

The Impact of China-Africa Trade Relations: The Case of Angola

By Dr Ron Sandrey

Associate

Trade Law Centre of Southern Africa

Prepared for the African Economic Research Consortium

Nairobi, Kenya

November 2009

Acknowledgements

The author would like to thank Hannah Edinger, Research Fellow, China Africa Network, Centre for Business and Academic Research, Gordon Institute of Business Science, University of Pretoria; and Senior Manager & Head of Research at Frontier Advisory, for comments on a previous draft, and for research and editorial assistance.

The author would also like to express gratitude to the African Economic Research Consortium for commissioning the research paper.

Table of Contents

| | |
|---|-----------|
| 1. Introduction..... | 4 |
| 1.1 Problem Statement..... | 4 |
| 1.2 Objectives of Report..... | 5 |
| 1.3 Overview of Report..... | 7 |
| 2. Background..... | 9 |
| 2.1 Angola & China Country Snapshots and the background trading relationship..... | 9 |
| 2.1.1 Angola – A Country Snapshot..... | 9 |
| 2.1.2 China – A Country Snapshot..... | 12 |
| 2.1.3 Angola’s trade profile..... | 13 |
| 2.1.4 Angola’s trade profile with China..... | 15 |
| 2.1.5 Angola’s other trade partners..... | 19 |
| 2.1.6 Who are the gainers and losers from Angola’s increasing merchandise trade flows?..... | 22 |
| 2.1.7 The data summary..... | 24 |
| 2.2 The Trade Policy Background..... | 24 |
| 2.2.1 The evolution of Angola’s trade policy regime and trade policy..... | 24 |
| 2.2.2 The evolution of China’s trade policy regime and trade policy..... | 27 |
| 2.2.3 Bilateral and other trade agreements between Angola and China..... | 29 |
| 2.3 Institutional and Policy Developments..... | 30 |
| 3. Literature Review..... | 32 |
| 4. Theoretical Framework and Methodology..... | 37 |
| 5. Empirical Analysis..... | 38 |
| 5.1 Impact analysis of Angola’s export growth to China..... | 38 |
| 5.1.1 China’s oil imports and role in setting global oil prices..... | 38 |
| 5.1.2 Global oil production and trade profile, and the influence of China..... | 41 |
| 5.2 Impact analysis of Angola’s import growth from China..... | 46 |
| 5.2.1 The quality of the Chinese goods exported to Angola as measured by the average unit value..... | 47 |
| 5.3 Key challenges facing Angola from its trading relationship with China..... | 51 |
| 5.4 Possible trade opportunities and potential policy responses for Angola to maximise the net gain from its trading opportunities with China..... | 54 |
| 6. Conclusion..... | 59 |
| 7. Bibliography..... | 62 |

1) Introduction

1.1 Problem Statement

China's rapid and increasing economic and commercial relationship with sub-Saharan Africa (SSA) has received increasing attention in recent years. As the impacts of this relationship anecdotally become more visible, there is a need for increasing empirical research on this economic relationship which presents both opportunities and challenges for African economies that reflect deepening relations with China. In line with this the African Economic Research Consortium (AERC) has commissioned a series of country-case studies to unpack and better examine the key features of this relationship in order to understand both the larger macroeconomic impact, the sector-specific impacts and most importantly the policy making implications and recommendations for individual SSA countries to maximize the benefits and to minimize the costs of their economic engagement with China.

This is most relevant for one of the channels of this economic relationship – the *trade channel*. Chinese relations with Africa have grown substantially over the past decade. Trade between China and Africa increased from US\$ 6.5 billion in 1999 to US\$ 106.8 billion at the end of 2008, surpassing the US\$ 100 billion trade mark two years earlier than anticipated. The majority of countries have experienced growing trade deficits with China, importing enormous quantities of consumer goods, in addition to light manufactured goods and agricultural equipment.

A smaller number of resource-rich countries enjoy mounting trade surpluses, notably due to their rich oil and mineral deposits. The top African trading partner of China is the oil-producing Angola, which has enjoyed a mounting trade surplus with China. In the report that follows, the Sino-Angola trading relationship will be interrogated mainly from a quantitative point of view for the purpose of better understanding the impact this trading relationship has on the Angolan economy as a whole (in terms of key macroeconomic indicators), but also on key sectors and stakeholders in the Angolan economy and will look to inform policy makers how best to engage and maximize the future benefits that the bilateral trading relationship of Angola with China could hold.

Perhaps it is appropriate to note at the start of this report that the Angolan export trade to China in particular does not follow the normal laws of supply and demand that we usually associate with global trade patterns. We will show that oil is effectively the only export to China in particular and to other destinations in general, and here oil is the one global commodity where the volume of supply and consequently international price is fixed by a production cartel (Organisation of Petroleum Exporting Countries, or OPEC). Now that Angola is firmly a member of OPEC, oil production and therefore exports

are fixed by the global quota allocated to Angola. Thus China, while able to perhaps influence its share of this trade, has a limited influence over the export quantity of oil from Angola.

1.2 Objectives of Report

The objectives of this study as envisioned and prescribed by the AERC are to capture the extent to which impacts of China's economic growth are transmitted to Angola, both positively and negatively, through the bilateral trading relationship and to provide some policy advice as to how Angola may maximize the economic benefits and minimize the costs from this increasingly important trade channel. The specific terms of reference as provided to the authors of this paper are, to give an:

- Analysis of the country's economic structure and performance, paying particular attention to the role of trade with China;
- Analysis of the country's export growth, by sector and export destination, paying specific attention to the contribution of China in terms of export volume, export prices and export earnings;
- Analysis of the country's relative gains and losses generated by exports to China, paying particular attention to their sources (in terms of volume and price changes) and their sectoral distribution;
- Identification and analysis of the key export stakeholders, classified by key sectors, relative gains and losses, gainers and losers, and sources of their gains and losses;
- Analysis of the country's import structure and performance, by key sectors and import sources, with specific focus on the contribution of China in terms of import volume, and import prices;
- Analysis of the country's relative gains and losses generated by imports from China, paying particular attention to the sources (i.e. volume and price changes) and the sectoral distribution of these losses and gains;
- Identification and analysis of the key import stakeholders classified by key sectors, relative gains and losses, gainers and losers, and sources of their gains and losses;

- Analysis of the evolution of the Chinese trade regime and trade policy, focusing on the key sectors of Chinese imports from and exports to the country, and with particular reference to the market access conditions of the country's exports to China;
- Analysis of the evolution of the country's trade regime and trade policy focusing on the key sectors of its imports from and exports to China, and with particular reference to the market access conditions of Chinese imports into the country;
- Analysis of any bilateral and/or regional trade agreements and/or special trade arrangements between the country, and China, with particular focus on their implications for the net gains/losses emanating from the trade relationships between China and the country;
- Identification and analysis of the opportunities which can be derived by the country from its trading relationship with China;
- Articulation and analysis of the policy responses which could enable the country to maximize the benefits derivable from its trading relationship with China;
- Identification and analysis of the challenges facing the country from its trading relationship with China including the challenges of:
 - judicious utilisation of the increased income especially the foreign exchange earnings to relax supply-side constraints and diversify the economic base;
 - responding strategically to the price competition promoted by Chinese imports;
 - dealing with the risks of the structure of the country's exports to China perpetuating specialization in primary commodity production;
 - dealing with the risk of China's cheap imports leading to de-industrialization, increased unemployment and discouraged economic diversification; and
 - handling the possibility that imports from China may be hazardous on account of low quality.
- Articulation and analysis of the policy responses which the country would need to minimize the net losses arising from its trading relationship with China;
- Articulation and analysis of the policy responses necessary to optimize trade relations with China if and when China acquires the attributes of an advanced industrialized economy and the associated changes in the features and pattern of its trade relations with the country.

These particular points will be sequentially addressed to the best ability of the authors, although it will be demonstrated as the research progresses that given the nature of the bilateral trade, particular focus will be on exports of Angolan oil to China and the importation of building and construction materials and equipment from China to assist with the Chinese development of Angolan infrastructure. While this relationship is not unique, it is the extreme case in so far as an African bilateral trading relationship with China is concerned. This creates a special set of issues and opportunities.

1.3 Overview of Report

This report is structured in the following six sections:

This section presents the **introduction**, which provides the problem statement and objectives of the report as outlined above and the current overview.

Then a **background** section is presented which provides the setting of the key features and patterns of the evolution of the economic relations between China and Angola as a basis for achieving a fuller understanding of the Sino-Angolan relationship. This includes a look at both Chinese and Angolan trade policies and regimes in order to set the scene for policy implications and recommendations from the findings of this report.

The background section is followed by a **literature review** which looks at work that has been done by other authors who have researched similar questions related to the China-Angola trading relationship but also the broader Sino-African trading relationship and what their findings were before comparing them with the findings of this research. We caution that literature with respect to Angola specifically has been limited and that equally importantly primary trade data from Angolan sources is very limited. We do however explore the question; what has been done on China's trade in Angola; and as there is limited empirical work on this we are obliged to draw on empirical work that has been completed on other countries to compare to what authors have found.

Next follows a section on the **theoretical framework and methodology** that is used in the study. Following the terms of reference this section reflects on the most appropriate approach to use in this paper on Angola, and presents the analysis that concentrates largely on the macroeconomic level.

The core of the report, the **empirical analysis** of the China-Angola trade relationship is presented in section 5. This will link with the terms of reference for the study as outlined above, and will present an interpretation of the trends along with the base data. Once results from the trade pattern analysis have been discussed these will be fed into addressing the policy implications in order to justify or improve the

policies currently in place (where they are in place) or suggest new policy decisions where this is appropriate. This will assist with policy positions that can maximize the benefit of the trading relationship and minimize the losses. Again, given the surfeit of trade data and the very new nature and impressive growth of the Chinese relationship it is important to caution that there is not a strong base to develop these trade policies from. This especially relates to policies and incentives in Angola at the firm level, as these firm level relationships are not yet structured into the macro level.

Finally, the conclusions of the report are presented in section six which presents the **key findings and policy recommendations** of the study.

2) The Background

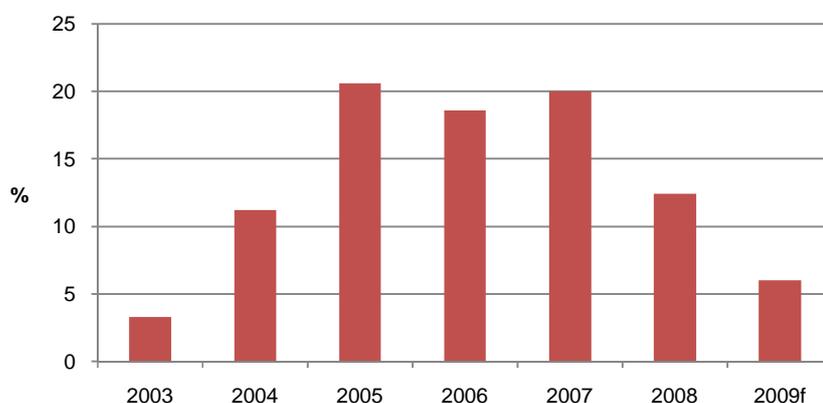
2.1 Angola & China Country Snapshots and the background trading relationship

2.1.1 Angola – A country Snapshot

Africa exports a considerable value of natural resources. Angola is no exception, and in particular as it ranks within the top-20 oil reserves globally oil products (as also shown in the analysis that follows) completely dominate the country's exports to the world. This is consistent with general trade theory.

Angola has considerable resources of land, oil and fisheries in particular, but only a rudimentary manufacturing sector outside of oil production, itself a sector that operates virtually as an enclave within the country. Since the end of a thirty-year civil war in 1992, Angola has made significant economic progress. Despite impressive oil-driven growth in recent years, with growth rates averaging around 20%, pervasive poverty and inequality remain and problems of infrastructure, governance and corruption persist. Impressive progress, however, is being made in the reconstruction of Angola's transport infrastructure, funded by mostly public funds and oil receipts, but with significant contributions also from development partners, including China in particular but also Brazil.

Figure 1: Angola's GDP growth rates



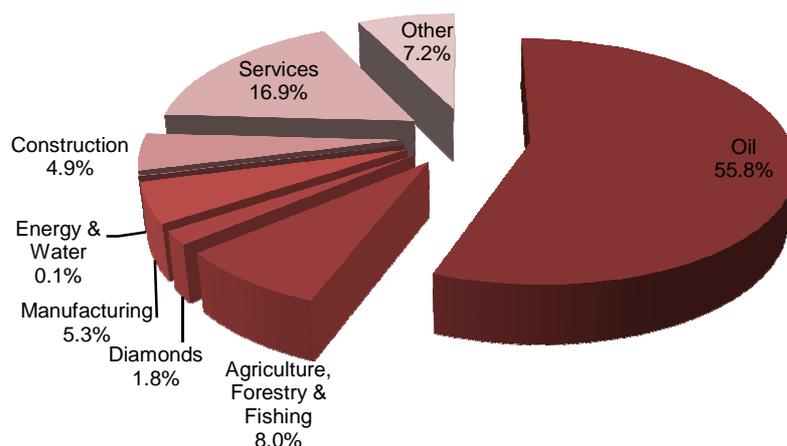
Source: IMF and Standard Bank (2009)

Since 2005 Angola has been a rapidly growing economy¹ (see Figure 1), with this strong economic performance almost entirely attributable to increased oil production from new oilfields and booming oil

¹ CIA World Factbook at www.cia.gov/library/publications reports that their estimates of Angola's growth of 13.20 percent during 2008 represented the top African growth performance and fourth global performance behind Bhutan, Macau and Qatar. The IMF ranks Angola as having the greatest GDP growth in Africa for each year of 2005 through to 2008 inclusive (IMF, 2009).

prices, supplemented by strong growth in the construction and manufacturing sectors². Oil and gas account for nearly 60 percent of GDP while diamonds bring in another two percent according to the African Economic Outlook (2009) report. Other major contributors are services (16.9%), agriculture, forestry & fishing (8%), manufacturing (5.3%)³ and construction (4.9%).

Figure 2: Composition of Angola's GDP (2007)



Source: *African Economic Outlook: Angola (2009)*

The Economist Intelligence Unit (EIU) provides data on GDP per capita expressed as PPP from the actual of \$3,340 in 2004 to estimates of \$4,802 in 2008 and forecasts of \$6,117 by 2010⁴. This result has been driven by increasing oil export income during a period of price spikes that has seen GDP growth per capita of around 20 percent per year during 2005 and 2006, although this GDP growth has since moderated (see Figure 1). Crucially, during this period core inflation has largely been avoided⁵.

While Angola has been a major recipient of official development assistance (ODA) in recent years, these inflows have been reducing; net ODA declined from \$1.02 billion in 2004, the 5th highest in Africa, to -\$55 million in 2006 and \$85.6 million in 2007. Similarly, FDI inflows have been the second highest in Africa, attracted specifically into the oil sector, and at the same time, in response to the oil export bonanza the external debt situation has remained stable while Angola has accumulated considerable (although recently falling) international reserves.

² The growth in the manufacturing sector is off a very low base though.

³ We highlight the low level of manufacturing, and note again that although GDP is growing rapidly the relative contribution of manufacturing remains low.

⁴ EIU report, October 2008.

⁵ The IMF (2009) (Table SA5, page 70, "Consumer Prices Annual average, percent change") reports that the Angolan CPI reduced to 12-13 percent annually during the 2006 to 2008 periods from the 98 percent during 2003 and 44 percent in 2005.

Associated with the oil boom though has been a period where the real exchange rate has been appreciating by around 20 percent annually from 2003 to 2005 inclusive and just under 10 percent from 2006 to 2007 (with the latest IMF (2009) estimates from 2008 back to an appreciation of 22 percent). If Angola had any other export sector than oil and the modest diamond trade this appreciation, a classic case of 'Dutch disease', would have stifled these non-oil exports. Under the current situation with oil dominating exports and no nascent export sectors on the horizon, the strong currency has to be a major positive. It is however pertinent to note that amidst the euphoria of high oil exports and merchandise trade surpluses there is a deficit of around \$11.5 billion in the commercial services trade balance. This needs to be considered when the overall trade balance is considered and not just the surplus on merchandise trade.

Hidden among the impressive macroeconomic data for Angola are some more disconcerting figures on indices such as the United Nations Development Programme (UNDP) human poverty index that measures the average progress of a country in human development. Although subjective, Angola ranks 89th among 108 developing countries for which the index has been calculated, and despite the relatively high GDP per capita data, the UN estimates that 28 percent of the population is living in extreme poverty and another 40 percent are struggling to survive below the poverty line⁶. Consequently, the global hunger index is 'alarming' despite Angola being ranked at just marginally below the half-way point in both the IMF and World Bank's PPP estimates of GDP. This suggests large income inequalities, which is given more weight by the poor rankings that Angola has received on corruption indices globally⁷ and on indices such as the general costs of doing business⁸.

Much of the poverty is concentrated in the agricultural sector, a sector that (combined with forestry and fishing) contributed around eight percent to GDP and employs over 50 percent of the labour force, and is based largely (around 80 percent) on subsistence agriculture. Before independence Angola was a major agricultural producer, and was self-sufficient in food and a significant exporter of many crops, including coffee, cotton, bananas and sugarcane. Civil war damage reduced the country to a net importer of food, and the presence of land mines in certain areas and poor infrastructure are continuing to inhibit developments in the agricultural sector, although production has been recovering in the most recent years. In addition, the strong exchange rate tends to work against the exports of this sector.

⁶ This gloomy picture is presented by the Office of the United Nations High Commissioner for Human Rights: "Even with the country's massive mineral wealth and economic growth, the most serious human rights challenge is abject poverty, with 68 percent of the population living below the poverty line. Access to health, education, land, food and adequate housing, water and sanitation need to be improved, particularly for women. Maternal and child mortality rates are among the highest in the world". See <http://www.ohchr.org/EN/Countries/AfricaRegion/Pages/AOIndex.aspx>

⁷ The Transparency International 2008 Corruption Perception Index ranks Angola at number 158 from the 180 countries surveyed.

⁸ World Bank (2009a), "World Development Report: Reshaping Economic Geography"

These figures, combined with the trade data and associated high oil prices, show how there is very much a dual economy operating in Angola, with the dominant and enclave-isolated oil sector operating in a way that poses extreme challenges for income redistribution in a relatively poor economy that is only just coming to grips with its post-war redevelopment and settlement of millions of displaced persons⁹.

2.1.2 China – A country snapshot

In presenting a background of the Chinese economic growth that is directly relevant to this case study we cite the paragraph from the AERC policy issues paper written by Ajakaiye et al (2008) for this project. It succinctly and eloquently puts Chinese growth in perspective. The data and text has been updated where appropriate.

The emergence of China as a major economic power on the world stage is traceable to the combination of three major factors (Oyejide, 2007). First, China has experienced high economic growth rates which have been sustained over more than two decades. As the Chinese economy grew at an annual average of around 10 percent over this period¹⁰, its GDP increased more than 20-fold within a period of 25 years. Second, China has a large economy which is underpinned by a huge population; its 1.3 billion account for over 20 percent of total global population. Combined with rapidly rising income, this provides a significant domestic economic base for stimulating further growth. The third factor magnifies this even further. China has a rapidly growing economy which is also largely outward-oriented. Emphasis has been placed on developing a manufacturing sector based on an export-led growth strategy; in the context of an industrial structure which is broad-based and closely linked into an Asia-based production sharing network. In this arrangement, China's relatively low labour costs ensure a strong competitive edge over a wide range of labour-intensive manufacturing activities. Thus, China's economic growth is intrinsically linked with huge increases in imports and exports. As a result, China's share of world exports rose from less than 2 percent in 1987 to 8.9 percent in 2008; while among the major traders exporting manufactured products, China stands out with 17 percent rise in merchandise exports in 2008 (WTO, 2009). Similarly, because China's rapid industrialization and economic growth have been associated with a voracious appetite for imported inputs, it has made substantial contributions to the rising global demand for fuels and a wide range of hard commodities whose

⁹ Oneworld Net reports that the Millennium Development Goals (MDGs) present difficulties in Angola, as the civil conflict that wrecked the country for almost three decades ended only in 2002. The human development data is unreliable and out of date, handicapped by the flux of population – at one time 5 million people were internally displaced and over 400,000 refugees have recently returned from neighbouring countries. Poverty in Angola is severe and distribution of the country's oil and diamond wealth is so far confined to a narrow elite. A household survey in 2000 recorded over 60 percent of the population was under the poverty line with over 25 percent in the more serious category of extreme poverty. There has been little improvement, as measures of the Gini coefficient confirm that inequality is rising. <http://uk.oneworld.net/guides/angola/poverty>, reported in July 2008. The CIA (updated 14 May 2009) considers that to take advantage of its rich natural resources "Angola will need to implement government reforms, increase transparency and reduce corruption."

¹⁰ With Chinese GDP growth rates continuing during 2006, 2007 and 2008 by 11.6, 11.9 and 9.0 percent respectively (WTO, 2009)

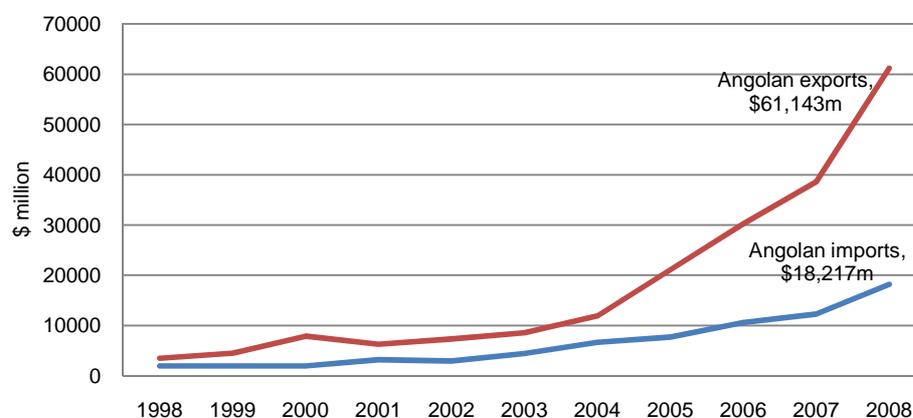
prices have risen sharply since 2000 but dropped appreciably in late 2008¹¹. (Ajakaiye et al, 2008, updated by Sandrey).

2.1.3 Angola's trade profile

a) The big picture

It is difficult to obtain accurate trade data from Angola¹². Consequently this study makes use of a combination of (a) aggregate reporting from Comtrade "mirror"¹³ data and (b) for detailed analysis and more recent updates we have used partner reporting data from the US, China and South Africa at again the "mirror" for Angolan trade data as sourced from the World Trade Atlas. This is the only way a good but neither a complete nor authoritative profile can be drawn up without the analysis of official Angolan data. Note that there may be confusion between the values that are exported from Angola and the values recorded as imports into partner countries, with the latter including the costs of insurance and freight (CIF values). While this is not a satisfactory situation there are no alternatives for the purposes of this type of analysis.

Figure 3: Angolan merchandise trade, 1998–2008, \$ million



Source: Comtrade, accessed on October 13 2009 at comtrade.un.org/db/Basic

Angolan merchandise trade data as reported by Comtrade is shown in Figure 3. Highlighted is how exports in particular were relatively stable at a level rising to just over \$10 billion until 2005 when they

¹¹ Between January 2007 and July 2008 fuel prices rose 144 per cent, more than doubling. But from July until the end of 2008 fuel prices fell by 63 percent (WTO, 2009).

¹² The best source of detailed SADC trade data is that contained in the Trade and Industrial Policy Scenarios (TIPS) database at www.tips.org.za. Data for Angola is not available from this source as TIPS have been unable to obtain this data from Angolan authorities (personal communication with Mmatlou Kalaba, TIPS).

¹³ Where "mirror" data refers to the data as reported by the trading partner in Comtrade and not the original country per se. This approach does have the limitation that trade with other non-reporting countries is not recorded, but we consider this to be minor.

grew dramatically to over \$60 billion during 2008. Imports have similarly grown, but on a steadier path and to a 2008 level that is below \$20 billion. Also highlighted in Figure 3 is the significant merchandise trade surplus from 2005, a surplus that has been instrumental in driving Angola's growth rate shown in Figure 1. Not shown, and to be discussed later, is that oil dominates these exports and that adding diamonds to the oil and oil related products exports leaves less than one percent of the total exports as "Other."

b) Angola's bilateral trade partners

Exports from partners (imports into Angola)

During 2008 partners are reported to have exported goods worth \$18.2 billion to Angola, with the EU collectively being recorded by Comtrade as the main Angolan source of imports. Portugal has been the top individual country reporter followed by China, the US, Brazil and South Africa. This data is shown in Table 1, along with the historical series from 1998 through to 2008. Also shown are the total import totals (as in Figure 3). Portugal has remained the top import source by individual country shown for all years shown except 2006 when the US narrowly moved ahead. China has steadily increased its share to be just behind Portugal in 2008. While not currently near the top five sources, Korea's contribution to Angolan imports has been extremely variable: to a high of 27.2 percent in 2004 from a low of 0.6 percent in the previous 2003 year and no recorded data during 2008. This is shown in the bottom line of Table 1. Note also the apparent rise in the share of the EU imports during 2008.

Table 1: Angolan imports as reported by partner exports, \$ billion and % shares

| | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 |
|----------------------------|------------|------------|------------|------------|------------|------------|------------|------------|-------------|-------------|-------------|
| Total (\$ billion) | 2.0 | 2.0 | 2.0 | 3.2 | 3.0 | 4.4 | 6.7 | 7.7 | 10.6 | 12.3 | 18.2 |
| Relative shares (%) | | | | | | | | | | | |
| EU 27 | | | 70.4 | 56.2 | 71.3 | 29.2 | 18.1 | 42.5 | 25.4 | 45.8 | 62.5 |
| (Portugal) | 20.6 | 14.7 | 17.3 | 13.9 | 18.0 | 16.7 | 12.5 | 12.9 | 14.3 | 18.7 | 18.3 |
| China | 1.8 | 0.8 | 1.7 | 1.4 | 2.1 | 3.3 | 2.9 | 4.8 | 8.4 | 10.0 | 16.1 |
| USA | 17.8 | 12.6 | 11.4 | 8.5 | 12.5 | 11.1 | 8.9 | 12.0 | 14.6 | 10.4 | 11.6 |
| Brazil | 6.0 | 3.2 | 5.4 | 4.4 | 6.7 | 5.3 | 5.4 | 6.7 | 7.9 | 9.9 | 10.8 |
| South Africa | 9.7 | 9.6 | 10.0 | 9.6 | 10.8 | 10.1 | 7.2 | 7.0 | 6.5 | 6.3 | 4.9 |
| South Korea | 0.9 | 15.2 | 0.8 | 21.5 | 0.6 | 0.6 | 27.2 | 19.6 | 9.8 | 1.4 | Na |

Source: Comtrade

* Note that for 2008 the subtotal as shown (excluding Portugal) sums to 103.3 percent. We offer no explanation.

The similar profile of the destination for Angolan exports as reported by importing countries to Comtrade is shown in Table 2. Throughout the period the US has dominated, albeit with a challenge from China in the most recent 2008 year. France has been a consistent lesser destination, while both South Africa and

Canada have become recent destinations. Not shown is that both Korea and Brazil have been modest destinations in some years, while other European destinations such as Belgium have also featured¹⁴.

Table 2: Angolan exports as reported by partner imports, \$ billion and % shares

| | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 |
|----------------------------|------------|------------|------------|------------|------------|------------|-------------|-------------|-------------|-------------|-------------|
| Total (\$ billion) | 3.5 | 4.5 | 7.9 | 6.3 | 7.3 | 8.7 | 11.9 | 21.1 | 30.2 | 38.6 | 61.1 |
| Relative shares (%) | | | | | | | | | | | |
| EU 27 | | | 12.0 | 19.5 | 18.2 | 24.9 | 17.0 | 11.9 | 12.7 | 14.2 | 12.7 |
| (France) | 3.2 | 2.1 | 4.8 | 10.5 | 8.7 | 8.1 | 6.8 | 8.3 | 5.1 | 6.1 | 6.6 |
| China | 4.4 | 7.9 | 23.4 | 11.5 | 14.8 | 25.8 | 39.6 | 31.2 | 36.2 | 33.4 | 36.6 |
| USA | 69.8 | 57.5 | 47.7 | 52.1 | 44.6 | 52.6 | 40.3 | 41.9 | 40.3 | 33.5 | 31.9 |
| South Africa | 0.1 | 0.7 | 0.1 | 0.0 | 0.2 | 0.0 | 2.2 | 1.4 | 1.2 | 4.3 | 4.4 |
| Canada | 0.3 | 0.0 | 0.4 | 0.4 | 0.0 | 0.0 | 0.0 | 1.3 | 1.8 | 2.9 | 4.3 |

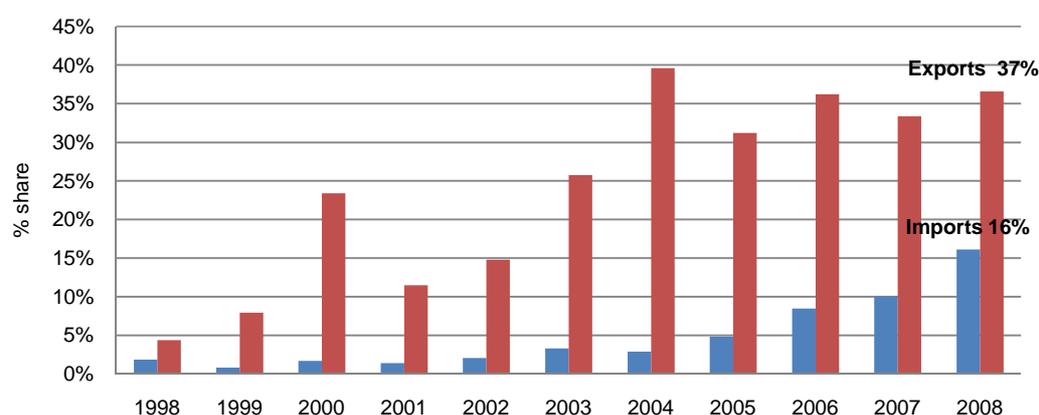
Source: Comtrade

* Again note that the subtotal (excluding France) for 2003 is 103.3 percent

2.1.4 Angola's trade profile with China

Tables 1 and 2 above show how China has become a major trading partner with Angola, while Figure 3 shows how Angola's external merchandise trade has grown dramatically in recent years. This section will examine Angola's trading relationship with China in more detail, albeit still at the disaggregated level.

Figure 4: Percentage share of China in Angolan merchandise trade



Source: Comtrade (and as shown in Tables 1 and 2 above)

Figure 4 carries on from Tables 1 and 2 above and reiterates the relative share of Chinese trade in Angolan exports and imports as reported by Comtrade. It highlights more clearly the importance of China

¹⁴ Care needs to be taken in the strict interpretation of European destinations, as trade flows freely around the EU.

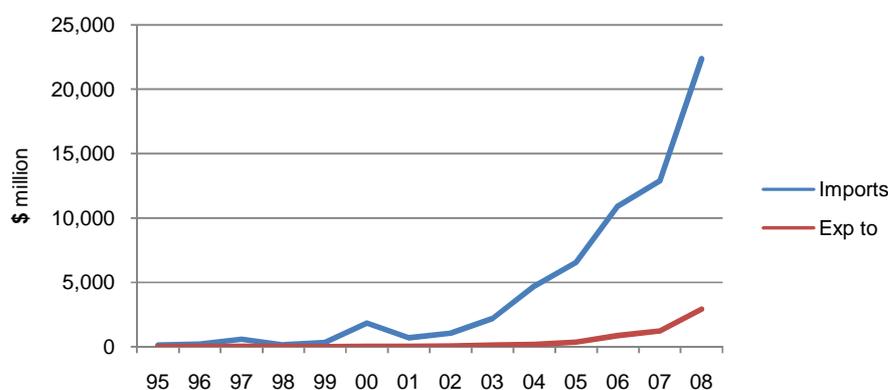
as an export destination over the last five years in particular, and the steadily increasing role of China in Angolan imports. The 2008 data reports an export share of 37 percent and an import share of 16 percent.

Figure 5, using Chinese trade data, shows changes in Chinese imports from Angola and Chinese exports to Angola over the period 1995 to 2008 inclusive. The data is now expressed by value, in US dollar millions. Several features are apparent:

- from 2003 Chinese imports increased dramatically, from \$1 billion to over \$22 billion;
- Chinese exports to Angola amounted to under \$200 million in 2004 but climbed to \$2.93 billion in 2008; and
- the balance of trade is clearly in Angola's favour (by \$19.4 billion).

Not shown is that this trade balance (positive from the Angolan perspective, negative from the Chinese perspective) is one of only 16 from the 59 African countries¹⁵ (with a definition of 'countries' that includes Ceuta and Melilla for example) that imports into China are reported for 2008 that favour the African country concerned. When evaluating World Trade Atlas data for 2008, this balance in favour of Angola is more than the combined balance of \$15.5 billion from the other 15 countries, countries that in order of positive trade balances include Sudan, Congo, Equatorial Guinea, Gabon and the Democratic Republic of the Congo.

Figure 5: Chinese bilateral trade with Angola, \$ million



Source: World Trade Atlas data (as reported by China Customs)

Chinese imports from Angola are almost exclusively dominated by oil imports. Oil's share in these imports has not dropped below 99.9 percent of the total imports from Angola since 1998 (when it was 99.8 percent). The only other reported import of any consequence is diamonds, where the values have grown

¹⁵ With these 59 African countries including countries such as Ceuta and Melilla as reported by the China Customs, World Trade Atlas statistics.

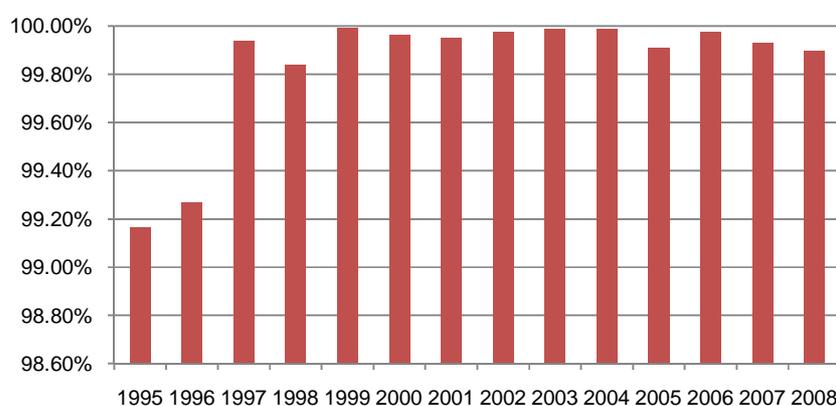
from near zero in 2003 to \$23.1 million in 2008. This is illustrated in Table 4 and in Figure 6, with the former also presenting the top three HS 4 level Chinese imports from Angola.

Table 4: Chinese imports from Angola, HS 4 level, \$ million

| Description/Year | 1995 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 |
|---------------------------|-------|---------|---------|---------|----------|----------|----------|
| Total | 136.9 | 2205.0 | 4,717.2 | 6,580.7 | 10,930.9 | 12,884.7 | 22,370.1 |
| Crude Oil | 135.8 | 2,204.7 | 4,717.1 | 6,574.8 | 10,928.4 | 12,875.6 | 22,346.5 |
| Diamonds | 0.03 | 0.05 | 0.43 | 5.65 | 2.16 | 8.62 | 23.10 |
| Granite, Porphyry, Basalt | 0 | 0.23 | 0.09 | 0 | 0.13 | 0.11 | 0.41 |

Source: World Trade Atlas data (as reported by China Customs)

Figure 6: Oil as a percentage of Angolan imports into China



Source: World Trade Atlas (as reported by China Customs)

Figure 5 clearly shows that the Chinese exports to Angola are significantly lower than Chinese imports from Angola, but over the last three years these exports have increased dramatically from a low base. Chinese exports to Angola are much more diversified, as shown in Table 5. The data, for the top 15 lines is expressed in millions of US dollars and ranked by HS 4 lines in descending order for 2008. The outstanding feature is that, except for some vehicles, all the items shown are direct construction or construction related goods. The 15 lines shown made up 54 percent of the total exports to Angola in 2008. Looking further into the data shows that footwear, cotton fabric and dried legumes are the only consistent exports across all years: this is examined further in Table 6. A more detailed analysis of China's exports to Angola is presented later in the report.

Further analysis of the changing patterns of Chinese exports to Angola is given in Table 6 which examines the exports that could be considered as consumption-related for Angolans. The data range from 2000 through to 2008 inclusive, and show the percentage of Chinese exports in (a) agricultural

products, with the sub-contribution of vegetables also given, and (b) clothing and footwear, again with the sub-contribution from footwear exports to Angola. The combined agricultural and clothing and footwear totals were 50.1 percent at 2000, a level that was relatively consistent from 1995 through to 2000 (not shown). From 2000 onwards, there the relative share of these strictly consumer-based products declined as the construction-related imports increased, until 2008 when they only represented some 5.2 percent of total imports (one tenth of their peak levels).

Table 5: Chinese exports to Angola, HS 4 level, \$ million

| Description/Year | 1995 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 |
|---------------------|------|-------|-------|-------|-------|---------|---------|
| Total | 21.2 | 145.8 | 193.3 | 372.9 | 894.4 | 1,240.6 | 2,930.8 |
| Trucks | 0.1 | 1.2 | 3.0 | 23.4 | 58.6 | 82.7 | 207.1 |
| Bulldozers etc | 0.0 | 1.1 | 0.5 | 17.5 | 50.1 | 59.0 | 168.0 |
| Telecommunication | 0.0 | 21.0 | 8.6 | 2.0 | 13.2 | 67.5 | 123.3 |
| Electric generators | 0.0 | 4.7 | 9.7 | 16.1 | 44.2 | 46.4 | 120.0 |
| Iron/ Steel prefab. | 0.0 | 0.2 | 1.1 | 4.4 | 22.5 | 62.0 | 116.2 |
| Cement | 0.0 | 1.8 | 7.2 | 13.2 | 27.3 | 42.3 | 102.4 |
| Steel rods | 0.0 | 0.0 | 1.2 | 7.3 | 35.9 | 17.6 | 93.0 |
| Railway track | 0.0 | 0.0 | 0.0 | 2.1 | 19.5 | 0.4 | 91.0 |
| Special Vehicles | 0.0 | 0.5 | 0.8 | 5.2 | 21.3 | 34.4 | 81.1 |
| Screening gear | 0.0 | 0.4 | 0.7 | 3.0 | 17.1 | 22.2 | 74.4 |
| Tractors | 0.0 | 0.0 | 0.7 | 5.2 | 7.8 | 16.8 | 69.3 |
| Motorcycles | 0.1 | 6.7 | 13.3 | 20.7 | 20.9 | 39.1 | 66.7 |
| Buses | 0.0 | 0.0 | 0.4 | 0.2 | 3.3 | 7.8 | 63.2 |
| Steel tubes | 0.0 | 0.0 | 0.1 | 1.7 | 4.6 | 14.5 | 59.4 |
| Cable etc | 0.0 | 3.7 | 6.0 | 7.1 | 15.3 | 20.6 | 49.4 |

Source: World Trade Atlas data (as reported by China Customs)

Table 6: Changing patterns of Chinese exports to Angola

| Description/Year | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 |
|--------------------------------|--------------|--------------|--------------|--------------|-------------|--------------|-------------|-------------|-------------|
| Agricultural products | 11.7% | 3.4% | 11.2% | 3.7% | 4.7% | 4.8% | 3.0% | 2.3% | 1.3% |
| of which vegetables | 11.4% | 2.6% | 10.8% | 3.4% | 3.3% | 2.1% | 0.6% | 0.4% | 0.3% |
| Clothing & footwear | 38.4% | 39.8% | 27.6% | 14.1% | 9.5% | 10.4% | 4.9% | 5.7% | 3.9% |
| of which footwear | 23.1% | 20.2% | 13.7% | 8.2% | 6.1% | 4.9% | 2.6% | 2.6% | 1.6% |

Source: World Trade Atlas data

2.1.5 Angola's other trade partners

Tables 1 and 2 above provided a summary of the trade data from the main reporter countries. This section provides some more information on this trade to better place the Chinese contribution to Angola's trading profile in perspective. The data for South Africa and Brazil are sourced from these countries' World Trade Atlas data respectively; the US data is as reported by the US Department of Commerce, while other data is from Comtrade (EU: 2008 and South Korea: 2007). We acknowledge that (a) the dates and the sources vary, (b) the data is partial only and (c) differences in valuation taking insurance and freight into account mean that exports from one country do not equate to imports into the partner country. It provides a comprehensive analysis nonetheless, as it enables the bilateral trade between Angola and China to be put in perspective with the other main trading partners. Note from Table 7 that in particular the reported imports from Angola are similar to those imported into China in that they are almost exclusively oil products. Also, the subtotals given represent 95 percent of the total exports from Angola as shown in Table 2 and 83 percent of the imports as shown in Table 1. Canada and India are the main omissions from the "Imports from Angola" (Angolan exports) not shown, while the omissions from the "Exports to Angola" are headed by Namibia, India and Japan.

Table 7: Trade data summary – partner data for 2008 unless otherwise specified, \$ millions

| Reporter | Imports from Angola | Oil as % of imports | Exports to Angola |
|-----------------|---------------------|---------------------|-------------------|
| China | 22,370 | 99.9 | 2,931 |
| US | 18,911 | 99.8 | 1,300 |
| EU | 11,374 | 97.8 | 7,790 |
| South Africa | 2,830 | 97.2 | 905 |
| Brazil | 2,240 | 97.1 | 1,975 |
| Korea (2007) | 343 | 99.6 | 174 |
| Subtotal | 58,068 | | 15,075 |

Source: World Trade Atlas, US Department of Commerce and Comtrade.

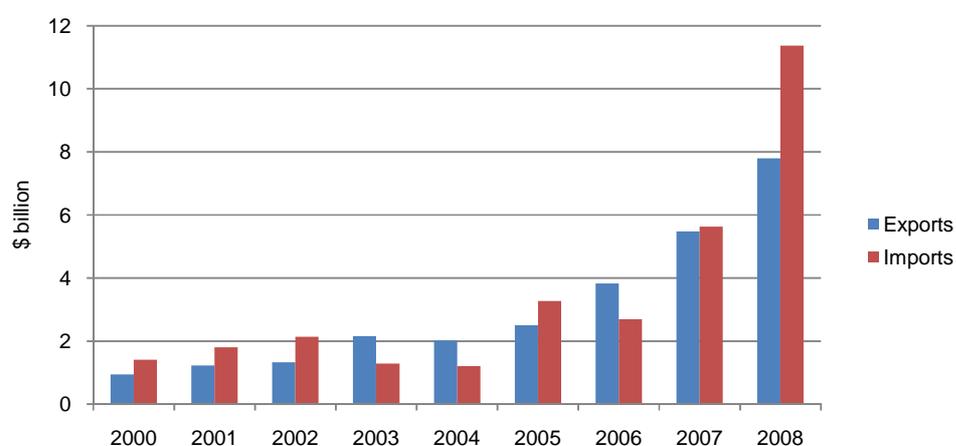
* Note that Korean data for 2008 was not available on Comtrade as of 20 October 2009.

The European Union (EU)

Comtrade reports imports from Angola into the EU of \$11,374 million during 2008 and EU exports to Angola of \$7,749 million. As a single entity the EU is the third main export destination for Angola but the main import source for Angola. There has however been the same oil-driven spike which appears in EU imports from Angola over the last two years which has characterised other trading partners of Angola (from just over \$2,000 million in 2006 to the \$11,374 million during 2008) as the oil price increased. Also, and not shown, the EU's exports to Angola in 2008 are dominated by general machinery followed in almost equal value by vehicles and iron and steel products. There is considerable 'depth' in Chinese

exports to Angola (Angolan imports), with even the 13th value on the list (dairy products) reaching a reported value of over \$100 million. Another feature of the EU-Angolan trade as reported by Comtrade has been that there is a degree of consistent balance in the bilateral flow as measured by the EU. Exports to Angola as a percentage of imports from Angola ranged from a low of 62 percent in 2002 to 168 percent in 2003, with 2000, 2001, 2003 and 2008 all being a consistent 66 to 68 percent. This is shown in Figure 7 and suggests that the EU has not really been a ‘loser’ as China increases its presence in Angola in terms of relative bilateral trade figures.

Figure 7: The European Union bilateral trade with Angola



Source: Comtrade data

The United States of America (US)

During 2008 exports to Angola equalled \$1.3 billion while imports from Angola amounted to \$18.911 billion. Again, there has been a dramatic rise in imports from 2005 but a very steady but rising profile of US exports to Angola. Oil again dominates – not once dropping below the 99 percent share since 1995, and in 2008 it reached the high point of 99.8 percent. Angola’s imports from the US are more diversified than the country’s export profile to the US. General machinery and electrical machinery are the top two HS 2 chapters, followed by vehicles, mineral fuels, and aircrafts and their parts. The top eleven trade chapters consistently contribute around 70 percent of the total exports, demonstrating that these exports are spread across a wide number of goods. Except for fuels and the ‘Special’ classification the goods exported to Angola are manufactured items.

South Africa

During 2008 Angola was South Africa's 8th most important single source of imports but 22nd most important destination for exports. Imports were valued at \$2.83 billion while exports were \$905 million. Within Africa, Angola is and remains the main South African import source but ranks behind Zambia, Zimbabwe, Mozambique, DR Congo and Nigeria as an export destination. South African imports from Angola rose dramatically from \$3.6 million during 2003 to \$2.83 billion during 2008, with a short period of stability during 2004 to 2006 where imports were between \$267 million and \$367 million. Imports were dominated by oil through from 2004 to 2007 (over 99 percent), although during 2008 crude oil's share dropped to 97.2 percent. Details of South African exports to Angola show an extremely diversified group of products, with the top-10 HS 4 lines only comprising 36.3 percent of the total during 2008. There are some agricultural products in the list (waters, wine and ethyl alcohol), and an examination of earlier trade suggests that other agricultural products have been consistently important in the past. Other than possibly trucks, we note that there is limited competition between South Africa and China in the Angolan market.

Brazil

Brazil reports that imports from Angola during 2008 were \$2.24 billion while exports to Angola were \$1.975 billion. Unlike most other trading partners, there is a strong balance in this bilateral trade, as both exports from Brazil to Angola and imports into Brazil from Angola have risen dramatically in recent years to the 2008 peak. The data¹⁶ shows that Angola was the number one destination for Brazilian merchandise exports to Africa during 2008 (ahead of South Africa), and the third main source of Brazilian imports behind Nigeria and Algeria. Again, imports of oil (almost all crude but some minor refined oil as well) completely dominate imports from Angola into Brazil. An analysis of the exports from Brazil to Angola over recent years suggest two main points: one is that Brazil is challenging China in the construction and transport-related sectors of the Angolan market, with trucks, tractors, steel structures, machinery for mineral screening and bulldozers etc all appearing on the top list. The other is that Brazil is a major supplier of agricultural imports, with sugar, poultry meat and beef featuring in these imports.

Other partners

The India-Angola trading relationship is of interest in that **India**, along with Brazil, is one of the so-called BRIC countries¹⁷ that are becoming increasingly important to the global economy. In particular, India could be one country expected to be challenging China's position in Africa, but an analysis of the Indian–

¹⁶ World Trade Atlas data sourced from the tralac website at www.tralac.org

¹⁷ The countries of Brazil, Russia, India and China.

Angolan trade relationship suggests that India is not engaged with Angola¹⁸. During 2006 imports into India from Angola were \$181.24 million, with again crude oil representing some \$177.95 million of this. This was a massive jump from the imports of \$2.82 million during 2005 and a minuscule \$0.66 million in 2004. Indian exports to Angola have been more consistent but still small: from \$2.94 million during 2000 gradually rising to \$197.97 million in 2006. The number one export to Angola from India at the HS 4 digit level is HS 0202, beef. This is followed by refined petroleum, medicaments and then railway coaches. The salient point is that with this product mix India is not challenging China in the Angolan market, in contrast to Brazil.

The Comtrade trade data between **Korea** and Angola as reported by Korea for 2007 shows that imports from Angola were \$342.58 million while exports to Angola were \$174 million. Again, oil dominated imports while vehicles were the main Korean export to Angola.

Comtrade also reported that during 2007 **Japan** imported merchandise goods worth \$190 million from Angola, with most (97.8 percent) being oil and virtually all the remainder being fish and fish meal. Japanese exports to Angola were \$208 million, with vehicles being the main category (64.8 percent) followed by general and electrical machinery with around 13 percent each.

2.1.6 The gainers and the losers from Angola's increasing merchandise trade flows

At the aggregate level the dramatic increases in trade between China and Angola have been almost entirely driven by oil exports, accentuated by the price spike of 2008. The main gainer from these exports on the external side has been China, and as this report continues we will elaborate upon this statement and show how China itself was a factor in promoting the increased commodity and specifically oil prices. Increasing bilateral trade has been coupled to the complex interaction between Chinese investment in Angola, as well as loans and financing which in turn have also underpinned the country as an increasing export destination for China. For Angola, and its increasing importance as an export destination A companion CCS paper goes further and details the complex interaction between Chinese investment in Angola and its increasing importance as an export the infrastructural building boom which China has become a key contributor to, undoubtedly presents gains to the African country. Besides Angola seeing gains from this trading relationship at the country level, other gainers, as measured by aggregate export flows (and shown in Table 2) seem to be South Africa and France. Measured by the same criteria the loser would be the US, but we must keep in mind that these changes that happened so dramatically over a short period of time are relative and not absolute changes as the total exports to the US have increased in value. It is also important to keep in mind that oil is a product that is relatively homogeneous and therefore changes in supply sources to a country such as the US need to be considered more against a

¹⁸ Again, World Trade Atlas data sourced at www.tralac.org , with 2006 data the most recent available.

global geopolitical yardstick rather than a purely economic one. In other words, will some displacement of US oil imports away from Angola increase the risks to the US of its total supplies? The answer to that question is largely outside of the scope of this report, but the corollary is that China sees the security of supply as a major factor.

In a wider analysis Zafar (2007) applies an econometric analysis to the trade relationship between China and SSA over the period 2000-2005. The results showed some variation in the terms of trade effects for the 35 SSA countries examined. Oil and base metal exporters were clear winners, with the oil exporters of Angola, Gabon, Sudan and Angola featuring along with Mauritania (iron ore), Mozambique (aluminum), South Africa (platinum and iron ore) and Zambia (copper). The ultimate losers were oil importers who have limited natural resource exports.

At the similar aggregate level changes to the import profile as shown in Table 1 are harder to assess. Certainly we have witnessed some displacement of European imports by Chinese products, but as reported by Campos and Vines (2008) the Angolans see this as a price factor. Again, the 'import boat is rising with an incoming tide', in that the total value is rising to such an extent that it does not necessarily follow that sources such as South Africa who have lost market share are actually losers overall. They are merely not the strong gainers that China seems to be. But again the situation is complex, and we will show in later analysis that many of these Chinese imports are capital goods coming in as an essential part of the infrastructural development thrust – a thrust that in itself is directly linked to oil exports and blurred with investment flows from China. Expanding upon the latter theme, as we will also show later, much of the increase in imports is in 'new' products generally related to infrastructural development that is not really displacing traditional products and sources but more enhancing the overall import mix. But certainly Angola is benefiting from these construction-related imports.

At the micro level the gainers and losers are harder to assess. There does not appear to be significant redistribution spillovers (yet) from the increased exports, and a separate study would be needed to assess the relative gainers from oil exports amongst the players of oil companies specifically, the Angolan government in aggregate and the ruling elite within that government and the general populous. Perhaps it is also too early to tell. Any benefits to the general populous seem to be of a second-round nature in actual and potential benefits from infrastructural development rather than direct income redistribution to date. And again, given the large increase in these capital goods, there does not seem to be a consequential increase in consumer goods that is benefitting the general populous.

Overall, however, China offers Angola a new model of cooperation at a time when Western efforts were concerned with conditionality, while Angola provides China with oil and construction projects. Is there a downside for Angola? Yes, possibly the lack of conditionality may take pressure off Angola to improve its

governance and transparency while reducing poverty – although there has been no country in the world that in recent times has made the giant strides that China itself has made in these areas. Perhaps preaching is better coming from someone who has walked the walk notwithstanding China's stated opinion that these are internal domestic matters for the host country. Furthermore, one should not lose sight of the manner in which the 'Angola model' neatly negates some of the rent-seeking opportunities in Angola from local actors. Meanwhile Angola is moving towards economic stability and for a while the IMF was in danger of becoming an irrelevant sidelines viewer. This is changing however. Conversely, on the demand side Chinese consumption is a major factor in the increasing international demand for oil. One lesson that the world may be slowly learning from the 2008-2009 global financial crisis and the repercussions thereof is Angola is not alone in becoming dependent upon China's continuing prosperity.

2.1.7 The data summary

In summary there are several salient features that emerge from this data analysis. The first is that Angola is almost exclusively reliant upon oil exports to its major trading partners, with only a minor contribution from diamonds and fish products. The second is that during the oil price boom oil exports increased dramatically. Associated with that is certainly that Angola's exports in the future will be tied to the oil price. Imports are sourced from a variety of partners. They have predictable patterns except for the import pattern from China (as measured by China's export pattern) where rather than the wide range of lightly manufactured consumer goods imported from other sources, Angolan imports from China are heavily concentrated in construction related imports.

With regards to exports of oil, we note that Angola is not alone in dependency among African nations on oil exports to China, as during 2008 some 89 percent of the imports from Africa into China were classified as HS 27 (mineral fuels), or HS 71 (precious minerals), and this percentage exceeded 99 percent in the case of major oil producing countries such as Nigeria and Algeria.

2.2 The Trade Policy Background

2.2.1 The evolution of Angola's trade policy regime and trade policy

The WTO (2006) reports that Angola's trade policy objectives were the development and diversification of exports, together with the substitution of imports by domestic production, where possible, for reasons of comparative advantage. Early protection of domestic production was foreseen, but a protectionist policy was not considered by the authorities as valid in the medium term. The authorities stated to the WTO that this policy was designed as a response to the situation prevailing following the civil war, and to the transition from a largely state-controlled economy to a more open market economy. Angolan authorities

noted to the WTO that Angola had to overcome the effects not only of the civil war but also of consequent difficulties in attracting foreign investment, technology, and assistance; and inadequate financial and economic policies. It had also been difficult to re-launch industries other than in the oil and diamond sectors, and as a result Angola has been required to import almost all goods.

Following up on the industrial development theme, the WTO reports that as of 2006 the SADC secretariat was of the opinion that the scale of the Angolan economy was too small to develop regionally competitive industries, and noted that tariff receipts did not constitute a major source of revenue for Angola, as taxation of external trade was only some 2.1 percent of budget receipts in 2002. Tariff reductions could have a positive indirect effect and instead of following an import-substitution policy, Angola should reduce trade barriers on an most-favoured nation (MFN) basis. However, the WTO (2006) reported that “many tariff concessions are in force for investors and industries, mitigating the effects of the tariff structure and increasing effective protection”, but that in 2006 Angola had no quotas, tariff quotas, or tariff preferences on tariff policies and furthermore on trade remedies Angola had no anti-dumping, countervailing, safeguard or competition legislation. With respect to product quality of imports, Angola was taking steps to apply international or regional (SADC) standards to some manufactures and food products, although human capacity and skills for implementation were lacking.

This more detailed section is drawn from the same WTO (2006) Trade Policy Review Mechanism (TPRM) cited above and Daya (2006), a study that is itself based upon the WTO TPRM. Both report that while still formally a member of the Common Market for Eastern and Southern Africa (COMESA), Angola has withdrawn from its activities, according to the authorities because of duplication between COMESA and SADC regarding trade policies in the region. The objectives of SADC include economic development and growth, poverty alleviation, promoting common values and institutions and promoting peace and security. The SADC community talks about the eventual formation of an integrated economic community or union by 2015, and ostensibly has a free trade agreement currently in place – but this seems to consist of other members of SADC having duty-free entry into SACU. Angola is also a co-founder of the Economic Community of Central African States (ECCAS/CEEAC). In a broader African context, Angola is committed to promoting the objectives contained in the New Partnership for Africa's Development (NEPAD) initiative and as a member of the African Union (AU), Angola has ratified the treaty establishing the African Economic Community.

Angola is a beneficiary of the United States' African Growth and Opportunity Act (AGOA) and a member of the SADC group that is finalising an Economic Partnership Agreement (EPA) with the EU. As a least-developed country, Angola benefits from LDC terms in all developed countries' General System of Preferences (GSP) schemes. At a bilateral level, Angola and Namibia have increasingly close cooperation in the framework of a standing bilateral commission. In October 2005, agreements were

signed on suppressing visa requirements, opening border posts, free circulation of people and goods, and radio broadcasting. Angola has also signed a large number of bilateral agreements on trade with several countries, with most of these relatively minor trading partners. At the multilateral level Angola has been a member of the World Trade Organisation (WTO) since its formation in 1996.

In February 2005 Angola introduced a revised operational customs tariff that reduced the simple average most-favoured nation (MFN) applied rate from 8.8 percent to 7.4 percent. The maximum applied duty rate has been reduced to 30 percent, with a six step rate structure that has the six bands of 2 percent, 5 percent, 10 percent, 15 percent, 20 percent and 30 percent. There are no duty-free lines. As noted, the simple average applied tariff in 2005 was 7.4 percent with the average tariff on agricultural goods being 10 percent and on non-agricultural products 6.9 percent. In addition to import duties all imports are subject to a consumption tax at rates of 2 percent, 10 percent, 20 percent or 30 percent. The vast majority of goods are charged at 10 percent. Other duties include a stamp duty of 0.5 percent of the value of the goods, a general customs fee of 2 percent of the customs value, and a personnel fee and a 'movement subsidy' for the transport and movement of goods and customs staff.

Analysis of the tariffs paid at the Angolan border

For purposes of this study and in order to provide some insights into the tariffs paid on products into Angola, we have proxied the duties paid at the Angolan border by taking the Angolan tariff schedule as provided by the WTO and Chinese exports to Angola over the 2008 year. Analysis was undertaken on 2,001 lines at this HS 6 level. The total duties were \$181,005,291 on imports of \$2,929,406,871 for an average rate of 6.18 percent overall. The snapshot for the top 10 exports, as assessed by the value of the duties paid, are shown in Table 8. Vehicles at 10 percent duty are at the top of the list, followed by two lines of construction materials. Vehicles and household appliances are most likely consumer goods, while the other lines shown are most likely associated with Chinese construction.

Table 8: Duties assessed at Angolan border (on Chinese export values)

| Description | Export values (\$) | Duty rate | Duty value (\$) |
|-----------------------------|--------------------|-----------|-----------------|
| Vehicles | 118,505,695 | 10% | 11,850,570 |
| Plaster of gypsum | 102,363,414 | 10% | 10,236,341 |
| Flat-rolled steel | 90,534,053 | 5% | 4,526,703 |
| Appliances for domestic use | 76,568,669 | 10% | 7,656,867 |
| Flat rolled steel | 76,167,572 | 5% | 3,808,379 |
| Telerifics | 65,229,319 | 2% | 1,304,586 |
| Railway wagons | 63,643,359 | 2% | 1,272,867 |
| Railway goods vans | 62,013,295 | 2% | 1,240,266 |
| Buses | 59,148,900 | 5% | 2,957,445 |
| Sets of gaskets etc | 57,193,529 | 2% | 1,143,871 |

| | | | |
|--------------------|----------------------|--------------|--------------------|
| Subtotal | 771,367,805 | 6.0% | 45,997,894 |
| Grand total | 2,929,406,871 | 6.18% | 181,005,291 |

Source: WTO schedule for Angola, World Trade Atlas data and authors' calculations.

We have not undertaken an intensive analysis of the goods included in the top tariff rates, but note the following:

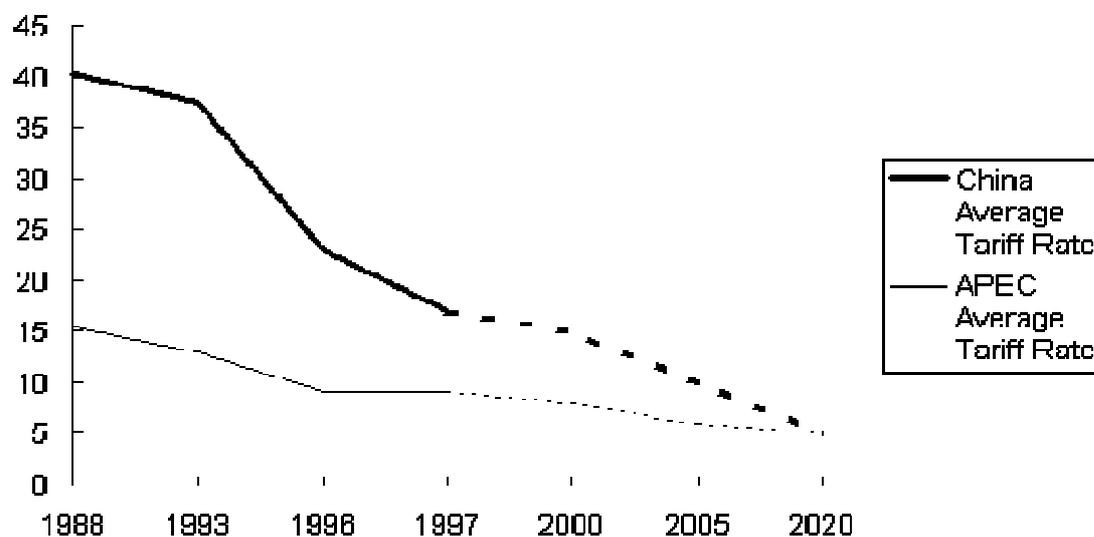
- only 12 lines with imports of \$2.78 million are in the top 35 percent tariff listing;
- only another 23 lines with exports of \$6.6 million are assessed at 30 percent;
- there are 293 lines assessed at 20 percent with exports of \$157.7 million;
- another 394 lines are assessed at 10 percent with exports here at \$689.5 million;
- the main category by export value with 610 entries are the \$1,196.2 million (41 percent of the total) assessed at 5 percent;
- while the remaining 663 entries of \$872.4 million are assessed at 2 percent.

2.2.2 The evolution of China's trade policy regime and trade policy

In little more than 25 years China has evolved from an internationally isolated, centrally planned communist state into one of the world's fastest-growing economies, increasingly outwardly-oriented and market-driven. A "package" of reinforcing macroeconomic and political policies, fostering FDI inflows, as well as an export-led development strategy has positioned the country as a globally leading manufacturing powerhouse and seen hundreds of millions of people move out of abject poverty. But in line with the Asian giant's international competitiveness, its 'real market economy' is often questioned. Being a real market economy means, among other things, that the production costs of all goods and services are subject to the demands of market forces, without state interventions such as subsidies or price controls. This is important when a country is accused of exporting products at a price below their real production costs. As of late 2006 some 37 countries regarded China as a full market economy, and it is notable that despite many accusations of unfair trade practices from China no country has seen fit to challenge these perceived practices in the WTO. The concept of a '100 percent real market economy' is, however, a somewhat elusive one and there are ongoing claims that the Chinese currency (the renminbi) has been artificially undervalued and has constituted an unfair export advantage. However, in July 2005 China announced changes to the foreign exchange regime, and since then the Chinese currency has become more convertible. Thorbecke and Zhang (2008) used a panel data set including China's exports of labour-intensive goods to 30 countries and found that an appreciation of the renminbi would substantially reduce China's exports of clothing, furniture, and footwear. However, Cheung et al. (2007) examined whether the Chinese exchange rate is misaligned and how Chinese trade flows respond to the exchange rate and found that, although the currency was substantially below the value predicted, trade flows should not result in quantitatively large effects from exchange rate changes.

The corollary of this analysis is the problems African exporters may face for entry into China. In general, Chinese tariffs have reduced significantly. One catalyst for this in recent years has been China's entry into the WTO, where WTO-mandated reductions can be thought of as reducing by one third upon entry in late 2001 and by roughly another third during the implementation period that ended around 2005. This tariff reduction pathway since China's economic reforms around 1988 is shown in Figure 8, along with the average Asia-Pacific Economic Cooperation (APEC) member tariffs to put the reductions in perspective. More importantly, tariffs on fuels and minerals are generally at or near zero. Many non-tariff measures (NTMs) or non-tariff barriers (NTBs) were also abolished or reduced as a result of mainly American pressure on China, although as the tariff itself reduces, some of the remaining NTMs may become more visible (Sandrey et al., 2008b). For the fuel and mineral trade that dominates African exports to China, NTMs are generally not thought of as constraints, and especially if Chinese import interests are keen to obtain supplies. Conversely, general costs and NTMs facing Chinese exporters to Africa are high, and although this is not the issue of concern for the current study we must add that (a) these NTMs do give an additional measure of protection to African manufacturers, (b) but they also raise production and distribution costs within Africa for these same producers, and lastly, (c) African cultural and language issues are seen by Chinese trades as NTBs.

Figure 8: China's Tariff Reduction Trend (%)



Source: Zhang Yunling, undated

China has become an active player in pursuing free trade agreements (FTAs) with its trading partners, in line with its overall trade policy objective to accelerate its opening to the outside world, develop foreign trade, and promote sound economic development (WTO, 2008). Sandrey et al. (2008a) report that while

China remains committed to the WTO and the multilateral system, it has the following trade agreements in place or under consideration:

- The ASEAN–China free trade area (ACFTA), which entered into force on 1 July 2003, with an understanding for the establishment of an FTA within ten years.
- China, Japan, and the Republic of Korea have been conducting a feasibility study for a trilateral free trade agreement covering trade and investment, information and communication technology industries, environmental protection, and financial cooperation, and a feasibility study on a China-India FTA was started in 2005.
- China-Hong Kong and China-Macao have agreements that date from 1 January 2004, and since 1 January 2006 tariffs on merchandise imports originating in Hong Kong and Macao have been fully eliminated.
- China and Chile have an FTA that entered into force on 1 October 2006, and in November 2003 China signed a preferential trade agreement with Pakistan.
- China and Australia have been in FTA negotiations since April 2005, and China recently signed its first FTA with a developed country, namely with New Zealand.
- China and the Gulf Cooperation Council have a Framework Agreement on Economic, Trade, Investment and Technology Cooperation, and have agreed to launch FTA negotiations, and China is in negotiating on FTAs with both Iceland and Peru.
- Initial talks of a China-South Africa/SACU FTA, initiated in 2001, have mooted.

2.2.3 Bilateral and other trade agreements between Angola and China

Analysis of imports into China shows that Africa already has an almost duty-free access given the nature of the commodity based trade (Sandrey, 2009). However, there is a Chinese preference scheme for Africa – specifically for least developing countries (LDCs) which Angola is one of – in place, and this is reviewed by Minson (2008). The preference scheme covers 440 products at the detailed level with Minson estimating that the overall benefits to African LDC countries of these preferences are in order of \$10 million annually with the average margin of preference over the normal MFN rate to be 10.4 percent for the products in question.

We have analysed Chinese imports from Angola over the years 2006-2008 and found that during 2008 some \$23.5 million of Angola's imports would have been eligible for these preferences; with \$23.1 million of these imports being diamonds that otherwise would have attracted a 3 percent duty. This leaves only \$442,284 in other imports under the duty-free scheme, and as oil imports are duty free from all sources this leaves a total of a mere \$8,000 of imports from Angola that might or might not have faced duties at the Chinese border. Thus, we can be confident to say that Angola has duty-free access into China on its current trade portfolio.

It is likely that the two major issues for China to consider prior to granting duty-free and quota-free access for Africa are the matters of South Africa's status as a more industrialised economy and the importation of African cotton in competition with its own domestic producers, but otherwise such a scheme would result in a true win-win situation. It would strengthen China's economic and trade ties with Africa, although supply side constraints in Africa and restrictive Chinese non-tariff barriers (NTBs) such as rules of origin may well undermine the full potential of such an agreement. While benefits to Angola may currently be minimal, such a scheme could provide incentives for industrial-led growth in the future.

2.3 Institutional and Policy Developments

While Angola has quickly become China's top trading partner on the African continent, China's concentrated entry into Angola is still very recent. The first credit line with its associated generous terms (\$2 billion) was extended in 2004 (Corkin, 2008), with two joint ventures between Angola's Sonangol and China Petrochemical Corporation (Sinopec) focused entirely on Angola and the other also extending to other countries. In line with this, Angola's crude oil exports to China more than doubled by the end of 2004 in US dollar terms, from 2003 export values.

Table 9: Chinese oil and gas joint ventures in Angola

| Company | Block | Year acquired | Share (%) |
|--|----------------|---------------|-----------|
| Sonangol Sinopec International (SSI) | 15(06) | 2006 | 20.0 |
| Sonangol Sinopec International (SSI) | 17(06) | 2006 | 27.5 |
| Sonangol Sinopec International (SSI) | 18(06) | 2006 | 40.0 |
| China Sonangol International Holding Ltd (SSI from 2007) | 3/05 and 3/05A | 2005 | 25.0 |
| Sonangol Sinopec International (SSI) | 18 | 2004 | 50.0 |

Source: Vines et al, 2009

A further loan to the value of \$2 billion was extended in 2006 (Corkin, 2008), about the same time that Angola turned to China for post-war reconstruction funding, and by 2007 the total credit lines were perhaps around \$7-\$8 billion, extended by the Export-Import Bank of China (China EXIM Bank)¹⁹. A feature of these loans was the development of the 'Angola model' whereby the oil-backed loans were for Chinese-specific construction projects²⁰, but outside of the oil sector and possibly diamonds there is limited Chinese financing and investment in Angola. Given the loans to the construction sector, Angola has become a Chinese construction site for mostly transport infrastructure in particular but also

¹⁹ Some sources estimate as much as \$7-8 billion in loans having been extended to Angola by China. Official documentation, however, notes that the credits extended by China EXIM Bank only amount to \$4.5 billion by 2006 and a further \$1 billion in 2009.

²⁰ See Corkin (2008). This loan and other such loans to resource-rich African economies have been extended on generous concessional loan terms, as reported by Foster and colleagues in the 2008 World Bank report "Building Bridges", linking a commodity investment, a secured off-take and a roll-out of infrastructure on a discounted loan coupled with an extended repayment period basis.

telecommunications and housing and hospital construction. As shown in the trade data and given limited local capacity to supply these projects, these projects are dependent upon China supplying the bulk of the materials from home (as per the contracts negotiated), and in addition the funding mechanism is such that the payment for these projects is largely directly to the companies in China, an approach that must lessen the opportunities for rent-seeking from Angolan actors.

Many observers suggest that natural riches produce institutional weaknesses as various social groups attempt to capture the economic rents derived from the exploitation of natural resources and that since the 1960s resource-rich developing countries have grown more slowly than other developing countries. Lederman and Malloy (2007) collate a variety of analytical perspectives, ranging from econometric analyses of economic growth to historical studies of successful development experiences in countries with abundant natural resources. However, their findings and evidence suggests that natural resources are neither a curse nor destiny, and can spur economic development when combined with the accumulation of knowledge for economic innovation. Similarly, Wood and Mayer (2001) conclude in a study that sub-Saharan Africa, which has experienced a deteriorating manufacturing sector over the last decades, could raise its manufacturing profile through the improvement of infrastructure and policies. Yet, they recommend that the highest priority should be to raise all exports and in particular those based on natural resources – where Africa's comparative advantage lies. Given this, Angola could be said to be on a beneficial growth path. While this is fine in theory, the natural resource development and exploitation as is currently taking place in much of Africa, such as oil production in Angola, contributes little to the employment of the unskilled, for example.

In light of the very poor manufacturing sector of Angola, as measured by the Manufacturing Value-Added (MVA) of only 3.53 percent of GDP in 2006, as reported by UNIDO²¹, there are lessons for land-rich Angola from China. For example, land-constrained China, while becoming a manufacturing powerhouse through utilisation of its low-skilled labour base has lifted its citizens out of poverty as much or more through its agricultural and rural based policies and programmes, rather than through its natural resource riches. Angola's unrealised agricultural potential could draw on some of these lessons. This is elaborated on later in this report.

²¹ See <http://www.unido.org/index.php>

3) Literature Review

This section will assist the current research by reviewing work completed by other authors that have looked at similar questions regarding Angola and its trading relationship with China and compare their findings with the findings of this research.

A number of studies such as Centre for Chinese Studies (2006), Burke et al (2007), Campos and Vines (2008) and Corkin (2008) document China's increasing relations and activities with Angola, with specifically Corkin (2008) focusing on the economic (trade, investment and aid) relationship between Angola and China. While these studies mainly provide a superficial overview of the trading relationship between China and Angola this paper looks to provide a more in-depth examination of the trading relationship, the impacts of this relationship on various stakeholders, as well as policy recommendations based on the findings of this study's results.

Ferreira (2008) offers an appraisal of the Chinese-Angola relationship that suggests there is more to this relationship than just China's appetite for oil that has turned Angola into a large infrastructural Chinese building site. There is indeed a "perfect marriage of convenience" as Ferreira describes it, and China seized the investment opportunity left vacant by the more sanctimonious reluctance adopted by the Western donor and investment community. The timing and speed of the cooperation was such that the Chinese trade and investment boom culminated with the oil (and other commodities) price spike of 2008, a price spike that we will suggest was fuelled by this same Chinese appetite for commodities.

In examining the trade and investment relationship Ferreira offers some thoughts (and concerns) for the future. These emphasise that the relationship is as much or more about investment than it is about trade directly, although the investment-aid-trade inter-linkages are complex. The first concern is that there does not seem to be any movement past the Chinese credit-line projects undertaken by the Chinese using mostly imported labour and materials, and this seems to suggest a large risk factor without the current linkages. This is in turn related to the second issue, whereby there seems to be limited progression towards Angolan capacity building in the construction sector, an issue accentuated by the complaints in areas such as cultural misunderstandings and indeed even racism that have been souring the relationships and the increasing reliance upon the Chinese (and their 'rent' monies) of the political elite in Angola. Ferreira's 2008 research was undoubtedly written before the 2008 commodity crash and subsequent global economic crisis, and it will be interesting to see how these succinct thoughts play out in the new business and economic environment.

Campos and Vines (2008) provide another analysis of what they describe as a largely pragmatic relationship between Angola and China, and they also invoke the 'perfect marriage' theme. They do however caution that the West tends to overplay the influence of China in Angola, and cite an interview with the Finance Minister on October 13, 2007, who emphasised that "growing bilateral ties will by no means exhaust the commercial and investment potential that Angola has to offer to the world". In assessing the geopolitical strategy of Angolan trade, Campos and Vines (2008) rightly point out that China's share of Angolan **imports** has increased significantly, but they are on less solid ground when they also state that "so have the shares of India, South Africa and Brazil". Our data in Table 1 suggests that the shares of both Brazil and South Africa have been a lot more consistent. The results of our data analysis (Table 1) however do not entirely agree with Campos and Vines' findings that other than from Portugal the EU's import share has been consistent. Campos and Vines offer the opinion from an interview with the deputy governor of the Angolan National Bank that a decline in the EUs import share at that time was largely in response to a reorientation away from the expensive European products. They are however on firmer ground from the more recent data when they note the **export** diversification away from the US to China in particular. With the benefit of an extra year's data we are able to show that Canada has become another important export destination. Importantly, but more closely aligned with investment rather than trade, Campos and Vines consider that Angola is aware of the many challenges in the Chinese relationship. Finally, the report touches on the impacts of poverty reduction from the Chinese involvement. Again, this is not a direct issue in an examination of trade flows, but the overall income redistribution and poverty reduction efforts must be considered for the future of Angola. The authors point out that the rehabilitation of electrical and water supplies, transport infrastructure and social institutions such as schools and hospitals have benefited thousands of people. We agree that this is indeed the case, but caution (as do Campos and Vines) that there needs to be an improvement in the technological skills sets within Angola for the country to prosper in the medium to longer term, and that unfortunately for employment the oil sector employs very few people²².

In a background paper to this project Ajakaiye et al. (2008) set the scene for this more in-depth report on the Chinese-Angolan interactions. From most of the perspectives that they present this Chinese relationship with Angola is shown as being at the extreme edge of the trade spectrum whereby China is a dominant player in this trade profile. Resources dominate exports, and the Chinese import penetration is becoming more pervasive. Their 'trade-related gainers and losers' framework sees Angola fit neatly into the major gainers of resource-exporting nations, and by virtue of the fact that they have effectively no export-oriented manufacturing capacity they 'escape' or 'by-pass' the potential downside of degradation to that latent capacity. In assessing the challenges presented by Chinese imports the difficulties associated with overcoming the lack of industrial capacity in the face of Chinese competition both in the

²² A study by the Saudi Arabian Oil Company (ARAMCO) found that the index measuring the output-input ratio or average product of manpower steadily increased from 0.58 in 1983 to 1.85 MBCD (Millions Barrels per Calendar Day) per employee in 2004 in the company. The cost in cents per barrel produced dropped by 39% when only the cost of manpower is used (Ahmed, 2007).

Angolan home market and abroad in third markets are outlined, and this feature is examined further in Sandrey and Edinger (forthcoming).

Corkin (2008) provides one of the few more comprehensive reviews of Angola and its growing economic and commercial relationship with China. This review starts with the political-economy background to the growing relationship and then moves into the complex nature of the trade-investment and aid development nexus. In particular, Corkin outlines how almost all of the Chinese companies' activities in Angola have been directed by the provided lines of credit and how these lines of credit do not circulate within the Angolan banking system. The direct Chinese investments in Angola were primarily located in the telecommunications infrastructure and oil sectors, and the supporting imports for the former can be seen in recent 2008 import data. Corkin also highlights how the benefits to the general populace from Chinese investment in the oil sector are limited: Sonangol, the state-owned oil company, employs approximately 7,000 Angolans out of a total potential Angolan labour force of 5.1 million people. The extractive industries of oil and diamonds account for 99 percent of Angolan exports and 57 percent of GDP but employ only 1 percent of the Angolan workforce. In particular, Corkin warns that most of the projects have not lived up to their promise of engaging local Angolan partners and thereby transferring much needed skills, while at the same time ensuring "that commercial benefit once again remains with the political elite".

Although written in early 2008 without the benefit of the 2008 trade data Corkin goes on to provide a profile of Angola's trading relationship with China to that point. Exports to China are determined by crude oil and imports from China are increasing and concentrated up construction needs and telecommunication equipment. The article makes the point that to early 2008 Angola's main source of imports was the European Union (predominantly Portugal) and how the generally more expensive products reflect preferences of political elites and their domination of import/export businesses rather than an expected influx of cheaper imports to service the needs of the majority of Angolans who live in relative poverty. Data since 2006 (Table 1) shows how imports from China are increasing, and Corkin foreshadows that this will increasingly benefit the poor through greater consumer choice and lower priced imports but make it harder for the fledgling import-competing manufacturing base to expand.

In assessing the winners and losers of China's involvement in Angola Corkin points out how economic sectors are controlled, politically and economically by the presidency and the political elite and how tight controls by the Presidency of the oil-backed loans are designed to maintain this controlling interest. Meanwhile, Brazil and Portugal remain as important players in Angola, and as they have similar lines of credit to Angola, but possibly the United States, with its close association with the conditionality insistence of the World Bank and IMF loans, may be facing declining influence in the face of Chinese operations.

Recent reports²³ however suggest that Luanda, with the expectations of lower oil revenues, was prepared to meet representatives of the World Bank and IMF, and in November 2009 successfully negotiated a \$1.4 billion stand-by facility support package from the IMF²⁴. Given that Angola has expressed intentions to diversify its portfolio of investors such that none of its partners in the oil industry becomes overly dominant, the re-establishment of ties with the IMF points in the direction of diversifying its economic partners and not overly relying on the financing and commitments of one partner – such as China. Business groups and private players seem ambivalent to the Chinese activity; on the one hand they welcome the injection of large amounts of capital, but due to the nature of the Chinese funding and the details of the contracts, they are not able to tap market share in the new projects²⁵. Trade Unions have similarly expressed concerns that there is not enough Angolan participation in the Chinese government-funded projects but this is at least partly due to a lack of skills in Angola (Corkin, 2008).

According to Aguilar (2006), China's increasing presence in the Angolan market is a natural consequence of China's rapid growth. Furthermore, this is also a global phenomenon. But Aguilar also emphasises that China's presence in the Angolan oil sector is still subservient to the main players.

Business Monitor International (2009) cautions their members that African countries are characterised by weak institutional environments and the continent has some of the highest levels of corruption globally. For many, if not most, of the oil-rich states in the continent their mineral wealth has been more of a curse than a blessing. The characteristics of the 'oil curse' are high corruption levels, Dutch disease, and weak governance. Furthermore, there are multiple factors impacting infrastructure costs such as inflation and long-term currency volatility which affect primarily the cost of equity and debt, and the cost of raw materials, legal and regulatory risks that can delay construction and pose regulatory (red tape) issues, political risk and the rule of law along with the financial risk component of domestic economic stability and the international availability of finance. At the bottom of the table are Angola and Nigeria, as deep structural problems in both these countries (more intense in Angola than in Nigeria) leave them with scores across all categories below the regional average. Despite being the continent's second-largest recipient of FDI, the climate for doing business in Angola is regarded as one of the least clement in the world and Angola is firmly rooted to the bottom of international surveys related to business climate and investor perceptions.

²³ See Africa-Asia Confidential (2009).

²⁴ "Angola secures \$1.4 billion stand-by arrangement with IMF", Afrol News, <http://www.afrol.com/articles/34791>

²⁵ Nevertheless, we note that especially South African construction companies, equipment and material suppliers as well as other private sector players are increasingly becoming more aware and interested in understanding Chinese activities in Angola, given China's strong presence in the Angolan market and the strong interest in the Angolan market by South African business for market expansion opportunities. This interest has also been driven by South African President Jacob Zuma's state visit to Luanda in August 2009. President Zuma was accompanied by about a dozen cabinet ministers and a 150-person strong private sector business delegation. (See "SA, Angola strengthen ties", 26 August 2009, Brand South Africa, <http://www.imc.org.za/index.php/news/272-sa-angola-strengthen-ties-.html>)

The challenges associated with doing business on the continent and in Angola in particular are also outlined by the World Bank and Transparency International (2008). The latter considers that despite recent progress in democracy and human rights in a number of African countries, corruption remains one of the biggest challenges throughout the continent. Enormous natural resource wealth in countries like Angola have proven too tempting to some elites and international business concerns. Aid resources provided by multilateral and bilateral agencies have not been immune to corruption and misuse. Public services are unevenly provided and of poor quality, and civil servants are often so badly paid that they resort to petty corruption in order to survive. The institutions that are intended to provide checks and balances within the system are generally under-resourced and lack independence. Angola is ranked at 158 (of 180 countries) in their 2008 corruption ratings. Similarly the World Bank gives Angola very poor scores on almost all aspects of the 'ease of doing business' ratings.

4) Theoretical Framework and Methodology

In considering the options for developing the framework for our examination of the data and presentation of policy options we have opted for a descriptive and simple analysis. In other research between for example China and the neighbouring Southern African Customs Union (SACU) we have presented a general equilibrium computer analysis of possible trade trends (see Sandrey et al. (2008a) and Sandrey et al. (2007) for mainly South Africa but also Sandrey and Jensen (2008) for an analysis of the implications for the so-called BLNS countries of Botswana, Lesotho, Namibia and Swaziland from an FTA between SACU and China). We consider that such a sophisticated analysis for trade between China and Angola would add little to the overall understanding of the relationship given that oil is the only dominant export from Angola to China. We also consider that other trade analysis tools such as revealed comparative advantage analysis, gravity modeling and shift-share analysis are also of a degree of sophistication that the lack of primary Angolan trade data and the heavily concentrated export profile does not justify.

We therefore propose to sequentially work through the questions posed in the terms of reference and develop answers using analysis from the background policy framework and general trade data between Angola and China. We believe that this is safer ground to use to present sound policy recommendations. Our analysis will draw upon the literature reviewed above and in some instances on a wider literature analysis where the questions are more specific. Given the more diverse nature of Chinese exports to Angola we will concentrate upon this particular trade flow though, and provide an analytical appraisal of these exports to Angola.

5) Empirical Analysis

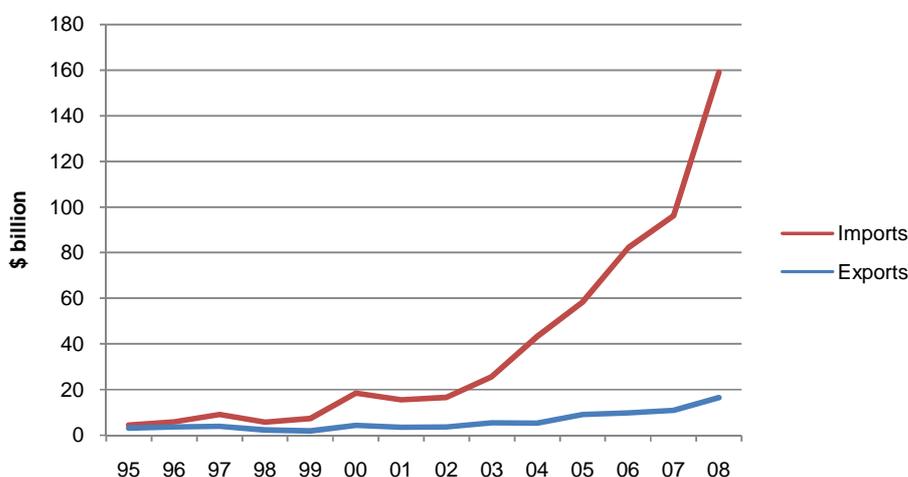
Each in-depth country case study is expected to address a series of questions intended to capture both the research issues and policy questions from the background analysis outlined above. A number of the research questions have been addressed in the former part of this report, the latter part (below) will focus specifically on the impact of the trading relationship on specific stakeholders and sectors in the Angolan economy. The period of analysis is 1997-2007 or as far as the data will permit and we have adhered to this wherever possible in the trade section.

5.1 Impact analysis of Angola's export growth to China

5.1.1 China's oil imports and role in setting global oil prices

Given the dominance of oil in Chinese imports from Angola, and indeed Angolan exports to the world, the key focus of the trade interest has to be on these oil exports. From a purely bilateral perspective there are two components pertinent to this examination; the first is the profile of these Chinese oil imports generally and the second is the role of China in determining global oil prices. Both will be examined below.

Figure 9: China's oil trade with the world, \$ billions



Source: *World Trade Atlas*

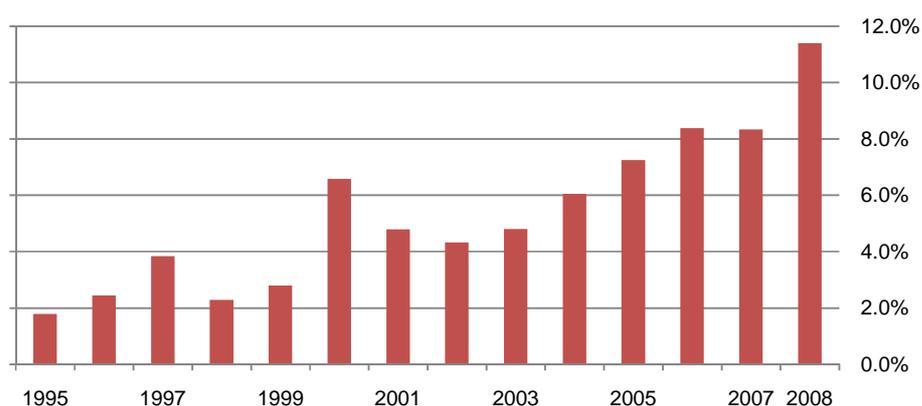
Oil is generally, but not wholly, an undifferentiated product whose price is determined on the world market, albeit a market influenced by the OPEC cartel. The starting point for this examination will be the rise of China as a major oil importer. This is shown in Figure 9, along with China's oil exports to the world, as a benchmark to place these imports in perspective. The data is expressed in US dollar billions, from

the December years 1995 through to and including 2008. The data includes both crude oil and oil 'not crude' (crude oil although dominates the imports with around a 60 percent share over the first five years of the period but a greater 80 percent over the last nine years). Conversely, for Chinese oil exports crude's share has steadily declined from around 75 percent at the start of the period through to around 16 percent at the end of the period shown. Note that Angola's exports and hence Chinese imports from Angola are exclusively crude oil.

For these oil imports there are three distinct periods shown. The first is from 1995 to 1999 inclusive where imports were minimal and marginally above exports. The second is the jump in imports at 2000 and the stable level through to 2002. The third is the crucial period from 2003 where imports rose dramatically from around \$20 billion through to the around \$160 billion in 2008 – a period in which Angola became a noteworthy trading partner of China. Exports of non-crude oil steadily increased over the period through to around \$16.5 billion at 2008. Not shown on this graph is that prior to 1993, China was a net exporter of oil. Post 1993, China has seen its oil (and gas) supplies as potentially "insecure" given its rapid economic growth and consumption of energy, particularly oil. Since the early 1990s, China thus has embarked on producing policies spurring Chinese companies to venture into the global energy sector in order to secure stakes in energy assets. As noted in a report by the Eurasia Group (2006) while China has tried to secure equity stakes in oil projects, the majority of its oil imports continue to come from world markets.

Figure 10 places China's total oil imports in perspective by showing how crude oil has increased as a share of China's total imports. Importantly this share has increased over a period when China's total imports were also increasing rapidly.

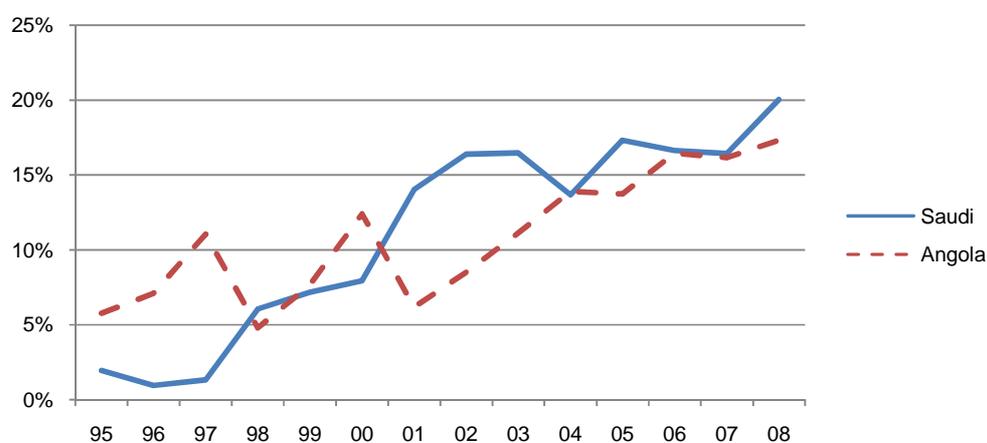
Figure 10: Crude oil as % share of total Chinese imports



Source: World Trade Atlas data

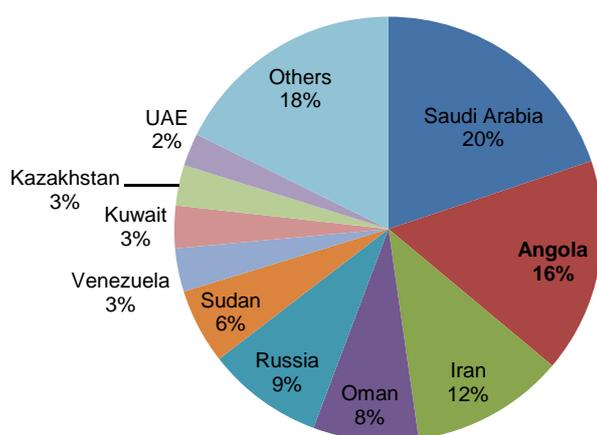
Angola's share of Chinese crude oil imports together with these figures for Saudi Arabia (for comparative purposes) is displayed in Figure 11. These two countries have gradually replaced Indonesia and Oman who were the main suppliers back in 1995, and are currently ahead of Iran and Oman who are in third and fourth position. Note that Figure 11 shows crude oil imports only. Non-crude or refined products are generally sourced from countries such as the Republic of Korea and Singapore that have refining capacity but no actual productive capacity. Thus imports of crude oil rather than refined oil become the key focus for imports in the final analysis.

Figure 11: Percentage share of Chinese crude oil imports (1995-2008)



Source: World Trade Atlas

Figure 12: China's share of oil imports by source (2008)

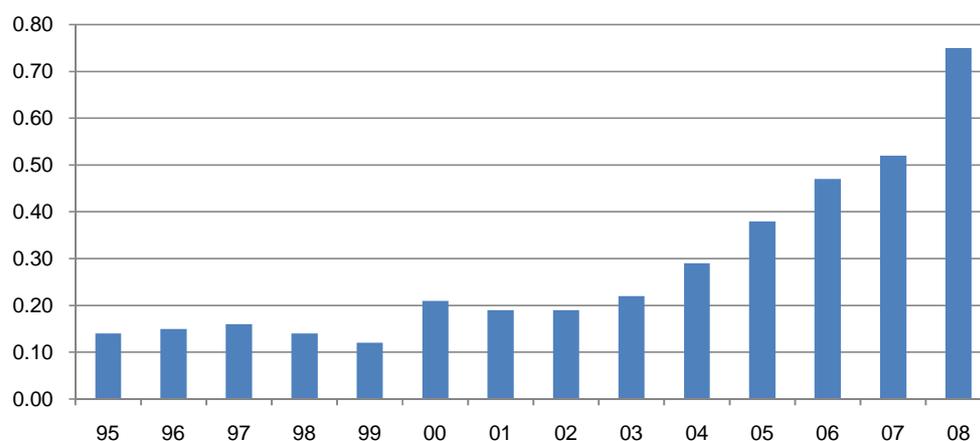


Source: FACTS Global Energy

Over the period Angola and Saudi Arabia have both significantly expanded their respective market share of Chinese crude oil imports, with Saudi Arabia moving slightly ahead at the 2008 finish point after starting significantly behind Angola in 1995. By the end of 2008 their shares were 20 percent for Saudi Arabia and about 16 percent for Angola with both recording their highest shares since the period of analysis.

The data shown in Figures 10 and 11 are expressed in value terms, with this being a simple combination of price and volumes. To show the well-known effects of the recent oil price spike we present the average per kg value of imports of crude oil into China over the period in Figure 13. We appreciate that oil's international price is expressed in US dollars per barrel, but as the Chinese import data is shown in the World Trade Atlas as US cents per kg we use that measurement. As it is an Index value it is therefore relevant to show the relative price changes. The prices peak during 2008 at 75 cents per kg after steadily climbing since 2003. We report that the 2008 peak was 90 cents per kg in the 3rd quarter, and that by the 1st quarter of 2009 this had retreated back to 31 cents per kg – a figure just marginally above the 2004 average as the global oil price fell.

Figure 13: Relative price of Chinese crude oil imports (in US cents per kg)



Source: *World Trade Atlas*

5.1.2 Global oil production and trade profile, and the influence of China

So far we have shown (a) China's oil imports by value, (b) Angola being a major contributor to these imports, with a rising share, and (c) that the average price has been a major factor in driving the value of

these imports in recent years. Global oil prices are generally well known, as are the politics of these prices with the OPEC cartel effectively setting international prices²⁶.

Now, while Angola is a major supplier of oil to China and has benefited massively from the recent price spikes of that oil, there is another factor that needs to be considered with respect to both Angolan exports and their relative values. That is the effects of Chinese imports on global oil demand and therefore global prices. Hamilton (2009) explores similarities and differences between the run-up of oil prices in 2007-08 and earlier oil price shocks, looking at what caused the price increase and what economic effects this had on importing countries. He finds that whereas historical oil price shocks were primarily caused by physical disruptions of supply, the price run-up of 2007-08 was mostly caused by strong demand confronting stagnating world production. And of course Chinese demand is a major factor in this increase as expanded upon below.

There are undoubtedly several factors influencing global oil prices such as the geopolitical situation in the Middle East, Russia and elsewhere, the demand in the US which seems almost imperious to price changes, the rising demand from the newly emerging (particularly Asian) markets and the recognition that the known supply of oil is limited and that about half of it has been used up in a relatively short period of time. These factors are set against the cartel powers of OPEC and OPEC's abilities to effectively dictate the global price of oil. To put the Asian growth and the impacts of this growth in perspective, in 1990 Chinese demand was only some 25 percent higher than the pre-reform 1978 level, but by 2004 this demand was about 3.5 times the 1978 level. In contrast, demand in both Japan and the Euro area was virtually stable and the US had increased by around 10 percent. The overall effect was for global usage to increase by a factor of 1.3.

By 2001 global usage was around 75.7 million barrels a day but 85.1 million barrels a day during 2007. Over that same period US consumption was 19.7 and 20.7 million barrels a day for 2001 and 2007 respectively, while the comparable data for China, the second largest consumer, was 4.6 and 7.6 million barrels a day respectively, and for Japan, the third largest consumer, it actually dropped from 5.3 to 5.01 million barrels a day respectively. China had therefore moved from consuming 6.1 percent of the global total in 2001 to 8.9 percent in 2007, an increase of 2.8 percentage points in what is a tight market. Chinese consumption is thus a factor in a complex mix of factors. But China's growing demand for oil

²⁶ The global oil price is effectively controlled by the Organization of the Petroleum Exporting Countries (OPEC), an intergovernmental organization created in 1960 by Iran, Iraq, Kuwait, Saudi Arabia and Venezuela. These members were later joined by Qatar, Indonesia, Libya, the United Arab Emirates, Algeria, Nigeria, Ecuador, Angola (2007) and Gabon. OPEC's objective is to co-ordinate and unify petroleum policies among Member Countries, in order to secure fair and stable prices for petroleum producers; an efficient, economic and regular supply of petroleum to consuming nations; and a fair return on capital to those investing in the industry. OPEC countries contain around two-thirds of the world's proven oil deposits, so more than any other single factor Angola's economic future is tied to OPEC's decision on its quota, although the world demand for oil, driven in part by rising Chinese demand, is a factor in these quota allocations which, in turn, really dictates the global price. This price is substantially above the real direct cost of pumping and refining the product, thus ensuring significant economic rents for not only OPEC members but other 'free-rider' producers as well.

needs to be put into perspective and thus analysed in per capita terms, in comparison to the US. In 2001 the US's oil usage was 68.9 barrels a day per 1,000 people and at 2007 this had dropped marginally to 68.7 barrels per 1,000 people. The comparable data for China was 3.6 barrels per 1,000 people and a figure of 5.7 barrels a day by 2007 – still less than 10 percent of the US figure (BBC, 2009).

The United States Department of Energy (2009) reported that during 2008 the main oil net importer was the US, with 10.98 million barrels a day. The US was followed by Japan (4.65 million) and China (3.88 million). Similarly, in 2008 the main net exporters were Saudi Arabia with 8.5 million barrels a day followed by Russia (6.9 million), United Arab Emirates (2.6 million) and Angola in 7th position with 1.95 million barrels a day. During 2008 Angola produced some 2.1 percent of the global oil total, and ranked in 17th position (similar to Libya) globally. Saudi Arabia was the top producer in 2008, followed by Russia, the US, Iran and then China. Angola's production share was an increase from the 1.1 to 1.2 percent during the 2000 to 2003 periods (US Department of Energy, 2009).

In 2006 the US Congress commissioned a study to examine China's demand for oil and the consequential impact on US petroleum markets (US CBO, 2006). While produced in 2006, before the period of high oil price spikes, it sets the scene well for what evolved over the next three years and provides some pointers for the global economic contraction in 2009. It outlines how China's demand for oil had been increasing at a rate that surprised analysts and both this increase and the "surprise factor" were factors in the rising global demand for oil. This oil demand was closely related to China's economic growth, and accentuated by the shift in population from rural to urban areas as this increased demand in the transport sector in the growing urban population and the growth in the industrial sector for petrochemical feedstocks and fertilizer. To assess future demand the CBO paper looked at (a) a fast growth scenario in China and (b) a slow growth pathway. Both scenarios were likely to result in higher crude oil prices, higher refining costs and greater price volatility, with the price implications for the US market estimated to be 19 cents a gallon under the slow growth and 38 cents a gallon under the high growth model. These increases were likely to be accentuated if restraints on oil production in Saudi Arabia, Russia and elsewhere did not loosen. In reality, through to mid-2009 we have seen both scenarios unfold. Firstly there was continued high growth in China but recently that growth has modified back to nearer the low growth scenario, and this has been accompanied by a tightening of production restraints and a major global economic downturn. The oil price pattern has been one that has seen prices retreat from the extreme highs to much lower levels but resuming a pattern of relatively high prices by historical standards.

How does this affect Angola? First and foremost, China's demand and subsequently high oil prices have largely underpinned Angola's impressive growth rates. Angola and African oil-producers in general achieved the largest gains from the most recent commodity super cycle. Unprecedented high oil prices in

mid-2008 provided much needed income and paved the way for larger budgets, increased foreign exchange reserves and improved current account balances. But, with the onset of the global financial crisis and resultant world recession, and with the associated decline in oil prices, there has been increased pressure on Angola to deliver on poverty reduction promises and to improve the healthcare infrastructure across the country. As the country's budget had previously been based on an oil benchmark price of \$55 per barrel but was revised to \$35 per barrel in the first half of 2009 (a drop of \$11 billion in expected revenues) this places Angola in a precarious position in 2009.

A bonus is that the economy is being increasingly driven by the non-oil sector, primarily through construction and heavy public spending under the auspices of the national reconstruction programme. But there are fears that the government will be unable to deliver on election promises, centred on poverty reduction and continued economic growth. Initially, the government insisted that years of oil windfalls would protect the country during these turbulent times but has since backtracked on these statements. Income from the oil sector in 2009 was expected to fund all government projects for the next two years, in addition to paying all civil servants for the same period. A statement released by the Finance Minister indicates that this will not be the case and that the government will cut public spending²⁷.

Increased oil revenues on the back of higher oil prices in 2007-2008 however placed Angola in a position where it could pick and choose investment partners for extractive industry developments, as reported by Corkin (2009). Consequently, despite substantial lending agreements from China EXIM Bank, state-owned Chinese companies do not receive preferential treatment at the bidding table, as many feared might be the case. Indeed, a proposed joint venture to develop a \$3 billion oil refinery in Lobito fell through in March 2007, because of a disagreement as to where the oil products would be exported. In the construction industry, reportedly, a number of projects are facing uncertain completion timetables, although improvements have been visible (Corkin, 2009).

Analysis of Angolan exports clearly shows that in major export destination markets around 99 percent of these exports are crude oil or some minor oil-related products. The only other (extremely minor) exports constitute some diamonds, some fish and fish wastes and some stone-type materials. The significant export destinations are China and the US (around \$20 billion each), the EU (around \$11 billion), South Africa and Brazil (\$2.8 billion and \$2.2 billion respectively) and then the minor destinations of Korea, India and Japan that we were able to report on. Figure 13 illustrated the import price of Chinese crude oil since 1995 and showed that prices peaked during 2008 after steadily climbing since 2003. We also reported that the 2008 peak was in the 3rd quarter, and that by the 1st quarter of 2009 the import price had retreated back to a figure just marginally above the 2004 average. Not reported in Figure 13 but shown

²⁷ "Angola to slash spending: report", 19 March 2009, AFP, <http://www.google.com/hostednews/afp/article/ALeqM5hOLeVCRbqZj4zIFiesUxMnSC9Qag>

later in Table 10 is that as of mid-October 2009 these prices were again back to very high historical levels in real terms.

Vines et al. (undated) confirm that Angola is a strategic oil supplier to the world's first and third largest oil consumers, as during 2008 it was the fifth largest exporter to the United States and the second to China. On 1 January 2007 many (including oil companies operating in Angola) were caught by surprise when OPEC admitted Angola as its 12th member and in 2009 began implementing OPEC production cuts. To comply with these OPEC cuts, Angolan output is scheduled to be lowered in 2009 from the 2008 level of around 2m bpd to perhaps 1.656m barrels of oil per day. Thus, oil exports from Angola are not responsive to the usual demand relationships but rather will be fixed in volume at the cartel-constrained world price. Since crude oil is an internationally traded commodity, the destination in 'normal' circumstances is not really an issue. We have placed 'normal' in parentheses as in an extreme situation the destination may not be determined on the usual supply and demand relationships but rather the ability to secure buying rights. Many hypothesize that China's interests in Angola are driven by this uncertain but not impossible eventuality. Meanwhile, Angolan exports are almost exclusively determined by international oil prices and OPEC quotas on production. As such, oil volumes will be determined by OPEC quotas and not the usual supply and demand relationships.

This is also noted by Downs (2007) who explores the Sino-African energy relationship in part by a "myth buster" inquisition. Downs asks what is the real situation specific to China's coordinated government strategy to gain access to the continent's resource wealth? One of the myths she explores is that China is taking oil off world markets. Chinese production from Africa that is sent home is, however, merely replacing supplies that would come from other sources. Indeed, Chinese interests are marginally increasing production, albeit that is largely constrained by OPEC. This is not to be confused with Chinese demand for oil that is clearly a significant factor in increasing global demand and has some price implications. One of the further myths explored is that of the Chinese oil-backed loans to Angola and the extent that this could be weakening the IMF's efforts to improve oil revenue transparency. Here Downs notes that this popular perception has some value, and a couple of points relating to this need to be kept in mind. One of these is that these loans are a small part of the windfall wealth that has poured into Angola as a result of (a) the oil boom and (b) this boom coinciding with a period when Angola's oil production doubled during the post-war era. Thus, there is a lot of money in the system that has nothing to do with Chinese interests.

We have briefly discussed the sectoral distribution of these gains, and in particular how the sector operates as an enclave to the rest of the economy with to date little flow-on benefits to the Angolan

masses, who are characterised by extreme poverty and malnutrition. According to the UNDP²⁸ the government of Angola together with a number of development partners has given priority to poverty reduction in the country, which includes the reconstruction of different types of infrastructure, better access to educational and health services, etc. More recently, the Angolan government approved the 2009-2013 medium term development plan building on the main strategy document approved in 2004. But while policies are being drafted, and although this is a domestic issue, it is clear that considerably more effort needs to be put into the redistribution of especially oil wealth. In the final analysis it will be Angola itself that will determine its economic future, either taking the route of Nigeria, where oil wealth is squandered and actually impoverishes the country versus Malaysia where sound policies ensure a much better long-term outcome.

5.2 Impact analysis of Angola's import growth from China

Africa's trading relationship with China in general has seen benefits to the African consumer on the import side. Cheaper consumer goods, including everything from TVs to clothing, final products and production inputs have benefitted African consumers and to an extent producers²⁹. In the manufacturing sector, the two key effects of China's competitiveness on Africa often reported are the fact that 1) African countries face tough competition from China in third markets, and that, although less understood, 2) China's competitiveness in the industry reduces domestic prices for both industry inputs and domestic consumers in African importing countries. Using econometric analysis Villoria (2009) finds that China has significantly reduced world prices for manufactures, and especially for wearing apparel and footwear. This in turn is displacing the clothing exports of the African countries in Villoria's analysis (namely Kenya, Mauritius and the SACU members), but as a consequence of China's export growth these focus countries have seen a substantial reduction in their import prices across all manufacturing sectors. However, estimations of their terms-of-trade effects suggest that the reductions in export prices outweigh the decrease in import prices and these countries therefore were net losers from Chinese manufactures export expansion. We would suggest that since (a) Angola is a large net exporter and (b) as it has no industrial base but limited manufacturing activity this is not a factor for Angola to consider.

A study by Zafar (2007) examines the relationship between China and SSA looking at the macroeconomic, trade, investment and aid links. His econometric analysis of commodity price data and other variables over the period 2000–2005 showed a degree of variation in the terms of trade effects for the 35 SSA countries examined. Clear winners were oil and base metal exporters: the oil exporters of Angola, Gabon, Sudan and Mauritania (iron ore), Mozambique (aluminum), South Africa (platinum and iron ore) and Zambia (copper). Next was a group of countries such as Botswana and the Central African

²⁸ See <http://www.ao.undp.org/Poverty%20Reduction.htm>

²⁹ See for example Zafar (2007), Kaplinsky (2008) and Sandrey & Edinger (forthcoming).

Republic who are resource exporters but oil importers and the cotton exporters of West Africa who are in a similar situation. Oil importers who have no or limited natural resource exports were the losers. We add a caveat that while in oil exporters have seen large windfall gains the distributional consequences from these gains is such that the majority of the citizens and especially the poor see little benefit as poor governance and therefore rent seeking behavior and limited unskilled labour are often features of these countries and these industries.

Against this background and in the absence of official data from Angola we use Chinese export data to probe this question. Analysing Chinese trade data over the period 1995 to 2008 inclusive reveals the following facts:

- during 2008 Angola ranked as the 13th most important source of imports into China and the 54th most important source of Chinese exports;
- over the period 1995 to 2008 inclusive the average growth rate in Chinese exports to Angola was 37.9 percent, above the average of all Chinese exports at 17.4 percent;
- this increase of 37.9 percent was the 5th highest increase among the 93 countries that China exported at least \$1 billion worth of exports during 2008;
- ahead of Angola were only Iraq, Croatia, Lithuania and Luxembourg (a transit point to Europe);
- similarly the average growth in imports into China was 39.2 percent, the 7th highest among the 66 countries that China imported more than \$1 billion from during 2008 and well above the average of 16.5 percent; and
- ahead of Africa was again Iraq, the four African countries of Mauritania, the Democratic Republic of the Congo, Congo and Equatorial Guinea, and Venezuela.

From this analysis we can conclude that Angola has made massive strides in becoming an important trading partner for China, and indeed in aggregate it was only overshadowed by Iraq.

5.2.1 The quality of the Chinese goods exported to Angola as measured by the average unit value

The quality of goods imported into Angola from China (mainly construction materials and equipment but also some consumer goods including clothing and textiles) cannot be ascertained from the trade data. Research of the Centre for Chinese Studies (2007) in Angola has revealed concerns of the quality of imported construction goods and materials especially as some of the Chinese built roads in Angola were washed away by heavy rains shortly after completion thereof. However, the report argues that this phenomenon is perhaps not an indication of poor quality of equipment imports but rather a lack of quality control and supervision of the projects. Quality concerns regarding Chinese imports, especially with regards to consumer goods, have however been cited in multiple countries. Nevertheless, in many

instances, the lower quality products are sometimes the only reasonable option that lower-income African consumers can indeed afford.

To determine the quality of Chinese goods imported by Angola from China, we examine the average price of Chinese exports to Angola and compare this average unit price against the average unit price of Chinese exports to the world using the World Trade Atlas data. The hypothesis is that exports to Angola, being a poorer developed country, will be marginally lower than the average price to the world as the quality of the goods exported to Angola may similarly be marginally lower than those exported to the rest of the world. There are two alternative hypothesis namely (a) that China is taking advantage of Angola and deliberately charging Angola a higher export price for the same goods (i.e., 'pricing to market'), or (b) that the goods are of the same or similar quality but Angola is able to influence some degree of market power.

During 2008 China exported merchandise goods to the value of \$2,930.80 million to Angola. Analysing the HS 8 disaggregated lines where exports were at least \$100,000 to Angola we find that this includes 98.78 percent of the total exports to Angola, and represents some 1,167 individual HS lines. This is a very detailed analysis (note that as we are using Chinese data we expect that the HS lines will be comparable between exports to Angola and exports to the world). We then compared the average unit export price to Angola with the average unit export price to the world, and divided the 1,167 lines into the following categories:

1. The main bulk of the exports to Angola where the average price was at least one third of the average price to the world but less than three times the average price. This category represented \$2,562.36 million or 87.44 percent of all the exports to Angola in 941 separate trade lines. The average trade-weighted price to Angola was actually above the average of the comparable lines to the world by six percent.
2. At one extreme there were some 178 HS 8 lines where the average price to Angola was at least three times the price to the world. This represented \$297.36 million in exports to Angola or 10.15 percent of the total.
3. At the other extreme there were 48 lines with \$34.94 million in exports where the average price to Angola was less than one third of the average price to the world. This represented only 1.19 percent of the total exports.
4. Finally, there were 2,651 lines where there had been some recorded exports to Angola over the previous three years but the 2008 export value was less than \$100,000 for the individual HS 8 line. Although many total lines are represented in this category, there was only \$35.75 million in exports here during 2008 or 1.22 percent of the total.

We suggest that categories 3 (average less than one third of the world price) and 4 (exports to the value of less than \$100,000 per line) can be discounted for this analysis. This only constitutes 2.41 percent of the total exports in these two categories in any event. Furthermore, we suggest that category 2 constituting of \$297.36 million or 10.15 percent of the total exports to Angola where the average price to Angola was over three times that of the world average price, needs to be carefully considered. We have no way of assessing whether or not the goods are superior, there is some glaring 'over pricing' evident, or that there are simply errors in the data. We do however make the observation (without comment) that there is some \$88.09 million of telecommunication infrastructural equipment in this category.

This leaves us with the assessment that the bulk (87.44 percent) of the Chinese exports to Angola during 2008 are at an average price that was marginally (six percent) above the average price for Chinese global exports to the world on a trade-weighted analysis of 941 trade lines. Based upon this analysis we reject the hypothesis that China is exporting inferior quality goods to Angola. We do however enter the caveats that (a) there may be some strategic pricing occurring and/or (b) that the data may have some inaccuracies at this level of detail. We also offer the thought that given the large share of these exports that are destined for Chinese construction projects in Angola and not for private domestic consumption (Table 5) many of these exports are in reality China exporting to its own construction firms. The quality question must then be passed to the Chinese infrastructural projects as much as or more so than the Chinese export quality.

To examine this question further we compare this by undertaken analysis on the Chinese exports to South Africa for the December 2007 year using the same World Trade Atlas data for Chinese exports to the world at the HS 6 detailed level for average prices at that HS 6 level, with this average data then compared against the average value of exports to South Africa representing a developing country and the United States, China's main export destination, representing a developed country. The hypothesis was that China would record a higher average value to the US than to South Africa, and furthermore that (a) the average value to the US would be above the global average and (b) that the average value to South Africa would be below the global average. Results showed that the average price of merchandise from China destined for South Africa was 100.9 percent of the trade-weighted average price of the global export of Chinese goods. The hypothesis that China is 'pricing to market' in that it has a lower average value of exports to South Africa than it does globally again did not hold. To test the second part of the hypothesis, that China is charging more to the US (or that the US is importing higher quality goods within these HS 6 lines) we found that the hypothesis appeared to hold: the average value to the US was some 13.2 percent above the global average for 2007 and 15.7 percent above for 2006. With around 20 percent of Chinese exports destined for the US, these figures are significant in that there must be a considerable percentage of Chinese exports that are below the global average given the high share of US exports in that global total.

Trade-weighted price changes

This section examines Chinese export data for an analysis of Chinese exports to Angola comparing the average trade-weighted price changes in these exports between the first quarter of 2005 and the first quarter of 2009. The analysis started with the highly disaggregated HS 8 line data and has then been aggregated up to the categories shown in Table 10. Note also that the data is denominated in US dollars, and here, unlike the average pricing to destination analysis above, relative changes in the currency cross rates will introduce a complication, albeit an unbiased one.

Table 10: Average price changes comparing Chinese 2005 Q1 and 2009 Q1 exports to Angola

| Description | 2005 Q1 \$m | 2009 Q1 \$m | Quarter 1 analysis |
|----------------------------|--------------|--------------|------------------------|
| Total exports \$m | 59.152 | 724.532 | average price increase |
| | | | by sector 2009 on 2005 |
| Subtotal \$m | 48.892 | 257.299 | (%) |
| Subtotal % total | 82.7% | 35.5% | 48.8% |
| Agricultural | 3.323 | 1.992 | 30.8% |
| Cement | 3.221 | 30.313 | 66.6% |
| Medicaments | 1.610 | 2.597 | 14.1% |
| Chemicals | 2.629 | 6.910 | 28.2% |
| Plastics | 2.102 | 9.555 | 63.1% |
| Rubber | 0.093 | 0.462 | 36.3% |
| Leather | 0.013 | 0.472 | -3.8% |
| wood and products | 0.274 | 2.966 | 54.2% |
| textile footwear clothing | 8.250 | 15.532 | 33.9% |
| wigs etc | 0.309 | 1.015 | -17.7% |
| stone ceramics glass | 0.788 | 7.980 | 73.1% |
| iron steel | 2.008 | 28.846 | 74.5% |
| aluminium | 0.340 | 6.623 | 18.6% |
| tools etc | 1.317 | 4.029 | 39.2% |
| general machinery | 2.879 | 51.531 | 52.2% |
| electrical machinery | 8.579 | 33.338 | 63.3% |
| vehicles | 10.062 | 44.305 | 14.0% |
| instruments furniture mis. | 1.095 | 8.833 | 60.2% |

Source: World Trade Atlas data, authors' analysis

The data in Table 10 analyzes 35.5 percent of the Chinese exports to Angola during the first quarter of 2009, a figure much lower than the comparable 82.5 percent of the exports during the first quarter of 2005. This shows how much of the 2009 exports are new trade lines that were not active in the first quarter of 2005. We have omitted lines where the increases were (a) more than 300 percent or (b) less than 33 percent on the basis that they may well have been anomalies, and we also omitted minor trade lines. The data shows that:

- the average price increase overall was 48.8 percent;
- two of the main lines of cement and iron and steel we can assume are construction-related, and here the increases were 66.6 percent and 74.5 percent respectively; both are above the average and large enough trade lines to influence that average;
- vehicles and general machinery are probably a mix of private consumption goods and construction equipment, and vehicles in particular are associated with a low increase;
- textiles, clothing and footwear are likely to be private consumption goods, and the increase here is comfortably below the average; and
- there are two sections that record a price drop – leather goods and wigs etc.

In summary, analysis of imports from China as proxied by Chinese exports shows an average trade-weighted price increase over the previous four years of 48.8 percent. In the absence of a more comprehensive data set we do not believe we can add more to this analysis. We do note however that these assessments have been made on the data of Chinese exports to Angola which is not the same as values of Angolan imports, likely because of (a) the differences that include the freight and insurance costs that are added to Chinese export values to give the Angolan import values and (b) numerous other reasons such as trade classifications and currency alignments which may result in differences. It is likely that the average tariff rate may be close but the total tariff rate, in the absence of rebates or other distortions, is likely to be higher than the figure we have given. Only access to official data would give the true figure (and here we note that only the US and until recently New Zealand make this detailed tariff data publically available).

5.3 Key challenges facing Angola from its trading relationship with China

This section looks to unpack the challenges that Angola faces, in light of its trading relationship with China. It will in turn examine the following challenges:

- (i) The challenges of judicious utilisation of the increased income especially the foreign exchange earnings from the oil sector, to relax supply-side constraints and diversify the economic base;**
- (ii) The challenges of responding strategically to the price competition promoted by Chinese imports;**

- (iii) The challenges of dealing with the risks of the structure of Angola's exports to China perpetuating specialisation in primary commodity production;**
- (iv) The challenges of dealing with the risk of China's cheap import leading to de-industrialisation, increased unemployment and discourage economic diversification;**
- (v) The challenges of handling the possibility that imports from China may be hazardous on account of low quality.**

(i) The relaxation of the supply side constraints in the oil sector is not an issue in the case of Angola. As a member of OPEC the governing factor here is the OPEC quotas and as such not under Angola's direct control. We have briefly discussed the problems facing Angola in its stated desire to develop a competitive manufacturing base and how China impacts here by (a) under-cutting industrialisation efforts by providing cheap consumer goods to Angola's home market and (b) crowding potential Angolan exports out of third markets. This subject is developed in more detail for Africa in general in Sandrey and Edinger (forthcoming).

(ii) Similarly, the challenge of responding strategically to the price competition promoted by Chinese imports is not an issue in Angola, as currently the country really has no meaningful industrial capacity. Therefore the competitive forces that enable Angola to source imports from the country that is the global price setter for light manufacturing products is a major plus. Also, as Angola has no tariff preference regimes the issue of trade diversion does not arise. Again, Sandrey and Edinger (forthcoming) report on the challenges that China presents to the African manufacturing base, and most of these African bases are stronger than the non-existent base in Angola.

(iii) The challenges of dealing with the risks of the structure of the country's exports to China perpetuating specialisation in primary commodity production are also not a challenge, as Angola literally has no export sector other than oil. Diamonds and fish products are very minor exports, and perhaps fisheries will, over time, develop further. Problems of infrastructural constraints are being addressed through the "Angola model" construction upgrades, and any improvements in this sector will be beneficial.

The other challenge is one of Dutch disease whereby the strong and appreciating currency places pressure on a latent export sector. Given Africa's history and performance of manufacturing capacity it is extremely unlikely that Angola will establish this capacity in the near future, and especially so that China has a strong presence in the Angolan market. Africa's manufacturing performance is epitomized by South Africa, a country that has a considerable percentage of the entire African manufacturing capability, yet is struggling to maintain its clothing sector in the face of largely Chinese competition despite 40 percent tariff walls.

- (iv) It is difficult to assert that cheap imports may be leading to de-industrialization and increased unemployment in Angola when there is no industrialisation at the present time. One may argue that Chinese imports make it more difficult to promote industrialisation outside of the dominant oil sector, but again that needs to be put in perspective. This really results in part from Dutch disease whereby the strong currency (one is reluctant to use that value-laden and misleading term 'overvalued' currency) is one of the factors attributing to the 'curse of oil' label, but again such a label is a very shallow comment without a detailed analysis of the background.

Again, we argue that Angola must look to its agriculture and agro-processing sectors, and here, as outlined above, we believe that China has much to offer. Angola's challenge is to redistribute oil wealth to the poor, and given that most of these poor are peasant farmers in a land-rich but technologically backward agricultural economy the lessons from how China transformed its rural economy from such a situation are extremely relevant to Angola. This is especially relevant now that Angola has access to significant oil revenues for development use. This is discussed in detail in the next sub-section. Also, although we have not discussed or even examined the fisheries sector, we note that there are small exports of fish and fish products in Angola's exports and suggest that an in-depth examination of this sector may point to economic benefits from a well resourced and managed fisheries sector.

There is also an implicit almost accusation here that Chinese imports are 'cheap' and of 'low quality'. Certainly Chinese global exports are setting the international benchmark for manufacturing imports, and we caution Angola that allowing preferences for European imports under the Economic Partnership Agreements carries a trade diversion cost. Furthermore, analysis in this report firmly rejects the hypothesis that China is exporting lower valued merchandise goods to Angola.

- (v) The challenges of handling the possibility that imports from China may be hazardous on account of low quality should be answered by pointing out how China has become the global benchmark for lightly manufactured goods. This is in both the richer OECD developed markets and in the poorer markets of the world. Price may have been a factor in establishing this dominance, but it is difficult to argue that price is the only factor. There is a general perception that the quality of Chinese consumer goods is improving, and certainly this Chinese export phenomena of the last fifteen or more years has been across all markets, rich and poor. It is always pertinent to keep in mind the concept of consumer choice in a market economy; consumers are not compelled to use Chinese imports and one must accept that they are choosing to do so in a rational manner. We appreciate that markets are not always free and fair, but we have offered a rebuttal to the argument that the Chinese economy is not a market one.

On the issue of standards, we refer to the WTO (2006) who report that standards activities in Angola are under the authority of the Angolan Institute of Standardization and Quality (IANORQ) established in 1996. They also report that the IANORQ is participating in the SADC regional activities and in the process of adopting both national standards for many food products and adopting some ISO international standards.

5.4 Possible trade opportunities and potential policy responses for Angola to maximize the net gain from its trading relationship with China

The Chinese economic 'miracle' and the role of small-scale industry³⁰

Well known is that China's dramatic economic growth over the last 30 years is just one more example of the growth paths exhibited by several Asian economies over the last fifty or sixty years, albeit with some road-blocks such as the Asian crisis of the mid 1990s. The successful recipe for Asia's growth in general and China's success in particular has been: to open markets to facilitate sensible price signals but at the same time to operate trade and exchange rate policies that favour exports over imports in the initial stages; to provide a sound and stable government that inspires investment and secures property rights; and to develop large-scale physical infrastructure. Given this, rural migration then provides the labour force that drives the growth in manufactured products (exported to the final market of the US) and consequently agriculture becomes an increasingly small component of the economy. While China has classically followed this Asian growth miracle pathway, it has differed in one major respect. That is where the rural sector, while supplying much surplus labour to the manufacturing sector, has become an internationally competitive sector in its own right, despite operating with largely small-scale farmers. With less than nine percent of global arable land China has succeeded in providing food security for 20 percent of the global population and largely lifted its citizens out of abject poverty. A uniquely Chinese rural pathway has been the Town and Village Enterprises (TVEs) that provide employment opportunities for both male and female persons of all age groups by bringing light manufacturing and other developments to the rural sector to mitigate the migration surge to the cities.

These TVEs were originally established as collective economic units run by local governments in the rural areas with the objective of employing rural peasants from agriculture in manufacturing and service occupations close to their homes. They have gradually shifted towards more private ownership and now comprise some rather large factories even close to major urban areas as there are advantages to classifying a business as a TVE such as taxation and reporting reasons. The TVEs set China aside from Africa. With the exception of South Africa, no African nation has developed a significant manufacturing

³⁰ This section is based on Sandrey and Edinger (2009).

base despite the ample evidence that this is required and crucial for higher per capita incomes. Instead, there have been elements of the first part of economic transformation, that of surplus agricultural labour migrating to urban areas, but it has resulted in few economic opportunities for these people and contributed largely to the urban poverty and crime that characterises Africa. Certainly Africa has, for whatever reason, 'missed the bus', in providing the correct enabling framework and it must take responsibility for these missed opportunities. Moving manufacturing to the villages instead of moving the villagers to manufacturing is a concept that Africa would do well to examine. Given this development pathway we examine the lessons from Chinese agricultural development that Angola should consider.

Agriculture – lessons from China for Africa

This report has not looked at the agricultural sector in detail, but it is clear that there is enormous potential for growth in this sector in Angola (African Development Bank/OECD, 2009). Associated with the discussion above on the TVEs is the issue of what Angola can learn from China and how Angola can leverage the interest that China is showing in African agriculture, and in Angola in particular. Chinese agriculture is built from some 200 million small time farmers, farming on an average of little over one half of a hectare each. The lessons from the Chinese experience are much more relevant to subsistence farming in Angola than from any other country. Sandrey and Edinger (2009) study this in depth, and we note that there may well be another 'perfect marriage' in that China and indeed other countries looking to secure agricultural resources in a similar but less visible manner to the so-called oil scramble. The abundance of relatively high quality land in Angola coupled with an agricultural sector that is struggling with post-conflict reconstruction must suggest possible opportunities for both China and Angola in agricultural development. However, and as has been the case with Nigeria, investments and focus on the 'oil boom' by both international and domestic stakeholders have diverted interests and focus from the agricultural sector, to the detriment of the agriculture and related sectors – what is sometimes referred to as the 'oil doom' (Runge, 2008).

While China has classically followed the "Asian pathway", it has differed in one other major respect. The rural sector, while supplying much surplus labour to the manufacturing sector, has become an internationally competitive sector in its own right, despite operating with largely smallholder farmers. The dramatic growth in Chinese agricultural output has been fuelled by a package of measures that supported and enabled the full benefits of technological change. The agricultural foundation is built upon the Chinese government's overall policies and the improved infrastructural environment. This broad package includes changes to land ownership; a relaxing of prices, both output and input, to move closer towards a free market regime; an associated relaxing of border controls and restrictions to similarly move towards a relatively free global market regime; and a large improvement in rural infrastructure such as roads and distribution, and it has been combined with agricultural-specific policies that included a dramatic rise in

fertilizer, insecticide and pesticide usage; an even more dramatic increase in rural electricity usage; a modest rise in irrigation usage; a modest, by Asian development standards, change in rural labour numbers; and improvement in agro-processing and storage procedures. Specific technological changes include a more efficient use of irrigation water; genetically modified plant varieties, changes in soil management and changes in fertilizer related issues. In addition, there have been dramatic changes in the spread and technological development of aquaculture in small plots.

China's efforts to assist African agricultural development are evident through the more than 200 cooperation programmes that have been rolled out in the sector since the 1960s. This includes the dispatching of Chinese agricultural experts, agro-technology programmes and the construction of demonstration centers. While the effectiveness of these programmes is questionable especially with regards to significantly assisting the development of the agricultural sector, announcements made at the second, third and fourth (most recent) Forum on China-Africa Cooperation (FOCAC) summits signaled China's commitments to support the agricultural sector in key African countries. The sector has also become an investment focus of the China-Africa Development Fund (CADFund) and this is already evident in the \$1 billion agricultural loan extended to Angola by China earlier this year³¹.

Other trade opportunities and potential policy responses

Looking ahead, China is rapidly regaining its role as one of the two preeminent economies in the world, a position that it held with India for most of the previous 2,000 years³². We believe that Angola is handling its relationship with China very adroitly given the background of this relationship during a very short post civil war period that has been characterised by an almost acrimonious relationship with the IMF in particular and Western agencies in general during a period of oil price spikes and a doubling of oil output in the now-constrained OPEC quotas. As discussed above, Angola is re-evaluating its relationships with China and other actors.

We see little to suggest that Angola should change its current policy stance. In particular, we note from the WTO (2006) that in the secondary sector Angola is implementing programmes and measures aimed at the development of competitive export industries and import substitution industries, the promotion of industry and the provision of assistance for small and medium sized industries the restoration of competitiveness and the creation (and restoration) of infrastructure. We have little to add to this except to note that this needs to be enforced and that the Chinese involvement in the latter aspect of infrastructure development is important.

³¹ See "Angola gets new billion-dollar agro-loan from China"; <http://africanagriculture.blogspot.com/2009/03/angola-gets-new-billion-dollar-agro.html>

³² Again, see work of Maddison at www.ggdc.net/maddison/

However, specific to the latter, all is not a bed of roses as many of the projects are facing uncertain completion timetables, although economic improvements have been visible. Corkin (2009) reported on the problems currently facing Chinese construction projects in Angola. These include limited bureaucratic capacity, poor understanding of the operating environment in Angola by Chinese companies, and supply bottlenecks in the construction sector. These problems are unlikely to improve in the short term, but by most standards six years after the end of decades of civil war Angola is in a strong economic position.

Angola has in fact recently made efforts to further reduce China's role in the economy, despite the extensive loans it has extended, and this includes a considerable thawing of relations between Angola and the international financial institutions and an agreement is in place for the Angolan Government to service its Paris Club debt. It is hoped that this will further allow the government to access credit from a more diversified group of country lenders, rather than leaning rather heavily on China. The real concern is that although the oil boom stimulated high growth rates, Angola still ranks poorly in terms of human development indicators. The oil wealth is concentrated in the hands of a few political elite, leaving the majority of the population to languish in severe poverty.

Aguilar (2006) concludes that the increasing presence of China in Angolan markets is a natural consequence of China's rapid growth, and while this is a global phenomena there are characteristics that mark the Angolan case as different. The first is the speed in which it happened in Angola, but this was a consequence of the desire for resources and construction opportunities linked to the availability of increasingly large Chinese financial reserves on the one hand and the need for Angolan infrastructural development under a funding model that did not impose conditionality on the other. The oil price spike of mid-2008 highlighted the role of China in oil-rich Angola, but antecedes were in place right at the beginning of the spike, albeit a spike accentuated by China's burgeoning demands for resources. How important is this relationship for Angola? Quite important, as the financing allowed Angola to move ahead on infrastructural reconstruction earlier and faster.

Besides the oil and hard commodity interest, we would add that a new investment pattern is emerging, that of China's (and others) desire to acquire access to land in Africa as a solution to their rising demand for food, a demand accentuated by increasing wealth, changing diet patterns and economic development taking scarce land out of production. Africa, unlike China, has large areas of undeveloped and/or under-utilised agricultural land. While there are good (the opportunity to develop the land and enhance exports) and bad (the opaque nature of these often government to government deals) aspects, they are backed by an increasing Chinese presence in Africa that is dedicated to bringing to the continent the same technologies that have dramatically changed agricultural production in China in a way that has equally dramatically lifted a large portion of the 200 million farmers and their families out of poverty over a period when poverty levels in Africa has actually increased (Jamestown Foundation, 2009; Economist, 2009;

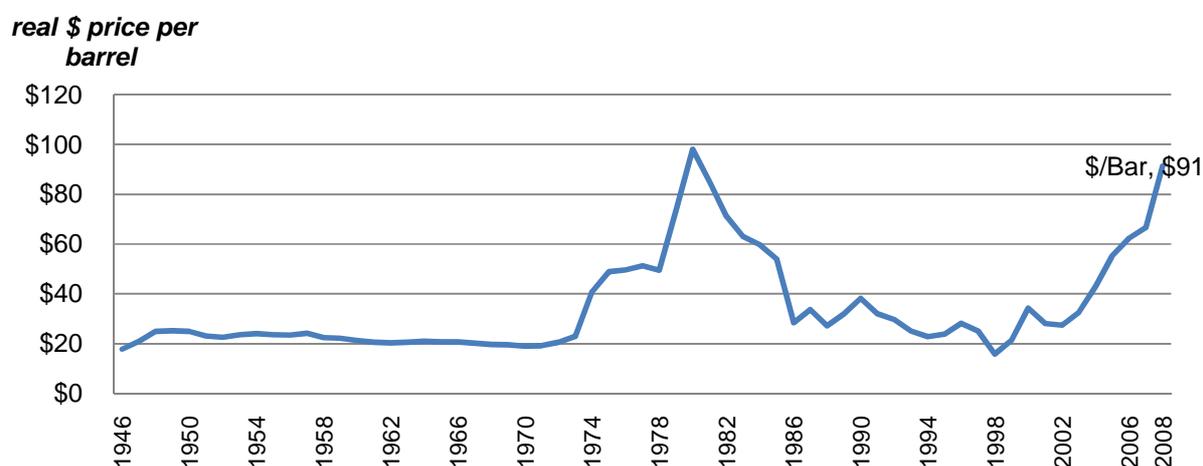
Sandrey and Edinger, forthcoming). Politics permitting, there exists a great deal of potential for Chinese involvement in Africa's commercial agricultural sector and beneficial impact in rural Africa.

As already mentioned, in the case of Angola, a \$1 billion loan to boost the agricultural sector (specifically cereal production and agro processing) was extended by China Development Bank (CDB) in March 2009. According to estimates by the World Bank in addition to this loan, this could make Angola China's largest loan recipient on the African continent over the last 6 years.

6) Conclusion

The overwhelming conclusion from our analysis of Angola's trading profile and performance is that its exports are (a) determined by oil exports and will be in at least the medium term future, (b) the value of these oil exports is determined almost solely by the cartel-controlled OPEC quota, a quota in which Angola itself as a member of OPEC has some influence upon, and finally (c) that the oil trading relationship with China is a complex one in that it is inexorably linked to Chinese investment and aid in Angola, with the latter having been expanded upon and unpacking in the companion papers on China-Angola aid relations and China-Angola investment relations. Thus, given that the oil supply will be set by quota, the crucial export performance question becomes one of future oil prices. It is not for us to speculate too much upon that price, but rather present an historical graph of the real oil price over the last half century. This is shown in Figure 14, where it can be seen that the real price was stable at around \$20 a barrel right through to the oil price spikes of the mid 1970s to early 1980s where it peaked at \$98 a barrel during 1980. From there it retreated to a low of \$16 a barrel during 1998 before the recent oil price spike that saw a peak of \$91 average during 2008. It has since again retreated during 2009: from a low of \$32 during February to around or just over \$60 through to October 2009. The crucial question for Angola and one that we are unable to answer is the likely time path from 2009 onwards. We would however speculate that it is unlikely to retreat significantly lower than the current \$60 – \$70 per barrel in real terms.

Figure 14: Real US dollar price of Brent crude oil (1946 to 2008)



Source: http://www.inflationdata.com/inflation/Inflation_Rate/Historical_Oil_Prices_Table.asp

If our speculation is correct this will lead to a very simple mathematical adjustment in total Angolan export revenues as (a) oil is the only significant export product and (b) the supply is fixed. This reduction is likely to be down from the euphoric heights of over \$60 billion during 2008 to perhaps the still historically high levels of the \$30 billion to \$40 billion range of 2006 and 2007. A pragmatic and appropriate policy

response already seems to be adopted by Angola. As noted, reports from Angola during September 2009 suggest that Luanda turned down a Chinese acquisition of a coveted oil block and with the expectations of lower oil revenues officials then met representatives of the World Bank and IMF to negotiate a support package. While we are of course fully aware of the controversy surrounding the so-called 'Washington consensus' hard line approach of the World Bank and IMF we broadly support the need for more transparency and accountability in Angolan politics and business links. Therefore these recent moves by Angola to consider a diversification of its development agenda are to be applauded.

Unfortunately we see little in the medium term future to diversify Angolan exports away from oil. The manufacturing base is weak, and as discussed in Sandrey and Edinger (forthcoming), efforts to expand that base in Africa in general are hampered by both the Chinese import competition on the continent in the first instance and the 'crowding out' of third market opportunities in the second instance. These problems are accentuated by the strength of the Angolan currency (the kwanza) which increases the real exchange rate to the detriment of export and import-competing sectors and the infrastructural constraints that haunt Angola. We have briefly discussed opportunities for Angolan agriculture and reiterate that there are significant medium to longer term opportunities and synergies here, given the Chinese experience in lifting its small scale farmers out of poverty in recent times mutual cooperation opportunities are present in this sector. Some exports of diamonds are taking place, and another largely latent sector with potential is the fisheries sector.

A fundamental and inescapable issue of governance remains in Angola, as we have discussed during this report. Without being judgmental, we would join those chiding the ruling elite in Angola and suggest that efforts to address governance must be on the table along with an increased effort to ensure that oil wealth is more evenly distributed. Indeed, as the OECD (2008) observe,

"Spillover effects from the oil boom to the rest of the economy have so far been limitedThe challenges ahead are the continued development of the private sector (particularly in non-extractive sectors), poverty reduction and improvement in access to basic services".

Little progress has emerged since 2006 when the WTO wrote of Angola that "poverty and inequality are deeply entrenched, and problems of competitiveness and governance persist". The same 2006 WTO report noted that "diversification of production and trade, rehabilitation of the domestic infrastructure, and spreading of the benefits of growth to encourage wider development, are the major structural economic challenges facing Angola". Major progress has been made on rehabilitation of domestic infrastructure, but less has been made on the diversification of production and trade or the spreading of the benefits of growth (see also Corkin, 2008). These issues of course are not uniquely Angolan, or indeed even African problems, but they are issues (other than domestic infrastructure rehabilitation) where the opaque nature of the Chinese trade and investment relationship has removed some of the pressure upon the ruling elite to address.

Reflecting upon import policy and performance we see little in the way of changes that Angola might adopt. Luanda has been cautious in its approach to the Economic Partnership Agreement (EPA) with the EU and appears to be conscious of the inherent and associated dangers of trade diversion away from the world reference priced import source(s) of China in particular. Our analysis has uncovered little to suggest that the concern of China flooding Angola with cheap and substandard quality imports has much validity, and support the thesis that consumers are more than capable of making rational choices in the market place on such price-quality tradeoffs in any event. This is happening in the rest of the world with Chinese consumer goods, and indeed markedly in the richer nations as much as the developing world. More especially for Angola the Chinese imports are concentrated upon infrastructural equipment and supplies, and these are largely in support of Chinese companies themselves. Here we present support that the quality of the Chinese construction work is of at least an appropriate standard, and suggest that it really is up to Angola itself to leverage more capacity building from the Chinese construction programmes.

7) Bibliography

Africa-Asia Confidential, 2009. "Luanda diversifies its oil portfolio", September, [Online]. Available: <http://www.africa-asia-confidential.com/article-preview/id/289/Luanda-diversifies-its-portfolio>

"Africa's share of world exports down about two-thirds in three decades", June 17, 2008, World Bank, [Online]. Available: <http://econ.worldbank.org/wbsite/external/extdec/extresearch/0>

African Development Bank/OECD, 2009. "African Economic Outlook: Angola Country Profile".

Aguilar, R., 2006. "The Asian drivers and Angola". Presentation available at www.oecd.org/dataoecd/43/50/36344264.ppt

Ahmed, H., 2007. "Improved operations through manpower management in the oil sector", *Journal of Petroleum Science and Engineering*, Vol 55: 1-2, January, pp. 187-199

Ajakaye, O., Mwega, F. M., and N'Zue, F., 2008. "Seizing Opportunities and Coping with Challenges of China-Africa Aid Relations: Insights from AERC Scoping Studies", Policy Issues Paper No. 1, August.

"Angola gets new billion-dollar agro-loan from China", 12 March 2009, AFP, [Online]. Available: <http://africanagriculture.blogspot.com/2009/03/angola-gets-new-billion-dollar-agro.html>

"Angola secures \$1.4 billion stand-by arrangement with IMF", 24 November 2009, Afrol News, [Online]. Available: <http://www.afrol.com/articles/34791>

"Angola to slash spending: report", 19 March 2009, AFP, [Online]. Available: <http://www.google.com/hostednews/afp/article/ALeqM5hOLeVCrbqZj4zIFiesUxMnSC9Qag>

Burke, C., Corkin, L. and Tay, N., 2007. "China's Engagement of Africa: Preliminary Scoping of African case studies Angola, Ethiopia, Gabon, Uganda, South Africa, Zambia". Prepared for the Rockefeller Foundation. [Online]. Available: www.ccs.org.za .

Business Monitor International, 2009. "Angola Infrastructure Report Q2 2009", Industry Report & Forecasts Series, March

Campos, I. and A. Vines, 2007. "Angola and China: a Pragmatic Partnership" Chatham House, London. [Online]. Available: http://www.csis.org/component/option,com_csis_pubs/task,view/id,4510/

Centre for Chinese Studies (CCS), 2006. "China's Interest and Activity in Africa's Construction and Infrastructure Sectors". A research undertaking evaluating China's involvement in Africa's construction and infrastructure sector prepared for DFID China, November

Chen, C., Chiu, P. C., Orr, R., and Goldstein, A., 2007. "An empirical analysis of Chinese Construction Firms' entry into Africa". The CRIOCM2007 International Symposium on Advancement of Construction Management and Real Estate, 813 August 2007, Sydney, Australia.

Cheung, Y.-W. and Qian, X., 2009. "The Empirics of China's Outward Direct Investment". CESIFO Working Paper no. 2621, category 7: Monetary Policy and International Finance, April

Congress of the United States Congressional Budget Office (US CBO), 2006. "China's Growing Demand for Oil and Its Impact on the US Petroleum Markets", Washington DC, April

Corkin, L., 2009 "Angola's Current Economic Prospects: Oil Curse or Blessing?" ARI 4/2009 - 9/1/2009

Corkin, L., 2008. "AERC Scoping Exercise on China-Africa Relations: The Case of Angola", January 2008. [Online]. Available: www.aercafrica.org

Daya, Y., 2006. "Trade potential between South Africa and Angola", Directorate International Trade: Trade Research Desk, South African Department of Agriculture, Pretoria, March

Downs, E. S., 2007. "The fact and fiction of Sino-African Energy Relationship". *China Security*, Vol (3) Summer 2007, pp 42-68, World Security Institute.

Economist Intelligence Unit, 2008. "Angola Country Report". October

Energy Information Administration, 2008. "Angola: background", United States Department of Energy, [Online]. Available: www.eia.doe.gov/emeu/cabs/Angola/background

Eurasia Group, 2006. "China's overseas investments in oil and gas production". A report prepared for the US-China Economic and Security Review Commission; issued 16 October 2006, New York.

Ferreira, M. E., 2008. "China in Angola: just a passion for oil?" In Alden, C., D. Large and R. S. de Oliveira (Eds), "China returns to Africa: a rising power and continent embrace", 2008, Columbia University Press.

Hamilton, J. D., 2009. "Causes and Consequences of the Oil Shock of 2007-08". NBER Working Paper No. w15002, June

International Monetary Fund (IMF), 2007. "Angola: Selected Issues and Statistical Appendix", October 26

International Monetary Fund (IMF), 2009. "Regional Economic Outlook: Sub-Saharan Africa". [Online]. Available: www.imf.org

Jamestown Foundation, 2009. *China Brief* Vol 9, Issue 11, May 27

Kaplinsky, R., 2008. "What does the Rise of China Do for Industrialisation in Sub-Saharan Africa?", *Review of African Political Economy*, Vol 35: 115. pp 7-22

Lederman, D. and William F. M., (eds) 2007. "Natural Resources - Neither Curse nor Destiny", World Bank publications, Washington DC

Maddison, A. See www.ggdc.net/maddison/

Minson, A., 2008. "Will China Trade Preferences Aid African LDC's?" South African Institute of International Affairs, Trade Policy Report No 19, 2008.

OECD, 2008, "Outlook for Africa: Angola", Paris.

Runge, P., 2008. "Potholes and profits: Business & other conversations & experiences from Africa", Africa Project Access Publication, November

"SA, Angola strengthen ties", 26 August 2009, Brand South Africa, [Online]. Available: <http://www.imc.org.za/index.php/news/272-sa-angola-strengthen-ties-.html>

Sandrey, R., 2009, "China - Africa merchandise trade for the December 2008 year", tralac Working Paper

Sandrey R. and Edinger, H., 2009. "The Relevance of Chinese Agricultural Technologies for African Smallholder Farmers: Agricultural technology research in China", report to the African Agricultural Technology Foundation by the Centre for Chinese Studies, University of Stellenbosch, April 2009, [Online]. Available: www.ccs.org.za

Sandrey R. and Edinger, H., forthcoming. "China's Manufacturing Sector Competition and Industrialisation efforts in Africa", Prepared for the African Development Bank (AfDB) May 2009

Sandrey, R. and Jensen, H. G., 2008. "SACU, China and India: the implications of FTAs for Botswana, Lesotho, Namibia and Swaziland (BLNS)", in Monitoring Regional Integration in Southern Africa Yearbook, Volume 8

Sandrey, R. and Jensen, H. G., Vink, N., Fundira, T., Meyer, F., Hughes, C., Nyhodo, B. and Smit, L., 2008a. "South Africa's way ahead: looking East", tralac, Stellenbosch

Sandrey, R., Smit, L., Fundira, T., and Edinger, H., 2008b. "Non-tariff measures inhibiting South Africa exports to China and India", in Sandrey et al, 2008. "South Africa's way ahead: looking East", tralac, Stellenbosch. [Online]. Available: www.tralac.org

The Economist, 2009. May 23, 2009 edition.

Thorbecke, W., and Zhang, H., 2008. "The Effect of Exchange Rate Changes on China's Labor-Intensive Manufacturing Exports", RIETI Discussion Paper Series 08-E -038. [Online]. Available: <http://www.rieti.go.jp/jp/publications/dp/08e038.pdf>

Transparency International, 2009. "Corruption Perceptions Index (CPI)", Available [Online]: <http://www.transparency.org/publications/gcr>

UNCTAD, 2008. "World Investment Report". [Online]. Available: www.unctad.org

UNDP, [Online]. Available: <http://www.ao.undp.org/Poverty%20Reduction.htm>

US Department of Commerce, [Online]. Available: <http://tse.export.gov/>

United States Department of Energy, 2009. [Online]. Available: <http://tonto.eia.doe.gov/country/index.cfm>.
Downloaded 21 October 2009.

US International Trade Commission (USITC), 2009. "Documentation of global non-tariff barriers", from personal communication with USITC.

Villoria, N. B., 2009. "China and the Manufacturing Terms-of-Trade of African Exporters". *Journal of African Economies*. 25th March

Vines, A., Weimer, M. and Campos, I., undated. "Angola and Asian Oil Strategies", Chatham House, London

Vines, A., Wong, L., Weimer, M. and Campos, I., 2009. "Thirst for African Oil: Asian National Oil Companies in Nigeria and Angola", Chatham House, London, August

Wood, A., and Mayer, J., 2001. "Africa's Export Structure in a Comparative Perspective." *Cambridge Journal of Economics* 25: 369–94.

World Bank, 2008. "Building Bridges: China's growing role as infrastructure financier for Sub-Saharan Africa".

World Bank, 2009a. "World Development Report: Reshaping Economic Geography", Washington DC

World Bank, 2009b. "Doing Business, 2008". The International Bank for Reconstruction and Development/ The World Bank, Washington DC

World Trade Organisation (WTO), 2006. "Trade Policy Review Mechanism of Angola", January 2006, Geneva

WTO. 2008. "WTO Trade Policy Review – Secretariat Report 2008 and China Government Report". [Online]. Available: http://www.wto.org/english/tratop_e/tpr_e/tp299_e.htm

Zhang, Y., undated, "Liberalization of Chinese Economy: APEC, WTO and the Tariff Reduction", [Online]. Available: <http://iaps.cass.cn/english/articles/showcontent.asp>

Zafar, A., 2007. "The growing relationship between China and Sub-Sahara Africa: Macroeconomic, trade, investment and aid links". Published by Oxford University Press on behalf of the World Bank, 2007.