Whither Commodity-based Trade?

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Market access for livestock products from Africa has traditionally been limited by the presence of certain infectious diseases that pose risks to animal and human health. However, an increasingly discussed option for widening that access is commodity-based trade (CBT) focusing on the health and safety attributes of the product rather than the disease status of the country of origin. There have, however, been few analyses on the potential economic impacts and unintended consequences of such an approach. This article examines the principles behind a dramatic shift in approach to trading opportunities that CBT might bring, exploring both technical and economic considerations.

Key words: Sanitary and Phytosanitary (SPS), livestock, international trade, animal diseases

1 Introduction

While livestock development has served as a model for smallholder market engagement in Asia (particularly in the poultry and pig sectors), access to regional and international markets by smallholder farmers and livestock enterprises in Africa has been limited. An important reason for this is the presence of certain endemic infectious diseases, such as foot and mouth disease (FMD), Rift Valley fever (RVF), and African swine fever, that pose risks to animal and human health. Such diseases have been largely eradicated in developed-country markets, but their persistence in many developing countries has limited access to more lucrative markets in the developed world.

An increasingly discussed option for widening market access for African meat exports is the concept of commodity-based trade (CBT) (Thomson et al., 2004). Commodity-based approaches focus on the attributes of the product (quality, food safety) rather than the disease status of the place of origin. Advocates of CBT argue that deboned and properly matured beef, for example, poses virtually no threat of transmission of diseases such as FMD. As a result, the source of an animal is considered by them to be independent of the risk of disease from meat. Furthermore, a growing body of evidence has led to increased dialogue in international standards-setting bodies on CBT as a means of increasing market access in livestock products.

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While commodity-based approaches could pave the way for increased trade from Africa, a number of research gaps remain. First, a broader motivation for CBT for livestock products and more exact definition of what is entailed through the approach are required. Second, the economics of the approach and its potential opportunities and constraints have not been thoroughly explored. In particular, will African countries, which it was hoped would benefit from CBT, be the major winners? If not, what further constrains Africa's market access?

This article seeks to address these issues, relying on an analysis of trends in domestic markets, patterns of international trade, and prices in meat-consuming countries and among current/potential exporters. Particular attention is paid to the regulatory context that currently governs trade in meat products, including sanitary and phytosanitary (SPS) requirements, preferential trading regimes, and the political aspects of the meat trade that often limit trade. While CBT could theoretically ease the regulatory hurdles faced by emerging meat exporters, particularly those from Africa, three key points emerge from the analysis that will likely limit its overall impact, at least in the short and medium term. First, African suppliers in particular tend to be characterised by relatively high costs and low volumes, producing meat products that are of a relatively low quality outside a few established market niches. Consequently, even if market access improves in theory, most African countries would not be competitive in international markets against established exporters such as Argentina, Australia, Brazil or the United States, even with significant preferential trade access to developed-country markets. Indeed, other developing-country suppliers could emerge, such as India, given its much lower cost structure. Second, CBT represents only the first step towards market access for emerging suppliers, with numerous investments in supply-chain management, traceability and veterinary services needed to facilitate increased trade. Indeed, CBT will place increased emphasis on risk-management protocols that could raise the cost of compliance with the standards of importing countries. Third, while the move to CBT would be a welcome development in terms of greater transparency in trade, more emphasis will be needed on various infrastructural and value-chain investments necessary to improve efficiency and productivity in the African livestock sector in order to reap the gains that new regulations could promote.

2 Overview of commodity-based approaches to trade in livestock products

The overarching issue excluding livestock enterprises from the open international trade enjoyed in the horticulture sector is animal disease. There has been a long history of exports of non-livestock products from developing countries to the West, and many diverse evaluations as to their viability, their role in the global economy, and their impact on processes of poverty reduction (see, for example, McCulloch and Ota, 2002). They have been mainly in flowers (notably Colombia, Kenya and Ecuador, the world leaders) and vegetables and fruits (with many players from Central America and eastern and southern Africa, among other regions).

Arguably, however, this principle is not directly transferable to livestock products, since meat products, unlike flowers and vegetables, are available all year round in the

West, and this factor is considered to have contributed substantially to the slower assimilation of livestock products into international agri-foods markets. However, even if 'seasonality' existed for animal products, the overriding limiting factor has been the presence of endemic FMD in certain countries. When it comes to trade, the World Organisation for Animal Health (the Office International des Epizooties, OIE), through its Terrestrial Animal Health Code (TAHC) (OIE, 2007), assigns particular importance to four diseases: FMD, rinderpest, contagious bovine pleuropneumonia (CBPP), and bovine spongiform encephalopathy (BSE). For each of these diseases, the OIE provides a mechanism by which member countries may apply for recognition of 'freedom' from the disease – either on a country-wide or zonal (regional) basis. Thus, with respect to FMD status, countries are classified as being (i) free from FMD (without vaccination), (ii) free from FMD 'with vaccination', (iii) having a defined zone recognised as free from FMD without vaccination or (iv) having a zone free from FMD with vaccination. In this way, the status of countries with regard to these diseases, and consequently the risk associated with their products, is currently judged on a geographical basis, rather than on the safety of the derived commodities. In practice, these lines are blurred somewhat by importing countries. The United States, for example, accepts meat from FMD-free-with-vaccination countries like Argentina and Uruguay, but not from Brazil, while the European Union accepts beef from FMD-free-with-vaccination countries in Latin America, but not from similar zones in southern Africa.

But that is not the end of the story. The TAHC also recognises certain non-geographical entities with regard to livestock-product trade, notably compartments. A compartment refers to one or more establishments under a common biosecurity management system containing an animal subpopulation with a distinct health status with respect to a specific disease or diseases to which required surveillance, control, and biosecurity measures have been applied for the purpose of international trade (Scott et al., 2006). It appears that compartments are still open to a degree of interpretation, but a common theme emerging is the need for strict biosecurity, and the need to consider freedom from certain diseases within a compartment. Thus, although not explicitly geographical in nature, the compartment retains many of the characteristics of a disease-free zone. There also remains a question as to whether compartments can be applied in the case of FMD (Thomson, 2008). Certainly it would appear from the description provided by Scott et al. (2006) that a compartment could not be established in an area in which FMD exists, unless each establishment in the compartment could demonstrate freedom from FMD, and had adequate biosecurity measures that met the requirements of the veterinary authorities.

The CBT approach is based on the principle that there is a stark difference between live animals and commodities derived from them in terms of the risks of spreading certain infectious diseases. In particular, it primarily considers the inherent safety of a commodity that emerges from a given market-chain process, rather than the disease status of the country from which the commodity has been derived. The CBT concept was born with FMD as the central tenet, given that the FMD virus is inactivated in muscle tissues as a result of the pH changes associated with *rigor mortis* (Henderson and Brooksby, 1948; Metcalf et al., 1996). Ryan et al. (2008) have recently reviewed available data on the survival of the FMD virus in animal products derived from FMD-

infected animals.[1] While trade in livestock commodities has been with us for many years (particularly in the form of tinned products such as corned beef), the broader concept of CBT in livestock products emerged relatively recently as an approach to facilitate the potential participation of developing countries in international trade, despite the presence in them of certain transboundary animal diseases.

Emerging from the group working at AU/IBAR in Nairobi on rinderpest control, the initial advocates of a commodity approach to trade in livestock products were Thomson et al. (2004), who laid out in general terms the advantages of a commodity-based approach to trading standards. However, there is no published definition; the concept revolves around the principle of judging a meat commodity on the risk it poses to human and animal health in its destination market regardless of where it is sourced. As consideration of the standards associated with different meat commodities becomes increasingly central to this concept, it will be important to define commodities in much greater detail if we are to understand the risks associated with each one, and develop standards appropriate for third-party certification of each commodity that achieves an appropriate level of risk. Recently, however, some of these authors have speculated on the procedures that might be appropriate for de-boned beef (Thomson et al., 2009).

Taking FMD as the central tenet and starting point for exploring CBT opportunities, we suggest that there are many categories of commodity that might be considered. These would include a series of fresh or frozen, matured and de-boned meat products (notably beef, sheep and goat meat and pork). It is important to recognise that each of these must be regarded as a separate commodity in terms of the behaviour of the FMD virus (see Ryan et al., 2008). With regard to fresh or frozen, de-boned and matured beef, our draft definitions below draw on concepts that have been proposed by Thomson et al. (2009) and the study by Rich et al. (2009) in Ethiopia. Inevitably, therefore, the different categories proposed are speculative, and they do not have clear scientific indicators that characterise them beyond those given.

- *Beef carcasses, meat and other products emerging from animals derived from OIE-recognised FMD-free countries or zones.* In Africa this applies to the OIE-recognised FMD-free zones of Botswana, Namibia, South Africa and Swaziland, with EU specifications requiring that these products must be de-boned and matured.
- *Beef meat from de-boned and mature carcasses derived from FMD-vaccinated animals within OIE-recognised FMD-free vaccination zones at the periphery of FMD-free zones.* In Africa this applies principally to Botswana and Namibia; both countries could increase their exports to the EU significantly under this option. This category also applies to Uruguay, Argentina, Colombia and most regions of Brazil.
- *De-boned and matured beef from vaccinated and FMD-free animals derived from a certified quarantine station undergoing testing for transboundary diseases from a certified export quality abattoir, and subject to certified HACCP procedures from source to destination.* This category could apply to

1. We understand that there are further studies under way on the survival of the FMD virus in products that have undergone different categories of processing.

many regions in Africa, depending on the level of FMD risk, the requisite investment and infrastructure for testing and biosecurity throughout the certification system, and the competitiveness of the products emerging in pre-determined destination markets. This category has many of the attributes of a compartment, apart from the fact that animals could be derived from areas in which FMD and other infectious diseases are endemic.

- *De-boned and matured beef from animals derived from a compartment, zone or country not proven free from FMD, processed through an export-certified abattoir and subject to certified HACCP procedures from lairage to destination market.* This conceptual category opens the possibility to the widest potential geographical area of the continent, increasing the risk of deriving source animals from FMD-endemic areas, but minimising the risk from pre-slaughter to destination market, contingent on certified export status and HACCP procedures.

3 Current and potential destinations for livestock and CBT products sourced from Africa

Currently, there is a large export of live animals (cattle, sheep, goats and camels) from the greater Horn of Africa to the Middle East. These generally pass through Port Sudan, Djibouti and Berbera. In addition, livestock commodities do legally emerge from Africa destined for international markets. The first group of these comprises de-boned beef, sheep meat, and game meat sourced from OIE-recognised FMD-free zones in southern Africa (those in Botswana, Namibia and Swaziland), destined for Europe under the post-Cotonou Economic Partnership Agreement (EPA) arrangements with the EU.[2] A point of contention among southern African suppliers is that exports from their recognised FMD-free-with-vaccination zones are not allowed by the EU, despite the fact that South American producers freely export beef products from such zones.

This illustrates one of the many inconsistencies in the rules. The global standards are set by the OIE, and by these standards Botswana and Namibia should theoretically be able to export de-boned beef from zones that are FMD-free with vaccination. However, the EU, which determines its own standards, does not permit trade from these zones in Botswana and Namibia. It is understood that this may be due to the EU having adequate stocks of effective vaccine against the FMD virus serotypes present in South America, but not against the Southern African Territories (SAT) serotypes present in the endemic areas of southern Africa. Clearly, the EU is giving itself an extra layer of protection, which is arguably beyond what it should impose under the Sanitary and Phytosanitary (SPS) Agreement of the World Trade Organisation. This could be interpreted as a non-tariff barrier to trade, as, under that agreement, importing countries should treat all meat equally that is sourced from a particular region as certified by the OIE. Indeed, the construct of what constitutes 'risk' is often highly politicised and trumps sound scientific principles.

The second group is processed and unprocessed pork meat, sheep and goat

2. While South Africa has recognised FMD-free zones, it was not a party to the earlier Cotonou agreement, nor has it signed any EPAs with the European Union. Similarly, Namibia has also not yet signed an EPA.

carcasses, and some de-boned beef exported from Kenya to certain Middle East destinations. These products are certified by the Kenya Bureau of Standards (KEBS) and the Department of Veterinary Services, in some cases supported by ISO 22000 certification (which includes both Good Agricultural Practice – GAP – and HACCP certification) of the private companies concerned. There may well be other companies or agencies exporting to countries of the Middle East under similar conditions.

The attractive potential international markets for CBT, at least in theory, are those beyond the Middle East, where it is assumed that (a) the prices will be higher and (b) there will a more demanding set of standards and requirements relating to CBT, based on the application of HACCP principles. These include the EU, Russia, the non-EU countries of Europe (such as Norway and Switzerland, both already importing niche products from southern African countries), China, and the United States. In addition, there are some African countries that may offer potential markets, including South Africa.

An important distinction in the CBT story is that between *commodities* and *products*. The OIE Terrestrial Animal Health Code (OIE, 2007) defines a commodity as 'animals, products of animal origin intended for human consumption, for animal feeding, for pharmaceutical or surgical use or for agricultural or industrial use, semen, embryos/ova, biological products and pathological material'. We generally concur with this broad definition. By commodities, we refer to bulk goods or goods that are (generally) produced and sold in relatively high volumes, and/or are relatively undifferentiated into a specific commodity class (for example, fresh chilled boneless beef). For products, we refer to goods that are branded, packaged and produced to specifications for a specific buyer, often (but not exclusively) targeting specific market niches. Moreover, products obtain value over and above the commodity from which they were derived through various attributes (such as flavour, organic production, region of origin, or animal welfare practices, for example) or marketing tactics associated with that product (such as branding, packaging, promotion). This value is obtained and maintained through strong supply-chain management that ensures the continued consumer perceptions of that product (and their willingness to pay higher premiums). As we shall argue later, the potential (or necessity) for CBT differs between commodities and products, being high for the former and low for the latter. Indeed, in many cases, market access for products often relies less on commodity-based standards and more on the ability of suppliers to meet private standards from supermarkets and other buyers.

4 Potential impacts on developing-country suppliers

Proponents of commodity-based trade have cited the multiplicity of potential benefits, although many of the specifics are relatively unclear. For example, Thomson makes the following comment about the positive impacts of CBT:

> Adoption of CBT would preferentially benefit poor livestock producers in DCs[3] because lessening the requirement for proof of geographic freedom

3. Developing countries.

> from TADs[4] would increase market access for supply chains that are presently poorly developed because of the presence of TADs but which have potential for significant growth. This, it is argued, would provide the economic incentive for investment in the supply chains of poor countries which is rarely the case presently. (Thomson, 2007: 7)

We would argue that the impact of CBT on the developing world rests largely on the form in which it is ultimately agreed to by international standards-setting bodies. For the purposes of this section, we shall consider CBT from the principles elucidated earlier (i.e. conditions (i)-(iii)). Such a scenario would open up markets for livestock products emerging from (a) FMD-free areas with vaccination (i.e. zones in which all animals are duly vaccinated against FMD, and the zone is OIE-recognised as FMD-free), and (b) countries, regardless of the presence of an FMD-free zone, which subject cattle to a process of quarantine and testing, and provide an accepted export certification system for de-boned and matured meat products based on HACCP principles. Consequently, the above definition significantly narrows the potential scope of CBT impacts.

Furthermore, in assessing the impact of CBT, it is important to consider both the potential costs of compliance and those costs over and beyond the disease risk. While CBT could reduce certain costs on infrastructure related to, for example, fencing of disease-free zones, credible veterinary services are still required to ensure and certify good animal health to importing countries. Moreover, CBT will place increased pressure on supplying countries to develop credible certification systems and engage in strong risk-management protocols throughout the supply chain, all of which will add costs to suppliers (particularly those in Africa) that are not competitive in international markets. Little research has been done in this area. An exception is Rich et al. (2009), which estimated that the certification costs associated with a CBT-type beef export system would add about 5% to the total costs associated with export. In addition, animal welfare and environmental regulations are becoming increasingly important in the EU, with exporting countries needing to comply with specific aspects of these in order to access the EU market (USDA-FAS, 2008a). Matthews (2008) notes that even if disease freedom (or a commodity-based freedom) is obtained, countries exporting to the EU under the beef protocol must still comply with EU regulations on animal welfare, provide animal health certificates issued by a competent authority, abide by strict regulations on hormones and residues, and adopt rigorous traceability programmes. These costs of compliance are not trivial and are not likely to decline even under commodity-based trade. ODI (2007a) estimates that Botswana's traceability programme cost roughly US$30 million to establish, with annual maintenance costs of US$2.5-3 m. In Namibia, PWC (2005) estimates that EU compliance costs add about US$5.50 per carcass exported to the EU.

Moreover, we again need to keep in mind the difference between products and commodities, as discussed earlier. CBT will have very different and broader impacts on commodities than on products, as one of the main market-access barriers for commodity beef is standards related to freedom from disease. A liberalisation of such standards for

4. Transboundary animal diseases.

commodity beef will expand market access for those producers who can competitively supply commodity beef. Given that commodity-beef markets are heavily biased towards high-volume suppliers, this would benefit countries with an appropriate scale in production, such as Brazil or India. Ethiopia or Sudan are probably the only countries in Africa that may also have sufficient scale, though ability to ramp up appropriate volumes for export depends largely on the ability to meet condition (iii) of the CBT principles cited earlier.

For product suppliers, CBT will certainly open up production areas that have been closed off for exports in the past, and, as we shall discuss, countries like Namibia could benefit significantly over time. On the other hand, while CBT is a component of market access for product suppliers, it is less important than the ability to meet private-sector and supermarket standards (which may be even more stringent), not to mention the ability to meet consumer demand in appropriately targeted market niches. This requires investments in organisation, marketing and supply-chain management, as well as appropriate private-sector champions, over and beyond any slight easing of international public regulatory standards.

Table 1 highlights and summarises the potential beneficiaries that might emerge from a move to CBT: Namibia, Botswana, Ethiopia, Uganda, Brazil and India. Namibia stands to be a major beneficiary from CBT due to its potential to access increased supplies of animals that are currently excluded on geographical grounds. Roughly half of Namibia's 2.5 million head of cattle reside in the Northern Communal Areas (NCA), which is designated by the OIE as FMD-endemic and is divided by the Veterinary Cordon Fence (VCF, or 'Red Line') from the rest of the country, which is designated as FMD-free without vaccination. Only animals south of the 'Red Line' are eligible to be slaughtered and exported directly to South Africa, the EU and Norway (the latter two required to be slaughtered in EU-certified plants, with only boneless cuts allowed) (ODI, 2007b).

By contrast, animals in the NCA (north of the 'Red Line') bound for export to South Africa are required to undergo a 21-day quarantine period prior to slaughter, with meat (boneless cuts only) derived from such animals mandated to adhere to a 21-day maturation period before shipment to South Africa (PWC, 2005). Not surprisingly, given the communal production systems adopted in the NCA and limited market-access opportunities for its meat products, incentives for broad-based commercialisation have been relatively limited. Under CBT, while Namibia would still need to maintain its current quarantine and vaccination programme to comply with our assumed CBT definition, the difference is that such animals, after undergoing similar quarantine and vaccination, would be eligible for export to other markets, including the EU, provided that NCA abattoirs were appropriately upgraded to international export standards. Given current slaughter capacity levels in the NCA handled by Meatco, potential export volumes under commodity-based trade could rise by over 30%. Quality considerations would likely keep such products aimed at the South African market, although an increase in throughput would reduce the unit costs (and thus the unit losses) of NCA-derived meat. However, this could potentially free up exports of meat from south

Table 1: Potential beneficiaries and impacts from CBT

Country	Types of exports likely under CBT	Rationale	Potential benefits	Potential constraints
Namibia	Products	Large potential to scale-up production base from animals in NCA, where approximately one-half of animal stocks reside; existing export base to EU	At current slaughter capacity in NCA, exports could increase by 30% in volume terms. Increased scale could reduce overall unit costs & divert more exports to EU markets. Potential for strong poverty impacts in NCA	Need to upgrade slaughter capacity in NCA to meet international export standards; concerns on how to manage traditional cross-border trade/movements in animals between Angola & Namibia
Botswana	Products	Potential to expand export base to EU by opening up vaccination zones (approximately 180,000 head of cattle, or 7% of total stocks), many of which are in communal areas	Expanded exports to EU markets, increased throughput in BMC abattoirs	Policy distortions such as below-parity export pricing reduce incentives for export marketing & weaner production – removal of such barriers could expand export base even more than CBT
Ethiopia	Products	Largest cattle herd in Africa; significant interest & policy goals (up to 80,000 tons of meat exports in next few years) from government to value-add exports of livestock	Potential for export to Middle East in the short term, & access to EU under EBA, provided export standards can be met	Significant need to upgrade slaughter facilities & certification systems to international standards; high feed costs & low offtake rates limit competitiveness of large-scale exports in the short run. High domestic prices for beef limit attractiveness of exports

Table 1: cont'd

Country	Types of exports likely under CBT	Rationale	Potential benefits	Potential constraints
Uganda	Products	Relatively large cattle herd (7.2 m head of cattle, 10th in Africa); significant interest by Norwegian meat companies as a platform for production & export ('trade for aid')	Feasibility study suggests opportunities to export to EU & EFTA markets up to 9,000-13,000 tons per year; CBT could expedite timetable & reduce infrastructure costs associated with disease-free zones	Potential strongly dependent on funding availability for Norwegian investment; initial market access likely limited to smaller (though lucrative) Norwegian market
Brazil	Commodities & products	Largest beef exporter in the world, with several States restricted from export due to FMD status	CBT could increase production capacity by over 35 m. head of cattle if sourcing from FMD-endemic zones allowed	Investments required in supply chain systems to ensure disease freedom in FMD-endemic zones
India	Commodities	Largest combined dairy & buffalo herd in the world; tripling of exports of buffalo meat in last decade, mainly to developing countries. Large-scale FMD control programme in place to increase disease freedom throughout India	Huge potential for continued expansion of exports to developing countries if countries such as Brazil divert more products to EU; possible development of certain niches in EU & elsewhere	Significant need to upgrade slaughter facilities & certification systems to international standards

Sources: Compiled from PWC (2005); ODI (2007a, b); Cabrera et al. (2008); Rich et al. (2009); Nortura (2007); USDA-FAS (2008b); Venkataramanan et al. (2007).

of theVCF that currently goes to South Africa to be exported to the EU and/or Norway instead, thus increasing the overall export value of Namibian beef.

Botswana is another potential beneficiary from CBT. Approximately 180,000 animals are present in the vaccination zones, approximately 7% of Botswana's cattle herd (Cabrera et al., 2008). However, while more animals could potentially be sourced under CBT, a more serious issue at present in Botswana is the Meat Commission's policy of buying from producers at prices that are below EU export parity prices, which both limits incentives for producers to sell to the BMC and militates against longer-term activities that would expand livestock production in the country, such as a move towards feedlot production of weaner cattle (ODI, 2007a). Thus, given relatively high domestic demand and better prices in the domestic market, it is unclear whether CBT would make much of a difference in the current policy environment. On the other hand, a more liberalised policy regime that supported weaner production could have significant – and more rapid – impacts on supply. ODI (2007a) reports that offtakes could increase from 10% to 23%, increasing total available animals for slaughter to 575,000, more than three and a half times the number of animals that would result from opening up the vaccination zones under CBT.

With over 43 million head of cattle, Ethiopia has the largest herd in Africa, and strong government support to add value to livestock exports and develop appropriate certification systems to facilitate meat exports, particularly of beef (Rich et al., 2009). However, recent analysis highlights that such certification systems based on feedlot structures might limit competitiveness in international markets by virtue of the high feeding costs associated with improving quality. Indeed, with or without certification systems, Ethiopia remains in the 'murky middle' from the standpoint of competitiveness in third markets. At present, it is neither cost-competitive with low-value suppliers to African markets such as India and Brazil nor is it competitive (with an SPS-certified, higher-quality product) in higher-value markets in the Middle East (ibid.). In a CBT world, however, markets such as the European Union could theoretically open up for Ethiopia, given duty-free, quota-free access under Economic Partnership Agreements. However, this should be balanced against rising demand in domestic markets as well.

We identify Uganda as a beneficiary from CBT, though its potential stems from possible strategic development investments rather than from pure comparative advantage. Norwegian aid and industrial interests have identified it as a supply base to promote 'trade for aid' types of protocols that leverage Norwegian technical expertise in the meat sector with development of the Ugandan beef industry. A feasibility study by Nortura (2007) looked at the profitability of establishing disease-free zones with export-oriented abattoirs, and found profitable opportunities in both the EU and EFTA markets. The adoption of CBT standards would probably expedite the timetable in which Ugandan exports would be eligible for EU or Norwegian markets, since complete zonal freedom from disease would not be required so long as quarantine, testing and risk-management protocols were established and met. The volumes considered by Nortura under this system range between 9,000 and 13,000 tons once fully operational, which is approximately the size of current exports by Namibia or Botswana to the EU.

Brazil and India also stand to be major beneficiaries from CBT. In the case of Brazil, its export base is likely to increase as it expands the areas of the country that are FMD-free with vaccination, which it plans to complete by 2011 (USDA-FAS 2008b).

Indeed, expanding production to the remaining FMD-endemic zones would increase Brazil's production capacity by over 35 million head of cattle, based on 2005 government census figures on livestock numbers. CBT could greatly enhance India's market access for buffalo meat, given the country's huge cattle and buffalo stocks and rapidly growing exports While much of India's exports are in lower-quality frozen buffalo meat products, the opening up of high-value markets under CBT might, paradoxically, enhance India's trade with lower-value markets. This could occur if countries such as Brazil divert product exports that are currently going to low-value markets towards higher-value destinations under CBT, opening up more opportunities in low-value markets for India.

5 Impacts on current and potential import markets

While CBT could enhance the attractiveness of expanding domestic production in beneficiary markets (owing to the potential increase in products and/or markets served), this will depend in large part on the trade opportunities engendered by CBT. In this section, we examine the impacts of CBT on importing markets and identify which suppliers could benefit from greater access to these markets. For the purposes of this analysis, we consider the following markets: Europe (EU and EFTA), the US, the Middle East, Russia, China and Africa. While Japan and Korea are major importers of beef, we do not include them in the analysis because it is unlikely in the short or medium term that either country would accept the principles of CBT, particularly given their 'zero-risk' approach to food-safety standards at present (USITC, 2001).

By contrast, while the EU and the US may not accept the principle of CBT in the short term, both markets have established risk-assessment protocols that can be employed to determine whether potential suppliers comply with appropriate standards and to start a process of dialogue. The recent history of the horticulture trade from developing countries, driven primarily by private-sector producers in developing countries and retailers in developed countries, provides insights on possible protagonists to spearhead such efforts. Of course, these risk protocols are often imbued with political considerations that trump sound science (for example, the US imports of beef from Uruguay but not Brazil, despite similar FMD statuses in both countries), suggesting that lobbying and active marketing by stakeholders in the supplying countries will be at least as important as strong supply-chain management and credible certification procedures.

This section looks at six potential major markets for beef products and assesses the ability of potential suppliers under CBT to access such markets. We primarily consider issues related to production volumes (current and potential), market prices, and trade barriers. Information on the costs of market entry (certification, marketing, branding, etc.) is unknown, but is likely to be an important barrier in the short term. Likewise, improving productivity and supply-chain management to meet quality specifications will remain an impediment for many suppliers in the short run, though information on these costs is limited as well.

5.1 Europe (European Union and EFTA)

As noted earlier, the EU is expected to be an increasing net importer of beef products. According to Agritrade (2008), imports of beef are expected to rise from 592,000 tons in 2008 to 743,000 tons in 2014. Supply shocks as a result of import bans on Brazilian beef in 2008 caused prices to rise by up to 30% in the EU (based on informant interviews, April 2008), but the overall trend is for prices to decline as CAP reforms continue. An important trend in the EU on the consumption side is a shift towards higher-value, differentiated beef products and away from lower-quality commodity cuts. Indeed, as noted by Agritrade (2008), this trend provides opportunities for suppliers to target high-value niche products, but also creates a situation in which the EU has a surplus in low-value beef products that could directly compete with low-value production elsewhere in the world (for example, Africa).

On the one hand, increased product differentiation combined with CBT regimes clearly provides opportunities for developing-country suppliers, provided they can effectively market their production to appropriate niches and can develop long-term supply-chain relationships. Indeed, Agritrade (2008) and ODI (2007a, b) note that Namibia is increasingly targeting luxury markets in the EU. Such markets have the advantage of being much less sensitive to prices than markets for commodity grades of beef, where suppliers from southern Africa in particular tend to be much less competitive than those from Latin America. They also provide value-adding opportunities that developing countries could capture, generating gains in terms of local employment, for instance.

On the other hand, a number of constraints are likely to prevent this scenario from occurring on a large scale for African suppliers. First, African countries do not have the surplus production necessary to meet the additional 150,000 tons projected to be imported by the EU by 2014, particularly at the quality standards demanded. Indeed, most African countries are net importers of beef products. To put this in perspective, if Namibia and Botswana were able to export beef from every animal from zones restricted from export to the EU at present, it would just fall short, yielding about 140,000 tons of meat; this is very unlikely at current offtake rates. In contrast, the increases in production that Brazil or India could achieve through CBT would probably dwarf any production increases that Botswana or Namibia could generate at full capacity, limiting the viability of southern African meat in bulk commodity-grade markets.

Second, African suppliers are generally competitive in the EU only because of the high prices and preferential access provided by the European market that have traditionally shielded southern African producers from third-country competitors. Iimi (2007) estimates trade preference margins (defined as the percentage difference in the price received in a protected market from the free market world price) for Botswana ranging from a low of 318% in 1996 to a high of 607% in 2002. For Namibia, similar preference margins ranged from 145% in 1996 to 611% in 2004. The existence of high prices in both the EU and Norwegian markets allows Namibia to cross-subsidise exports to South Africa that operate at a loss (PWC, 2005). These preferences are quite valuable, given that tariffs on beef imports into the EU are extremely high, with over-quota duties in *ad valorem* terms exceeding 100% for frozen beef products, given

their relative low value and given the fact that the EU tariff regime uses compound tariffs (*ad valorem* plus specific rate per quintal*)* that are biased against lower-priced imports (Meyn, 2008; USITC, 2001).

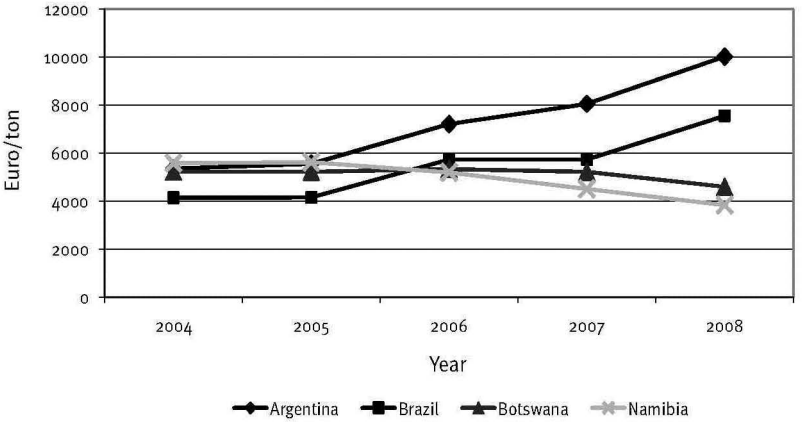
By contrast, recently agreed EPAs provide duty-free, quota-free access for many African suppliers as of 2008, although some African countries have had preferential access (on paper) since agreements under the Lomé Convention in 1975. Prior to 2008, southern African suppliers had a preferential quota (by country) that reduced the in-quota tariff by up to 92% of the most favoured nation (MFN) rate (ODI, 2007a). However, Agritrade (2008) found that quotas given to African suppliers were almost never filled, with rates in the 60-70% range for Botswana and Namibia. Compliance with EU standards remains an important stumbling block to market access. Moreover, not all African countries have yet agreed to EPAs with the European Union, most notably Namibia (which had not agreed to an EPA as of September 2010). This will be likely to have severe ramifications on Namibia's ability to access European markets profitably.

At the same time, the protection enjoyed by African suppliers is rapidly eroding. Brazil and Argentina continue to supply EU markets competitively, despite paying extremely high (50-100%) over-quota duties on exports (Meyn, 2008). For example, USDA-FAS (2005) reports that Brazilian and Argentine rib-eye cuts are priced between 10 and 50% cheaper than similar EU-sourced products, despite paying the over-quota duty. The magnitude of such protection can be seen in Figures 1 and 2, which show EU imports of selected boneless beef cuts from Botswana, Namibia, Brazil and Argentina. The unit values include the duty paid by each supplier. Despite Brazil and Argentina paying the full duty for most exports (an exception is on Hilton Quota cuts which enter the EU duty-free),[5] their imports are at least as competitive on average as those from Namibia and Botswana. Moreover, the import figures distort the average unit value somewhat, as Hilton Quota imports from Brazil and Argentina tend to be the highest-value cuts, while higher prices in 2008 in Brazil reflect the impact of EU import bans from most Brazilian abattoirs. These price comparisons suggest that, in the absence of preferential access through EPAs, it will be very difficult for countries like Namibia (which has yet to conclude an EPA with the EU) to compete with South American suppliers.

Table 2 further illustrates the extent of Africa's lack of competitiveness with other suppliers in Latin America and India. Data from FAOSTAT reveal that India has extremely low producer prices for buffalo meat (less than US$0.40/kg), which is further supported by USDA-FAS (2008d), which reports that the retail price of buffalo meat in India was between Rs. 40 and 50 per kg (US$0.80-$1.00/kg). Such price differentials suggest that CBT could benefit India in the EU, provided markets for the Indian product (buffalo meat) could be established. At the same time, India is disadvantaged compared with others in Africa in that it does not have duty-free access to the EU, nor are its traceability systems suitably established to target this market in the short run.

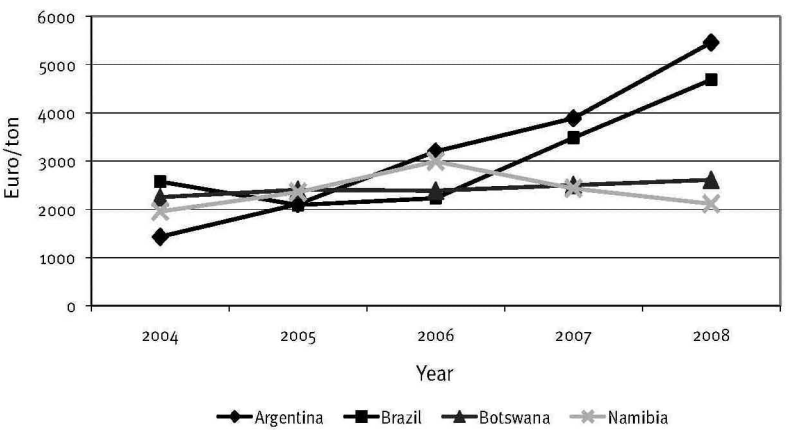
5. The Hilton Quota is 28,000 tons for Argentina and 5,000 tons for Brazil.

Figure 1: Import unit values of fresh boneless beef (HS 02013000) by the EU-27 from selected countries, 2004-8



Source: EU EUROSTAT (http://epp.eurostat.ec.europa.eu/newxtweb/submitdimselect.do).

Figure 2: Imports of frozen boneless beef (HS 02023090) by the EU-27 from selected countries, 2004-8



Source: ibid.

Table 2: Producer prices for buffalo and cattle meat in Argentina, Brazil, India and selected African countries, 2004-8 (US$/ton)

Country	Product	2004	2005	2006	2007	2008
Supplying countries						
India	*Buffalo meat*	*344*	*360*	*373*	*NA*	*NA*
Guinea	Cattle meat	1,423	941	939	1,572	1,511
Mauritius	Cattle meat	1,288	1,408	1,318	1,450	1,691

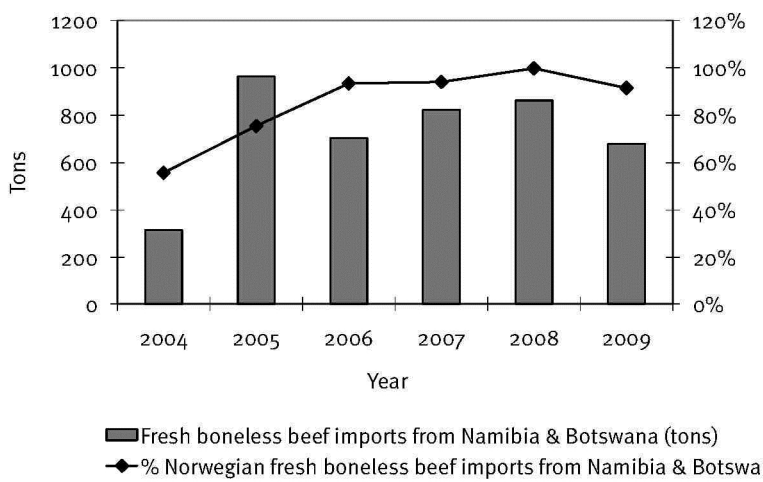
Table 2: cont'd

Country	Product	2004	2005	2006	2007	2008
Supplying countries						
Namibia	Cattle meat	1,778	1,853	1,908	2,136	1,842
Rwanda	Cattle meat	1,265	1,361	1,489	1,648	1,903
Argentina	*Cattle meat*	*1,392*	*1,620*	*1,601*	*1,736*	*1,956*
Cameroon	Cattle meat	1,770	1,739	1,831	1,914	2,087
Kenya	Cattle meat	1,896	1,986	1,679	2,162	2,126
Brazil	*Cattle meat*	*1,083*	*1,359*	*1,549*	*2,037*	*2,310*
Burkina Faso	Cattle meat	2,006	1,952	2,019	2,178	2,445
Ethiopia	Cattle meat	563	603	635	2,443	2,529
Mali	Cattle meat	2,275	2,279	2,458	2,374	2,542
South Africa	Cattle meat	2,163	2,340	2,798	2,799	2,578
Ghana	Cattle meat	1,631	1,892	2,146	2,539	2,657
Malawi	Cattle meat	953	956	1,813	2,212	2,740
Burundi	Cattle meat	3,316	3,375	3,550	3,377	3,591
Tunisia	Cattle meat	3,401	3,263	3,269	3,644	3,695
Sudan	Cattle meat	2,260	2,521	3,029	NA	3,843
Algeria	Cattle meat	2,543	2,772	3,048	3,431	3,843
Niger	Cattle meat	2,925	3,031	3,090	3,466	3,986
Nigeria	Cattle meat	2,694	2,863	3,390	3,674	4,311
Madagascar	Cattle meat	1,309	1,522	1,586	2,324	4,427
Egypt	Cattle meat	3,009	3,719	3,875	3,947	4,483
Gambia	Cattle meat	2,792	3,229	3,207	3,962	4,645
Congo	Cattle meat	4,465	4,637	5,383	6,003	6,864
Morocco	Cattle meat	6,771	6,069	6,872	7,074	7,487
Importing countries						
Austria	Cattle meat	3,270	3,687	3,855	4,071	4,673
Belgium	Cattle meat	5,012	5,182	5,854	6,316	7,041
China	Cattle meat	1,826	1,965	2,065	2,590	4,038
Denmark	Cattle meat	2,401	2,734	2,968	3,151	3,856
France	Cattle meat	4,003	4,163	4,477	4,745	5,200
Germany	Cattle meat	3,099	3,499	3,715	4,407	4,783
Ireland	Cattle meat	3,832	3,426	3,629	3,782	4,465
Netherlands	Cattle meat	3,147	3,354	3,719	3,910	4,411
Norway	Cattle meat	4,676	5,048	5,160	5,917	6,532
Russia	Cattle meat	2,130	2,730	3,244	3,486	4,161
Spain	Cattle meat	2,084	2,193	2,546	2,819	3,006
Sweden	Cattle meat	2,007	1,976	2,036	2,415	3,245
United Kingdom	Cattle meat	3,486	3,491	3,788	4,191	4,983
USA	Cattle meat	3,639	3,804	3,696	3,812	3,911

Source: FAOSTAT.

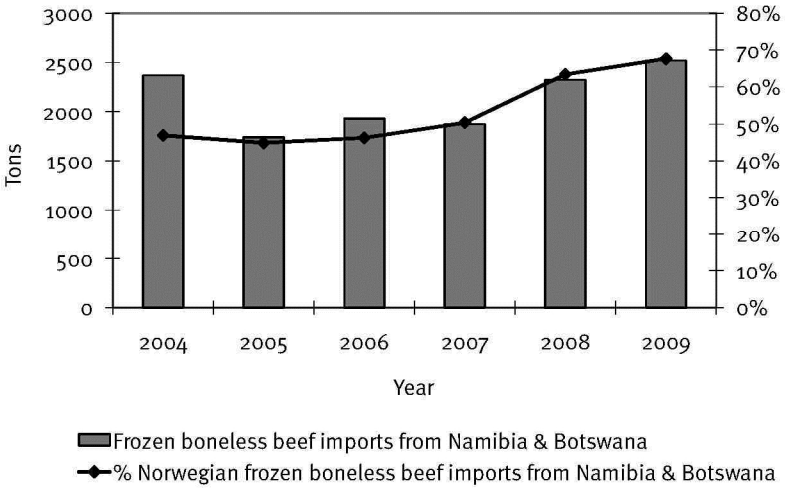
EFTA markets are especially high-value, with returns for Namibian beef in Norway that are 5-6 times greater than returns in EU markets (PWC, 2005). Markets such as Norway are increasingly deficient in meat production, suggesting the need for increased imports, although market-access barriers in such markets are extremely high. Tariffs on frozen beef, for example, are set at 344% plus €66.4-119.01 per kg, depending on the product (ibid.). Both Namibia and Botswana maintain a shared 3,500-ton duty-free quota into Norway which has usually not been completely filled, due to even more stringent food-safety and SPS requirements than those of the EU on hazards such as *Salmonella* sp. (ODI, 2007a, b). Nonetheless, as revealed in Figures 3 and 4, Namibia and Botswana comprise the overwhelming (and rising) majority of exports to Norway in fresh boneless beef (combined market share of 92% in 2009) and a sizeable share in frozen boneless beef (68%). While CBT might enhance the ability of other developing countries to meet the standards in EFTA countries, a more crucial issue is whether they could obtain similar types of preferential access to such markets to export meat competitively, and whether such increased market access would be politically feasible in EFTA markets, such as Norway.[6]

Figure 3: Imports of fresh boneless beef (HS 020130) by Norway from Botswana and Namibia, 2004-9



Source: Statistics Norway (http://statbank.ssb.no/statistikkbanken/Default_FR.asp?PXSid=0&nvl=true&PLanguage=1&tilside=selecttable/MenuSelS.asp&SubjectCode=09, accessed 7 September 2010).

Figure 4: Imports of frozen boneless beef (HS 020230) by Norway from Botswana and Namibia, 2004-9



Source: ibid.

5.2 Russia

USITC (2008) notes that Russia is the world's second largest importer of beef, although projections by FAPRI (2009) show only modest increases in imports between 2008 (998,000 tons) and 2018 (1.04 million tons). Russian government policy is to increase domestic supplies of beef through government investments in productivity-enhancing technology such as better breeds and in the construction of new farms (USDA-FAS, 2009). The majority of imports by Russia are in frozen boneless cuts of beef that are increasingly supplied by Brazil and Argentina and which have displaced EU supplies (USITC, 2008).

The Russian market is primarily a low-value market that advantages low-cost producers such as Brazil. According to USDA-FAS (2009), farm-gate prices for beef were 113 rubles (about US$3.53) per kilogram. While these prices are below many of those at the farm gate in Africa (see Table 2), volume suppliers such as Brazil and India would likely have an edge, given their even lower prices. Indeed, average 2007 export unit values for India of US$1,669/ton for frozen boneless beef (UN COMTRADE) would be quite price-competitive in Russia. Furthermore, Russia maintains a tariff-rate quota in which markets outside the United States, the EU, and Paraguay share a quota of 72,100 tons for frozen beef, with exporting countries paying a duty of 30% on over-quota products (USDA-FAS, 2009). The relatively small potential for import growth, the emphasis on greater supplies of domestically-sourced livestock products, and Russia's lack of WTO accession (complicating the transparency of applied SPS standards) at present make Russia unattractive as a destination for African suppliers, particularly in the light of the existing entrants already present.

5.3 United States

The US is currently a net importer of beef products, with most imports comprising lean, grass-fed beef from Australia and New Zealand used in the manufacture of ground beef (USDA-ERS, 1997; USITC, 2008). At the same time, trends over the past five years show a decline in beef imports. According to USITC (2008), this was due to a combination of exogenous trade shocks (BSE in Canada and erratic supplies of processed beef from Argentina), production shocks that have reduced the beef available from Australia and New Zealand, diversion of Australian/New Zealand beef exports away from the United States and towards markets in Asia, and the relative weakness of the US dollar. FAPRI (2009) projects that the US will increase its net imports from an estimated 275,000 tons in 2008 to 535,000 tons in 2014, with imports then rapidly falling to 225,000 tons by 2018. Similarly, USMEF (2008a) sees US exports surging faster than USDA projections, with a projected increase in volume terms of 88% between 2008 and 2017 due to enhanced exports to the Japanese and Korean markets, both of which were disrupted in late 2003 by the discovery of BSE in the United States. The United States is unlikely to be a major export market for developing countries under CBT, particularly given the large domestic-production market. The *Africa Growth and Opportunities Act* (AGOA) provides preferential access for African suppliers, but only for certain products. For instance, AGOA countries have duty-free access to the US for fresh and frozen beef within the 'all other countries' quota (64,805 tons), but are subject to the same 26.4% over-quota tariff as all other trading partners. On the other hand, AGOA provides duty-free access for processed beef products and so there are potential niche markets for African suppliers, provided they can meet appropriate risk-assessment protocols. For example, Farmers Choice has obtained approval to export processed frankfurters (but only from its commercial facility), subject to certified biosecurity, and not sourced from its outgrowers) to the United States (though it has decided against export for the present, given the logistical costs). Similarly, Namibia has actively sought access into the US market for high-value beef products, though this has so far remained stymied by USDA risk-assessment protocols. Based on Table 2, only a few African suppliers such as Namibia would potentially be competitive in the US.

5.4 Middle East

The Middle East (and North Africa) is an increasingly important market for beef imports. Two different types of markets can be distinguised in the region. On the one hand, there is a large and rapidly growing import segment of mainly low-value frozen meat products that are sold in North Africa (particularly Algeria and Egypt) and Saudi Arabia, and which has a relatively large market among certain expatriate populations in the Persian Gulf (particularly among nationals from the Indian subcontinent). The second segment is a smaller, high-value market that targets wealthy local and expatriate populations that primarily reside in the Gulf countries (United Arab Emirates, Qatar, Bahrain, Kuwait and Oman). USMEF (2008b) notes strong growth in the food-service and hotel sectors in Middle Eastern markets, given the rapid expansion of fast food restaurants, hotels and resorts in the region.

At the same time, the volume markets in the Middle East are in low-value frozen beef and have been dominated by imports from Brazil and India. Rich (2009) reports that Algeria imported over $158 million worth of frozen beef in 2006, 69% of which came from Brazil, while Egypt imported over $277 m. worth in the same year that was also sourced overwhelmingly (90%) from Brazil. Table 3 reports average unit values for selected Middle Eastern markets and reveals that prices for frozen products (the majority of imports of most of these markets) are quite low, reflecting the limited purchasing power in many of these markets.

By contrast, prices in higher-value Gulf markets tend to be relatively high, although there is wide variance depending on the source of the imports. Table 4 shows that, while overall average import unit values for Bahrain, Qatar and Saudi Arabia are high, prices from developing-country suppliers to those markets tend to be significantly lower. Rich et al. (2009) further note that the volume of fresh boneless beef imports in these markets is relatively small (18,205 tons), with high-value, niche grain-fed products (predominantly from the US and Australia) comprising only 11% of the total market. Moreover, there remains significant penetration by low-cost suppliers such as Brazil and India in the fresh boneless sector as well.

The Middle East market presents some opportunities for developing-country suppliers, but these should not be overstated. At present, standards for exports to the Middle East tend to be lower than those in the EU and elsewhere, although ODI (2007a) notes that EU standards are increasingly being applied by Middle Eastern trading partners. Where there is significant growth – in low-value volume exports of frozen beef – suppliers in Africa are unlikely to be cost-competitive, suggesting continued (and increasing) commodity imports from Brazil and India in this segment of the market.

Table 3: Import unit values for beef products in selected Middle Eastern markets (US$ per ton)

Market (date of reporting)	Fresh carcasses	Fresh bone-in beef	Fresh boneless meat	Frozen carcasses	Frozen bone-in beef	Frozen boneless meat
Algeria (2006)	3,670	4,220	4,247	1,982[a]	1,955[a]	2,398
Egypt (2006)	NA	NA	1,356	2,167	1,797	1,847
Israel (2006)	NA	NA	NA	2,276	3,323	2,620
Jordan (2006)	1,551	3,091	2,328	NA	1,763	1,552
Lebanon (2004)	1,999	2,860	2,598	NA	2,967	1,904
Saudi Arabia (2006)	3,234	4,078	3,151	1,749	2,102	2,011

Note: a) 2005 figures.
Source: ILRI (2008), based on UN COMTRADE data.

Table 4: Average import unit values for fresh boneless beef to selected Middle Eastern markets by selected sources, most recent year (US$ per ton)

Market	All sources	Brazil	India	Pakistan
Bahrain (2007)	5,254	3,203	2,223	4,417
Qatar (2006)	5,084	2,796	2,301	NA
Saudi Arabia (2006)	3,151	3,009	3,061	NA

Notes: 2006 figures for Bahrain are USD 5,116 (all sources), US$ 3,526 (Brazil), US$ 1,407 (India) and US$ 3,491 (Pakistan). NA: not applicable.
Source: ILRI (2008), based on data from UN COMTRADE.

As in the US, many of the potential segments that could be targeted – whether under CBT or not – are niche markets, with the potential opportunities likely to be relatively limited in the beef sector. Companies such as Farmers Choice, for example, have been successful in the export of pork products to the Middle East that target expatriate populations (Perry et al., 2005). While such exports are lucrative, they are also small (for Farmer's Choice, about 600 tons per year) and put greater emphasis instead on marketing and appropriate supply-chain management to limit food-safety problems and disease risk.

5.5 China

The Chinese market holds tremendous potential over the next decade. Based on FAPRI (2009) predictions, China will switch from being a small net exporter of beef to becoming a sizeable net importer, with projected imports of 375,000 tons by 2018. At present, the Chinese market for beef is relatively small, with per capita consumption in 2007 estimated at 5.9 kg. This is nonetheless a 31% rise from the 2003 figures (USITC, 2008). USMEF (2008c) reports that consumption of beef has been growing at faster rates than other meats. Most (90%) of the estimated 7.8 million tons of beef consumed in China is of low-value cuts, with 10% medium- and high-quality cuts that predominantly target the restaurant and hotel sector (USITC, 2008). This high-value sector reportedly demands marbled, grain-fed cuts that potentially give advantages to suppliers such as the United States (USMEF, 2008c).

Most imports are in the form of frozen boneless beef and offals. Australia is the main supplier of beef to China, although Brazil is making inroads in the market after concluding a deal with the Chinese government in 2007 to allow Brazilian imports that originate from four specified States (Rio Grande do Sul, Santa Catarina, Acre and Rondonia) (USDA-FAS, 2008c). As noted by USDA-FAS (2008c), South American imports are quite cost-competitive in China, with prices that are one-half those of US imports. Again, a CBT scenario would be unlikely to change that dynamic and would therefore significantly advantage commodity suppliers such as Brazil and India that could produce large volumes at low prices.

5.6 Africa

Africa itself is a growing market for beef products. Recent analysis in Rich (2009) highlighted strong import growth in a number of markets, particularly Algeria, Angola, Egypt, Ghana, Libya, Mauritius, Morocco, Senegal, South Africa and Tunisia. Most African countries are net importers of beef, and as incomes and urbanisation increase, demand for beef products is certain to rise. A large proportion of African imports at present come from three sources: the European Union (in the form of surplus, low-quality cuts), Brazil and India (see Rich (2009) for an assessment of market shares in selected African markets).

CBT is likely to influence African import markets, though not necessarily positively for African suppliers. First, as the EU market opens up to an increased diversity of suppliers, there will likely be more pressure on outlets for EU supplies of low-quality meat. As noted earlier and argued by Agritrade (2008), the EU has a surplus in low-quality meat, given the increased competition among suppliers for more lucrative (and more demanded) high-quality segments. This surplus, while falling, will need to be marketed in some manner, and as the EU finds itself less competitive in third markets that formerly bought such products (for example, Russia), it might force some of its low-quality surplus onto African markets, thus placing increased pressure on domestic production in Africa (Agritrade, 2008).

Secondly, CBT is likely to further expand exports from both Brazil and India, which will target their own increased low-quality surpluses on low-value markets such as Africa. While this potentially benefits African consumers, domestic production in nearly all markets, including those from existing exporters, will come under pressure. Such pressure is likely to intensify as tariffs decline under WTO multilateral negotiations. Indeed, the common 40% tariff that countries in the South African Customs Union (SACU) (including Botswana and Namibia) enjoy provides added protection against South American imports and allows Botswana and Namibia to export beef competitively to relatively lucrative markets in South Africa (though less lucrative than those in the EU). In the absence of such protection, it is unlikely – with or without CBT – that such trade would be competitive vis-à-vis South American suppliers.

6 Discussion

Based on the evolving supply and demand dynamics, and the prospects for new trading opportunities which have been highlighted here, a number of key issues can be seen to emerge that will influence the scope, impact, and success of CBT in promoting improved market access for developing-country suppliers.

An important component that underpins the success of CBT for African suppliers is the existence of preferential trading arrangements, particularly from the EU and Norway, in the light of the limited competitiveness that most African suppliers have vis-à-vis those in South America or South Asia. Duty-free privileges under the EU's 'Everything but Arms' initiative could potentially allow African products into the EU at a discount, given higher tariffs placed on South American imports. However, this necessitates meeting the other costs of compliance required for imports, which will

likely increase under CBT to ensure that supply-chain systems are credible to certify exports as disease-free. A development which could greatly influence the ability of African suppliers to compete with Latin American and other competitors is a series of preferential trade agreements being discussed between the EU and the countries of Mercosur (Agritrade, 2008). While details on the proposed negotiations are limited, significant reductions in tariff barriers imposed on Brazilian, Argentinian and Uruguayan beef imports would have major negative impacts on African suppliers and probably put a stop to all but the highest-value niche exports.

In the absence of protected markets in the EU and EFTA, African suppliers are at a considerable cost-disadvantage in third markets, with only niche markets likely to be available in the short to medium term. Such market niches are in severe competition with existing suppliers already established with strong brand presences (for example, New Zealand, the US and Australia). In contrast, CBT could enhance the advantages that Brazil and India already have by virtue of their high-volume, low-cost production that allows for the diversification of exports based on market needs.

Moreover, as noted earlier, high tariff walls have further cushioned suppliers such as Botswana and Namibia against competition from South America and India in internal SADC markets, particularly South Africa. Both Botswana and Namibia are protected by an external SACU tariff of 40%, with Botswana further protected by a ban on South African beef imports (ODI, 2007a). This protects both producers from Brazilian and other imports in EU and domestic markets alike. Should global tariffs be gradually liberalised under WTO negotiations and should Brazil and India reap the benefits of economies of scale from CBT, the competitiveness of Botswana and Namibia in their own SADC markets could be compromised. Again, this illustrates the precarious situation in which southern African producers find themselves, and is a much more serious determinant of long-term competitiveness than CBT.

The preferential trade and competitiveness narratives suggest that the long-term viability and success of CBT for African producers rest in the ability to target and capture specific niche markets. The benefits to Africa, at least in the short run, will come predominantly from trade in *products*, not from commodities. There is evidence that efforts in this direction are already taking place. Agritrade (2008) notes that Namibia re-oriented its marketing strategy in 2007 to target 'luxury' markets in the EU, with increased emphasis on labelling and marketing activities. Indeed, Namibia has already succeeded in branding its products sold to South Africa under the FAN (Farm Assured Namibian) Meat programme, in which its compliance with EU standards is used to enhance its position in the South African market (ODI, 2007b). The proposed export marketing programme in Uganda for beef exports puts emphasis on developing a 'Unique Selling Proposition' aimed at differentiating product offerings in target markets (Nortura, 2007).

Product differentiation has many benefits: it provides producers with market power and the prospects of additional value-adding opportunities and higher margins that could be captured in domestic markets. As noted in the poverty narrative, this can lead to benefits in upstream and downstream markets alike in terms of employment and national income, though, as a development strategy, these benefits may not necessarily be broad-based. Moreover, the ability to capture these benefits relies on putting in place specific conditions that sustain the business model for a particular product. Unlike

horticulture, beef does not have the inherent out-of-season advantages that could benefit developing-country suppliers; these have to come from the careful design of a market niche and the organisation of a supply chain to fit that niche. This organisation is much more critical than CBT itself, and will require a combination of private-sector champions, government policies that facilitate (rather than impede) business development and support the livestock sector (cf. distortionary policies in Botswana), and donor support to broker relationships and assist with the necessary infrastructure.

7 Conclusion

At its core, the argument in favour of CBT has rested on the links between international market access for livestock products and the processes of sustainable and inclusive growth, which correspondingly requires an understanding of the potential markets for such commodities and products and the key factors influencing competitiveness and impact. On a geographical basis, the benefits of CBT are much more likely to be felt in countries like Argentina, Brazil and India than in African countries. Opportunities exist for southern Africa, but are predicated largely on continued preferential access that may or may not be sustainable in the long term. While there are numerous opportunities for some African countries in niche markets, it is also important to balance that potential with the sound exploitation of livestock resources and a pragmatic understanding of the challenges in marketing and competitiveness.

An important issue to recognise is that CBT, on its own, will probably have very modest impacts on international trade patterns, particularly from Africa. The constraints that complicate market access for Africa are much more those related to infrastructure, productivity and efficiency throughout the livestock supply chain, and it is in these areas that policy attention is urgently required. CBT could certainly facilitate the process of market access, but it is only as one step in a much larger commitment to development of a more modern livestock sector supported by credible public- and private-sector actors. Furthermore, CBT faces the challenges of a meat trading system that is highly politicised and often frustratingly inconsistent. Indeed, the history of the meat trade reveals that established scientific protocols are often trumped by political expediency, and it is unclear whether CBT will be able to change entrenched mindsets.

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