Labor Force and Development in Saudi Arabia

September 2002
Ishac Diwan and Maurice Girgis
Setting of Study

- Saudi population rising at about 3 percent. Oil revenues expected to be constant => oil drag of 3% a year on pc income!! Where will growth come from? Need new sources, incl. Productivity

- HD perspective to development essential: => must transform oil wealth into human capacity through education and increased labor productivity. The hidden source of growth

- Speed of HD catch-up depends on how fast traditional society can be transformed and effective use of national labor and skills
Organization of the Presentation

Introduction

1. Public sector employment and social returns to education
2. The domestic labor market from a global perspective
3. The gender dimension
4. Conclusions

Annex: labor market policy package
1. Introduction

- Potential role of education in boosting income growth in Saudi Arabia huge: average education level of LF rising very fast from 5.2 years in 1992 to 6.6 years in 1999.
- Rise in average education in LF is 4 months per year with present trend: average education jumps to 11 years per person by 2020, converging to OECD levels.
- Ed level is higher than in ME, LA, Africa and China in 1999.
This has been fueled by high private returns to education
To harvest benefits of education/skills:
- Incentives to accumulate ‘right’ education
- Incentives for national LF to use their skills
- Increase participation rates of female LF

Mgt of human capital accumulation requires
- Free market force, and
- Regulations

Other countries’ experience in soviet union, Sri Lanka, Egypt, Syria, cote d’Ivoire
Causes of failure

- Soviet union: too many scientists
- Sri Lanka: insufficient investments
- Cote d’Ivoire: expensive education system
- Egypt, Syria: education leading to ‘status’ in public sector jobs
Recent studies show that under “good conditions”, one extra year of schooling adds 10-12 percent to income, but under the wrong conditions, there will be none.

‘Good’ conditions include:
- ‘Right’ education: meets private sector needs
- ‘Right’ incentives: nationals to compete in workplace
- Globally competitive productivity levels
- Sufficient investment spending
Three Scenarios

- **Best case:** 2.5% per capita income growth [low population 1.5%, high education 4%]
- **Moderate case:** 0% per capita income growth [population at 2%; Education at 2%]
- **Worst case:** -2.5% [education misused (0 growth); High population 2.5%]
A Saudi worker faces 4 questions:

- How much education?
- What type of education?
- When to join the LF, if at all?
- Where to locate a job?

These decisions maybe biased:

- Private versus social education
- Education to achieve ‘status’ in a govt. Job
- Delay entry: dependent longer, waiting for govt job, rent-seeking activities
Two inter-related distortions:

1. High pay of government jobs, which attracts Saudis away from private sector
2. Relative freedom of labor importation, which depresses ‘market’ wages
3 key issues:

- **First**: passage from state led employment path to market driven path => wages reflect productivity … unification

- **Second**: actively & judiciously manage entry of foreign labor … open labor market … high unemployment of nationals … right level of protection

- **Third**: the gender dimension
To realize the best case scenario:

1. Keep private returns to education high
2. Avoid perverse work and education incentives due to public sector employment; Wrong investments in education by other leap-froggers such as Russia, Egypt, and Sri Lanka.
3. Manage foreign labor effectively for consumers welfare but not in conflict with the full use of national labor
4. Increase female participation rate in the labor force to foster growth and reduce fertility (and the population drag)
2. Public Sector Employment & Social Returns to Education

- Public sector played two functions:
  1. It distributed oil dividend to population in terms of social services: health, educ., Infrastructure, etc.
The government size expanded significantly

- Civil service is up to 1 million from 300,000 in ‘83
- 200,000 expatriates have been replaced by Saudis since 1983
- 88% of govt employees are Saudis
Looking ahead, this system has reached its limits

- Efficiency perspective

Government Employment as % of Labor Force and of Population

<table>
<thead>
<tr>
<th>Gov as % LF</th>
<th>Gov % of Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>KSA</td>
<td>OECD</td>
</tr>
<tr>
<td>KSA</td>
<td>OECD</td>
</tr>
<tr>
<td>Argentina</td>
<td>Mauritius</td>
</tr>
<tr>
<td>Egypt</td>
<td>Indonesia</td>
</tr>
</tbody>
</table>

Saudi Only
Currently, the system is costly

- Saudis in govt represent 27% of Saudi LF
- Govt empl in OECD is only 14% of LF
- In 1999, govt wage bill
  - 23% of GDP
  - 60% of govt budget
  - 92% of oil revenue
- Capital formation is down from 22.2% of govt expenditure in 1996 to 13.6% in ‘99
wage differentials create dualities

Civil Service & Private Sector Monthly Wages

SR

0 5000 10000 15000 20000 25000

literate  R&W  Elementary  Intermed.  Secondary  Diploma  Univ+  Executives

Civil service  Private sector
But also

- Public Sector compensation package is higher than in private sector because
  - Higher entry salary and shorter working hours
  - Better fringe benefits
  - Unstressful job conditions
  - Faster promotions plus job security
  - Possibility of holding another PVS sector job
  - Social acceptability
There are other financial costs:

- Had foreign/national ratio stayed in 1999 as it was in 1983, estimate of government savings:
  
  29% of wage bill or 17% of government expenditures or 4.5% of GDP

- This also bias oil dividend distribution
Other negative impacts:

- Strong incentives to accumulate “wrong” skills
- Reduces attractiveness of working in the private sector
- Slow entry in the LF
- Lower participation rates (males and females)
Participation in KSA

- Participation seemingly very low
- This is largely driven by:
  - Low participation among females
  - High share of youth in population (and in schools)

### Participation Rates by Gender and Age Group, 1999

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>15-19</td>
<td>10</td>
<td>5</td>
<td>15</td>
</tr>
<tr>
<td>20-24</td>
<td>80</td>
<td>30</td>
<td>100</td>
</tr>
<tr>
<td>25-34</td>
<td>90</td>
<td>10</td>
<td>90</td>
</tr>
<tr>
<td>35-44</td>
<td>100</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>45-54</td>
<td>90</td>
<td>10</td>
<td>90</td>
</tr>
<tr>
<td>55-64</td>
<td>70</td>
<td>30</td>
<td>100</td>
</tr>
</tbody>
</table>

Rate (%)
Dis-incentive are more marked for medium levels of skills => low particip’n

Labor Participation Rates, 1999

[Bar chart showing participation rates by education level for males, females, and total.]

- Less than Primary
- Primary
- Intermediate
- Secondary
- Under-grad
- University

Participation Rates (%)

Male
Female
Total
Low male participation rates in KSA in general

<table>
<thead>
<tr>
<th>Age Group</th>
<th>15-19</th>
<th>20-24</th>
<th>25-44</th>
<th>45-54</th>
<th>55-64</th>
<th>65+</th>
</tr>
</thead>
<tbody>
<tr>
<td>KSA, 1999</td>
<td>18.5</td>
<td>75</td>
<td>93</td>
<td>89.4</td>
<td>60</td>
<td>24.5</td>
</tr>
<tr>
<td>Kuwait, 1985</td>
<td>13.7</td>
<td>66.4</td>
<td>91.4</td>
<td>54.5</td>
<td>35.3</td>
<td>NA</td>
</tr>
<tr>
<td>Kuwait, 1970</td>
<td>40.7</td>
<td>88.1</td>
<td>98.9</td>
<td>94.43</td>
<td>75.99</td>
<td>32.92</td>
</tr>
<tr>
<td>Oman, 1993</td>
<td>14.6</td>
<td>76.9</td>
<td>94.9</td>
<td>86.25</td>
<td>63.95</td>
<td>NA</td>
</tr>
<tr>
<td>Yemen, 1999</td>
<td>41</td>
<td>74</td>
<td>95</td>
<td>92.4</td>
<td>79.05</td>
<td>NA</td>
</tr>
<tr>
<td>Jordan, 1987</td>
<td>29</td>
<td>79</td>
<td>95.3</td>
<td>93.25</td>
<td>73.55</td>
<td>NA</td>
</tr>
<tr>
<td>OECD, 1970</td>
<td>49.8</td>
<td>86.7</td>
<td>97.2</td>
<td>95.53</td>
<td>82.94</td>
<td>22.13</td>
</tr>
</tbody>
</table>
3. Domestic labor market from a global perspective

The *push* factor: foreign LF makes jobs in PVS unattractive, why?

- Static: social cost < private cost of FLF
- Dynamic: disincentives are created by harsh competition

![Government Expenditure Per Capita and Per Capita Real Subsidy Levels](image)

- (Gov)
- (per capita)
The education gap is narrowing down

- Open labor import policy lowered consumption cost
- Saudi reservation wage is higher than FLF, esp. at lower skills
- Policy is no longer sustainable

![Evolution of Excess Ed of Saudis over Non-Saudis, 1992-1999](image)
Nationals will soon outnumber expats

- Emp ↑ from 5.24 mn in ‘80 to 7.2 mn in ‘99
- FLF held 1.7 mn more jobs than Saudis in ‘80; Now it is down to 0.8 mn.
- There are about 4 mn. expats
- The gap between FLF and NLF is clearly shrinking
- By 2005, the trend must be reversed to ensure full employment of new entrants
Expect fewer expatriates in govt & more Saudis in private sector

Recent survey: Saudis are not hired because

- Low wage FLF 51.7%
- Lack of interest NLF 50.7%
- Experienced FLF 35.1%
- Disqualification NLF 28.3%
- Unavailability of NLF 15.1%
A Central Problem is that Foreign workers work at much lower wages than Saudis.

Controlling for education, hours worked, gender, experience (Kuwait, Jordan): premium ≈ +80%
…FLF work in all skill levels

• Mainly in low and high skill jobs!!

• But increasingly in medium skill jobs

Share of Migrants in Overall Skill Categories, 1999

Distribution of Migrants by Skill Category, Selected Years
Implications and challenges

- Low skill LF ↓ from 65% to 57% (83-99)
- % Of high skill stayed constant
- FLF is moving towards medium skill occupations: from 14.4% in 1992 to 30.7% in 1999
- A rising % of Saudis LF is in medium skill jobs (62.6% in 1999)
- Clearly, open labor import strategy has reached its limits
Different countries have protected their labor market …

But, one should be aware of the impact on:

1. Costs to consumers and producers
2. Efficiency, incentives to work and demand for education
3. Absence of national skills or unwillingness to accept certain jobs by NLF

Next, we examine each segment of the labor market separately
Skilled Labor

- Highly mobile, little disincentives to work
- Participation rates high (98 percent for university graduates vs. 52.5 percent for secondary)
- Unemployment rates low (with exception of new entrants)
- Wage differential small (S/NS: 2.1, technical and 1.09 managerial vs. 3.0 overall)
- No reason to protect or to subsidize much; Focus on entrants
Unskilled workers

- Easy to find reasons to restrict entry, but cost is high in terms of consumption and production
- Large benefits from availability of cheap labor given levels of income and family size
- Low unskilled FLF wages ($500/yr) keep returns to education high in Saudi Arabia
- Saudis unwilling to take on these jobs at the going market wage rate
- These jobs may disappear at present reservation wage
Unskilled workers

- Participation rate among unskilled Saudis is 60% only (for males)
- Europe’s (min wage in equitable society) and the US experience (inequality = the price of lower cost)
- Nationals tend to wait at home until govt job opens up
- Solutions: minimum wage for Saudis + safety net (welfare for the old, training for the youth?)
- Is this affordable or should their skills be raised?
- Group of < secondary makes 28.3% of the Saudi LF
Medium skills

- Thick segment (>65% of NLF)
- Saudis’ reservation wage higher than expatriates (participation rate is 60% among males)
- Group expanding at fastest rate, should be at work to reap the benefits of education: *this segment requires protection*

What type of protection?

1. Extent of tax/subsidy?
2. Form: tax (on expatriates) or subsidy (tax credit to Saudis)?
3. How to avoid loopholes?
4. The Gender Dimension

- The oil drag is a function of population growth
- L-T low participation rates will erode value added of education
- If only males worker, growth potential of education is cut by 50%
- When women are denied access to labor market, they tend to maximize family size
High education & improved health in KSA associated with high fertility

- Improvement in health is not followed by demographic transition …poverty trap
- Efforts to educate females in KSA have been impressive
- However, fertility rates are high: 5.5 children per woman vs. 1.7 high income; 2.2 middle income; 2.7 Kuwait and 3.2 UAE & Egypt
Female education gains have been strong but more modest than for males.
Education increases participation

Labor Participation Rates, 1999

- Male
- Female
- Total
But participation rates remain very low

Female Participation Over Age, KSA and Comparators

Kuwait 1980
Kuwait 1985
KSA 1992
KSA 1997
Jordan 1987
Yemen 1999
The key to increase female participation

- Higher pay
- Special legislation within existing social and regulatory constraints to encourage increased participation
- Proper financial compensation for employers in private sector
- Migrant women may be a positive influence
5. A Market-based remedial approach

- Saudization has been quite effective
- Number of Saudis in both private and public sectors increased
- Number of NS decreased in govt but increased in private sector
But it is connected to rising inefficiencies

Labor Productivity, Public and Private Sector

TFP-Total and Private Sector, KSA 1981-1999

TFP, TFP-Total, TFP-Private
Must find ways to minimize cost of Saudization

- There will be about 200,000 new entrants annually in the next few years
- There are 4 mn. Expatriates, 95% in private sector
- There is substantial room for substitution, but inappropriate policies would reduce global competitiveness, locally and abroad
A heterodox policy mix: Tax/subsidy regime ...

- A market-based strategy is to close the gap between Saudi reservation wage and expatriates’ wages, using taxes and/or subsidies
- Private sector will make optimal choices based on net market cost
- What is the magnitude of such a tax/subsidy?
* Balanced budget approach
* Tax/Subsidy magnitude depends on
  + wage gap
  + number of new Saudi entrants
  + the number of foreign workers in same skill
  + the degree to which the gap is to be closed
* The data rely on 7th Development Plan
* The results are preliminary
Gross tax rate is 27.8%

- Dynamic analysis to find jobs for new entrants over a 5-year period: 570,000 persons = 1.71 mn. Man-year
- There are 2.1 mn. FLF to subsidize 143,000 Saudis => subsidy rate 18.5%. For medium skill: 802,000 FLF/427,000 NLF => subsidy rate 27.8%
- But would nationals raise their participation rates?
Participation, education, and wages

- Regional experience confirms that work behavior depends on levels of wage and non-labor income.
Raising wages to reservation levels will increase participation rates

- The estimated elasticity is around 0.4
- They are higher for medium than for high skills
- With a suggested subsidy rate of 45.6%, this could increase participation by 0.4*0.45 or by about 18%; A reasonable achievement
- Duration of subsidy should be limited and it depends on effects of experience on productivity
Wage return per yr of experience 2.75% to 5%; in 5 yrs => 20% rise in on-the-job productivity/wages

Wage Return Per Year of Experience From Wage Equations Based on Micro-Data

- Abu Dhabi
- Yemen
- Jordan
- WB and Gaza

%
Avoiding loopholes

- Subsidy should be temporary
- Taxes/fees to cover new entrants only
- Part of subsidy to finance training, re-tooling and OJT
- Subsidy to be tied to pension contribution
- Subsidy to be linked to individuals not jobs
- Subsidy/tax to be on employer not employees
Other Short to Medium Term Recommendations

- Private sector involvement in providing training opportunities
- Labor market information network
- Civil service reforms
- Transferability/portability of fringe benefits
- Deregulation of the foreign labor market
Main conclusions, comparison with current framework

- The goal of reforms should be to improve the utilization of national skills but wise protection also needed.
- Must accelerate integration of Saudi males and females in labor force, but not in public sector.
- Use market mechanisms … to attract them in right jobs in the private sector.
- And non-market interventions: mix of tax on foreigners and (mostly) subsidies to nationals, especially the young mixed with safety net for low skills and older workers.
- Instruments exist: permit fees, migrant control system, training funds.
  - Missing: magnitudes
  - Training vs clear subsidies
  - Limitations of the fiscal system.
The challenge: back to the three scenarios

- Education effort could produce 3+ percent rise in per capita income/year if:
  - Right type of education & incentives
  - Jobs availability (protect from foreign labor)
  - Women at work (encourage participation)

Gains will come from improved labor productivity by new entrants in all sectors of the economy
Risks

- Pressure to absorb unemployed Saudis by adopting “quick fixes” solutions
- Temptation to drag out subsidy program
- Opposition of business community to levying fees on foreign workers
- Effect of fees on costs, prices & competitiveness
- Fiscal burden on budget outlays
- Ineffectiveness of training and retooling
- Uncertainty of reaction to new, untested ideas
- Fragmented implementation of reform package