Access to Israeli Labor Markets: Effects on the West Bank Economy

Johanes Agbahey, Khalid Siddig and Harald Grethe


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Access to Israeli labor markets: effects on the West Bank economy

Johanes Agbahey, Khalid Siddig and Harald Grethe

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Background

• Contrasted labor markets between Israel and the West Bank

• High demand for Palestinian low-skilled workers in Israel

• In the 80s employment in Israel accounted for more than 30% of total Palestinian employment (Bulmer, 2003)

• Benefits for both sides
Background

• Political tension has progressively led to extensive restrictions on labor movement (Mansour, 2010)

• Between 1999 and 2004 the share of Palestinians working in Israel fell from 23% to 8% (Flaig, 2013)

• Restrictions are multifold
  o Physical barrier
  o Closures and checkpoints
  o Work permit policy
Work Permit Policy

• Permits issued to Palestinians who meet some personal status criteria
• The criteria vary according to the intensity of the conflict
  o Requirement at the height of the intifada (2001-04): be married with children and over the age of 34
  o In 2011: be married and over the age of 23
• Permits are only valid to work in a specific sector and for a predetermined employer
• Permits are issued within a specific quota that is set by the government for each sector every year (Etkes, 2012; B’Tselem, 2014)

• The quota does not often meet the demand for Palestinian labor in the Isareli economy (KavLaOved, 2012)
  o 27,000 permits issued in 2012
  o Need of more than 50,000 Palestinian workers
  o Number of Palestinians looking for work in Israel is more than 100,000
Model and Production Module

- Static model builds on STAGE-LAB single country CGE model (McDonald, 2009)
- Extension of the domestic production module
• West Bank SAM for 2011 (Agbahe et al., forthcoming)
  o 253 accounts
  o 17 factor types of which 14 labor groups
  o 50 commodity groups and 41 activity sectors
  o 111 households disaggregated by quintile and composition
  o 26 tax accounts
  o 2 trade partners (Israel and rest of the world)
Main shock: increasing the proportion of the Palestinian workforce employed in Israel from 14% to 30%

Two implications:
- Increased factor income received from Israel
- Decreased labor supply to the domestic market

Decreased labor supply
- Elasticity of unemployment to change in Palestinian employment in Israel
- Origin of new commuters
## Simulations

<table>
<thead>
<tr>
<th>Change in factor supply in the domestic market</th>
<th>Full shock (in %)</th>
<th>Full shock + restriction (in %)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low-skilled males &lt; 24 years</td>
<td>-10.99</td>
<td>1.58</td>
</tr>
<tr>
<td>Low-skilled males 24-34 years</td>
<td>-9.65</td>
<td>-17.08</td>
</tr>
<tr>
<td>Low-skilled males &gt;34 years</td>
<td>-10.19</td>
<td>-18.17</td>
</tr>
<tr>
<td>Low-skilled females</td>
<td>-4.40</td>
<td>-4.40</td>
</tr>
<tr>
<td>High-skilled males &lt; 24 years</td>
<td>-9.85</td>
<td>1.33</td>
</tr>
<tr>
<td>High-skilled males 24-34 years</td>
<td>-5.79</td>
<td>-10.78</td>
</tr>
<tr>
<td>High-skilled males &gt;34 years</td>
<td>-5.60</td>
<td>-10.12</td>
</tr>
<tr>
<td>High-skilled females</td>
<td>-4.14</td>
<td>-4.14</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Change in factor income from Israel by labor groups employed in Israel</th>
<th>Full shock</th>
<th>Full shock + restriction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Permitted low skilled workers</td>
<td>96</td>
<td>96</td>
</tr>
<tr>
<td>Unpermitted low skilled workers</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Permitted high skilled workers</td>
<td>96</td>
<td>96</td>
</tr>
<tr>
<td>Unpermitted high skilled workers</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
Closure rules

• Foreign exchange market closure: flexible exchange rate
• Investment-savings closure: model is investment-driven
• Factor market closure: all factors are fully employed and mobile
• Government closures:
  o Government savings are fixed
  o Government consumes a fixed share of final demand
  o Income tax is flexible
• Numeraire: CPI
### Change in factor and input price

<table>
<thead>
<tr>
<th>Factor</th>
<th>Change in factor income</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total labor</td>
<td>10.23%</td>
</tr>
<tr>
<td>Capital</td>
<td>-3.95%</td>
</tr>
<tr>
<td>Land</td>
<td>-0.03%</td>
</tr>
<tr>
<td>Intermediate input</td>
<td>0.48%</td>
</tr>
</tbody>
</table>
## Change in Factor and Input demand quantity

<table>
<thead>
<tr>
<th></th>
<th>Agriculture</th>
<th>Food processing</th>
<th>Manufacture</th>
<th>Construction</th>
<th>Trade</th>
<th>Transport</th>
<th>Communication</th>
<th>Services</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Labor</strong></td>
<td>-8.2%</td>
<td>-9.3%</td>
<td>-25.1%</td>
<td>-4.1%</td>
<td>-8.0%</td>
<td>-9.2%</td>
<td>-6.2%</td>
<td>-5.1%</td>
<td>-8.6%</td>
</tr>
<tr>
<td><strong>Capital</strong></td>
<td>3.1%</td>
<td>2.6%</td>
<td>-11.0%</td>
<td>7.2%</td>
<td>-2.5%</td>
<td>1.5%</td>
<td>4.5%</td>
<td>6.3%</td>
<td>0.0%</td>
</tr>
<tr>
<td><strong>Inputs</strong></td>
<td>1.7%</td>
<td>1.0%</td>
<td>-16.6%</td>
<td>1.7%</td>
<td>-4.5%</td>
<td>-1.5%</td>
<td>-0.1%</td>
<td>0.1%</td>
<td>-4.2%</td>
</tr>
</tbody>
</table>
Effect on activity output value

1. Background
2. Model and Data
3. Simulations
4. Results
5. Conclusion

- Agriculture: 0.9%
- Food processing: -0.3%
- Manufacture: -16.4%
- Construction: 2.9%
- Trade: -1.1%
- Transport: -2.0%
- Communication: 5.9%
- Services: 3.9%
Effect on export supply value

1. Background
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-0.6%  -5.7%  -27.0%  -12.6%  -18.1%  -8.6%  -6.1%  -16.5%
Effect on import demand value

1. Background
2. Model and Data
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-0.7% 2.1% 8.8% 10.7% 2.1% 4.3% 7.9%
Macro economic effects

1. Background
2. Model and Data
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4. Results
5. Conclusion

-4.1%  3.4%  2.2%  3.0%

-18.1%  -3.5%

Domestic production  Household consumption  Absorption  Import demand  Export supply  GDP
Effect on households’ income

1. Background

2. Model and Data

3. Simulations

4. Results

5. Conclusion

<table>
<thead>
<tr>
<th>Quintile</th>
<th>Percentage change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quintile 1</td>
<td>8%</td>
</tr>
<tr>
<td>Quintile 2</td>
<td>10%</td>
</tr>
<tr>
<td>Quintile 3</td>
<td>9%</td>
</tr>
<tr>
<td>Quintile 4</td>
<td>6%</td>
</tr>
<tr>
<td>Quintile 5</td>
<td>2%</td>
</tr>
</tbody>
</table>
### Effect on households' income

#### Change in factor income

<table>
<thead>
<tr>
<th></th>
<th>Change in factor income</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domestic labor</td>
<td>1.8%</td>
</tr>
<tr>
<td>Labor from Israel</td>
<td>75.2%</td>
</tr>
<tr>
<td>Capital</td>
<td>-3.9%</td>
</tr>
<tr>
<td>Land</td>
<td>-0.03%</td>
</tr>
</tbody>
</table>

#### Composition of household income by household quintile

<table>
<thead>
<tr>
<th></th>
<th>Quintile 1</th>
<th>Quintile 2</th>
<th>Quintile 3</th>
<th>Quintile 4</th>
<th>Quintile 5</th>
<th>All households</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labour</td>
<td>72%</td>
<td>70%</td>
<td>64%</td>
<td>56%</td>
<td>39%</td>
<td>55%</td>
</tr>
<tr>
<td>Total capital</td>
<td>12%</td>
<td>14%</td>
<td>22%</td>
<td>30%</td>
<td>44%</td>
<td>30%</td>
</tr>
<tr>
<td>Land</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Transfers</td>
<td>17%</td>
<td>16%</td>
<td>14%</td>
<td>14%</td>
<td>17%</td>
<td>16%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Effect on households’ expenditure

1. Background

2. Model and Data

3. Simulations

4. Results

5. Conclusion

### Household expenditure by household quintile

<table>
<thead>
<tr>
<th></th>
<th>Q 1</th>
<th>Q 2</th>
<th>Q 3</th>
<th>Q 4</th>
<th>Q 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agricultural products</td>
<td>14%</td>
<td>12%</td>
<td>10%</td>
<td>8%</td>
<td>6%</td>
</tr>
<tr>
<td>Processed food</td>
<td>31%</td>
<td>30%</td>
<td>25%</td>
<td>22%</td>
<td>19%</td>
</tr>
<tr>
<td>Manufacture, electricity &amp; water</td>
<td>31%</td>
<td>31%</td>
<td>34%</td>
<td>38%</td>
<td>33%</td>
</tr>
<tr>
<td>Trade, hotels &amp; restaurants</td>
<td>2%</td>
<td>3%</td>
<td>3%</td>
<td>4%</td>
<td>5%</td>
</tr>
<tr>
<td>Transport</td>
<td>5%</td>
<td>5%</td>
<td>5%</td>
<td>5%</td>
<td>5%</td>
</tr>
<tr>
<td>Post &amp; communication</td>
<td>4%</td>
<td>4%</td>
<td>6%</td>
<td>6%</td>
<td>7%</td>
</tr>
<tr>
<td>Services</td>
<td>14%</td>
<td>16%</td>
<td>17%</td>
<td>18%</td>
<td>26%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

### Change in Purchaser price

- Agricultural products: -2%
- Processed food: -1%
- Manufacture: -1%
- Trade: -1%
- Transport: -1%
- Communication: 4%
- Services: 6%
Effect on households’ welfare

1. Background
2. Model and Data
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EV as % of base expenditure

<table>
<thead>
<tr>
<th>Quintile 1</th>
<th>Quintile 2</th>
<th>Quintile 3</th>
<th>Quintile 4</th>
<th>Quintile 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>14%</td>
<td>10%</td>
<td>9%</td>
<td>4%</td>
<td>-3%</td>
</tr>
</tbody>
</table>
Effect of restriction on labor movement

Macro economic indicators

- GDP from value added
- Absorption
- Private consumption
- Government consumption
- Import demand
- Export supply
- Domestic production

Percentage change
- Without labor restrictions
- With labor restrictions

- 2.2% - 3.2%
- 2.0% - 3.4%
- 3.2%
- 3.0% - 3.0%
- -0.7% - 0.7%
- -1.1%
- -18.1% - 18.1%
- -4.1% - 4.4%
- -18.3%
Effect of restriction on labor movement

Household welfare

<table>
<thead>
<tr>
<th>Quintile 1</th>
<th>Quintile 2</th>
<th>Quintile 3</th>
<th>Quintile 4</th>
<th>Quintile 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>EV as % of base expenditure</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>With restriction</td>
<td>15.1%</td>
<td>10.4%</td>
<td>9.5%</td>
<td>3.4%</td>
</tr>
<tr>
<td>Without restriction</td>
<td>14.2%</td>
<td>9.7%</td>
<td>9.5%</td>
<td>3.9%</td>
</tr>
</tbody>
</table>

1. Background
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Concluding Remarks

• Increased employment in Israel negatively affects GDP and domestic production

• Employment in Israel harms Palestinian production

• Less incentive to invest in human capital, engine of modern growth

• Short term benefits
  o Increased household income and welfare
  o Distributional effects
Concluding Remarks

• Restrictions on labor mobility have a negative effect on the economy

• Positive side of restrictions:
  o Poor households are better off
  o Youngsters have more incentive for investing in human capital

• Further work
  o Path and long-term effects assessment using a dynamic model
  o Integrated CGE – microsimulation to assess poverty dynamics
THANK YOU!

agbaheyj@hu-berlin.de
References


