

University of Denver

Digital Commons @ DU

Electronic Theses and Dissertations

Graduate Studies

11-1-2011

Transmission Linked to Structural Vulnerability: How Low-Income Countries Endured the Great Recession

Rachel F. Hartgen
University of Denver

Follow this and additional works at: <https://digitalcommons.du.edu/etd>



Part of the [International Economics Commons](#)

Recommended Citation

Hartgen, Rachel F., "Transmission Linked to Structural Vulnerability: How Low-Income Countries Endured the Great Recession" (2011). *Electronic Theses and Dissertations*. 274.
<https://digitalcommons.du.edu/etd/274>

This Thesis is brought to you for free and open access by the Graduate Studies at Digital Commons @ DU. It has been accepted for inclusion in Electronic Theses and Dissertations by an authorized administrator of Digital Commons @ DU. For more information, please contact jennifer.cox@du.edu, dig-commons@du.edu.

Transmission Linked to Structural Vulnerability: How Low-Income Countries Endured the Great Recession

Abstract

The implosion of the 2008 financial crisis ignited fears that integration would transmit the crisis' effects throughout the global system. Examining two countries, Bangladesh and Zambia, this project shows that low-income countries with relatively little integration also saw negative impacts. This occurred through three main transmission mechanisms: trade flows, rising prices and financial flows that could have possible long-term effects at the macro and micro level. The manner and impact of each transmission mechanism, however, varied among LICs according to each country's individual structural economic and financial vulnerabilities. Bangladesh saw a delayed impact but did not avoid the crisis completely, while Zambia saw a quick impact but recovered sooner. Where their individual cases converge, they offer recommendations for other LICs embarking on trade and financial liberalization in an interconnected but risky system.

Document Type

Thesis

Degree Name

M.A.

Department

Economics

First Advisor

Peter Sai-Wing Ho, Ph.D.

Second Advisor

Ilene Grabel

Third Advisor

Maclyn Clouse

Keywords

Bangladesh, Great Recession, Low-income countries, Zambia

Subject Categories

Economics | International Economics

Publication Statement

Copyright is held by the author. User is responsible for all copyright compliance.

TRANSMISSION LINKED TO STRUCTURAL VULNERABILITY:
HOW LOW-INCOME COUNTRIES ENDURED THE GREAT RECESSION

A Thesis

Presented to

the Faculty of Social Sciences

and

the Faculty of the Josef Korbel School of International Studies

University of Denver

In Partial Fulfillment

of the Requirements for the Degree

Master of Economics

and

Master of International Development

by

Rachel F. Hartgen

November 2011

Advisor: Dr. Peter Sai-wing Ho

Author: Rachel F. Hartgen

Title: Transmission Linked to Structural Vulnerability: How Low-Income Countries Endured the Great Recession

Advisor: Dr. Peter Sai-wing Ho

Degree Date: November 2011

Abstract

The implosion of the 2008 financial crisis ignited fears that integration would transmit the crisis' effects throughout the global system. Examining two countries, Bangladesh and Zambia, this project shows that low-income countries with relatively little integration also saw negative impacts. This occurred through three main transmission mechanisms: trade flows, rising prices and financial flows that could have possible long-term effects at the macro and micro level. The manner and impact of each transmission mechanism, however, varied among LICs according to each country's individual structural economic and financial vulnerabilities. Bangladesh saw a delayed impact but did not avoid the crisis completely, while Zambia saw a quick impact but recovered sooner. Where their individual cases converge, they offer recommendations for other LICs embarking on trade and financial liberalization in an interconnected but risky system.

Acknowledgements

To Dad

Table of Contents

CHAPTER ONE: A TRANSMISSION FRAMEWORK	1
Introduction.....	1
A Framework: Macroeconomic Transmission Mechanisms to LICs	4
Trade Mechanism.....	4
Rising Food and Fuel Prices	7
Financial Mechanism.....	9
A Framework: Transmission Linked to Structural Vulnerability	13
Selection of Zambia and Bangladesh.....	19
 CHAPTER TWO: BANGLADESH CASE STUDY	 21
Delayed Impact but Slow Recovery	21
The Great Recession and its Trade Transmission (2008-2010).....	22
Trade Transmission Linked to Structural Vulnerability	29
First Period (1971-1985).....	29
Second Period (1985-2008)	33
The Great Recession and its Financial Transmission (2008-2010)	38
Financial Transmission Linked to Structural Vulnerability.....	42
Moving Forward (2011 and Beyond)	44
Export Concentration and Associated Vulnerable Trade Characteristics.....	44
Shallow Financial System.....	48
Conclusions.....	51
 CHAPTER THREE: Zambia CASE STUDY.....	 54
Quick Impact but Stronger Recovery	54
The Great Recession and its Trade Transmission (2008-2010).....	55
Transmission Linked to Structural Vulnerability (1964-2008)	62
First Period (1964-1991).....	62
Second Period (1991-2008)	66
The Great Recession and the Financial Transmission (2008-2010).....	68
Financial Transmission Linked to Structural Vulnerability.....	72
Moving Forward (2011 and Beyond)	76
Export Concentration and Associated Vulnerable Trade Characteristics.....	76
Shallow Financial System.....	79
Conclusions.....	81
 CHAPTER FOUR: COMPARISONS, CONCLUSIONS AND CONSIDERATIONS... 84	 84
The Trade Transmission: Conclusions and General Recommendations	84
Considerations for Other LICs.....	86
The Financial Transmission: Conclusions and General Recommendations.....	89
Considerations for other LICs.....	91
Conclusions and Future Questions.....	93
 Appendix A.....	 105

Table of Figures

Figure 1: GDP Growth Globally and by Income Group, as a percentage (2006-2011)	5
Figure 2: Global Growth of Volume of Exports of Goods and Services, as a percentage (2006-2011).....	6
Figure 3: Bangladesh GDP growth, constant prices as a percentage (1995-2011).....	23
Figure 4: Bangladesh Growth of Volume of Exports and Imports, as a percentage (2006-2012)	23
Figure 5: Bangladesh's Quarterly Export Growth, as a percentage (July 2008-Sept. 2009)	25
Figure 6: Bangladesh's Quarterly Import Growth, as a percentage (July 2008-Sept. 2009)	27
Figure 7: GoB Revenues, Expenditures and Borrowing/Lending, as a percentage of GDP (2000-2012).....	28
Figure 8: Bangladesh's Current Account Balance, in US Billions (2006-2012)	29
Figure 9: Bangladesh's Net Barter Terms of Trade, 2000=100 (1980-2009)	32
Figure 10: Bangladesh's Interest Rate (2006-2010)	40
Figure 11: FDI Inflows to Bangladesh, in US Millions (1990-2009).....	41
Figure 12: Zambia's GDP, in constant national prices, US billions (1995-2011).....	55
Figure 13: Zambia GDP Growth, in constant prices as a percentage (1995-2011)	55
Figure 14: Copper Price, in USD per metric ton (Jan. 2008-Nov. 2009)	57
Figure 15: Crude Oil Price, in USD per barrel (Jan. 2008-Nov. 2009)	57
Figure 16: Zambian Exports and Imports, in US Millions (Jan. 2008-Nov. 2009)	58
Figure 17: Zambia's Balance of Payments, in US Billions (2006-2011).....	58
Figure 18: Zambian Government Revenues and Spending, as a percentage of GDP (2000-2010)	61

Figure 19: Zambian Government Net lending/borrowing, as a percentage of GDP (2000-2010)	61
Figure 20: Zambia's Net Barter Terms of Trade, 2000=100 (1980-2009).....	66
Figure 21: Zambia's Interest Rate (2007-2009)	69
Figure 22: FDI Inflows to Zambia, US Millions (1990-2009)	71

List of Acronyms

ADB	Asian Development Bank
ADP	Annual Development Programs
AfDB	African Development Bank
ATC	Agreement on Textiles and Clothing
BB	Bangladesh Bank
BGMEA	Bangladesh Garments Manufacturers and Export Association
BMTC	Bangladesh Textile Mills Corporation
BoP	Balance of Payments
BoZ	Bank of Zambia
DFI	Development Finance Institution
EU	European Union
FAO	Food and Agriculture Organization
FCB	Foreign Commercial Bank
FDI	Foreign Direct Investment
FSDP	Financial Sector Development Plan
GDP	Gross Domestic Product
GoB	Government of Bangladesh
HIC	High-Income Country
HIPC	Heavily Indebted Poor Countries
IMF	International Monetary Fund
LIC	Low-Income Country
LuSE	Lusaka Stock Exchange
MDG	Millennium Development Goal
MFA	Multi-Fiber Agreement
MFI	Microfinance Institution
MIC	Middle-Income Country
NPL	Non Performing Loan
NRF	Natural Resource Fund
ODA	Official Development Assistance
OECD	Organization for Economic Co-Operation and Development
PCB	Private Commercial Bank
RMG	Ready-Made Garment
ROA	Return on Assets
ROE	Return on Equity
RoZ	Republic of Zambia
SAP	Structural Adjustment Program
SOE	State-owned Enterprise
SCB	State-Owned Commercial Bank
WFP	World Food Program
ZCCM	Zambian Consolidated Copper Mines
WB	World Bank

CHAPTER ONE: A TRANSMISSION FRAMEWORK

Introduction

The implosion of the 2008 financial crisis ignited fears that international trade and financial integration would transmit the crisis' effects throughout the global system. How and to what extent continues to unfold. Coined as “The Great Recession”, the breadth and depth of this crisis has been said to surpass any previous economic or financial crisis endured by the global system. Almost all countries suffered because of decreased economic growth but in varying depth and magnitude individually. For developed countries, financial integration became the primary transmission channel. Many of these countries were overleveraged with complex, high-risk financial products to the private sector and as a result, saw the largest declines in growth¹.

In contrast, the Great Recession had far less impact on low-income countries (LICs)² than middle-income (MICs) or high-income countries (HICs) given their limited trade and financial integration. Nevertheless, international institutions³ raised red flags to the possible effects on LICs due to their structural political, economic and social constraints, including high poverty levels that impeded recovery options. While

¹ Pelen Berkmen, et al, *The Global Financial Crisis: Explaining Cross-Country Differences in the Output Impact*. The International Monetary Fund, Working Paper, WP/09/280 (2009): 14-15.

² This project uses the following World Bank classifications from April 2011: low-income: \$995 GNI per capita or less, lower-middle income, \$996 - \$3,965; upper-middle income, \$3,966 - \$12,265; and high income, \$12,266 or more. These were adjusted upward in later 2011 by \$10 for each category using its Atlas methodology. For the purposes of this project and all data computation, the April 2011 country groupings have been maintained.

³ These institutions were mainly the IMF, United Nations and World Bank but also regional development institutions including the AfDB and ADB.

uninvolved with subprime mortgages or risky derivatives, they argued that the world's poorest citizens would be especially vulnerable to the trade and financial transmission of the crisis along with rising food and fuel prices⁴. As a result of this triple combination, the World Bank (2010) estimated that 41 million *more* people would go undernourished in 2009, and 64 million *more* people would live under the \$1.25 a day poverty line by 2010⁵. Moreover, it warned of the long-term consequences on development initiatives like the Millennium Development Goals (MDGs).

The World Bank (2009) conducted a study in early 2009 of 107 middle and low-income developing countries to predict the level of vulnerability among countries and the possible development implications. They examined two main factors for each country: first, a demonstration of declining GDP growth⁶ and second, an initial high level of poverty⁷. Those countries that exhibited both characteristics were said to be highly exposed. The results identified 43 countries in this category. Of those 43 countries, 23 countries were LICs by definition, including both case study countries of this project, Bangladesh and Zambia.

This work argued that the world's poorest nations would be susceptible despite lower integration. However, it largely focused on how economic decisions and consequences in advanced countries would reach vulnerable countries as an entire group. This drew attention to the implications of the crisis in developed countries *versus*

⁴ Given this triple combination, it would be difficult to disaggregate the effects of the crisis alone.

⁵ Sailesh Tiwari and Hassan Zaman, *The Impact of Economic Shocks on Global Undernourishment*. Policy Research Working Paper #5215, The World Bank, World Bank (2010): 2-3.

⁶ Defined as real per capita economic growth expected to be lower in 2008–09 compared to the studied period of 2004–2007.

⁷ Defined by the country having had 20 percent or more of households below the \$1.25 poverty line in 2005.

developing countries. It neither delved within or between low- and middle-income groups nor examined how unique economic and financial conditions could differentiate the depth and magnitude of the effects among LICs. This was not done purposefully, but primarily because of a lack of and/or lagged data from these countries that prevented quality analysis at that time⁸. Additionally, LICs do share common characteristics that explain how they might collectively suffer the crisis.

Nevertheless, the variances among LICs are important because they serve as reminders that poor countries do not have homogenous economic histories or policies. As a result, neither are their options for coping with or recovery from global macroeconomic shocks. With this in mind, this project examines how and why the Great Recession affected LICs, both similarly and differently. It begins by summarizing the three transmission mechanisms to LICs: trade flows, rising prices, and financial flows. Using development theory, it then reviews the interrelated structural vulnerabilities of many LICs that helped determine the severity of the transmission, including narrow exports that are low-cost and use little technology, and shallow financial systems.

Chapters Two and Three use this framework to compare two cases: Bangladesh and Zambia⁹. Each case study analyzes the impacts of the transmission mechanisms and connects them to the country's economic and financial structural vulnerabilities. It concludes with individual policy recommendations to address these weaknesses. These recommendations are not unknown but reemphasize the importance and challenge to overcome them. While some are country-specific, others are noteworthy for other LICs

⁸ This constraint remains today and is a general problem of research in LICs.

⁹ Using the April 2011 World Bank categorization, both were LICs: Zambia at \$970 GNI per capita and Bangladesh at \$580 GNI per capita.

pursuing trade and financial liberalization, and these are summarized in Chapter Four with overall project conclusions.

A Framework: Macroeconomic Transmission Mechanisms to LICs

Beginning in late 2007¹⁰, the subprime mortgage crisis caused firms and households to deleverage. This spread to financial markets worldwide, causing a rapid liquidation of assets, a decline in prices and a reduction in aggregate demand. The transmission to LICs then occurred through a decline in trade and financial flows and an increase in food and fuel prices. Trade flows refer to exports and imports. Financial flows include financial intermediation and public and private international capital including trade finance, foreign direct investment (FDI), official development assistance (ODA), and remittances. Domestic labor, financial and product markets then channeled these macroeconomic shocks to the household level, but this project does not deeply explore these impacts.

Trade Mechanism

First, the financial crisis was channeled to LICs through the trade mechanism, or the international flow of goods and services. As a result of a decline in aggregate demand, world trade fell by 11 percent in 2009 from 2008¹¹. This led to subsequent falls in production, employment, household income, purchasing power and government revenues. World GDP contracted .57 percent from 2008 to 2009 and fell on average 5.9 percent among all countries from 2007 to 2009¹². The effects were worse in high and

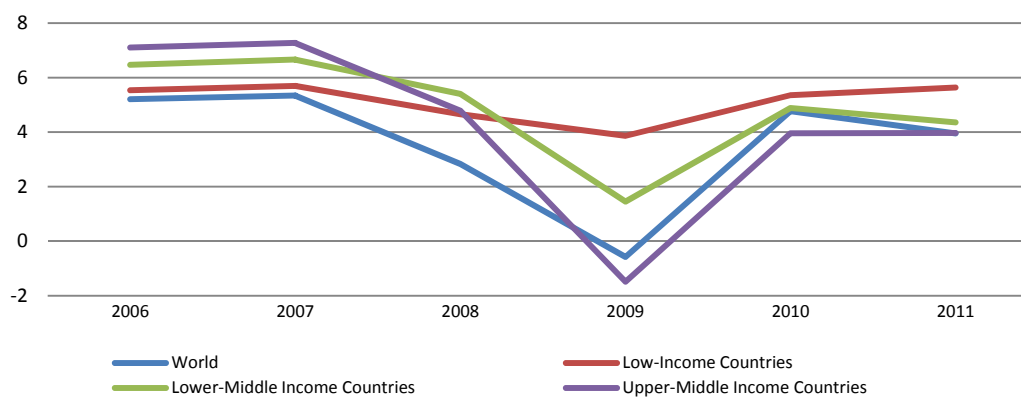
¹⁰ For the purposes of this project, the end of this crisis period is marked at the end 2010, when world trade and GDP growth again registered positive gains.

¹¹ International Monetary Fund (IMF), World Economic Outlook (WEO) Database (April 2010).

¹² Ibid.

middle-income countries in comparison to LICs, largely due to greater but riskier trade integration. Upper-middle income countries also fared worse than lower-middle income countries.

Figure 1: GDP Growth Globally and by Income Group, as a percentage (2006-2011)



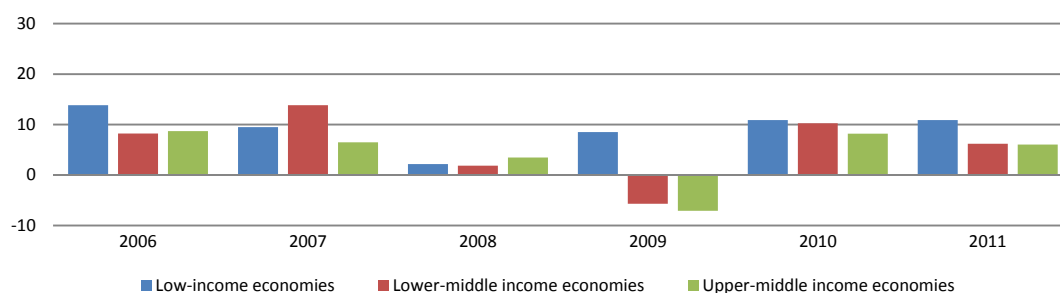
Source: Constructed from the IMF, *WEO Database* (September 2011) with the country classifications of the World Bank, April 2011. For a list of countries used see Appendix A.

Figure 1 shows the difference in average GDP growth between middle and low-income groups during the crisis¹³. The results demonstrate that the poorest countries saw on average less economic impact than MICs. Export growth decelerated much sooner and further in MICs (Figure 2 **Error! Reference source not found.**): growth contracted -7 percent and -5.6 percent in 2009 in upper- and lower-MICs, respectively, compared to 1.8 percent and 3.4 percent the year before. LICs meanwhile maintained positive export growth, registering 8.5 percent in 2009 compared to 2.1 percent in 2008. LICs, however, saw a lag in the decline of aggregate demand and reported a slowdown in export growth in years 2009 and 2010 (10.8% both years) as sluggish demand continued. Growth in the

¹³ It should be noted that the differences among countries within these groups are stark, with volatile shifts in both export and import growth from year to year, and some countries hover between the two income groups. Thus, this should be used as an indication of the trend in flows between income groups.

volume of imports also slowed considerably more in upper-MICs in 2009 (-10.4%) in comparison to lower-MICs (-3.4%) and LICs (-7.6%)¹⁴.

Figure 2: Global Growth of Volume of Exports of Goods and Services, as a percentage (2006-2011)



Source: Constructed from the IMF, *WEO Database* (September 2011) with the country classifications of the World Bank, April 2011. For a list of countries used see Appendix A.

The transmission mechanism further spread to LICs by way of currency movements. The global meltdown spurred investors to liquidate their assets in many countries, causing currency depreciation. Low aggregate demand also led to downward pressures. Depreciation only caused investors to further transfer their portfolio allocations to appreciating currencies for a higher rate of return, causing further depreciation. Again, MICs with a higher amount of trade and financial flows saw greater volatility than LICs, but variances rose across LICs. For example, the Ethiopian birr depreciated almost 45 percent¹⁵ from 2008 to 2010 against the US dollar while the Vietnamese dong saw almost 18 percent depreciation against the US Dollar in the same period. In general, those countries with a flexible exchange rate system, including Vietnam, with a managed float

¹⁴ Calculated from IMF, *WEO Database* (September 2011); LICs have also seen a deeper decline in imports due to currency depreciation.

¹⁵ Computed from the lowest value to the highest value in from Jan. 1, 2008-Dec. 31, 2010 (Oanda.com).

saw less volatility¹⁶. Currency depreciation can make other export sectors more attractive, but limited infrastructure, supply bottlenecks, and sustained lower global demand prevented many LICs from moving resources from one export sector to another to benefit from changes. Instead, LICs relied on international reserves from export revenues to stabilize their currencies and purchase more expensive imports.

By early 2011, trade flows and GDP growth had rebounded (Figure 1) but continued to be below pre-crisis levels as sluggish and declining demand in advanced countries remained. The eruption of debt crises in many European countries also maintained fears. As a result, the IMF (WEO, October 2010) reported that imports by advanced economies would remain below pre-crisis trends for years to come with negative implications for emerging economies that depend upon export-led growth. This is particularly worrisome for LICs who rely on these flows to fuel growth, and for their governments that use export revenues from advanced countries to provide basic services. Despite this, the estimated growth rate of LICs is projected to be lower than for other countries (Figure 1), reflecting the economic constraints they face structurally that are exacerbated by lower aggregate demand.

Rising Food and Fuel Prices

Second, the financial crisis initially lessened consumer demand and reduced prices in many LICs. However, global food and fuel prices recovered in 2009 and have since been climbing steadily, reigniting inflation concerns. Global food prices hit a record

¹⁶ World Bank, *The Great Recession and Developing Countries: Economic Impact and Growth Prospects*. Edited by Mustapha K. Nabli. Washington, D.C.: The World Bank (2011): 36-37.

high in February 2011, increasing 35 percent from the previous year¹⁷. As a result, the World Food Program (WFP) reported that for 44 of the 63 countries studied, price trends of the basic food basket had shifted upward more than 10 percent from the 5-year average¹⁸. In some of the poorest countries, the cost had increased over 100 percent and put many countries at high risk for food insecurity.

Higher prices have been blamed on disparities between world supply and demand that have reduced food stocks and tightened markets. However, the financial crisis may have further contributed as a result of currency depreciation. A UNCTAD-endorsed study (Herrmann, 2009) found that currency depreciation from 2004-2008 has helped increase commodity prices in 39 of 168 countries, only one of which being a developed country. The study also cited price volatility due to increased speculation of commodity markets as investors moved out of the declining real estate and stock markets. Domestic policies that encourage food and oil stockpiles have also been charged. Coupled with the continual rise in the price of oil, long-run food inflation is expected.

Rising prices affect countries differently depending upon domestic market structures and fiscal and monetary policies. They particularly harm countries that are net food and fuel importing countries (largely LICs) and further deteriorate their terms of trade. This occurs as import prices rise disproportionately to export prices, which are usually the cheaper primary commodities in LICs. Lustig (2008) found that the recent food and fuel shocks deteriorated the terms of trade for 75 percent of 116 developing

¹⁷ Food and Agriculture Organization (FAO), *FAO Food Price Index*. 2011. <http://www.fao.org/worldfoodsituation/wfs-home/foodpricesindex/en/> (accessed March 22 2011).

¹⁸ World Food Program (WFP), "The Market Monitor: Trends of staple food prices in vulnerable countries" (April 2011).

countries. This led to inflationary pressures and strained governments as they attempted to mitigate the effects of rising prices.

At the microeconomic level, most poor households are net consumers of staple food commodities and spend a larger proportion of their income (50-80 percent) on food items. Rising food prices then disproportionately hurt them. Rising fuel costs—a production input and transportation cost—also raised the price of many non-durable consumer goods purchased by them. While not explored, reported coping mechanisms included a reduction of nutrition, health services and education¹⁹ which have been disparately felt by women and children²⁰. In turn, this economic distress paired with higher under- and un-employment manifested into social and political unrest²¹.

Financial Mechanism

Last, the crisis moved to LICs through the financial mechanism, despite arguments they would be insulated by their shallow financial systems²². Even without deep linkages, the past decade had seen a large increase in the amount of foreign actors and inflows to LICs; illustratively inflows of FDI increased 1,257 percent from 2000-2008 to LICs²³. Integration provided critical capital resources but also created a conduit through which global financial movements were transmitted (Stiglitz, 2010). The areas of greatest impact in LICs were asset quality, lending including trade finance, portfolio

¹⁹ For more on coping mechanisms, see Henk-Jan Brinkman, et al, "High Food Prices and the Global Financial Crisis Have Reduced Access to Nutritious Food and Worsened Nutritional Status and Health." *The Journal of Nutrition* 140, no. 1 (January 2010): 154-161.

²⁰ Studies show this is disparate given the fact that women and children comprised 70 percent of the world's hungry in 2007 (Rania Antonopoulos, "The Current Economic and Financial Crisis: A Gender Perspective." Working Paper No. 562, Bureau for Development Policy, Gender Team, United Nations Development Program (May 2009): 26).

²¹ For example, higher prices have resulted in recent food riots in many developing countries.

²² For this project, a shallow financial system refers to a lack of or limited money and capital markets. Banking is usually centralized and offers few financial products. Stock and bond markets are limited or nonexistent, also limiting financial products. Additionally, the government tends to remain the primary borrower with less participation from the private sector.

²³ Computed from UNCTAD, *UNCTADstat Database* (2011)

investment and FDI. ODA, remittances, and international loans, while important, are explored briefly²⁴.

In the banking sector, LICs felt the effects primarily through decreased asset quality, global liquidity and access to credit. The number of non-performing loans (NPLs) in many LICs increased as borrowers, facing income reductions, defaulted. International bank lending also declined in some LICs as the reduction in liquidity trickled down from the foreign parent bank to the domestic subsidiary bank. Additionally, the global credit crunch forced up interest rates, as the supply of credit in formal institutions fell. This reduced lending largely to the private sector. Other non-bank financial institutions in LICs, including microfinance institutions that serve many of the unbanked in LICs, also reported a reduction in financial lending²⁵. Impact and recovery varied, determined by its ownership, initial capitalization and regulatory system.

There is also some evidence that banks and private companies reduced sources of trade finance, including letters of credit (from banks) and trade credit (between buyers and sellers). This harmed producers in LICs who use these tools to smooth the bumps between the time and placement of the order. One estimate argued that because of the financial crisis, the reduction in trade finance to developing countries could create a \$25 billion gap in supply and demand to producers worldwide (Aubion, 2009). The results, though, have been largely anecdotal and more concentrated in Latin America and the Caribbean²⁶. This is not to say other LICs in other parts of the world have not been

²⁴ They are not explored in detail partially because did not see large shifts but were largely resilient.

²⁵ Consultative Group to Assist the Poor (CGAP), "The Impact of the Financial Crisis on Microfinance Institutions and Their Clients: Results from CGAP's 2009 Opinion Survey." 2009. Results from CGAP's 2009 Opinion Survey. 2009.

²⁶ John Humphrey, "Trade financing: Is it a barrier to Africa's exports?" *VOX*. April 28, 2009. <http://www.voxeu.org/index.php?q=node/3507> (accessed August 20, 2011).

affected: letters of credit from foreign banks to Bangladesh have been reduced in response to lower export growth in their own countries²⁷. Decreases in trade credit have also been reported in Africa, but primarily in West Africa²⁸. Instead, reports in LICs have centered on lower global and domestic credit access in general.

The global decline also caused reductions in FDI and portfolio investment. FDI fell almost 40 percent globally from 2008 to 2009²⁹. As a percentage of GDP, the amount of FDI to MICs (13.2%) was more than double than the amount to LICs (6.5%) in 2008³⁰. However, net FDI fell only slightly more in MICs in 2009 (22.9%) than in LICs (21.6%)³¹. While LICs had fewer inflows to begin with, capital flight may have been comparable as investors moved their assets to perceived safer havens, i.e. MICs. Portfolio investment also fell in many LICs, but again deeper in countries in which it had a larger stake to begin with³². The effect of these declines varies, but ideally, these flows would supply critical capital to encourage production, create jobs, increase incomes and reduce poverty. In reality, the results are mixed, as the potential benefits depend on the initial institutions and development in the host country to capture any spillover effects³³. Nevertheless, the decline increased pressures on governments and domestic financial systems in LICs as import duties and tax revenues also dried up.

²⁷ "Indian banks discourage importing Bangladeshi goods," *Weekly Blitz*. September 12, 2011. <http://www.weeklyblitz.net/1792/indian-banks-discourage-importing-bangladeshi> (accessed September 29, 2011).

²⁸ John Humphrey, "Are Exporters in Africa Facing Reduced Availability of Trade Finance." Institute of Development Studies, Brighton, UK, March 2009.

²⁹ This was a drop from \$593 billion to \$359 billion (World Bank, *World dataBank* (2011)).

³⁰ UNCTAD, *UNCTADstat Database* (2011).

³¹ *Ibid.*

³² Illustratively, in a World Bank study of several developing countries, India, China and Poland and Turkey had large stock market gains that saw significant outflows in comparison to the Philippines, Malaysia and Ethiopia that had smaller stock market capitalization increases before the crisis (World Bank, *The Great Recession and Developing Countries* (2011): 23).

³³ For a research and discussion on this, see Dabla-Norris, et al (2010) and Kozul-Wright and Rowthorn (1998).

The financial crisis also moved to LICs through changes in ODA. Like FDI, ODA is a critical source of government revenue for many LICs. Thus, any decline in the volume of ODA threatened government expenditures on important programs and services often directed at vulnerable groups. The results show ODA fell globally from 128 billion in 2008 to 120 billion (6.25%) in 2009 but not as steep as predicted³⁴. In fact, some LICs saw aid amounts increase in response to the financial and food crises³⁵. However, in many cases, foreign aid funding from advanced countries was not as prioritized as domestic pressures require greater attention, and financial commitments did not increase at the rate needed³⁶.

Last, experts debated the possible implications of a decline in remittances from the Great Recession, as they account for over \$400 billion and are closely tied to household spending on human development³⁷. In theory, a decline in migrants' income due to depressed global demand and output should reduce remittance flows. One study estimated that remittances could fall 3-7 percent in the majority of African countries, the continent with the highest number of LICs³⁸. To date, remittances to LICs were more resilient than other types of financial flows; both case studies recorded positive growth but at a slower rate. This is attributed to the fact that most LICs do not have large

³⁴ Some predicted the results from the Great Recession would be similar to or deeper than past crises where ODA has fallen 20-25% (Dang, et al (2009)).

³⁵ Ethiopia for example, saw its aid flows increase 21 percent in 2010 (World Bank, *The Great Recession and Developing Countries*, 2011: 219).

³⁶ Helene Cooper. "Economic Crisis Sidelines Fate of the World's Poorest." *The New York Times*. November 11, 2010. http://www.nytimes.com/2010/11/11/world/11aid.html?_r=1&emc=eta1 (accessed December 2010, 15). For example, in October 2010 donor countries pledged \$11.7 billion to the Global Fund to fight HIV and AIDS, tuberculosis and malaria for 2011-2013 but this was under the projected \$17-20 billion needed to fight these diseases (See Doughton (2010)).

³⁷ World Bank, *The Great Recession and Developing Countries* (2011): 28.

³⁸ Adolfo Barajas, et al, "The Global Financial Crisis and Workers' Remittances to Africa: What's the Damage?" WP/10/24, International Monetary Fund, January 2010.

numbers of migrants in developed countries, where the crisis hit hardest, and remittances have been found to be highly correlated to factors outside of income levels³⁹.

A Framework: Transmission Linked to Structural Vulnerability

Questions quickly arise as to why these channels functioned the way in which they did, and how they differed among LICs. The answers link to each country's initial structural economic and financial vulnerabilities. This section discusses some of the key, interrelated weaknesses that characterize many LICs, including Bangladesh and Zambia: narrow exports that are low-valued and use little technology, and shallow financial systems. Interwoven into the case studies, these vulnerabilities help explain how each LIC became more susceptible to the crisis, understand the variances that arose among LICs, and highlight the areas in which development challenges remain.

To begin, many LICs have a narrow export concentration with limited connections to other parts of the economy. Ricardo (1817) argued for trade according to a country's comparative advantage, determined by differences in productivity of labor that made international trade necessary. The Heckscher-Ohlin (H-O) model later⁴⁰ argued that each nation would export the commodity that more intensely used its abundant, cheaper factor (capital or labor). Assuming perfect factor mobility, its corollary argued factor-price equalization through trade (Samuelson, 1948). However, it soon became evident that many LICs only held a comparative advantage in low-priced, labor-intensive primary

³⁹ For a discussion on some of the determinants of remittances, see Ilene Grabel, "The Political Economy of Remittances: What Do We Know? What do we Need to Know?" Political Economic Research Institute Working Paper No. 184 (October 2008).

⁴⁰ The H-O model extended the classical trade model beyond just labor productivity to explore the other reasons for varying productivity and comparative advantage, and how trade affects factor earnings among countries (For more of a discussion, see Dominick Salvatore, *International Economics*. 8th Edition. Hoboken, New Jersey: John Wiley & Sons, Inc., 2004 (115-136)).

commodities, and the return on capital and wage rates would not converge⁴¹. This reality results from factors including but not limited to: colonial history, geographic luck, political instability and social patterns that all influence and limit economic decisions and conditions in a country. Given these other variables, LICs do not have the same amount of technology, discussed below, or face the same trade barriers and/or factor constraints as other higher-income countries. Instead, growth in LICs often becomes concentrated rather than balanced—or spread out—among several industries.

While often unavoidable, export concentration in one sector carries long-term consequences. As Nurkse (1957) argued, concentration in a single industry, i.e. agriculture, makes it more difficult or impossible for the price mechanism and small market alone to create *mutually* supporting industries that improve productivity within sectors. Without resources cultivated in other sectors, the ability to increase aggregate output, income, purchasing power and the standard of living are limited. Instead, Nurkse (1957) argued for balanced growth with induced investment in several industries as, “first and foremost a means of getting out of a rut, a means of stepping up the rate of growth when the external forces of advance through trade expansion and foreign capital are sluggish or inoperative” (p. 248).

However, balanced growth is often unfeasible given inadequate resources and capacity. Noting this, Hirschman (1958) later argued that development is a process, without starting and stopping points, and with continual disequilibria. As a result, balanced growth in all industries would not be required so as the imbalances, or

⁴¹ Ibid. Using the two-factor model, international trade has not led to equal returns on homogeneous factors in different nations. Moreover, the Leontief Paradox found that countries do not always export the commodity in which they have factor intensity, given other variables.

destabilization, created the proper connections within and between sectors. He argued for both “backward and forward linkages” that utilized complementary effects⁴² to encourage export diversification into higher-value added manufacturing and to increase net wealth. A backward linkage would be created as one sector provided inputs required by another to make the current product while a forward linkage would emerge when the current finished product was used (or became an input) in another sector. Critically, by nature, industrialization would give way to more linkage opportunities.

Disequilibria that induced these types of linkages, however, would not occur from economic forces alone but required deliberate actions by external actors to serve as an impetus to an investment series. This investment would also require improved technology and training. The early H-O model assumed all firms were on a common production function that used the same technology (same access), that factor price ratios determined technological processes, and that new processes transferred easily from among countries and firms⁴³. Later, endogenous growth models argued that technological change is actually endogenous, determined by country-specific variables⁴⁴. Moreover, the evidence demonstrated that those countries and regions with a technology-intensive specialization yielded higher spillovers—or positive externalities—to other industries and as a result, developed quicker. Again, this was higher in industrial processes and did not occur automatically.

⁴² Complementary effects emerge as the demand for one commodity and the subsequent increase in its output calls for an increased demand for another commodity (Hirschman (1958): 68).

⁴³ For a further discussion, see R.R. Nelson and S.J. Winter, *An Evolutionary Theory of Economic Change*. (Cambridge, Massachusetts: Harvard University Press, 1982) and Salvatore (2004).

⁴⁴ For example, see Paul M. Romer, "The Origins of Endogenous Growth." *Journal of Economic Perspectives* 8 (Winter): 3-22.

Instead, in order for technology to be captured and adapted in developing countries, targeted efforts at both the firm and national levels were needed. These efforts would need to overcome market failures and to increase knowledge by leveraging current financial and human capital resources to create incentives in certain sectors to make technology worthwhile, to increase the capabilities of the sector to absorb the technology, and to develop technological effort to go out and acquire the technology (Lall, 1992).

Summarizing Lall (1992) wrote,

“It is the interplay of all these factors...that determines at the firm level how well producers learn the skills and master the information needed to cope with industrial technology and, at the national level, how well countries employ their factor endowments, raise those endowments over time, and grow dynamically in the context of rapidly changing technologies” (p. 180-181).

Unfortunately, the actors and actions needed to acquire and/or adapt the technology to create the spillovers are non-existent or too weak in LICs, leaving them few growth opportunities.

With little opportunity for diversification, LICs remain dependent on low-priced exports that are vulnerable to deteriorating terms of trade. As Prebisch (1950, 1959) and Singer (1950) argued, the “periphery”—the majority of which is LICs—produce primary commodities and minerals based on comparative advantage. However, these goods undergo more volatile price changes than other goods that often make them a price taker. Known as the Prebisch-Singer hypothesis, this makes them vulnerable to global fluctuations and low export demand. This deteriorates their terms of trade over time as the price of exports declines while the price of imports (a large portion being manufactured goods) rises. Thus, in order for the periphery to receive the same amount of now more expensive imports, it must produce and export more lower-priced

commodities. This becomes more challenging as consumers in advanced countries, earning a higher income, substitute higher-valued products for lower-valued, primary products.

The hypothesis further argues that this phenomenon works against LICs as they face higher prices of capital-intensive imports needed for expansion and diversification. In recent years, this argument has been extended to low-end manufactures, including low-end garments (UNTCAD, 2002). Both case study countries demonstrated this struggle: both saw their terms of trade deteriorate as the value of imports rose faster than that of exports. As a result, they struggled to afford capital-intensive imports needed for economic growth and instead amassed debt. To counteract this trend, Prebisch and Singer recommended LICs initiate a process of directed import substitution industrialization along with export diversification to reduce dependency. In many LICs, including Bangladesh and Zambia, this was largely not done, making them more vulnerable and less competitive.

The above problems are compounded and caused in part by shallow financial systems including a lack of monetary resources to effectively raise and utilize capital. Most LICs have little or no formal banking institutions and limited financial products. Most lack or have limited stock and bond markets that constrain financial flows, and the government remains the largest borrower in many LICs. Early economists quickly noticed the problems that arise from a lack of capital resources and systems: Rosenstein-Rodan (1943) concluded from his study of underdeveloped areas that the absence of this outside “push” to train large, unskilled labor forces and adopt new research and

technology slows the process of industrialization. Market forces alone leave little incentive for investment, as it remains unprofitable.

In a similar manner, Nurkse (1961) later wrote on the struggle for capital formation in underdeveloped countries, “a country is poor because it is poor...” with a cyclical relationship that “afflicts the accumulation of capital in economically backward countries” (p. 4-5). He explained that the supply of capital is limited by low savings and a small market. A lack of capital decreases productivity, further reducing incomes and savings. On the demand side, low capital results from low induced investment, low purchasing power, and low incomes which result from low productivity and low capital to begin with. The low level of income from low productivity is common to both. Without enough economic push and with high poverty characterized by low incomes, LICs then find it difficult to mobilize investment to increase productivity. Instead, they become trapped in Nurkse’s “vicious cycle” of underdevelopment.

Moreover, in trying to attract additional financial resources, LICs often reduce adequate controls of financial products and foreign participation and investment. In the short-run, this encourages unregulated, riskier international financial flows that can cause currency appreciation with inflows and capital flight with outflows, seen again during the crisis. In the long-run, the benefits of foreign flows may not be captured without the capacity of its institutions needed (Hermes and Lensink, 2004). Instead, the associated costs, i.e. environmental degradation and income inequality, will outweigh the benefits, causing further economic vulnerability.

Selection of Zambia and Bangladesh

With this understanding, two cases are examined: Bangladesh and Zambia. Both LICs were at high risk to the financial crisis through the traditional channels. In both cases, trade flows were the primary transmission mechanism, while the financial mechanism had less impact. Additionally, in both cases, the manner and depth of the transmission mechanisms linked to each country's economic and financial vulnerabilities.

Prior to the Great Recession, both countries had emerged from colonialism and adopted then-popular paths of development: nationalization of industries that maintained heavy state control of key industries. Both countries began to pursue slowly an export-promotion strategy but economic development remained weak due to many of the reasons discussed above, encouraging export concentration (more than 70% of revenues from one source). By the 1980s, international and domestic pressures encouraged neoliberal prescriptions that led to trade liberalization. Financial liberalization also increased but remained limited as private and foreign investment remained small. Politically, both countries moved toward democratic governments in the early 1990s and saw increased financial flows, economic growth, decreased poverty⁴⁵, and human development. Nevertheless, they maintained old and created new challenges.

Bangladesh and Zambia also demonstrated key differences at the outset, besides location. Zambia's rich geography encouraged dependency on extractive minerals—copper and cobalt—that routinely underwent volatile price changes. In contrast, Bangladesh's low-cost labor fostered its reliance on labor-intensive garments. Trade direction also varied and as a percentage of GDP, Zambia was more open than

⁴⁵ Poverty in Zambia is roughly 59.3 percent while poverty in Bangladesh is roughly 40 percent according to national poverty lines (World Bank, *World dataBank* (2011)).

Bangladesh⁴⁶. In 2007, both had increasing trade volumes but Zambia continued to have a trade deficit⁴⁷. In the financial sector, Zambia had higher levels of foreign involvement in its money and capital markets, with larger amounts of FDI and foreign portfolio investment to GDP than Bangladesh⁴⁸. In Bangladesh, the state and domestic actors had a higher level of involvement in both sectors⁴⁹. Remittances also were higher in Bangladesh⁵⁰. Zambia received more ODA but also a higher poverty level, plagued by HIV/AIDS⁵¹.

As will be explored, these factors and others defined their development paths early on, creating shared and unique economic and financial vulnerabilities. These established the trajectory of their individual experiences, and presented particular challenges for their future growth. To the degree in which their experiences converge, they offer lessons for other LICs seeking economic and human development as part of an interconnected but risky global system.

⁴⁶ In 2007, Zambia registered 75.6 percent trade openness while Bangladesh was 43.4 percent, measured as X+M as a % of GDP (IMF, *WEO Database* (September 2011)).

⁴⁷ In 2007, current balance of payments was \$-0.754 billion for Zambia while \$0.829 billion for Bangladesh (IMF, *WEO Database* (September 2011)).

⁴⁸ As a percentage of GDP in 2007, FDI: .9 percent for Bangladesh while 11 percent for Zambia; PI, excluding LCFAR=.5 percent for Zambia while .2 percent for Bangladesh. Market capitalization of listed companies was 9.9% in Bangladesh while 20% in Zambia (World Bank, *World dataBank* (2011); UNCTAD, *UNCTADstat Database* (2011)).

⁴⁹ While the banking sector is much larger in Bangladesh, the majority of banks are run by domestic actors; only 7 percent of assets are held by foreign banks versus 64.2 percent in Zambia (World Bank, *World dataBank* (2011)). Domestic credit by the banking sector was then (% of GDP) in 2007: 58.21% in Bangladesh versus 16.3% in Zambia. Domestic credit to the private sector (% of GDP): 37.28% in Bangladesh versus 11.8% in Zambia (World Bank, *World dataBank* (2011)).

⁵⁰ Remittances in Bangladesh were 9.5 percent to GDP versus .5 to GDP in Zambia in 2007 (World Bank, *Migration and Remittances Factbook 2011* (2011)).

⁵¹ ODA to GDP was 2.3 percent in Bangladesh while 9.7 percent in Zambia in 2007 (UNCTAD, *UNCTADstat Database* (2011)).

CHAPTER TWO: BANGLADESH CASE STUDY

Delayed Impact but Slow Recovery

At the onset of the global financial crisis, development experts estimated the possible impacts to the South Asian country of Bangladesh. The World Bank (2009) study of the previous chapter categorized it as highly exposed to the effects of the financial crisis. This came from its initial high level of poverty (40%) and estimates that GDP would fall 2-3 percent annually⁵². As will be shown, these concerns were rooted in the country's economic and financial features coupled with rising global prices and competition. In fact, Bangladesh did not suffer as expected but also did not completely avert the crisis. Instead, the crisis further exposed the underlying vulnerabilities of the country's trade and financial sectors.

This chapter develops these conclusions in the following format: first, it demonstrates how the trade transmission transferred the crisis to Bangladesh with subsequent effects on exports and imports and as a result, its currency, unemployment, and government revenues. The effects of the trade transmission are then linked to Bangladesh's initial structural vulnerabilities. It then looks at how the financial mechanism affected the LIC and connects the mechanism to its shallow financial system.

⁵² Mustafizur Rahman, et al, *Paper1: Bangladesh*. Global Financial Crisis Discussion Series, London: Overseas Development Institute (May 2009): 2-3.

It concludes with economic and policy recommendations for the country to address these weaknesses amidst rising competition and slow growth.

The Great Recession and its Trade Transmission (2008-2010)

By 2008, Bangladesh's economy was booming: it had registered its highest GDP growth rate ever at 6.5 percent (Figure 3), and its trade openness had reached 43.4 percent⁵³. Its economic structure consisted of 30 percent industrial goods, including garments and textiles, 20 percent agriculture and 50 percent services. Exports amounted for roughly one-tenth of GDP but the large majority (85%) went to advanced countries including the United States and in the European Union (EU). Exported goods included textiles and apparels, leather, footwear, jute and jute products, but the multi-billion dollar ready-made garment (RMG) industry alone comprised 75 percent of export revenues and averaged 15 percent annual growth⁵⁴. Imports included capital machinery and equipment, textiles and RMG inputs, food, chemicals, crude oil, and petroleum.

Ready-made garments include woven and knitwear products. Woven products include t-shirts, shirts and trousers. Knitwear products entail socks, stockings, undergarments and soft garments like t-shirts and sweaters. In 2008, there were over 4,000 RMG firms in the country, serving as one of the largest employers and the largest source of foreign exchange earnings⁵⁵. The majority of firms were locally but privately-owned. The industry by nature is low-cost and labor-intensive, utilizing economies of

⁵³ Defined as exports + imports as percentage of GDP (Calculated from IMF, *WEO Database* (October 2010)).

⁵⁴ Mohammed Zia Haider, "Competitiveness of the Bangladesh Ready-made Garment Industry in Major International Markets." *Asia-Pacific Trade and Investment Review* 3, no. 1 (June 2007): 6.

⁵⁵ *Ibid*, p. 7

scale for large production. This is a comparative advantage for Bangladesh, which has an extremely cheap but low-skilled population of 162 million people.

Figure 3: Bangladesh GDP growth, constant prices as a percentage (1995-2011)

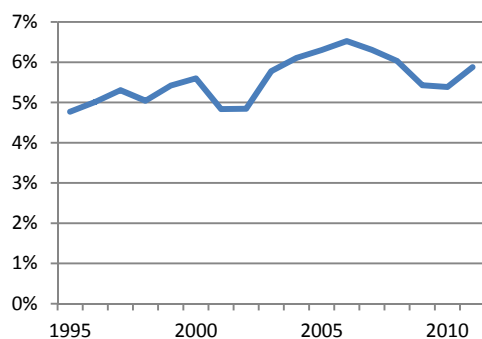
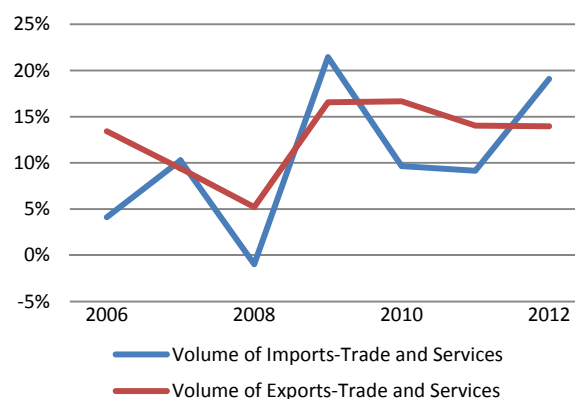


Figure 4: Bangladesh Growth of Volume of Exports and Imports, as a percentage (2006-2012)



Source: Constructed from the IMF, *WEO Database* (October 2010). Estimates begin after 2008.

Given its high integration with Western markets and little export diversification, the evidence shows that the greatest impacts to the LIC from the recession were in the areas of exports and imports with accompanying effects in the labor market and government revenues, but were not to the large extent predicted.

In looking at exports, Bangladesh’s economy remained robust at first *because* of its narrow concentration in both types of products and numbers of buyers. The RMG industry continued to drive growth and upheld export revenues until the first quarter of FY2009, registering 12.7 percent growth⁵⁶ (Figure 5). While non-RMG export⁵⁷ growth fell, total export growth remained positive due to the RMG industry. This was possible due to preplaced agreements with giant retailers. Given the lead-time required to get garments, large retailers often negotiate orders at a certain price per unit well in advance.

⁵⁶ The Bangladesh fiscal year runs from June-July.

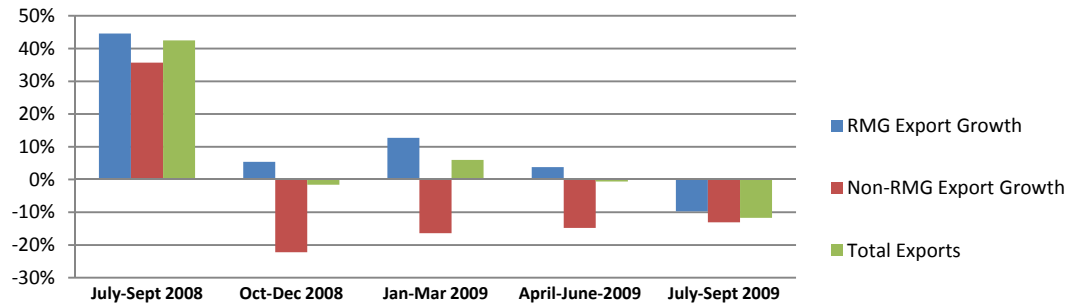
⁵⁷ This consists largely of jute and jute products, frozen seafood and leather.

Based on its cheap labor, this allowed Bangladesh to keep producing garments to fill these orders. Additionally, its RMG exports have a low but positive income elasticity of demand. The so-called Wal-Mart effect, consumers with higher incomes substituted higher-priced goods with cheaper goods, i.e. garments while consumers with lower incomes maintained their demand of lower-priced goods, i.e. garments. This gave producers and the Government of Bangladesh (GoB) more export revenues to rely upon⁵⁸ and time to prepare.

It was not until September 2009, almost a year after the crisis hit the rest of the world, that Bangladesh registered negative growth in total exports. The eventual impact was *also* a result of its narrow export composition and direction: over 80 percent of its RMG exports went to advanced countries where the crisis originated, servicing large clothing retailers like Wal-Mart and Old Navy in the United States, Canada and the EU. As a result, declining wealth and income in these advanced countries eventually reduced demand for Bangladeshi garment exports. When preplaced orders were filled, inventories were depleted, garment demand then declined and production finally fell. As a result, the rate of growth in RMG exports alone fell 28.6 percent from the first nine months of 2009 compared to the same period the year before (Figure 2.3). Given its large share, this reduced the potential for overall export growth, and it rose only slightly: 16.65 percent in 2010 from 16.55 percent in 2009. This was a sharp reversal from an impressive 11.3 percent gain in the rate of export growth in 2008 (Figure 4).

⁵⁸ Without its high dependence on the RMG industry that secured reserves, it may not have fared as well as its other sectors saw an automatic response to declines in global demand.

Figure 5: Bangladesh's Quarterly Export Growth, as a percentage (July 2008-Sept. 2009)



Source: Constructed from Bangladesh Export Promotion Bureau. *Export Statistics Database* (2011)

Despite a change in exports, Bangladesh saw less volatility its exchange rate in comparison to other LICs, including Zambia. This is because the Bangladesh Bank (BB) stabilized the Bangladeshi taka against the dollar by buying or selling dollars when needed, using its large pool of stored reserves. Illustratively, the amount of international reserves increased by only \$363 million in 2010 compared to a \$4,530 million increase in 2009⁵⁹. Using reserves, the taka then appreciated only 1.3 percent against the US dollar from its highest to its lowest value from September 2008 to September 2009⁶⁰. However, the weakening of the dollar during this period against other major currencies led to a depreciation of the taka against these same currencies; the taka depreciated 1.01 percent against the euro and 8.9 percent against the rupee⁶¹.

Looking at the labor market, it can be seen that Bangladesh's historical reliance on its labor-intensive, low-valued exports helped weaken the initial impact of the crisis. Most factories continued production, making a profit off the quantity sold rather than the

⁵⁹ Computed from UNCTAD, *UNCTADStat Database* (2011).

⁶⁰ From the highest value during the year (week of September 22-28, 2008) to the lowest value to the US dollar (week of April 6-12, 2009); computed from Oanda. *Historical Exchange Rates*. 2011. <http://www.oanda.com/currency/historical-rates/> (accessed July 20, 2011).

⁶¹ Ibid.

price of garments sold. As a result, the unemployment rate rose just .1 percent to 3.7 percent in FY2009/10⁶² from the year before. This was a relief as the sector employs over 2.5 million people, 90 percent of which are women and who represent some of the poorest people⁶³. However, while a large amount of people, this is still small in relation to the entire population. Nevertheless, the labor market did not go entirely unaffected: over 30,000 garment workers were reported to have lost their jobs in the first nine months of the 2009 with other undocumented losses in the informal labor market⁶⁴.

Additionally, employment may have remained stable as producers utilized other cost-cutting methods. This follows a UNTCAD study (2002) that found that low-technological, labor-intensive manufacturing industries in LICs are more able to repress wages by relying on low-skilled workers. In Bangladesh, the recession brought reports of factories reducing benefits, hours, overtime, and underutilizing production capacity, all of which reduced take-home wages, delayed new hires and reduced workers' productivity. Child labor has also been reportedly increased⁶⁵. These tactics raised human rights concerns and labor riots⁶⁶. There has been no evidence that this trend has reversed, and estimates predict the labor supply will continue to outmatch job creation in upcoming

⁶² Mustafizur Rahman, et al, *Paper 12: Bangladesh Phase 2*. Global Financial Crisis Discussion Series, London: Overseas Development Institute (January 2010): 17.

⁶³ Khan Murshid, et al, *The Global Financial Crisis Implications for Bangladesh*. BIDS-PRP Working Paper Series #1, The Bangladesh Institute of Development Studies, (April 2009): 15.

⁶⁴ Rahman, et al, (2010): 17. See also Murshid (April 2009).

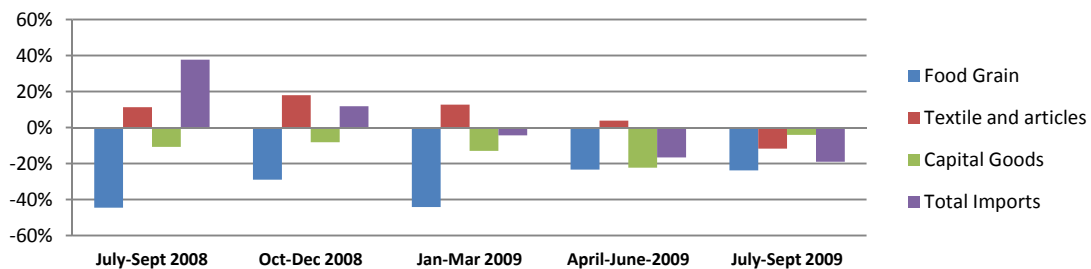
⁶⁵ Tom Ramstack, "Child labor common during economic recession, Labor Department says." *All Headline News*. October 7, 2011. <http://www.allheadlinenews.com/articles/90062129?Child%20labor%20common%20during%20economic%20recession%2C%20Labor%20Department%20says> (accessed October 8, 2011).

⁶⁶ For example, over 15,000 garment workers took to the streets in July 2010 to protest low and unpaid wages and poor working conditions; See Jason Burke and Saad Hammadi, "Dhaka garment workers in violent protests over low pay." *The Guardian Newspaper Online*. July 30, 2010. <http://www.guardian.co.uk/world/2010/jul/30/dhaka-garment-workers-violent-protests> (accessed May 20, 2011).

years⁶⁷. As investors and buyers become more stringent about labor rights and productivity, this could reduce future garment orders.

Still another impact of the transmission, imports declined with exports⁶⁸. Sustained RMG production first kept import growth strong in the first quarter of FY2008/09. However, imports fell with exports and registered -19 percent growth at their lowest point (Figure 6). Import growth was only then 9.6 percent in 2010, compared to 21 percent in 2009⁶⁹. Capital machinery, textiles and RMG inputs saw the greatest declines in growth as production of RMG exports fell. Food imports also fell due to higher global food and petroleum prices. A stronger agricultural sector also increased local production⁷⁰ and helped offset more expensive imports and rising food inflation⁷¹. This likely supported poor families that saw purchasing power fall.

Figure 6: Bangladesh's Quarterly Import Growth, as a percentage (July 2008-Sept. 2009)



Source: Constructed from data collected from the Bangladesh Bank as reported in Rahaman et al, (2010): 12.

⁶⁷ Rahman, et al, (2010): 17.

⁶⁸ Main imports being capital machinery and equipment, textiles and RMG inputs, food, chemicals, crude oil and petroleum.

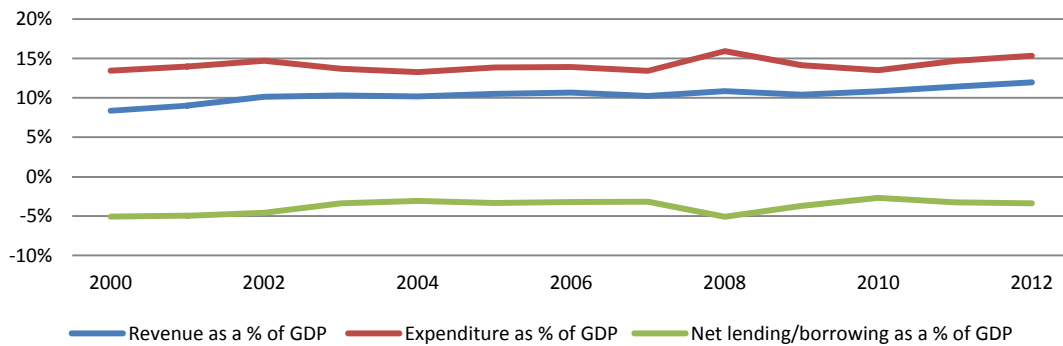
⁶⁹ IMF, *WEO Database* (September 2011).

⁷⁰ This was encouraged by government programs and an additional stimulus package that provided subsidies to farmers (Rahman, et al, (2010): 20-23).

⁷¹ Food inflation hit 14.36 percent in April 2011, compared with a 13.87 percent in March, driven by rice, wheat, sugar and edible oil global price increases; ("Bangladesh inflation quickens on food price surges." *Reuters*. May 24, 2011. <http://www.reuters.com/article/2011/05/24/bangladesh-economy-inflation-idUSL3E7G00V320110524> (accessed July 20, 2011)).

In the short-term, the import decline had a two-fold effect on the Bangladeshi economy. On the one hand, it improved its balance of payments (BoP) situation. A simultaneous decline in reserves for import payments with declining export revenues could have further deteriorated its trade position. On the other hand, the reduction in the volume of imports resulted in a reduction of import duties by 2.6 percent from 2008 to 2009⁷². Value-added tax and supplementary duties also fell. These revenues were especially critical as they accounted for roughly 30 percent of the total domestic revenue of the national budget⁷³. Coupled with declines in foreign investment, ODA, and lower export revenues, the trade transmission then presented fiscal challenges to the GoB as expenditures continued to rise. As a result, government borrowing also rose (Figure 7).

Figure 7: GoB Revenues, Expenditures and Borrowing/Lending, as a percentage of GDP (2000-2012)

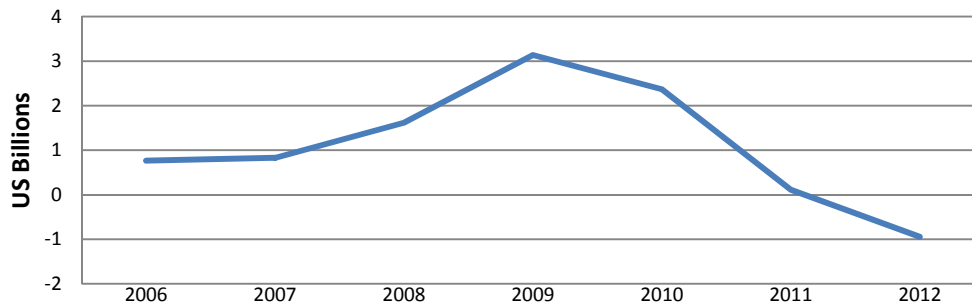


Source: Constructed from IMF, WEO Database (September 2010). Estimates begin after 2008.

⁷² Rahman, et al, (2010): 13.

⁷³ Ibid, as of 2009/2010.

Figure 8: Bangladesh's Current Account Balance, in US Billions (2006-2012)



Source: Constructed from IMF, WEO Database (September 2011). Estimates begin after 2010.

Thus, it is clear the trade transmission had several economic impacts on Bangladesh. The impacts were delayed, but a decline in global aggregate demand eventually caused exports and imports to decline. This deteriorated the LIC's BoP from \$3.3 billion in 2009 to \$2.3 billion in 2010, or 24.5 percent (Figure 8). This occurred as imports (largely of RMG inputs) fell while export growth remained stagnant. The trade transmission had subsequent negative effects on unemployment and underemployment, and government revenues. These could have long-term impacts at the micro level. The impact of the transmission linked to Bangladesh's structural vulnerabilities: high export concentration that relied on labor-intensive, low technological processes that resulted from economic decisions and conditions leading up to the crisis. This is explored below in two periods: independence to the early 1985⁷⁴ and 1985 to the crisis in 2008.

Trade Transmission Linked to Structural Vulnerability

First Period (1971-1985)

In this first period, Bangladesh emerged as an independent nation in 1971 from Pakistan following a civil war that left the country and its citizens destitute. Formerly

⁷⁴ This year was chosen as it is when Bangladesh saw quota allowances reduced significantly. As a result, its competitive advantage declined.

East Pakistan, the Pakistani government largely had ignored the region. Agriculture served as the region's primary industry by utilizing its fertile soil and ample water supply. The jute industry was the country's largest industry, exporter and employer. However, the sector relied heavily on traditional agricultural methods and low world prices. The textile industry, while not as large, had been developed under the previous colonization period⁷⁵ using the region's water supply and abundant labor force for chemical processing and assembling. However, it had fallen by the wayside due to a lack of public or private investment to make critical upgrades.

At independence, the new government nationalized all large textile mills from previous Pakistani owners to take back control of the industry. The GoB organized the factories under the Bangladesh Textile Mills Corporation (BTMC) and subsidized the upgrade of and imports needed for textile mills. The real growth catalyst however was preferential international trade agreements. The establishment of the international Multi-Fiber Agreement (MFA)⁷⁶ in 1974 limited the amount of exported garments and other textiles to certain developed countries. The agreement allotted poor countries larger quota amounts. This allowed most Bangladeshi garment exports to enter the EU and USA duty-free, and its abundant cheap labor offered its buyers low prices. This encouraged investment and growth in the RMG industry, as the imposition of quotas incentivized international buyers and investors to shift their demand. By the decade's end, monetary and labor resources had moved further away from the agricultural sector, and RMG had quickly replaced jute as the primary export industry.

⁷⁵ East Bengal was part of Pakistan that was formerly part of India, colonized by the British.

⁷⁶ Signed in 1974, the MFA set quotas on the amount of garments and textiles developing countries, with a low-labor cost advantage, could export to developed countries. It expired in 2005.

Critical observations from this early period largely underscore the creation of Bangladesh's dependence on one export source with few opportunities for export diversification. Notably, it is unlikely the textile industry would have grown without this protection period. The government's early role in the industry provided the institutional impetus, but favorable quota restrictions gave its exports the economic advantage needed to compete internationally. Referenced in Chapter One, protection policies—including quota restrictions—in LICs can help them overcome economic barriers that perpetuate underdevelopment including narrow, low-value, low-tech exports that often give way to deteriorating terms of trade. They do so by keeping the benefits of acquired technical progress in the country, helping raise productivity and domestic incomes and giving the infant, underdeveloped industry time and tools to develop⁷⁷.

In Bangladesh, the protection of a quota system initiated economic growth in the stagnant textile industry and pushed the country away from traditional agricultural exports to low-end manufactures. However, this growth became extremely unbalanced and concentrated in the RMG industry: the ratio of RMG exports to total exports only increased. Destabilization did not give way to Hirschman's (1958) strong linkages. Bangladesh's garment industry works by turning cotton and/or other fibers into yarn using spinning processes, yarn to grey fabrics using weaving or knitting processes, and grey fabrics to finished products using dyeing and printing processes. Thus, backward linkages include improvements to raw materials and machinery for production processes. Instead, Bangladesh early on established a system in which it imported its textile inputs

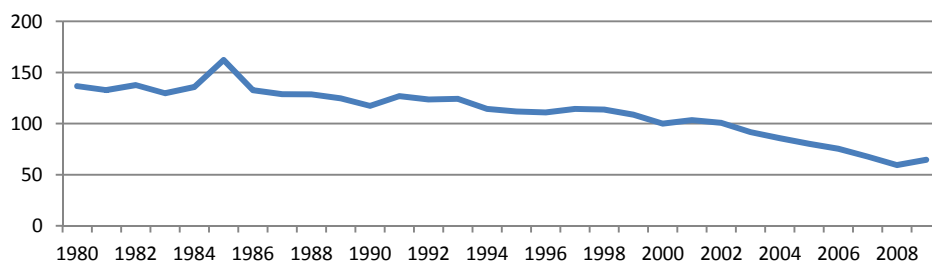
⁷⁷ Raúl Prebisch, "Commercial Policy in the Underdeveloped Countries." *The American Economic Review* (Papers and Proceedings of the Seventy-first Annual Meetings of the American Economic Association) 49, no. 2 (May 1959): 256-259.

from surrounding countries, giving it little control over the quality and timing received⁷⁸.

In a similar manner, poor distribution and marketing perpetuated by a lack of key transport, infrastructure and energy investments hampered forward linkages.

Upon analysis, these linkages largely remained limited due to an inadequate amount of effective planning and investment. Illustratively, the GoB and private actors could not and/or did not adopt large-scale national-directed efforts to acquire higher technology and/or training. Following Lall (2000), unlike other countries, the GoB did not institute national policies that could have incentivized and assisted firms, both private and public, to overcome market challenges of imperfect information and costly technology. This kept the Bangladeshi garment industry at the low-technology end of the RMG market where value-added and profit margins were small. Instead, it continued to rely on labor costs as the primary element of its competitiveness. As it did so, its terms of trade deteriorated as its export prices fell disproportionately to the cost of its imports (Figure 9).

Figure 9: Bangladesh's Net Barter Terms of Trade, 2000=100 (1980-2009)



Source: Constructed from World Bank, *World dataBank* (2011)

⁷⁸ Most notably, cotton is used in yarn production but cotton production remains limited so spinning mills import cotton from Indian, Pakistan, China, Turkey, Uzbekistan and the USA; See Ibne Rakib Habib, "Backward Linkages in Readymade Garment Industry of Bangladesh: Appraisal and Policy Implications." *Journal of Apparel and Textile, Technology and Management* (College of Textiles: NC University) 6, no. 2 (Fall 2009).

Meanwhile, its largest competitors, i.e. China and India, embraced a more balanced export-promotion strategy earlier on⁷⁹. They instituted a coordinated effort to substitute imports with domestic inputs by encouraging strong backward linkages to the agricultural sector. This fed the manufacturing sector its necessary imports. Illustratively, they subsidized the production of cotton at home to provide a cost and time advantage that improved productivity. For the remaining imported inputs, they used incentives, i.e. lower import duties, to improve delivery and quality. They also made critical investments in technology and training. Discussed below, this required a strategic approach to utilize financial flows. These policies attracted further investment and allowed them to move into medium-technology products that were more capital intensive and required higher skills (Lall, 2000)⁸⁰. In Bangladesh, this period of protection did not successfully establish the policies or linkages necessary to develop and diversify further but instead encouraged greater export concentration.

Second Period (1985-2008)

In the second period, the industry continued to grow under the MFA, but the absence of key linkages and spillovers became more apparent. The industry fell behind due to a lack of strategic planning, accountability and adequate infrastructure. The BMTC also came under scrutiny due to poor management and corruption allegations. In 1985, Western markets imposed smaller MFA quotas on Bangladeshi exports, slowing RMG growth. To ameliorate the situation, the GoB turned to the IMF. It argued that

⁷⁹ See discussion of this on the reason for the development of some Asian countries faster than others in Gustav Ranis, "Another Look at the East Asian Miracle." *The World Bank Economic Review* 9, no. 3 (September 1995).

⁸⁰ Sanjaya Lall, "The Technological Structure and Performance of Developing Country Manufactured Exports, 1985-1998." *Oxford Development Studies* (International Development Centre) 28, no. 3 (2000): 342-343.

Bangladesh should rely on its comparative advantage and remove any barriers, including government participation, to correct macroeconomic imbalances and attract investment. This neoliberal view argued that government interference had thwarted market forces, discouraged further economic development and prevented the linkages necessary to allow the industry to withstand international competition⁸¹.

This went against the findings of many of the economists discussed in Chapter One who argued that market forces alone would actually work against the country. The GoB agreed to Structural Adjustment Programs (SAPs) to correct macroeconomic imbalances and to improve its financial climate. The SAPs focused on liberalization and privatization of the industry, away from the centralized control of the BMTC. The reforms did not deliver the results promised, discussed below. GDP growth declined further⁸² and deep deficits and high inflation remained.

In the early 1990s, the GoB transitioned from semi-autocratic rule to a parliamentary democracy. In 1995, the Uruguay Round Agreement on Textiles and Clothing (ATC) phased out all MFA quotas by 2005. To adjust, the new government implemented further macroeconomic reforms to increase trade and attract additional investment⁸³. These reforms, coupled with favorable international conditions helped the industry grow. However, in 2000-2001, a decline in the US economy compounded by the events of September 11, 2001, triggered a global recession. Macroeconomic shocks

⁸¹ For example, see discussion in Deepak Lal, *The Poverty of Development Economics*. Cambridge, Massachusetts: Harvard University Press, (1985): 72-78.

⁸² Illustratively, GDP growth was only 2.15% in 1988 compared to 7% in 1978 (World Bank, *World dataBank* (September 2011)).

⁸³ It continued to offer incentives to garment exporters, relaxed licensing requirements, and reduced import duties. It made telecommunications and infrastructure improvements. It also initiated financial sector reforms working with the Central Bank to deregulate the interest rate, increase access to credit, privatize banks and improve the organizational and technical capacity of the sector.

quickly rippled throughout the global economy and reduced Bangladesh's export demand. Holding now over 76 percent of total exports revenues in the RMG industry, a decline in export demand hit Bangladesh hard. In total, export earnings declined 7.5 percent and GDP growth fell .7 percent from 2000 to 2001⁸⁴. However, export demand rebounded as soon as international conditions improved: Bangladesh was able to increase the volume of exports in spite of lower prices⁸⁵.

Key observations from this second period also demonstrate the creation of key vulnerabilities aggravated again in the 2008 crisis. Beforehand, Bangladesh's competitors continued to face high tariff restrictions in the garment industry while Bangladesh largely did not. Instead, it continued to rely on high volumes of low-end exports maintained by cheap labor to capitalize on large rents. Now, in this second period of a phase out, Bangladesh had already captured the lower-end of the market but could not move into the higher-end of the market where it could have received more quota allowances⁸⁶. The safety net was then completely removed.

While many economists agree that protection policies should be taken away when the domestic industry can stand alone⁸⁷, there is disagreement on the timeframe and recipe to do so. Developing countries with limited exports and financial resources often face higher adjustment costs associated with the removal of trade barriers. Adjustment

⁸⁴ IMF, *WEO Database* (September 2011).

⁸⁵ Bangladesh's export revenues quickly recovered, recording a 9.39 percent growth rate in 2002-2003; of this, 7 percent of the growth was attributed to volume growth and 2.3 percent to price (Mustafizur Mohammad Rahman, "The Foreign Trade of Bangladesh: Its Composition, Performance, Trend, and Policy." School of Accounting, Economics and Finance, The University of Southern Queensland, Queensland, Australia, 1-12 (2008): 1-2).

⁸⁶ See Montfort Mlachila and Yongzheng Yang, "The End of Textiles Quotas: A Case Study of the Impact on Bangladesh." IMF Working Paper WP/04/108, International Monetary Fund, 2004.

⁸⁷ For a further discussion of why to remove protection, see Andrew Charlton and Joseph E. Stiglitz, "Trade Liberalization and the Costs of Adjustment." *Initiative for Policy Dialogue Working Paper Series*, 2005: 170-214.

costs are higher in these countries given their underdevelopment and include, but are not limited to, higher impacts to unskilled labor, greater implementation costs from weaker political and economic institutions, and few social safety nets (Charlton and Stiglitz, 2005).

In the case of Bangladesh, the adjustment period and reforms occurred in phases but did not address many of its internal vulnerabilities. Instead, they largely focused on increasing trade and financial liberalization by removing the GoB from the RMG industry and other industrial sectors, helping to make the adjustment costs greater. Bangladesh now largely lacked the national support necessary to make the large, overarching reforms in technology, training and infrastructure needed to develop the garment industry or other sectors by way of strong linkages or spillovers (Lall, 2000). Following Nurkse's (1961) argument, the low productivity in these sectors from a small amount of investment and savings only maintained low levels of capital formation. This only encouraged further export concentration in low-end RMG garments that led to quantitative rather than qualitative (higher-value) growth.

Additionally, this export concentration allowed Bangladesh to accumulate a large level of international reserves. Illustratively, the amount of international reserves, including gold, increased 248 percent from 2000-2007. This had a two-fold effect. First, aligned with the literature, this was an insurance source during times of economic decline and illiquidity, helping to stabilize its currency⁸⁸. This helped the LIC during the 2001-2002 slowdown and funded the continuation of imports needed for garment production.

⁸⁸ Jacob A. Frenkel, "The Demand for International Reserves by Developed and Less-Developed Countries." *Economica* 41, no. 161 (February 1974): 14-24, and John R. Dodsworth, "International Reserve Economies in Less Developed Countries." *Oxford Economic Papers* 30, no. 2 (July 1978): 277-291.

Bangladesh repeated this strategy in the Great Recession: reliance on reserves and export growth fueled by volume rather than price. On the other hand, it also reduced pressures to worry about its export dependence. As Hauner (2005) found, reserve accumulation also carries high costs: in Bangladesh, the high-level from one source seems to have discouraged the need to develop other export revenue sources, and reserve stockpiles were not invested.

Therefore, by 2008, Bangladesh's trade sector had several structural vulnerabilities: it was undiversified, low-priced and labor-intensive. It used little technology and relied heavily on imports for inputs. Without adequate public or private policies to mobilize financial resources, discussed below, linkages and spillover effects were limited. Global competition had also increased significantly in the new post-quota system, and Bangladesh was losing its comparative advantage to countries that had adopted higher-value industrialization processes earlier on. Meanwhile, high poverty remained. Given these conditions, Bangladesh was categorized as highly vulnerable to the transmission and poverty impacts in the World Bank (2009) study.

In fact, Bangladesh at first maintained high export growth by relying on its narrow RMG export base that utilized preplaced orders to fuel quantity rather than price growth and by storing the reserves from continued exports. However, it eventually saw decline through the trade mechanism that aggravated these structural weaknesses. As the global economy recovers, Bangladesh now faces a harsher environment. It receives duty- and quota-free access to the EU in low-end categories but so do its LIC competitors, i.e. Cambodia and Pakistan. Meanwhile, it lacks the ability to move into higher-value

garments where other competitors, i.e. China and India, hold a larger market share. It also remains reliant on regional and bilateral trade agreements with regional partners for RMG production inputs⁸⁹. Discussed in Section Five, it must now work harder to overcome these weaknesses.

The Great Recession and its Financial Transmission (2008-2010)

In contrast to the trade mechanism, the financial transmission had far less impact on Bangladesh. By 2008, the country still had a centralized banking system and a small capital market. This limited its participation in global financial markets and risky products that were primary carriers to other countries. Nevertheless, its shallow financial markets did endure the global economic downturn as asset quality and lending including trade finance declined, and as the volume of FDI and private portfolio flows fell. All of these, however, were marginal.

The Great Recession had some, but not alarming, effect on Bangladesh's domestic banking sector. This occurred through an increase in rate of growth of the number of banks' NPLs: borrowers faced declining incomes and defaulted on their loans, increasing the growth rate in the number of NPLs from previous years to 9.2 percent of total loans in 2009⁹⁰. This number was disproportionately higher in the State-Owned Commercial Banks (SCBs) where the ratio rose to 21.3 percent in December 2009⁹¹.

⁸⁹ Bangladesh remains a member of the WTO and the EBA-Everything But Arms Initiative with the European Union, receiving duty-free access without any quantitative restrictions. For regional production inputs, Bangladesh remains a member of the Asia Pacific Trade Agreement (APTA); The BIMSTEC Framework Agreement; SAARC Preferential Trading Arrangement (SAPTA); The Agreement on South Asian Free Trade Area (SAFTA). It also has bilateral FTAs with India, Pakistan and Sri Lanka; Preferential Trade Agreement (PTA) among D-8 Countries with Bangladesh, Egypt, Indonesia, Iran, Malaysia, Nigeria, Pakistan and Turkey. It also had trade capacity building programs with Canada, the EU and UNCTAD.

⁹⁰ Bangladesh Bank, "Chapter 5: Banking Sector Performance, Regulation and Bank Supervision." 2009 Annual Report (2009): 39.

⁹¹ Nazmul Ahsan, "NPL situation improves in SCBs." *The Financial Express*. March 19, 2011. http://www.thefinancialexpress-bd.com/more.php?date=2011-03-19&news_id=129756 (accessed June 14, 2011).

This deteriorated the asset quality of many of these banks and increased pressure on the GoB to support them. The GoB offered short-term financial support, but it did not address the underlying issues that caused the NPLs in the first place including risky lending to the government itself, an inadequate legal and debt framework, poor loan screening, a lack of accountability and an overall poor credit environment⁹². Discussed below, the crisis then only exacerbated these problems.

As the money supply contracted, the Great Recession also affected Bangladesh's lending rate. The rate had been rising in the years prior and spiked in late 2007. It remained high due to unstable macroeconomic conditions, high administrative costs, a high NPL ratio and centralized market power that inhibited competition⁹³. During the Great Recession, it declined marginally in 2009 as the global economy slowed down and illiquidity rose. The BB adopted expansionary monetary policies to lower the rate to encourage domestic investment and reduce further liquidity problems (Figure 10). As a result, lending to the private sector grew slowly at 2.9 percent to GDP in 2009 and then sped up with liquidity injections in 2010⁹⁴. However, the interest rate quickly rose again shortly after. International bank lending also did not fall much considering the low proportion of foreign banks in the country (7%), discussed below. Trade finance in particular may have been harder hit: there have been reports of reductions in letters of

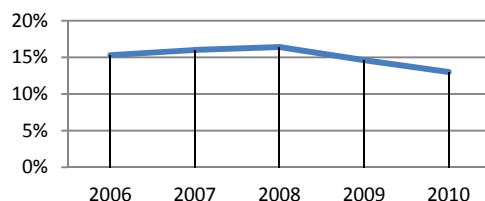
⁹² Syed Ali-Mumtaz H Shah, "Bangladesh Financial Sector: An Agenda for Further Reforms." Asian Development Bank, Philippines: Asian Development Bank (2009): 8-12.

⁹³ Mustafa K. Mujeri and Sayera Younus, "An Analysis of Interest Rate Spread in the Banking Sector in Bangladesh." *The Bangladesh Development Studies* 32, no. 4 (December 2009): 11-15.

⁹⁴ World Bank, *World dataBank* (2011)

credit from Indian banks to Bangladeshi exporters⁹⁵, and this seems likely to increase if lower garment demand continues.

Figure 10: Bangladesh's Interest Rate (2006-2010)



Source: Constructed from The World Bank, *World dataBank* (2011)

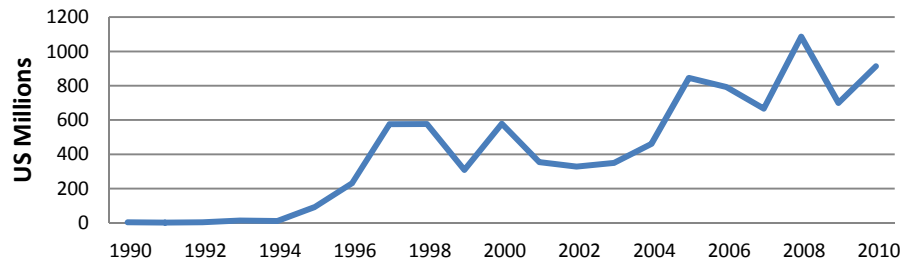
The Great Recession also impacted Bangladesh's capital market, but only marginally as portfolio investment and FDI were minimal to begin with (portfolio inflows were .2 percent of GDP in 2007 while FDI inflows were .9 percent of GDP). Net portfolio investment did fall as investors reversed inflows, and registered -159 million in 2009 compared to 47 million the year before⁹⁶. Considering only 2 percent of market capital comes from foreign capital, the effect was minimal and stock market capitalization kept rising. FDI also saw some effect: inflows fell from \$1 billion to \$700 million from 2008 to 2009, or 1.3 percent to .7 percent of GDP (Figure 11)⁹⁷. The largest declines were in telecom and the power, gas and petroleum sectors. Neither portfolio flows nor FDI flows have returned to pre-crisis levels, discussed below.

⁹⁵ "Indian banks discourage importing Bangladeshi goods," *Weekly Blitz*. September 12, 2011. <http://www.weeklyblitz.net/1792/indian-banks-discourage-importing-bangladeshi> (accessed September 29, 2011).

⁹⁶ Rahman et al, (2010): 16.

⁹⁷ Computed from UNCTAD, *UNCTADstat Database* (2011)

Figure 11: FDI Inflows to Bangladesh, in US Millions (1990-2009)



Source: Constructed from UNCTAD, *UNCTADstat Database* (2011)

In other financial flows, remittances remained resilient but the rate of growth declined from 16.9 percent in 2009 to 5 percent in 2010⁹⁸. Total net disbursements of ODA fell 12.7 percent or \$104.9 million while total commitments fell 10.3 percent or \$186.14 million in the same period⁹⁹. However, large development assistance continued: the Asian Development Bank (ADB) country plan of 2011-2013 will bring \$3.2 billion for primary education, and energy and transport sector and a \$7.9 million technical assistance program. From 2008-2010, large international bank loans were not reported. However, the IMF approved a no-conditional \$1 billion loan in October 2011 to Bangladesh under the Extended Credit Facility (ECF), the main funding tool of the IMF to LICs to help with poverty alleviation and times of economic crisis¹⁰⁰. This is likely to cushion the negative effects Bangladesh has seen, or will see.

⁹⁸ Based on 2010 estimates; In comparison to other LICs, Bangladesh has a large amount of emigration, with 3.3 percent of the population working abroad. As a result, remittances remain a large source of revenue for the country (The World Bank. "Migration and Remittances Factbook 2011." *The World Bank* (November 2010), <http://siteresources.worldbank.org/INTLAC/Resources/Factbook2011-Ebook.pdf> (accessed March 20, 2011)).

⁹⁹ OECD. *OECD.Stat Extracts* (2011)

¹⁰⁰ "IMF to impose no condition on \$1b loan to BD." *The Financial Express*. October 4, 2011. http://www.thefinancialexpress-bd.com/more.php?news_id=151716&date=2011-10-04 (accessed October 7, 2011).

Financial Transmission Linked to Structural Vulnerability

It is clear a history of limited, centralized financial development contributed to the crisis' impact in Bangladesh. Bangladesh is not considered internationally integrated¹⁰¹ and only really started to develop its financial system in the 1990s with its financial sector reform program, discussed in Section Two. By 2008, it remained heavily dependent on its centralized banking system and equity financing was extremely limited¹⁰². Banks fell largely into two categories: SCBs under the Central Bank and Private Commercial Banks (PCBs). Domestic banks far outweighed the number of foreign banks: foreign commercial banks held only 7 percent of deposits in 2009 while SCBs and PCBs held 87.6 percent¹⁰³.

Formal banking was largely limited: only 25.5 percent of the population held a bank account¹⁰⁴ and its services constrained to urban areas. The sector continued to be hampered by low savings, low incomes, poor infrastructure and low technical skills that limited resource mobilization and financial intermediation. Lending was largely to the public sector with short-term maturities¹⁰⁵. Poor loan screening and asset quality were also concerning, especially for SCBs. This contributed to risky lending and a larger number of NPLs in Bangladesh's banking sector in the years leading up to the crisis. To

¹⁰¹ Bangladesh receives a score of 20.0 for financial freedom from the 2011 Index of Economic Freedom; See Heritage Foundation, "2011 Index of Economic Freedom: Bangladesh." *Heritage Foundation*. 2011. <http://www.heritage.org/index/country/Bangladesh> (accessed July 23, 2011).

¹⁰² For example, market capitalization of listed companies (% of GDP) was 9.9 percent of GDP in 2007 (World Bank, *World dataBank* (2011)).

¹⁰³ Bangladesh Bank, "Chapter 5: Banking Sector Performance, Regulation and Bank Supervision." 2009 Annual Report (2009).

¹⁰⁴ United Nations, "Building Inclusive Financial Sector for Development." 2006.

¹⁰⁵ A majority of lending has a maturity period of less than three years (World Bank, End of MFA Quotas: Key Issues and Strategic Options for Bangladesh Readymade Garment Industry. Bangladesh Development Series-Paper No 2, Dhaka: The World Bank: Poverty Reduction and Economic Management Unit (December 2005).

address this, the government routinely held up many SCBs, viewed as “too big to fail”.

As shown, these vulnerabilities resurfaced in the crisis.

Despite expansionary reforms, interest rates remained very high. High operational costs, management inefficiencies and corruption, and cultural norms largely determined the rates rather than traditional market movements. This issue was seen again during the Recession: many countries saw their interest rates drop significantly, but the economic slowdown pushed Bangladesh’s rate down only marginally. It climbed quickly back up and remains particularly higher on working capital, trade financing and consumer loans. The rate spread has also increased at an increasing rate in recent years with changes only to the deposit rate, leaving the lending rate higher in Bangladesh. This has impacted the RMG industry, inhibiting capital resources needed to make many of the trade recommendations above. The Bangladesh Garments Manufacturers and Export Association (BGMEA) reports profit margin losses around 30 percent due to high borrowing rates that raise manufacturing costs¹⁰⁶. Discussed below, as Bangladesh looks forward, this could detour investors and lead them to its competitors with lower rates¹⁰⁷.

Bangladesh’s capital market remained far less developed. By 2008, it had two stock exchanges and a bond market, but the supply of stocks and the demand for bonds were small. Instead, people relied on the banking sector where capital was easier to acquire and carried less cost and risk. The absence of the RMG industry in the capital market also discouraged financial development: these small and medium garment

¹⁰⁶ "Slowdown in garment sector avoidable – BGMEA." *Fibre2Fashion*: News. May 31, 2011. http://www.fibre2fashion.com/news/apparel-news/newsdetails.aspx?news_id=99407 (accessed June 28, 2011).

¹⁰⁷ Bangladesh’s interest rate spread remains higher than in Sri Lanka and India but slightly below Pakistan (Mujeri and Younus (2009): 10).

enterprises do not normally issue equities to raise capital. Thus, the capital market needed more issuers but the number suppliers were limited without diversification away from RMG industry. FDI was also limited: the GoB has allowed foreign ownership and repatriation in most sectors but an official approval with significant paperwork is required. This process has been reportedly slow and corrupt, discouraging investors¹⁰⁸. Instead, most FDI has gone to export-processing zones (EPZs) to encourage trade liberalization but has not produced large spillover effects to domestic firms.

As a result, by 2008, Bangladesh's banks and borrowers were limited in financial products and access. Vice versa, the absence or underdevelopment of productivity, technology and training left fewer incentives for the mobilization and utilization of financial resources. Without both pieces in place, the LIC lacked sufficient capital resources from both public and private actors to improve and diversify its economy (Nurkse, 1961). On the other hand, its small integration with a limited number of foreign investors significantly reduced its financial contagion from the crisis. Instead, its problems largely reflected the weaknesses of its banking sector. As it recovers, it will have to weigh the costs and benefits associated with this type of financial liberalization.

Moving Forward (2011 and Beyond)

Export Concentration and Associated Vulnerable Trade Characteristics

The evidence shows that low production costs at first allowed Bangladesh to maintain export growth throughout 2008 by increasing its export volume despite decreasing global prices. Preplaced, locked-in agreements and inelastic income elasticity supported export growth early on. This combination gave the GoB more export revenues

¹⁰⁸ Heritage Foundation, "Bangladesh..." (2011).

and policy options to rely upon before it saw declines in both exports and imports in late 2009. Nevertheless, the trade transmission eventually aggravated its weak export structure of concentrated, low-valued, labor-intensive and low-tech exports. This led to a decline in the rate of growth in trade flows that has not recovered.

Moving forward, Bangladesh must become more competitive in its current RMG exports and diversify into higher-value garments. Without doing so, it will not be able to utilize the same strategies as before. Instead, its competitors will have already filled a large portion of these garment orders: China and India are capturing Bangladesh's market share and expanding into other garment markets¹⁰⁹. Other LICs are also serious contenders: Vietnam joined the WTO in 2007 that gave it access to larger markets, and Cambodia and Pakistan have reduced production prices and lead-time¹¹⁰ to fill orders quicker.

To strengthen its backward linkages in the RMG industry, Bangladesh must take greater control of its production process to reduce its lead-time, fill orders faster and diversify into higher-valued garments. One option is to produce more inputs at home. As shown, the relationship between the agricultural and manufacturing sector was not developed early on and remains weak, making it rely on imports along the RMG production chain¹¹¹. The agricultural sector employs more than half of the formal but unskilled labor force. Sector transformation will require more economic incentives and

¹⁰⁹ Haider (2007): 9-15.

¹¹⁰ This is defined as the time required to fill an order from its receipt.

¹¹¹ This includes cotton production, spinning, weaving and knitting, dyeing and painting.

training¹¹², as cotton production—for example—is currently not as profitable as other crops. This is the best option for long-term competitiveness, but may not be easy given the agricultural sector's traditional methods and the stress to produce more food in the midst of rising food prices. Other short-term feasible solutions include using more bonded warehouses to store imports in advance, expanding regional trade agreements for inputs, and prioritizing infrastructure improvements to reduce transportation costs of imports.

Bangladesh must also examine the productivity of its workers, another production input. Its history shows that extremely low labor costs that utilize its large but poor and uneducated population have created a comparative advantage in the industry. This also helped it withstand the crisis by keeping its costs low as prices also fell. However, it has also exposed the inherent problems associated with this type of cheap capital. Notably, workers' productivity levels are becoming less competitive: one study found that while the best reported performance in Asia is 25.87 shirts per sewing labor unit, Bangladeshi productivity is 8-20 shirts¹¹³. This is unattractive to mass retailers seeking more and faster garment output per worker.

Additionally, this comparative advantage has encouraged cost-cutting techniques. When export demand declined in 2009, many workers become un- or underemployed with less income and little chance for additional skills training. The effects were further transferred through a decline in incomes, savings and government revenues. In the future, rising competition and increasing trade openness will likely push wages down further and

¹¹² The majority of subsidies to the agricultural sector currently are for growing food.

¹¹³ Shamim Chowdhury, "The challenge before the RMG industry." The Financial Express. March 28, 2009. <http://www.thefinancialexpress-bd.com/2009/03/28/62343.html> (accessed April 30, 2011).

put workers in more vulnerable situations, raising domestic and international concerns¹¹⁴. Bangladesh must improve its working conditions and labor rights to increase investor confidence. This will require efforts by multiple actors so that the cost is not solely borne by firms. At the same time, the GoB needs to invest in higher-level technology and training to improve worker productivity and increase skills used in higher-valued manufactures. In the long-run, this would yield higher profits to the firms by opening new markets and reducing dependence on low-end manufactures.

In terms of forward linkages, Bangladesh will have to improve the distribution and marketing of its products. Assessments by The World Bank (2005) and IMF (2007) have put forward several options. Feasible solutions include a research center to encourage product and market diversification, image and brand building and human resource development. However, Bangladesh will be largely limited in this regard until it can produce the necessary backward linkages that could give way to spillover effects in the RMG industry. A step in this direction would require infrastructure improvements in ports, roads, railways and energy plants to reduce transportation costs and again, greater training at the national and firm level. However, now in a quota-free system and with slowing export revenues, Bangladesh has less support with which to make these improvements.

¹¹⁴ Mustafizur Rahman, et al. Impact of the Global Economic Crisis on the Employment and Labor Market of Bangladesh: A Preliminary Assessment. A Report Prepared by the Centre for Policy Dialogue (CPD) in Collaboration with the International Labor Organization (ILO), Centre for Policy Dialogue, (March 2009): 22.

Shallow Financial System

Development of these linkages will not be possible without greater resource mobilization. The Great Recession did not heavily affect the Bangladeshi financial sector, but it did magnify the inefficiency of the sector and lack of adequate resources at the country's disposal. This has led to poorer asset quality, high costs and mismanagement, all of which increase economic vulnerability. Failure to address these weaknesses will likely continue to discourage domestic and international investor confidence, delay critical technological and infrastructure upgrades for diversification and place undue financial burden on the state.

As already seen, Bangladesh's banks must improve their internal organization to strengthen loan risk classification beforehand and loan recovery processes afterward. This is especially important in SCBs, which have a higher number of NPLs¹¹⁵. This is challenging given the entwined conflict of interests of these banks: the government is their biggest borrower. The country has made some improvements in this area by hiring more workers to help recover loans, enforcing regulations and using credit bureaus while also working to develop the capital market and increase competition among banks to increase consumer choice¹¹⁶. However, more is needed to increase investor confidence. Additionally, the number of foreign banks remains limited in the country; more foreign banks could increase competition and improve efficiency. Bangladesh, however, must be careful that the spillovers of foreign banks are captured and that domestic banks are "crowded in" rather than "crowded out."

¹¹⁵ The number of NPLs is 21.4 percent in SCBs versus 3.9 percent in PCBs and 2.3 percent in FCBs (Bangladesh Bank (2009): 39).

¹¹⁶ See Syed Ali-Mumtaz H. Shah (2009) for recent developments in Bangladesh's financial sector.

The crisis also demonstrated that traditional market movements do not determine Bangladesh's interest rate and reemphasized those factors that do. It should reflect the additional cost and risk of lending to banks but as demonstrated, interest rates are not highly correlated to market deposit share. This indicates that other factors (social and political) are in play to determine why some banks have larger deposits than others. The BB and individual state and private banks could reduce the spread by improving regulatory mechanisms to gather adequate information and screen borrowers. Banks could also improve liquidity measurement tools to lower perceived illiquidity risks. Institutional efficiency should also be strengthened, especially among domestic public banks, to encourage competition and convergence on the interest rate. Again, more private and/or foreign banks may help. However, monetary tools alone seem unlikely to solve this problem. Instead, it will require a joint effort among several stakeholders to reduce costs, risks and social patterns to incentivize lower rates.

Next, the crisis showed that Bangladesh's high reliance on bank financing has perpetuated the underdevelopment of its capital market. As it stands, foreign portfolio investment only accounts for 2 percent of market capitalization. This has reduced risks of capital flight but also hindered long-term lending needed for extensive development projects that require more time to yield returns. It has also put it further behind its international competitors: Bangladesh has the lowest ratio of stock market capitalization to GDP among South Asian countries including its competitors India, Sri Lanka and Pakistan¹¹⁷. The increased liquidity in other countries may mobilize financial resources

¹¹⁷ Stock market capitalization as a percentage to GDP is 17.8 in Bangladesh, below Pakistan (35.9%), India (60.0%) and Sri Lanka (23.9%) (ADB, 2009).

quicker and encourage long-duration projects given that shares can be sold for money. Also, without this development, public and private institutions have had to remain dependent on other costly, short-term financial sources.

Last, the financial crisis did not spur a significant decrease in FDI in Bangladesh. This was because FDI has remained extremely small (0.92% of GDP). Moreover, the connection between FDI and GDP growth through technology transfer remains weak with little evidence indicating that Bangladesh has been able to use FDI to yield industry-wide improvements. The World Bank (2005) found that FDI has largely only benefited foreign firms as part of the EPZ. If Bangladesh hopes to attract more and better utilize FDI, it will need to address the issues that have discouraged FDI: barriers that have limited the capacity of other sectors and narrowed investment opportunities. Without these improvements, Bangladesh will find it difficult to attract further FDI. Meanwhile, its competitors are seeing greater inflows of FDI¹¹⁸.

To encourage the capital market development, Bangladesh has made some strides by committing to a series of sequencing reforms laid out in its Financial Sector Development Plan (FSDP) in the next decade. However, its success will depend on its ability to absorb the reforms accordingly. As demonstrated in other countries, financial liberalization without adequate regulation and capacity increases risk that makes them especially vulnerable to host-country shocks and capital flight in times of global economic decline¹¹⁹. Bangladesh, unlike Zambia, has largely not yet faced this problem

¹¹⁸ FDI inflows as a percentage of the world total were 0.07% for Bangladesh, below 1.9% for India, 0.16% for Pakistan and 8.5% for China. It remained above Cambodia (0.03%) and Sri Lanka (0.03%) (UNTCAD, *UNCTADstat Database* (2011)).

¹¹⁹ Joseph E. Stiglitz, "Risk and Global Economic Architecture: Why Full Financial Integration May Be Undesirable." *American Economic Review: Papers & Proceedings* 100 (May 2010): 388-392.

but could in the future, given increasing international economic and financial competition.

Conclusions

In summary, it is clear the Great Recession affected Bangladesh, despite it being a relatively insulated LIC. The severity of the crisis linked to the vulnerabilities of its economic structure that had evolved throughout its economic history. Trade became the primary transmission channel due to its large dependence on RMG exports (75%) to advanced countries. Bangladesh first maintained export growth but low aggregate demand eventually led to a fall in RMG exports. This contributed to a deterioration in annual growth of total exports: a .10 percent change in 2010 versus 11.3 percent in 2009. Growth in the volume imports also fell: to 9.6 percent in 2010 from 21.4 percent in 2009, largely in capital machinery, food, and other inputs needed for garment production. The decline in trade flows resulted in a deterioration in the BoP from \$3.3 billion in 2009 to \$2.3 billion in 2010, or 4.2 percent to 3.7 percent of GDP. This occurred largely as imports (i.e. RMG inputs) were reduced while export growth remained stagnant.

Nevertheless, the BB took considerable efforts to stabilize its currency using stored reserves and had marginal appreciation against the dollar. Formal unemployment declined slightly, 0.1 percent, but could fall further as labor supply is expected to outweigh job creation. As trade flows fell, government revenues as a percentage of GDP declined .5 percent from 2008 to 2009 and stagnated in 2010. Net lending/borrowing as a percentage of GDP declined 1.7 percent further from 2008-2009. Combined with fewer financial flows, this could strain government budgets and threaten development

initiatives. Meanwhile, while not explored, global food prices have risen in Bangladesh and could further exacerbate the situation¹²⁰

In contrast, financial transmission had far less effect on Bangladesh. This reflected its shallow financial system, highly centralized and dependent on the banking sector with large levels of state control and little capital development. The most noticeable effects from the crisis were then in an increase in the number of NPLs and a slight decline in the growth of lending. The interest rate declined only marginally, given the other factors that were controlling it. FDI also declined, falling from \$300 million in 2009 or 1.3 percent of GDP in 2008 to .7 percent in 2009. Portfolio investment also fell by \$159 million in 2009 but remained too small to spur negative effects. Meanwhile, ODA and remittances grew at a slower rate of growth.

Given these areas of impact, Bangladesh did not deeply suffer the crisis to the extent many had predicted: GDP contracted .04 percent in 2009 from the year before. However, GDP growth is not expected to improve significantly (.1 to .2% from 2011-2013)¹²¹ given the sluggish but competitive environment in which it now finds itself and the key economic vulnerabilities that persist. Long-term implications from the crisis may then still emerge. Larger future growth will greatly depend upon its ability to make improvements in these areas. Suggestions have been put forward with a focus on technological, educational and financial improvements, but all require a stronger institutional framework. This is a challenge in itself and calls for further international

¹²⁰ Food inflation hit 14.36 percent in April 2011, compared with a 13.87 percent in March, driven by rice, wheat, sugar and edible oil global price increases. ("Bangladesh inflation quickens on food price surges." *Reuters*. May 24, 2011. <http://www.reuters.com/article/2011/05/24/bangladesh-economy-inflation-idUSL3E7GO0V320110524> (accessed July 20, 2011)).

¹²¹ IMF, *WEO Database* (September 2011)

assistance. In the meantime, Bangladesh seems unlikely to weather another global crisis as smoothly.

CHAPTER THREE: ZAMBIA CASE STUDY

Quick Impact but Stronger Recovery

Following the emergence of the crisis, the World Bank (2009) also categorized the Sub-Saharan African country of Zambia as highly exposed to the transmission effects. Economists predicted GDP growth would fall and, development accomplishments to date could be significantly undermined in the country of 13 million people¹²². In the short-run, the LIC did see its trade flows decline, its currency depreciate, unemployment rise and government revenues decrease as a result of the crisis from 2008-2010. Zambia's financial sector, while shallow, also saw quick declines in its financial flows. These effects were quicker and more severe than in many other LICs, including Bangladesh. This in turn is linked to Zambia's economic and financial weaknesses and has re-emphasized the challenges it faces. In the long run, the remaining effects are still to be seen.

In the same manner as the previous case study, this chapter explores how the Great Recession impacted the LIC through the trade transmission with effects on exports and imports and subsequently the exchange rate, unemployment and government revenues. It then examines how Zambia's structural vulnerabilities contributed to the reach and depth of the transmission mechanism. Afterward, it examines how the financial

¹²² These concerns were in consideration of its initial 59.3% poverty level (2005) (Manenga Ndulo, et al, *Paper 10: Zambia*. Global Financial Discussion Series, London: Overseas Development Institute (May 2009): 7-9).

transmission affected Zambia as a result of its initial shallow but unregulated financial system. Similarities with Bangladesh exist but specific differences emerge, and these are discussed appropriately. It concludes with recommendations to address these vulnerabilities.

The Great Recession and its Trade Transmission (2008-2010)

In early 2008, Zambia was the world’s eighth largest producer of copper, and the second largest copper exporter, mainly servicing buyers in China and European and other African countries. Mining, largely of copper and cobalt, comprised only 8.4 percent of total GDP¹²³ (\$15.2 billion) but almost 80 percent of export revenues. The remaining 20 percent of its exports included tobacco, flowers, cotton, and electricity. Imports included machinery (i.e. boilers and nuclear reactors) food, oil, vehicles, and electrical equipment. Increased deregulation and foreign investment helped result in a threefold Zambia’s GDP from 2000 to 2008 (Figure 12 and Figure 13), with 75.6 percent trade openness.

Figure 12: Zambia’s GDP, in constant national prices, US billions (1995-2011)

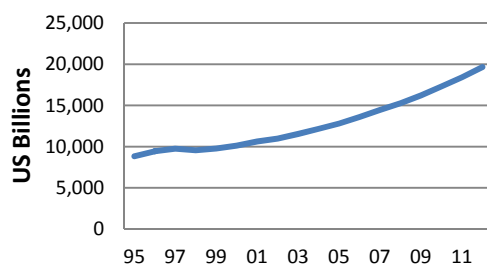
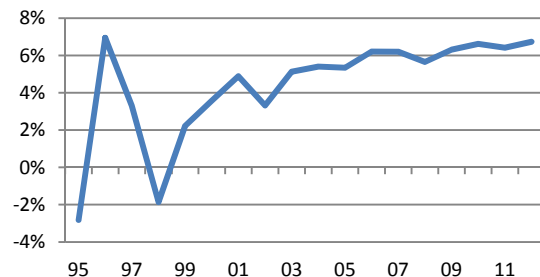


Figure 13: Zambia GDP Growth, in constant prices as a percentage (1995-2011)



Source: Constructed from IMF, *WEO Database* (October 2010). Estimates begin after year 2009.

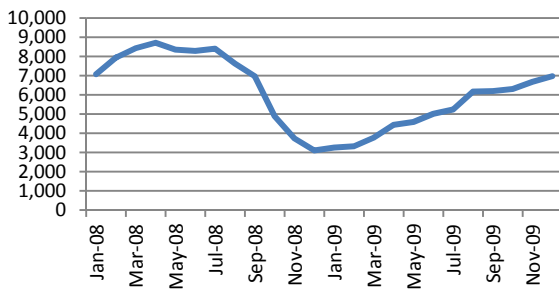
Mining of copper has been both an impetus and barrier to economic growth and stability in Zambia. High copper prices have served as an economic incentive to attract

¹²³ The services sector was the largest contributor to GDP at 66 percent, followed by the agricultural sector and manufacturing sector.

investment and fuel production. Low copper prices have reduced profitability, production and exports, forcing mines to close and reducing government revenues. This has led to unemployment and declining incomes that have exacerbated underdevelopment. This cycle would be repeated in 2008; in line with other LICs, the crisis' trade transmission was the primary contagion carrier with noticeable declines in exports and imports, and subsequent impacts on the currency, labor market and government revenues. However, the timing and severity of the crisis in Zambia varied from other LICs, including Bangladesh.

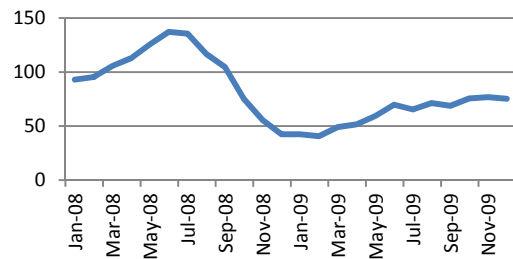
To begin, the quantity demanded and price of copper are largely determined by copper's use as a production input in other industrial processes: copper is used heavily in building and construction and as a component in many car parts. Thus, trade flows became the primary channel as the recession induced a sharp reduction in the aggregate demand for copper. This was aided by the large decline in residential and commercial construction and the fall in the real estate market in advanced countries. Dependent largely on the metal, the price decline on the world market then quickly transferred negative effects to the Zambian economy.

Figure 14: Copper Price, in USD per metric ton (Jan. 2008-Nov. 2009)



Source: Constructed from IndexMundi (2011)

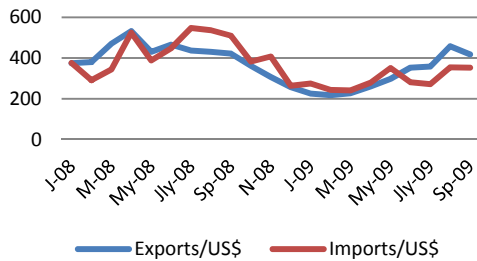
Figure 15: Crude Oil Price, in USD per barrel (Jan. 2008-Nov. 2009)



Source: Computed monthly averages from NYSE.TV Website (2011)

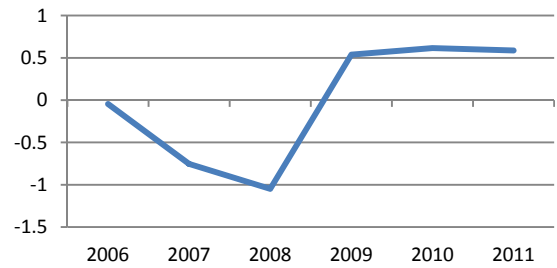
Figure 14 shows the decline in the world price of copper in 2008. At its lowest, it dropped 64 percent from its highest point in the year. Copper prices also followed the drop in crude oil, a critical input in mining (Figure 15). The price fall led to an immediate decline in copper exports and production (Figure 16); exports dropped 58.5 percent from March 2008 to March 2009, or \$244 million. Imports closely followed the export fall (Figure 16), dropping 46.8 percent from April 2008 to April 2009, or \$246 million, due to a decline in production, real GDP, currency depreciation and incomes. Combined, this led to a further deterioration in its BoP from \$-0.7 billion in 2007 to \$-1 billion in 2008 (Figure 17).

Figure 16: Zambian Exports and Imports, in US Millions (Jan. 2008-Nov. 2009)



Source: Constructed from Bank of Zambia, *Monthly Bulletin Database* (2011)

Figure 17: Zambia's Balance of Payments, in US Billions (2006-2011)



Source: Constructed from IMF, *WEO Database* (September 2011)

Given that its exchange rate is positively correlated to the price of copper, the fall in price and trade led to currency depreciation as the demand for the Zambian kwacha fell. The kwacha, depreciated 50 percent relative to the US dollar in 2008¹²⁴. Like Bangladesh, Zambia relied on stored foreign exchange reserves to help cushion its fall, but in doing so, drew down its stored resources. As a result, net reserves fell further: roughly -1 billion in 2009 from -18 million in 2008¹²⁵. In theory, the currency depreciation could have created a demand incentive for other exports, but these areas had limited capacity, discussed below, that prevented a shift from one sector to the next. Also, the currency depreciation made physical capital imports for development more expensive, including machinery and electrical equipment. This led to a deterioration of its terms of trade by 45 percent from March-November 2008¹²⁶.

While the recession impacted Zambia much sooner and deeper than Bangladesh, Zambia also recovered quicker. As the price of copper rose in 2009, so did production

¹²⁴ Manenga Ndulo, et al, *Paper 22: Phase 2 Zambia*. Global Financial Discussion Series, London: Overseas Development Institute (January 2010): 27.

¹²⁵ World Bank, *World dataBank* (2011)

¹²⁶ Ndulo, et al, (2009): 15.

and exports. The price of copper bottomed at \$1,806/ton in 2008 but resurged to \$5,150/ton in 2009 and \$7,535/ton in 2010¹²⁷. Thus, exports rose back up to \$418 million in September 2009, 48 percent from its lowest point in the year just seven months earlier. Imports also recovered, rising 30 percent in September 2009 from their lowest point in the year. This resulted in a surplus in its BoP from \$-1 billion in 2008 to \$.5 billion surplus in 2009 (Figure 17). This rebound was largely due to the composition of its demand and trading partners, mostly other African developing countries and China; the U.S. accounts for only 0.1 percent of Zambia's exports. China continued largely as a consistent buyer and investor, helping to raise the price of copper. Copper's flexible use as an input in other industrial sectors also restored its demand. In Bangladesh, slow economic growth in Western markets continued longer keeping export demand low, and competition was steeper with China and India as serious competitors.

Despite a quicker recovery, the transmission had subsequent impacts on the Zambian labor market. Mining is primarily capital, rather than labor intensive, reducing the potential effect by reducing the employment multiplier. Nevertheless, copper producers stopped production when prices and demand fell¹²⁸, reducing the number of official jobs in the mining sector by 27 percent, or 8,100 jobs, in FY2008¹²⁹. A decline in the formal labor market also had direct impacts on other sectors dependent on mining-related activities, as drilling and construction are contracted out and not considered in the estimated official jobs of the sector. The informal labor market, 84 percent of the

¹²⁷ IndexMundi. *Copper, grade A cathode Monthly Price - US Dollars per Metric Ton*. 2011. <http://www.indexmundi.com/commodities/?commodity=copper&months=60> (accessed May 5, 2011).

¹²⁸ Production also stopped much sooner as it involved more foreign actors who reversed some of their investment, discussed in Section Four.

¹²⁹ Mining jobs are about 30,000 but does not include contracting jobs as part of this estimate (Ndulo, et al, (2009): 21).

population, also likely saw negative impacts¹³⁰. In Bangladesh, but not true in Zambia, garment exports (and low-end manufactures in general) could sustain jobs longer through wage cuts and other cost cutting techniques. In contrast, capital-intensive mining did not utilize the same cost-cutting techniques as long, and the structure of the work relied heavier on contractors it could not control. To date, some of these jobs have been restored but not entirely.

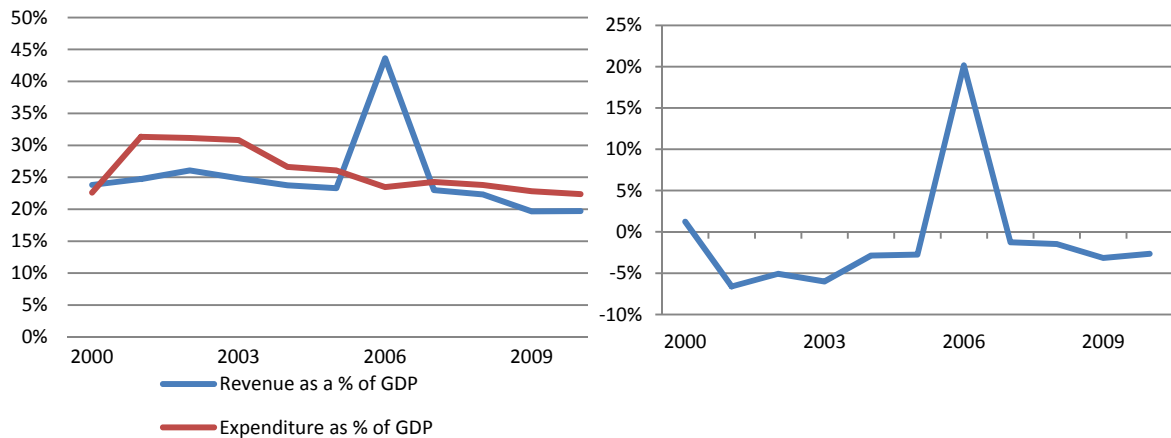
Last, the decline in trade flows had important fiscal effects on the Republic of Zambia (RoZ). Government revenues and expenditures also have historically followed copper price trends, decreasing during low global prices and rising with higher prices. As will be discussed, Zambia has not successfully adopted countercyclical policies in periods of economic decline or expanded its revenue sources. This trait, explored further below, is common of the “natural resource curse theory” (Ranis, 1981) in which volatile revenues encourage governments to spend when money is readily available rather than making wise, long-term sustainable budget decisions¹³¹. The Great Recession reemphasized this dilemma: revenues as a percentage of GDP dropped almost 24 percent from 2006 to 2009 as mining taxes declined and incomes fell while a poor tax structure remained (Figure 18). Meanwhile, government expenditures shifted upward further covered by debt (Figure 19). Net lending/borrowing to GDP increased 1.7 percent.

¹³⁰ These numbers have not yet been estimated due to a lack of data on the informal labor market.

¹³¹ The Zambian government has tried to improve the tax structure to capture more resource rents from the mining sector but this has been largely unsuccessful: the sector only contributes 3 percent to total collected revenues. Macroeconomic pressures and increased competition have only discouraged a heavier tax structure.

Figure 18: Zambian Government Revenues and Spending, as a percentage of GDP (2000-2010)

Figure 19: Zambian Government Net lending/borrowing, as a percentage of GDP (2000-2010)



Source: Constructed from IMF, *WEO Database* (October 2010). Estimates begin after 2009.

On Figure 18 note that Zambia received significant debt relief assistance under the HIPC and Multilateral Debt Relief Initiative, completed in 2005 and 2006, helping to ease government debt.

Thus, the trade transmission had several immediate economic impacts on Zambia.

A decline in world copper prices caused export and import declines that resulted in currency depreciation, unemployment and underemployment, and reduced government revenues, all of which could threaten long-term development goals. This largely resulted from its comparative advantage in mining that encouraged high export concentration dependent on volatile world prices. Its dependence on copper also led to a quicker recovery in both exports and imports. The impacts to Zambia from the crisis were not surprising. Instead, they link to its structural economic weaknesses, explored below in two periods: independence to 1991 and 1991 to 2008.

Transmission Linked to Structural Vulnerability (1964-2008)

First Period (1964-1991)

Zambia's history demonstrates the evolution of its export concentration that has brought unbalanced growth and economic vulnerability seen again during the Great Recession. Geographic luck and early mineral exploration in the late 1800s created a wealth of mineral reserves, but these resource rents largely accrued to foreign investors. It received its independence in 1964 as a former British protectorate. Like Bangladesh, the new government lacked the local human, political or monetary capacity at its independence to manage the industry alone and continued to rely heavily on foreign assistance.

The new republic's first president implemented a socialist economic policy focused on central planning and nationalization to regain control of the mining industry. Economic reforms in 1968 allowed the RoZ to claim large equity holdings in several foreign-owned mining companies, creating two national firms. In 1971, the RoZ created the state-run Zambia Industrial and Mining Corporation with the country's president as board chairperson. Like in Bangladesh, state management could have nurtured the industry, as mineral rents accounted for 40 percent of fiscal revenues¹³². In actuality, the RoZ largely failed to establish and invest in sustainable funds or projects, discussed below. In the short-run, the Post-War boom kept copper prices high and fueled narrow

¹³² Patricio Meller and Anthony M. Simpas. "Role of Copper in the Chilean & Zambian Economies: Main Economic and Policy Issues." Global Development Network Working Paper Series #43,(June 2011): 50.

export growth. Copper exports then reached 95 percent of total export earnings and spurred GDP growth, averaging 6.1 percent annually from 1964-1974¹³³.

An increase in the world price of oil in the early 1970s resulted in a drop in the price of copper. Zambia quickly faced a balance-of-payments crisis as export earnings declined. The government responded by creating the *Zambian Consolidated Copper Mines (ZCCM) Limited* by merging two state mines, but it soon had financial and management problems as the government largely used it as a funding source. A lack in further exploration and infrastructure coupled with instable political conditions also increased risk, raised production costs and detoured investment. When the price of copper did not improve and the losses became too great, the RoZ adopted strict SAPs from the IMF that recommended trade and financial liberalization and the removal of the government in the mining sector. Like in Bangladesh, the adjustment period did not give domestic industries the time or capacity to adapt; as a result, the reforms largely failed. By the 1985, copper production had fallen -20.5 percent¹³⁴.

Several observations from this early period underscore the creation of the vulnerabilities highlighted in the 2008 crisis. First, Zambia's geographic and colonial history helped create a comparative advantage in an abundant mineral. However, unlike with garments, copper's price has been historically volatile, a statistical "random walk" characterized by up and down swings from varying demand and strict supplies limited by the nature of mineral production. This includes available ore grades, transport, energy and water. From this resource endowment, the country quickly became accustomed to

¹³³ *Ibid*, 47.

¹³⁴ *Ibid*.

periods of economic boom and bust paired with a lack of institutional and monetary resources. This made the RoZ largely reactionary and its policies procyclical in this early period. As Adam and Simpasa (2009, p. 14) wrote, it treated the “temporary positive shock as if it was permanent and the negative shock as if it was temporary.”

In this way, Zambia’s export concentration exhibited the “natural resource curse” in which abundant natural resources yield high lucrative rents that often accrue unequally and deflect difficult policy decisions. In this way, a country can easily continue “on its old tracks” (Ranis, 1981, p. 215), encouraging economic stagnation or decline. Additionally, in many cases, efforts to capture rents lead to corruption and political strife which cause further economic distress. Sachs and Warner (1995), in their study of resource-abundant natural countries, found a significant negative correlation between resource intensity and GDP growth, arguing that these countries would have slower and/or poorer economic and political development.

Zambia has been routinely cited as an example of this curse. The RoZ reaped the benefits of high levels of investment, production and exports during high prices but lacked the incentive and/or ability to invest mineral rents resourcefully or to store emergency funds. As a result, GDP growth fluctuated widely: -2.9 percent in 1982; 9.27 percent in 1998; 2 percent in 1992; -13.4 in 1994¹³⁵. To cope with poor prices, the RoZ did not reduce spending (expenditures as a percentage of GDP doubled from 1970 to 1991¹³⁶) and increased its debt to cover fiscal gaps. Meanwhile, mismanagement

¹³⁵ IMF, *WEO Database* (September 2011)

¹³⁶ This was 15.54% in 1970 to 31.82% in 1991 (Meller (2011): 120).

increased. In this way, the curse kept export growth significantly concentrated in mining and away from sectors that could have reduced economic vulnerability.

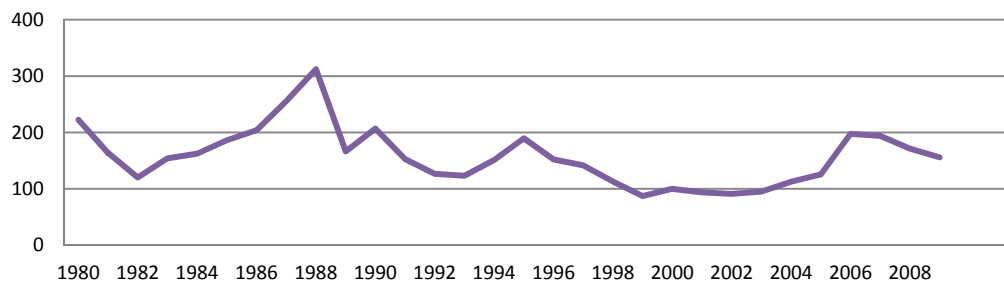
Additionally, export concentration in this period made Zambia's exchange rate dependent on the price of copper, creating a trade vulnerability that resurfaced in 2008. Illustratively, the kwacha fell 57.3 percent in value from 1981 to 1988 as the price of copper rose from \$1.52/lb to \$2.09/lb¹³⁷. Both a contributor and consequence of the natural resource curse, the "Dutch Disease" theory holds that large inflows of foreign exchange from exports lead to an appreciation of the nominal exchange rate and increase inflationary pressures (Sachs and Warner, 1995). During low prices, a decrease in exchange reserves often increases deficits and borrowing. Over time, the appreciation of the nominal exchange rate creates an incentive to move capital resources away from less profitable, non-resource sectors. Unfortunately, these other sectors may offer greater opportunities for positive externalities (i.e. technology) needed for economic diversification. In the case of Zambia, it became reliant on its international reserves, also highly dependent on copper revenues, and quickly depleted them during periods of economic decline. In the long run, critical capital and physical resources moved toward the profitable mining sector.

Thus, the country soon exhibited a combination of the natural resource curse and the Dutch Disease, coupled with high poverty and a lack of institutional and monetary resources. Growth remained concentrated in primary mineral exports where the opportunities and incentives for division of labor, higher technology and ultimately, a higher standard of living remained low. Disequilibrium then could not give way to

¹³⁷ Computed from Meller (2011): 108.

“complimentary” situations in which induced investment created from the mining industry lead to stronger economic linkages and/or spillovers; both the supply and demand impetuses were too small given the market and nonmarket forces working against the LIC (Hirschman, 1958, p. 71-72; 100). Instead, its terms of trade continued to weaken (Figure 20), as the price of manufactured imports rose relative to the price of its primary exports.

Figure 20: Zambia's Net Barter Terms of Trade, 2000=100 (1980-2009)



Source: Constructed from World Bank, *World dataBank* (2011)

Second Period (1991-2008)

Zambia’s one-party ruler left office in 1991 following a monumental election that ushered in a multi-party system. Facing huge economic losses and declining growth, the new government again adopted SAPs to restore macroeconomic stability and facilitate trade and financial sector growth, discussed below. It limited state control of prices, trade restrictions and foreign currency transactions. But by 2000, the price of copper had fallen almost 50 percent from 1995. Copper demand shifted to countries perceived as more stable and efficient. Illustratively, while Zambia averaged a depressing -5 percent average annual production growth rate, Chilean copper production averaged 11 percent annual growth, fueled by lower-cost incentives, heavy foreign investments and a favorable

political climate¹³⁸. In Zambia, debt amassed as GDP and revenues declined and reached over 200 percent as a percentage in 2001 and 2002¹³⁹.

Zambia received debt relief under the Heavily Indebted Poor Countries (HIPC) Initiative in 2000 in exchange for strict macroeconomic reforms that further privatized the industry. It adhered, and by 2005 the country had \$7 billion forgiven and had only \$500 million in external debt¹⁴⁰. Better macroeconomic conditions coupled with high world copper prices and rising demand encouraged new investment. The purchase of the country's largest copper producer in 2004 by an Indian company provided capital resources to upgrade and expand mines, and processing plants. Meanwhile, reduced regulation encouraged Austrian, Canadian and Chinese investment along its mining belt, and the Chinese-Zambian economic partnership zone was created in 2007. By 2008, Zambia had regained its status as a top copper exporter.

Two main conclusions from this period contributed to Zambia's economic vulnerability during the Great Recession: first, investment in this period largely now came from large emerging markets including China and India. With little concern for local growth, they responded to high copper prices, high aggregate demand, and a reduced regulatory environment. On one hand, this brought critical capital that aided its economic recovery in 2004 and again in the Great Recession. On the other hand, there was now little ability to keep this capital in the country; instead, private foreign actors had plenty of self-seeking motives to move flows in and out of the mining industry,

¹³⁸ Meller (2011): 15.

¹³⁹ IMF, *WEO Database* (September 2011)

¹⁴⁰ As will be seen, its debt began to quickly rise again.

discussed further below. Moreover, they had even fewer incentives to make overarching changes that benefited other parts of the economy.

Second, but in tandem, this period resulted in the almost complete removal of the RoZ from the mining industry and a decline in the amount of mining taxes. The state demonstrated fewer characteristics of the natural resource curse of the prior period but now had far less political or economic capacity to mobilize and utilize resource rents. Together, this too limited the ability to improve linkages, technology and training as discussed in Chapter One. Instead, exports remained concentrated, accounting for roughly 75 percent of total export earnings and encouraged further dependence on prices. As shown, the once world copper prices fell, the trade transmission hit Zambia severely, magnified by these deep-rooted economic problems. Moving forward, these challenges remain, discussed below.

The Great Recession and the Financial Transmission (2008-2010)

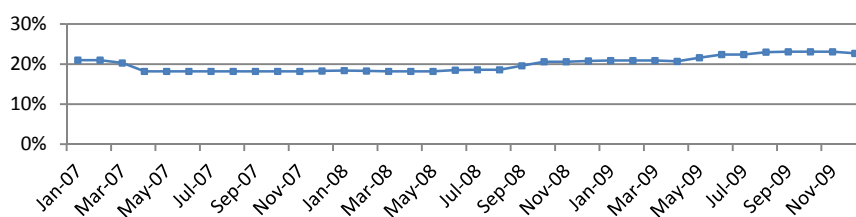
At the outset of the crisis, Zambia's had a relatively centralized and shallow financial sector. It did not participate in off-balance sheet activities or invest in illiquid securitized assets. By 2008, its financial sector was stable in comparison to prior decades of instability and bank failures. Banks were largely foreign-owned¹⁴¹ but adequately capitalized. Portfolio investment had grown but still remained only .5 percent of GDP in 2007. This was concentrated in a select group of mining companies on the Lusaka Stock Exchange (LuSE), the majority of shares foreign-owned. FDI remained positively correlated with copper prices and had risen on average 7.4 percent of GDP from 2002-

¹⁴¹ Foreign banks had 64.2% while private-domestic and public-owned banks had the remaining (Bank of Zambia. "Annual Report 2009." 2009. <http://www.boz.zm/AnnualReports.htm> (accessed March 20, 2011): 50).

2007 and reached 11.43 percent in 2007¹⁴². Nevertheless, its level of financial integration increased its transmission risk. These shocks were again deeper than in Bangladesh and largely attributable to foreign, unregulated integration established beforehand.

Notably, examining the data from 2008-2010, the global credit crunch in advanced countries transmitted perceived risk and illiquidity to Africa. Commercial banks' nominal and real interest rates rose, and asset quality deteriorated. In 2009, the number of NPLs increased to 12.6 percent from 7.2 percent from 2008¹⁴³. This reduced banks' return on equity (ROE) and return on assets (ROA), and banks' profits fell¹⁴⁴. Illiquidity and poor asset quality drove up the lending rate, rising 4.9 percent from November 2008, peaking at 23.1 percent in November 2009 (Figure 21). As a result, domestic banking credit as a percentage of GDP fell .3 percent and credit to the private sector fell 2.9 percent in 2009¹⁴⁵. The remaining recorded growth was due to credit expansion to the government while the proportion of credit to public and private enterprises, households and non-bank financial institutions all fell.

Figure 21: Zambia's Interest Rate (2007-2009)



Source: Constructed from Bank of Zambia, Annual Report (2009): 155.

¹⁴² UNCTAD, *UNCTADstat Database* (2011)

¹⁴³ Bank of Zambia (2009): 40.

¹⁴⁴ Profits fell by 33.1 percent (Ibid, 46).

¹⁴⁵ Computed from World Bank, *World dataBank* (2011)

International bank lending also fell as foreign parent banks from other African countries and the UK also faced the credit crunch. It is estimated foreign assets fell 28.5 percent from May 2008 to August 2009¹⁴⁶. This was partially due to the Bank of Zambia (BoZ) restricting short-term foreign bank lending to no less than one year to avoid further transmission. This minimized further problems and subsequent large credit reductions were not recorded. In some cases, foreign banks injected capital into subsidiary banks to increase liquidity. The BoZ also utilized expansionary monetary policies to maintain stability. As a result, only one of 16 banks rated unsatisfactory in terms of capital adequacy, asset quality, earnings and liquidity in 2009¹⁴⁷. Trade credit is largely still developing in Zambia and has not been reported separately from the overall decrease in lending.

Zambia saw greater effects in its capital markets, as a result of capital flight. Foreign investors sold their assets due to plummeting copper prices, the depreciating currency and decreased confidence. The LIC recorded -74.9 million in net portfolio investment in 2008, or -5 percent of GDP, from -6 million in 2007¹⁴⁸. The all-share index declined significantly in 2008 as foreign investors sold their shares, facing their own financial troubles at home. As a result, capital flight by way of the financial transmission caused the all-share index to decline by an average of 5 percent monthly from March to December 2008¹⁴⁹. The volume of shares traded registered 203.5 million in 2009, the

¹⁴⁶ Based on known information of foreign banks; Ndulo, et al, (2010): 8.

¹⁴⁷ Bank of Zambia (2009): 42.

¹⁴⁸ Measured as portfolio investment excluding liabilities constituting foreign authorities' reserves (LCFAR) (World Bank, *World dataBank* (2011))

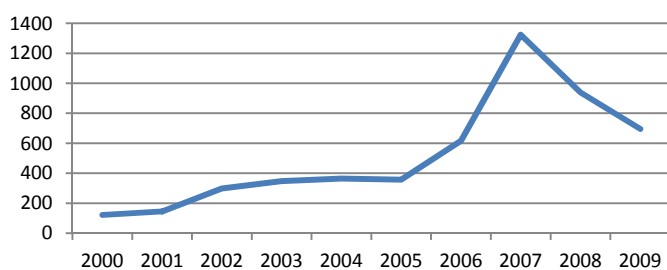
¹⁴⁹ Ndulo, et al, (2010): 6.

lowest recorded since 2002¹⁵⁰. Portfolio investment has since recovered with rising copper prices (73.6 million in 2010), again demonstrating the volatile nature of the flow.

FDI also fell as investors reversed their inflows. Zambia registered a 29 percent drop in inflows in 2008 as investors faced constrained markets and increased risk (Figure 22). Net flows fell from 11.4 percent of GDP to 6.3 in the same period¹⁵¹. The amount of pledged investment also dropped significantly (80%) in 2009 compared to 2008¹⁵².

Again, these effects were much greater than in Bangladesh. Discussed below, the reversal in investment flows during the financial crisis largely resulted from Zambia's initial unregulated financial sector. High copper prices led to a return of higher portfolio and FDI investment in 2010, led by Chinese and Indian investors. As a result, FDI registered 6.8 percent of GDP in 2010 and is expected to be higher in 2011 but still below pre-crisis levels¹⁵³.

Figure 22: FDI Inflows to Zambia, US Millions (1990-2009)



Source: Constructed from UNCTAD, *UNCTADstat Database* (2011)

¹⁵⁰ Bank of Zambia (2009): 29.

¹⁵¹ World Bank, *World dataBank* (2011)

¹⁵² Ndulo, et al, (2010): 8.

¹⁵³ World Bank, *World dataBank* (2011)

Briefly, in other financial flows the most noticeable impacts have been in increased foreign debt. Zambia received increased monetary assistance from the IMF as a result of the crisis, increasing its SDRs from 62 million in 2009 to 256.1 million in 2010. With this funding, the BoZ borrowed \$344.7 million from the IMF in 2009, a 70 percent increase from 2008¹⁵⁴. This increased its external debt which reached \$1.2 billion in 2010, rising 140 percent from where it stood in 2005 after the completion of the HIPC debt program. Zambia is clearly not moving away from international debt as a funding tool, especially in hard times. Additionally, the African Development Bank (AfDB) went forward with two large loans to the LIC: \$24 million in 2010 and \$48 million in 2011 to help fund poverty reduction programs.

Meanwhile, ODA remained stable, hovering around \$700 million from 2007-2009¹⁵⁵. While it has not fallen significantly, it has also not increased to meet additional development needs presented by the trade and financial transmissions. Increased loans are likely being used to help address this gap. Remittances meanwhile have remained stable: they continued to rise but at a slower rate (they remained at \$68 million in 2008 and 2009 and increased slightly to \$71 million in 2010)¹⁵⁶.

Financial Transmission Linked to Structural Vulnerability

Similar to the trade transmission, the financial transmission only re-emphasized the structural weaknesses in the Zambian financial sector. Beginning in the late 1980s, with the adoption of SAPs and into the early 1990s with the change in government,

¹⁵⁴ IMF, Zambia and the IMF. September 24, 2011. <http://www.imf.org/external/country/ZMB/index.htm> (accessed September 24, 2011).

¹⁵⁵ OECD, OECD.Statextracts Database (2011)

¹⁵⁶ Zambia does not have a large population abroad; with more people coming into Zambia seeking work from poorer African countries, more money flows out in the form of remittances than in (World Bank, "Migration and Remittances..." (2010): 261).

Zambia's banking sector underwent significant deregulation and privatization. It removed interest rate and other lending controls. The 1994 Bank and Financial Services Act increased capitalization standards and allowed banks to accept foreign currency deposits in 1995. As a result, many largely foreign, privately owned banks and other financial institutions—backed by foreign parent institutions—opened. This process occurred much faster than in Bangladesh where financial development was more moderate and controlled¹⁵⁷. Perhaps because of this quick transition, the BoZ largely did or could not adequately strengthen or support its domestic banks, and three commercial banks collapsed from 1994-1998 and four more collapsed by 2005¹⁵⁸. This moved the sector further toward foreign ownership; by 2008, foreign-owned commercial banks held 65.8 percent of deposits while domestic commercial banks held only 21 percent of deposits. In other LICs, this rate remained much lower, only 7 percent in Bangladesh for example.

The long-term impact of foreign-owned banks to the domestic financial sector in LICs has been debated. In some cases, they can help a country achieve and maintain macroeconomic stability and efficiency. In Zambia, the parent-subsidiary relationship did have subsequent contagion effects but also helped ease illiquidity during the Great Recession. However, many of the “parents” were in other African countries that followed similar economic trends and were not involved in complex financial products. The BoZ increased loan maturities to avoid contagion but this may not have worked if the shock to the home country had been greater and/or their own financial integration had been larger.

¹⁵⁷ For this reason, Zambia is ranked higher than Bangladesh in terms of financial freedom: it ranks a score of 50.0; See Heritage Foundation . "2011 Index of Economic Freedom: Zambia." Heritage Foundation. 2011. <http://www.heritage.org/Index/Country/Zambia> (accessed July 26, 2011).

¹⁵⁸ This was due to liquidity problems, poor asset quality, under provisioning of loans that prevented them from meeting their liabilities. They could not meet minimum capital requirements despite several BoZ injections.

In a future scenario then, this could still easily expose Zambia to home-country economic shocks (Stiglitz, 2010).

Additionally, the spillover effects of foreign-owned banks, i.e., technology and training, remained small. Foreign banks appear to have contributed to greater lending by increased competition, but problems with financial inclusion, legal rights and regulations, infrastructure and technical expertise throughout the industry remained. These problems were larger and more noticeable in domestic institutions, moving deposits to foreign banks and putting domestic players at a further disadvantage. This follows Hermes and Lensink (2004) who found in their study of 48 countries that for the benefits of foreign banks to outweigh the costs to domestic banks, an initial level of higher financial development is needed. The Great Recession again demonstrated this disfavor as domestic banks, characterized by initial poorer asset quality, saw a greater impact¹⁵⁹. Thus, foreign banks may have been crowding out domestic banks, which had not had the time or tools to adapt accordingly.

Downward movements in portfolio investment and FDI also reflected the structural weaknesses of Zambia's financial system. In 2004, the Private Sector Development Reform Program sought to encourage economic, e.g. infrastructure, improvements through private investment with revisions to the investment code and regulatory framework. The reforms allowed 100 percent repatriation of profits, free entry of investment in all sectors, trade reforms to harmonize the tariff structure, and the removal of quota restrictions. As a result, foreign flows increased¹⁶⁰ but remained

¹⁵⁹ For example, domestic banks saw a greater percentage of NPLs.

concentrated in a handful of foreign mining companies, where the profit incentive was greater. Inflows also became positively correlated with the price of copper, following volatile changes. High prices in the past decade helped these flows grow significantly in the years prior to the crisis, and FDI recorded an all-time high in 2007 at \$1.3 billion. The Chinese largely fueled this growth, accounting for roughly of 12 percent of total inflows for the year¹⁶¹.

Two large concerns arise from the unregulated increase in FDI and private portfolio flows. First, global financial integration can cause financial resources to flow outward in periods of economic decline in the global system or in the domestic (both the host and home country) system. The reversal of these inflows can cause further macroeconomic distress in the host country by exacerbating the existing macroeconomic weaknesses (Chang and Grabel, 2004). This is more probable if adequate regulation mechanisms are absent or limited. So-called “circuit breakers” or “rule(s) that limits the transfer of funds in and out of a country under certain circumstances” (Stiglitz, 2010, p. 391) were largely non-existent in Zambia. This was the result of deregulation and privatization of the mining sector; policy makers viewed any controls as investment deterrents. High prices have kept investment from China and India flowing and reduced pressures to address this vulnerability. However, capital outflows—while brief—from the Recession reemphasized this risk.

Second, there is concern that FDI has and will be effectively used in Zambia and concern of its negative externalities. FDI and other private capital flows are minimally

¹⁶⁰ Illustratively, FDI inflows increased roughly 400% from 2000 to 2006 (Computed from UNCTAD, *UNCTADstat Database* (2011)).

¹⁶¹ This represented \$984 million from 2006 (Sarah Cook and Wing Lam. "The Financial Crisis and China: What are the implications for low income countries?" Institute of Development Studies, Sussex, England (April 2009): 4).

controlled or taxed, giving foreign investors large exemptions¹⁶² in exchange for capital resources. Like in Bangladesh, the RoZ was then left with little decision-making ability in its mining industry. Without domestic buy-in and proper regulation, FDI can cause negative environmental, social and economic effects in resource-rich LICs (World Bank, 2003). In this “race to the bottom” phenomenon, unregulated foreign investors will quickly and carelessly extract environmental and human resources, leaving little left for the host country¹⁶³. The resurgence of Chinese investment has re-raised this issue in Zambia as its investment has increased steadily while monitoring and transparency of the foreign actor remain weak.

Moving Forward (2011 and Beyond)

Export Concentration and Associated Vulnerable Trade Characteristics

The Zambian case has demonstrated the perils of a resource-rich country, booming in times of high prices with concentrated exports but contracting quickly in times of economic decline. The Great Recession aggravated this structural vulnerability: the decline in copper prices in 2009 from decreased aggregate demand caused copper exports to fall quickly. As a result, imports also fell with subsequent negative effects on its currency, labor market and government revenues. Thus, one of the greatest lessons is the need for both improvements in efficiency of its primary export—copper—and diversification of its exports.

¹⁶² The industry sees 100% repatriation of profits. The 2007 budget increased mining royalties and tax rates somewhat but these changes only apply to new investments.

¹⁶³ Ha-Joon Chang and Ilene Grabel, *Reclaiming Development: An Alternative Economic Policy Manual*. London & New York: Zed Books, 2004: 141-142.

First, Zambia must improve its efficiency in mining to remain competitive. Like Bangladesh, it needs to strengthen its production and distribution processes, or its forward and backward linkages. This will require greater attention to its variable inputs including labor, infrastructure, transport, energy, licensing and contracts. Its competition has already done so: when once Chile and Zambia produced comparable outputs of copper, Chile has surged ahead in the past two decades through these types of regulatory and cost improvements¹⁶⁴. Second, Zambia will need to make conscious efforts to improve its export diversification. The copper industry offers several higher-valued options into manufactures that use it as an input that could be made in-country. Other export sectors with promise include food and beverage processing, construction, and the manufacture of chemicals, textiles and fertilizer. The agriculture sector, comprised of non-traditional exports of tobacco, flower and cotton, also offer opportunities.

This, however, will require directed efforts to work against the natural resource curse, Dutch Disease and the race-to-the-bottom phenomenon. As it stands, Zambia is not moving toward a policy of diversification: the percentage of non-traditional exports¹⁶⁵ has declined despite the fact that these exports are less volatile. There are several examples on how to overcome these development issues in resource-rich countries, and while they cannot provide an exact recipe, they offer some important suggestions to better harness and invest resource rents. In doing so, countries with abundant natural resources are more likely to achieve higher growth rates (Sachs and Warner, 1995). One idea is natural resource funds (NRFs), used in many mineral-rich countries including

¹⁶⁴Meller (2011): 15-17.

¹⁶⁵ These are sugar, cotton, tobacco, electrical cables and fresh flowers.

Chile and Botswana. Successful NRFs are countercyclical and increase macroeconomic stabilization, assisting in budget financing and encouraging critical savings and investment while reducing risk¹⁶⁶. Botswana's Sustainable Budget Index serves as a mechanism in which mineral revenues fund development expenditures and recurrent spending on education and health; non-mineral revenues cover other recurrent expenditures¹⁶⁷ (Iimi, 2007).

For Zambia to adopt an NRF, it would need to reconsider two things: foreign ownership of mining and associated profits. Foreign ownership has upgraded mining processes and reduced costs but its positive externalities have been limited. Mining revenue as a portion of total government revenue has been traditionally very low (3%), and privatization of the industry in 2002 has left the government with fewer fiscal tools. In order for the country to benefit from the resource rents, taxation of foreign mining operations must increase. Additionally, more government oversight is needed to increase both the capacity and capability of other sectors to absorb these resources. The country put forth a new tax regime in 2008 to increase the amount of revenues collected from foreign mining operations, but its implementation has not been pursued with the same vigor in the post-crisis environment, as competition for investment is stiffer.

Economic mechanisms alone, however, may not suffice: several political and social variables are at work that must be overcome to use resources wiser. Among these, Iimi (2007) in a study of 89 countries found that successful natural resource management

¹⁶⁶ Eduardo Ley, *Exhaustible Resources and Fiscal Policy: Copper Mining in Zambia*. Draft: Prepared for Public Expenditure Review, The World Bank (2010): 15-19.

¹⁶⁷ Atsusi Iimi, "Escaping from the Resource Curse: Evidence from Botswana and the Rest of the World." *IMF Staff Papers* (International Monetary Fund) 54, no. 4 (2007): 663-669.

relies on good governance. This includes strong voice and accountability, high government effectiveness, anticorruption policies, and a consensus of the current level of industry regulation. Thus, the above economic recommendations may prove especially challenging considering that the RoZ has little political control of regulatory oversight of mining activities, and its society has high inequality that has contributed to social unrest and low government legitimacy. Moreover, Zambia's citizens are divided on how to regulate foreign investors, particularly Chinese interests. As Adam and Simpasa (2009) wrote, the "right model for the equitable distribution of the rents" is Zambia's "central economic challenge now and in the future" (p. 49).

Shallow Financial System

As Zambia recovers, the crisis has offered several future lessons to mobilize and strategically invest critical funds to implement the recommendations above. First, it re-emphasized the need to strengthen its weak domestic banking sector. To do so, it must address underlying problems of illiquidity, declining asset quality, and high capital costs. These will require adequate infrastructure, technology and human capital as well as adequate regulations and accountability. Zambia has put forth initiatives to reduce risk including an overnight standing facility to ensure commercial banks' access to liquidity; improvements in the credit bureau; a framework for channeling long-term funds; deposit protection scheme; and efforts to follow the Basel II Accord. The 2009-2012 Financial Sector Development Plan continues with these initiatives. However, these market-based financial reforms will require proper sequencing approaches with gradual changes to give domestic banks time to adapt to new standards.

Second, Zambia must increase financial inclusion, as the majority of its residents do not use a formal financial product, further reducing the amount of savings and loanable funds. As it stands now, the banking sector largely serves the government, corporate sector and the upper working class. Reducing the high cost of capital may help but the obstacles are also income-based: the most reported barriers include income and the perceived view that an account is not needed (roughly 76 percent reported these were the greatest barrier)¹⁶⁸. Others include affordability, physical access, usage issues and eligibility appropriateness. Thus, financial inclusion could help improve livelihoods, further mobilizing savings. Namely, Zambia would be wise to extend financial services to the agricultural sector, where a majority of the poorest people makes its livelihood with non-traditional exports. This would also help food inflation, which is slowly rising¹⁶⁹. The RoZ has been less proactive than the GoB in this regard: food and agricultural assistance programs have not been reportedly cut as a result of the crisis but have not increased to match rising prices.

Third, the crisis has again shown the weakness of Zambia's capital market. Capital development depends on several factors, but improvements and diversification in its export sector could increase the number of participants. Unlike Bangladesh, a high level of participation of mineral companies offers an opportunity to increase financial resources and innovation. The government is also taking more of a concerted effort and has announced plans to sell government bonds on the international markets to raise

¹⁶⁸ FinScope, "FinScope Zambia 2009: Top Line Findings." Final Report, 2009: 59.

¹⁶⁹ Food inflation increased from 2.9% in August 2010 to 5.4% in August 2011. Zambia saw significant food inflation in 2009 and 2010 (around 20%) but has seen less food inflation decreasing largely attributed to better harvests. This also may be a reason why additional assistance programs have not been pursued. (Zambian Central Statistics Office, "The Monthly." *Central Statistics Office*. August 2011. http://www.zamstats.gov.zm/media/vol_101_2011_the_monthly_august.pdf (accessed September 1, 2011)).

capital for infrastructure. If successful, this could improve the country's creditworthiness and attract further investment. Other initiatives include encouraging corporations to use the debt market, investment guidelines, issuance of longer-term government bonds, and awareness campaigns of the stock exchange.

In doing so, however, the RoZ must be more cautious. As it stands, there are no controls on the transfer of portfolio investment or FDI in or out of Zambia. The 2008 crisis served as another reminder of the problem of unregulated capital flows: their reversal expanded the transmission by further reducing liquidity and investor confidence. As financial flows rebound, Zambia will have to make regulatory changes to better control the movement of financial flows in times of economic distress. Thus, it should work now to institute appropriate "circuit breakers" (Stiglitz, 2010). This includes improved legal and regulatory oversight that help the Zambian system detect, understand and respond quicker to market movements and associated risks. A NRF could also help by routinely setting aside certain funds that could not flow outward along with routine transparency and reporting from foreign banks and investors.

Conclusions

The evidence demonstrates that the financial crisis did have a noticeable impact on Zambia. This impact directly linked to the vulnerable structural features of its economy, namely concentrated exports of a low-valued but volatile natural resource. Additionally, its impact was deeper than in Bangladesh. The trade mechanism proved to be the most severe transmission channel, given the LIC's heavy dependence on copper revenues. When copper prices fell, Zambia saw large declines in exports (roughly 58%)

and imports (46%) over a year. The resurgence of the price of copper helped Zambia recover quickly and it registered impressive export growth in 2009. However, export growth grew only .3 percent from 2009 to 2010, a sharp decline from 9 percent export growth in years prior. Growth in imports also fell: -7.6 in 2009 from 8.9 percent in 2008, largely in machinery, food, and oil. Overall, Zambia saw a deterioration in its balance of payments from -.7 billion in 2007 to -1 billion in 2008 or -6.5% of GDP to -7.1 percent of GDP.

This has had subsequent effects on the currency (depreciated roughly 50 percent against the dollar) and its formal and informal labor markets. The transmission spread further by reducing government revenues: they fell almost 24 percent as a percentage of GDP from 2008 to 2009 as mining taxes declined, incomes fell and a poor tax structure remained. Meanwhile, public expenditures continued to shift upward, funded by international borrowing. The net lending/borrowing ratio to GDP increased 1.7 percent and has remained negative.

In contrast, the financial transmission had less effect than the trade transmission but also directly linked to the sector's structural vulnerabilities. While shallow with limited resources, the Zambian case demonstrated the financial risks that come with even smaller levels of integration. In the banking sector, the most noticeable effects were in an increase in the NPLs, an increase in the interest rate (4.9%) and a reduction in lending (domestic credit to the private sector to GDP fell 2.9 percent in 2009). In the capital markets, FDI and portfolio flows declined due to capital flight as foreign investors liquidated their assets due to poor economic conditions at home. Net portfolio investment registered -74.9 million (0.5% of GDP). FDI inflows fell 5.09 percent of GDP in 2009

from 2008, registering \$650 million. Meanwhile, ODA declined slightly while remittances remained strong.

Overall, Zambia's GDP growth contracted .5 percent in 2008 from 2007 from the international economic downturn¹⁷⁰. Given its partnership with China and the rebound of the price of copper on the world market, Zambia recovered much quicker than in Bangladesh. It registered 7.6 percent growth in 2010, its highest recorded annual growth rate ever¹⁷¹. It is expected to see steady annual growth in the years to come. However, its structural weaknesses persist as world food and fuel prices rise and global economic conditions remain uncertain. Given the unregulated economic and financial environment Zambia has embraced, failure to implement better controls is likely to magnify the reach and intensity of future global shocks.

¹⁷⁰ IMF, *WEO Database* (September 2011)

¹⁷¹ *Ibid.*

CHAPTER FOUR: COMPARISONS, CONCLUSIONS AND CONSIDERATIONS

This project has demonstrated how LICs became susceptible to the Great Recession through three main transmission channels: trade flows, rising food and fuel prices, and financial flows. It then linked the severity of the transmission channels to key structural vulnerabilities in LICs. This framework provided the background to examine the crisis' effect on two LICs, Bangladesh and Zambia, and the initial weaknesses that made each more vulnerable. The main conclusions of these case studies are summarized below along with considerations for other LICs embarking on trade and financial liberalization in an increasingly globalized world.

The Trade Transmission: Conclusions and General Recommendations

It has been shown that while the trade mechanism reduced flows deeper in high and middle-income countries, LICs also saw negative impacts as a result of decreased aggregate demand. In both case studies, high export concentration (70-80%) in the number of products and buyers increased the severity of the transmission. Bangladesh was able to maintain high volumes of its RMG exports and as a result, saw less initial impact. Meanwhile, Zambia saw immediate effects as the price of copper fell with a drop in retail housing and commercial construction spurring a reduction in copper exports and production. However, it also recovered sooner as the price of copper improved. Meanwhile, Bangladesh continued to face slow economic growth.

Nevertheless, both countries experienced volatile movements in their trade flows from 2008-2010. Zambia's exports dropped roughly 59 percent from the lowest to the highest point in a year while Bangladesh saw a 30 percent change. Zambia recovered in

early 2009, but the downturn still resulted in only a small increase in total export growth. The rate of export growth rose .3 percent, from 19.4 percent to 19.7 percent from 2009 to 2010. This small gain was significantly less than in years prior in which it recorded 8-9 percent gains. Bangladesh's rate of export growth also slowed, rising only .1 percent in 2010 from 2009 (16.5 percent to 16.6 percent), a noticeable reversal from its strong gains (10 percent annual growth) in the years prior to the crisis.

Both countries also saw a reduction in imports, largely of production inputs and food, resulting from decreased output and higher prices. Currency depreciation in Zambia also made imports more expensive, and it saw a roughly 47 percent drop in imports from 2008 to 2009 while Bangladesh saw a 22 percent decline. As result, Zambia's import growth fell -7.6 percent in 2009 from 8.91 percent in 2008 but rose again in 2010¹⁷². Bangladesh's imports increased only 9.6 percent in 2010, from 21 percent in 2009, and slowed in 2011.

The combined effect has caused further deterioration in the BoP in both LICs but for different reasons. The BoP fell to \$2.3 billion in 2010 from \$3.3 billion in 2009 in Bangladesh, and to \$-.1 billion in 2009 from \$-.7 billion in 2008 in Zambia. The difference between the two LICs reflects the overall economic environment faced by each country as well as its unique economic structural conditions. In Zambia, its improvement in copper exports, driven by Chinese investment, helped offset the effect of more expensive imports. Meanwhile, the gap in Bangladesh was largely due to lower imports from less RMG production for export.

¹⁷² Following the rest of the project conclusions, the years of comparison vary as Bangladesh had a delayed response. Thus, the years of impact for Zambia were 2007-early 2009 while Bangladesh saw impacts from late 2008 to 2010.

Downward movements in trade flows had subsequent effects in both LICs, extending the transmission story to the micro level. As a result of decreased exports, production fell in both countries. Neither reported large effects in the formal market but underemployment increased in both LICs. Zambia appears to have seen a greater effect in both its formal and informal labor markets. Bangladesh instead was able to use other cost-cutting techniques common in low-end manufactures that again raised humanitarian concerns. The decline in trade flows and household income also reduced government revenues in both countries. This strained government budgets and increased net borrowing/lending as a percentage of GDP by roughly the same amount (-1.75%). Coupled with rising prices, these effects then raised long-term development concerns at the micro level.

In line with the framework presented in Chapter One, these impacts and their severity fed off each country's structural vulnerabilities. Both countries became more susceptible to the trade transmission as a result of high export concentration in low-value, low-technology primary commodities and manufactures that had little capacity to improve efficiency and diversification into higher-value opportunities. Coupled with trade liberalization in the past decade, a lack of adequate fiscal and monetary impetuses perpetuated these problems and increased their risk.

Considerations for Other LICs

This project showed that export growth for many LICs is usually undiversified. As discussed, this is an often unavoidable situation: their comparative advantage tends to be in low-valued, low-tech exports with volatile prices that tend toward deteriorating

terms of trade that puts them at a further disadvantage. Furthermore, this export dependence brings increased vulnerability and risk in periods of lower demand, as they have little ability to spread their risk among a variety of export sectors. Additionally, unbalanced and unutilized growth tends to limit the resources applied to and capacity of other sectors, further diminishing the opportunities for linkages and spillover effects within an economy.

To overcome this process and diversify outward requires deliberate actions that often counteract market forces; economic incentives must be created at both the firm and national level where they currently do not exist or are too weak to adopt new training and technology for greater export opportunities (Lall, 2000). This in turn requires effective political, financial and human resources. This process is also not quick, as LICs often internally lack these resources and capacity; therefore, policy sequencing and/or a type of protection may be needed to give fledging industries time and ability to compete. Without this nurturing, trade barriers alone may not produce the benefits needed to create competitive industries, as seen primarily in Bangladesh.

Another applicable lesson is to not only diversify outward but to become more competitive in the goods LICs are currently producing and exporting. In both case studies, the LICs were losing part of their market share to international competitors who made strategic investments earlier on. Critically, many of them had stronger institutions and greater resources that reduced costs and improved efficiency for scalable growth. However, LICs often lack many of these assets. Thus, when they seek to improve production and distribution processes in their current exports, they must be especially

careful of common negative externalities of economic efficiency that they may not be able to control. The Recession has again demonstrated the effects of increased pressures on LICs to reduce regulations and taxation to attract more buyers and sellers.

Unmanaged, this can lead to further resource degradation and underdevelopment.

With these goals in mind, LICs will also need to strengthen the link between their manufacturing and agricultural sectors. Traditional wisdom has said to move resources away from agriculture toward manufactures to avoid volatile, low prices and increase opportunities for growth. However, the need to better utilize and further upgrade the agricultural sector is becoming more apparent, especially as global food prices rise and low-value manufactures demonstrate the same vulnerabilities as primary commodities. Improving this link could reduce deteriorating terms of trade and its associated effects by reducing import costs as well as providing export inputs. Additionally, technical improvements in the agricultural sector would engage more of the LIC's unskilled work force in opportunities with greater division of labor and training. This will require incentives in a sector that traditionally has had low profitability.

Several questions arise on who should be involved in this process. Both case study countries went through two distinct periods: one with a high-level of state involvement and the other without. Periods of state control in both LICs did not largely produce the successful export-led management seen in other countries. In Bangladesh, state control of the RMG industry quickly became corrupted and bankrupted the industry, while state management in Zambia focused on short-term mining projects rather than long-term development initiatives. On the other hand, privatization of industries removed

economic control almost entirely from the state and placed it in private hands. This limited the amount of regulation and oversight that could be enforced, and the amount of revenues that could be collected. This raised greater concern in Zambia where the industry became largely foreign-owned whereas the industry remained largely domestically-owned in Bangladesh. In both cases in both periods, economic diversification remained limited while efficiency declined, reflecting the additional internal deficiencies and external conditions faced by these LICs. Moving forward, questions of foreign participation in lucrative industries are likely to become more critical, especially in the rise of Chinese and Indian investment in LICs. Thus, LICs should go slow and develop appropriate policies to utilize resource rents.

The Financial Transmission: Conclusions and General Recommendations

In contrast, the financial transmission had far less impact on LICs than the trade mechanism. It also had less effect on LICs than MICs and HICs, given their limited integration. However, the severity of the transmission varied among LICs according to each country's financial structure and associated weaknesses. From the case studies, Zambia saw deeper impacts than Bangladesh. In banking and lending, both countries saw the number of NPLs increase and a reduction in lending as liquidity dried up. However, Bangladesh's banking sector was controlled by domestic actors (93% deposit control) while Zambia's sector was controlled by foreign participants (65% deposit control). This brought different challenges during the economic decline: Bangladesh's problems pertained to asset quality, transparency, and poor management while it better managed its interest rate and liquidity. Meanwhile, Zambia's problems dealt with direct market

changes as liquidity fell and its interest rate climbed 4.9 percent. Foreign participation also threatened it with a decline in international bank lending. As a result, lending to the domestic private sector fell in Zambia while only slowed down in Bangladesh¹⁷³.

In the capital markets, portfolio investment remained small in both countries but much higher in Zambia. Zambia saw an immediate effect in capital flight as foreign investors liquidated their assets: it registered -74.9 million in portfolio investment in 2008 (0.6% of GDP) from -6 million the year prior. In comparison, Bangladesh registered 31.6 million in portfolio investment in 2009 (0.03% of GDP) but saw a decline of -612 million in 2010 (0.6% of GDP) as its trade flows fell. FDI also remained small in both countries but again was higher as a percentage of GDP in Zambia, where it was also unregulated¹⁷⁴. As a result, while both saw a drop in FDI around 30% over a year, it had a greater impact in Zambia. However, Zambia has since seen larger growth in FDI while its growth in Bangladesh remains minimal, likely given increased industry competition¹⁷⁵. In other flows, ODA and remittances remained relatively stable in both countries. Zambia, more than Bangladesh, has increased its borrowing with the IMF and development banks, largely due to greater immediate effects.

Like the trade transmission, the severity of the financial transmission linked to the financial vulnerabilities in both countries. Shallow financial systems limited its effects but did not isolate the LICs completely. Foreign actors in both the money and capital markets increased financial integration and risk, further opening both countries to global

¹⁷³ This was a 2.9 percent decline to GDP in Zambia versus a 2.9 percent increase in Bangladesh, slower than in years past.

¹⁷⁴ This was 6.34% versus 0.92% in Bangladesh (UNTCAD, *UNCTADstat Database* (2011)).

¹⁷⁵ Also, not having China as a partner reduced the amount of FDI to Bangladesh.

shocks. This encouraged unregulated financial flows, especially in Zambia. This resulted in quick capital movements in and out of the country, threatening macroeconomic stability. Issues in the banking sector also resurfaced in both countries as a result of the crisis including poor management, illiquidity, asset quality and high interest rates. Again, asset ownership (domestic v. foreign) helped determine what problems were aggravated more than others.

Considerations for other LICs

Throughout this project, it has been shown that LICs require more financial resources but also better systems to mobilize them effectively. In general, many LICs must strengthen their domestic banking sectors. The case studies demonstrated the different problems associated with different frameworks. In Bangladesh, the sector remained largely domestic-owned with high state involvement. This led to moderate growth but high costs, corruption and low transparency. In the crisis, these weaknesses resurfaced. Meanwhile, foreign banks largely controlled the sector in Zambia as a result of rapid financial liberalization. They have increased competition and lowered borrowing costs, but also pushed domestic banks out of the sector and generated few spillover effects to the remaining domestic banks. They could also make Zambia vulnerable to shocks in their own home countries in a future scenario. As LICs embrace financial liberalization with more private and foreign actors, they will need to consider how this composition affects the sector as a whole and adjust regulations appropriately.

Additionally, LICs need to better mobilize resources by increasing financial access and products to other economic sectors and to those who remain under- or

unbanked. In addition to bank reforms, this includes the need to further develop the capital market for further financial development. As it stands now, it remains very limited in LICs, despite growth in incomes, savings, and lower inflation and currency stabilization. This underdevelopment can further hinder long-term public and private credit needs and put individual LICs behind other emerging market competitors. Instead, LICs should work with stakeholders to address the market and non-market barriers that detour investment, including legal, political and social impediments. Many LICs have begun to do so through national financial development plans but will require additional support moving forward.

But as shown in this project, LICs must also better monitor and utilize the resources they do have. Financial development in LICs often requires a system to regulate and monitor resource allocations, namely those who will benefit. This is especially critical in resource-rich countries like Zambia where lucrative resource rents can discourage long-term, wise investments and lead to further economic and political distress. Financial development also requires “circuit breakers” (Stiglitz, 2010) that limit the movement of financial flows to prevent capital flight and subsequent domestic instability. This also has been included in many national development policies but in many cases, incentives to attract financial flows have outweighed the appropriate regulation and oversight. Moving forward, as LICs become more integrated, they will need to make more concerted efforts in this regard to protect themselves in periods of economic decline.

The above recommendations will require a larger institutional presence and greater accountability from both domestic and international institutions. Governments with a larger fiscal space generally have greater access to macroeconomic countercyclical policies to help their citizens cope with negative external shocks. At the household level, governments with pro-poor policies and/or assigned government funds can increase public transfers and in-kind services to poor people to better protect them. Bangladesh, more than Zambia, increased these types of programs while Zambia largely only maintained current social programs. Moving forward, both of these governments and many LICs will require better systems to appropriately manage their fiscal resources in both good and bad times in order to see long-term development.

Conclusions and Future Questions

This project has served as an evaluation of the evidence to date. At the start of the crisis, both countries had been categorized as highly exposed to the poverty effects of the Great Recession (World Bank, 2009). The findings show that increased trade and financial openness increased the contagion effects of the crisis and led to declining GDP growth in both countries: 0.04 percent in Bangladesh and 0.5 percent in Zambia¹⁷⁶. However, in terms of lasting effects, at this point it is safer to say that the trade and financial transmissions *contributed* to lower growth rates in both countries and, coupled with other global factors, i.e. rising prices, debt crises, and increasing competition, they *could* have long-term impacts at the macro and micro level.

¹⁷⁶ This was in the years they demonstrated the effects of the crisis: 2008 in Zambia and 2009 in Bangladesh (IMF, WEO Database (September 2011)).

That being said, both countries have seen economic recovery, aided by international institutions including the IMF, ADB and AfDB and domestic governmental programs. The IMF is also optimistic about their future: Bangladesh is expected to return to and Zambia will surpass pre-crisis GDP growth levels in 2011¹⁷⁷. Bangladesh, like the rest of Asia, is expected to continue growing, but less quickly as external aggregate demand from advanced countries remains lower. The internal vulnerabilities of Bangladesh may also result in less growth than its neighbors. In contrast, Sub-Saharan Africa has maintained high growth rates in spite of the continued global slowdown. If copper prices and Chinese investment continue, growth is expected to remain quite high in Zambia.

This has reduced concerns of the long-term impacts of the crisis but also raised new questions. While optimistic, the IMF (WEO, September 2011) also warned against the instability of the global system writing,

“Almost three years after the crisis, the global economy continues to be challenged with intermittent volatility. Economic performance has become even more bipolar in nature, with anemic growth in economies with large pre-crisis imbalances and robust activity in many others” (p. 1).

Given this risk then, LICs with larger trade and financial openness and inherent instabilities are not isolated and could see the severity and frequency of global shocks rise.

Additionally, in evaluating these questions, several methodological issues remain. First, it will be difficult to disaggregate the causes of any single phenomenon considering the other simultaneous but intertwined macroeconomic shocks at work, i.e. food prices

¹⁷⁷ IMF, "World Economic Outlook: Slowing Growth, Rising Risks." *IMF Website*. September 2011. <http://www.imf.org/external/pubs/ft/weo/2011/02/pdf/text.pdf> (accessed September 24, 2011).

and debt crises. Second, it is challenging to get timely and accurate data from LICs to compare them. Instead, much of the data from comes from anecdotal reports that do not quantify the full effect. This is especially true at the micro level; thus, our understanding of how the crisis has affected the poorest citizens may be too optimistic. Third, it is difficult to fairly compare two countries with so many variables. By sheer economic indicators, one could conclude Zambia fared worse than Bangladesh in the two years studied. This ignores Zambia's quick recovery and the more positive environment it now faces. It also discounts social and political variables reacting to decreased growth and rising prices that may not manifest themselves in economic indicators.

And last, this project has focused not only on the economic impact but the structural vulnerabilities behind it, which the author believes are more critical for recovery and sustainable development. With this perspective, it is clear that the failure to address these weaknesses by both domestic and international actors will likely perpetuate the same problems and cycles of underdevelopment in these countries. A better understanding of these weaknesses is not simple, as many factors are also in play here. As seen, economic processes after all do not happen in isolation, and underdevelopment results from much more than financial and economic factors. Exploring and understanding this then is critical in order to better equip LICs for future transmission channels; to date, this seems to be the greatest lesson of the crisis.

REFERENCES

- Adam, Christopher and Anthony M. Simpasa. "Harnessing Resource Revenues for Prosperity in Zambia." Department of Economics, University of Oxford, Oxford, 2009, 1-53.
- Ahsan, Nazmul. "NPL situation improves in SCBs." *The Financial Express*. March 19, 2011. http://www.thefinancialexpress-bd.com/more.php?date=2011-03-19&news_id=129756 (accessed June 14, 2011).
- Antonopoulos, Rania. "The Current Economic and Financial Crisis: A Gender Perspective." Working Paper No. 562, Bureau for Development Policy, Gender Team, United Nations Development Program, May 2009.
- Auboin, Marc. "The challenges of trade financing." *VOX*. January 28, 2009. <http://www.voxeu.org/index.php?q=node/2905> (accessed August 20, 2011).
- Bangladesh Bank. "Chapter 5: Banking Sector Performance, Regulation and Bank Supervision." 2009 Annual Report , 2009.
- Bangladesh Export Promotion Bureau. *Export Statistics Database*. 2011. <http://www.epb.gov.bd/index.php?NoParameter&Theme=default&Script=detailexportdata> (accessed 01 2011, May).
- "Bangladesh inflation quickens on food price surges." *Reuters*. May 24, 2011. <http://www.reuters.com/article/2011/05/24/bangladesh-economy-inflation-idUSL3E7GO0V320110524> (accessed July 20, 2011).
- Bank of Zambia. "Annual Report 2009." 2009. <http://www.boz.zm/AnnualReports.htm> (accessed March 20, 2011).
- . *Monthly Bulletins Database*. 2011. <http://www.zamstats.gov.zm/media.php?id=7> (accessed February 20, 2011).
- Barajas, Adolfo, Ralph Chami, Connel Fullenkamp, and Anjali Garg. "The Global Financial Crisis and Workers' Remittances to Africa: What's the Damage?" WP/10/24, International Monetary Fund, January 2010.
- Berkmen, Pelen, Gaston Gelos, Robert Rennhack, and James P. Walsh. "The Global Financial Crisis: Explaining Cross-Country Differences in the Output Impact." The International Monetary Fund, Working Paper, WP/09/280, 2009, 1-19.
- Brinkman, Henk-Jan, et al. "High Food Prices and the Global Financial Crisis Have Reduced Access to Nutritious Food and Worsened Nutritional Status and Health." *The Journal of Nutrition* 140, no. 1 (January 2010): 154-161.

- Burke, Jason and Saad Hammadi. "Dhaka garment workers in violent protests over low pay." *The Guardian Newspaper Online*. July 30, 2010
<http://www.guardian.co.uk/world/2010/jul/30/dhaka-garment-workers-violent-protests> (accessed May 20, 2011).
- Chang, Ha-Joon and Ilene Grabel. *Reclaiming Development: An Alternative Economic Policy Manual*. London & New York: Zed Books, 2004.
- Charlton, Andrew and Joseph E. Stiglitz. "Trade Liberalization and the Costs of Adjustment." Initiative for Policy Dialogue Working Paper Series, 2005: 170-214.
- Choudhury, Toufic A. "Inclusive Financing: Access to Banking Services." Report for the PKSF 20th Anniversary and Development Fair 2010, Bangladesh, 2010.
- Chowdhury, Shamim. "The challenge before the RMG industry." *The Financial Express*. March 28, 2009. <http://www.thefinancialexpress-bd.com/2009/03/28/62343.html> (accessed April 30, 2011).
- Consultative Group to Assist the Poor (CGAP). "The Impact of the Financial Crisis on Microfinance Institutions and Their Clients: Results from CGAP's 2009 Opinion Survey." 2009.
- Cook, Sarah and Wing Lam. "The Financial Crisis and China: What are the implications for low income countries?" Institute of Development Studies, Sussex, England, April 2009.
- Cooper, Helene. "Economic Crisis Sidelines Fate of the World's Poorest." *The New York Times*. November 11, 2010.
http://www.nytimes.com/2010/11/11/world/11aid.html?_r=1&emc=eta1
 (accessed December 2010, 15).
- Dabla-Norris, Era, Jiro Honda, Amina Lahreche, and Geneviève Verdier. "FDI Flows to Low-Income Countries: Global Drivers and Growth Implications." IMF Working Paper WP/10/132, The International Monetary Fund, June 2010.
- Dang, Hai-Anh, Steve Knack, and Halsey Rogers. "International Aid and Financial Crises in Donor Countries." Policy Research Working Paper #5162, The World Bank, December 2009.
- Dodsworth, John R. "International Reserve Economies in Less Developed Countries." *Oxford Economic Papers* 30, no. 2 (July 1978): 277-291.

- Doughton, Sandi. "Gates Foundation scales bank 'grand' plan for global health." *The Seattle Times*. November 9, 2010.
http://seattletimes.nwsourc.com/html/localnews/2013381611_challenges09m.html (accessed December 15, 2010).
- FinScope. "FinScope Zambia 2009: Top Line Findings." Final Report, 2009, 1-85.
- Food and Agriculture Organization (FAO). *FAO Food Price Index*. 2011.
<http://www.fao.org/worldfoodsituation/wfs-home/foodpricesindex/en/> (accessed March 2011, 22).
- Frenkel, Jacob A. "The Demand for International Reserves by Developed and Less-Developed Countries." *Economica* 41, no. 161 (February 1974): 14-24.
- Grabel, Ilene. "The Political Economy of Remittances: What Do We Know? What do we Need to Know?" Political Economic Research Institute Working Paper No. 184 (October 2008): 1-50.
- Habib, Rakib Ibne. "Backward Linkages in Readymade Garment Industry of Bangladesh: Appraisal and Policy Implications." *Journal of Apparel and Textile, Technology and Management* (College of Textiles: NC University) 6, no. 2 (Fall 2009): 1-11.
- Haider, Mohammed Ziau. "Competitiveness of the Bangladesh Ready-made Garment Industry in Major International Markets." *Asia-Pacific Trade and Investment Review* 3, no. 1 (June 2007): 3-27.
- Hauner, David. "A Fiscal Price Tag for International Reserves." *International Finance* 9, no. 2 (2006): 169–195.
- Heritage Foundation. "2011 Index of Economic Freedom: Bangladesh." *Heritage Foundation*. 2011. <http://www.heritage.org/index/country/Bangladesh> (accessed July 23, 2011).
- . "2011 Index of Economic Freedom: Zambia." *Heritage Foundation*. 2011.
<http://www.heritage.org/Index/Country/Zambia> (accessed July 26, 2011).
- Hermes, Niels and Robert Lensink. "Foreign Bank Presence, Domestic Bank Performance, and Financial Development." *Journal of Emerging Market Finance*, August 2004: 207-229.
- Herrmann, Michael. "Food security and agricultural development in times of high commodity prices." UNCTD Discussion Papers: No. 196, United Nations Conference on Trade and Development, November 2009.

- Hirschman, Albert O. *The Strategy of Economic Development*. New Haven: Yale University Press, 1958.
- Humphrey, John. "Are Exporters in Africa Facing Reduced Availability of Trade Finance." Institute of Development Studies, Brighton, UK, March 2009.
- . "Trade financing: Is it a barrier to Africa's exports?" *VOX*. April 28, 2009. <http://www.voxeu.org/index.php?q=node/3507> (accessed August 20, 2011).
- Imi, Atsushi. "Escaping from the Resource Curse: Evidence from Botswana and the Rest of the World." *IMF Staff Papers (International Monetary Fund)* 54, no. 4 (2007): 663-669.
- "IMF to impose no condition on \$1b loan to BD." *The Financial Express*. October 4, 2011. http://www.thefinancialexpress-bd.com/more.php?news_id=151716&date=2011-10-04 (accessed October 7, 2011).
- IndexMundi. *Copper, grade A cathode Monthly Price - US Dollars per Metric Ton*. 2011. <http://www.indexmundi.com/commodities/?commodity=copper&months=60> (accessed May 5, 2011).
- "Indian banks discourage importing Bangladeshi goods." *Weekly Blitz*. September 12, 2011. <http://www.weeklyblitz.net/1792/indian-banks-discourage-importing-bangladeshi> (accessed September 29, 2011).
- International Monetary Fund. "Bangladesh: Selected Issues." IMF Country Report No. 07/230, Washington, D.C.: International Monetary Fund, June 2007.
- . *World Economic Outlook Database*. September 2011. <http://www.imf.org/external/pubs/ft/weo/2011/02/weodata/index.aspx> (accessed August 20, 2011).
- . *World Economic Outlook Database*. October 2010. <http://www.imf.org/external/pubs/ft/weo/2010/02/weodata/index.aspx> (accessed May 2011).
- . *World Economic Outlook Database*. April 2010. <http://www.imf.org/external/pubs/ft/weo/2010/01/weodata/index.aspx> (accessed March 20, 2011).
- . "World Economic Outlook: Recovery, Risk, and Rebalancing." *IMF Website*. October 2010. <http://www.imf.org/external/pubs/ft/weo/2010/02/pdf/text.pdf> (accessed May 20, 2011).

- "World Economic Outlook: Slowing Growth, Rising Risks." *IMF Website*. September 2011. <http://www.imf.org/external/pubs/ft/weo/2011/02/pdf/text.pdf> (accessed September 24, 2011).
- "Zambia and the IMF." *IMF Website*. September 24, 2011. <http://www.imf.org/external/country/ZMB/index.htm> (accessed September 24, 2011).
- Kozul-Wright, Richard and Robert Rowthorn. "Spoilt for Choice? Multinational Corporations and the Geography of International Production." *Oxford Review of Economic Policy*, 1998: 74-92.
- Lal, Deepak. *The Poverty of Development Economics*. Cambridge, Massachusetts: Harvard University Press, 1985.
- Lall, Sanjaya. "Exports of Manufactures by Developing Countries: Emerging Patterns of Trade and Location." *Oxford Review of Economic Policy* 14, no. 2 (1998): 54-73.
- "Technological Capabilities and Industrialization." *World Development* 20, no. 2 (1992): 165-186.
- "The Technological Structure and Performance of Developing Country Manufactured Exports, 1985-1998." *Oxford Development Studies* (International Development Centre) 28, no. 3 (2000): 337-369.
- Ley, Eduardo. "Exhaustible Resources and Fiscal Policy: Copper Mining in Zambia." Draft: Prepared for Public Expenditure Review, The World Bank, 2010.
- Lustig, Nora. "Thought for Food: The Challenges of Coping with Soaring Food Prices." Working Paper Number 155, The Center For Global Development, Washington, D.C., November 2008.
- Meller, Patricio and Anthony M. Simpasa. "Role of Copper in the Chilean & Zambian Economies: Main Economic and Policy Issues." Global Development Network Working Paper Series #43, June 2011.
- Mlachila, Montfort and Yongzheng Yang. "The End of Textiles Quotas: A Case Study of the Impact on Bangladesh." IMF Working Paper WP/04/108, International Monetary Fund, 2004.
- Mujeri, Mustafa K. and Sayera Younus. "An Analysis of Interest Rate Spread in the Banking Sector in Bangladesh." *The Bangladesh Development Studies* 32, no. 4 (December 2009): 1-33.

- Murshid, Khan Ahmed Sayeed, Salma Chaudhuri Zohir, et al. *The Global Financial Crisis Implications for Bangladesh*. BIDS-PRP Working Paper Series #1, The Bangladesh Institute of Development Studies, April 2009.
- Ndulo, Manenga, Dale Mudenda, Lutangu Ingombe and Frank Chansa. *Paper 22: Phase 2 Zambia*. Global Financial Discussion Series, London: Overseas Development Institute, January 2010.
- Ndulo, Manenga, Dale Mudenda, Lutangu Ingombe and Lillian Muchimba. *Paper 10: Zambia*. Global Financial Discussion Series, London: Overseas Development Institute, May 2009.
- Nelson, R.R. and S.J. Winter. *An Evolutionary Theory of Economic Change*. Cambridge, Massachusetts: Harvard University Press, 1982.
- Nurkse, Ragnar. "Equilibrium and Growth in the World Economy." In *Economic Essays by Ragnar Nurkse*, edited by Gottfried Haberler and Robert M. Stern, 241-281. Cambridge, Massachusetts: Harvard University Press, 1962.
- . *Problems of Capital Formation in Underdeveloped Countries*. New York: Oxford University Press, 1961.
- NYSE.TV Website. *Crude Oil Price History*. 2011. <http://www.nyse.tv/crude-oil-price-history.htm> (accessed November 3, 2011).
- Oanda. *Historical Exchange Rates*. 2011. <http://www.oanda.com/currency/historical-rates/> (accessed July 20, 2011).
- Organization for Economic Co-Operation and Development (OECD). *OECD.Stat Extracts*. 2011. <http://stats.oecd.org/Index.aspx> (accessed March 2011).
- Prebisch, Raúl. "Commercial Policy in the Underdeveloped Countries." *The American Economic Review* (Papers and Proceedings of the Seventy-first Annual Meetings of the American Economic Association) 49, no. 2 (May 1959): 251-273.
- . *The Economic Development and Its Principal Problems*. New York: United Nations, 1950.
- Rahman, Mohammad Mustafizur. "The Foreign Trade of Bangladesh: Its Composition, Performance, Trend, and Policy." School of Accounting, Economics and Finance, The University of Southern Queensland, Queensland, Australia, 1-12.

- Rahman, Mustafizur, Debapriya Bhattacharya, Md Ashiq Iqbal, Towfiqul Islam Khan and Tapas Kumar Paul. *Paper 1: Bangladesh*. Global Financial Crisis Discussion Series, London: Overseas Development Institute, May 2009.
- Rahman, Mustafizur, Khondaker Golam Moazzem, and Syed Saifuddin Hossain. *Impact of the Global Economic Crisis on the Employment and Labour Market of Bangladesh: A Preliminary Assessment*. A Report Prepared by the Centre for Policy Dialogue (CPD) in Collaboration with the International Labour Organisation (ILO), Centre for Policy Dialogue, March 2009.
- Rahman, Mustafizur, Md. Ashiq Iqbal, Towfiqul Islam Khan and Shouro Dasgupta. *Paper 12: Bangladesh Phase 2*. Global Financial Crisis Discussion Series, London: Overseas Development Institute, January 2010.
- Ramstack, Tom. "Child labor common during economic recession, Labor Department says." *All Headline News*. October 7, 2011.
<http://www.allheadlinenews.com/articles/90062129?Child%20labor%20common%20during%20economic%20recession%2C%20Labor%20Department%20says>
 (accessed October 8, 2011).
- Ranis, Gustav. "Challenges and Opportunities Posed by Asia's Superexporters: Implications for Manufactured Exports from Latin America." *The Quarterly Review of Economics and Business*, Summer 1981: 204-230.
- . "Another Look at the East Asian Miracle." *The World Bank Economic Review* 9, no. 3 (September 1995): 509-534.
- Ricardo, David. *On the Principles of Political Economy, and Taxation*. New York: General Books LLC, reprinted 2010.
- Romer, Paul M. "The Origins of Endogenous Growth." *Journal of Economic Perspectives* 8 (Winter): 3-22.
- Rosenstein-Rodan, P. N. "Problems of Industrialisation of Eastern and South-Eastern Europe." *The Economic Journal* 53, no. 210/211 (Jun-Sep 1943): 202-211.
- Sachs, Jeffrey D. and Andrew M. Warner. *Natural Resource Abundance and Economic Growth*. NBER Working Series, Cambridge, Massachusetts: National Bureau of Economic Research, 1995.
- Salvatore, Dominick. *International Economics*. 8th Edition. Hoboken, New Jersey: John Wiley & Sons, Inc., 2004.

- Samuelson, P.A. "'International Trade and the Equalization of Factor Prices". *Economic Journal* (1948): 163-184.
- Shah, Syed Ali-Mumtaz H. *Bangladesh Financial Sector: An Agenda for Further Reforms*. Asian Development Bank, Philippines: Asian Development Bank, 2009.
- Singer, Hans. "The Distribution of Gains Between Investing and Borrowing Countries." *American Economic Review* 40 (May 1950): 473-485.
- "Slowdown in garment sector avoidable – BGMEA." *Fibre2Fashion: News*. May 31, 2011. http://www.fibre2fashion.com/news/apparelnews/newsdetails.aspx?news_id=99407 (accessed June 28, 2011).
- Stiglitz, Joseph E. "Risk and Global Economic Architecture: Why Full Financial Integration May Be Undesirable." *American Economic Review: Papers & Proceedings* 100 (May 2010): 388-392.
- Tiwari, Sailesh and Hassan Zaman. *The Impact of Economic Shocks on Global Undernourishment*. Policy Research Working Paper #5215, The World Bank, World Bank, 2010.
- United Nations. "Building Inclusive Financial Sector for Development." 2006.
- United Nations Conference on Trade and Development (UNCTAD). *UNCTADstat Database*. 2011.
<http://www.unctad.org/Templates/Page.asp?intItemID=1584&lang=1> (accessed July 2011).
- . *Trade and Development Report*. Geneva: United Nations, 2002.
- World Bank. *End of MFA Quotas: Key Issues and Strategic Options for Bangladesh Readymade Garment Industry*. Bangladesh Development Series-Paper No 2, Dhaka: The World Bank: Poverty Reduction and Economic Management Unit, December 2005.
- . *Global Economic Prospects-January 2010*. Washington, D.C.: World Bank, 2010.
- . "Migration and Remittances Factbook 2011." *The World Bank*. November 2010.
<http://siteresources.worldbank.org/INTLAC/Resources/Factbook2011-Ebook.pdf> (accessed March 20, 2011).

- "The Extractive Industries Review (EIR): Regional Consultation Workshop for Africa." The World Bank. 2003.
[http://irispublic.worldbank.org/85257559006C22E9/All+Documents/85257559006C22E985256FF6006B0480/\\$File/volume4africaexecsummary.pdf](http://irispublic.worldbank.org/85257559006C22E9/All+Documents/85257559006C22E985256FF6006B0480/$File/volume4africaexecsummary.pdf) (accessed May 30, 2011).
 - *The Global Economic Crisis: Assessing Vulnerability with a Poverty Lens*. Washington, DC: World Bank, 2009.
 - *The Great Recession and Developing Countries: Economic Impact and Growth Prospects*. Edited by Mustapha K. Nabli. Washington, D.C.: The World Bank, 2011.
 - *World dataBank: World Development Indicators & Global Development Finance*. 2011. <http://databank.worldbank.org/ddp/home.do?Step=12&id=4&CNO=2> (accessed January 2011).
- World Food Program. "The Market Monitor: Trends of staple food prices in vulnerable countries." April 2011.
- Zambian Central Statistics Office. "The Monthly." *Central Statistics Office*. August 2011. http://www.zamstats.gov.zm/media/vol_101_2011_the_monthly_august.pdf (accessed September 1, 2011).

APPENDIX A

Countries used to compute Figures 1 and 2; As of the April 2011 World Bank Income

Classifications: Low-income: \$995 GNI per capita or less, Lower-middle income, \$996 - \$3,965; Upper-middle income, \$3,966 - \$12,265; and High income: \$12,266 or more.

Lower income countries & territories:	Solomon Islands Tajikistan Tanzania The Gambia Togo Uganda Zambia	India Indonesia Iraq Jordan Kiribati Kosovo Latvia Lesotho Maldives Moldova Mongolia Morocco Nicaragua Nigeria Pakistan Papua New Guinea Paraguay
Afghanistan Bangladesh Benin Burkina Faso Burundi Cambodia Central African Republic Chad Comoros Democratic Republic of Congo Eritrea Ethiopia Ghana Guinea Guinea-Bissau Haiti Kenya Korea Kyrgyz Republic Lao People's Democratic Republic Madagascar Malawi Mali Mauritania Mozambique Myanmar Nepal Niger Rwanda Sierra Leone	<i>Excluded (data problems)</i> Liberia (only in 1.2 excluded) Somalia Zimbabwe	Philippines Samoa São Tomé and Príncipe Senegal Sri Lanka Sudan Swaziland Syrian Arab Republic Thailand Democratic Republic of Timor-Leste Tonga Tunisia Turkmenistan Tuvalu
	Lower-middle income countries & territories:	
	Angola Armenia Belize Bhutan Bolivia Cameroon Cape Verde China Republic of Congo Côte d'Ivoire Djibouti Ecuador Egypt El Salvador Georgia Guatemala Guyana Honduras	

Ukraine
Uzbekistan
Vanuatu
Vietnam
Republic of Yemen

Excluded
(data problems)

Iraq
Marshall Islands
Micronesia, Fed. Sts.
Tuvalu
West Bank and Gaza

**Upper-middle income
countries & territories:**

Albania
Algeria
Antigua and Barbuda
Argentina
Azerbaijan
Belarus
Bosnia and Herzegovina
Botswana
Brazil
Bulgaria
Chile
Colombia
Costa Rica
Dominica
Dominican Republic
Gabon
Grenada
Iran, Islamic Rep.
Jamaica
Kazakhstan
Lebanon
Libya* (2006-2010
years)
Lithuania
Macedonia, FYR
Malaysia
Mauritius
Mexico

Montenegro
Namibia
Panama
Peru
Romania
Russian Federation
Serbia
Seychelles
South Africa
St. Kitts and Nevis
St. Lucia
St. Vincent and the
Grenadines
Suriname
Turkey
Uruguay
Venezuela, RB

Excluded
(data problems)

Palau
American Samoa
Mayotte
Cuba
Fiji
Sint Maarten
St. Martin
Curaçao
Libya* (2011 and 2012
years)