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Productivity, Wages and Growth in Services: The South African Economy

Haroon Bhorat, Francois Steenkamp, Nomsa Kachingwe, Christopher Rooney and Adrienne Lees

July 2016
Author's Workshop: Growth without Smokestacks
UNU WIDER, Helsinki

Outline

I. Methodology and data
II. Economic overview: Locating services within the South African economy
III. Evidence of a Segmented Service Sector: Labour Market Approach
IV. Trade and Competitiveness
V. Looking Ahead: Locating Services as part of South Africa's growth and employment agenda

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I. Methodology and Data

- Descriptive analysis
- Use an econometric approach, Quantile regression, to understand the segmentation of the market for services in South Africa

Dataset	**Area of analysis**
Quantec (2016)	Broad industry trends for GDP, employment and productivity . Disaggregated at the SIC 2-digit level. 1970-2014
Labour Market Dynamics Survey	Labour market aspects of the services sector. Disaggregated at the SIC 2-digit level. 2000-2014
South African Reserve Bank	Long-term trends of service exports at an aggregated level
World Bank Development Indicators	
WB Trade in Service Database	Bilateral and highly disaggregated service export data developed by Francois & Pindyuk (2013)

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II. ECONOMIC OVERVIEW

Locating Services within the South African Economy

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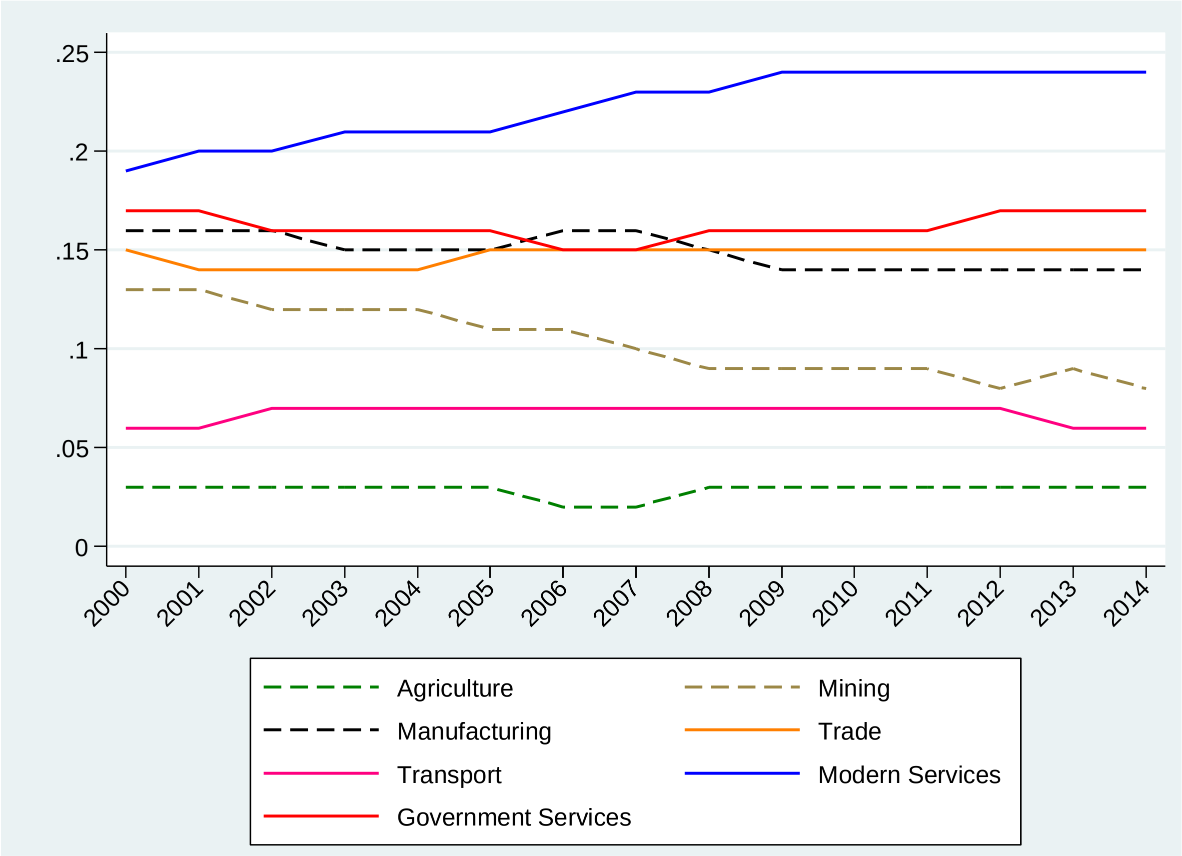
II. Relative Contribution of Sectors to GDP, 2000-2014



Source: Quantec (2016). Own calculations.

- Services accounts for a significant (69% in 2014) and rising share of GDP
- SA is a services-based economy

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II. Total Employment by Industry, 2000 – 2014

	Growth (2000-2014)		Employment Shares		Share of Change ($\Delta E_j/\Delta E$)
	Absolute	Relative ($\%\Delta E_j/\%\Delta E$)	2000	2014	(2000-2014)
Primary	**-625 986**	**-1,57**	**0,15**	**0,09**	**-0,24**
Agriculture	-704 991	-2,25	0,12	0,05	-0,27
Mining	79 005	0,92	0,03	0,03	0,03
Secondary	**126 734**	**0,25**	**0,20**	**0,17**	**0,05**
Manufacturing	-206 168	-0,64	0,12	0,09	-0,08
Utilities	14 944	1,48	0,004	0,004	0,01
Construction	317 959	1,79	0,07	0,08	0,12
Tertiary	**3 082 466**	**1,84**	**0,65**	**0,74**	**1,19**
Catering & Accommodation	-34 630	-0,47	0,03	0,02	-0,01
Wholesale & Retail Trade	943 619	1,92	0,19	0,22	0,37
Transport & Storage	231 051	2,63	0,03	0,04	0,09
Communications	13 598	0,46	0,01	0,01	0,01
Finance & Insurance	31 359	0,41	0,03	0,03	0,01
Business Services	729 272	3,08	0,09	0,12	0,28
Other CSP	535 386	1,39	0,15	0,16	0,21
Government Services	632 811	2,14	0,11	0,14	0,24
Total	**2 583 214**	**1,00**	**1,00**	**1,00**	**1,00**

Source: Quantec (2016). Own calculations.

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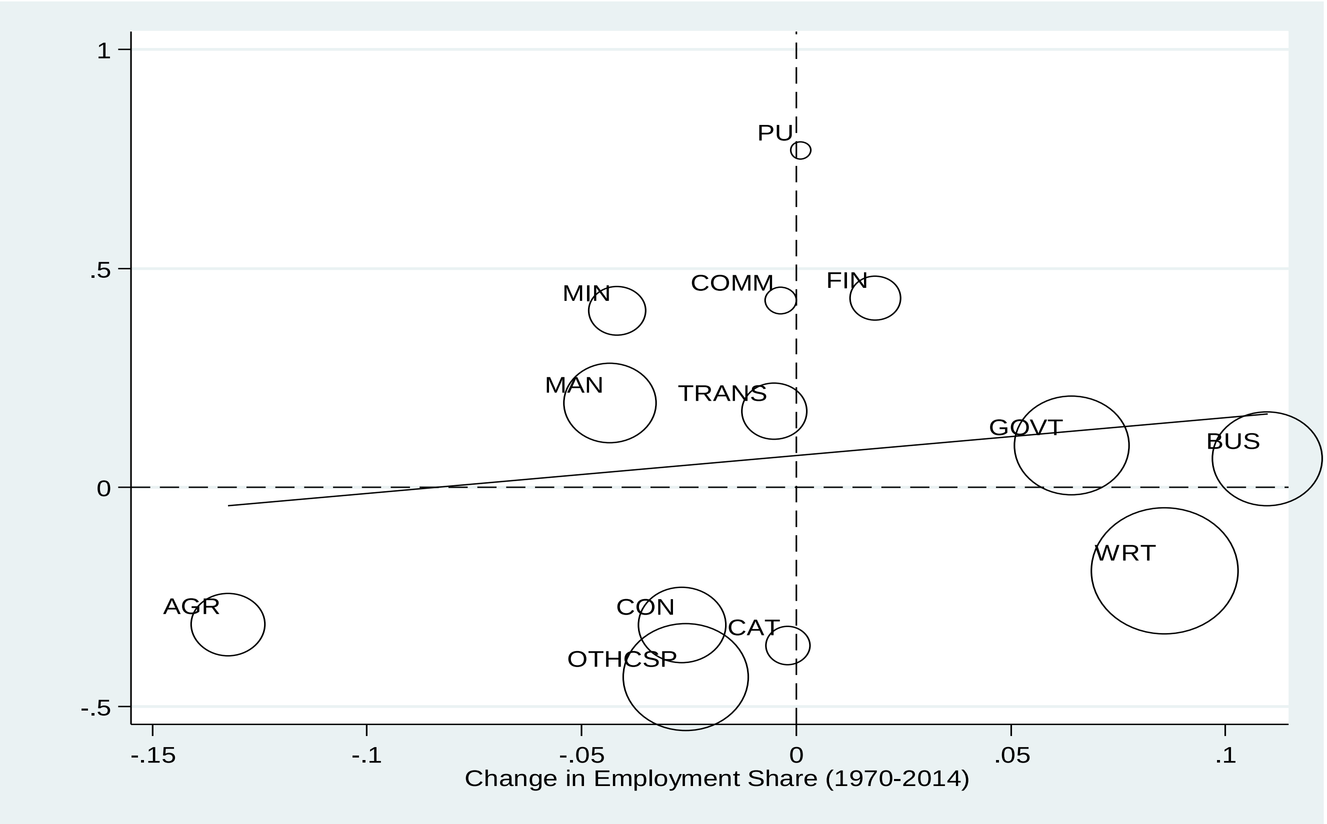
II. Correlation between Sectoral Productivity and Change in Employment Shares in South Africa (1970-2014)



Source: Quantec (2016). Own calculations. Follows methodology of McMillian, Rodrik & Gallo (2014)

Structural transformation over the past four decades has been service-led rather than manufacturing-led

II. Summary:

- Declining importance of agriculture, mining and manufacturing
- Services accounts for a large and rising share of GDP and employment.
- Service-led structural transformation **IN THE SOUTH AFRICAN ECONOMY HAS *DE FACTO* ENGENDERED A POST-APARTHEID ECONOMY THAT IS TO ALL INTENTS AND PURPOSES A SERVICES ECONOMY**
- Evidence IN PARTICULAR, POINTS to A CLEAR segmentation of THE SERVICES sector MARKED BY:
  - Relatively high productivity Public sector
  - High productivity financial and business services
  - BUT, large portion of business services is in temporary employment services (i.e. outsourcing)
  - In response to poor employment generating capacity if formal sector, a number of individuals are working in low productivity informal services sectors, particularly in retail trade.

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III. Evidence of a Segmented Service Sector: Labour Market Approach

Using the tools of labour market analysis to reinforce the nature of segmentation in the services sector

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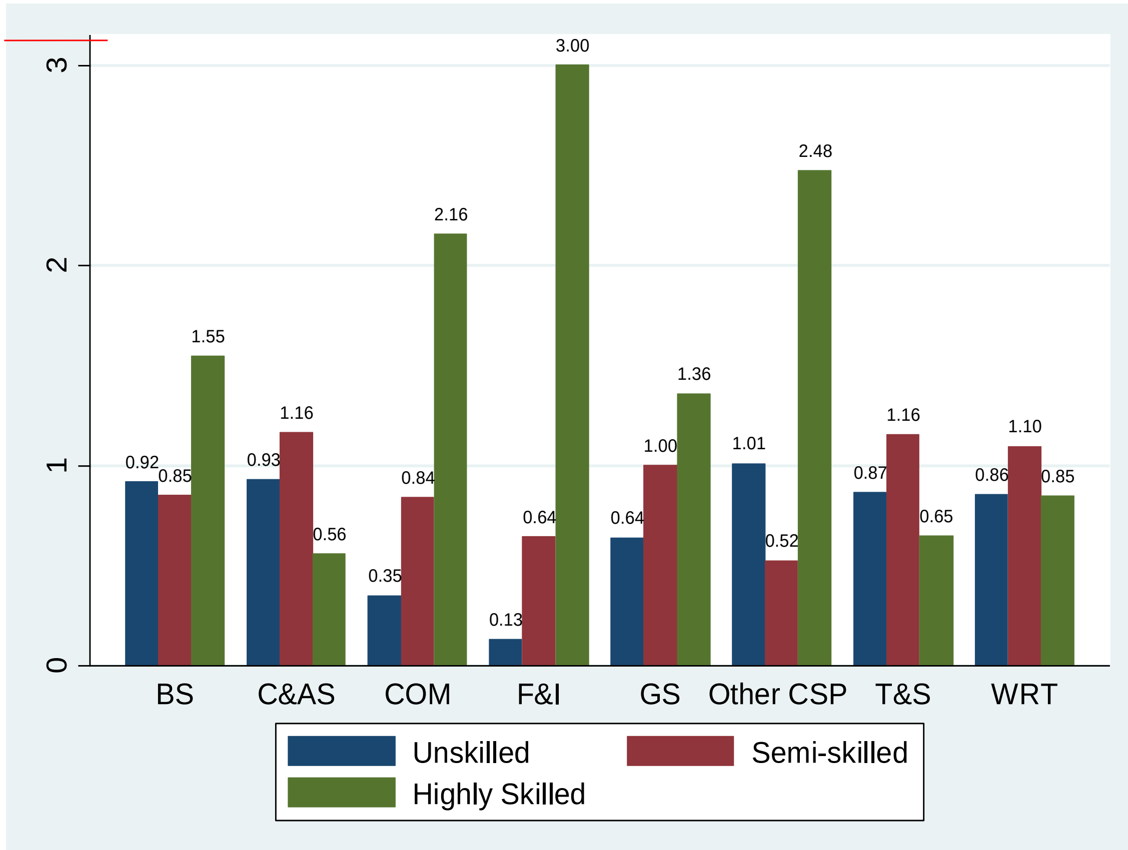
III. Unskilled, Semi-skilled and Highly Skilled Ratio Relative to Manufacturing, 2014



Differences in relative skills levels across services industries point to a segmentation of the sector along skill, and hence productivity lines

Source: LMDS (2014) own calculations

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III. Quantile Earning Function Estimates, 2014

Sector	10th Percentile	50th Percentile	90th Percentile
Wholesale & Retail Trade	15.49***	-7.78***	-15.13***
Catering & Accommodation	7.14***	-9.61***	-20.07***
TES	25.36***	-9.97***	-23.89***
Informal Services	-11.93***	-28.18***	-27.82***
Finance & Insurance	-1.09***	10.41***	0.90***
Communications	-6.76***	5.76***	-5.26***
Business Services	-14.27***	9.64***	-1.39***
Government Services	-0.90***	36.07***	15.49***
Transport & Storage	-14.79***	8.22***	12.75***
Other CSP Services	-3.44***	-2.76***	-5.07***
Pseudo R^2	0.09	0.22	0.21

Source: LMDS (2014)
Notes: 1. Manufacturing is the reference group. 2. The dependent variable is the log of monthly wages 3. Excludes the top 1 percent of earners and those who reported earning R0 per month. 4. Controls were included for gender, race, education, age, location, occupation, firm size, experience, union membership and hours of work. 5. * Significant at the 1% level, ** Significant at the 5% level, * Significant at the 10% level. 6. The reported estimates in column 2 are the coefficient estimates converted to percentage changes in earnings using the following formula:** $100(exp(\beta) - 1)$.

Further evidence of the segmentation of the services sector into 1) modern high productivity service industries, 2) traditional low productivity service industries, and 3) the public sector.

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III. Summary:

Earnings equation estimates, coupled with the patterns of employment growth across the industries, suggest an interesting segmentation in the services sectors of the South African economy:

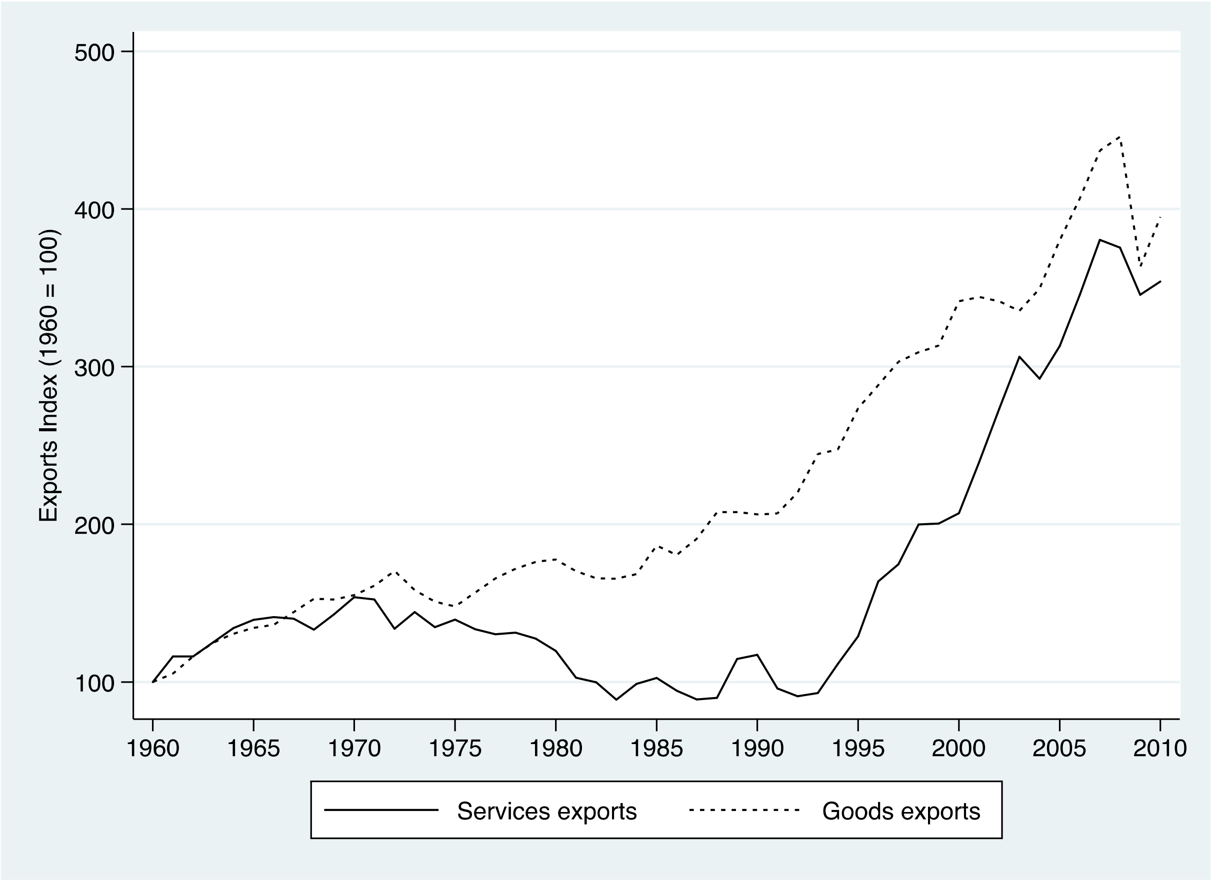
- Observe individuals with high skill levels and better access to labour market opportunities located in business, financial and communication services, as well as in the public sector – associated with higher levels of productivity and higher returns.
- Observe clustering of employment in industries characterised by lower skill requirements, such as informal sector services and TES – associated with lower levels of productivity and lower returns

IV. Trade and Competitiveness

I. Trends in Services Exports

II. Composition of Services Exports

Trend in growth of goods and services exports in South Africa, 1960 - 2010



Growth in services exports has caught up to that of merchandise exports

Source: SARB (2016) and authors' calculations

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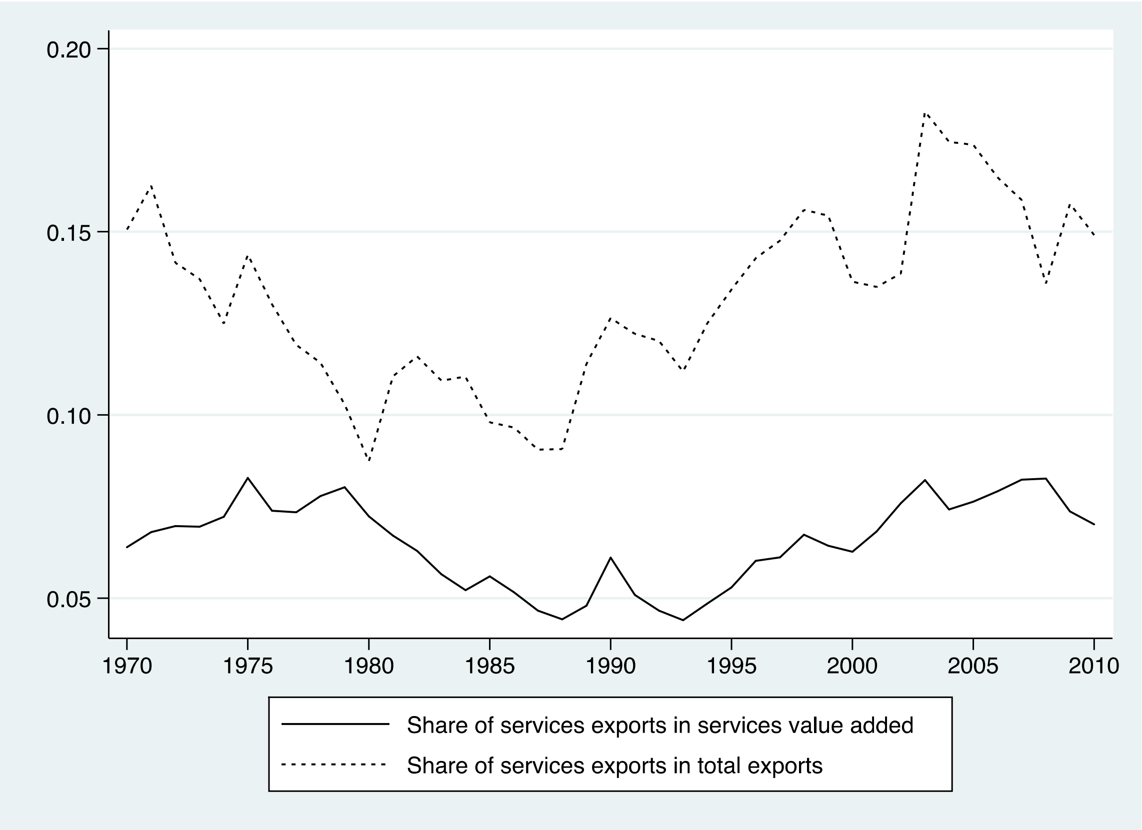
Share of services exports in total exports and services value added, 1970 – 2010



Source: World Development Indicators (2016) and authors' calculations
Note: Services exports are BoP figures in current US$

- Service exports remain modest when compared to merchandise exports.
- Tradability of services has remained low.

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IV. Composition of services exports, 2005 – 2010

Services Categories	Share in 2005	Share in 2010	Growth p.a.
Transportation	0.11	0.08	-0.02
Travel	0.12	0.44	0.29
Commercial services	0.50	0.19	-0.11
Government services	0.01	0.01	-0.01
Services not allocated	0.25	0.28	0.06
Total	1	1	0.04
Ratio of Commercial/(Travel + Transportation)	2.12	0.37	

Source: Trade in Services database (2016) and authors' calculations

Shift toward traditional service exports instead of modern

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IV. Data issue: Measuring of bilateral trade flows

Likely that the TSD data for SA service exports is mirror data

- Therefore, TSD mainly captures trade between 1) developed and developed and 2) developed and developing countries
- Large portion of 'developing-developing' country trade is under or poorly reported at the bilateral level (Francois & Pindyuk, 2013)
- Implication:
  - TSD mainly measures SA services exports to developed countries and underestimates SA service exports to developing countries
  - Possibly underestimate relatively more skill-intensive service exports to developing countries, particularly African countries.
- 'XWD' region, which holds unallocated trade, may be used as a proxy for trade with developing countries…

IV. Top ten destinations for South Africa's services exports, 2005 and 2010

	2005			2010		
	Country	Value (US$ millions)	Share of total exports (%)	Country	Value (US$ millions)	Share of total exports (%)
1.	Japan	1,954.83	15.1	"XWD"	6,793.30	46.1
2.	United Kingdom	1,929.08	14.9	United Kingdom	2,074.40	14.8
3.	USA	1,319.40	10.2	USA	1,711.39	11.6
4.	Germany	1,163.00	9.0	France	621.66	4.2
5.	Netherlands	770.26	5.9	Netherlands	398.47	2.7
6.	Italy	710.68	5.5	Belgium	396.18	2.7
7.	"XWD"	634.21	4.9	Germany	323.87	2.0
8.	Ireland	487.74	3.8	Japan	287.95	1.8
9.	France	356.37	2.8	Ireland	266.24	1.8
10.	India	288.40	2.2	Denmark	257.78	1.5

Source: Trade in Services database (2016) and authors' calculations
Note: Value and share of services exports is for reported total EBOPS services

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IV. Data omission: What are/aren't we measuring?

Merging with telecommunications provider (FDI flows – Mode 3)

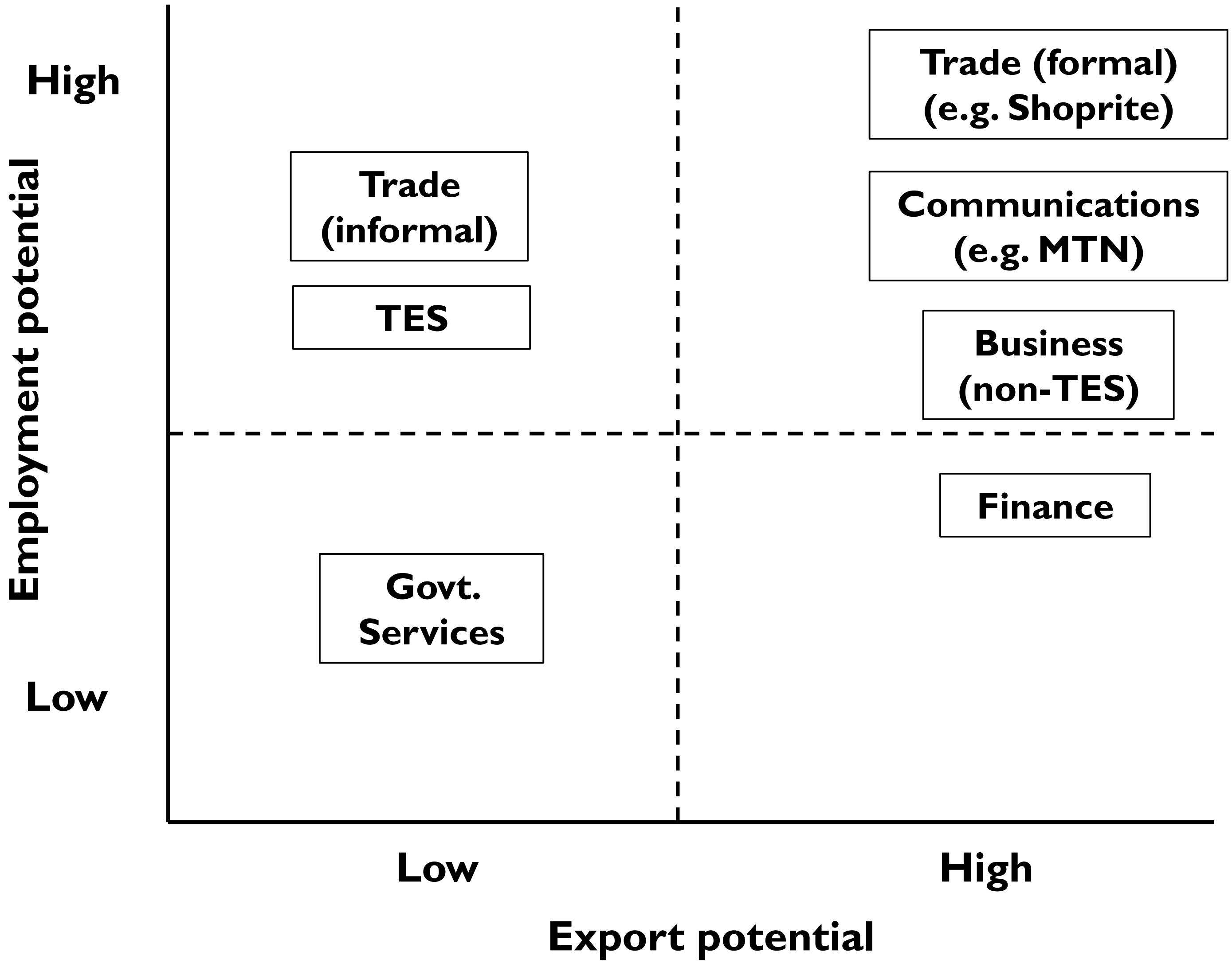
MTN call centre in SA offers services to clients of Nigerian subsidiary (Mode 1)

MTN operates in 21 countries across Africa and the Middle East

Afghanistan, Benin, Botswana, Cameroon, Congo Brazzerville, Cote D'Ivoire, Cyprus, Ghana, Guinea-Bissau, Guinea-Conakry, Iran, Kenya, Liberia, Namibia, Nigeria, Rwanda, Sudan, South Sudan, Swaziland, Syria, Uganda, Yemen, Zambia

V. Looking Ahead: Locating Services as part of South Africa’s growth and employment agenda

V. Modelling how various segments of South Africa's service sector feed into growth without smokestacks…



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Conclusion

The various segments of the services sector provide insight into South Africa's potential for '*growth without smokestacks*'. We assess whether these segments can serve as nodes for domestic and/or export-driven growth. Our analysis suggests the following:

1. There is a low productivity informal services sector, which has low barriers to entry for first-time entrants into the labour market, but offers no growth potential.
2. The public sector which can neither serve as a sustainable job generator nor as a node for growth through domestic demand or exports.
3. The TES sector which is really an indirect means of employment creation through regulatory avoidance (although interesting possibility as a global exporter of this service – Adcorp).
4. The true high productivity sectors with export potential. Characterised by formal, large firms in sectors such as finance and banking services, telecommunications, formal retail

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Thank you

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