Project Camissa – A Mixed Method Approach to Industry Analysis

Presentation to the PSEF Congress

Rustenburg 25th November 2016

Making progress possible. Together.

The background to project Camissa

- Initially called the Top 5 priority sector study

  → Columbus → Camissa

- The aim was to use solid empirical evidence to identify the priority sectors in Cape Town's economy with a view to providing support for these sectors
- Specifically wanted to move away from anecdotal prioritisation, to evidence based prioritisation

- Some key questions quickly arose

  - How do we determine priority? What metrics do we use?
  - Should we stick to just 5 sectors?
  - Should the study be set at a single point in time?
  - Is the data reliable enough to make policy decisions on?

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But first what can metros do to support industries?

When we conduct interviews with companies, I always start with what metros can't do:

- Metros can't lower taxes
- Metros can't remove or impose import duties or tariffs
- Metros can't change labour laws
- Metros can't make direct grants to businesses

What can we do:

- Improve the physical environment through better service delivery and precinct management
- Support industry clusters through SPVs – this includes skills interventions
- Promote industries through diplomatic channels
- Offer municipal level incentives
- Conduct specialised research

Principles

In any study of this sort its is important to set out some key principles upfront which will govern the way the study is approached.
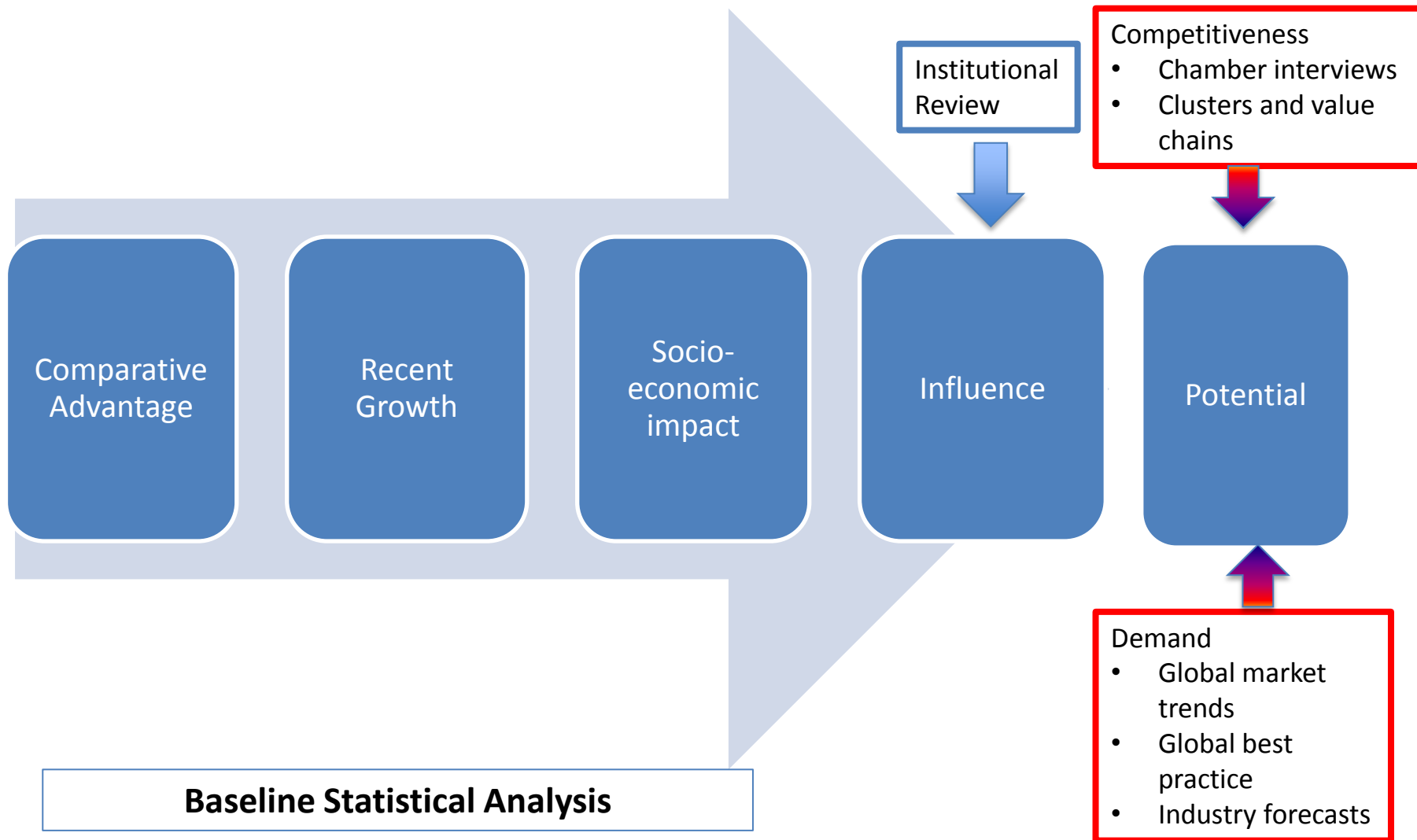
Principle 1: Use the term 'industry' instead of' sector'
Principle 2: Discuss all units of analysis (clusters, value chains, industries) in the project as part of the narrative, but use 'industries' as the standard unit of analysis to construct the baseline data that the empirical analysis will be derived from
Principle 3: Industries which are involved in the trade of good and services to people living outside the city, should be the focus of industry prioritisation
Principle 4: Focus on industries that attract efficiency seeking investments

Methodology

Institutional Review

Competitiveness
- Chamber interviews
- Clusters and value chains

Comparative Advantage

Recent Growth

Socio-economic impact

Influence

Potential

Demand
- Global market trends
- Global best practice
- Industry forecasts
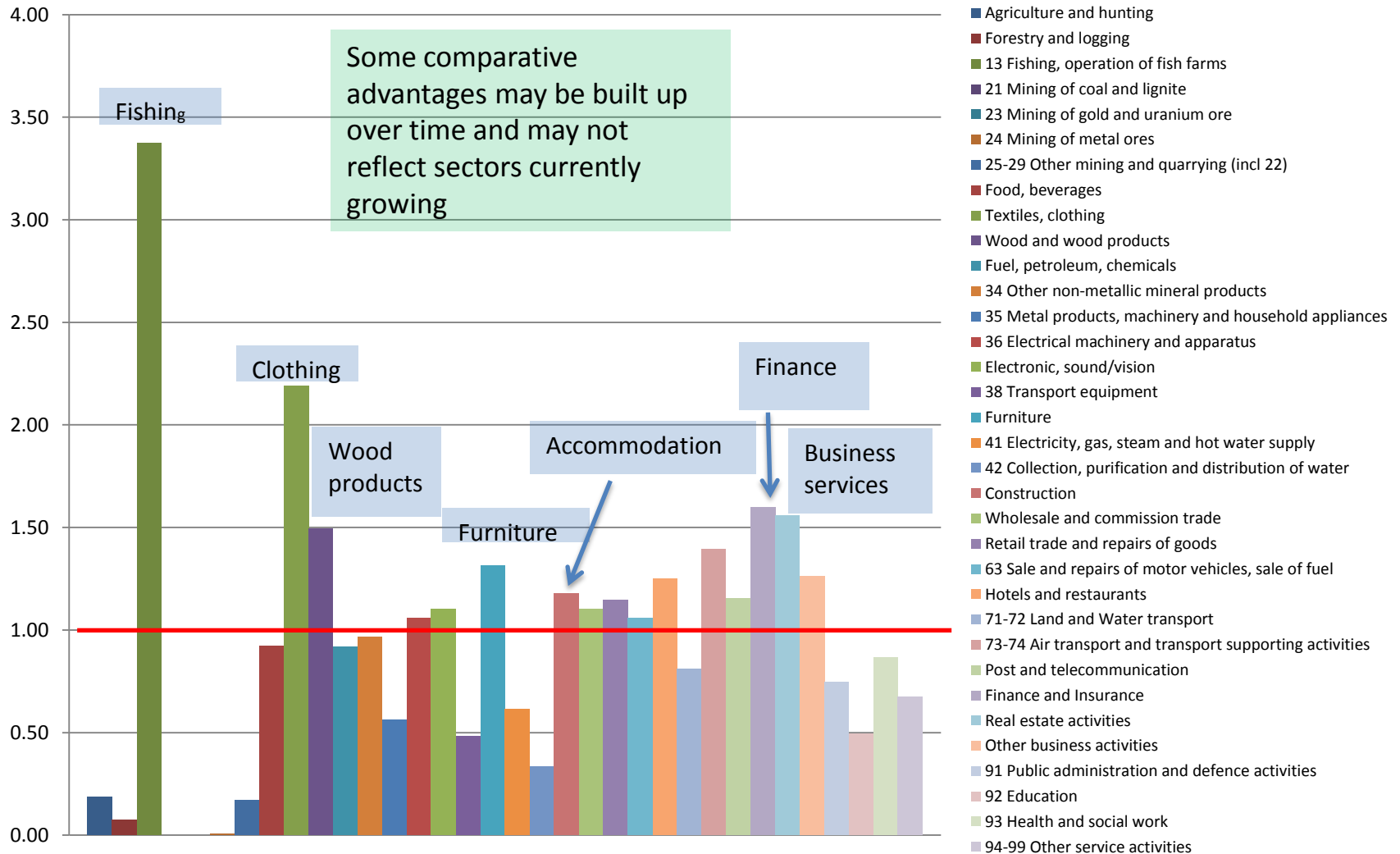
Baseline Statistical Analysis

So what data did we make use of?

The key to effective empirical research at a sub-national level is to triangulate data across a range of sources
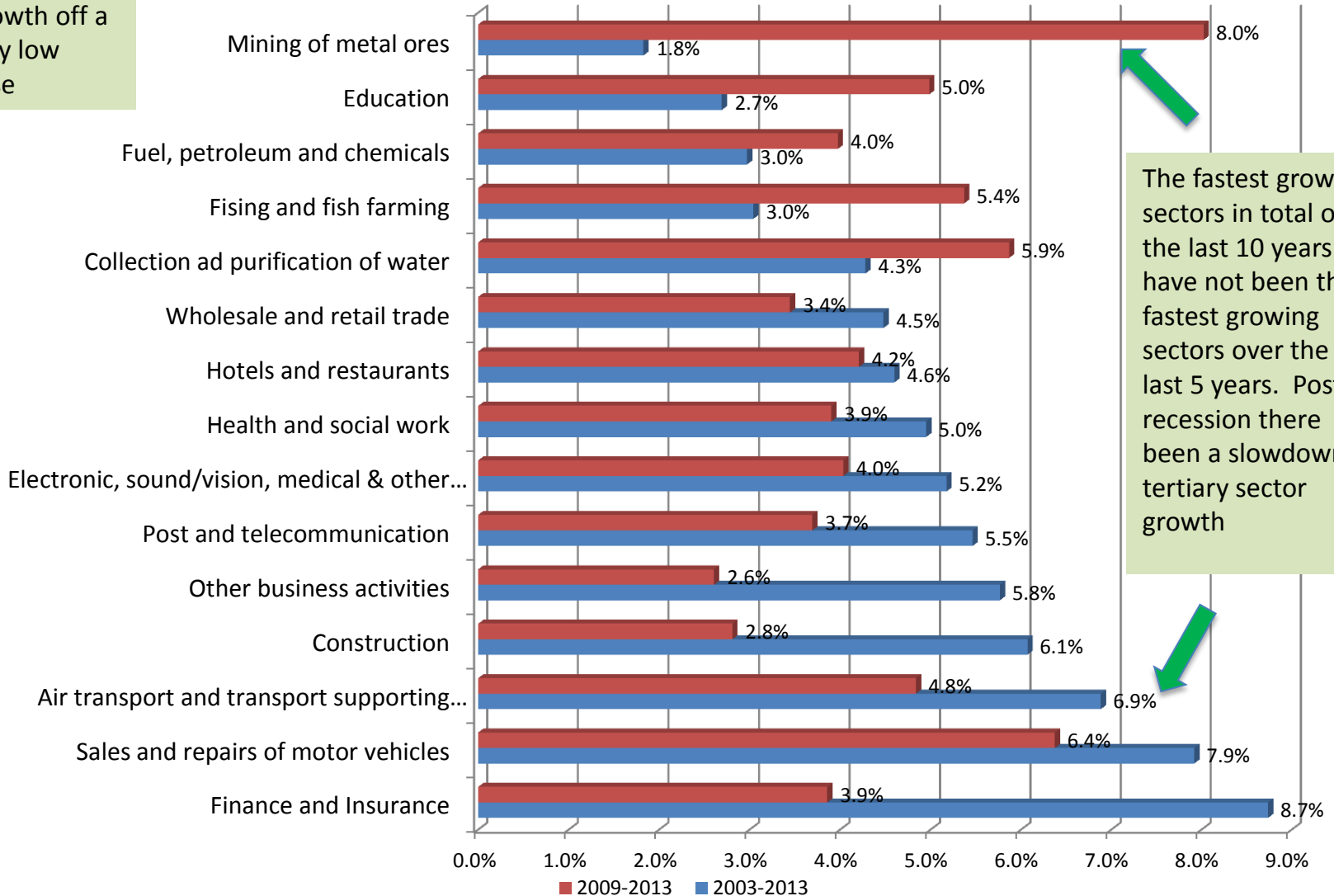
We used the following data sources:

- Global Insight (GVA, labour)
- Quantec (export data)
- FDI Intelligence (investment data)
- StatsSA data, especially as used by the IDC

Comparative Advantage: Location Quotient Analysis

Some comparative advantages may be built up over time and may not reflect sectors currently growing

Legend:
- Agriculture and hunting
- Forestry and logging
- 13 Fishing, operation of fish farms
- 21 Mining of coal and lignite
- 23 Mining of gold and uranium ore
- 24 Mining of metal ores
- 25-29 Other mining and quarrying (incl 22)
- Food, beverages
- Textiles, clothing
- Wood and wood products
- Fuel, petroleum, chemicals
- 34 Other non-metallic mineral products
- 35 Metal products, machinery and household appliances
- 36 Electrical machinery and apparatus
- Electronic, sound/vision
- 38 Transport equipment
- Furniture
- 41 Electricity, gas, steam and hot water supply
- 42 Collection, purification and distribution of water
- Construction
- Wholesale and commission trade
- Retail trade and repairs of goods
- 63 Sale and repairs of motor vehicles, sale of fuel
- Hotels and restaurants
- 71-72 Land and Water transport
- 73-74 Air transport and transport supporting activities
- Post and telecommunication
- Finance and Insurance
- Real estate activities
- Other business activities
- 91 Public administration and defence activities
- 92 Education
- 93 Health and social work
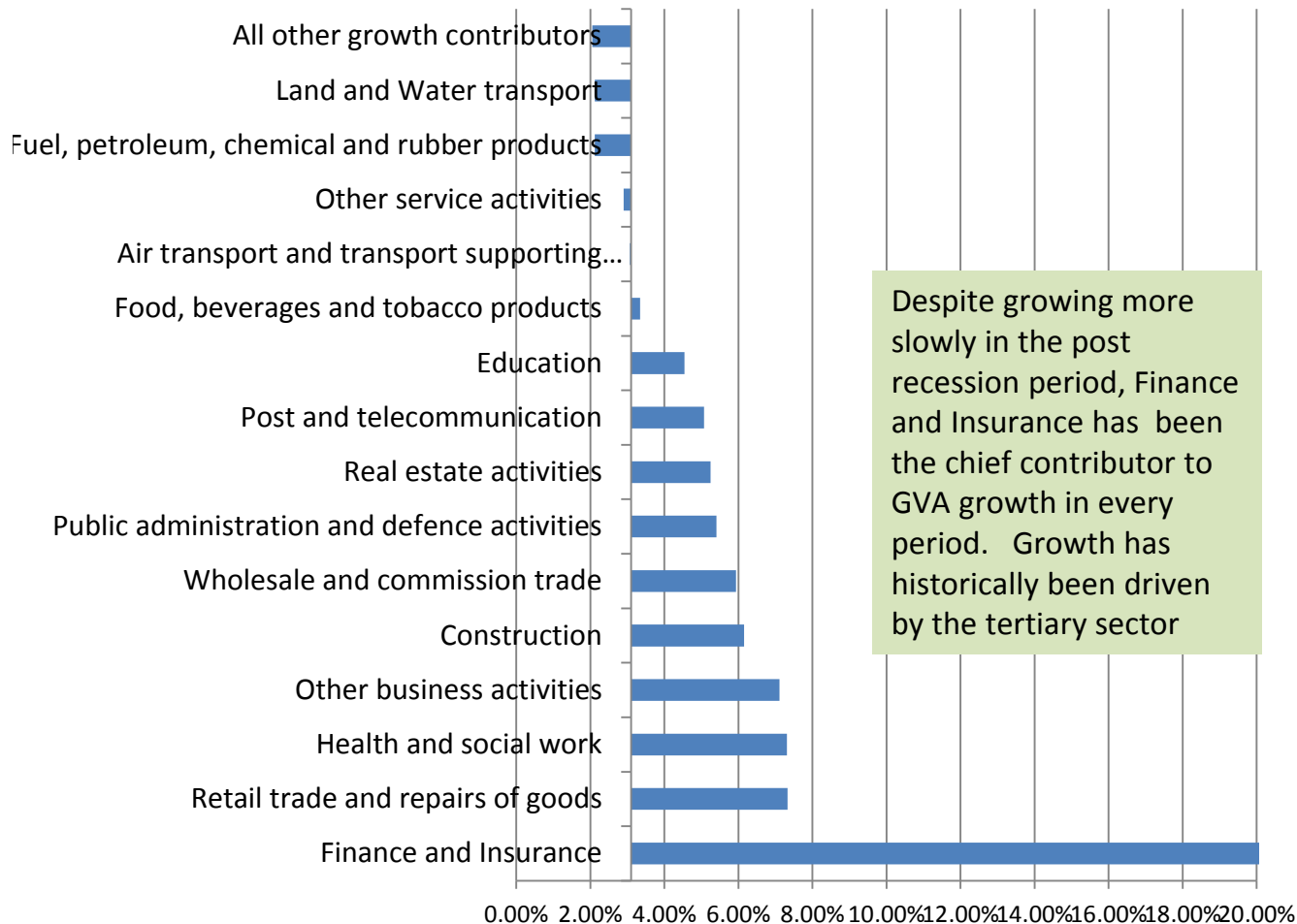- 94-99 Other service activities

Growth: GDP Growth Rate

Growth off a very low base

The fastest growing sectors in total over the last 10 years have not been the fastest growing sectors over the last 5 years. Post recession there been a slowdown in tertiary sector growth

Sector	2009-2013	2003-2013
Mining of metal ores	8.0%	1.8%
Education	5.0%	2.7%
Fuel, petroleum and chemicals	4.0%	3.0%
Fising and fish farming	5.4%	3.0%
Collection ad purification of water	5.9%	4.3%
Wholesale and retail trade	3.4%	4.5%
Hotels and restaurants	4.2%	4.6%
Health and social work	3.9%	5.0%
Electronic, sound/vision, medical & other…	4.0%	5.2%
Post and telecommunication	3.7%	5.5%
Other business activities	2.6%	5.8%
Construction	2.8%	6.1%
Air transport and transport supporting…	4.8%	6.9%
Sales and repairs of motor vehicles	6.4%	7.9%
Finance and Insurance	3.9%	8.7%

■ 2009-2013 ■ 2003-2013

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Growth: GDP Growth Contribution

Percentage contribution to GVA growth 2003-2013

Despite growing more slowly in the post recession period, Finance and Insurance has been the chief contributor to GVA growth in every period. Growth has historically been driven by the tertiary sector

Highest percentage contribution to total GVA growth

1996-2004
Finance and insurance 26,3%
Other business activities 1,8%
Retail trade and repairs 11,6%
Post and telecommunications 10,2%
Real estate 6,6%
2004-2012
Finance and insurance 35,6%
Post and telecommunications 7,7%
Other business activities 6,9%
Construction 5,9%
Wholesale trade 5,8%
1996-2012
Finance and insurance 31,9%
Other business activities 8,9%
Post and telecommunications 8,7%
Retail trade and repairs 7,1%
Wholesale trade 5,1%

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Impact: Employment Creation

Percentage of Job Created by Sector between 2003 and 2013

While Finance and Insurance has been the main driver of job creation, other business services, including BPO has been the main driver of employment creation. Government is also strongly reflected here as an employment creation in the Health and education sectors. The Tourism industry as represented by just one portion of the industry – hotels and restaurants – was the third strongest job creator in the 2003-2013 period.

Growth and Impact

This diagram consolidates the various dimensions of industry performance. The industries with the largest impact will be large bubbles (portion of GVA) that are in the top quadrant (labour intensive and growing strongly) . Clear potential would seem to be shown for the telecommunications, business services; finance and tourism industries.

FDI Shares
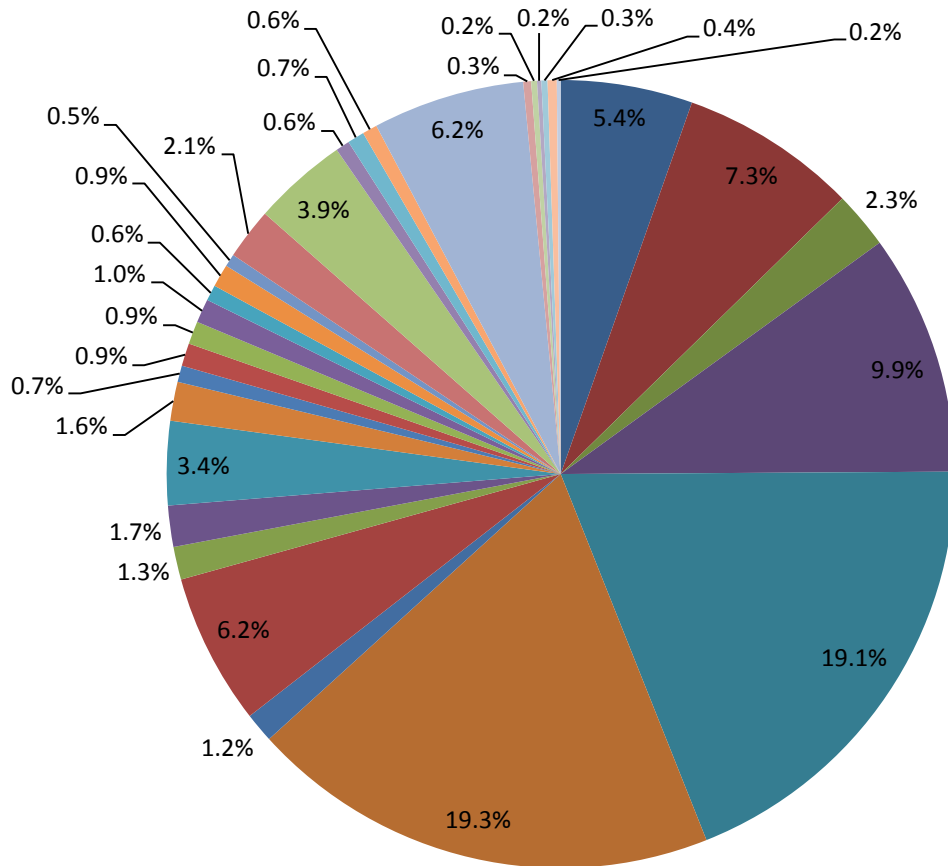
Of the identified priority sectors, Software and IT attracted the highest FDI, followed by green technology. If one includes communications together with IT to form ICT, this sector would have been, by some margin, the largest sector for FDI in Cape Town. The most labour intensive FDI was in Business Services.

Legend:
- Aerospace
- Paper, Printing & Packaging
- Warehousing & Storage
- Plastics
- Chemicals
- Minerals
- Alternative/Renewable energy
- Engines & Turbines
- Biotechnology
- Medical Devices
- Automotive OEM
- Beverages
- Leisure & Entertainment

Influence: Tradability

Export Industry Location Quotients

Industry	Value
Agriculture, hunting and related services	6.00
Extraction of crude petroleum and natural gas; service activities…	2.36
Mining of metal ores, except gold and uranium	0.02
Other mining and quarrying	1.85
Manufacture of food products, beverages and tobacco products	2.81
Manufacture of textiles, clothing and leather goods	2.55
Manufacture of wood and of products of wood and cork, except…	0.55
Manufacture of coke, refined petroleum products and nuclear fuel;…	1.06
Manufacture of other non-metallic mineral products	0.77
Manufacture of basic metals, fabricated metal products, machinery and…	0.59
Manufacture of electrical machinery and apparatus n.e.c.	2.14
Manufacture of radio, television and communication equipment and…	1.93
Manufacture of transport equipment	0.41
Manufacture of furniture; manufacturing n.e.c.; recycling	0.16
Recreational, cultural and sporting activities	2.18
Other activities not adequately defined	1.16

Findings

Comp Ad	Growth rate	Growth Contr	Employment Creation	Composite ranking
1.Fishing	1.Finance	1.Finance	1. Business Services	1. F... (8,25) Asset Management
2.Clothing	2.Sale and repair of vehicles	2. Business services	2. Private households	2. B...ness services (4) BPO
3.Finance	3.Air transport	3. Post and telecomms	3. Hotel and Restaurants	3. Post and telecomms (6,75) IT and Media
4.Real estate	4.Construction	4. Construction	4. Retail trade	4. Air transport (7,25)
5. Air transport	5.Business services	5. Wholesale trade	5. Education	5. Construction (8)
6.Wood products	6.Post and telecomms	6. Retail trade	6. Health and social work	6. Hotels and restaurants (9) Tourism
7.Furniture	7.Electronics	7. Health and social work	7. Post and telecomms	7. Electronics (10)
8.Other business services	8.Health and social work	8. Air transport	8. Finance	8. Retail Trade (11.5)
9. Hotels and restaurants	9.Hotels and restaurants	9. General govt	9. Sale and repair of vehicles	
10. Construction	10.Wholesale trade	10. Sale and repair of vehicles	10. Land and water transport	

Industry comparison
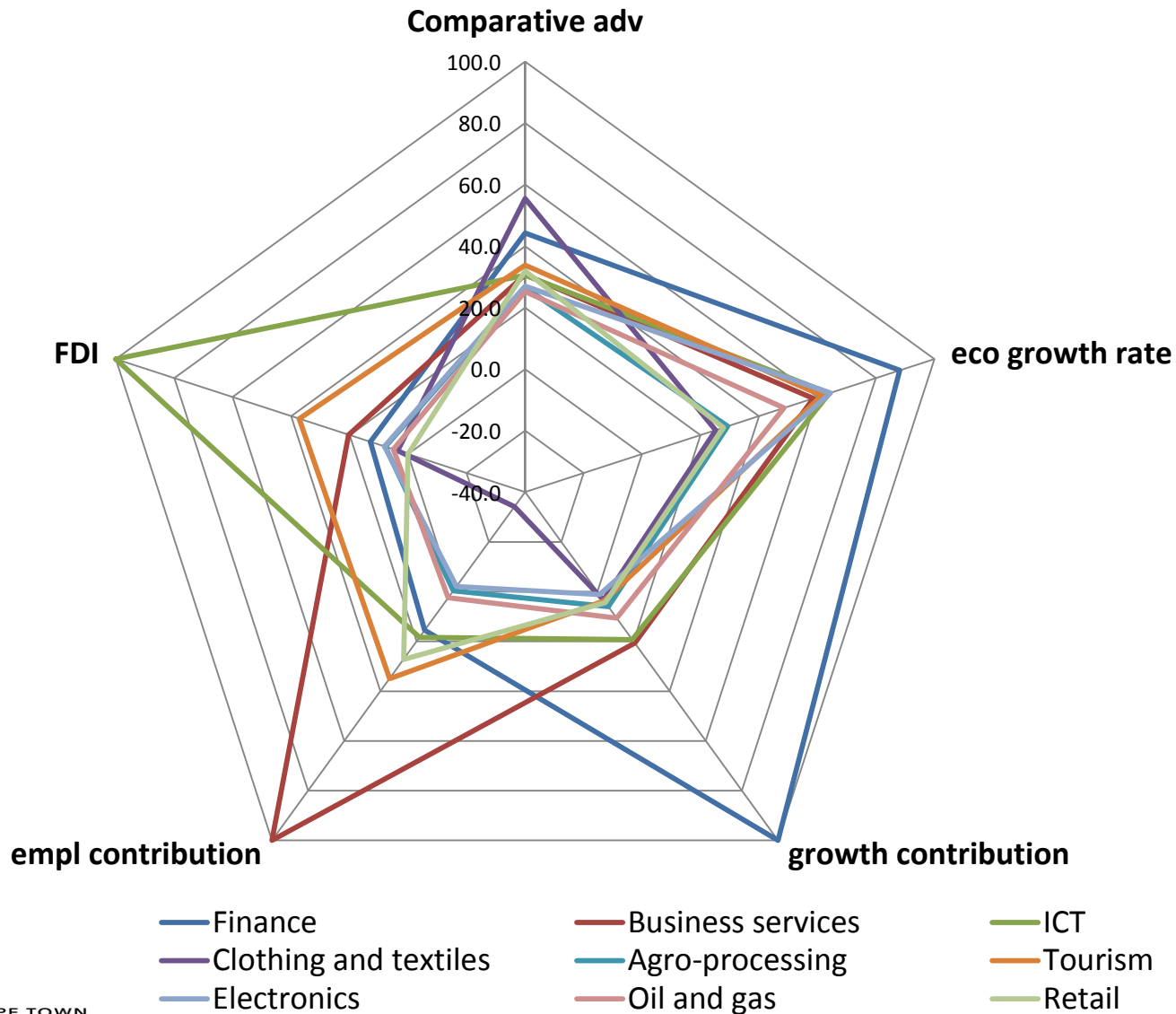
Shortcomings of a purely empirical approach

1. The use of 34 industry codes does not provide nearly enough detail
2. More fundamentally, many economic activities are actually best understood as value chains
3. The data can be highly flawed, especially when it comes to growth rates and exports. It is also too outdated
4. Even excellent data doesn't account for the nuances of rapidly shifting global trends

Integrating a qualitative approach

- As a way of cross-checking our analysis we conducted 5 generalist interviews.
- Once we had settled on our broad range of priority industries, now expanded to 10, we set about compiling profiles
- These profiles included deeper dives of the empirical analysis but were supplemented with firm level interviews – structured according to:

Five Forces Analysis (Porter)

Threat of New Entry:
- Time and cost of entry
- Specialist knowledge
- Economies of scale
- Cost advantages
- Technology protection
- Barriers to entry

Threat of New Entrants

Competitive Rivalry:
- Number of competitors
- Quality differences
- Other differences
- Switching costs
- Customer loyalty
- Costs of leaving market

Bargaining Power of Suppliers

Rivalry Among Existing Competitors

Bargaining Power of Buyers

Supplier Power:
- Number of suppliers
- Size of suppliers
- Uniqueness of service
- Your ability to substitute
- Cost of changing

Threat of Substitution:
- Substitute performance
- Cost of change

Threat of Substitutes

Buyer Power:
- Number of customers
- Size of each order
- Differences between competitors
- Price sensitivity
- Ability to substitute
- Cost of changing

Other key questions:

- Why CT?
- Describe your value chain
- Aware of city initiatives?
- City interventions?

Sector Profiles

Clothing and textile sector

Cape Town has traditionally had a comparative advantage in clothing and textiles and the sector continues to employ a lot of people in the city. While it has witnessed negative growth trends in the last ten years, there is evidence to suggest that there are still opportunities within the sector

SIC Code/s: 31 Sub-sectors most relevant in CT: CMT, apparel; fashionable items
Major Companies in CT: Prestige; Pepco; Foschini Group, K-way, Zando
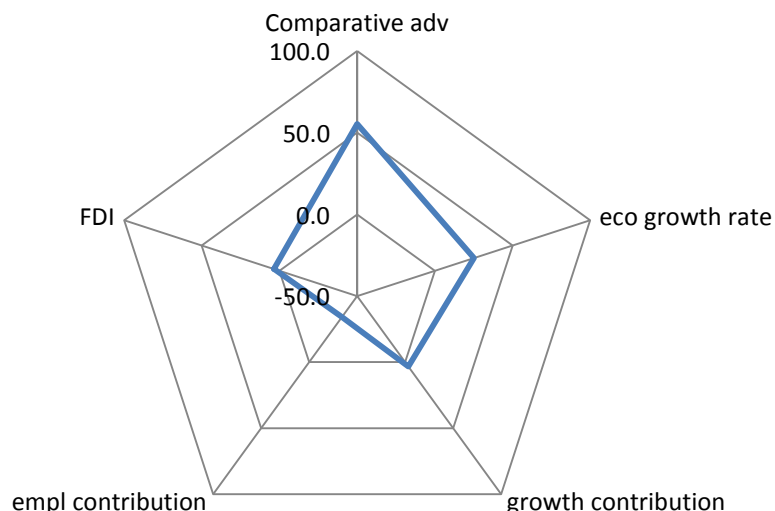
Key Indicator Table	
GVA/share 2014	R2 370 million / 0.9%
Location quotient	2.02
Dynamic location quotient	2.17
FDI value	R558 million
Growth contr	0.01%
Employment	37 666
Export value	N/A

Clothing and Textiles Sector

Historic growth rates

*Employment growth 2004-2014: **-0.03%***

*GVA growth 2004 -2014: **1.32%***

Left chart: Growth rate vs year (2005–2014). Legend — Employment, Gross Value Added by Region (GVA-R).

Right chart: Labour intensity vs GVA growth rate. Legend — 2005, 2008, 2011, 2014.

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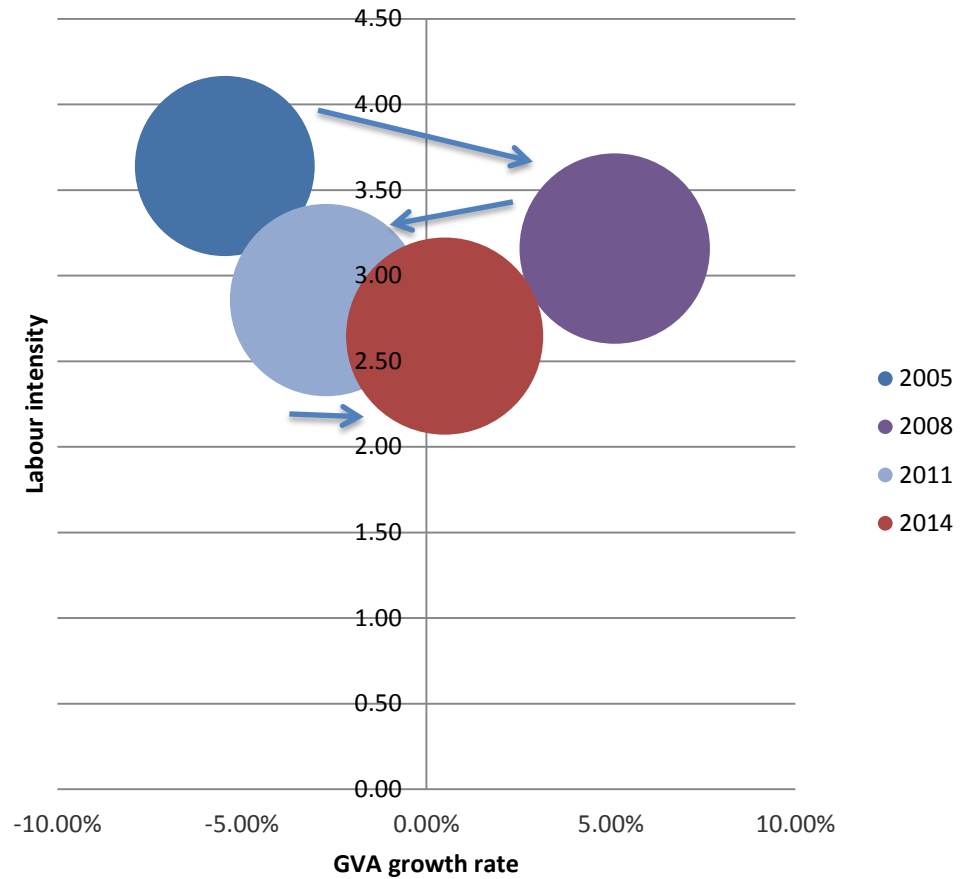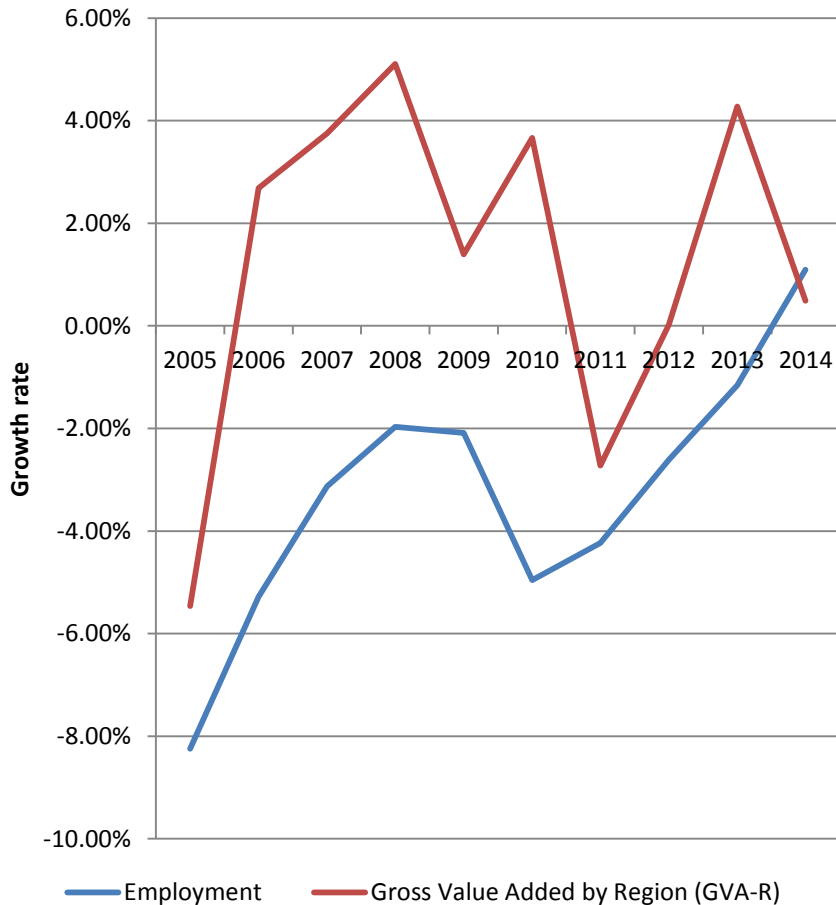
Clothing and textiles – Interview Insights

- According to the latest industry data – employment attrition has now stopped
- Key to this turnaround is the trend toward fast fashion – enable by Quick response
- The greater opportunities lie in non-generic products – fashionable products
- China is becoming more expensive, but other countries are waiting in the wings
- South Africa's upstream textile industry is simply not developing sufficiently and import duties on upstream fabrics are hurting downstream manufacturers
- Vertical integration of the value chain is occurring
- The DTI's incentives have been useful in improving productive efficiency

Potential City Interventions

1. Consolidate city SPVs – more focus on commercial designers
2. Study on the impact of import duties on upstream fabrics
3. Facilitate training by WGSN

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Oil and gas sector

Exports of processed petroleum constitute the second largest export for the city, courtesy of the substantial processing operations that take place at Chevron. Cape Town is also well positioned to play a critical role earlier in the value chain by providing support to extraction operations on the West Coast of Africa.

SIC Code/s: 33 Sub-sectors most relevant in CT: rig repair, boat repair geo-technical services, oil processing

Major Companies in CT: Chevron, FFS, Hunting, Shell, Exxon
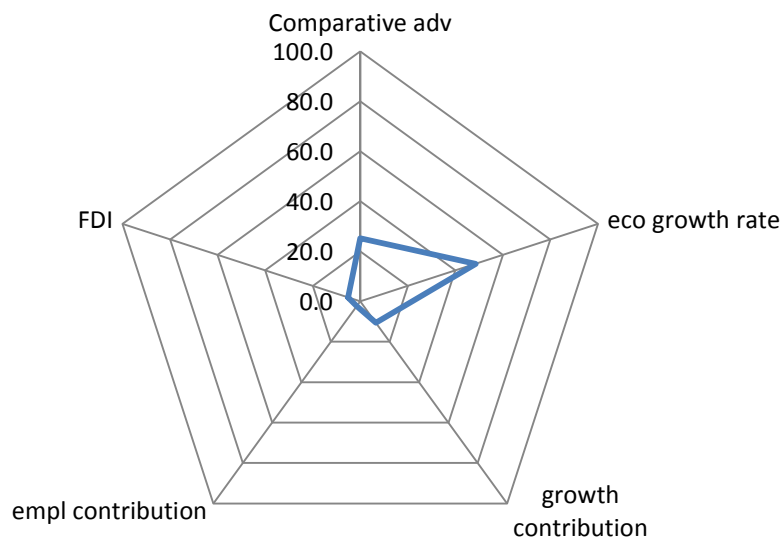
Key Indicator Table	
GVA/share 2014	R9 477 million / 3.51%
Location quotient	0.92
Dynamic location quotient	0.91
FDI value	R800 million
Growth contr	3.7%
Employment	23 984
Export value 2004-2013	78 749million

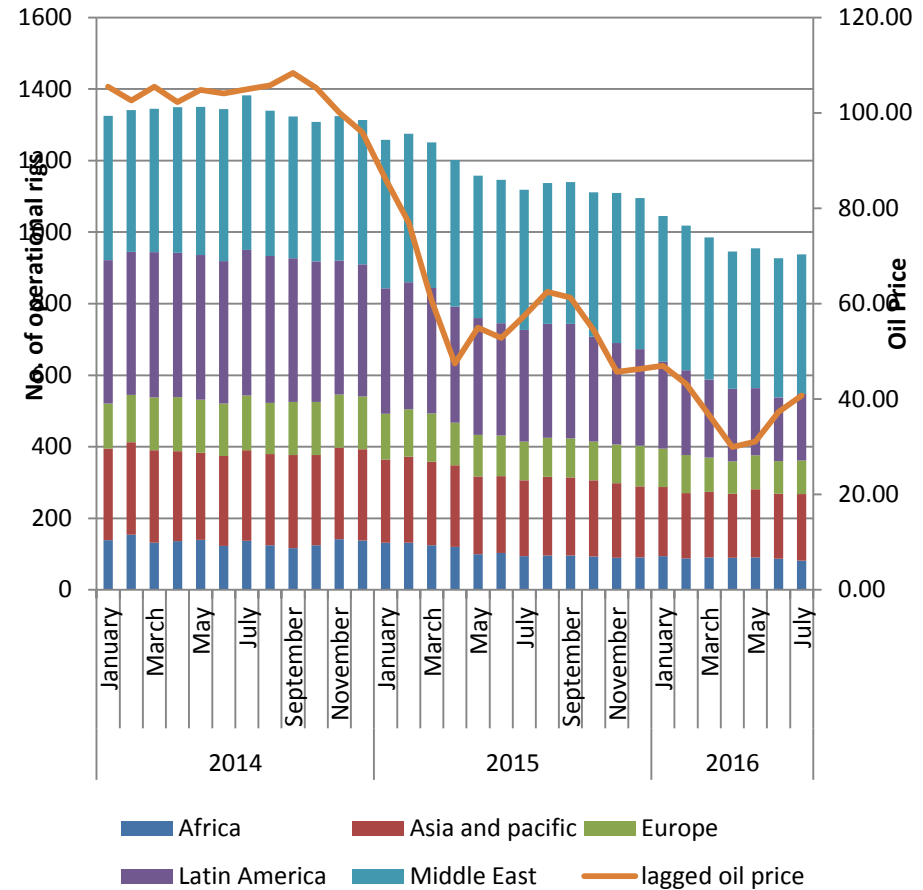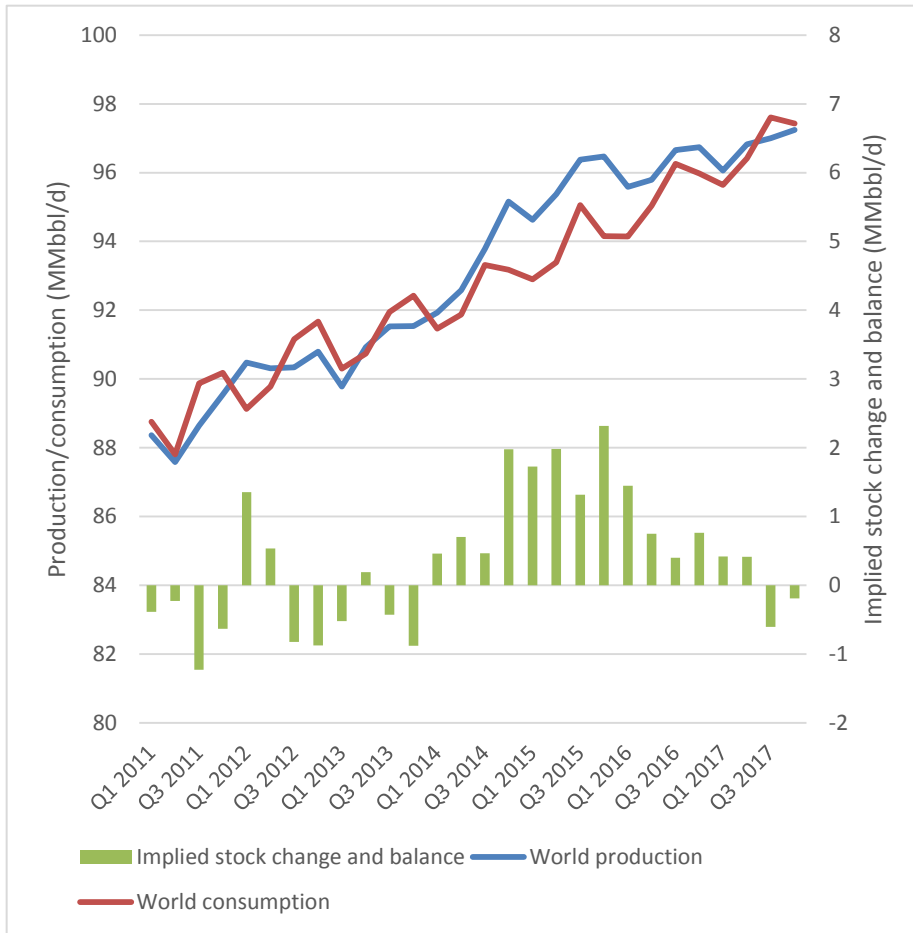# Oil and gas sector continued

Historic growth rates

Employment growth 2004-2014: **0.47%**
GVA growth 2004 -2014: **2.54%**
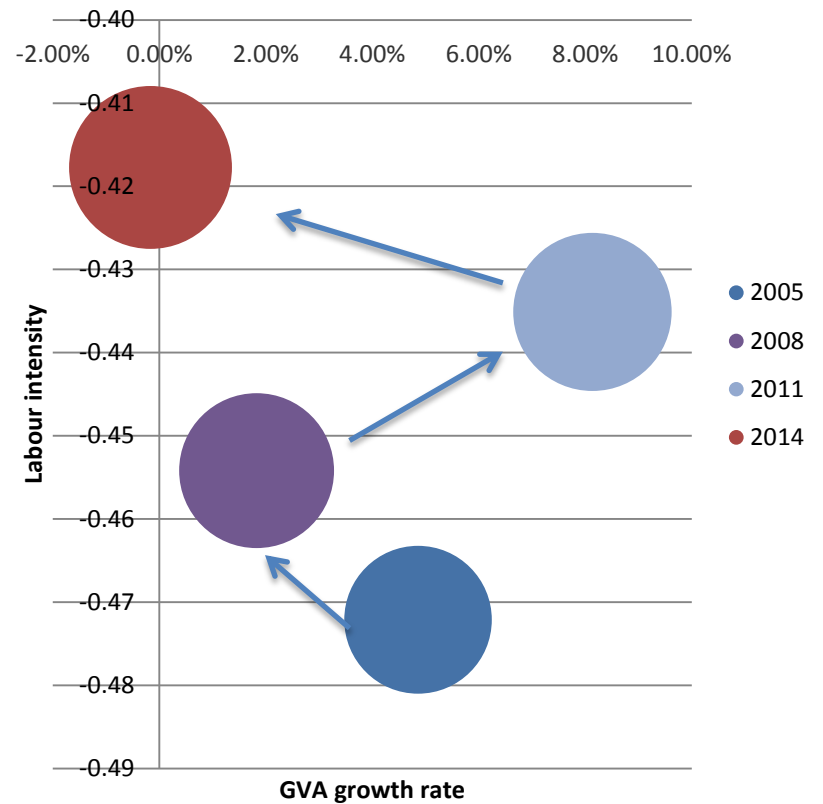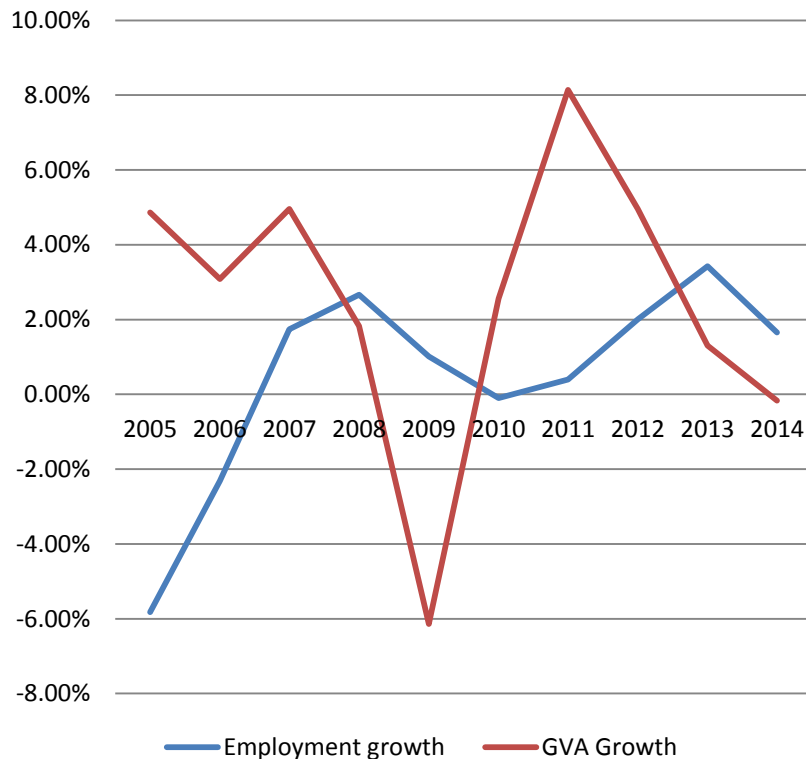
Why has the industry been performing badly?

Ecommerce – a journey into the unknown

- Cape Town is an ecommerce hub – lifestyle and a culture of tech startups make it attractive

- But where does ecommerce fit? Is it retail, logistics, IT? There are a diverse array of companies doing a range of things

- Our institutions and policies do not know how to handle ecommerce – its often ignored by industrial policy, and has no clear fit in the SETAs

- Does our tax structure disadvantage ecommerce companies?

- Very flexible, can take advantage of international opportunities. Opportunities for greater localisation

- But lack of consumer trust and poor internet connectivity are hindrances

- Coding skills are in severe shortage – the City is trying to address this through our SPVs

List of some of the companies interviewed

1. Prestige Clothing
2. Simera technology
3. Kway
4. WGSN
5. Hunting
6. Burgan
7. GeoAfrica Petroleum
8. Zando
9. Safarinow
10. Gumtree
11. Cape Town Film Studios
12. Yuppie Chef
13. Bellmett
14. DCD Marine
15. Triggerfish

- Serco
- WNS
- Merchants
- Knife Capital
- Outsourced CFO
- TCI Apparel
- Hisense
- Tellumatt
- Pepclo
- Pay U
- Y Waste
- F.I.L.M
- Timeslice

What's next for Project Camissa?

- Camissa has become a process rather than a project
- Turning the qualitative into quantitative – ordinal ranking of company priorities
- Additional data analysis – industry multipliers, international forecasts
- More interviews – formalised targets
- Greater use of value chains as a point of reference
- Prioritised interventions rather than prioritised industries
- Customised interventions, rather than broad brush ones
- Flexibility in dealing with industries
- Following the winners rather than trying to create them