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**WHAT ARE THE IMPLICATIONS FOR GLOBAL VALUE  
CHAINS WHEN THE WHEN THE MARKET SHIFTS  
FROM THE NORTH TO THE SOUTH?**

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## SUMMARY

This paper charts the evolution of financial and economic crisis in the global economy and argues that the likely outcome will be sustained growth in the two very large Asian Driver economies of China and India and stagnation in the historically dominant northern economies. Given the nature of demand in low income southern economies, it is likely to be reflected in sustained demand for commodities. Based on an analysis of the interaction between the nature of market demand and production processes, this paper argues that the transition in markets from high-income northern to low-income southern consumers will have implications for producers in commodity value chains. In particular it will lead to the diminished importance of standards (often a conduit for capability-growth) and to a reduction in the degree of value added to commodities in exporting economies.

### Keywords

Global value chains

China

India

Financial crisis

Cassava

Tropical timber

## 1. INTRODUCTION

Until the early 19<sup>th</sup> century, China and India together accounted for more than 60 percent of the world's economic output (Maddison, 2007). Thereafter, a combination of declining output in China and India, and rapidly growing investment and productivity in Europe and North America led to a shift in the geography of global production. In 1969, the nadir point of their relative decline, China and India together contributed less than seven percent of total output in the global economy, with Europe accounting for 26 percent and North America 25 percent (ibid).

After the late 1960s, the dominance of the global economy by predominantly "northern" economies was marked by deepening globalisation. Producers in low income countries were drawn into the global economy through their participation in global value chains (GVCs). In an increasing number of sectors, leading northern firms focused on their core competences (where they could generate and appropriate rents), and outsourced non-core tasks. Where this involved the extensive use of labour and/or low-technology, this outsourcing was directed to developing economies. International trade was increasingly concentrated in intermediate products and in the assembly of these intermediate products into final products destined for global consumers. Where developing economies participated in this division of labour, the designs and brandings of products, as well as the capital goods used to produce them, were sourced from high income economies, and the global chains were overwhelmingly coordinated and governed by lead firms from high income economies. Hence the evolution of a global division of labour where, as a general rule, high income economies specialised in technology- and capital intensive links in the chain, whilst low-income economies occupied the low-tech and labour-intensive links. In addition, as high income economies became increasingly preoccupied with environmental concerns, the more pollution- and energy-intensive activities in the chain were located in low income economies.

In the last two decades of the twentieth century, a parallel process of expansion and globalisation unfolded in the financial sector. Control over this sector were deregulated at an increasing pace from the mid-1970s, initially in the US and the UK, and then subsequently in other northern and then southern economies. This was accompanied (some would say, driven) by the rapid diffusion of new information and telecommunications technologies which vastly eased transactions in this sector, leading to an exponential growth in its size and in its share of global economic returns. Policy responses to emerging crises in the financial sector (such as the reduction in interest rates after the collapse of the dotcom bubble in the late 1990s) fuelled rather than constrained its pace of expansion. Imbalances developed in global consumption and savings, with growing structural disequilibria developing between different regions, notably in the trade and financial sectors.

From the mid-1980s this historical trajectory of northern dominance began to wane, driven by two sets of inter-related developments. The first was the very

rapid growth of productive capabilities in the two large Asian Driver economies, China and India ([www.asiandrivers.open.ac.uk](http://www.asiandrivers.open.ac.uk)). The second was the maturation of structural weaknesses in many of the key previously dominant northern economies which resulted in a major financial meltdown in 2008, with an accompanying fall in global, and (especially in northern economies') output. If these two trends are sustained, this will have a major impact on the locale of production and consumption in the global economy in the 21<sup>st</sup> Century.

In this paper we will consider some of the potential implications of this changing global geography of production for the capabilities accumulated by low income producers feeding into global value chains. Here, informed by emerging evidence from the timber sector in Gabon, the cassava sector in Thailand (Kaplinsky, Terheggen and Tijaja, 2011 forthcoming) as well as in Malaysia's palm oil sector, we will consider two sets of capabilities. The first are those arising out of the need of producers to meet increasingly-demanding standards in final markets. The second arises from the growth of capabilities as producers climb the value-added tree in the production and processing of commodities.

The discussion will proceed as follows. We begin at a relatively abstract historically-informed level in Section 2 by discussing the role which final markets play in the development of capabilities, paying particular attention to the growing prevalence of process and product standards in GVCs. We also discuss the role played by linkages in commodities value chains in fostering economic growth and diversification. Then, in Section 3 we consider the significance of the current historical moment, observing the divergent growth paths in the post-financial crisis global economy, and concluding that there is a strong likelihood of sustained growth in the south and stagnation in the north. Section 4 addresses the distinctive nature of consumption in these rapidly-growing low income final markets. Section 5 draws the discussion in Sections 3 and 4 together, and speculates on the consequence which the switch in demand from slow-growing northern to rapidly-growing southern markets holds for capability-growth in southern based commodity value chains and for the international division of labour in commodities sectors. These speculations are briefly supported by evidence drawn from two global commodity value chains – cassava and timber.

## **2. MARKETS, GLOBAL VALUE CHAINS, STANDARDS AND CAPABILITIES**

In the context of a highly competitive global economy, growing and sustaining incomes over time require a combination of increasing investment (the extensive margin) and increasing productivity (the intensive margin). Much of our understanding of these two components of growth has been informed by the analysis of the determinants of supply. Predominantly this has focused on domestic factors, that is the nature and extent of funds available for investment and capability-building, the drivers of these investments in the corporate sector, the forms of state support provided to the productive sector

and the role played by the national system of innovation. These issues, for example, have been intensively explored for Korea and Taiwan (Amsden, 1989; Wade, 1990). There has also been an accompanying, albeit less developed literature on the role played by (predominantly foreign-based) lead-buyers in the development of capabilities in firms and countries feeding into GVCs. Buyer-driven chains have been widely seen to involve forms of governance which consign developing country producers in these chains to processes of physical transformation, locking them out of high-return links such as logistics, design, branding and marketing (Schmitz and Knorringa, 2000; Kaplinsky, Readman and Morris, 2002). To the best of our knowledge however, there has been little or no literature on the influence which patterns of demand in final markets – as opposed to the actions of lead-buyers – have played in the development and augmentation of productive capabilities in global value chains. It is this issue which is the subject of the analysis which follows.

A key demand-related factor affecting economic growth is the size and rate of market growth. Rapidly expanding and large markets both spur productivity growth by allowing for scale economies in production (Verdoorns Law) and send a signal to producers that they can have confidence in investing for the future. It leads to a virtuous circle of growth and innovation, and is particularly influential in the context of very large domestic markets, or when producers sell into global markets.

But, it is not just the *volume* and rate of demand growth which affects productivity and capabilities. The *nature* of demand also has a significant impact on capabilities, and the returns to alternative patterns of production.

Around the late 1960s, there was an important transition in final markets in the northern economies (Piore and Sabel, 1984). Once post World War Two reconstruction had been achieved and basic needs of most consumers had been met, consumers became increasingly discerning about the products they consumed. They demanded higher levels of quality, much greater product differentiation and faster rates of product innovation. In the context of this change in the pattern of demand, the ideal archetype in production organisation moved from mass production to mass customisation (Pine, 1993), in which producers developed the capabilities to meet different critical success factors (CSFs) in proliferating and dynamic market segments. Variety and flexibility – with little trade-off in costs – became the name of the game in competitive production.

A direct consequence of this search for low-cost flexibility was a transition in production organisation, from “just-in-case” mass-production to “just-in-time” lean production (Kaplinsky, 1994; Womack and Jones, 1996). A series of related changes in quality-procedures (with “zero-defects” becoming an essential building block of just-in-time production) and reduced batch-size, coupled with the drive by firms to concentrate on their core competences meant that lead firms were required to take responsibility for the systemic efficiency of their increasingly global value chains (GVCs) (Gereffi, 1994). One important component of the tool-box which this entailed was the

development of standards in production, often usefully summarised as QCD. The Q stood for standards over quality (increasingly measured in parts per million), the C for cost (annual reductions in price paid to suppliers) and D for delivery (more frequent deliveries in smaller batches) (Kaplinsky, 2010a).

Most of these standards were firm-specific. But in some cases industry-specific standards were also developed as the outcome of collaboration between private sector firms searching for competitive advantage. Increasingly, too, standards were introduced to foster the capabilities of suppliers to meet the new requirements of lean production, notably the cross-sectoral ISO9000 quality procedures, and subsequently ISO14000 environmental standards. The development and extension of these process standards began in the Japanese auto industry in the 1960s and then gradually spread to the global electronics sector and then more widely and rapidly to many sectors in subsequent decades. By the end of the twentieth century, these private sector standards had become an integral component in most GVCs feeding production into global markets, particularly for intermediate and final consumption goods characterised by variety.

A further development of standards reflected a different process, one in which the key drivers were final consumers and the state concerned with consumer welfare, rather than private sector firms searching for competitive advantage. In some cases, standards were set by governments to promote product safety, particularly in the food sector. Civil society organisations were similarly concerned with product safety, but increasingly, consumers' organisations also became concerned with the processes involved in producing products to meet their needs, requiring fair returns to producers (FairTrade), environmental and organic certification, and labour standards

The demand that producers meet standards in GVCs has contributed to the growth of capabilities of producers in a number of ways. First, at the level of the workforce, the need to measure and analyse process performance requires numeracy, literacy and other skills, leading to an upgrading of skills when compared to chains without process standards. This affected both the existing labour force in firms and in their need to recruit a relatively educated labour force. Second, the establishment of procedures to document process and product requires the development of routines within firms to regularise behaviour. Routines of this sort are widely recognised to be a key component of firm-level capabilities (Nelson and Winter, 1982) and the development of routines with regard to a particular form of certification frequently spilled-over into routines which led to the upgrading of performance in other areas as well. Third, since the achievement of standards generally requires conformance along the value chain, these individual capabilities and firm-level routines have been driven down the supply-chain in producing economies (Bessant, Kaplinsky and Lamming, 2003). Fourth, the ability to meet a complex amalgam of standards, many of which require specialised knowledge-inputs, requires the development of complementary skills in the national system of innovation, that is in specialised service providers, training institutions and government support-agencies (Lundvall, 1992). And, fifth, the standards agenda presents a moving frontier, both in relation to the types of standards

involved (for example, the ISO9000 family of quality standards was followed by the ISO14000 family of environmental standards and now emerging ISO 18000 standards on labour), and in the detail of individual standards. This has meant that producers striving to meet the standards-agenda have had to endogenise the capacity to change, that is, to develop dynamic capabilities (Teece, Pisano and Shuen, 1997).

Of course, the understanding of capability-growth must reflect both supply and demand factors. But it also will reflect the interaction between these two sets of factors. For example, responding to a series of analyses on the growth of supply capabilities in the newly-industrialising-economies, Feenstra and Hamilton point to the role played by the US retail sector in the evolving east Asian “export miracle”. They show how the growing concentration of buying power in the US during the 1960s led to intense competition to find low-cost high-volume sources of supply (Feenstra and Hamilton, 2005). This led Walmart and other large retail chains to actively foster the growth of supply capabilities in Hong Kong, Korea, Singapore and Taiwan during the 1970s and 1980s, a process extended to Chinese and other global suppliers in the 1980s and 1990s. This complemented steps taken by governments and producers in these NIEs to strengthen capabilities (Wade, 1990; Amsden, 1989).

In summary, therefore, although economic growth is ultimately a story of augmented supply capabilities, there has been growing recognition of the key role which the pattern of demand in final markets play in inducing this growth in supply capabilities. Market size and market growth are one part of this story. But another part involves the nature of final markets, and the role which this plays in guiding the direction of capability growth amongst suppliers. Intermediation into final markets, and therefore the nature of buying power in global markets, is a further factor affecting economic growth, particularly in economies in which external trade plays a key role.

### **3. ECONOMIC CRISIS AND THE SOUTHERN DRIVERS OF DEMAND GROWTH**

The recession following the financial crisis of autumn 2008 sparked the largest fall in output in the north since WW2, with an associated decline in output and exports in many low income economies, including the stellar-growth economies in east and south Asia. Between the onset of the crisis and the first quarter of 2009, global output fell by 2.4 percent, and that in the OECD fell by four percent (Holland et al, 2009). Although there was a level of revival from late 2009, structural weaknesses in the global economy suggest a period of sustained economic slowdown, at least for some regions. What implications will these growth trajectories have for both the geography and character of global consumption?

We believe that the likely outcome will be that growth in the high-income northern countries will stagnate or be very muted, whereas by contrast, many

low income economies – particularly large economies such as China, India and Brazil – will continue to grow very rapidly.

### **3.1. Structural Crisis in the North**

High rates of global economic growth during the 1990s and the first decade of the new century were essentially fuelled by high rates of consumption in key northern economies, particularly in the large economies of the US, the UK and Spain, as well as in some smaller economies such as Ireland, Greece and Iceland. In each of these cases, this consumption boom was made possible through a series of financial bubbles, particularly in housing which allowed consumers to draw on the “wealth” arising from (unsustainably) inflating house prices. This resulted in two sets of related phenomena – falling rates of household and personal savings (in some cases falling into dis-savings) and a rise in balance of payments deficits. These deficits in external payments were filled by large payments’ surpluses in key exporting economies, particularly China, Japan and Germany, made possible by restrained personal consumption arising from high rates of personal (and in recent years, corporate) savings and/or low rates of consumption.

Table 1 shows the extent of external payments deficits and surpluses in key large trading economies. The two most notable cases are the largest deficit economy, the US (its payments deficit hovered reached a peak of six percent of GDP in 2005) and China (whose payments surplus in 2008 reached 11 percent of GDP). Also notable is the case of Spain (more than nine percent of GDP in 2008) and the UK (a deficit more than two percent of GDP). There had been some rebalancing after the 2008 crisis (when the deficits were even larger), but these structural global imbalances remain. A significant feature of this economic performance was the pattern of net savings across global economies, with relatively low rates of final household consumption expenditure in China and a high rate of private consumption (especially compared to low rate of savings) in three key bubble economies, Spain, the UK and the US (Table 2). Concomitant with these imbalances has been the growth of foreign exchange reserves in the two leading surplus economies (China and Japan), which together accounted for nearly half of total global foreign exchange reserves (Table 3).

**Table 1: Country Current Account Balance (Percent of Country GDP)**

	<b>Brazil</b>	<b>India</b>	<b>China</b>	<b>Germany</b>	<b>Japan</b>	<b>Spain</b>	<b>UK</b>	<b>USA</b>
<b>1985</b>	-0.1	-1.8	-3.7	2.5	3.8	1.6	0.7	-3.0
<b>1990</b>	-0.8	-2.2	3.4	2.8	1.5	-3.5	-3.9	-1.4
<b>2000</b>	-3.8	-1.0	1.7	-1.7	2.6	-4.0	-2.7	-4.3
<b>2005</b>	1.6	-1.0	7.2	5.1	3.6	-7.4	-2.6	-5.9
<b>2008</b>	-1.7	-1.0	11.0	6.7	3.2	-9.6	-2.8	-4.7
<b>2010</b>	-2.6	-3.1	4.7	6.1	3.1	-5.2	-2.2	-3.2

Source: IMF World Economic Outlook Database, accessed January 2011

**Table 2: Savings and Household Consumption Expenditure  
(Percent of Country GDP)**

	<b>Gross Domestic Savings</b>	<b>Household Final Consumption Expenditure</b>	<b>Savings to Consumption Ratio</b>
<b>Brazil</b>			
1990	21	59	0.36
2000	16	64	0.26
2009	16	64	0.25
<b>China</b>			
1990	40	46	0.86
2000	38	47	0.80
2009	54	34	1.59
<b>India</b>			
1990	23	66	0.35
2000	23	64	0.36
2009	30	58	0.52
<b>Japan</b>			
1990	34	53	0.65
2000	27	56	0.48
2007	26	56	0.46
<b>Spain</b>			
1990	23	60	0.38
2000	23	60	0.39
2008	24	57	0.42
<b>United Kingdom</b>			
1990	18	62	0.29
2000	16	66	0.24
2008	14	64	0.21
<b>United States</b>			
1990	16	67	0.24
2000	17	69	0.24
2007	13	71	0.18

Source: World Development Indicators accessed January 2011.

**Table 3: Foreign Exchange Reserves excl Gold (US\$ Millions) 2009**

<b>Country</b>	<b>(\$ Millions)</b>	<b>% of World Total</b>
<b>World</b>	<b>8,461,000</b>	
China (including Hong Kong)	2,672,000	31.6
Japan	1,022,000	12.1
India	265,000	3.1
Brazil	237,000	2.8
Euro area	232,000	2.7
United States	120,000	1.4
Germany	60,000	0.7

United Kingdom	56,000	0.7
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Source: World Development Indicators accessed January 2011.

The imbalances in trade – feeding off the financial bubble – represents a core structural feature which is unsustainable in the medium and long term, particularly for very large global economies such as the US and China. To be resolved they require a combination of changes in consumption and in production. With regard to consumption, this involves either (or a combination of) a reduction in consumption in the surplus economies, or a rise in consumption in the deficit economies, resulting in a fall in net exports in surplus economies and a rise in net exports in the deficit countries.

The fall in private consumption in deficit economies will in part reflect a decline in employment and hence in private consumption. Already, before the austerity budgets of 2009 and 2010 in Europe rolled out, and despite a series of “Quantitative Easing” monetary expansions in the US, falling consumption in most northern economies was both driven by, and acted to increase the growing rate of unemployment. Employment in the OECD fell by 2.2m between the 2<sup>nd</sup> quarters of 2008 and 2009 (Holland, et al, 2009), and unemployment grew to exceed 10 percent of the labour force in the US in late 2009. At the same time, public-sector consumption has fell in many economies. Government fiscal debt rose very significantly in many northern economies, in part due to the need to bail-out the financial sector. Although this debt-burden was not as severe in historical perspective as many political actors made out (some of whom used the fiscal crisis as an opportunity to push for a smaller state), it nevertheless became a widespread perception that government expenditure in these northern economies had to be reduced. Whatever the economic logic of this response – and despite most of the economics profession calling for the maintenance of deficit financing and counter-cyclical fiscal policy during a period of crisis – in most of the northern economies, there was an increasing political momentum to restrain government expenditure.

Thus two clear trends have merged in major northern economies. First, personal consumption has fallen back and is unlikely to rise in the near-to-mid-term as households rebuild their savings and cut personal debt. Second, although continued government dis-saving in some countries has limited the fall in aggregate consumption and output, it is unsustainable in the medium and long-term, for fiscal reasons, because of sustained trade deficits and most importantly, due to rising political opposition.

In the context of declining private- and public-sector demand in northern economies, the high rates of global growth between 1998 and 2008 can only be maintained if there is an equivalent rise in imports from those economies in structural surplus, notably China, Japan and Germany. But this has proved difficult, and is likely to continue to prove difficult. Scarred by its history of inflation during the 1920s, Germany made it clear that it wished to minimise deficit financing. It also explicitly committed itself to remaining an economy with a substantial trade surplus. Despite efforts to reflate consumption in the past, Japan also experienced difficulty in reflating its domestic economy, and

its industrial sector continued to be externally-focused. An IMF Report concluded, “the scope for advanced economies such as Germany and Japan to contribute to rebalancing is limited, given their need to build savings to prepare for population ageing” (IMF, World Economic Outlook, 2009:33). So China, and to a lesser extent India and Brazil hold the key to the rising imports which the northern economies require in order to maintain output and employment and at the same time to rebalance their trade accounts.

The problem is that there is little realistic sign that China-led reflation will draw in the imports to allow the major deficit economies to resume past levels of consumption growth whilst at the same time rebalancing their external payments accounts. In 2009 the Chinese government embarked on a major spending programme. But, much of this focused on infrastructure and on public services. Government spending expanded rapidly in health (38 percent), education (24 percent), and social safety (22 percent) (World Bank China Quarterly Update March 2009). These infrastructural expenditures had derived import requirements but, as we will see below, these are unlikely to have a direct first-round impact on the exports of the US and the EU.

Of course there are indirect trade multipliers operating in this expansion of domestically-oriented expenditure in China. But they are likely to be muted, at least insofar as they affect the demand for goods and services exported by high income northern economies. Moreover, employment-growth in China has been key in sustaining political stability in the face of rising inequality, and insofar as China’s labour-intensive exports decline, the emphasis will necessarily be placed on promoting domestic production to meet rising consumer demand. (One-third of China’s employment growth of around 8m p.a. between 1997 and 2002 was contributed by growing exports, Feenstra and Hong, 2000). Moreover, despite China’s rapid economic growth and large size, it remains a small player in international trade. In 2008, total Chinese demand was equivalent to less than one-quarter of total consumption in the US and the EU. All of these factors also apply to India, but since its global footprint is smaller than that of China, its capacity to stimulate exports from the northern economies is even more limited.

From this we conclude that beyond the short term unsustainable deficit financing by governments in the large deficit economies and given the limits to import growth in China and India, the rebalancing by the northern economies will occur through a reduction in consumption, and hence in imports. We should not see this as an historical aberration. Rather, it was the post 1990s boom in consumption in the large deficit economies which was aberrant, arising from a series of financial bubbles and leading to growing consumption in the (high income) deficit economies being subsidised by high savings in some (low income) surplus economies (notably China and India). We can also anticipate that this fall in northern consumption will persist for some time, perhaps even as long as the 18 year post-bubble recession which the Japanese economy has experienced since 1991.

### **3.2. Sustained Consumption in the South**

China's recent growth, at least since the beginning of the 1980s, has been stellar, averaging more than nine percent p.a over the period. India, too, has experienced very rapid and sustained growth, albeit only from the early 1990s. It is tempting to see these growth trajectories as exceptional, an "economic miracle". Yet neither of these two country's growth experiences are unique. If we chart the evolution of their growth paths – both in relation to output and exports – since the onset of their growth-inflection, and compare these with the similar experiences of Japan (after 1960) and Korea (after 1963), it is evident that other economies have experienced similar economic "miracles" in the past (Kaplinsky and Messner, 2008). What is significant about the China-India experience is the size of these economies. Together, Japan and Korea never exceeded five percent of the global population. In 2008 China alone accounted for 20 percent of the global population and together with India, for almost 37 percent of the global total.

Three key relevant features stand out with regard to the recent growth experience of these two Asian Driver economies. The first is that their growth rates have been significantly greater than those of the key northern economies. If these past trajectories are sustained, then it is estimated that China will be the second largest economy by 2016 and India the third largest by 2035 (Goldman Sachs 2001). Of course, if past growth relativities are not sustained in the future (for example, if as suggested in Section 3.1 above the northern economies experience a protracted period of stagnation), then China and India's relative size will grow in a shorter time span than these projections of past performance suggest. Second, both China and India are in substantial trade surplus. They do not need to reduce or hold back consumption in the same way as do the large northern economies. And, third, by virtue of their large size, they have the capacity to grow and realise scale economies by expanding their very large domestic markets. An illustration of the size of these Asian Driver markets is provided by a recent analysis of the locus of consumption by the global consuming class ("the Middle Class"), defined as those consumers with annual incomes of between \$10 and \$100 per day in 2009 (in 2005 PPP \$) (Kharas, 2009). Projecting forward to 2030 on the basis of growth rates in the past two decades, the centre of gravity of global consumption shifts decisively (Table 4). The share of Europe and US falls from 64 percent in 2009 to 30 percent in 2030, whilst that of the south in general and Asia in particular, rises. The share of Asia and the Pacific in the global consuming class is projected to increase from 23 percent in 2009 to 59 percent in 2030. Bear in mind, though, that these projections are based on past growth relativities. If northern economies stagnate and the Asian Drivers and the surrounding regional economy continue to grow (albeit at a reduced rate), the shift of global consumption power to Asia, and to low income economies in Asia, will be accentuated.

**Table 4: Spending by the Global Middle (Percent of Global GDP in \$PPP) (2009 to 2030)**

	<b>2009</b>	<b>2030</b>
N. America	26	10
Europe	38	20

C. and S. America	7	6
Asia Pacific	23	59
SSA	1	1
M. East, N. Africa	4	4

Source: Selected from Table 3, Kharas (2009).

Nothing guarantees sustained growth in the Asian Driver economies. The fall in consumption in the northern deficit economies may be so large that it undermines export-oriented growth in China and India, with a potential combination of negative multiplier effects on economic activity and political disruption as unemployment grows. It may also be that environmental externalities grow so substantially, exacerbated by changing and unpredictable climate, that output growth is not sustainable. And it may be that global political instability spills over into the Asia-Pacific region, with a harmful impact on economic growth. So, as in the case of the analysis of growth paths in the northern economies (Section 3.1), there are clear uncertainties in projecting forward, particularly in the context of a disruptive global financial crisis. Nevertheless it is our judgement that just as growth is likely to be reduced or to stagnate in the northern economies in the future, so growth in Asia in general, and in China and India in particular, is likely to be sustained. If nothing else, the relativities in growth paths between these two worlds in the past two decades is likely to be sustained, and even to increase. If this is the case, then it is important to understand the nature of demand in these two large southern drivers of growth, an issue which we now consider.

#### **4. PATTERNS OF DEMAND IN SOUTHERN DRIVERS OF GROWTH**

Despite differences in country-size and endowments, most economies have experienced a similar pattern of structural change in their growth trajectories (Kuznets, 1966; Chenery and Syrquin, 1975). Low income economies tend to be agrarian, with the primary sector dominating GDP. As incomes rise and manufacturing expands, the industrial sector takes over as the major driver of GDP growth. Continued income growth leads to higher demand for services, and at higher income levels the service sector becomes the dominant contributor to GDP. These structural shifts represent a well-established pattern, observed in a large number of countries over time. What interests us in this analysis is that in the context of China (and India) becoming the major driver(s) of global demand in the coming decades, what implications the structural shifts in these Asian Driver economies have for low income country exporters in general, and for low income country exporters of commodities in particular? Here there are two major issues – the structure, and the nature of import demand – and in both cases we will consider them in relation to the evolution of the Chinese economy.

##### ***4.1. The Sectoral Structure of Import Demand***

There are three major consequences of changing economic structures which affect the product composition of imports. First, at low per capita incomes, the

income elasticity of demand for agricultural products in general (and food in particular) is relatively high. As incomes rise, the relative income elasticity of demand for manufactures grows, and as incomes increase further, the demand for services becomes increasingly important in final demand. Secondly, with the changing sectoral distribution of GDP, there is a shift in labour and employment across sectors. As the industrial sector expands, labour and employment migrate from agriculture in the rural areas to the manufacturing sector in the cities. Third, as economic output becomes more diversified, specialisation and interchange grows. Together with the growth of urbanisation, this requires heavy investments in infrastructure.

These three trends result in a growing demand for commodities (Farooki and Kaplinsky, 2011 forthcoming). “Soft commodities” feed agricultural inputs into food, and provide intermediate inputs (such as cotton and timber) into manufacturing. The demand for “hard commodities” (such as minerals and metals) and energy grows as a consequence of investments in infrastructure and the expansion of the manufacturing sector.

China’s (and India’s) growth-paths reflect each of these trends. Significantly, it reflects the experience of an economy at an early stage in the evolution of this growth-paths. We can illustrate this by focusing on some of the key parameters of China’s recent growth trajectory (ibid.). China’s economy has shown a rapid transition from agriculture to industry. The share of agriculture in GDP fell from 27 percent in 1990 to 11.3 percent in 2008. In the same period, the share of industry increased from 42 percent to 49 percent of GDP. This was accompanied by large scale rural-urban migration. In 2010, 47 percent of the population (635m) lived in urban centres. By 2015 the urban population is projected to rise to 713m, and to 906m in 2030. Thus, by 2030 China’s urban population will be equivalent to the combined urban population of the US and Europe, and by 2050, to the total population of the US and Western Europe.

This process of urbanisation is reflected in the growth in demand for infrastructure in general, and new infrastructure and housing in particular. It is one of the reasons leading observers to conclude that infrastructure-intensity is highest at the early stages of industrialisation and at relatively low levels of per capita income (Canning, 1999; Auty, 2008). New projects tend to be much more commodity intensive as compared to expansion and reconstruction investments (World Bank, 2009). As Table 5 shows, the share of new projects in urban fixed investments in China increased from less than a third to almost a half between 1995 and 2008.

**Table 5: Percent Share of Total Investment in Fixed Assets in Urban Areas by Type of Construction in China (1995-2008)**

Year	New Construction	Expansion	Reconstruction	Maintenance and Equipment
1995	30	29	12	29
2000	32	24	15	29
2008	44	16	13	27

Source: Chinese Statistical Yearbook 2009

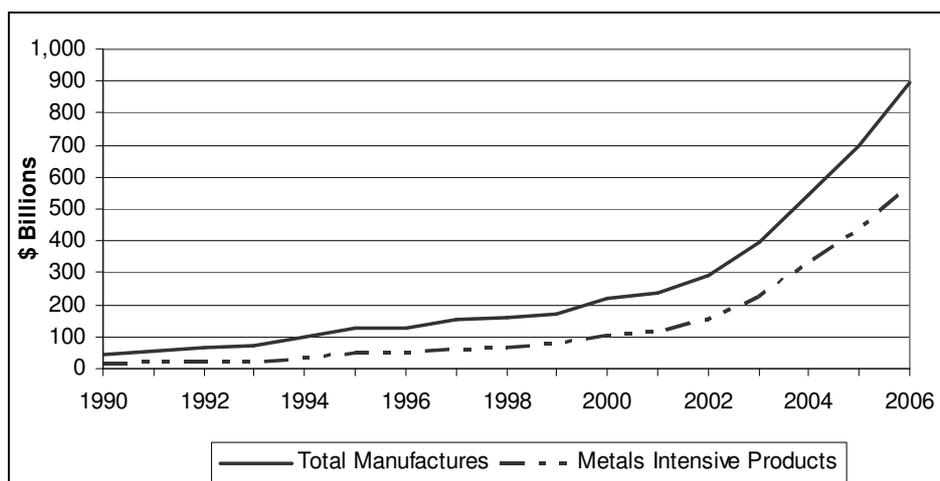
Second, the growth of China's manufacturing sector has also made intensive use of commodities, particularly hard commodities and energy. To a considerable extent this is reflected in the metals and minerals-intensity of China's rapidly-growing manufactured exports which comprised the bulk of exports between 1990 and 2006 (Figure 1). As a result of these combined factors, the elasticity of demand for energy and metals grew rapidly between the 1990s and the 2000s, and for key resource inputs such as coal, pig iron, crude steel and rolled steel, comfortably exceed a value of one (Table 6).

**Table 6: Elasticity's of Energy Consumption and Metal Production in China (1991-2005)**

Period	Coal	Crude Oil	Pig Iron	Crude Steel	Rolled Steel
1991-1995	0.441	0.569	0.900	0.614	0.958
2001-2005	1.105	0.832	2.222	2.340	2.545

Source: Selected from Zhang and Zheng (2008)

**Figure 1: China's Metal and Minerals Intensive Exports in Total Manufactures Exports (1990-2006)**



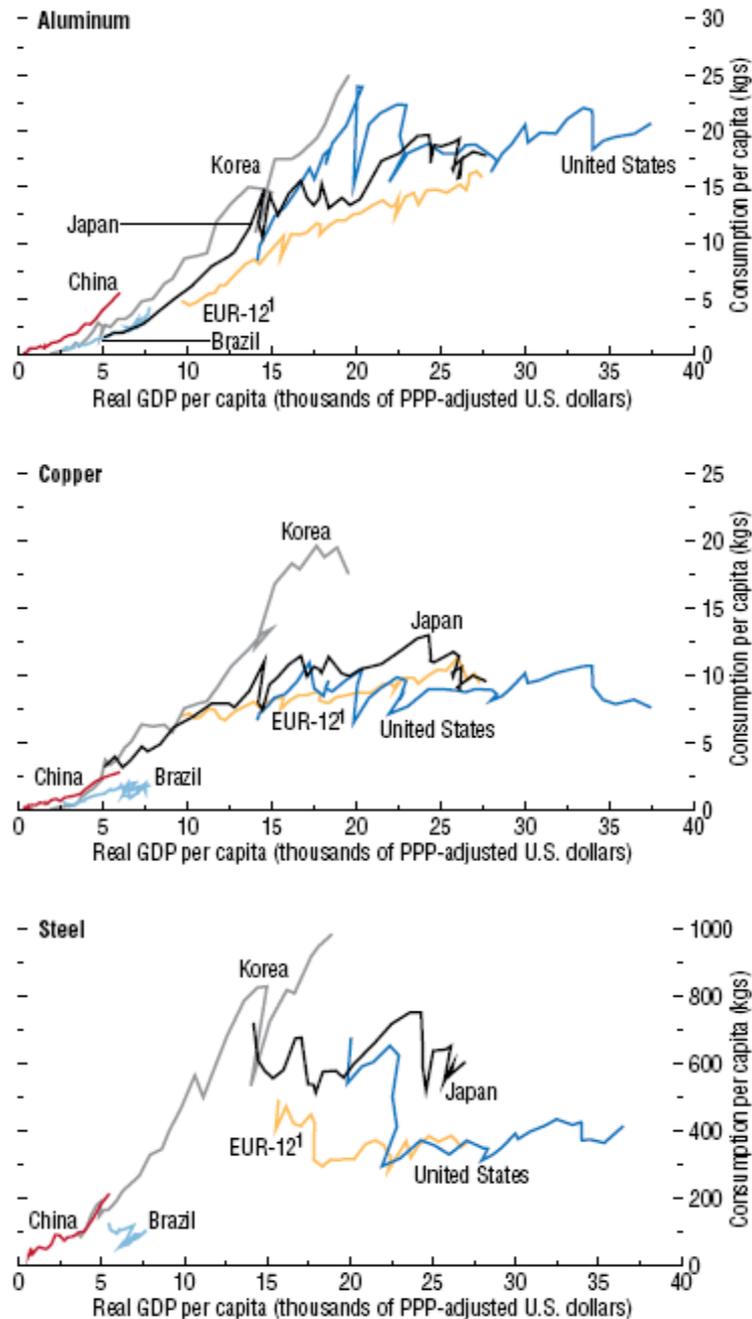
Source: Farooki (2009), from COMTRADE data accessed via WITS in November 2008. The listing of metals-intensive sectors is available in Farooki (2009; Annex 1)

With regard to agricultural inputs, a key component of demand at low per capita incomes is that for food products. Studies of urban consumers in China show that the income elasticity of demand for food falls from almost unity (0.96) at household incomes around Yuan2,500 (\$375) p.a., to 0.4 for household incomes of Yuan7,500 (\$1,125) and to 0.33 for household incomes of Yuan10,000 (\$1,500).<sup>1</sup> Thus, even though incomes are growing (and the income elasticity of demand for food is falling), there is considerable scope for sustained demand for food, particularly as in 2009, 56 percent of Chinese households had an annual income of less than \$5,000 (Figure 3 below). Moreover, as incomes grow, the demand for meat expands, and this makes

<sup>1</sup> Adapted from Gale and Huang (2007)

intensive use of grain (approximately four kilos of grain are required to produce one kilo of meat, Conceicao and Mendoza, 2009). Thus food-availability is likely to be of considerable importance in the future in China, not least because whilst it has 20 percent of global population China possesses seven percent of global arable land.

What these data show is that China's growth path is particularly commodity-intensive. There is nothing exceptional in this resource intensive growth path. It closely reflects China's per capita income, which in 2009 was \$6,500 compared to \$46,000 for the USA (PPP\$). But two factors are worthy of notice. First, as Figure 2 shows, there is some way to go in per capita income levels before the resource intensity of growth declines. Based on the historic resource intensity of demand for aluminium, copper and steel in Korea, Japan, the EU-12 and the US, it seems unlikely that China's (and India's) demand for minerals and metals will decline in the foreseeable future, despite rapid economic growth and rising per capita incomes.

**Figure 2: Per Capita Consumption of Base Metals**

Source: IMF World Economic Outlook, September 2006

Second, both China and India (as we have seen) are very large economies. Thus, in analysing their impact on global trade we have to suspend the small country assumption that no single economy's trade pattern will shift the structure of global trade or the prices at which products are traded. As Table 7 shows, China accounts for a rapidly-growing share of global consumption of key base metals and meat, and this has led some commentators (including ourselves – Kaplinsky, 2006 and 2009; Farooki, 2009) to conclude that at the least this helped explain the boom in commodity prices between 2001 and

2008, and perhaps may also play a historically-significant role in promoting a structural shift in the global commodities-manufactures terms of trade in favour of commodities

**Table 7: China's Share of Global Consumption of Base Metals and Meat**

	1990	2000	2007
<b>Base Metals ( % Share of World Demand)<sup>1</sup></b>			
Aluminium	5	13	33
Zinc	8	15	31
Lead	7	10	31
Iron Ore	4	16	48
Copper	7	12	26
<b>Food Products (% Share of World Consumption)<sup>2</sup></b>			
Poultry	9	18	17
Pork	35	47	46
Beef	2	10	12
Soybeans			40

Source:1 Macquarie Commodities Research (2008)

2 Conceicao and Mendoza (2008)

## **4.2. The Nature of Import Demand**

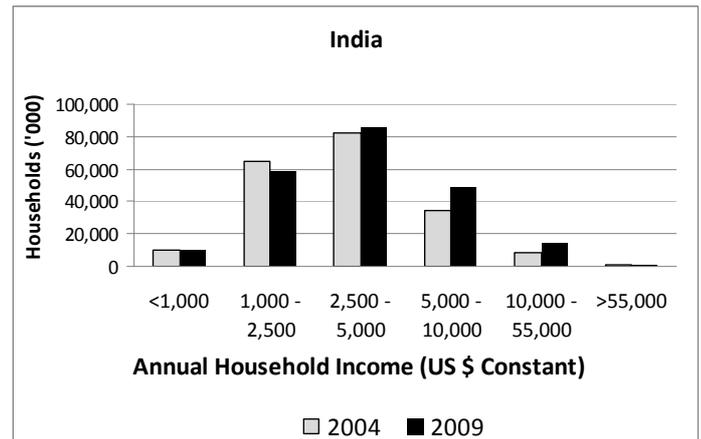
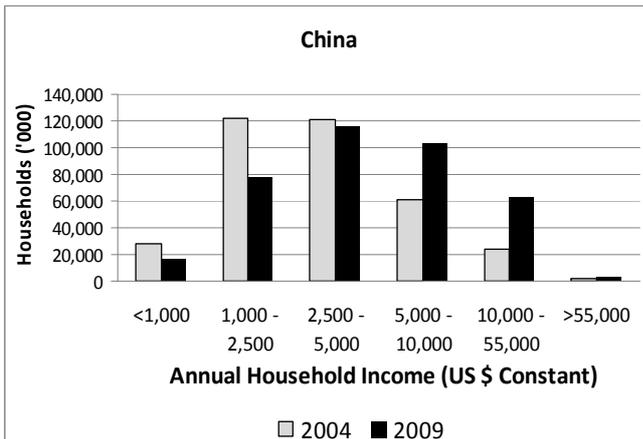
Thus, we have observed that Chinese growth has led to a sharp rise in its share of global demand for commodities and perhaps also for a structural upward shift in the relative global price of commodities. But there is more that we can observe about China's demand for commodities which is of relevance to global commodity value chains feeding into the Chinese economy. The key relevant factors are the demand-preferences of low income consumers, the consequent relative insignificance of standards in value chains, and the preference for the importation of relatively unprocessed products

### **4.2.1. The Demand Preferences of Low Income Consumers**

In 2009, per capita income (PPP) in the US was \$46,000 followed by Japan at \$32,500 and for Europe at \$32,000. Notwithstanding the dispersion of incomes in high-income economies, the incomes involved are in almost all cases way beyond those earned in low income economies such as China. Figure 3 shows the dispersion of household incomes in China and India. From this it is evident that more than 210m households (56 percent) in China and more than 155m households (71 percent) in India had total annual incomes of less than \$5,000.<sup>2</sup> By contrast, in the US over 70 percent of the households and 60 percent in the UK had incomes over \$35,000.

**Figure 3: Number of households, by disposable income, China and India, 2004 and 2009**

<sup>2</sup> Indian household size is considerably higher than in China, so these relative numbers of households do not reflect the number of people involved.



Source: Compiled from <http://www.portal.euromonitor.com> accessed July

In many cases, these households lived above the minimum \$1 per day MDG threshold, particularly in China. But the point of significance is that an increasing number of these households are cash consumers, that is, they buy-in a range of products, consumer, intermediate and capital goods. For these consumers, price is an overwhelming consideration in consumption. That is not to say that they do not care about quality and variety (the two key drivers of consumer demand in northern economies in recent decades – see Section 2 above), but that these preferences play a minor role in their consumption choices. Product differentiation (variety and quality) gives way to product “commodification” (standardisation in order to achieve low prices). To the best of our knowledge, this assertion is not evidenceable although the idea that low income markets provide scope for profitable production through the sale of low-value items is now widely acknowledged under the banner of the “fortune at the bottom of the pyramid” (Prahalad, 2005).

#### **4.3.2. Imported-Inputs are Not Standards-Intensive**

Following on from the preferences of low income consumers, there will be derived implications for the role which standards play in value chains. In Section 2 we distinguished between process and product. We observed that there was a growing tendency for the standards intensity in value chains to grow, reflecting a combination of factors – firm specific concerns with standards (such as Q-C-D) to meet consumer needs for product diversity and product quality, government-standards to protect consumers, and civil-society-induced standards reflecting growing concerns with the ethics of productions systems and their environmental impact. In the context of the dominance of (very) low consumer incomes in countries such as China and India, each of these drivers of standards is likely to be of very diminished significance. In general, firms are less concerned with product variety, so that the imperatives to achieve flexibility through just-in-time production (and hence Q-C-D standards) are weak. Low income country governments may either have poorly developed safety standards, or fail to implement them effectively. Recent cases in both China (baby milk) and India (pesticide in soft

drinks) provide striking evidence of this<sup>3</sup>. Finally, the NGOs which have driven public opinion on issues such as FairTrade, labour standards and the environment are muted in low income countries and are likely to have little significance with regard to the incorporation of ethical and environmental standards in value chains. Indeed, particularly in China, NGOs often have a tenuous identity.

#### **4.2.3. The Growth in Imports of Relatively Unprocessed Products**

A key objective of economic and industrial policy in most low income countries is to add value to natural resources: in South Africa, for example, the call is for the “beneficiation” of the country’s extensive mineral and agricultural products. Although there are dangers to this policy agenda (beneficiation, particularly of hard commodities, is often very capital and technology-intensive) there is a natural logic to this in many cases. Many commodities degrade rapidly and/or involve significant weight loss in processing. There are also evidenced cases of economies which have utilised their natural resources to drive forward their industrialisation (Wright and Czelusta, 2004). And, particularly in the processing of soft commodities, this is often a labour-intensive activity and wage costs in low income exporting economies are generally a fraction of those in high income economies. Moreover, commodity processing is often very polluting.

This logic of processing at source (rather than in the importing economy) applies easily – or relatively easily - when low income economies export commodities to high income economies. The high income economies are happy to see the pollution and energy intensive production processes located in low income countries; their high-technology, skill-intensive, high-wage and safe working environments in their producing sectors are generally more appropriate to the provision of capital and intermediate goods for resource-processing industries rather than for the direct processing of commodities. However, when low income resource economies trade with low-income importing economies, many of these factors which promote a win-win division of labour do not apply (Figure 4). Low income economies care less about the polluting nature and energy intensity of processing. Their industrial structures are well-pitched in terms of technological and skill intensity to specialise in processing, and their low labour costs enable them to do so at similar cost-profiles to those operating in low income exporting economies.

**Figure 4: High and Low Income Commodity Importing Economies – Complementarity and Competition with Low Income Commodity Exporting Economies**

	<b>High income importing economy</b>	<b>Low income importing economy</b>
Pollution and energy intensity	High preference to outsource to exporting economy	Indifferent to location

<sup>3</sup> [http://www.businessweek.com/globalbiz/content/aug2006/gb20060810\\_826414.htm](http://www.businessweek.com/globalbiz/content/aug2006/gb20060810_826414.htm)

Complementary or competitive industrial structures	Complementary –focus on technologies with high barriers to entry	Competitive – importers also have low technology industrial structures
Labour costs	High wages militate against labour intensive processing	Low wages facilitate labour-intensive processing
Labour standards	Working conditions are effectively protected by enforce legislation	Weak protective environment of working conditions

In the case of China and its imports of food products, there is an additional factor affecting the degree of processing involved in its imports. We have observed above, that the ratio of China's population to its arable land suggests that however effective its agricultural sector might become, it seems likely that it will have to draw on agricultural imports as its economy continues to grow, and as food tastes shift increasingly towards meat products. After a brief flirtation with the importation of food products, the experience of global shortages of key food crops in 2007 and the associated rise in political tension, in countries as diverse as Cameroon and Indonesia, has concentrated the minds of Chinese policy makers. In fact, China has pursued a strong self-sufficiency policy in grains since 1995, with the objective of domestic production meeting 95 percent of its domestic demand (Anderson and Peng, 1998). As a consequence, agricultural production shifted towards grains and away from other crops such as cotton, sugar beet and soybeans (Fang and Beghin, 1999). Given the shortage of land, this has increasingly meant that China's agricultural imports have been concentrated in animal feeds (such as soya and palm oil) and products which compete with grains for land-use (such as inputs).

There is another policy-related factor which also affects China's growing importation of agricultural products. In the context of a growing perception of a future energy-crisis, China has (like other countries such as the US and the EU) begun to promote the production of bio-fuels. These need agricultural inputs, but given the primacy being given, for political reasons, to food self-sufficiency, China has increasingly sought to source the inputs for bio-fuels from abroad as bio-fuel crops are generally planted on land used for food crops<sup>4</sup>.

## **5. THE IMPACT OF SHIFTING MARKETS AND LOW INCOME COUNTRIES PARTICIPATION IN GLOBAL VALUE CHAINS**

The rapid growth of the east Asian newly industrialising economies in the 1970s and 1980s, and of China, India, Vietnam, Indonesia, Central America and other emerging economies in the 1990s and 2000s was to a significant

<sup>4</sup> Von Braun (2007) estimates if current bio-fuel and investment plans were to carry on, the world price by 2020, for major food crops could rise by 11% for cassava, 26% for maize, 18% for oilseeds, about 12% for sugar and 8% for wheat

extent based on the expansion of their exports. Incorporated in global value chains, their exports were either directed to northern economies, or fed intermediate products into other countries' exports to northern economies.

In Section 3 we reflected on the nature of the post 2008 financial and economic crisis and the likely trajectory of the global economy. Even without stagnation and falling growth rates in the north, the growth rates of the past two decades in China and India are likely to lead to an outcome in which, by virtue of their size, they increasingly come to dominate the global economy in the 21<sup>st</sup> century. However, there are persuasive reasons to believe that key large northern economies (notably the US, the UK and Spain) will reduce imports as they rebalance their global orientation, given their large structural trade and fiscal deficits. This will further accentuate the dominance of China, India and other low income economies in the growth of global demand in the coming decades. The question naturally arises, therefore, of what the potential impact of these shifting markets will be on commodity-exporting value chains.

### ***5.1 Hypothesising the Impact on Commodity-Exporting Value Chains***

We believe that this change in the drivers of global demand – from northern to southern economies – will, by hypothesis, have four major sets of implications for global commodity value chains in the south arising as a direct consequence of the particular characteristics of demand in China and India. First, low levels of per capita incomes, coupled with rapid urbanisation and the growth of exchange as their economies become more diversified, will lead to a sustained growth in their demand for hard and soft commodities, both as a source of food and as inputs into infrastructure. Second, low levels of per capita incomes mean that the nature of demand will be for cheap, undifferentiated goods with low acquisition cost, running against the major trends in demand in northern economies after 1970 which increasingly favoured differentiated, high quality positional products. Third, the standards-intensity of global value chains feeding into northern economies has grown significantly and has become much more complex and demanding in recent decades. By contrast, global value chains feeding southern markets are likely to have much lower levels of standards, both in relation to products and processes. And, fourthly, northern and southern economies are often complementary in terms of economic structures. Northern economies have much higher wages costs and are very much more sensitive to the harmful externalities of polluting economic activities than are southern economies, and have increasingly outsourced processing to developing economies. By contrast, low income producing countries have similar economic structures and industrial trajectories to low income economy consuming economies, with the prospect of greater competition in the division of labour in global value chains.

## ***5.2 Evidencing the Emerging Impact on Commodity-Exporting Value Chains<sup>5</sup>***

The relatively rapid rise of China and India as final markets for global commodity producers means that evidencing the hypotheses drawn in Section 5.1 above can only be tentative. Nevertheless, the experience of Thailand's cassava exporters and Gabon's timber exporters is suggestive of a wider trends.

### 5.2.1. Thailand's cassava value chain

Thailand is the dominant global exporter of processed cassava. In turn, cassava plays an important role in the Thai economy, and in 2007, was the second most important crop after rice in terms of value and the third in terms of volume. There are essentially two families of products in the processing of cassava, each of which has two sub-variants. The first product-family is dried cassava, which can either be exported in relatively unprocessed chip form, or as manufactured pellets. The second product-family is cassava-based starches, either in relatively unprocessed native-starch form or as higher value added modified starches.

The Thai cassava exporting industry had its origins in the EU's Common Agricultural Policy (CAP), where various components of price-support made imported cassava an attractive animal feed. Initially this cassava-based animal feed was imported in the form of unprocessed chips. But for a variety of health and safety reasons, EU cassava imports switched to pellets and were increasingly governed by a variety of food safety standards embodied in the EU's farm-to-fork policy. This not only mandated a minimum starch content, but required producers to achieve both HACCP (Hazard Analysis and Critical Control Point) and GMP (Good Manufacturing Practice) certification. However, the rapidly-growing EU market for cassava-based animal feed – which had previously been created by the CAP – was subsequently rapidly undermined by changes to the CAP. Thailand's exports to the EU fell from two million tons in 1989 to 250,000 tons in 2005.

Fortuitously for Thailand's large cassava sector, this decline in export markets was compensated by a rapid rise in China's imports of cassava. These rose rapidly, so that in 2005, the EU accounted for less than 10 percent of Thailand's cassava exports, with virtually all of the remainder going to China. However, although the overall level of demand from China was buoyant, its character was rather different to the exports which formerly went to the EU. In the case of dried cassava, China imported unprocessed chips (with no standard certification other than starch content), whereas the EU had previously predominantly imported processed, and standards-intensive pellets. Second, although China imported considerably larger volumes of cassava-starches than did the EU, over time these switched from higher-technology and higher value added modified starches to lower-technology and low value added native starches.

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<sup>5</sup> For more detail on the cassava and timber value chains, see Kaplinsky, Terheggen and Tijaja, 2010.

A number of trends can be discerned from this transition. First, China has become a dynamic market for Thailand's commodity exports. Second, when compared to the demands from the EU, these exports involved few standards in production. Third, the switch in final markets from the EU to China set in process a trend in which the degree of value added fell – from pellets to chips in the case of dried cassava, and from modified to native starches in the case of starches. Third, in terms of short-run developmental impacts, this switch in final markets was arguably positive, since this industrial downgrading (that is, the switch from pellets to chips, and from modified to native starches) was more labour- and less capital-intensive than the previous export regime. However, fourth, arguably this short-term positive developmental impact had the effect of undermining the development of Thailand's dynamic comparative advantage in the cassava value chain. The absence of standards in exports to China removed a key driver to learning, and the retreat from pellets to chips and from modified to native starches involved a retreat in knowledge-intensity in production. The market for modified starches is a particularly important case in point, since these starches have a growing number of uses, are increasingly differentiated, and are increasingly knowledge-intense.

#### 5.2.2. Gabon's tropical timber value chain

Gabon's forests cover nearly 85 percent of its total land mass, making it the second most heavily forested country in Africa. It is the 3<sup>rd</sup> largest tropical timber exporter with a global market share of 16 percent in 2008. The timber value chain in Gabon consists of growing, logging, and the processing of logs into sawn timber, veneer and plywood, each involving progressively deeper value added and complex technology.

Gabon's timber value chain was largely a product of its colonial links to France. During the 1980s and early 1990s exports grew rapidly, predominantly to France, but also to other EU economies. Initially timber exports took the form of unprocessed logs, but increasingly value added was deepened, initially in the production of sawn timber, and then of veneer and plywood. This deepening of value added reflected a combination of factors. On the demand side of the equation, EU importers increasingly sought to import processed timber as labour costs in Europe were high and environmental regulations were stringent. On the supply side, the Forestry Code introduced by the Gabon state in 2001 introduced new types of concessions designed to embed sustainable forest management practices into industrial log extraction and required that by January 2012, at least 75 percent of total log production had to be processed before export,

Consumer pressures in the EU led to two further related changes. First, the demand for tropical wood fell due to concerns about global warming and environmental sustainability. And, second, European importers of tropical timber were increasingly concerned with environmental and safety standards, and log exports to the EU were subject to increasingly prevalent and more demanding forms of certification. These included industry-specific standards, such as OLB (Origine et Légalité des Bois) and FSC (Forest Stewardship Council), standards affecting procurement of tropical timber by government agencies designed to protect biodiversity (such as the FLEGT programme,

Forest Law Enforcement, Governance and Trade) and public standards affecting health and safety such as those covering formaldehyde emissions arising from the adhesives used to produce plywood, and chemicals used in the production of medium-density fiberboards or pollution from paint.

As in the case of the Thai cassava industry, the Gabonese timber industry was saved from declining EU demand by a massive expansion in tropical timber imports into China. Between 1990 and 2007, China's share of global imports rose from 14 percent to 68 percent, whilst the share of all OECD economies collapsed from 78 to 11 percent. With 1990 as the base-year, in 2007 China's imports of tropical hardwood had more than quadrupled in volume terms; in the same period, EU and wider OECD imports fell by more than 90 percent. This transition in global trade shares was mirrored in Gabon's export trade. In roundwood equivalent terms (that is, looking at the log equivalent of different types of timber exports), by 2008 Gabon's exports to China were more than three times greater than its exports to France, previously its dominant export market.

What were the consequences of this switch in final markets? As in the case of cassava, there was a collapse in the degree of processing. Whereas a rapidly-growing share of timber exports to France and other EU countries was occurring as sawnwood, veneer and plywood, virtually all exports to China were of unprocessed logs. Moreover, whereas standards had become increasingly demanding and prevalent in the case of timber exports to the EU, exports to China were virtually free of all standards. As in the case of Thailand's cassava exports, these standards have important implications for capability-building in Gabon, since meeting standards had become an important conduit for capability-building along the chain. And third, distinctive to timber, standards are also promoting of environmental biodiversity, so that the withdrawal of many of the standards governing Gabon's timber exports had adverse environmental impacts.

Again, and even more than in the case of Thailand's cassava sector, there are important differences between the static and dynamic impacts of these changes. Whilst Gabon possesses significant resource-rents in timber-growing and logging, its timber-processing industry is extremely inefficient and many of these resource-rents are dissipated with the "adding" of value. (In some respects, particularly in sawnwood, such is the degree of inefficiency that there is evidence of a "subtraction of value"). Capital productivity is low in both veneer and plywood production and relatively few additional jobs are created for substantial levels of investment. On the other hand, Gabon possesses few opportunities for industrial development, and the erosion of its timber processing sector removes an important driver of industrialization and capability-building.

Evidence from three southern value chains – cassava in Thailand, timber in Gabon and palm oil in Malaysia provides corroboration for this broad argument. In cassava and timber, the market has shifted from the EU to China. In both cases, broadly speaking, this resulted in a reduction in the degree of value added and in the importance of process and product

standards. But cassava and timber are relatively undifferentiated products, with low degrees of coordination and governance in their value chains. It remains to be seen, therefore, whether our hypotheses will also be evidenced in value chains historically producing more differentiated products and in more governed value chains for northern markets. A sign of this can be seen with regard to palm oil, where environmental concerns have led to strong chain governance and where, in recent years, firms in economies such as Malaysia have begun to introduce a growing number of differentiated value added products. In recent years, the growth-markets for Malaysia's palm-oil products have been in China, India and Pakistan. In all of these three markets, there was little demand for the value-added products which Malaysia was increasingly exporting to the EU and North America. Equally, the standards which governed entry into the high-income markets (predominantly sustainability standards) were not required in these low-income markets. But to what extent will these trends be evidenced in commodity chains producing even more highly processed products, as well as in manufactures and services?

### 5.2.3. Other commodity exports

Based on casual empiricism (that is, discussions with the Malaysian Palm Oil Board in November 2010), it is possible to observe similar trends emerging in other sectors, although these are not yet systematically recorded. In the case of palm oil, environmental concerns have led to strong chain governance to ensure environmental sustainability. Moreover In recent years, firms in economies such as Malaysia have begun to introduce a growing number of differentiated value added products. However, over the past decade, and particularly since the global financial crisis of 2008, the growth-markets for Malaysia's palm-oil products have been in China, India and Pakistan. In all of these three markets, there was little demand for the value-added products which Malaysia was increasingly exporting to the EU and North America. Equally, the standards which governed entry into the high-income markets (predominantly sustainability standards) were not required in these low-income markets. Similar trends of diminishing value added in commodity value chains when the market shifts to China have also been observed in Brazil and Argentina in the case of soya (personal communication, Rhys Jenkins).

## ***5.3 Generalising the Impact on Commodity-Exporting Value Chains***

If these examples of cassava, timber, palm oil and soya reflect a generalised trend, what wider implications might this have for global value chains in general, and commodity value chains in particular? Naturally this is a complex picture, reflecting different sectors and different types of low income economies. There are, however, some general observations which can be made. First, on the positive side, enhanced demand from the rapidly growing and very large Asian Driver economies provides the potential for a significant income-enhancing effect, with either an increase in export earnings, or some level of compensation for falling exports to the north. A second positive outcome is that there is often a link between process and product technologies such that products for low income consumers often involve

labour-intensive process technologies (Kaplinsky, 2010b). Third, meeting the standards in GVCs serving northern markets generally is not just a costly exercise, but requires a literate and numerate labour force and forms of management which may be beyond the reach of many small scale enterprises. Accessing the Asian Driver markets may therefore be promoting of the role played by SMEs in GVCs.

On the “dark side”, achieving standards can often contribute to the development of upgrading capabilities by the firm, so that exclusion from demanding standards-intensive markets may undermine the drive to capability-building in the firm. Further, from the perspective of both the firm and the economy as a whole, the blocking of attempts to deepen value added by advancing along the value chain means that producers are likely to be stuck in pockets of static comparative advantage. Moreover, being confined to niches of low productivity (for example, value added per worker) is likely to undermine the move into the higher value added activities which underwrite high incomes.

It is clear from this that there is much ambiguity in outcomes. In particular we have little idea if what appears to be a pervasive phenomenon in commodities sectors also applies in the case of manufactures and services, or indeed in different categories of commodities (hard, soft or energy commodities). Another ambiguity in outcomes is that the restricted nature of evidence so far is not suggestive of effective policy responses. To what extent should developing country governments and producers passively accept this redefined role in their insertion into the global division of labour, as opposed to taking active attempts to both shape these new markets and the role which they play in these markets? Finally, the 21<sup>st</sup> Century will undoubtedly be the century in which Asia regains its place at the centre of the global economy. This will have a wide range of very significant impacts on producers and consumers throughout the global economy. In this paper we have witnessed a relatively small ripple-effect. But it is suggestive of more profound challenges to the organisation of the global economy and polity with profound direct and indirect effects for low income economies.

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