


# Exporting, labour demand and wages in South Africa

Neil Rankin  
&  
Volker Schöer  
African Micro-Economic Research Unit,  
Wits University  
September 2009

This work was carried out with the aid of a grant from the International Development Research Centre,  
Ottawa, Canada

---




## A wage premium among exporting firms

- 1) A robust finding among firm/plant level studies of exporting is that exporting firms pay more (Bernard and Jensen, 1995; Wagner, 2007)
  - may simply be that workers are not comparable between exporters and non-exporters
- 2) Worker level data
  - is there a genuine premium?
  - is the export premium proxying for something else (potentially skills of the worker)?

---

ESSA 2009



## Worker level data

Matched firm and worker data

- Schank, Schnabel and Wagner (2007)
  - Germany, panel
  - Exporters do pay higher wages
  - Suggest that employees have tacit knowledge of production process, paid efficiency wages to stay
- Munch and Skaksen (2008)
  - Denmark, panel
  - Export wage premium but only in firms where skill intensity is sufficiently high
  - Exporting firms may escape intense competition from low wage countries in international markets by using more skilled labour
- Both explanations fit with a hypothesis that it is the types of goods being produced that matters

---

ESSA 2009



## The South African case

Manufacturing exports go to two distinct markets


- International (predominantly EU and North America)
- Regional (South African Development Community - SADC)

Would anticipate that wages will be related to export destination

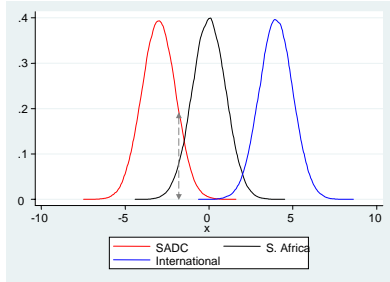
Wages ↔ skill ↔ relative product quality ↔ export destination

---

ESSA 2009




## Theoretical framework




---

ESSA 2009



## Data

- 1)
  - Matched firm and worker information
  - Collected as part of the World Bank's Investment Climate Assessment of 2004
  - Predominantly manufacturing but also services and construction.
- 2)
  - Average wage data from firms in the region (ICAs)
  - Matched firm and worker data
- 3)
  - Section 23 and HS 4-digit aggregate trade data for the region (SADC, EU, NAFTA)

---

ESSA 2009

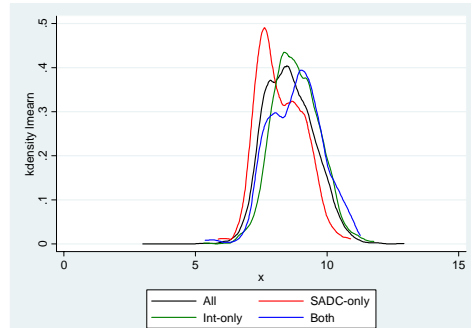
## More on the data

-835 firms

-1-10 employees per firm sampled

	Freq.	Percent
Non-exporters	1,736	42.53
Export 1-9%	844	20.68
SADC-only 10-32%	507	12.42
International-only 10-32%	334	8.18
Both 10-32%	218	5.34
SADC-only 33%+	20	0.49
International-only 33%+	367	8.99
Both 33%+	56	1.37
Total	4,082	100

ESSA 2009



ESSA 2009

## Do exporters pay different wages?

$$\ln W_{ij} = \alpha + \beta_1'X_i + \beta_2'Z_j + \delta'Export_j + \varepsilon_{ij}$$

Where:

$W_{ij}$  is wages for individual  $i$  in firm  $j$ ;

$X_i$  is a vector of individual characteristics such as age and education;

$Z_j$  is a vector of firm-specific characteristics including firm size and productivity measures;

$Export_j$  is an indication of export behaviour; and

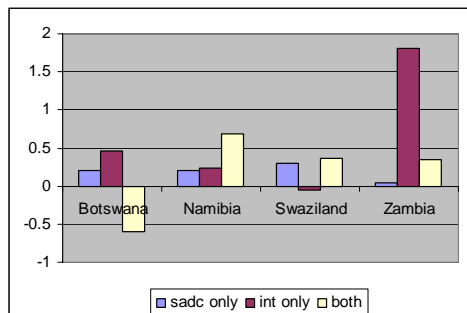
$\varepsilon_{ij}$  is a standard i.i.d. error term.

ESSA 2009



VARIABLES	(1) All firms Ln(monthly earnings)	(2) Ln(monthly earnings)	(3) Exporters only Ln(monthly earnings)	(4) Ln(monthly earnings)
Export 1-9%	-0.0597 (0.0505)	-0.0302 (0.0611)		
SADC-only 10-32%	-0.218*** (0.0527)	-0.171*** (0.0595)	-0.169*** (0.0568)	-0.131*** (0.0511)
International-only 10-32%	0.150** (0.0788)	0.252*** (0.102)	0.239*** (0.0781)	0.289*** (0.108)
Both 10-32%	0.1061 (0.106)	0.1876 (0.119)	0.161 (0.107)	0.183 (0.126)
SADC-only 33%+	-0.359*** (0.0566)	-0.349*** (0.0561)	-0.331*** (0.0533)	-0.361*** (0.0533)
International-only 33%+	0.142** (0.0781)	0.152 (0.105)	0.243*** (0.0895)	0.218* (0.120)
Both 33%+	0.159*** (0.106)	0.237*** (0.122)	0.382*** (0.113)	0.382*** (0.147)
Controls for:				
Job types	Yes	Yes	Yes	Yes
Sectors	Yes	Yes	Yes	Yes
Provinces	Yes	Yes	Yes	Yes
Observations	2640	2087	1243	989
R-squared	0.647	0.659	0.665	0.679

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1  
Robust standard errors in parentheses. These are clustered by firm.



ESSA 2009

## Aggregate data

23 section	23 description	SA Exports to NAFTA > SADC	SA Exports to EU > SADC	SA Imports from NAFTA > SADC	SA Imports from EU > SADC	
C01	Live animals, animal products	YES	YES	NO	YES	0.75
C02	Vegetable products	YES	YES	YES	YES	1.00
C03	Animal or vegetable fats & oils	YES	YES	YES	YES	1.00
C04	Food, beverages & tobacco	YES	YES	YES	YES	1.00
C05	Mineral products	YES	YES	YES	YES	1.00
C06	Chemical products	YES	YES	YES	YES	1.00
C07	Plastic products	YES	YES	YES	YES	1.00
C08	Raw hides	YES	YES	YES	YES	1.00
C09	Wood products	YES	YES	YES	YES	1.00
C10	Paper products	YES	YES	YES	NO	0.75
C11	Textiles & clothing	YES	YES	YES	YES	1.00
C12	Footwear	YES	YES	YES	YES	1.00
C13	Non-metallic minerals	YES	YES	YES	YES	1.00
C14	Precious stones and metals	YES	YES	YES	YES	1.00
C15	Base metals	YES	YES	YES	YES	1.00
C16	Machinery	YES	YES	YES	YES	1.00
C17	Transport equipment	YES	NO	YES	YES	0.75
C18	Specialised equipment	YES	YES	YES	YES	1.00
C20	Misc manufact articles	YES	YES	YES	YES	1.00
C21	Collectors pieces & antiques	YES	YES	YES	YES	1.00
C22	Other unclassified goods	YES	YES	YES	YES	1.00
C23	Spec class/parts for mot veh	YES	YES	YES	YES	1.00

ESSA 2009



---

## Conclusions



- Wages differ by export destination and for SADC-only exporters by specialisation
- SADC-only exporters pay significantly less (13-36%), International exporters pay significantly more (14-29%)
- South African trade with SADC is in low price (and low quality) goods, trade with EU/NAFTA is in high price (and high quality goods)
- For other SADC countries, wages are higher for all exporters, not only international exporters because SA is main market (relatively higher income)
- Relative skills and the relative quality of goods could be an explanation for this

---

ESSA 2009