration sometimes appears to be associated with increases in consumption volatility in some developing countries, at least in the short run" (Prasad et. al., 2003). This statement by the IMF was applauded by many policy makers who had held reservationsabout capital market liberalization, as well as economists who were less enamored with the idea of financial globalization. By then, most had come to the conclusion that the economic crises of 1990s and early 2000s were largely attributable to capital market liberalization.

At the core of the 1997 Asian economic crisis was large-scale foreign capital inflows that left the financial system vulnerable to panic. These capital inflows, or so-called "hot money" driven by short-term profits, created an economic bubble by fueling up asset prices. Prior to the crisis, noted economist Paul Krugmana (1994) had warned against the idea of "hot money" and argued that only an increase in total factor productivity will lead to long-term prosperity, which was not the case during the "Asian Economic Miracle". Instead, the growth witnessed by many Asian countries in the late 1980s and early 1990s was a result of increasing capital inflows that had little to do with total factor productivity. In hindsight, most agreed with Krugman and saw the fact that the two large countries who survived the crisis, China and India, both implemented strong controls on capital flows.

Joseph Stiglitz (2000) was among the skeptics of capital market liberalization, especially when done without first putting into place an effective regulatory framework. He distinguished between two types of capital flows, foreign direct investment (FDI) and short-term capital flows, speculative hot capital that can come into and out of a country. Stiglitz believed that FDI is more consistent with the neoclassical theory and beneficial to economic growth, and focused mainly on short-term speculative capital flows. He also suggested that these two types of capital flows are not mutually exclusive. In other words, a government can intervene in short-term flows while still providing a hospitable environment for foreign direct investment, as it has been the case in China. I will return to the difference between these two types of capital flows in further detail later in the paper, and will focus on the argument against short-term capital flows now.

One of the biggest fallacies of the argument in favor of financial globalization is that capital market liberalization stabilizes the economy through diversification. According to the argument, when a country is in recession, falling wages and prices will result in lower cost of production, attracting foreign investments which help stimulate the economy. However, the problem with this theory is that unlike the labor market, capital markets are pro-cyclical, which, instead of stabilizing an economic downturn, usually worsens it. This is because capital markets are largely built on expectations, and in the event that a country is heading towards an economic downturn, foreign investors will usually pull out their investments instead of injecting more capital. This pro-cyclical nature is most obvious in the stock market. Theoretically, when the stock market dips, investors should see it as an opportunity for higher return and therefore buy more stocks, pushing the market back up. This, however, is not the case in reality. When the stock market declines, people sell their stocks in the fear of not being able to get their money back, causing the market to further decline. Similarly, in the event of an economic recession, it is unlikely that foreign capital will flow into the country to help stabilize the economy.

In addition, Stiglitz argued that short-term capital flows create instability. The reason why capital market liberalization does not lead to growth, according to Stiglitz, is that “firms are unlikely to engage in productive long term investments on the basis of short-term funds” (Stiglitz, 2000, pg. 1080). As mentioned before, the only way through which a country can generate sustainable growth is improvements in total factor productivity, whereas short-term capital flows, more often than not, will only increase asset prices and create economic bubbles.

Foreign Direct Investment: the Path of China

It has long been presumed that FDI has a positive effect on growth. Historically, foreign direct investments have brought resources, technology, easier access to markets, and valuable training, as well as an improvement in human capital, to many developing countries.

Among the biggest beneficiaries of FDI is China. Historically, China's inflows have generally been dominated by FDIs, which, compared to other shot-term capital flows such as offshore lending, appear to be a preferred form of inflow as a result of its stability and the transfers of technological and managerial expertise that come along with it. Since the market reform in 1978, the Chinese government has gradually adopted policies favorable to foreign investors, promising tax reduction and higher rates of return to attract FDI. In early 1980s, the government established "special economic zones" and opened up coastal cities for overseas investments. In the 1990s, the governmentg offered generous tax treatment to foreign firms. For example, a foreign-invested firm is exempt from corporate income tax in the first two years it makes a profit. In subsequent years, foreign companies are only subject to an average corporate income of 15%, much less than the 33% paid by Chinese companies (Prasad et. al., 2005).

The selective opening of capital markets, coupled with rapid trade expansion as well as China's seemingly unlimited supply of cheap labor, created vast opportunities for foreign investors. Meanwhile, according to Lemoine (2000), there was a worldwide trend that directed large amounts of FDIs towards developing countries, among which China was a main destination. Capital inflows soared throughout the 1990s, despite the Asian economic crisis, and have remained strong ever since. In 2003, China overtook the U.S as the number one destination for FDI.

By almost all accounts, the economic growth China has witnessed has been a major success story of the past decade. During the same period of time, foreign direct investments in China have risen tremendously as well. The commonly told story about FDI in China is that foreign investments have generated much economic growth, especially in coastal regions, that would not have been realized in the absence of such investments. did FDI contributed to economic growth in China through providing an external source of financing and improving the productivity of industrial output.

FDI has been particularly effective in China for three reasons. First of all, FDI has been a major source of external funding for China since 1990s, far more so than foreign loans and portfolio investments, the other two forms of capital flows. Unlike many other Asian countries, the share of FDI in external financing is much larger, and the importance of foreign loans and portfolio investments is much lower. This structure of external financing, dominated by FDI, explains why China was able to avoid the 1997 economic crisis that hit most Asian countries.

In addition, FDI contributed to the improvement of productivity and efficiency of industrial output in China. During the 1990s, state-owned enterprises' (SOE) share of output dropped while foreign-invested enterprises' (FIE) share of output increased. At the same time, the capital intensity at FIEs was much higher than that at domestic firms. Since higher capital intensity is usually associated with more advanced technology and higher labor productivity, FIEs at the time outperformed their domestic counterparts in efficiency of industrial output. Not surprisingly, FIEs strengthened their industry position as they recorded above average growth during the late 1990s. Two forces worked together to contribute to the increasing efficiency of industrial production: FIEs proved to have a positive effect on capital and technology transfer through the presence of multi-national corporations, as they invested in large projects oriented towards relatively capital-intensive and technology-intensive sectors. At the same time, FIEs also boasted much better financial metrics, demonstrating greater profitability than domestic firms. This also put pressure on domestic firms to reform their cost structure and improve their existing technology, therefore cutting costs and resulting in greater profitability. Furthermore, foreign direct investment also strengthened China's comparative advantage in manufacturing, as FDI were concentrated in a limited number of manufacturing industries.

FDI, in the form of foreign-invested enterprises, has also benefitted China through job creation. Although many criticize the fact that some multinational corporations reap the benefits of cheap labor while paying minimal wages and providing poor working conditions, workers at FIEs are usually better paid and have better working conditions than their counterparts at domestic manufacturing factories. More significantly, many FIEs have set an example for company-wide regulation within their respective industry sectors. Before the introduction of foreign investments, China had just emerged from a 10-year cultural revolution that caused the country's industrialization to come to a halthalt. As a result, many industries were under-developed, unregulated and deeply corrupted. FIEs set an example for many Chinese SOEs of how to manage and regulate the company to reach maximum efficiency; among the techniques demonstrated were the establishment of a human resource management system and a compensation system based on labor productivity.

Short-term Speculative Capital Flows: the Asian Economic Crisis

The case of short-term speculative capital flows is a quite different story. As the name suggests, this type of capital flow is speculative in nature and can create instability within the financial system. Many economic crises in the 1990s, such as the 1995 Mexican economic crisis and the 1997 Asian economic crisis, can be attributed in part to short-term speculative capital flows.

In hindsight, while the 1997 Asian economic crisis was partially caused by a combination of risky macroeconomic policies, lack of government regulation, and the ineffectiveness of IMF programs to help restore confidence in the area, the single most dramatic factor that led to the crisis was the reversal of private capital inflows into Asia (Radelet & Sachs, 1998). During the booming years of 1990s until the crisis, countries like the "MIT" economies (Malaysia, Indonesia and Thailand) had witnessed a credit boom fueled by private net capital inflows. Although real GDP was growing rapidly in these countries, the growth rate of bank and non-bank credit to the private sector still managed to exceed GDP growth by a wide margin. This was because the capital market liberalization facilitated a greater flow of funds to emerging markets around the globe, particularly to Asia. Among the ASEAN countries, capital inflows increased from an average of 1.4 percent of GDP between 1986- 90 to 6.7 percent between 1990- 96, according to IMF (Presad et al., 2003).

However, the composition of these net capital inflows was quite different from that of China. While China was mainly dominated by foreign direct investments, capital flows to Thailand, Indonesia, Malaysia or the Philippines came mainly from offshore borrowing by banks and the private sector. In the most extreme case of Thailand, between 1990-96, capital inflows averaged an extraordinary 10.3 percent of national GDP, and offshore borrowing by banks and private sector alone amounted to 7.6 percent of GDP (Presad el al., 20032003). Foreign direct investments were minimal compared to short-term capital flows. These short-term capital flows were mostly directed towards real estate and equities, and rather than being channeled to productive investment activities, most of these capital flows became “hot money” that pushed prices up and created asset bubbles.

The asset bubbles were bound to explode when they became too big. This was when the pro-cyclical nature of capital flows came into play: when the market is anticipating or heading towards an economic downturn, investors withdraw their capital, fearing they would lose their money. As a result, capital outflow increases while inflow decreases, leading to a substantial decline in net capital inflows, which then causes the exchange rate to depreciate and the interest rate to increase, exacerbating the economic recession.

by The effect of such an economic downturn creates a downward spiral: the economies of these Asian countries suffered severely when foreign investors withdrew their funds and net capital inflows halted. As a result of the worsened economic conditions in these countries, rating agencies like S&P and Moody’s had little choice but to downgrade their sovereign ratings. The lowered sovereign ratings subsequently affected the private sector, as corporate ratings cannot surpass the sovereign rating of the country where the company is located. The result is a lowered rating for the private sector, making it even harder to raise foreign capital and attract the funding needed to stimulate the economy.

Ultimately, short-term capital flows, when channeled into investment activities that increase the productivity of the economy, can be quite beneficial. However, foreign capital flows on a large scale are volatile, and when poorly utilized, can leave the economy vulnerable to panic. One of the lessons learned from the Asian economic crisis was that, when exposed to the international capital markets, a weakly regulated financial system with tremendous amounts of capital inflows can generate serious instability. Moreover, there was aa lesson for China: policy makers in Beijing recognized that the non-FDI part of the international capital flows had been a crucial part of the crisis, and they had reservations about the idea of capital market liberalization. Although China was only marginally affected during the Asian economic crisis, the crisis itself was an important wake up call for the Chinese to reconsider their approach to financial globalization.

China: the Road Ahead

"…one might compare capital account liberalization to putting a race car engine into an old car and setting off without checking the tires or training the driver. Perhaps with appropriate tires and training, the car might perform better; but without such equipment and training, it is almost inevitable that an accident will occur. One might actually have done far better with the older, more reliable engine…"

-- Joseph Stiglitz, 2000 pg. 1075

There is much truth in Stiglitz' words. Thailand and Indonesia were like the old car with new engines and tires during the 1990s, and the Asian economic crisis proved Stiglitz' point: financial integration, done hurriedly without first putting into place an effective regulatory framework, will inevitably steer the economy into "an accident".

It has also been widely accepted that the secret to why China was only marginally affected by the crisis lies in the Chinese government's control of short-term capital . In many ways China is a prototypical country that can be best served by FDIs. With a vast population, seemingly unlimited cheap labor and relatively low levels of human capital and technological expertise, China benefited considerably from the transfer of technological and managerial expertise, as well as the employment opportunities created by foreign direct investments. Compared to short-term speculative capital flows, FDIs are less volatile, and the majority of FDIs are channeled into investments that increase the productivity of the economy.

Therefore, there is no surprise that the Chinese government is hesitant to relax capital controls and diversify the composition of China's net capital flows. However, the sustainability of an economy depends on a healthy and sizable capital market system. Over the past few years, China's capital markets have grown substantially in size and complexity. For example, in 2007, the combined market capitalization of the Shanghai and Shenzhen stock exchange surpassed China's GDP for the first time (KPMG, 2007). However, the size of capital markets in China remains a fraction of those in some of the more advanced economies, and China's capital markets are relatively primitive. For instance, while the stock market has significantly increased in value over the past 20 years, the bond market is taking a back seat to equities, with government issues continuinging to play the dominant role and corporate bonds comparatively small in size. The lack of an active corporate bond market has in the past fueled speculation in the equity market and forced companies to rely heavily on bank loans to finance their operations. In addition, bond trading is hindered by the lack of a structured secondary market and a mature rating system.

Realizing the importance of establishing a more structured financial sector, the Chinese government has gradually relaxed its capital controls, especially in the equity markets. In 2002, China launched the Qualified Foreign Institutional Investor (QFII) program, which gave foreign investors access to the previously closed-off mainland stock exchanges in Shanghai and Shenzhen. TheT QFII system allowed licensed foreign institutional investors to buy and sell Yuan-denominated "A" shares, treasuries, convertible debt, and other financial instruments for less speculative investments. To participate, a QFII needs to appoint a Chinese commercial bank to act as custodian of its assets, and name a domestic securities company to handle its trading activities. China expanded the quota for the QFII system from $10 billion to $30 billion in May 2007 at the second round of the China-U.S Strategic Economic Dialogue.

In addition to the QFII system, the Chinese government has allowed qualified corporations to raise capital overseas since 1993. At the same time, Chinese companies are permitted to obtain a credit rating with foreign rating agencies and issue corporate bonds overseas.

Not only has the Chinese government relaxed controls on capital inflows in various securities markets, it has also given domestic institutions and individuals the opportunity to invest offshore, through the Qualified Domestic Institutional Investor (QDII) system. Launched in April 2006, the QDII system paved the way for domestic investors to make investments overseas in both equity and fixed income markets. The system allowed China to drain some of its excess liquidity from domestic savings and its vast foreign reserves, and also provided an opportunity for potentially higher returns in the more mature and complex capital markets overseas.

Apart from broader choices in the securities markets, China has also gradually opened up the market for bank credit. According to Reuters, since China opened its retail banking market to foreign competition, foreign financial institutions, including HSBC and Citibank, have expanded rapidly in the past several years. As a result, Chinese companies with overseas operations can borrow from foreign banks, while commercial banks like HSBC and Citibank can lend to Chinese companies as long as they meet the rules set by China Banking Regulatory Commission (CBRC). According to CBRC data, in Shanghai, the commercial capital of China, outstanding loans by foreign banks reached $57 billion in 2008, up 4.5 percent from the year before (China Bank Regulatory Commission, 2008)..

Over the past few years, more and more capital has also flown in and out of China in the form of mergers and acquisition. It is not uncommon for foreign investors to hold stakes in Chinese companies. For example, China Mobile, the country’s largest cell phone service provider, is partially owned by technology giant Vodafone. In the financial sector, for instance, Citigroup holds equities in the Pudong Development Bank, a large commercial bank headquartered in Shanghai, and

China International Capital Corporation, the country's most prestigious investment bank, is partially held by Morgan Stanley. Recently, many Chinese corporations have been seeking to expand their operations abroad by taking over or acquiring partial ownership of foreign companies.

China has benefitted greatly from these attempts at capital market liberalization, as they have provided alternative ways of financing for many Chinese companies and have allowed China to invest its excess liquidity in foreign markets. However, along with the benefits came the risks that are associated with capital account liberalization. One of the main risks is the increased market volatility caused by the sudden entry or withdrawal of foreign funds, as it was the case in 1997 Asian economic crisis. If the domestic capital markets are relatively small in size without sufficient liquidity, a sizable entry/ withdrawal of funds could substantially affect market prices, making the markets extremely volatile and vulnerable to panic.

In addition, by opening up its capital markets, China is exposed to currency risks. As capital flows in and out of the country, the demand for the yuan also fluctuates. A surge in capital inflows causes the value of the yuan to appreciate due to a higher demand for the currency. If the Chinese government allows room for the value of the currency to fluctuate, a stronger yuany can potentially be very harmful to the export sector, as China has in the past relied on an under-valued yuany to increase the competitiveness of its exports. On the other hand, if large amounts of capital flow out of the country in a short period of time, the value of the yuany will decline sharply. In the case of the Asian economic crisis, the sudden reversal of capital inflows to Asia caused the collapse of Thai baht.

Moreover, deeper levels of capital market liberalization often mean more complicated financial products. As mentioned before, despite its sizable economy and incredible growth, China has a relatively primitive capital market system. This is especially true in the fixed income markets. The bond market is dominated by government treasury bills, and volume of corporate bonds is almost negligible. China also has relatively limited experience with derivatives trading. The financial derivatives market consists mainly of commodities trading, as well as futures and options. Only recently has the Chinese government launched currency forwards and swaps trading through banks (KPMG, 2007). With the liberalization of capital markets, more and more financial products (such as asset backed securities and collateralized debt obligations) will be introduced to Chinese investors. These derivatives often mean greater leverage and a more integrated financial sector, and they come with higher risks. Without an effective regulatory system, a small problem in the highly complicated and integrated financial sector might endanger the economy as a whole.

Therefore, it has become increasingly clear that successful capital liberalization cannot be realized without first establishing a strong regulatory framework. The Asian financial crisis has led the Chinese government to rethink the issue of financial integration. Although the importance of sound macroeconomic policies had been well understood even before the crisis, the critical role played by a well-capitalized, well-managed and well-regulated financial system in minimizing risks associated with capital account liberalization really came into the spotlight.

In his 2000 paper, Stiglitz made a brilliant analogy between government intervention in capital markets and dams used to prevent flood (Stigliz, 2000, pg. 1083). Without dams to stop the flow of water from the mountain top the ocean, such powerful flows can only cause death and destruction; with the dam in place, power generated from the flows can be channeled into constructive uses. Sometimes, even the most advanced economies with strong financial institutions are faced with the failure of its regulatory framework, as the subprime crisis in the U.S has by now demonstrated. Thus, the dilemma faced by Chinese policy makers is how to design an effective intervention system that does not generate too great a cost to the economy.

One way the government can control short-term capital flows is through banking regulations. The Chinese government is already regulating banks to some degree; according to a news report by Reuters, when foreign lending fell at the beginning of January, the China Banking Regulatory Commission issued a statement that strongly urged foreign banks to “maintain their level of loans” and “strengthen their support of economic growth with a mentality of service”. In addition to the statement, the government also provided incentives for foreign banks to continue lending by considering allowing qualified foreign banks to issue financial bonds and securitize their loans in China. Given the importance of relationships with the local government when doing business in China, the government could use such incentives to counter the pro-cyclical nature of foreign capital flows and to steer bank lending in the desired direction.

n addition, the Chinese government limits the amount of inflows allowed in the QFII system. In the future, as the Chinese capital markets mature, the government can potentially increase the limit placed on foreign institutional investors.

Given the relatively primitive nature of China’s capital markets, the government should place strict rules on financial institutions in terms of leverage and market capitalization to asset ratio. This action will to some degree prevent the domino effect of financial derivatives during the current subprime crisis; that is, a small failure of the financial market (in this case, default on subprime loans) will lead to the collapse of the economy as a whole. As China develops more capacity for complicated financial products, these restrictions can be gradually relaxed.

Conclusion

“Freedom has its risks.” -- Michel Camdessus, Managing Director of IMF (CAmdessus, 1997)

The series of crises in the 1990s, especially the 1997 Asian economic crisis, has led many people to rethink the cause of financial globalization. Once an ardent advocate, the IMF has now come to realize that the costs of capital market liberalization might indeed overweigh the benefits. For emerging economies with less developed financial systems, it has become increasingly clear that some form of intervention is needed to ensure the soundness of the economy in the event of financial liberalization.

One country that has benefitted from such interventions is China. Historically, China has placed relatively strict controls on short-term capital flows while remaining hospitable to long-term foreign direct investments. This allowed China to channel capital inflows to constructive uses that improved its total factor productivity, while avoiding exposure to greater volatility as a result of short-term speculative capital flows.

Whereas this form of intervention has worked in the past, gradual financial integration seems inevitable for China in the future. Over the past few years, China has allowed qualified foreign investors to invest in China’s capital markets, and qualified domestic investors to buy and sell abroad. In addition, China has also loosened controls on bank lending, and foreign loans have become an important alternative for many companies to finance their operations.

More than ever, the Chinese government is now faced with the dilemma of establishing an effective regulatory framework that maximizes the benefits of capital market liberalization without generating too great a cost to the economy. Possible interventions include providing incentives for foreign banks to steer bank lending in desired direction, limiting the value of foreign investments in equity and fixed-income markets, placing restrictions on leverage and other key financial metrics of financial institution, as well as some form of currency control. As Michael Camdessus said, freedom comes with risks, and the path ahead for China is promising, yet difficult.

References

Bekaert, G.,G.Harvey, C., &Lundblad, C.. (2005). Does Financial Liberalization Spur Growth?. *Journal of Financial Economics*. 77(1), 3-55.

Bonte, R. et al.. (1999). Supervisory Lesson to Be Drawn From the Asian Crisis. *Bank of International Settlements Working Paper*. Retrieved from http://www.bis.org/publ/bcbs_wp2.pdf

Camdessus, M. (1997). Speech to the International Monetary Fund, September 23, 1997, in Hong Kong, China.

China Banking Regulatory Commission 2008 Annual Report. (2008). Retrieved from http://zhuanti.cbrc.gov.cn/subject/subject/nianbao2008/english/zwqb.pdf

Camdessus, M. (1997). Address by Michel Camdessus. *IMF.* Retrieved from http://www.imf.org/external/np/speeches/1997/mds9711.htm

Icard, A. (2002). China's Capital Account Liberalization in Perspective. *Bank of International Settlement.* Retrieved from http://www.bis.org/speeches/sp020912.htm

Jackson, J. (2006). Foreign Investment in U.S Securities. *Congressional Research Service.*

Krugman, P. (1994). The Myth of Asia's Miracle: A Cautionary Fable. *Foreign Affairs.* 73(6), 62-78.

Lei, H. (2008). China to expand QFII quota. *China Daily.* Retrieved from http://www.chinadaily.com.cn/china/2008-03/07/content_6518464.htm

Lemoine, F. (2000). FDI and the Opening up of China's Economy. *CEPII*. Retrieved from http://www.cepii.fr/anglaisgraph/workpap/pdf/2000/wp00-11.pdf

NYSE (2009). NYSE Euronext and Greater China. Retrieved from http://www.nyse.com/pdfs/NYSEEuronext_China_factshee t-CN.pdf

Prasad, E. etel al... (2003). Effects of Financial Globalization on Developing Countries. *International Monetary Fund*. Retrieved from http://www.imf.org/external/np/res/docs/2003/031703.pdf

Radelet, S., &.& Sachs, J.. (1998). The Onset of the East Asian Financial Crisis. *National Bureau of Economic Research*. Retrieved from http://www.nber.org/chapters/c8691.pdf

Research by KPMG. (2007). The Rise of China's Capital Markets: A study of China's stock, bond and derivatives markets. Retrieved from http://www.kpmg.com.cn/en/virtual_library/Financial_services/Rise_of_China_Capital

Capital Market Liberalization, Globalization and the IMF. *Oxford Review of Economic Policy*. 20(1), 57-71Stiglitz, J (2000). Capital Market Liberalization, Economic Growth, and Instability. *World Development.* 28(6), 1075- 1086

Capital Market Liberalization, Globalization and the IMF. *Oxford Review of Economic Policy*. 20(1), 57-71Stulz, R. (2005). The Limits of Financial Globalization. *Journal of Finance*. 60(4), 1595- 1638

Wan, H. (2009). Legg Mason Seeks China License to Trade Yuan-Denominated Assets. *Bloomberg.* Retrieved from http://www.bloomberg.com/apps/news?pid=newsarchive&sid=aM4E27602pNU

World Bank (1999). *Global Economic Prospects 1998/1999,* Washington, DC, World Bank, Ch.3.

Appendix: Glossary

Capital market liberalization: government restriction relaxation in the capital market. Also referred to as "financial globalization"
Foreign direct investment: a direct investment by a corporation in a commercial lventure in another country
Capital flows: the movement of money for the purpose of investment, trade, or business production
WTO: the World Trade Organization, a global organization dealing with the rules of trade between nations
IMF: the International Monetary Fund, an intergovernmental organization that oversees the global financial system
Diversification: the act of investing in a variety of assets to reduce risk
Financial integration: level of capital flows between different countries
Offshore lending: the act of funding investment, trade and business operations using money from foreign countries
QFII: Qualified Foreign Institutional Investor, a Chinese program launched in 2002 to allow licensed foreign investors to buy yuan-denominated securities traded in China's mainland stock exchanges
Asset backed securities (ABS): a security whose value and income payments are backed by a specified pool of underlying assets
Collateralized debt obligation (CDO): a type of structured asset backed security