

FOREIGN DIRECT INVESTMENT
AND POVERTY

***FINAL REPORT
TO SSR (FORMERLY ESCOR) -DFID***

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April 2002

¹This project was conducted by Dirk Willem te Velde and Oliver Morrissey over May 2001– March 2002 and was funded by DFID (ESCOR) under R8003. The UK Department for International Development supports policies, programmes and projects to promote international development. DFID provided funds for this study as part of that objective but the views and opinions expressed are those of the author(s) alone.

1. Background and objectives

There are differing views on the contribution that Foreign Direct Investment (FDI) can make to reducing poverty and inequality in developing countries, depending on the effects on employment, skill-specific productivity and wage bargaining. FDI can respond to the relative abundance of unskilled labour in developing countries, creating unskilled jobs, thereby reducing both poverty and inequality; or FDI can be skill intensive, exacerbating inequality (and may or may not reduce poverty). FDI can also affect skill-specific productivity, thereby reducing or raising the demand for either skilled or unskilled labour, or both. In addition, FDI may affect wage bargaining. Finally, FDI can add to the human capital stock through training and education. The ultimate impact of FDI has wide-ranging implications for policy, and for the debate on the impact of globalisation on the poor. There is theory to support these different views, and the discrimination has therefore to be empirical. In practice, one would expect to observe a combination of factors.

This project aimed to test for the effects of FDI on poverty in two different ways in a number of countries in East Asia and Sub-Saharan Africa. First, it would identify effects on the demand for skilled and unskilled labour, hence the potential effect on reducing poverty. It would also identify the effect on relative wages of skilled and unskilled labour – such effects on wage inequality may have indirect implications for poverty. The method of analysis would be panel data analysis for a number of East Asian countries. Second, the project aimed to identify the effects of foreign ownership directly on individual earnings by skill level in a number of Sub-Saharan African (SSA) countries, also using panel data analysis (using individual and firm-level data). Data on FDI by sector is not available for SSA countries, but there is data on the extent of foreign ownership for samples of manufacturing firms.

The study had two key objectives in DFID's general interest:

- To identify the impact of FDI on earnings and employment of unskilled labour. Only if FDI tends to benefit unskilled labour will it contribute directly to reducing poverty in developing countries.
- To identify the impact of FDI on individual earnings. This will also help us to identify if there is any consistent relationship between FDI and earnings by skill group.

Te Velde and Morrissey (2001, 2002a and 2002b) discuss relevant background studies.

2. Methods

2.1 Methodologies

We used two types of methodologies. For the East Asian case studies in the first case we derived a relative wage curve derived from a CES production function with skill-specific technical progress and with skilled and unskilled labour as factors of production. The effects of inward FDI enters through the technical progress function. We estimated a relative wage curve for a panel of East Asian countries at the national level, using panel data techniques. To estimate the impact of inward FDI on unskilled

labour separately, we derived wage functions for skilled and unskilled labour and estimated them jointly.

For the African case studies, examining individual earnings for five Sub-Saharan African countries in the several years over time, we estimated a Mincerian earnings function, and exploited information on foreign ownership to the full extent. Foreign ownership can be seen as an explanatory variable independent from the other variables (education, tenure, etc.), or as affecting the slope variables of other variables, and this was tested by country and industry. We specifically accounted for the inter-relationship between size and foreign ownership. Finally, we tested whether foreign ownership affects skilled workers differently from unskilled workers, linking back to the general theme of the study that FDI can affect poverty through the effects on earnings and employment of skilled workers.

2.2 Methods

The methods of the project included advanced panel data techniques to exploit time series information in a cross section of countries (East Asia) and times series in a cross section of individuals (SSA). The project also conducted a brief literature survey on the effects of FDI on poverty and wage inequality. The specific methodology used in each of the studies is presented and discussed in Te Velde and Morrissey (2001, 2002a and 2002b).

For the panel of East Asian countries we use wage data by occupation (divided into skilled and unskilled occupations) from the ILO October inquiry (from 1983 to the mid/late 80s, made consistent across countries and supplied to us by Dr. Remco Oostendorp, see Freeman and Oostendorp, 2000), employment by occupation data from the ILO *Yearbook of Labour Statistics*, GDP and other data from the *World Development Indicators*. FDI data (stocks as a per cent of GDP) will be from UNCTAD.

We used the comparative database prepared by and available from the Centre for the Study of African Economies, Oxford, for the study of Cameroon, Ghana, Kenya, Zambia and Zimbabwe. Data have been collected for different waves by country and industry for the early 90s, and have been used in various econometric analyses since (but none addressing the link between foreign ownership, earnings and skill premia). Data on individuals within firms were linked to information on the firm (including foreign ownership).

3. Findings

We discuss micro-evidence for the African case studies on the link between foreign ownership and wages before discussing macro-evidence in the East Asian context.

3.1 Foreign ownership and wages of skilled and less skilled workers: micro –evidence for Africa

Te Velde and Morrissey (2001) used data on individual wages in the manufacturing industry of five African countries (Cameroon, Ghana, Kenya, Zambia and Zimbabwe) in the early 1990s to test whether foreign ownership is associated with higher wages for all education and occupation groups. As the measure of foreign is some ownership

by a non-national (individual or multinational enterprise), the paper in effect asked if wages differ in firms with access to foreign capital as compared to local firms (assumed to have more restricted access to capital). Consequently, we assumed that capital is cheaper for foreign-owned firms, therefore they will tend to use more capital intensive techniques and more skilled labour. We did not implicitly assume that foreign-owned firms are more efficient (on which the empirical evidence is mixed); while this may be expected for multinationals, it need not be the case for investment by foreign individuals.

We presented two main findings. First, we showed that foreign ownership is associated with a 20-37% differential in average wages (for all workers) in five African countries, allowing for the employee's age, education and tenure (i.e. observable workers characteristics). This wage differential is halved to 8-23 per cent controlling for firm-specific effects (foreign-owned firms are larger and locate in high-wage sectors and regions). Secondly, there is a tendency for skilled workers (as represented by occupation and education) to benefit more from foreign ownership than less skilled workers. Such skill-specific differentials vary by country, and unskilled workers tend to receive higher wages if employed in foreign owned firms, although the benefit from having completed secondary education is apparent in all countries.

While foreign-owned firms pay higher wages than local firms to apparently equivalent employees, this tendency is strongest for more educated and skilled workers. Further empirical analysis is required to distinguish between the two explanations put forward, whether higher wages to skilled-workers in foreign-owned firms are due to their higher productivity or their greater bargaining power. A lower cost of capital explains why foreign-owned firms employ relatively more skilled workers (as they will use relatively capital and skill-intensive techniques), but does not in itself explain why they pay them more. It is not evident that foreign-owned firms are more efficient, nor is there any particular reason why this should be the case if ownership is by non-resident individuals. On the other hand, it is difficult to test explicitly if skilled workers in foreign firms are more effective in rent-seeking. As such workers are relatively scarce and educated, there is a strong presumption that their bargaining power is greater.

Perhaps the two explanations are not mutually exclusive. Consider the dominant case of foreign-ownership, investment by a non-national. The employer will have a preference for relatively skilled labour, given the lower cost of capital, but may have less information about the local labour market. Skilled workers may know this. Thus, the employer is willing and able to pay higher wages, and the skilled employees gain a greater share of rents. Relative ignorance of the local labour market would imply that foreign owners also pay higher wages to unskilled workers and there is evidence of this. It is plausible, and consistent with the available evidence, to contend that foreign owners pay higher wages because they have less knowledge about local labour. Educated workers can obtain a higher premium from working in foreign firms because they have greater bargaining power. If workers *are* more productive in foreign-owned firms, this would compensate employers for paying higher wages but is not necessary to explain why they pay higher wages.

3.2 FDI and wages of skilled and less skilled workers: macro –evidence for East Asia

Te Velde and Morrissey (2002a) tested for the effects of FDI on wages and wage inequality in five East Asian countries. Using ILO data for wages and employment by occupation, we did not find strong evidence that FDI reduced wage inequality in five East Asian countries over the period 1985-1998. Instead, controlling for domestic influences (wage setting, supply of skills) we found that FDI has raised wage inequality in Thailand. This was shown to be robust to using different specifications and to using statistical tests.

The findings contrast with the predictions of traditional trade theory suggesting that FDI in low-skilled abundant countries locates in low-skilled intensive sectors thereby raising the relative demand for low-skilled workers and hence reduce wage inequality between skilled and low-skilled workers. However, a word of caution is in place. The results here are based on five countries with most of the key data from the ILO database. In order to derive stronger conclusions and policy implications further work is required to see how robust present findings are in other countries or using different data sources.

Because we also found that FDI raises the wages for both skilled and low-skilled workers, our findings should help to move debate from impact (does FDI work for development) to appropriate policies to use FDI (how can we make FDI work for all). We suggested that the education system in Thailand was not sufficiently prepared to absorb the effects of FDI. Countries wanting to develop on the basis of FDI should invest sufficient resources in good quality and appropriate human resources, or otherwise face the possibility that growth coincides with rising wage inequality.

Good quality and appropriate human resources through investment in education and training by the private and public sector are not only required for the adoption of skill-intensive and “skill-biased” technologies, but can also be used to avoid labour market segmentation as a result of which multinationals may sometimes dominate whole segments of the market for skills. Further work should indicate what the most efficient and effective way is to provide good quality and appropriate human resources in the context of a country wanting to develop on the basis of local capabilities as well as attracting FDI.

3.3 Non-technical summary

Te Velde and Morrissey (2002b) is an ODI Briefing Paper which provides a non-technical summary of the findings in Te Velde and Morrissey (2001 and 2002a). The main conclusions and policy implications which, can also be found in the Highlight Summary, are as follows

Although foreign direct investment (FDI) contributes to growth in developing countries, there is evidence that the benefits are not equally distributed. Foreign owned firms tend to pay higher wages in developing countries, but skilled workers tend to benefit more than less-skilled workers. This conclusion is based on new research conducted into the effects of FDI on wages in five East Asian economies and the effects of foreign ownership in five African countries. While FDI may support

development in the aggregate, more attention should be focused on the distribution of gains from FDI, notably effects on wage inequality.

There is no direct link between FDI and poverty reduction (this does not include 'socially responsible' investment which may directly benefit the poor). There are three possible indirect links between FDI and poverty reduction:

- If FDI contributes to export growth, productivity growth and finance for the balance of payments, it supports increases in national income that offer the potential to benefit the poor. In this case FDI does not reduce poverty directly, but it helps to create an enabling economic environment;
- If FDI increases employment it may help some to move out of poverty. With the exception of FDI in textiles, a lot of FDI in manufacturing is likely to employ labour that is relatively skilled (in terms of the local market), and would not directly benefit the poor. Well-developed linkages with local suppliers may increase employment of various skill groups;
- Foreign firms may pay higher wages than local firms for workers with similar qualifications. This will not directly affect the poor and is likely to increase inequality of wage incomes, increasing the skilled/unskilled wage differential, and to increase urban/rural income differentials. However, by establishing a higher paid labour force and developing a better skilled labour force, it should increase incentives and effort and can generate dynamic benefits to the economy.

Whilst our research for five African (Cameroon, Ghana, Kenya, Zambia and Zimbabwe) and five East Asian countries (Korea, Singapore, Hong Kong, Thailand and Phillipines) shows that FDI and foreign ownership are one factor in increasing average wages, skilled workers tend to gain more than low-skilled workers. Although low-skilled workers do benefit (and therefore the poor may benefit), the tendency for FDI to raise wage inequality may require a policy response. The policy implications can be summarised as follows:

- FDI raises average growth and wages, but does not reduce and may increase wage inequality in developing countries. Policy should be aware of whether wage inequality leads to national income inequality.
- Policies to use FDI can be effective in ensuring that FDI works for skilled as well as less skilled workers, and that it is more likely to provide employment benefits to the poor.
- Support for good quality and appropriate education and general training for low-skilled workers is required to make FDI work for development for all types of workers.
- More attention should be focused on the bargaining position of low-skilled workers in a globalising world. Much of the micro-evidence finds that skilled workers in foreign firms are able to obtain a higher wage premium than low-skilled workers, not necessarily because foreign owned firms make skilled

workers more productive but because skilled workers in foreign owned firms are relatively more effective in wage bargaining.

4. Dissemination

The various users (academia, NGOs, policy makers in developing countries, officials in aid agencies and international organisation such as ILO, UNCTAD and OECD Development Centre) have been and will be targeted by different dissemination mechanisms. We arranged a lunch-time seminar, wrote a policy briefing paper and used web-based dissemination mechanisms. We have also targeted the research community through presentations at conferences and through plans to publish in journals and books.

4.1 Substantial publications (attached to this report) included

Morrissey, O. and D.W. te Velde (2002c), "Trade, FDI and Equity in the Republic of Korea in the 1990s", forthcoming in a book edited by Kishor Sharma.

Velde, D.W., te and O. Morrissey (2002b). "Foreign Direct Investment. Who gains?" ODI Briefing Paper, forthcoming at <http://www.odi.org.uk/>.

Velde, D.W., te and O. Morrissey (2002a). "Foreign Direct Investment, Skills and Wage Inequality in East Asia, paper presented at DESG Nottingham 2002, see also <http://www.odi.org.uk/iedg/meetconf.html>

Velde, D.W., te and O. Morrissey (2001). "Foreign Ownership and Wages: Evidence from five African Countries, *CREDIT Discussion Paper 01/19* (www.nottingham.ac.uk/economics/research/credit). This paper has been submitted to a peer-reviewed journal.

4.2 Presentations at conferences and seminars

- Paper on African case studies discussed during CSAE and UNIDO International Forum on New Industrial Realities and Firm Behaviour in Africa, 2001, held at St Edmund Hall, Oxford, 22-23 September 2001.
- Paper on African case studies presented and discussed during a staff seminar at University of Nottingham, November 2001.
- Paper on African case studies presented and discussed during CSAE seminar in February 2002
- Paper on African case studies presented during CSGR conferences at Warwick University, 15-17 March 2002.
- Main findings of project presented at ODI lunchtime seminar 26 March 2002.
- Paper on East Asian case studies presented at DESG conference at University of Nottingham, 18-20 April 2002.

4.3 Other means of dissemination

- Held an ODI lunchtime meeting on 26 March 2002. The report is now available on ODI's web-site: <http://www.odi.org.uk/iedg/meetconf.html>. The meeting was attended by 30-40 representatives from academia, NGOs and DFID.
- Discussion at ILO, Geneva: to discuss findings of our research with inter alia Rolph van der Hoeven, Eddy Lee and Vincenzo Spiezza.
- Briefing Paper will be sent to users once it has been returned from printers.
- Included the main findings in an ODI report submitted as evidence to the International Development Committee of the House of Commons.
- Included a Highlights Summary.
- Informed on findings of our work during other meetings such as the OECD Development Centre meeting on FDI and human capital, December 2001 and the Africa-Europe Economic Conference in Abuja, Nigeria, October 2001.
- The results for African and East Asian countries will be used to compare with results for Latin America in an SSR extension of this project on FDI and income inequality in Latin America to be conducted over April 2002 – March 2002.