Productivity growth in non-resource sector is generally considered as a successful strategy to reverse poverty trend. This policy brief investigates the possibility of addressing the challenge of productivity growth in Madagascar’s garment industry by the promotion of FDIs in the Export Processing Zone. Evidences show that this industry has enormous potential to reduce poverty through growth enhancing effects, high productivity, and employment and wage effects. However, poor business climate as well as weak institutions and lack of capacity to promote good governance impede the full exploitation of this potential.
With 92% of poverty rate, Madagascar is one of the poorest countries in the world, a fragile state, and is more likely to remain LDC until 2025. Historically, investment in resource sector has been the main driver of economic growth. Unfortunately, it failed to result into significant poverty reduction while per capita income has been on declining trend since the early 1970s. In order to reverse this trend, productivity growth in non-resource sector is a key policy challenge. However, poor business climate (country’s rank in doingbusiness.org is 167th out of 190) has made such a challenge more likely unsuccessful. Indeed, 75% of workforce whose education level is less than primary’s limits the country’s capital absorptive capacity while making it more difficult the undertaking of productivity-driven activity and decent employment creation.

The main objective of present research project is to investigate the possibility of addressing this challenge of productivity growth in EPZ’s garment industry amid the significant obstacles mentioned above. Specifically, the research argues that:

- On the one hand, thanks to EPZ incentives, FDI flows in garment industry (which account for the bulk of investment in EPZ) have real potential to reduce poverty in Madagascar through various channels;
- And one the other hand, several obstacles had to be addressed in order to maximize and to spread the positive impacts across the country.

### EVIDENCE AND ANALYSIS

Massive FDI inflows in EPZ have produced substantial growth enhancing effects and have been an important source of foreign exchange for the country. Thus, EPZ was the fastest growing sector of the economy with more than 20% annual growth rate in the 2000s (Table 1).

<table>
<thead>
<tr>
<th>Indicators</th>
<th>1991-95</th>
<th>1996-00</th>
<th>2001-05</th>
<th>2006-08</th>
<th>2009-11</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic growth (annual average rate)</td>
<td>1.22%</td>
<td>3.84%</td>
<td>3.58%</td>
<td>6.06%</td>
<td>-2.40%</td>
</tr>
<tr>
<td>Value Added Growth of secondary sector (annual</td>
<td>0.50%</td>
<td>4.60%</td>
<td>2.20%</td>
<td>6.70%</td>
<td>-2.60%</td>
</tr>
<tr>
<td>Export growth (annual average rate)</td>
<td>9.84%</td>
<td>13.91%</td>
<td>4.74%</td>
<td>24.93%</td>
<td>-6.40%</td>
</tr>
<tr>
<td>Value Added Growth of EPZ sector (annual</td>
<td>105.34%</td>
<td>17.45%</td>
<td>23.76%</td>
<td>18.73%</td>
<td>-13.50%</td>
</tr>
<tr>
<td>EPZ’s Export growth (annual average rate)</td>
<td>39.32%</td>
<td>31.14%</td>
<td>29.55%</td>
<td>40.47%</td>
<td>-15.94%</td>
</tr>
</tbody>
</table>

It accounted for 1/3 of Madagascar’s secondary sector GDP and has been the main source of export earnings for the country in 2008 (figure 1). It is worth noting that garment industry is the EPZ’s most important branch accounting for a two third of total number of firms.
In addition, firms in EPZ have the highest level of productivity which was 1.7 times that of the non-EPZ firms in 2005. This high productivity has been the main source of competitiveness gain and structural change. Indeed, firms in garment industry were able to increase their exports even after the phasing-out of Multi-Fiber Agreement in January 2005 (Figure 2) whereas structural change process was very promising when manufacturing, and especially garment industry, accounted respectively for 74% and 54.3% of total exports in 2008. Unfortunately, 2009’s political crisis put an end to this momentum.
Moreover, knowledge transfer through two main channels, the subcontracting and labour mobility, is effective. Indeed, 23.5% of garment firms in EPZ are locally-owned and production system between local firms and foreign ones is very homogeneous, namely in terms of capital intensity, labour productivity and profit rate (Figure 3). Yet, these effects are less important since the number as well as the size of the local firms are very small. If local firms could benefit more incentives, the linkage effects would have surely grown and reduced greatly poverty.

For all the above mentioned reasons, EPZ is undoubtedly crucial to poverty reduction in the country.

Beside its growth enhancing effects, FDI in garment industry generates substantial employment and earning opportunities for less educated and inexperienced poor. Before the political crisis the industry employed 107,530 workers, or more than 20% of total jobs in formal sector. Low skilled workers (operator and helper) accounted for more than 80% of total employment and earned relatively high wages (US$ 63.4 per month in 2012), and growing at 11.4% per year for 2008-2012. More importantly, entry barrier is no a serious issue as about a three quarter of firms accepted workers without experience and with primary level education or less. Thus, relatively well paid garment job in the EPZ is accessible by poor, female and less educated workers who are more likely to benefit more from growth effects. In other words, growth in EPZ is more inclusive and relatively pro-poor.

However, analysis of worker’s households shows that EPZ still has limited impact on the wellbeing of employees and their household, which is composed of 4.4 members on average. This is for two main reasons.

First, wages are not high enough to meet the households’ basic needs, forcing 33.8% of them to look for another source of income, and poverty rates remain very high at 98.3% (international poverty line of less than US$2 a day) in 2012. High proportion of expenses on foodstuff (56.1% of the total) indicates also the seriousness of poverty in these households. In addition their resilience capacity is very low as poverty rate had increased from 95.3% before the political crisis to 98.3% 4 years later. The proportion of extremely poor also doubled during this period.
Second, low entry barrier and relatively high wage do not ensure neither security at work nor decent life to workers. Indeed, an important proportion of workers (more than 1/3 throughout 2008-2012) do not feel entirely secure since their contracts are either a time-limited (usually one year) one or on temporary basis (usually few days), whereas among those who benefit from a permanent contract only 2/3 understand the contents of the contract. More than 80% of workers did overtime works, which averaged 14.1 hours per week, making hourly wage paid in garment industry the lowest in the formal sector. Wage comparison, between employees doing overtime works and those who did not, shows clearly that those who do overtime earned less (Table 2), and even less than the legal minimum wage (MGA 700.63 per hour). In addition, a large majority of workers can only enjoy 15 days of holidays per year whereas 17.3% and 15.4% respectively, did not enjoy their rights to annual paid holidays and paid holidays due to sickness, in 2012.

Employment is thus precarious and less secure, thereby affecting negatively workers' wellbeing. As a consequence, workers have to quit their job earlier as it is shown by the short average length of stay in a firm (3.2 years for “operator”), the low average age of workers (31.6 years), the very low proportion of workers who are over 45 years old (4.5% of the total), and the low proportion of workers having over 6 years' experience (less than 25%). Consequently, very few workers will be able to attain the age of retirement (60 years) at EPZ firms, suggesting that most of EPZ's workers are deprived of their right to retirement pension or allowances.

From the evidences and analysis, there are three major findings:

1. Madagascar possesses both comparative and competitive advantages in garment industry. It implies that the country has a great opportunity to undertake export-led growth strategy through specialization in garment manufacturing. Such growth will result into high export earnings and will open the way toward structural change. More importantly, this industry has enormous potential to reduce poverty and to improve the population wellbeing through various channels mainly: growth enhancing effects, high productivity, employment and wage effects.

2. However, growth enhancing effects are not yet fully exploited because poor business climate impeded local businessmen to take full advantage of FDI’s spillover effects. Lack of effective industrial policy is also another reason.

3. Garment industry has high potential in job creation for inexperienced and less educated poor. But, employment is precarious and less secure while wage effects are not significant, thereby indicating poor working conditions. Consequently a large proportion of households remains in poverty.

<table>
<thead>
<tr>
<th>Year</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Employees doing overtime works</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average monthly wage (MGA)</td>
<td>103,400.00</td>
<td>122,800.00</td>
<td>136,100.00</td>
<td>147,100.00</td>
</tr>
<tr>
<td>Average total working hours/month</td>
<td>235.53</td>
<td>235.53</td>
<td>233.73</td>
<td>233.33</td>
</tr>
<tr>
<td>Nominal Wage (MGA/h)</td>
<td>439.01</td>
<td>521.38</td>
<td>582.30</td>
<td>630.44</td>
</tr>
<tr>
<td>Real wage (MGA/h)</td>
<td>404.62</td>
<td>480.09</td>
<td>540.16</td>
<td>598.14</td>
</tr>
<tr>
<td><strong>Employees doing normal time works</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average monthly wage (MGA)</td>
<td>96,600.00</td>
<td>107,200.00</td>
<td>125,600.00</td>
<td>135,400.00</td>
</tr>
<tr>
<td>Total working hours/month</td>
<td>177.33</td>
<td>177.33</td>
<td>177.33</td>
<td>177.33</td>
</tr>
<tr>
<td>Nominal Wage (MGA/h)</td>
<td>544.75</td>
<td>604.52</td>
<td>708.28</td>
<td>763.55</td>
</tr>
<tr>
<td>Real wage (MGA/h)</td>
<td>502.07</td>
<td>556.65</td>
<td>657.04</td>
<td>724.43</td>
</tr>
<tr>
<td><strong>GAP</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Monthly wage (MGA)</td>
<td>6,800.00</td>
<td>15,600.00</td>
<td>10,500.00</td>
<td>11,700.00</td>
</tr>
<tr>
<td>Total working hours/month</td>
<td>58.20</td>
<td>58.20</td>
<td>56.40</td>
<td>56.00</td>
</tr>
<tr>
<td>Nominal Wage (MGA/h)</td>
<td>-105.74</td>
<td>-83.15</td>
<td>-125.99</td>
<td>-133.11</td>
</tr>
</tbody>
</table>

*Note: MGA is the Madagascar’s currency, Ariary*
Therefore, there are three major policy implications of these findings:

1. Given the declining competitiveness of Chinese labour-intensive manufacturing, thereby pushing firms to relocate millions of job in low-cost countries, there is an immediate need of proactive government strategy to promote garment industry. Policy actions should go beyond promulgating EPZ law and promoting free market mechanism as it is the case today. Policy makers have to put in place an adequate incentive system (Macro and Micro level) that has to effectively address business climate and market failures in order to encourage foreign as well as domestic investment in this industry.

2. The lack of domestic resources will probably limit the ability of the government to successfully implement these policies whereas current donors’ aid strategy, which has been increasingly motivated by basic human needs, gives less growth opportunity to industrial sector. Therefore, there is a need to rethink aid strategy to favour economic infrastructure and production sectors. This will probably increase aid effectiveness in addressing poverty.

3. As a fragile state, Madagascar’s institutions are weak and impaired by the lack of capacity to provide the rule of law and to promote good governance. This has limited the garment industry’s potential to successfully reduce poverty. Therefore, there is also an immediate need for the government to create and build capacity in law enforcement, in fighting corruption and in setting up an effective judicial system. In this sense donor’s support is crucial to make domestic efforts in capacity building more rewarding. More particularly, primary focus would be on labour law enforcement and on improving labour conditions for the effectiveness of garment industry promotion policies.

In order to assess the real potential of FDI in garment industry to reduce poverty, the present project combined firm and employee-level data analysis. If the first level data analysis allows to assess the garment industry’s (in EPZ) real potential in reducing poverty, the second enables us to identify those factors that limit this FDI’s potential. Thus, both analysis permit to establish the link between the FDI in EPZ and poverty reduction in Madagascar and will constitute a valuable tool for policy makers. Data come from EPZ’s firm surveys (2009, 2010, 2011 and 2012) by the UA-CEE, and the 2013 EPZ’s employee survey by the INSTAT and UA-CEE.


## PROJECT NAME
NOPOOR – Enhancing Knowledge for Renewed Policies against Poverty

## COORDINATOR
Institut de Recherche pour le Développement, Paris, France

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- CDD The Ghana Center for Democratic Development – Accra, Ghana
- CDE Centre for Development Economics – Delhi, India
- CNRS (India Unit) Centre de Sciences Humaines – New Delhi, India
- CRES Consortium pour la Recherche Économique et Sociale – Dakar, Senegal
- GIGA German Institute of Global and Area Studies – Hamburg, Germany
- GRADE Grupo de Análisis para el Desarrollo – Lima, Peru
- IFW Kiel Institute for the World Economy – Kiel, Germany
- IRD Institut de Recherche pour le Développement – Paris, France
- ITESM Instituto Tecnológico y de Estudios Superiores de Monterrey – Monterrey, Mexico
- LISER Luxemburg Institute of Socio-Economic Research – Esch-sur-Alzette, Luxemburg
- OIKODROM - The Vienna Institute for Urban Sustainability – Vienna, Austria
- UA-CEE Université d’Antananarivo – Antananarivo, Madagascar
- UAM Universidad Autónoma de Madrid – Madrid, Spain
- UCHILE Universidad de Chile – Santiago de Chile, Chile
- UCT – SALDRU University of Cape Town – Cape Town, South Africa
- UFRJ Universidade Federal do Rio de Janeiro – Rio de Janeiro, Brazil
- UNAMUR Université de Namur – Namur, Belgium
- UOXF-CSAE University of Oxford, Centre for the Study of African Economies – Oxford, United Kingdom
- VASS Vietnamese Academy of Social Sciences – Hanoi, Vietnam

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