***Policy Note: Multidimensional Poverty in Mozambique and Vietnam[[1]](#footnote-1)***

**Divergent Poverty Outcomes**

Economic growth is generally reduces poverty; however, the extent to which this occurs varies across countries. It is possible that even with rapid growth, a country may not experience a corresponding reduction in poverty.

For instance, fast growing Asian economies like China and Vietnam have generated substantial declines in poverty, while equally fast growing countries like India have experienced more modest reductions (World Bank, 2010).1 More troubling, however, is that poverty rates have remained virtually unchanged over recent periods in some of Sub-Saharan Africa’s fastest growing countries, like Mozambique and Tanzania (NBS, 2008; DNEAP, 2010). These instances of “growth without poverty reduction” raise concerns over the desirability of more growth-oriented development strategies.

There are two typical explanations for this observed variation. The first suggests that cross-country variation in data collection methods over time leads to substantial measurement errors in growth-poverty accounting. The second invokes differences in the sectoral composition of growth. For instance, agricultural growth is typically more poverty-reducing than other sources of growth.

This policy brief explores a third explanation for divergent outcomes, the role of economic structure in determining a country’s growth-poverty relationship and performance. In particular, the size and nature of economic linkages between productive sectors and households’ incomes may impact the ability for economic growth to reduce poverty. Even when two countries have similar levels and compositions of growth their economic structures may produce different poverty outcomes.

Using multiplier and structural path analysis in Vietnam and Mozambique, Arndt et al (2011) evaluate how structural differences can determine the ability of growth to reduce poverty. A multiplier measures the total effect of changes in spending, usually government spending, on total economic output. Specifically, they examine the variation in multipliers across sectors to determine how composition of growth can influence the growth–poverty relationship. They further decompose multipliers into their various impact channels to examine why differing structural characteristics may lead to different multiplier effects.

**Case Study**

Mozambique and Vietnam provide a unique opportunity for comparative analysis of the growth-poverty relationship. The two countries have remarkably similar recent economic histories. Additionally, both countries have experienced high levels of growth over the last decade and a broadly similar composition of growth*.* Despite these similarities, Vietnam has been more successful in reducing poverty.

After emerging from colonial rule, both nations endured 15 years of destructive civil wars (i.e. 1959–75 in Vietnam and 1977–92 in Mozambique) and the subsequent challenge of reconstruction and development. Socialist central planning and the administrative allocation of resources inspired the initial national strategies of both countries. Reform beginning in 1986 brought strategies that have been characterized by more market-oriented approaches, including opening their economies to international trade and encouraging foreign direct investment. Though the economic reform program began in Mozambique in 1986, war was still widespread, and it was only after the 1992 peace agreement that recovery began in earnest.

By the end of the 1990s, more than 70 percent of both countries’ populations lived in rural areas. Poverty within Mozambique and Vietnam has become increasingly concentrated in rural areas and thus agriculture remains a key economic sector. However, in both countries the more urban industrial and service sectors have had the biggest impact on growth. Overall per capita GDP has grown at 4.9 and 5.9 percent in Mozambique and Vietnam, respectively.

Despite these similarities, the two countries have not experienced similar reductions in poverty. National poverty rates fell in both countries, yet poverty reductions were markedly greater in Vietnam in both relative and absolute terms. More specifically, using an expenditure-based “cost of basic needs” approach, the share of the population categorized as “absolutely poor” fell by 14 percentage points (from 69 to 55 percent) during 1997–2009 in Mozambique, and by 24 percentage points (from 37 to 13 percent) during 1998–2008 in Vietnam. Economic growth has therefore been more “pro-poor” in Vietnam than in Mozambique, despite similar growth rates.

While broadly similar, a key variation in the composition of growth is that the agricultural sector has grown more rapidly in Vietnam than in Mozambique. This difference accounts for some of the divergence in poverty reduction; nevertheless, other factors are likely to be at play. In particular, structural differences exist between the two countries that contributed materially to the divergent poverty outcomes. Comparative analysis of economic growth in Vietnam and Mozambique using multiplier and structural path analysis enables researchers to identify these structural factors.

**Results**

Through multiplier analysis of the structural relationships within an economy, it is possible to capture the direct and indirect effects of endogenous interactions in that economy. For instance, when agricultural demand expands it not only raises agricultural production (the direct effect) but also household incomes, thereby generating additional demand for agricultural products (the indirect effect). Multiplier analysis is used to estimate final, economy-wide effects of an exogenous change in demand.

A shortcoming of multiplier analysis is that it does not decompose the indirect impact channels causing the income change. Accordingly, multiplier analysis provides little insight into the specific mechanisms at work. This can be addressed by decomposing multipliers using structural path analysis. By decomposing multiplier effects into their component influences, structural path analysis allows us to examine why differing structural characteristics may lead to different multiplier effects on selected outcomes.

In order to analyze the economic structures of Mozambique and Vietnam, Arndt et al (2011) developed two country-specific, comparable systems of multiplier matrices. Dating from 2003, these models have identical dimensions and accounts, including 20 production activities, 5 factors, and 3 institutions.

An examination of the multiplier matrices in concert with structural path analysis reveals that the structure of the Vietnamese economy more naturally lends itself to generating broad-based growth. In addition, the analysis shows countries with similar levels and compositions of economic growth may still generate different poverty outcomes due to differences in economic structure within sectors.

More specifically, this case study reveals four primary findings. First, rural households have consistently larger income multipliers than urban households in Vietnam. Consequently, overall economic expansion benefits the country’s rural households relatively more than urban households. The reverse is true in Mozambique. Because the vast majority of the poor in both countries live in rural areas, this explains some of Vietnam’s greater success in reducing poverty.

Second, the structure of income in Mozambique and Vietnam differs in terms of the role of skills in generating labor income. In Mozambique, urban households are much more dependent on returns to skilled labor as a share of their total income than Vietnam, despite their lower relative educational attainment. This reflects much higher returns to skilled versus unskilled labor in Mozambique than Vietnam.  Rural households in Mozambique earn relatively little from high-skilled labor largely due to low educational attainment in rural areas.

Third, variation in multipliers across sectors indicates that the composition of growth is an important determinant of the growth–poverty relationship. Specifically, agriculture has the largest multiplier in both countries, indicating that the agricultural sector plays a key role in raising incomes, especially for rural households. More rapid growth in agriculture partially explains Vietnam’s more rapid rate of poverty reduction. Furthermore, multipliers were found to have greater impacts on rural household incomes than on urban households in Vietnam, whereas the reverse was true for Mozambique. This implies that growth, even in agriculture, favors urban households in Mozambique, helping explain why growth does not generate as much poverty reduction.

Fourth, decomposing multipliers into their various impact channels through structural path analysis reveals that trade and transport play a larger role in income transmission in Mozambique. Marketing systems and infrastructure are more developed in Vietnam and the locations of principal urban growth poles are closer to major agricultural production zones. As a result, when food demand increases in Vietnam, fewer resources must be allocated to covering transaction costs than is the case in Mozambique. Since an expansion in trade and transport services in Mozambique favors urban households, higher transaction costs benefit urban households at the expense of rural households. Consequently, fewer of the income gains from agricultural growth accrue to rural households. Vietnam’s ability to move goods efficiently between producers and consumers translates into more direct effects on poverty.

**Policy implications**

Three policy implications emerge.

* Inadequate education levels and high-skill premiums at least partly explain why growth in Mozambique does not generate broad-based income gains. A continuation of existing policies to promote widespread education in Mozambique would narrow the skills premium currently earned mainly by urban households, while also enabling poorer rural households to participate more in the growth process. This analysis suggests that improved educational attainment would tend to raise rural income multipliers in Mozambique.
* Agriculture’s important role in poverty reduction confirms the need for investment in and attention to this sector, particularly in Mozambique.
* High transaction costs in Mozambique reduce the gains from economic growth accruing to rural households. Investing in rural infrastructure and institutions to reduce these transaction costs would reduce some of the existing leakages from rural to urban economies, thereby raising rural income multipliers. In addition, efforts to strengthen urban growth poles beyond Mozambique’s southern regions would generate more favorable urban-to-rural growth linkages as the country’s more productive agricultural regions would be closer to these new urban growth poles and would serve as natural sources of supply.

The analysis suggests that this combination of interventions is needed to overcome the structural barriers to poverty reduction in low-income countries.

1. This policy note summarises original research undertaken as part of the project *Economic Governance and Development in Vietnam and Mozambique* and involving researchers from Vietnam, Mozambique and affiliated with the University of Copenhagen. Financial support for the project from Danida is gratefully acknowledged. Further details, including original research produced by the project, are available from <http://www.econ.ku.dk/derg/activities/ffu/>. [↑](#footnote-ref-1)