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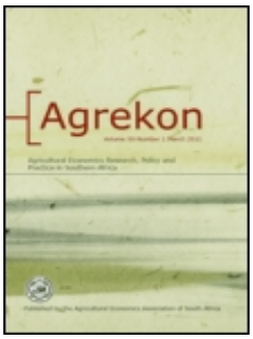

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IDENTIFYING STRATEGIC MARKETS FOR SOUTH AFRICA'S CITRUS EXPORTS

Tinashe Kapuya[1], Evans K. Chinembiri[2] and Mmatlou W. Kalaba[3]

ABSTRACT

The article identifies South Africa's strategic citrus markets among its major export partners using three complementary methodologies. Firstly, South Africa's major markets for citrus are characterised according to a growth-share matrix to identify strategic country markets. Secondly, the paper uses an Indicative Trade Potential analysis to identify strategic markets that are high potential export countries. Thirdly, a gravity model is used to identify which strategic high potential markets are encouraging South African citrus exports. Out of South Africa's 51 major citrus export destinations, 44 countries are considered "strategic" markets. From these 44 strategic markets, 26 are high potential markets. Among the 26 high potential markets, an identified 17 countries represent the most attractive markets that possess opportunities for greater export expansion. These 17 countries can be prioritised for an export promotion strategy: six are in the EU, four are in Asia, and two are in Eastern Europe; while three are from Middle East and two from North America. The paper concludes that more aggressive trade policy efforts should also be directed towards nine countries which are "high potential markets", but exhibit trade-inhibiting features discouraging South Africa's citrus exports. Trade facilitation efforts and bilateral agreements with such countries could be considered as an option to "lock in" the benefits of unexploited export potential in key strategic citrus export markets.

Keywords: growth-share matrix, gravity model, fixed effects, South Africa, citrus exports

JEL: Q17

1 INTRODUCTION

South Africa is pursuing an export-led growth strategy to achieve economic growth. This insight is succinctly reflected in South Africa's New Growth Path

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(NGP). According to the National Growth Path, South Africa should deepen and *widen the market for South African goods and services through a stronger focus on exports to the region and other rapidly growing economies*. Such an export-led growth strategy requires strategic policy interventions that enhance the country's productivity to compete on a global scale (Abou-Sait, 2005).

South Africa's citrus industry has been identified as one of the key export drivers of agricultural export performance (Ndou, 2012). Citrus comprises four broad product categories, namely, oranges (H080510), soft citrus (H080520), grapefruit (H080540), lemons and limes (H080540). Over 60% of citrus in South Africa is grown for export markets, 23% is juiced, while 15% is sold on the local market (USDA-FAS, 2013). In 2013, South Africa was ranked number one exporter of fresh oranges and grapefruit in the world (USDA-FAS, 2013). The country's high level of exports is attributed to the adoption of improved varieties, better management practices that focus on fruit quality; as well as efficient logistics that allow for expeditious delivery to markets (Siphungu, 2012). The industry has also undertaken to adopt varieties in high global demand. By virtue of being a top exporter of fresh citrus, South African exporters have proven that they can consistently meet and exceed the stringent global market requirements. For instance, exports to the United States[4], the European Union (EU) and Asia undergo rigorous sanitary and phyto-sanitary standards that ensure food safety. Thus, South Africa's global competitiveness in citrus production places the sector as a key sector in the country's export-led growth strategy.

The significance of export growth in the citrus sector is also important in that it is within the agricultural industry – a key priority sector identified as having a great potential to increase employment. The citrus industry is particularly labour intensive – estimated to employ approximately 85 200 people – and remains the largest single employer within South Africa's agricultural sector (Meyer *et al.*, 2012). This excludes the unspecified number of people employed throughout the citrus supply chain services such as transport, port handing and allied services (Morokolo, 2011). Furthermore, at least a million households depend on the South African citrus industry for their livelihood (Morokolo, 2011).

As a leading exporter of fresh oranges and grapefruit, South Africa's growth and expansion in citrus exports have a larger capacity to contribute more towards the National Growth Path objectives of reducing poverty and unemployment through greater economic participation and income generation. However, global markets are undergoing significant changes, suggesting a need for South Africa to

4 South Africa has been the largest supplier of fresh oranges to the United States market since 2003 and South Africa's prominence in the United States market is thought to be driven by the Africa Growth and Opportunity Act (AGOA) (Baldwin and Jones, 2012).

continually re-assess its citrus markets as the country seeks to maintain its status as a leading citrus exporter. Some emerging markets are gradually opening up while traditional ones are becoming tighter due to a proliferation of non-tariff measures. Moreover, increasing production costs and stagnating global demand are putting the citrus industry under sustained pressure to become more competitive (Edmonds, 2013). Given the foregoing, re-assessing South Africa's export markets is helpful to inform policy, which could include a re-positioning strategy of its citrus industry to more ably absorb the ongoing changes in its overseas markets, and thereby preserve its status as a global leader in fresh citrus exports.

In light of South Africa's National Growth Path, which emphasizes the strategic need to expand and deepen export growth in its traditional and newly emerging markets, the paper attempts to identify strategic markets that could be considered in this regard. The process of identifying strategic markets is done through a growth-share analysis that is complemented by an Indicative Trade Potential (ITP) analysis and a gravity model. These analytical tools answer three fundamental and closely related questions: (1) which of South Africa's major citrus export destinations are strategic markets? The growth-share matrix unpacks and characterizes which markets can be considered as "strategic"; (2) which of the strategic markets exhibit high export potential? The ITP identifies countries that possess a higher potential for absorbing South Africa's citrus exports; and (3) which high potential strategic export markets exhibit trade-enhancing effects that promote South Africa citrus exports? A gravity model identifies individual country effects encouraging (or discouraging) South Africa's citrus exports.

Identifying high potential strategic markets assists in resolving the policy dilemma of designing a citrus export promotion strategy that can be considered to attain the vision of the New Growth Path. The rest of the paper is organised as follows. Section 2 briefly defines the concept of strategic markets. Section 3 discusses why identifying strategic markets is important. Section 4 discusses the growth-share structure of South Africa's citrus exports. Section 5 identifies countries that can be defined as South Africa's strategic markets. Among these strategic markets, Section 6 sieves out those markets that possess high potential. Section 7 discusses the country-specific effects of high potential markets to determine which among these possess features that encourage (or discourage) South African citrus exports. The conclusion is provided in section 8.

2 DEFINING STRATEGIC MARKETS

In this paper, strategic markets are regarded as countries with a relatively large demand in which South Africa can potentially grow its citrus exports. Figure 1 shows the conceptual framework of identifying strategic markets. As outlined in Figure 1, strategic markets can be unpacked at three levels namely,

Growth-share level: where markets are classified according to their relative growth rates and share of South Africa's total exports.

Trade potential level: where markets are categorized according to the size of their import demand that can be potentially supplied by South African citrus exports.

The trade effects level: where markets are sorted according to whether they are enhancing or discouraging South Africa's citrus exports.

The exercise is designed to ultimately rank the most attractive markets among a set of countries that South Africa is already trading with. Such markets are shown in Figure 1 as those that are in the red square – high export potential markets whose demand for South Africa's citrus exports is actually growing (significantly). Markets outside the red square, though still important, yield less export gains compared to the former.

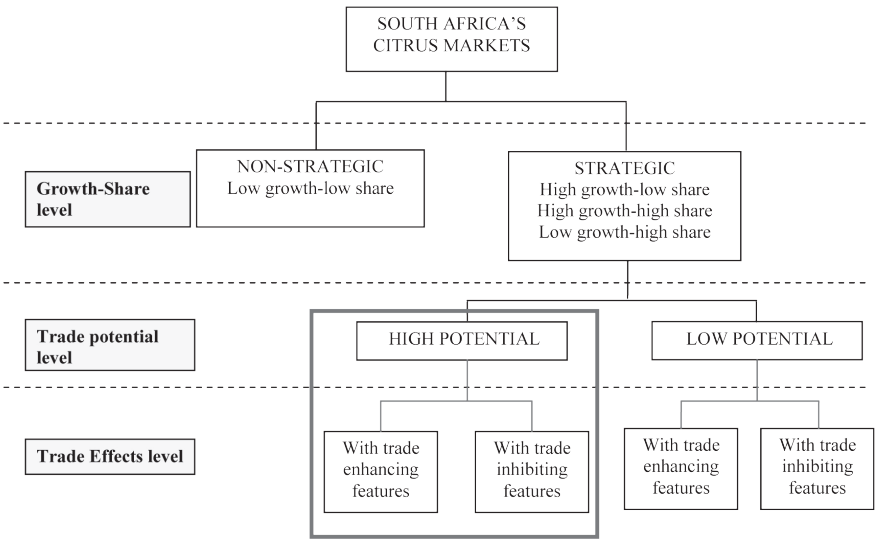

Figure 1: Conceptual framework for identifying strategic markets

3 THE SIGNIFICANCE OF IDENTIFYING SOUTH AFRICA'S STRATEGIC CITRUS EXPORT MARKETS

In 2012, South Africa produced 1.5 million tonnes of oranges and 410 000 tonnes of grapefruit, and exported 1.1 million tonnes of oranges and 220 000 tonnes of grapefruit (Ntombela and Moob, 2013). South Africa's export figures represent over 25% of world orange exports and 27% of global grapefruit exports, making

the country the top global exporter in these respective markets. Though not as dominant in the soft citrus as well as lemon and lime markets, South Africa is among the top 5 global exporters, underlining South Africa's position as one of the leading citrus exporters in the world.

Although South Africa has maintained high levels of exports over the recent past, its global position as a top citrus exporter is threatened by the changing context of global markets. Overall, the form and substance of changes in global markets are characterised by (though not restricted to) three key factors. Firstly, the emerging concerns of South Africa's citrus exports to the EU arising from the Citrus Black Spot (CBS) interceptions, which have sparked fears of an export ban (Chadwick, 2013). Secondly, the proliferation of sanitary and phyto-sanitary (SPS) and other non-tariff measures (NTMs) as a global phenomenon that is now becoming a key obstacle to South Africa's agricultural trade in general (Gebrehiwet, Ngqangweni and Kirsten, 2007). Thirdly, stagnating global consumption, which is putting the industry under pressure while rising costs of production are affecting global competitiveness (Edmonds, 2013). The foregoing necessitates a need to continuously re-assess export markets and identify strategic options that aim to preserve the country's international export position.

There are specific questions to be answered in attempting to subvert the potentially negative effects of changes in global markets. An integrated citrus export strategy in that regard would incorporate answers to the following questions: Which of South Africa's citrus markets are showing positive (negative) growth? What determinants explain that positive (negative) growth? Which market features that are encouraging (discouraging) South Africa's citrus exports?

These are empirical questions that need some form of a trade flow analysis.

A cursory review of global citrus export figures shows that the EU is the largest market. In fact, the EU consumes a significant share of South Africa's citrus exports: orange (73%), grapefruit (51%), soft citrus (71%) and lemon and lime (45%) (Siphungu, 2012). Indeed, South Africa (and the entire globe) is heavily dependent on the EU as a major market for citrus exports. Yet the EU market has been showing flat to negative growth after 2008 against the backdrop of the Euro-zone debt crisis and a protracted economic recession. Moreover, CBS concerns the EU raised against South African citrus exports, when the risk to spread CBS in Europe is scientifically impossible, can be perceived to be a motivation for disguised protection of the EU market (Gebrehiwet, Ngqangweni and Kirsten, 2007).

The issue of CBS has received particular media and policy attention in the recent past, given its significance and market access implications. The disease is caused by an *ascomycete* fungus called *guignardia citricarpa*, which affects citrus plants throughout subtropical climates. Key associated symptoms include both

fruit (and leaf[5]) that cause a reduction in both fruit quantity and quality. The EU has instituted regulation to control and minimise the amount of CBS interceptions in the interest of quality assurance. South Africa's citrus export shipments to the EU have had reasonably minimal CBS interceptions, the lowest being 12 in 2008 (Chadwick, 2013). The EU has gradually increased its SPS restrictions, setting a minimum of five interceptions per annum. This implies that if five fruits of the 600 000 tonnes of South Africa's citrus exported to the EU are CBS infected, then the EU would institute additional measures to restrict South Africa's exports, one of which includes an export ban.

The thought of the EU being closed to South African exports is inconceivable, given the significance of the market to the country's citrus industry. The tightening and possible closure of the EU market have provoked the need to identify alternative markets. The paper assumes the position of the New Growth Path, by emphasising the need for a deliberate twin-pronged strategy in deepening South Africa's presence in the EU market while diversifying, expanding and broadening its market base towards other regional export destinations would certainly lessen the risk in a global market that is becoming increasingly less predictable.

4 THE GROWTH-SHARE STRUCTURE OF SOUTH AFRICA'S CITRUS EXPORT MARKETS

4.1 The growth-share matrix

In identifying markets that could be considered for an expansion and diversification strategy, the paper identifies high potential markets within the context of a growth-share matrix. The growth share matrix concept is borrowed from fields of business and strategic management designed to assist firms in prioritising resources among alternative products within a portfolio. Also known as the Boston matrix[6], a growth-share matrix is utilised in this instance, to rank South Africa's citrus markets on the basis of their relative market shares and growth rates. Conceptually, South Africa's citrus export destinations are classified according to four categories as follows:

High growth-low share markets: These are markets whose demand for South Africa's citrus is growing *faster* than South Africa's exports to the rest of the world on the one hand, while simultaneously, the share of South Africa citrus

5 Tree lesions are critical to inter-tree dispersal of the disease.

6 It is also called a Boston matrix because the framework was first developed by the Boston Consulting Group (BCG) in the late 1960s. In this paper, the applied growth-share matrix is a tool that extends the standard market analysis by giving a two-dimensional (growth and market share) argument to market development. This perspective can give an enhanced picture of markets, and allow for priority-setting in developing an export investment promotion strategy.

exports destined to that particular country is *lower* than South Africa's share of total world exports on the other. Otherwise known as *question mark* markets, these countries have the potential to increase their growth and share of South African citrus exports.

High growth-high share markets: These are markets whose demand for South Africa's citrus is growing *faster* than South Africa's citrus exports to the rest of the world, while the share of South Africa citrus exports destined to that particular country is *higher* than South Africa's share of total world exports. Also known as *star* markets, such countries may require more investment in deepening export presence.

Low growth-high share markets: These are markets whose demand for South Africa's citrus is growing *slower* than South Africa's citrus exports to the rest of the world, and the share of South Africa citrus exports destined to that particular country is *higher* than South Africa's share of total world exports. Also known as *cash cows*, such countries generate export revenues that are enough to maintain South Africa's future export presence. Further export investment would lead to diminishing marginal returns to trade – since there is little scope for further large increases in export growth.

Low growth-low share markets: These are markets whose demand for South Africa's citrus is growing *slower* than South Africa's citrus exports to the rest of the world, and the share of South Africa citrus exports destined to that particular country is *lower* than South Africa's share of total world exports. Regarded as *pets*, such countries are either "fully matured" established markets or new (and emerging) markets. If they are mature markets, pets can be thought of as countries that should be de-prioritised in terms of candidates for strategic export expansion. If they are new and emerging markets, then they could represent opportunities for future export growth in the long term.

Figure 2 conceptually depicts South Africa's citrus markets by way of a quadrant chart that groups its export markets according to whether they are high growth-low share (*question marks*), high growth-high share (*stars*), low growth-high share (*cash cows*) and low growth-low share (*dogs*), as discussed.

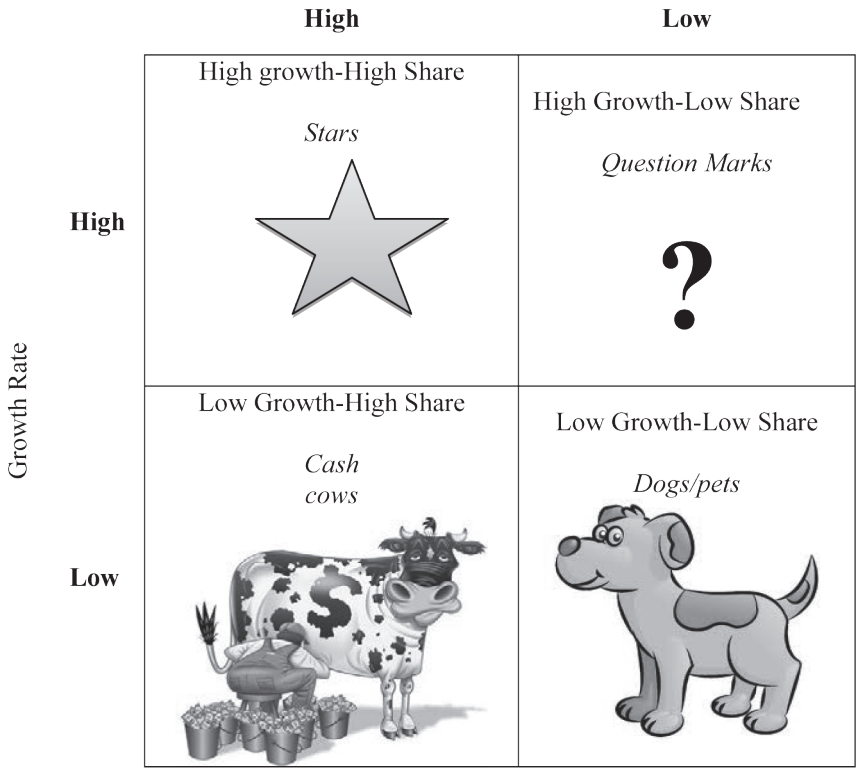

Figure 2: The growth-share matrix for South Africa's citrus markets

Source: Adapted from Henderson (1979) in the Economist (2009)

It is important to note that there is no value judgement placed on defining country markets as *cash cows*, *stars, dogs* and *question marks* as these terms are only used figuratively for the purpose of brevity.

4.2 The export market 'growth cycle' hypothesis

The paper postulates that South Africa's citrus markets are at different stages of their 'growth cycle'. Thus, the paper pre-supposes that South Africa's export markets evolve through a growth cycle as follows:

Markets start off as question marks – where demand for South Africa's citrus is growing *faster* than South Africa's exports to the rest of the world. The share of South Africa's citrus exports destined to that particular country is *lower* than South Africa's share of total world exports. There is a scope for export gains to be

utilised in such markets. As a result, markets are likely to grow more substantially and increase their share of South Africa's exports until they exceed the share of South Africa's exports to the world. The country will thus eventually become a high growth-high share market.

When the market attains a high growth-high share status, or when it becomes a star, the growth rate of citrus exports to a particular market eventually declines, dropping *below* South Africa's citrus average export growth rate to the world. Thus the market becomes a low-growth market, albeit maintaining a high share of South Africa's total citrus exports.

Coupled with a country's high share of South Africa's total citrus export, a declining growth rate that is below South Africa's citrus export growth rate to the world makes the market a cash cow. A cash cow is a market that is beyond its peak growth and share; it can be regarded as an established market.

A declining growth rate will over time lead to a declining share of that country in South Africa's total citrus exports. Thus the established market becomes a low growth-low share market.

Given the "growth cycle" hypothesis, the "adapted" Boston matrix characterises export markets in accordance with their perceived stage along the export market "growth path". An assumption to uphold this theory is that South Africa can sufficiently diversify and grow its market base by virtue of being a globally competitive citrus producer. Under a relaxed set of assumptions of either exceptionally high or low growth levels, markets may not strictly follow the stages of the growth cycle successively, as outlined here. Thus, markets may assume different starting points, exhibiting varying characteristics that suggest such countries skipped particular stages, depending on the market conditions at a given time.

4.3 Defining high (low) growth and high (low) share

Classifying markets as high (low) growth and/or high (low) share is based on the variable benchmark values that are dependent on the citrus commodity. Table 1 outlines the critical values that define the growth share-matrix classification of South Africa's citrus export markets.

Table 1: Growth-Share classification criteria for exports of South Africa's citrus industry

	Average Annual Growth Rate (2001-2012)		Average Market Share (2001-2012)	
	Low	High	Low	High
Oranges	< 12.8%	>12.8%	<11.0%	>11.0%
Soft Citrus	<12.5%	>12.5%	<2.2%	>2.2%
Grapefruit	<6.0%	>6.0%	<11.9%	>11.9%
Lemons	<14.1%	>14.1%	<4.8%	>4.8%

Source: Own calculations based on ITC (2013) statistics.

Critical values that define high (low) export growth and high (low) share are based on South Africa's growth of total exports to the world. As previously discussed, markets whose demand for South Africa's citrus is growing faster (lower) than South Africa's exports to the rest of the world are defined as high (low) growth markets; while countries that attain a higher (lower) share of South Africa citrus exports compared with South Africa's global share are considered as high (low) share markets.

In the orange sector, high (low) export growth was defined as average annual growth rate above (below) 12.8%. A high (low) export share was defined as the market average above (below) 11.0%. For soft citrus, the high (low) export growth being defined as average annual growth rate above (below) 12.5%. Countries above (below) 2.2% share of South Africa's total soft citrus exports were classified as high (low) share countries.

Given this criteria, a high growth-high share quadrant for oranges would, for instance, be one in which the average annual market export growth rate is greater than 12.8%, while the share of that particular export market of total South African orange exports is greater than 11.0%. Similarly, a low growth-low share quadrant would be characterised by markets whose export growth is less than 12.8%, while the share of that market of total South African orange exports is less than 11.0%. Applying the criterion displayed in Table 1 to the other respective markets for oranges, soft citrus, grapefruit and lemons neatly groups South Africa's into the *pets*, *stars*, *question marks* and *cash cow* quadrants. Tables A1 though to A4 in the Appendix A display the markets accordingly.

5 CLASSIFYING SOUTH AFRICA'S MARKETS USING THE GROWTH-SHARE CRITERIA

In keeping with the aforementioned market categories defined in the export growth-share matrix, the paper argues that priority markets are those that exhibit high growth-high share, high growth-low share, and low growth-low share features. These are markets that are situated in the *stars*, *question marks* and *cash cow* quadrants. Therefore, markets classified as *pets* are not considered as strategic, and are therefore not discussed in this paper. Tables A1 through to A4 in Appendix A show the list of strategic markets that are to be considered as priority countries in pursuit of an export expansion and market diversification strategy. According to results shown in the growth-share matrix, several markets can be considered as strategic markets for South Africa's orange exports. Table 2 summarizes the strategic markets according to classification per market category.

Table 2: Strategic markets for South Africa's citrus exports

	Country	Grapefruit	Lemon	Oranges	Soft Citrus
1	Azerbaijan		?		
2	Bahrain		?	?	?
3	Bangladesh			?	
4	Bulgaria	?			
5	Canada	?	?		?
6	China	?		?	
7	Côte d'Ivoire				?
8	Croatia		?		
9	Denmark	?			
10	Finland	?	?		?
11	France				?
12	Gabon				?
13	Georgia		?		
14	Germany	?			
15	Greece	?	?		
16	Guyana	?			
17	Hong Kong	?			?
18	Iran			?	?
19	Ireland	?	?	?	?
20	Italy				?
21	Japan	C			
22	Kuwait	?		?	?

23	Latvia		?		
24	Lithuania	?	?	?	?
25	Malaysia	?	?	?	?
26	Mozambique		?		
27	Netherland	S	S	C	
28	Norway	?			
29	Oman		?	?	
30	Philippine				?
31	Portugal	?	?	?	?
32	Qatar		?	?	
33	Romania	?			
34	Russia	?	?	C	?
35	Saudi Arabia	?	C	C	
36	Senegal				?
37	Singapore	?	?	?	?
38	Sweden	?	?	?	?
39	Taiwan	?			
40	Ukraine	?	?	?	?
41	United Arab Emirates	?	C	S	?
42	United Kingdom		C		C
43	United States			C	
44	Zimbabwe				?

Source: Analysis Results

Key:
? – Question Mark Markets
S – Star Markets
C – Cash Cow Markets

The high number of EU countries classified as strategic markets is not surprising because the EU bloc is South Africa's largest citrus market. Middle East countries, particularly Saudi Arabia and United Arab Emirates (UAE), were identified as *cash cows* for lemons and oranges and they offer strategic diversity for South Africa's citrus export base. Eastern Europe (Russia and Ukraine) complete South Africa's strongest options for markets of strategic value. Most of the strategic markets are only made up of high growth-low share (*question marks*). Question marks imply the need for further efforts in trade investments and export promotion to further increase South Africa's growth and presence in these markets.

Of all the strategic markets identified, two countries (Netherlands for

grapefruits and lemons, and United Arab Emirates (UAE) for oranges) were identified as high growth-high share markets (stars). The low count of star markets implies that South Africa's citrus exports are characterised by a fairly diverse and well spread market base. Few exceptions were identified as cash cows, namely, Japan (grapefruit), Netherlands (oranges), Russia (oranges), Saudi Arabia (lemon and oranges), UAE (lemons), UK (lemons and soft citrus) and the USA (oranges). Important to note is the fact that overall, 10 out of 26 markets are within the EU market – two are *cash cows* and eight are *question mark* countries. This underlines the importance of the EU bloc, and hence the need to preserve it as part of South Africa's long-term export strategy. With further trade promotion, EU *question mark* markets are in the short to medium term likely to grow and move from a high growth-low share status to become high growth-high share countries as the EU recovers from the recession.

6 STRATEGIC MARKETS WITH HIGH POTENTIAL FOR SOUTH AFRICA CITRUS EXPORTS

6.1 Indicative trade potential

Having identified strategic markets for South Africa's citrus exports, the paper supports the growth-share analysis with the concept of potential supply capacity. Here, an attempt is made to determine the size of the identified *question mark* and *cash cow* markets, which is yet to be fully exploited by South Africa's citrus exports. The question to answer is: What is the most that South Africa could export to the each of the identified strategic citrus markets, constrained either by total export supply or import demand? This can be done through a simple calculation called an indicative trade potential (ITP) indicator. The ITP is calculated as follows:

$$ITP_{ijk} = \min(X_{ik}, X_{jk}) - X_{ij}$$

Where $X_{ik} = \sum_{j=1}^{J} X_{jik}$ and $X_{jk} = \sum_{i=1}^{I} X_{ijk}$ (1.1)

Where X_{ik} is the sum of South Africa's citrus exports to the world, X_{jk} is the sum of citrus imports from the world by a strategic country market, and X_{ij} are South Africa's citrus exports to the strategic market. The ITP essentially serves to show the size of the import market that is yet to be fully explored, and this serves to

guide policy-makers towards markets that offer substantial export benefit for South African citrus exports. The ITP assumes that the importing country, in principle, perfectly absorbs all imports from the exporter (Helmers and Pasteels, 2006). The ITP does not take into account the seasonality of citrus between exports supply and import demand. Given this strong underlying assumption, the resulting ITP figures are only indicative, but nevertheless useful in ranking markets.

6.2 Defining markets with high and low relative export potential

Selected countries were ranked into high or low potential markets, based on the ITP calculation. High (low) potential countries were defined by critical values based on a trade weighted average supply potential of South Africa to identified strategic markets. The critical values that define high (or low) potential vary depending on each sector. These are shown in Table 3:

Table 3: Trade potential classification criteria for South Africa's citrus exports

	Export Potential, 2012 (US$'000)	
	Low	High
Oranges	<46 512	>46 512
Soft Citrus	< 6 453	> 6 453
Grapefruit	<15 452	>15 452
Lemons	<10 263	>10 263

Source: Own calculations based on ITC (2013) statistics.

There are several high and low potential citrus markets that were identified, and these are displayed in Table 4 and 5, respectively. South Africa stands to derive the largest gains if it promotes export trade in these high potential markets. These high potential markets can be prioritised in an export promotion strategy. In addition to high potential markets, there are other markets that could be considered within an export promotion strategy, albeit possessing low potential. These markets are considered to yield relatively less gains compared with the latter. Despite being of relatively low potential, these markets are nonetheless important in expanding South Africa's export market base.

Table 4: Markets with high relative potential for South Africa's citrus exports

Oranges	Grapefruit	Soft Citrus	Lemon
Non-EU markets	Non-EU markets	Non-EU markets	Non-EU markets
Russia	Russia	Canada	Russia
Saudi Arabia	Japan	Russia	Canada
Iran	Canada	Malaysia	UAE
China	Ukraine	Iran	Saudi Arabia
USA		Philippines	
UAE		UAE	
Ukraine		Singapore	
		Hong Kong	
		Kuwait	
		Ukraine	
EU markets	EU markets	EU markets	EU markets
Netherlands	Netherlands	France	Netherlands
Sweden	Germany	Italy	UK
		UK	Greece
		Sweden	Sweden
		Lithuania	Lithuania
		Finland	Croatia
		Ireland	Portugal
		Portugal	

Source: Analysis results

Table 5: Markets with relatively lower potential for South Africa's citrus exports

Oranges	Grapefruit	Soft Citrus	Lemon
Non-EU Markets	Non-EU Markets	Non-EU Markets	Non-EU Markets
Malaysia	China	Bahrain	Singapore
Singapore	Hong Kong	Côte d'Ivoire	Kuwait
Kuwait	Saudi Arabia	Senegal	Oman
Oman	Singapore	Gabon	Azerbaijan
Qatar	Taiwan	Zimbabwe	Qatar
Bahrain	UAE		Georgia

	Kuwait		Malaysia
	Malaysia		Bahrain
			Mozambique
EU markets	EU markets		EU markets
Portugal	Lithuania		Ireland
Lithuania	Sweden		Finland
Ireland	Romania		Latvia
	Bulgaria		
	Denmark		
	Greece		
	Ireland		
	Finland		
	Portugal		
	Norway		

Source: Analysis results

In Appendix C, tables C1 through C4 rank strategic markets according to trade potential that could be exploited through South African exports. The ranking does not necessarily imply that low potential markets are not important. Instead, the ranking is indicative of markets that can be prioritised with regards to options that yield higher export gains. Although promoting citrus exports in low potential markets yield less grains compared with the latter list of markets, they nonetheless remain fundamental to broadening and diversifying the South Africa's market base.

In summary, out of 51 of South Africa's major citrus export destinations, 44 are strategic markets, and out of these, 26 countries are actually markets that possess a relatively high potential (12 from EU; 6 Asia; 4 Middle East, 2 Eastern Europe and 2 North America). Of these, 17 were identified as high potential countries (6 are EU; 4 Asia, 2 Eastern Europe, 3 Middle East and 2 North America). These respective regions are where South Africa can substantially expand and grow its exports. The scope for further growth is, however, dependent on how South Africa adjusts and re-positions its market position in line with on-going changes in those respective markets.

7 MARKETS DISPLAYING TRADE-ENHANCING EFFECTS FOR SOUTH AFRICAN CITRUS EXPORTS

Given that opportunities for further growth in high potential markets exist, a further understanding of these markets would be critical in informing an export strategy. In adopting a citrus export strategy, policymakers would need to understand whether identified markets possess constraints to market penetration, information which can be used to design measures on how South African citrus exporters can overcome them. Under this section, the paper partly addresses this need by determining the country-specific effects of these high potential markets. Individual country-specific effects are unobservable time-invariant effects that give an indication of whether a particular market has features that encourage or discourage South African citrus exports. To estimate country-specific effects, a gravity model approach is used for South Africa's citrus exports using annual data for the period 2001 to 2012.

7.1 Determinants of South Africa's citrus exports

The main purpose of gravity models is to estimate the size of bilateral trade flows between countries by taking into account the supply conditions at the origin on the one hand, and the demand conditions at the destination on the other, taking account of additional stimulating or restraining forces that affect bilateral trade flows[2] (Bergstrand, 1985; Egger, 2000, 2002; Helmers and Pasteels, 2005; Cheng and Wall, 2005). Literature has given less attention to the latter primarily due to the fact that most of these stimulating or restraining forces are not visible. An additional focus for this paper, however, is to estimate these invisible trade-enhancing fixed effects for identified strategic citrus markets, with particular reference to the "signs" rather than the magnitude.

Although specific focus is given to those countries selected as strategic export markets, the gravity model estimates trade flows to 33 major export destinations per citrus commodity (inclusive of strategic and non-strategic markets) to determine the standard trade flow determinants and fixed effects estimations. The large sample size is meant to draw out the heterogeneity among trading partners since South Africa can export different volumes to two different countries, even though the two export markets have similar distance from South Africa and similar GDPs. To draw out the country specific effects, a simple fixed effects model for oranges, soft citrus, grapefruit and lemons is estimated. The specification of the gravity models applied in this paper hold the following functional form:

$$y_i = \beta_0 + \beta_1 x_{i1} + \beta_2 x_{i2} + \beta_3 x_{i3} + \beta_4 x_{i4} + a_i + u_i \qquad 1.2$$

Where x_{i1} is GDP of trading partner, x_{i2} is the GDP of South Africa, x_{i3} is the real exchange rate, x_{i4} is the tariff applicable to South Africa for citrus in the trading partner market, a_i is the fixed effect, and u_{it} is the random error. In the process of deriving the country specific effects, the sample average for each of the aforementioned variables per country is firstly computed to get the following:

$$\bar{y}_i = \beta_0 + \beta_1 \bar{x}_{i1} + \beta_2 \bar{x}_{i2} + \beta_3 \bar{x}_{i3} + \beta_4 \bar{x}_{i4} + a_i + \bar{u}_i \qquad 1.3$$

The transformation process involves subtracting (1.3) from (1.2) to get the following equation:

$$(y_{it} - \bar{y}_i) = \beta_1 (x_{it1} - \bar{x}_{i1}) + \beta_2 (x_{it2} - \bar{x}_{i2}) + \cdots + \beta_4 (x_{it4} - \bar{x}_{i4}) + (u_{i4} - \bar{u}_i)$$

1.4

This transformation (called the within transformation) eliminates the fixed effect a_i and the constant as well. A simplified notation of equation (1.4) can be written as:

$$\ddot{y}_{it} = \beta_1 \ddot{x}_{it1} + \beta_2 \ddot{x}_{it2} + \beta_3 \ddot{x}_{it3} + \beta_4 \ddot{x}_{it4} + \ddot{u}_{it} \qquad 1.5$$

$\ddot{y}_{it} = y_{it} - \bar{y}_i$ where

This is called the time-demeaned data on y. The same notation is used for the x-variables and u as shown in equation 1.5. The paper estimated the demeaned equation (1.5) using OLS. By imputing this "fixed effect estimation", the country level effects were drawn out from the fixed effects residual:

$$\hat{a}_i$$

$$\hat{a}_i = y_i - \hat{\beta}_1 \bar{x}_{i1} - \hat{\beta}_2 \bar{x}_{i2} - \hat{\beta}_3 \bar{x}_3 - \hat{\beta}_k \bar{x}_k$$

1.6

Equation (1.6) estimates as the (fixed) unobservable effect of bilateral trade between South Africa and its trading partner. Table 7 summarises the fixed effects

gravity model results (per commodity) of equation 1.2. These models give us an understanding of the determinants of South Africa's citrus trade.

Table 7: Fixed Effects models for South Africa's citrus exports

	Oranges	Grapefruit	Soft Citrus	Lemons
Import country GDP	1.666*** (5.49)	4.916*** (4.35)	2.242*** (2.60)	3.249*** (8.89)
South Africa's GDP	2.180*** (4.03)	1.387 (1.21)	2.567*** (2.79)	0.792*** (1.79)
Import country's population		-10.553*** (-3.74)		
South Africa's population		20.675*** (3.66)		
Real Exchange Rate	1.444*** (3.12)	1.495* (1.65)	1.851*** (2.74)	
Tariffs	-0.061*** (-2.91)		-0.191*** (-3.93)	-0.334*** (-3.78)
Constant	-20.115*** (-5.83)	-80.816*** (-4.89)	-22.200*** (-4.75)	-15.286*** (-8.10)
R square	0.23	0.30	0.13	0.17
Hausman Test	21.75***	18.69***	3.30	42.16***

Source: Model results

Note ***, **, * are respectively level of significant at 1 %, 5 % and 10 %

The results of the fixed effects models show that an increase in the market size (importer's GDP and South Africa's GDP), an increase in the depreciation of the real exchange rate, and a decline in tariffs cause the export of South Africa's citrus products to increase. An increase in the importing country's population is associated with a decline in South African grapefruit exports. This may be because, as a niche product, population growth is also being coupled with a declining per capita consumption of grapefruit in a particular country. South Africa's population is associated with an increase in grapefruit exports and this means that the country exports more grapefruit when its own market expands with population growth, explained more specifically, perhaps, by a growing middle class population. All other coefficients are statistically significant except for South Africa's population.

7.2 Country-specific effects estimations

The country specific effects are presented in Table B1 in Appendix B. The results of the country-specific effects are calculated manually in Excel from equation 1.6. The country-specific effects show the effect of factors unique to each trading

partner but not included in the estimation of the model in Table 7. These factors may be geographic (for example distance) or non-tariff measures that have been operational over the period 2001–2012. Table 8 summarises these results by drawing out the "signs" from the individual effects, and these are overlaid with the growth-share analysis in Table 2. The positive signs show trade-enhancing effects and the negative signs show trade-inhibiting effects for each market.

Table 8: Country-specific effects in strategic markets

No.	Country	Code	Grapefruit	Oranges	Lemon	Soft Citrus
1	Azerbaijan	AZE			? (+)	
2	Bahrain	BHR		? (–)	? (+)	? (–)
3	Bangladesh	BGD		? (+)		
4	Bulgaria	BGR	? (+)			
5	Canada	CAN	? (–)		? (+)	? (–)
6	China	CHN	? (+)	? (+)		
7	Côte d'Ivoire	CIV				? (–)
8	Croatia	HRV			? (+)	
9	Denmark	DNK	? (–)			
10	Finland	FIN	? (–)		? (–)	? (–)
11	France	FRA				? (–)
12	Gabon	GAB				? (–)
13	Georgia	GEO			? (+)	
14	Germany	DEU	? (+)			
15	Greece	GRC	? (–)		? (–)	
16	Guyana	GUY	? (–)			
17	Hong Kong	HKG	? (–)			? (–)
18	Iran	IRQ		? (–)		? (–)
19	Ireland	IRL	? (–)	? (–)	? (–)	? (+)
20	Italy	ITA				? (+)
21	Japan	JPN	C (+)			
22	Kuwait	KWT	? (–)	? (–)		? (–)
23	Latvia	LVA			? (+)	
24	Lithuania	LTU	? (–)	? (–)	? (–)	? (–)
25	Malaysia	MYS	? (+)	? (+)	? (+)	? (+)
26	Mozambique	MOZ			? (–)	
27	Netherlands	NLD	S (+)	C (+)	S (–)	
28	Norway	NOR	? (–)			
29	Oman	OMN		? (+)	? (+)	

30	Philippines	PHL				? (–)
31	Portugal	PRT	? (–)	? (–)	? (–)	? (–)
32	Qatar	QAT		? (–)	? (+)	
33	Romania	ROM	? (+)			
34	Russia	RUS	? (+)	C (+)	? (–)	? (+)
35	Saudi Arabia	SAU	? (+)	C (+)	C (–)	
36	Senegal	SEN				? (+)
37	Singapore	SGP	? (–)	? (–)	? (–)	? (+)
38	Sweden	SWE	? (–)	? (–)	? (–)	? (–)
39	Taiwan	TWN	? (+)			
40	Ukraine	UKR	? (+)	? (+)	? (–)	? (–)
41	UAE	ARE	? (–)	S (+)	C(+)	? (–)
42	UK	GBR			C (–)	C (+)
43	USA	USA		C (+)		
44	Zimbabwe	ZWE				? (–)

Source: Based on model results and own calculations

Key:
? – Question Mark Markets
S – Star Markets
C – Cash Cow Markets

Table 8 indicates that export of citrus between South Africa and its trading partners differs by product and from country to country. Strategic markets that have features that promote South Africa's citrus exports include:

Oranges: Bangladesh, China, EU (Netherlands), Oman, Russia, Saudi Arabia, Ukraine, UAE and USA.

Grapefruit: Bulgaria, China, EU (Germany, Netherlands and Romania), Japan, Malaysia, Russia, Saudi Arabia, Taiwan and Ukraine.

Lemons: Azerbaijan, Bahrain, Canada, Croatia[5], Georgia, Malaysia, Oman, EU (Portugal and Latvia) and UAE.

Soft citrus: EU (Ireland and UK), Malaysia, Russia, Senegal and Singapore.

Table 8 also shows that there are unobservable country features that discourage trade for South Africa's citrus exports to strategic markets such as:

Oranges: EU (Ireland, Lithuania, Portugal and Sweden), Bahrain, Iran, Kuwait, Qatar and Singapore.

5 Croatia was excluded from the EU sample in this case because the country was a non-EU member over the period under consideration. It joined the EU on 1 July 2013.

Grapefruit: Canada, EU (Denmark, Finland, Norway, Portugal, Ireland, Greece, Portugal, Sweden, Lithuania, Norway), Guyana, Kuwait, Singapore and UAE.

Lemon: EU (Finland, Greece, Ireland, Lithuania, Netherlands, Portugal, Sweden, UK), Saudi Arabia, Kuwait, Mozambique, Russia, Singapore and Ukraine.

Soft citrus: EU (Finland, France Ireland, Portugal, Sweden), Bahrain, Canada, Côte d'Ivoire, Gabon, Hong Kong, Iran, Kuwait, Lithuania, Philippines, Ukraine, UAE and Zimbabwe.

A further analysis of factors that discourage South Africa's citrus exports to these identified strategic markets is an area for potential future research. Identifying such constraints would be critical in informing an export strategy aimed at penetrating these markets.

There is a subset of "high potential strategic markets" that have trade-enhancing features. These countries represent the most attractive markets to be considered for an export promotion strategy. These countries include:

Oranges: EU (Netherlands), China, Russia, Ukraine, Saudi Arabia, Iran, UAE, USA.

Grapefruit: EU (Netherlands, Germany and Romania) Ukraine, Russia and Japan.

Soft Citrus: EU (Ireland, Italy, UK), Malaysia, Russia and Singapore.

Lemons: UAE, Canada and Croatia.

These are ready markets in which South Africa can achieve higher gains from export expansion. More in-depth market analyses are necessary to establish particular country-specific dynamics as part of a drive towards deepening South Africa's market presence in these countries.

8 CONCLUSION

The paper's objective was to identify South Africa's strategic citrus markets among its major trading partners. This objective was explored through three complementary analytical frameworks. Firstly, establishing the strategic markets was done by way of a growth-share matrix, which identified such countries by categorising them according to their relative growth rates and share of South Africa's citrus exports. Secondly, the paper further identified the strategic markets where South Africa would obtain a higher scope for additional export growth. By way of an indicative trade potential analysis, export potential was unpacked and countries grouped into either high potential strategic markets or low potential strategic market categories. Thirdly, the paper explored which strategic markets were showing trade enhancing effects or trade inhibiting effects to South Africa's citrus exports. This viewpoint allowed us to further draw a line between "high

potential strategic markets" promoting South Africa's citrus exports from "high potential strategic markets" discouraging South Africa's citrus exports.

A subclass of "high potential strategic markets" with trade-enhancing features was identified for each of the considered product lines. For oranges, it includes EU (Netherlands), China, Russia, Ukraine, Saudi Arabia, Iran, UAE, USA. With respect to grapefruit, this subset includes EU (Netherlands, Romania and Germany), Ukraine, Russia and Japan. Other markets that were identified as "high potential strategic markets" promoting South Africa's citrus exports were UAE, Canada, and Croatia (lemons); and EU (Ireland, Italy, UK), Malaysia, Russia and Singapore (soft citrus). This subset of countries denotes the most attractive market options to be prioritised for an export promotion strategy. This strategy could entail bilateral and multilateral agreements.

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APPENDIX A

Table A1: Growth-Share Matrix for Oranges

High Growth-High Share	High Growth-Low Share
	Iran
	Lithuania
	Bangladesh
	Kuwait
	Ireland
	Portugal
	Sweden
	Ukraine
	China
	Qatar
	Malaysia
	Bahrain
	Oman
	United Arab Emirates
	Singapore
	United States of America
Low Growth-High Share	Low Growth-Low Share
Netherlands	Russia
	Italy
	Germany
	Hong Kong, China
	Korea
	Saudi Arabia
	Canada
	Taiwan
	Mauritius
	Mozambique
	France

	United Kingdom
	Japan
	Spain
	Greece
	Belgium

Table A2: Growth-Share Matrix for Grapefruit

High Growth-High Share	High Growth-Low Share
Netherlands	Finland
Japan	Lithuania
	Norway
	Portugal
	Denmark
	Sweden
	Guyana
	China
	Ireland
	Ukraine
	Bulgaria
	Kuwait
	Romania
	Malaysia
	Russia
	United Arab Emirates
	Hong Kong
	Singapore
	Taiwan
	Saudi Arabia
	Canada
	Germany
	Greece
	Mauritius
	France
	Italy

Low Growth-High Share	Low Growth-Low Share
	United States
	United Kingdom
	Spain
	Mozambique
	Belgium

Table A3: Growth-Share Matrix for Soft Citrus

High Growth-High Share	High Growth-Low Share
Netherlands	Lithuania
Canada	Iran
Russia	Zimbabwe
United Arab Emirates	Philippines
Hong Kong	Finland
	Portugal
	Ukraine
	Kuwait
	Ireland
	France
	Gabon
	Côte d'Ivoire
	Singapore
	Malaysia
	Bahrain
	Sweden
	Senegal
	Italy
Low Growth-High Share	Low Growth-Low Share
United Kingdom	Spain
United States	Mauritius
	Indonesia

	Réunion
	Saudi Arabia
	Germany
	Angola
	Belgium

Table A4: Growth-Share Matrix for Lemons

High Growth-High Share	High Growth-Low Share
Netherlands	Finland
Russia	Georgia
	Croatia
	Azerbaijan
	Lithuania
	Portugal
	Canada
	Latvia
	Sweden
	Singapore
	Bahrain
	Greece
	Oman
	Qatar
	Mozambique
	Ireland
	Malaysia
	Kuwait
Low Growth-High Share	Low Growth-Low Share
United Arab Emirates	Germany
Saudi Arabia	Italy
United Kingdom	Japan

Hong Kong, China	Ukraine
	France
	Angola
	Mauritius
	Jordan
	Indonesia

APPENDIX B

Table B1: Country Specific Effects

No.	Country	Code	Grapefruit	Oranges	lemons	Soft citrus
1	Angola	AGO			10.08	1.08
2	Azerbaijan	AZE			5.58	
3	Bahrain	BHR		-1.06	7.40	-1.21
4	Bangladesh	BGD		1.30		
5	Belgium	BEL	-3.80	0.02		2.84
6	Bulgaria	BGR	0.84			
7	Canada	CAN	2.28	0.27	-9.52	3.01
8	China	CHN	35.03	1.02		
9	Côte d'Ivoire	CIV				-0.90
10	Croatia	HRV			2.96	
11	Denmark	DNK	-14.19			
12	Finland	FIN	-14.91		-3.49	-4.14
13	France	FRA	5.88	-0.38	-7.41	1.63
14	Gabon	GAB				-0.97
15	Georgia	GEO			8.76	
16	Germany	DEU	7.35	-0.85	-7.90	0.75
17	Greece	GRC	-2.61	-0.82	-0.53	
18	Guyana	GUY	-16.34			
19	Hong Kong	HKG	-5.27	0.59	-0.01	1.74
20	Indonesia	IDN			-1.66	1.12
21	Iran	IRQ		-0.27		-3.53
22	Ireland	IRL	-13.46	-3.01	-0.73	1.44
23	Italy	ITA	7.51	0.57	-5.23	1.23
24	Japan	JPN	12.81	-0.44	-11.63	
25	Jordan	JOR			9.14	
26	Korea	KOR		-1.27		
27	Kuwait	KWT	-13.24	-0.32	2.21	-1.46
28	Latvia	LVA			5.27	

29	Lithuania	LTU	-9.88	-2.60	1.01	-5.37
30	Malaysia	MYS	7.76	0.80	1.34	2.15
31	Mauritius	MUS	-8.11	-0.43	8.47	-0.95
32	Mozambique	MOZ	23.75	3.39	10.28	
33	Netherlands	NLD	0.38	1.52	-1.04	5.23
34	Norway	NOR	-19.18			
35	Oman	OMN		0.26	3.54	-2.19
36	Philippines	PHL				-2.19
37	Portugal	PRT	-6.03	-1.15	-2.76	-2.35
38	Qatar	QAT		-1.92	1.10	
39	Romania	ROM	2.26			
40	Russia	RUS	17.32	3.07	-5.67	3.20
41	Saudi Arabia	SAU	5.11	2.58	-0.02	1.98
42	Senegal	SEN				0.54
43	Singapore	SGP	-9.64	-1.11	-0.89	0.00
44	Spain	ESP	5.49	0.64		2.33
45	Sweden	SWE	-10.18	-2.80	-4.39	-1.58
46	Taiwan	TWN	4.04	-1.74		
47	Ukraine	UKR	3.67	1.35	-10.16	-13.37
48	United Arab Emirates	ARE	-10.82	1.39	0.83	1.27
49	United Kingdom	GBR	7.07	0.92	-4.90	6.74
50	United States	USA	9.11	0.48		4.23
51	Zimbabwe	ZWE				-4.48

Source: Model Results

APPENDIX C

Table C1: Ranking of markets according to relative export potential for oranges

Rank	Country	Status of Market	SA Exports to country i (US$'000)	i's imports from the World (US$'000)	Indicative Export Potential (US$'000)	Overall Assessment of Relative Potential
1	Russia	?	72279	512110	439831	High
2	Netherlands	C	100365	336947	236582	High
3	Saudi Arabia	?	52867	199754	146887	High
4	Iran	?	4679	114708	110029	High
5	China	?	9280	108743	99463	High
6	USA	?	33459	116612	83153	High
7	Ukraine	?	7718	87319	79601	High
8	Sweden	?	3480	79342	75862	High
9	UAE	S	33626	103729	70103	High
10	Malaysia	?	11294	52777	41483	Low
11	Singapore	?	6094	42492	36398	Low
12	Kuwait	?	17496	53462	35966	Low
13	Portugal	?	14702	41784	27082	Low
14	Lithuania	?	1437	24758	23321	Low
15	Ireland	?	1782	21507	19725	Low
16	Oman	?	5966	24840	18874	Low
17	Qatar	?	3358	12724	9366	Low
18	Bahrain	?	2190	10925	8735	Low
19	Bangladesh	?	3108	3846	738	Low

Source: Based on own calculations

Key
? – Question Mark Markets
S – Star Markets
CC – Cash Cow Markets

Table C2: Ranking of markets according to relative export potential for grapefruit

Rank	Country	Status of Market	SA Exports to country i (US$'000)	i's imports from the World (US$'000)	Indicative Export Potential (US$'000)	Overall Assessment of Relative Potential
1	Russia	?	15492	120282	103626	High
2	Japan	S	31778	177769	87340	High
3	Netherlands	S	32334	177283	86784	High
4	Germany	?	1674	68089	66415	High
5	Canada	?	3629	32697	29068	High
6	Ukraine	?	1108	18895	17787	High
7	Lithuania	?	497	12333	11836	Low
8	China	?	816	12636	11820	Low
9	Sweden	?	337	10798	10461	Low
10	Romania	?	0	10375	10375	Low
11	Hong Kong	?	3682	13643	9961	Low
12	Bulgaria	?	112	6825	6713	Low
13	Saudi Arabia	?	967	7135	6168	Low
14	Denmark	?	441	5431	4990	Low
15	Singapore	?	476	4490	4014	Low
16	Taiwan	?	1790	5115	3325	Low
17	Greece	?	871	3814	2943	Low
18	Ireland	?	412	3314	2902	Low
19	UAE	?	2422	4737	2315	Low
20	Finland	?	248	2517	2269	Low
21	Portugal	?	551	2308	1757	Low
22	Norway	?	106	1661	1555	Low
23	Kuwait	?	44	1443	1399	Low
24	Malaysia	?	279	292	13	Low

Source: Based on own calculations

Key
? – Question Mark Markets
S – Star Markets
C – Cash Cow Markets

Table C3: Ranking of markets according to relative export potential for soft citrus

Rank	Country	Status of Market	SA Exports to country i (US$'000)	i's imports from the World (US$'000)	Indicative Export Potential (US$'000)	Overall Assessment of Relative Potential
1	Ukraine	?	140	118317	101667	High
2	France	?	737	418357	101070	High
3	Italy	?	1647	98721	97074	High
4	USA	C	6674	222016	95133	High
5	Canada	S	7332	171926	94475	High
6	Russia	S	9568	712497	92239	High
7	Netherlands	S	22100	217493	79707	High
8	UK	C	38306	321917	63501	High
9	Sweden	?	0	58595	58595	High
10	Lithuania	?	65	53042	52977	High
11	Finland	?	810	44869	44059	High
12	Malaysia	?	659	40293	39634	High
13	Iran	?	419	30262	29843	High
14	Philippines	?	240	28949	28709	High
15	UAE	S	4812	27936	23124	High
16	Singapore	?	400	22236	21836	High
17	Ireland	?	1467	20320	18853	High
18	Hong Kong	S	7839	25655	17816	High
19	Kuwait	?	368	14390	14022	High
20	Portugal	?	183	13419	13236	High
21	Bahrain	?	287	2396	2109	Low
22	Côte d'Ivoire	?	152	335	183	Low
23	Senegal	?	386	443	57	Low
24	Gabon	?	151	167	16	Low
25	Zimbabwe	?	114	114	0	Low

Source: Based on own calculations

Key
? – Question Mark Markets
S – Star Markets
C – Cash Cow Markets

Table C4: Ranking of markets according to relative export potential for lemons

Rank	Country	Status of Market	SA Exports to country i (US$'000)	i's imports from the World (US$'000)	Indicative Export Potential (US$'000)	Overall Assessment of Relative Potential
1	Netherlands	S	13530	151138	119705	High
2	Russia	S	17193	216523	116042	High
3	UK	C	11331	109094	97763	High
4	Canada	?	2186	70398	68212	High
5	Greece	?	1011	26399	25388	High
6	Sweden	?	923	25342	24419	High
7	UAE	C	16671	39412	22741	High
8	Hong Kong, China	C	8882	28085	19203	High
9	Lithuania	?	159	15640	15481	High
10	Saudi Arabia	C	31863	46716	14853	High
11	Croatia	?	388	11276	10888	High
12	Portugal	?	532	10950	10418	High
13	Ireland	?	285	8333	8048	Low
14	Singapore	?	1836	7813	5977	Low
15	Finland	?	345	6025	5680	Low
16	Kuwait	?	5157	10817	5660	Low
17	Latvia	?	70	4850	4780	Low
18	Oman	?	556	2870	2314	Low
19	Azerbaijan	?	104	2193	2089	Low
20	Qatar	?	1176	2778	1602	Low
21	Georgia	?	330	1861	1531	Low
22	Malaysia	?	2846	4329	1483	Low
23	Bahrain	?	1726	3038	1312	Low
24	Mozambique	?	30	30	0	Low

Source: Based on own calculations

Key
? – Question Mark Markets
S – Star Markets
C – Cash Cow Markets