BFAP BASELINE 2011

The Competition for arable land within South & Southern Africa
We will not make you sit THAT long!!
Presentation Overview

• Session 1:
  • Overview and context of Baseline
  • Competition for land
  • ……Brunch (9:30 – 10:15)

• Session 2:
  • 10-Year Outlook: Grains, Oilseeds, Sugar
  • Global market fundamentals
  • ……..Tea (11:45 – 12:15)

• Session 3:
  • 10-Year Outlook: Meat and Dairy
  • Global market fundamentals
  • Special section – employment and natural resources
  • ……..Refreshments (no time limit!!!)
Context

- Domestic Macroeconomy
- Global Drivers
- South African Agricultural Sector
- Regional Drivers
Presentation Outline

• Macro Drivers
  – Primary Domestic Drivers
  – Implications on South African Agriculture

• Panel Discussion:
  – Global Drivers
  – Regional Drivers
Overview: Domestic Drivers

- Slowing population growth rate
- Lower than expected income growth
- Weaker than expected U.S.D and Euro exchange rates
Driver: Population

Population (millions) vs. Population Growth Rate (%)

- Population (millions) from 40.00 to 54.00 million
- Population Growth Rate (%) from 0.00 to 1.60%
Overview: GDP per Capita
Class mobility rate still (+), BUT..... Slower rate
Overview: Exchange Rates

ZAR cents/USD

Baseline 2010
Baseline 2011
### Summary: Domestic Drivers

<table>
<thead>
<tr>
<th>Category</th>
<th>10-year Annual Average</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2010 Baseline</td>
<td>2011 Baseline</td>
</tr>
<tr>
<td>Population growth (%)</td>
<td>0.4</td>
<td>0.4</td>
</tr>
<tr>
<td>GDP/capita (%)</td>
<td>4.3</td>
<td>3.1</td>
</tr>
<tr>
<td>Exchange Rate (ZAR cents/USD)</td>
<td><strong>897.0</strong></td>
<td>830.3</td>
</tr>
</tbody>
</table>
South African Agriculture

• Real Gross Income of Agricultural Sector
  - Going to increase, but at a decreasing rate
  - Animal products will be largest contributor to overall income growth of the sector

• Net Farm Income
  - Higher than expected increases within the short-run
  - Experience very little growth over the baseline
Implication on Income

Real Gross Income of Agricultural Sector
(Billion of ZAR)

2010 BASELINE
2011 BASELINE
Implication on Income

Real Gross Income of Animal Products (Index)

2.7%
Implication on Income

Real Gross Income of Field Crops (Index)

- 0.1%
Implication on Income

Net Farm Income (Billions ZAR)

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0.4%
### Summary: Implications

<table>
<thead>
<tr>
<th>Categories</th>
<th>10-Year Annual Average Income (ZAR Billions)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Baseline 2010</td>
</tr>
<tr>
<td>Animal Products</td>
<td>42.0</td>
</tr>
<tr>
<td>Field Crops</td>
<td>15.9</td>
</tr>
<tr>
<td>Total Agriculture</td>
<td>77.13</td>
</tr>
<tr>
<td>Net Farm Income</td>
<td>26.3</td>
</tr>
</tbody>
</table>
Context

• Global Drivers
  - Rising commodity prices
  - Sluggish economic recovery
  - Debt crises: U.S. & Euro-zone
    → weakening currency values
    → U.S. Farm Bill & Biofuels Policy

• Regional Drivers
  - Competition for arable land
  - Foreign direct investment
Key drivers and assumptions

• Macro-economic assumptions – as presented
  • Sluggish growth, relatively stronger Rand, high commodity prices
• General market trends from Global outlook by OECD-FAO in the case of field crops.
• “Normal / average” weather conditions
Food Consumption

Food consumption change: 2010 - 2020

- White maize
- Wheat
- Potatoes
- Beef
- Chicken
- Sheep meat
- Pork
- Eggs
- Fresh milk

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Class mobility rate (2007 - 2009)

Class mobility rate still (+), BUT..... Slower rate

Class mobility rate still (+), BUT..... Slower rate

2007/08  2008/09  2009/10
Supply Response

Expanding total area by 300,000 ha

Total cereal area

Total oilseed area
Summer Grains

White maize area harvested
Yellow maize area harvested
Sorghum area harvested

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White Maize

[Graph showing the production, domestic use, and net exports of white maize from 2001 to 2019. The graph includes lines for production, domestic use, net exports, import parity - Randfontein, SAFEX, and export parity - Africa.]
Winter Grains

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![Graph showing the area harvested for winter grains]

- Wheat summer area harvested
- Wheat winter area harvested
- Barley area harvested

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Wheat

57kg/capita to 65kg/capita growth
South African food trends
A ‘new’ product perspective

Top 3 local trends (‘06 - ‘10): Indulgence, Convenience, Health

Share of new product finalist exhibiting trend
SA trend examples: Health trends in bread

• Bread… no longer a ‘commodity’

• Whole grain or multigrain very popular in recent new launches in bread sector internationally

• SA example:
  – Sasko low GI speciality bread range
    • Whole wheat dumpy / Oats & Honey / Soy & Linseed / Seeded Brown
  – Sasko Low GI Soy & Linseed White Loaf
    • Low GI, high in energy, low in saturated fat, free of trans fatty acids
  – Price premium vs ‘regular’ bread: around 20-50%

Source: Food & Beverage Reporter April 2011; www.saskobaking.co.za
Barley

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Production
Domestic use
Net imports
Producer price Calendon

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Farm-level Profitability

Gross margin 2011  Gross margin 2010  Gross margin 2012
Farm-level efficiency

Source: agribenchmark network
Potatoes

Consump: Fresh formal
Consump: Fresh Informal
Consump: Processing
Consump: Seed
Processed potato consumption within the post-recession mindset?

- “Recessionary Mindset Continues”
  - Save on gas/electricity
  - Spend less on new clothes
  - Spend less on take-away meals
  - Less out-of-home entertainment (incl restaurants)
  - Switch to cheaper grocery brands
  - Cut down on telephone costs

Source: The Nielsen Global Online Survey was conducted between May 20 and June 7, 2011
Potatoes –
The cost of convenience

Example:
Frozen chips 90% to 380% more expensive than fresh potatoes
How will the future differ from the Baseline??....it is only a single-point estimate!

Risk and Uncertainty!!
Short-run Maize Scenario

White Maize SAFEX price, 2012 (R/ton)

Most likely

“Risky” variables:
World price
Exchange rate
Weather

Export Parity
Import Parity
Short-run Wheat Scenario

Wheat SAFEX price, 2012 (R/ton)

Most likely

“Risky” variables:
World price
Exchange rate
### Impact on food prices

#### Super maize meal retail price (R/kg): Baseline vs Scenario - 2012

<table>
<thead>
<tr>
<th></th>
<th>Average 2011</th>
<th>Baseline - 2012</th>
<th>Scenario - 2012</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>R/kg</td>
<td>R/kg</td>
<td>R/kg</td>
</tr>
<tr>
<td>Most likely</td>
<td>5.25</td>
<td>5.51</td>
<td>5.0%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>6.17</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>17.5%</td>
</tr>
</tbody>
</table>

#### White bread (700g) (R/loaf): Baseline vs Scenario - 2012

<table>
<thead>
<tr>
<th></th>
<th>Average 2011</th>
<th>Baseline - 2012</th>
<th>Scenario - 2012</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>R/loaf</td>
<td>R/loaf</td>
<td>R/loaf</td>
</tr>
<tr>
<td>Most likely</td>
<td>8.43</td>
<td>8.77</td>
<td>4.0%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>9.60</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>13.9%</td>
</tr>
</tbody>
</table>
Impact on households

Baseline

Scenario

R115/ hh/ month

Portion cost (R)

- Brown bread (150g)
- Maize porridge cooked (532g)
Table grapes: Area

- 2010 area: 20,750 ha
- 2020 area: 23,783 ha
- Increase: +250 ha from 2010 to 2020

Apple:

- 2010 area: 10,697 ha
- 2020 area: 21,017 ha
- Increase: +1,320 ha

Pear:

- 2010 area: 10,697 ha
- 2020 area: 11,807 ha
- Increase: +110 ha
Apples: Fresh Local Market
Thailand study - Main findings

- The Thailand market is growing
- SA edible fruit exports to Thailand increased by 318% over from 2001 to 2007
- Industry losses:

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Table grape</td>
<td>R335.1 m</td>
<td>R450.7 m</td>
<td>R785.8 m</td>
</tr>
<tr>
<td>Apple</td>
<td>R87.7 m</td>
<td>R91.2 m</td>
<td>R178.9 m</td>
</tr>
<tr>
<td>Pear</td>
<td>R19.2 m</td>
<td>R20.5 m</td>
<td>R39.7 m</td>
</tr>
<tr>
<td>Total</td>
<td>R442 m</td>
<td>R562.4 m</td>
<td>R1 004.4 m</td>
</tr>
</tbody>
</table>
Thailand study - Main findings

• Economy-wide impact of reopening:
  – 256 jobs created
  – R53.9 m increase in household incomes
  – GDP increases by R80.3 m

• Farm level losses (2008 – 2011):
  – Up to 2.08% of Net Farm Income in 2011 in the Koue Bokkeveld

• Farm level potential gains (2012 – 2016):
  – Up to 18.9% of Net Farm Income in 2016 in EGVV
PANEL DISCUSSION
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10-Year Agricultural Market Outlook
Meat and Dairy
Key drivers and assumptions

- They same as the section on field crops
Chicken as a substitute
SA Meat Market

Consumption: 2010

- Beef: 28%
- Chicken: 41%
- Sheep meat: 28%
- Pork: 25%
- Eggs: 30%

Consumption: 2020
Chicken Meat

![Graph showing chicken production, consumption, and price ratio over years from 2002 to 2020. The graph indicates a trend of increasing chicken production and consumption, with a notable decrease in the chicken:maize price ratio around 2006.](image-url)
Sheep meat

Sheep meat net imports
Sheep meat domestic Use

Thousands of tons
New consumer challenges in the post-recession SA economy

Recent electricity price hikes of around 25%

IMPACT EXAMPLE:

A household previously spending about R800/month on electricity will now spend about R1000/month –

The ‘lost’ R200 could have bought...

- 4 bottles of R50 wine/month → e.g. >8 mill ℓ less/annum

OR

- 2kg lamb chops/month → e.g. >5000t less/annum

(Assuming 10% of LSM 8-10 hh’s affected)
## Dairy products - Annual demand growth

<table>
<thead>
<tr>
<th>Product:</th>
<th>Year-on-year growth (%)</th>
<th>Dec ‘09 – ‘10</th>
<th>March ‘10 to ‘11</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fresh milk</td>
<td></td>
<td>4.6</td>
<td>5.1</td>
</tr>
<tr>
<td>Long life milk</td>
<td></td>
<td>5.1</td>
<td>10.1</td>
</tr>
<tr>
<td>Yoghurt</td>
<td></td>
<td>8.5</td>
<td>11.3</td>
</tr>
<tr>
<td>Cultured milk</td>
<td></td>
<td>3.2</td>
<td>7.1</td>
</tr>
<tr>
<td>Packaged cheese</td>
<td></td>
<td>8.6</td>
<td>13.5</td>
</tr>
<tr>
<td>Butter</td>
<td></td>
<td>6.0</td>
<td>14.7</td>
</tr>
</tbody>
</table>

Source: Nielsen retail data* released by SAMPRO reported by Dairy Connect, Coetzee, August 2011

(*Representing about 75% of dairy sales in SA)
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Special Section: Agricultural Employment, land and water
Overview

- Employment trends – local and global
- Stocktake of SA natural resource potential
- Picking and supporting possible winners
- Merging resource & economic potential
- Exploring forward and backward linkages
Employment trends

Formal Agricultural Employment (Regular & Seasonal)

Source: GF Liebenberg, 2011
Source: GF Liebenberg, 2011
Irrigation Potential

- Total upper limit of irrigation potential additional 707000 ha.
- More realistic estimate 500 000 ha.
- Over baseline period realistically not more than 145 000 ha.
- Ground water 270 000 ha.
Employment effects

- +/-47 000 additional farm jobs can be created in established horticultural industries with high labour requirements.
- +/-30 000 additional value chain jobs can be created in established horticultural industries with high labour requirements.

Horticultural industries

<table>
<thead>
<tr>
<th>Fruit</th>
<th>Current Area</th>
<th>Potential Expansion in Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Citrus</td>
<td></td>
<td>25%</td>
</tr>
<tr>
<td>Grapes</td>
<td></td>
<td>20%</td>
</tr>
<tr>
<td>Apples</td>
<td></td>
<td>12%</td>
</tr>
<tr>
<td>Avocado Pears</td>
<td></td>
<td>70%</td>
</tr>
<tr>
<td>Mangoes</td>
<td></td>
<td>20%</td>
</tr>
</tbody>
</table>
Employments Effects

+/-40 000 additional farm jobs can be created in the vegetable industry given expansion of market demand.

+/-15 000 additional value chain jobs can be created in the vegetable industry given expansion of market demand.
Employment effects

- +/-50000 additional farm jobs can be created in micro industries with high labour requirements.
- +/-33 000 additional value chain jobs can be created in micro industries with high labour requirements.
**Non-labour intensive livestock**

**Employment Effects**

+/-40 000 additional farm jobs can be created in non-labour intensive industries with high expansion possibilities.

+/-25 000 additional value chain jobs can be created in non-labour intensive industries with high expansion possibilities.

![Bar chart showing potential expansion in production for different livestock products: Poultry (50%), Eggs (50%), Dairy (45%), Beef (20%).]
Employment effects

+/-7 000 additional farm jobs can be created in non-labour intensive field crop industries with high expansion possibilities.

+/-5 000 additional value chain jobs can be created in non-labour intensive field crop industries with high expansion possibilities.
Summary of findings

- Labour-intensive industries
  - Approx. 300,000 Primary and Secondary jobs
- Non-labour intensive field crops
  - Approx. 15,000 Primary and Secondary jobs
- Non-labour intensive livestock and dairy
  - Approx. 65,000 Primary and Secondary jobs
- Additional jobs and livelihoods in communal areas
  - Better utilization of land in communal areas and land reform projects
  - 1.3 million households have access to land - relates up to 7 million people
THE END

Thank you for your attending the BFAP Baseline 2011