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and dynamic sectors of world trade: The South–South dimension

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**NEW AND DYNAMIC SECTORS OF TRADE:
THE SOUTH–SOUTH DIMENSION**

Background note prepared by the UNCTAD secretariat*

Executive summary

Identifying dynamic and new export products from developing countries, particularly in the South–South dimension, can provide insights over the ongoing supply capacity increase and product and export diversification that are taking place among developing countries. Dynamic export products are those which exhibit a rapid and substantial increase in productive capacity. New exports are those sectors into which developing countries are entering.

Rapidly expanding level of demand in the South promises dynamic as well as sustainable market opportunities, particularly in sectors of intermediary processed products.

Trade complementarity among the South is increasing. Traded products are no longer exclusively determined by so-called fundamentals (e.g. factor endowment in natural resources) which are often similar to many developing countries. As countries in the South are at different stages of diversification and specialization, their productive areas and demand for imports are increasingly more diverse, which promotes more trade among the South. The South as a market is particularly important for harnessing exports from lower-income countries, particularly those in Africa.

Emerging economies, such as the Emerging Seven (E7), increasingly play a crucial role in harnessing the trade linkages among the South. Their demand for imports from the South is likely to increase continuously in terms of volumes as well as in variety, thus providing attractive export opportunities for all developing countries, including lower-income countries.

* This document was submitted on the above-mentioned date as a result of processing delays.

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I. INTRODUCTION

1. In 2005 and 2006, in accordance with the outcome of UNCTAD XI (2004) the São Paulo Consensus, UNCTAD convened three expert meetings on dynamic and new sectors in world trade, in which seven sectoral reviews of dynamic sectors were conducted (information and communication technology (ICT)-enabled services, environmentally-preferred products, textile and clothing, electronics, fishery, steel, and energy). The purpose was to draw the attention of developing countries, including least developed countries (LDCs), and their development partners to potential opportunities presented by sectors for greater diversification and improved domestic value added from exports.

2. These meetings found that, within the global framework of trade, increasing participation of developing countries in dynamic sectors acted as both driver and outcome for the changing geography of international trade, which was shown by the dramatic growth in the share of developing countries in world trade flows. On the other hand, many developing countries, particularly LDCs and African countries, continued to specialize in sectors that were among the least market dynamic in world trade. The inability of these countries to manage the challenges of, and reap the benefits from, global trade received special concern.*

3. A global picture, however, may conceal opportunities arising in the rapidly changing trading and economic processes, such as the dynamic growth of trade among developing countries. In the past two decades, export from developing countries to other developing countries, or South–South trade, has grown at a much higher rate than the growth of world export. This growth in South–South export has been experienced by all developing regions, particularly Africa (Molina and Shirotori, 2007). In this context, identifying products that exhibit a dynamic feature in South–South trade, and investigating their factor contents and the direction of flows within the South, would help us understand the nature of South–South trade, e.g. if its expansion follows a whole new trade evolution pattern.

4. Also, we pay attention to “new” export products in South–South trade, with a view to exploring patterns of export diversification in the South–South dimension. Recent empirical evidence suggests that diversification is most active in countries with relatively low level of income. Then, as incomes increase, countries’ production becomes more specialized in certain sectors. (Imbs and Wacziarg, 2003) Then, what role does the South as a market play vis-à-vis developing countries in the process of diversification? Do developing countries use the South as a “testing ground” for their new exports, such that countries accumulate productive and business know-how as well as capital, and increase productivity before entering into the developed-country markets?

5. Another question is whether or not there is a pattern or a common path in selecting new products to which a country diversifies its productive capacity. What are called “new” products are not necessarily those that are on-the-frontier innovation. “New” is defined in terms of a country’s production history, rather than new in the global market perspective. The structure and the pattern of specialization may be influenced by differences in “fundamentals”, such as factor endowment, location and overall institutional quality. But in the process of diversification, changes in the composition of a country’s export basket, and the speed of such changes, can be quite different across countries with similar fundamentals, partly reflecting a country’s policy towards enhancing “self-discovery” by the private sector to getting into production of new products (Hausmann, Hwang and Rodrik, 2006). What matters is the role South–South trade plays in harnessing diversification of low-income

* These meetings are reported in TD/B/COM.1/EM.26/2, TD/B/COM.1/EM.28/5, and TD/B/COM.1/EM.31/3.

countries, particularly those in Africa and LDCs, and which policies promote diversification, i.e. leads to higher levels of economic development.[†] This note will also look into possible role that can be played by a number of emerging economies in the South, which have established themselves as the growth pole of world trade in the 21st century, in pulling the trade dynamism among the South, and enhancing diversification of low-income countries.

6. With a view to facilitating the discussions at the meeting, this background note provides findings from the secretariat's analysis on dynamic and new export products from the South in the past decade. The analysis draws upon the data available in the UNCTAD South–South Trade Information System (SSTIS). The SSTIS, which is a work in progress, provides comprehensive information on bilateral trade flows, at the most disaggregated (HS four-digit) level, by systematically estimating “missing values” in the United Nations Comtrade database. This will allow the same sample size in different years across a period, thereby reducing possible selection bias.[‡] The analysis for this note is conducted at the HS-4 level, which covers 1,240 product groups, as this level of disaggregation sufficiently captures sectoral specificities. At the same time, it allows for correction of possible bias in the estimation method for missing data.[§] The nomenclature used is HS 1988 because it has better country coverage. The period covered by the SSTIS is from 1995 to 2005. Though short in terms of any statistical analysis, this suffices for an analysis of dynamic and new sectors, as the dynamism is more dependent on the recent past than the distant past.

7. As mentioned, export sectors that are dynamic and/or new to a country in a given period can be quite different from those of other countries. Because of the space limit, all country-specific analysis cannot be provided in this paper, which will look into an aggregated picture (at the regional and subregional levels), focusing on examining any specificity in terms of new and dynamic sectors in the South, compared to those in the North, and variations in “new” sectors of trade across subregions with different income levels.

II. DYNAMIC AND NEW SECTORS IN SOUTH–SOUTH TRADE

A. Definition

8. Much has been studied with regard to dynamic sectors in world trade. A study by Mayer, Butkevicius and Kadri (2002), for instance, developed a composite measure of export dynamism and found three product groups (electrical and electronic goods, goods that require high research and development and high technological complexity, and labour-intensive goods in particular clothing) which grew most dynamically, with least volatility, in terms of export values and market share. They suggested that dynamic growth of certain sectors, particularly those with high technological content, was very much linked to the growth of international production sharing.^{**}

9. The previous three expert meetings defined dynamic and new sectors in world trade as those that fell into three broad categories: (a) those that had displayed consistently high growth and increased share in world trade; (b) those already in existence but new on the list

[†] The findings, in turn, will constitute substantive inputs to the preparation for the UNCTAD XII (2008), which will address “the opportunities and challenges of globalization for development”, against the backdrop of the emergence of the South, which has given rise to the “new geography of trade”.

[‡] The data availability in the United Nations Comtrade over the years tends to be low for lower-income countries. Thus, including only those countries with data may automatically create a bias in any analysis.

[§] Molina and Shirotori (2007) provide more details about the estimation method.

^{**} The composite measure of export dynamism incorporated volatility, predictability, growth in market share and long-term/short-term growth in export values.

of export activities of developing countries; and (c) altogether new areas of trade in which developing countries had potential comparative advantage. In accordance with the above categorizations, the previous meetings used the following benchmarks to identify dynamic sectors: (a) those which exhibited the highest absolute increase in the world market share (i.e. a share in world export); and (b) those with the highest annual average growth rate in world export values during 1995–2002. Sectors were classified at the Standard International Trade Classification four-digit level.

10. The above categorization remains a useful yardstick for identifying dynamic sectors in South–South trade, and this study follows its approach but adds some modifications. First, in order to select only *genuine* high-growth products, products whose growth in export value was triggered purely by massive price rises were excluded, as these are linked to high volatility whose growth in one period may not be sustainable in the future. Petroleum products, which show extremely high volatility in prices, and often cloud out other sectors due to their gigantic share in export values of many developing countries, were also excluded.

11. “New” export products were also excluded from a group of high-growth dynamic products. Changes in export values can be decomposed into changes in the intensive and/or extensive margin of trade. Changes in the intensive margin of trade reflect changes in the export value of already traded products. Most dynamic products are those that exhibited the highest increase in the intensive margin. Changes in the extensive margin reflect newly exported products (and/or export to new destinations and/or newly exported goods to new destinations), and illustrates the product sectors into which exports from developing countries are diversified.

12. Another modification, probably the most important, is the use of the UNCTAD SSTIS, which improved the quality of data. The SSTIS gives the sample large sample size of countries across different periods, via systematically estimating “missing data” in bilateral trade flows in the period 1995–2005. It also allows detailed classification of products.

13. With these modifications taken into account, the exact methodology is as follows. Firstly, from the pool of data on exports from the South, products are selected at the HS four-digit level and passed through a growth filter, i.e. at least 500 per cent growth in export values between 1995 and 2005. Those products whose dynamic increases in export values were due to a price surge are then eliminated.^{††}

14. Secondly, dynamic products are distinguished from new products within the selected high-growth products by looking into the market share, i.e. the share of a product’s export value in total exports from the South in respective years. Dynamic products are those which already claimed a certain share (greater than 0.001 per cent) in the South’s total export in 1995. New products are those which had insignificant share (equal or less than 0.001 per cent) in 1995, but claimed a significant share (at least 0.001 per cent) in 2005.^{‡‡}

^{††} Products whose rate of unit price increase was greater than the rate of increase in export values were excluded.

^{‡‡} Although those which had a minute market share in 2005 were excluded, these product lines may contain valuable information when country groups are disaggregated.

How dynamic and new products are identified:

- (a) Data of the value of exports from the South in 1995 and 2005 are drawn from the SSTIS.
- (b) High-growth products, i.e. whose 2005 export values grew at least by 500 per cent from the 1995 value, are selected.
- (c) Products with volatile growth are eliminated.
- (d) Dynamic products are those whose market share in 1995 was greater than 0.001 per cent.
- (e) New products are those whose market share had equal or less than 0.001 per cent share in 1995, and whose market share in 2005 was at least 0.001 per cent.

B. Exports with dynamic growth in South–South trade

15. The top 50 dynamic export products in South–South trade between 1995 and 2005 are listed in table 1 of TD/B/COM.1/EM.34/2/Add.1. Products are ranked according to the size of market share increase, i.e. the share of the export of a product in total South–South export) that occurred between 1995 and 2005.^{§§} The top 25 dynamic products account for 5.7 per cent of the total South–South exports in 2005, and the top 50 account for 23.7 per cent, indicating that dynamic export products constituted an important part of a rapid expansion of the South–South trade in the past decade. The share of top 25 (50) dynamic products from the South to the North account for 3.9 per cent (5.5 per cent) of total South–North exports in 2005.

16. Dynamic export products in the South–South dimension are somewhat concentrated in certain product categories. These are: (a) ores and minerals (HS 25–27, including iron, copper, nickel, cobalt and lead); (b) organic chemicals (HS 29); (c) iron/steel and other metal products (HS 71 and 72, ferrous waste, flat-rolled stainless steel, tubes and pipes, unwrought nickel); (d) plastic and articles (HS 39, acrylic polymers, polyamides, silicones in primary forms, etc.); (e) parts and components of mechanical appliances and electronics (HS 84 and 85, engines and motors, machine hand tools, electric storage batteries, transmission apparatus, etc.); and (f) optical and precision articles (HS 90, optical fibres, lenses, liquid crystal devices, etc.). These categories belong to three different groups of factor intensity: primary commodities (ores and minerals); low skill and technology manufactures (iron/steel/metal products); and high skill/technology manufactures (organic chemicals, plastic articles, mechanical/electronic appliances, and precision tools). Details of region-specific specialization patterns will be discussed later in this section.^{***}

17. Figure 1 of TD/B/COM.1/EM.34/2/Add.1 compares the spread of dynamic export products both to the South and to the North across different HS product categories (horizontal axis) and their associated changes in market share increase (vertical axis). Several patterns of spread are noted.

18. Firstly, dynamic products to both destinations (the South and the North) are broadly concentrated in the sectors that are mentioned above, confirming that these are the sectors

^{§§} Note that the ranking based on the dynamic products given by the growth in the export values is almost identical to the ranking based on changes in the market share.

^{***} See Basu (2007) and UNCTAD South–South paper for further analysis based on factor intensity results.

where developing countries have been accumulating their supply capacity, and moving towards specialization in the global market sphere. Secondly, within these sectors of concentration, the rate of market share increase is generally more pronounced for dynamic products to the North, particularly in the group of high skill/technology manufactures, which suggests that the speed of the South's specialization in this group may be more intense in exports to the North than to the South.^{†††}

19. Thirdly, dynamic products to the North show additional areas of concentration in relatively labour-intensive manufacturing sectors, e.g. paper products (HS 48), and textile and clothing (HS 56 and 61). On the other hand, there are only a couple of products found in ores and mineral sector (HS 25–27), which is one major area of concentration of dynamic products to the South.

20. Fourthly, dynamic export products (HS four-digit) to the North are generally at a higher processing stage than those to the South, within the same product sector (HS two-digit). This is most apparent in the case of iron and steel products, where dynamic products to the South are semi-processed articles (e.g. iron bars and rods), whereas those to the North are finished articles (e.g. tubes and pipes). This may reflect a recent evolution of a division of labour among countries in the South, where intermediary processing takes place in a group of developing countries, which export those, within an established global/regional production chain or otherwise, to other Southern countries that are processing final products that are exported largely to markets in the North.

C. Regional differences in dynamic exports to the South

21. Do different developing regions have different sets of dynamic exports to the South? Dynamic exports illustrate sectors where a developing region is accumulating its productive capacity. According to Imbs and Wacziarg (2003), diversification and specialization of production occur at different stages of economic development: countries diversify at an early stage of development (i.e. when the income level is low) then start to specialize once the income reaches at a certain level. They estimated that the turning point from diversification to specialization occurs when the gross domestic product (GDP) per capita reaches around \$9,000. If that is the case, we are likely to see dynamic products from emerging economies being increasingly more specialized in certain sectors, while those from poorer countries, e.g. in Africa, are in the process of spreading more across product categories.

22. Figure 2 of TD/B/COM.1/EM.34/2/Add.1 plots dynamic exports from three developing regions – Africa, the Americas and Asia – to the South (see also table 2 of TD/B/COM.1/EM.34/2/Add.1). One hundred and five dynamic products to the South from Africa were identified, 67 from the Americas and 83 from Asia. Though a rough estimate, standard deviation of HS four-digit shows that dynamic products from Africa are more spread out than those of from the Americas or Asia.

^{†††} Nickel ores to the South, which grew by 2.464 per cent, are not outside the scale.

Table 1. Spread of dynamic products across product categories (HS four-digit)

Africa to South		Africa to North	
Mean	4602.3	Mean	5286.6
Median	3814	Median	5514
Standard deviation	2669.8	Standard deviation	2695.1
Count	105	Count	51
America to South		America to North	
Mean	4591.0	Mean	6123.8
Median	3307	Median	6862
Standard deviation	2603.6	Standard deviation	2564.5
Count	67	Count	84
Asia to South		Asia to North	
Mean	6027.7	Mean	6254.1
Median	7020	Median	7210
Standard deviation	2594.2	Standard deviation	2458.7
Count	83	Count	103

23. Comparing the median point of the distribution of dynamic exports from each region provides some general ideas. The distribution of dynamic exports from Africa and the Americas, with the median points of 3814 and 3307 respectively, is largely in the areas of primary commodities, from agricultural commodities to minerals and ores (HS 1–27). But the spread/concentration of dynamic exports within the primary commodity sector is different. Dynamic exports from the Americas are significantly concentrated in ores and minerals (HS 26–27) while more of those from Africa are spread across agricultural commodities. Dynamic products from Asia are clearly concentrated in the group of high skill/technology manufactures. Each region thus exhibits a distinguished pattern of dynamic exports to the South, which reflect the current state of how and in which sectors a region's productive and export capacity (to the South) is growing, and the state of increasing trade complementarity among different regions in the South.

24. What is identified matches with the “stages of diversification” to an extent. Though the income level and the degree of diversification cannot be truly compared, due to the level of country aggregation (aggregated at a regional level), it appears that (a) low-income countries (e.g. Africa) are in the process of diversifying more, illustrated by a greater spread in product categories and relatively lower level of the rate in increase of market share; (b) dynamic products from Asia, which contain massive emerging exporters such as the Republic of Korea, China and the Association of South-East Asian Nations (ASEAN)-4, are grouped in a number of high skill/technology sectors, signifying a higher degree of specialization; and (c) the Americas' pattern rests somewhere in between. These also suggest the areas where complementarity among the regions is in making (see box 1).

25. The pattern of dynamic exports to the North in all regions suggests that more products of higher end in skill and technology are increasingly exported to the North. This is particularly prominent in the Americas, where the concentration of dynamic products is made around HS 70 and above, largely finished iron, steel and other metal products and mechanical appliances, suggesting that the Americas highly differentiate their exports depending on destination. For Africa, the rate of market share increase in higher-end products to the North is generally higher than those to the South. On the contrary, Asia's dynamic exports in the higher-end products show some extremely high growth products destined to the South.

Box 1. Total trade flows among the developing regions

A study by UNCTAD* provides a sectoral breakdown of export flows among and within developing regions. A comparison of the sectors of exports between two regions reveals that South–South trade at the regional level generally follows the classical theory of comparative advantage. This is particularly evident for trade between Asia and Africa. On the one hand, Africa’s exports to Asia are highly concentrated in primary commodities (ores and minerals). On the other hand, Asia’s exports to Africa consist of a wide range of manufactured goods. We see a similar pattern of trade between Asia and the Americas. Over 80 per cent of exports from the Americas to Asia consist of primary commodities, while over 70 per cent of Asia’s exports to the Americas consist of products in manufacturing sectors. Still, their exports to each other are not concentrated in any one particular sector. But in the total South–South trade, manufactured products from those subregions are overwhelmed by goods from Asia, particularly from Eastern and South-East Asia.

Trade between the Americas and Africa also appears to be based on a comparative advantage between them, but mostly in non-manufacturing sectors. Exports from Africa to the Americas show the highest rate of concentration across all the trade relationships. Exports from the Americas are much more diversified, though over 50 per cent of its exports to Africa are of agri-food products (prepared foodstuffs, animal and vegetable products, fats and oil).

Intraregional South–South trade appears to be more diversified than interregional trade, except in the case of Asia. Within Africa, exports are much more diverse than those destined to outside regions. Natural resources still take up a large share of intraregional trade, and also trade in sectors which are barely exported to other regions, e.g. prepared foodstuffs, vegetable products and plastics and rubber. Within the Americas, exports of vehicles take up a substantial share, together with resource-based products. Countries within this region also export manufacturing goods such as electric machineries, which do not appear in their export bundles to Asia or to Africa. For Asia, exports to countries within the same region show a much higher concentration than exports to other regions, due to the weight claimed by fuels in intra-Asian trade. On the contrary, textiles and clothing, which are the number one sector of exports to Africa and number two to the Americas, weighs much less in the intraregional trade.

* Molina and Shirotori (2007).

Network of exports: Top 10 export sectors (2005)

Asia to Africa				Africa to Asia			
1	11	Textile & textile articles	15.44%	1	6	Fuels	65.78%
2	16	Electrical machinery & equipment	10.26%	2	14	Base metals & products	7.91%
3	15	Machinery & mechanical appliances	9.48%	3	7	Chemicals & allied industries	4.32%
4	18	Vehicles	8.85%	4	11	Textile & textile articles	4.06%
5	14	Base metals & products	8.12%	5	5	Ores & minerals, excluding fuels	3.58%
6	19	Aircraft, ships, etc.	7.36%	6	2	Vegetable products	2.93%
7	8	Plastics & rubber	6.36%	7	10	Wood & wood products	2.09%
8	7	Chemicals & allied industries	5.86%	8	13	Articles of stone, glass, precious stones & metals	2.04%
9	6	Fuels	5.47%	9	4	Prepared foodstuffs, beverages, etc.	2.00%
10	2	Vegetable products	5.35%	10	1	Animals & animal products	1.19%
Total of the above			82.55%	Total of the above			95.90%

Network of exports: Top 10 export sectors (2005) – continued

Asia to Americas				Americas to Asia			
1	16	Electrical machinery & equipment	22.64%	1	14	Base metals & products	18.37%
2	11	Textile & textile articles	12.89%	2	5	Ores & minerals, excluding fuels	17.36%
3	15	Machinery & mechanical appliances	11.75%	3	2	Vegetable products	12.06%
4	19	Aircraft, ships, etc.	7.12%	4	4	Prepared foodstuffs, beverages, etc.	11.26%
5	18	Vehicles	6.93%	5	6	Fuels	9.85%
6	8	Plastics & rubber	6.35%	6	3	Fats & oils	5.37%
7	6	Fuels	5.56%	7	1	Animals & animal products	5.00%
8	7	Chemicals & allied industries	5.53%	8	10	Wood & wood products	3.43%
9	14	Base metals & products	4.32%	9	15	Machinery & mechanical appliances	3.32%
10	99	Special Uses (HS 2, 98 & 99)	3.97%	10	7	Chemicals & allied industries	3.05%
Total of the above			87.06%	Total of the above			89.06%
Americas to Africa				Africa to Americas			
1	4	Prepared foodstuffs, beverages, etc.	21.71%	1	6	Fuels	81.97%
2	1	Animals & animal products	12.26%	2	7	Chemicals & allied industries	5.06%
3	2	Vegetable products	11.47%	3	19	Aircraft, ships, etc.	3.63%
4	18	Vehicles	9.90%	4	14	Base metals & products	3.16%
5	14	Base metals and products	8.26%	5	5	Ores & minerals, excluding fuels	1.49%
6	3	Fats & oils	7.92%	6	15	Machinery & mechanical appliances	1.28%
7	6	Fuels	6.00%	7	4	Prepared foodstuffs, beverages, etc.	1.08%
8	5	Ores & minerals, excluding fuels	5.28%	8	11	Textile & textile articles	0.39%
9	15	Machinery & mechanical appliances	4.54%	9	10	Wood & wood products	0.34%
10	7	Chemicals & allied industries	2.96%	10	18	Vehicles	0.32%
Total of the above			90.30%	Total of the above			98.71%
Asia to Asia				Americas to Americas			
1	16	Electrical machinery & equipment	25.18%	1	6	Fuels	19.29%
2	6	Fuels	20.14%	2	18	Vehicles	12.51%
3	15	Machinery & mechanical appliances	12.85%	3	14	Base metals & products	10.27%
4	14	Base metals & products	6.63%	4	7	Chemicals & allied industries	10.21%
5	11	Textile & textile articles	6.36%	5	8	Plastics & rubber	6.39%
6	7	Chemicals & allied industries	5.27%	6	16	Electrical machinery & equipment	6.12%
7	8	Plastics & rubber	4.84%	7	4	Prepared foodstuffs, beverages, etc.	6.08%
8	20	Optical & precision instruments	3.60%	8	15	Machinery & mechanical appliances	5.97%
9	13	Articles of stone, glass, precious stones & metals	2.95%	9	10	Wood & wood products	4.22%
10	18	Vehicles	2.00%	10	2	Vegetable products	3.98%
Total of the above			89.82%	Total of the above			85.04%
Africa to Africa							
1	6	Fuels	36.13%				
2	14	Base metals & products	10.03%				
3	7	Chemicals & allied industries	7.38%				
4	4	Prepared foodstuffs, beverages, etc.	6.93%				
5	2	Vegetable products	6.05%				
6	10	Wood & wood products	4.35%				
7	15	Machinery & mechanical appliances	3.77%				
8	13	Articles of stone, glass, precious stones & metals	3.74%				
9	8	Plastics & rubber	3.40%				
10	11	Textile & textile articles	3.38%				
Total of the above			85.16%				

Source: Molina and Shirotori (2007); the UNCTAD South-South Trade Information System.

D. New export products from developing countries

26. Next, we look into “new” export products from the South, i.e. those that developing countries are diversifying into. These are the ones which have increased the market share from insignificant to somewhat significant with high growth rate in the period 1995–2005. For the South as a whole, 30 “new” products in South–South trade and 70 such products in the South–North trade have been identified. (These are listed in table 3 of TD/B/COM.1/EM.34/2/Add.1.)

27. As figure 3 of TD/B/COM.1/EM.34/2/Add.1 illustrates, new products to the South are spread almost arbitrarily across the product space. Only slight concentration is found in the sectors of inorganic chemicals (HS 28) and articles of copper and nickel (HS 74 and 75). On the other hand, new exports to the North are more numerous, exhibit on average a higher rate of market share increase, and show a greater number of areas of concentration covering, e.g. organic chemicals (HS 29) and paper products (HS 48). Diversification into new products, it appears, has been done with more focus on the market of the North than that of the South.

28. But an aggregated picture would give us only a general idea. As mentioned before, a new export product is specific to a country in a given period of time, and can be very different from export products that are new to other countries. Economic theories suggest that a country’s exports would be first concentrated in products of which input factors are abundant (often in primary commodities), then would be diversified into higher value added products, before specializing in sectors where it has established a comparative advantage in the global market. Klinger and Lederman (2006) focus on the process of diversification, and suggest that the frequency of *discovery*, i.e. starting new exports of off-the-frontier (not technically innovative) products, “...rises quickly, reaching a maximum somewhere in the neighbourhood of GDP per capita of \$4,000...As the level of development continues to rise, off-the-frontier innovation is replaced by on-the-frontier innovation, which increases exponentially with GDP per capita.”

29. The above indicates the importance of country-specific analysis, which cannot be provided in this paper due to the space limit. However, a comparison was conducted of new export products across selected subregions that differ in the level of income (taking into account both total GDP and GDP per capita). These include East Asia and Central America (higher-middle income); South America and South Asia (lower-middle income); and Eastern Africa and Western Africa (lower income).

30. The top 25 new export products from each subregion are given in table 5 of TD/B/COM.1/EM.34/2/Add.1, and the distribution of new export products are given in figure 4 of that document. We see clearly that there are more new products in the Southern market from lower-middle and lower income subregions than higher-middle income subregions. Eastern Africa shows a particularly significant number of new export products to the South, spreading across a wide range of product sectors. Some of those new exports exhibit an extremely high rate of increase in its export share. On the other hand, East Asia appears not very active in diversification, with a lower number of new products associated with a relatively low degree of market share increase. These findings, though made at an aggregated level and of limited timeframe, go along with the theory that the degree of diversification varies according to the level of development (income), with countries at low or middle income diversifying more actively than high-income ones.

31. What is more noteworthy is that, as found in the above aggregated picture, the North is more important as a market for new export products. All studied subregions except Western Africa export significantly more new products to the North. For instance, South Asia

and Eastern Africa are exporting a large number of new products to the North. Some of those new exports show massive increase in export shares, by over 1,000 times, suggesting that they are particularly actively diversifying into sectors such as inorganic chemicals and compounds (HS 28 and 29), plastic and rubber articles (HS 39 and 40), articles of iron/steel (HS 73) and parts and components of mechanical appliances from South Asia; and articles of apparel and clothing (HS 62) and electrical apparatus (e.g. for switching) from Eastern Africa. We also see Central America is active in exporting new products to the North. These findings confirm that the North is the more likely destination for new exports coming out of a country's diversification process.

32. The North may have been considered as a more suitable testing ground for new export products because of, among many explanations, the North's absorption capacity as a market (demand size); its preference over a greater variety; ease of obtaining market information on a timely basis; and a lower cost of market entry arising from e.g. better trade logistics (transport) and lower tariff barriers.

33. Finally, we see that there is very little overlap of new exports at a product level (HS four-digit) among new export products from different subregions, as well as among new products exported to the South and those to the North within the same subregion. This could mean that products newly exported to the South today were those that were new to the North before, or vice versa. It could also mean that countries perhaps simultaneously diversify into different product sectors reflecting different demand exhibited by the South market and the North market.

34. Data is required which covers a longer period to answer the above questions. But it is possible that increasing market integration among the South – via reciprocal tariff reductions, harmonization of regulation, enhancing market information network and perhaps getting involved in a regional production chain – may increase the weight of the South as a market that enhances diversification processes of developing countries, particularly those of lower-income developing countries.

III. THE ROLE OF EMERGING ECONOMIES IN ENHANCING SOUTH-SOUTH TRADE DYNAMISM

35. In the past two decades, a number of emerging economies have significantly increased their share in international merchandise and services trade. In particular, there are seven countries, or the "Emerging Seven", which have contributed immensely to this trend: Brazil, India, China, Mexico, the Russian Federation, South Africa and the Republic of Korea.^{†††} The share of merchandise exports of these countries in global exports increased from 10.6 per cent in 1995 to 17.2 per cent in 2005.

36. The E7 constitutes 45 per cent of world population and contributes around 27 per cent of world exports of goods and services in 2005. This robust trade performance contributed to a high economic growth rate in these emerging economies, with annual real GDP growth of 5.7 per cent.^{§§§} Alongside the E7, countries such as Turkey, Indonesia, the Philippines, and Viet Nam have rapidly expanded their exports since the mid-1990s, looking more and more likely to join the rank of new economic powers.

^{†††} Note that the Russian Federation was not considered as the South in the analysis given in the previous section.

^{§§§} Detailed analysis of the significance of the E7 is given in UNCTAD (2007), the Secretary-General's report to UNCTAD XII, and Basu (2007).

37. The rapid economic rise of the E7 has been a major driver of dynamic expansion of South–South trade. Also, their growing market size and their increasing demand for more consumer goods have provided other countries in the South with huge opportunities in exporting dynamic and new products. While the markets in the North remain a major destination of exports from the E7, their imports from the South increased roughly three-fold, from \$103 billion in 1995 to \$416 billion in 2005. In comparison, their imports from the North grew from \$316 billion to \$723 billion during the same period. It is therefore likely that the E7's astonishing rate of economic growth determines South–South trade dynamics, as well as influences the speed of productive capacity-building and export diversification by playing as one major and growing market for dynamic and new export products from other countries in the South.

38. Disaggregated data on imports of individual E7 countries point to some different patterns of trade relationships with other countries in the South (see table 7 of TD/B/COM.1/EM.34/2/Add.1):

- (a) Brazil imports largely from the Americas, particularly from its neighbouring countries, followed by subregions of Asia. More notably, Brazil's imports from Africa grew by six times over the last decade, pointing towards a new trade relationship in the making.
- (b) China's imports from Africa grew significantly over time, and imports from other Asian regions reached \$200 billion in 2005.
- (c) India's imports are mostly coming from Asian subregions, followed by Africa and the Americas. Within Asia, South-East Asia remains the largest source of India's imports over the last decade, followed by Western Asia.
- (d) Imports of the Republic of Korea depend heavily on Asia, and the pattern has not changed much over the period.
- (e) Mexico, which is least active in South–South trade among the E7, imports mostly from Asia.
- (f) South Africa has also shown strong trade linkages with Asia, as a great proportion of their imports originates from Asian countries.
- (g) The Russian Federation, the only transition economy in the list of emerging economies, imports mostly from Asia, but trade value is much less compared to other countries in the group.

39. Careful analysis of the pattern of products imported by the E7 from other countries in the South indicates that some of their major imports (e.g. electronic appliances particularly linked to data processing and semi-processed metal articles) overlap with the products that are identified as dynamic exports in the South–South dimension. This signifies that the E7 stands as the centre of gravity in the South–South trade expansion in a number of sectors.

40. Countries of the E7 have shown varying degree of product and market dynamism according to their own structural and institutional context and productive capacity. This has created a huge demand for imports of different products from different developing regions, taking into account different cost and market and production connectivity. Many different regions have supplied products to fulfil growing and varying demand manifested by each of the E7 countries. This has encouraged other developing countries first to increase their participation in South–South trade, then to make their production and trade networks among the South more dynamic and robust.

41. Moreover, as each country in the E7 is shifting its demand pattern and resource needs as it goes through different stages of economic progress, it is well expected that new market opportunities provided by the E7 to other developing countries will be sustainable, as its demand is increasing both in depth (i.e. in volume) and in width (in variety).

IV. SUMMARY FINDINGS AND SOME POLICY IMPLICATIONS

A. Summary findings

42. Major findings from the above are summarized as follows:

- (a) Identifying dynamic and new products of exports from developing countries, particularly in the South–South dimension, can provide us with insights over the ongoing supply capacity increase and product and export diversification that are taking place among developing countries. Dynamic export products are those which exhibit a rapid and substantial increase in productive capacity. New exports are those sectors into which developing countries are newly entering.
- (b) Rapidly expanding levels of demand in the South promise dynamic as well as sustainable market opportunities, particularly in sectors of intermediary processed products.
- (c) Trade complementarity among the South is increasing. Traded products are no longer exclusively determined by so-called fundamentals (e.g. factor endowment in natural resources) which are often similar to many developing countries. As countries within the South are at differing stages of diversification and specialization, their productive areas and demand for imports thereof are becoming increasingly more diverse, which in turn promotes more trade among countries in the South.
- (d) The South as a market is particularly important for harnessing exports from lower income countries, particularly those in Africa. While these countries often appear to be marginalized when dynamic and new sectors are studied at a global level, Africa manifested the highest rate of export growth to the South in the past decade, not only in primary commodities but also in sectors of labour-intensive industries. This is particularly impressive given the fact that countries in Africa are least integrated into the evolution of global production sharing, believed to be one of major drivers of South–South trade.
- (e) Lower-middle to lower income developing countries are actively diversifying their production and exports, some of which are growing into products of dynamic export. The diversification pattern, i.e. the selection of products to diversify into, does not seem to be determined by a country's fundamentals – each developing region shows a spread of new export products across a wide range of product space.
- (f) When countries diversify into new products, the main destinations are markets in the North. This may be because of better accessibility and knowledge of the market conditions in the North. Future market regional or interregional integration among the South could make the region a more attractive destination for new export products.
- (g) Emerging economies, such as the E7, increasingly play a crucial role in harnessing the trade linkages among the South. Their demand for imports from the South is

likely to increase continuously in terms of volumes as well as in variety, thus providing attractive export opportunities for all developing countries, including lower-income countries.

B. Some policy implications

43. Participation by developing countries in new and dynamic sectors enables them to increase their export earnings, value added and diversification, and improve their terms of trade and build technological capacity. Sectoral reviews carried out by UNCTAD indicate that the ability to participate and benefit from new and dynamic sectors depends on productive capacity, competitiveness and market access and entry conditions. Also, participation in global production, value and distribution chains through trade and investment links has enabled these developing countries to take advantage of opportunities in this regard.

44. Some broad policy issues relating to participation of developing countries in dynamic and new sectors are noteworthy. The present note and related background research at UNCTAD underlined the importance of policy thrusts in several areas, including: (a) building supply capacity and competitiveness through sound and supportive structural and institutional context, trade policies and processes; (b) identifying sectors and products from new and dynamic sectors of world trade to harness trade and development prospects of developing countries; and (c) greater need for policy coherence at the national and global level in identifying a comprehensive set of instruments that “enhance the enabling environment” for development at all levels.

45. The following suggests areas where future research and discussions at both the national and international levels are essential:

- (a) An important observation illustrated by the analysis of E7 and other developing countries is that all relevant factors of export dynamism and factor intensity have changed over time. Analysis therefore should be made in a coherent framework, taking into account this dynamism. Furthermore, their experiences can provide relevant lessons for national and international policy formulations.
- (b) The ability of countries in the South to identify dynamic and new products depends predominantly on effectiveness in overcoming various constraints. National and international policies need to focus on constraints posed by, among other things, market failures, missing markets due to institutional ineffectiveness, lack of domestic financing and resource base, insufficient ICT (information and communication technology) developments, lack of linkages and externalities among different sectors, and lack of reliable structural infrastructures, e.g. roadways and transport.
- (c) Promoting trade arrangements at the multilateral, regional and bilateral levels to enhance market access and entry, as well as to create an enabling condition for continued expansion of trade by developing countries, will be another important area.
- (d) Coordinated policies and actions, within an overall development framework, should build and sustain strategic linkages among key factors, including investment, supply capacity, productivity, competitiveness, market access and entry, changing market preferences and integration into regional production chains. International trading and financial systems, global market structures, and

development cooperation can play a facilitating role in supporting developing countries' policies and actions to promote exports in these sectors.

- (e) South–South cooperation can help policy dialogue among developing countries to improve market access and entry conditions. A specific focus is required not only in reducing tariff barriers but also non-tariff barriers that are prevalent in areas such as sanitary and phytosanitary and technical barriers to trade measures, and complex and divergent rules of origin.

46. South–South trade integration can create new ways of addressing the opportunities and challenges of globalization. It is therefore crucial that the secretariat continue its research and analysis in this area, including constructing innovative analytical and quantitative tools for measuring trade and development potential.***

*** UNCTAD is in the process of constructing such tools, including the Trade and Development Index, and looking into relevant frameworks for development strategies at a national level.

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