2 Primarisation of exports in the 21<sup>st</sup> century and its effects. Deindustrialialisation versus demanufacturing

## Introduction

The 21<sup>st</sup> century has witnessed a variety of new phenomena in the world economy, particularly the increasing role of China (and other developing countries) and accompanying transformations in international trade and the structure of the global GDP. New price tendencies and price relations resulting directly from these phenomena and promoting exporters of primary commodities have been of particular significance. The latter phenomena have also been reflected in the long-term increasing share of food and resources in the global structure of exports. Over the last several years the global economy has also witnessed the declining role of the manufacturing industry in GDP, which can be observed clearly particularly in developing countries, especially those with close economic relations with China.

The aim of the paper is to present selected aspects of the scale, origins and effects of primarisation of exports, especially in the light of China's increasing role in the world economy and trade. An attempt is also made to identify more precisely the processes related to primarisation: deindustrialisation and demanufacturing, particularly in the light of the heated discussion taking place in the world literature.

In the first part of the paper, processes of export primarisation in the  $21^{st}$  century are analysed against the earlier long-term tendencies. Part two presents new price relations, focusing in particular on China (both in terms of demand and supply). In the last part, the author concentrates on the effects of China's role and new price relations on changes in GDP structure. They all result in a process known as demanufacturing and – contrary to certain views presented in the literature of the subject – a certain reindustrialisation (rather than deindustrialisation) of New Phenomena in International Markets and their Implications

developing economies (where the mining industry has been gaining in importance, which offsets the effects of the shrinking role of the manufacturing industry). The study focuses, practically, on the 21<sup>st</sup> century, mostly the years 2000–2012, and – where available – data as recent as the first quarter of 2014 is also shown. Some parts of the paper present time series dating back to the 1960s so as to provide a better picture of the nature and relevance of the current processes.

In the paper mostly statistical data sources and UNCTAD reports are used, supported also – to a certain degree – by data published by the IMF (for primary commodities) and the UN Statistical Office (for manufactured goods).

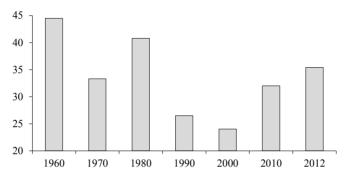
## 1. Primarisation of exports

The second half of the previous century saw a gradual (except for the 1970s) long-term decline in the share of primary commodities in global exports. It referred in particular to food (whose share shrank from nearly 17.6 per cent in 1960 to 6.7 per cent in 2000), and – although to a lesser extent – fuels (cf. Table A.1). An overall nearly 50 percent drop in the share of primary commodities (from 44.5 per cent in 1960 to mere 23.1 per cent in 2000) should be seen as significant.

Against the above-mentioned long-term tendency, the phenomenon observed in the 21<sup>st</sup> century and involving a significant increase in the role of primary commodities in the world exports should be considered noteworthy (cf. Figure 1). Between 2000 and 2012 the share of these commodities rose by more than 10 percentage points while the share of fuels doubled (from 10.5 to 18.8 per cent). This process is defined in the literature as primarisation of exports<sup>1</sup> – when used to describe developing countries. Owing to the fact that it is usually approached with

<sup>&</sup>lt;sup>1</sup> Cf. e.g. Brazilian Manufacturing in the Face of Chinese Competition, University of East Anglia, DEV Research Briefing, Norwich 2011, July, p. 1; R. Jenkins, Latin America and China – A New Dependency?, University of East Anglia, Norwich 2012, April, pp. 19, 31–32. See also: G.M. de Paula, Development of the Latin American Metal-Mechanical Industry, 1er Congreso Mexicano de la Industria Siderurgica, www.canacero.org.mx/assets/19-estudio-ilafa-germano-mendes.pdf (4.05.2014), pp. 15, 30.

reference to Latin America, it is also known as reprimarisation<sup>2</sup> since these countries (or at least some of them) had been very successful in following their industrial policies in the past, increasing their share of manufactured goods in total exports.<sup>3</sup>





Source: *Współczesna gospodarka światowa. Wybrane problemy*, ed. J. Dudziński, Wydawnictwo Naukowe Uniwersytetu Szczecińskiego, Szczecin 1994, p. 35; *UNCTAD Statistical Database*, http://unctadstat.unctad.org (2.05.2014).

The increasing role or food and resources in the international trade, as shown above, was accompanied by similar changes in the share of the main groups of countries. Transition economies saw the highest increase (explained mostly by Russia whose exports are dominated by resources). Their share in the global exports increased from 2.4 in 2000 to 4.4 per cent in 2013, i.e. it nearly doubled.<sup>4</sup> Developing countries also reported a significant rise in their share – from 31.9 per cent in 2000 to 44.8 per

<sup>&</sup>lt;sup>2</sup> Cf. e.g. R. Bouzas, *Latin America in the New Global Scenario: A Bumpy Road Ahead*, University of Miami, December 17, 2012, p. 5; R.E. Feinberg, *Latin American – Asian Trade, Flows: No Turning Back*, Woodrow Wilson International Center for Scholars, Washington, D.C., June 20, 2013 and *Science, Technology and Innovation in Latin America and the Caribbean Region*, United Nations Commission on Science and Technology for Development (CSTD), Lima, Peru, January 9, 2013, p. 7.

<sup>&</sup>lt;sup>3</sup> For more on this topic see M. Czarnecka-Gallas, *The Efficiency of Industrial Policy in 21<sup>st</sup> Century? The Case of Brazil*, "Gospodarka Narodowa" 2013, nr 7–8.
<sup>4</sup> UNCTAD Statistical Database, http://unctadstat.unctad.org (2.05.2014).

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cent in 2013. A very dynamic growth in China's exports also contributed to this rise, as did the commodity-oriented exports of a number of economies in this group. In the analysed period the role of developed economies declined, in turn (from 65.7 to 51 per cent), as their exports are dominated by manufactured goods.

Primarisation of exports is in practice reflected in the declining share of manufactured goods in total exports (i.e. a certain demanufacturing of exports), observed particularly in Africa and Latin America. It is well depicted in Figure 2, which shows that the 21<sup>st</sup> century saw decreases in the share of manufactured goods in Africa – nearly by half, and in Latin America – by 25 per cent. So while in 2000 these goods accounted for approx. 60 per cent of Latin America's exports, at the moment they represent much less than half (42 per cent).

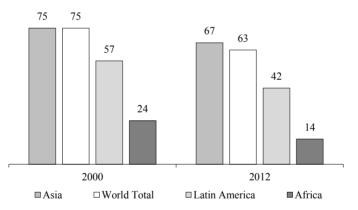


Figure 2. Share of manufactured goods in total exports of developing countries in the years 2000–2012 (%)

Source: own calculations based on the Handbook of Statistics, UNCTAD, New York (for respective years).

# 2. New price tendencies and the role of China in the global economy

The 21<sup>st</sup> century has witnessed new price relations and tendencies in international trade, different from those observed earlier, and expressed in a strong absolute (but also relative – in relation to manufactured goods) rise of primary commodity prices<sup>5</sup> (cf. Figure 3). They are strictly related to the above-presented process of primarisation of exports. As discussed in numerous publications, the rapid growth in the demand for primary commodities in developing countries, particularly in China, has been found an important price driver in the 21<sup>st</sup> century.<sup>6</sup> China's leading role in this respect is closely related to the country's size.<sup>7</sup> Other essential factors include high energy and resource consumption which support rapid economic growth.

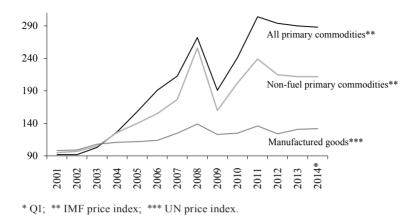
As a result, China has become the world's leading consumer of primary commodities, accounting for over 40 per cent of the global consumption. Even though the country has been one of the world's major producers of selected primary commodities, their production does not meet the rapidly growing demand. China's role deserves particular attention as in the period of analysis the demand for a number of primary commodities in developed countries dropped in absolute terms, e.g. for copper – by 23 per cent, for nickel – by 22 per cent, for cotton – by 67.6 per cent, for soya – by 12.7 per cent, and for crude oil – by 8.1 per cent.<sup>8</sup>

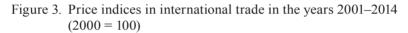
<sup>&</sup>lt;sup>5</sup> For more on the topic see J. Dudziński, *Proces zwierania się nożyc cen w handlu międzynarodowym i jego przyczyny*, in: *Gospodarka międzynarodowa – wyzwania i nowe trendy*, Wydawnictwo Uniwersytetu Ekonomicznego w Poznaniu, Poznań 2011, pp. 69–83.

<sup>&</sup>lt;sup>6</sup> Cf. e.g. S.K. Roache, *China's Impact on World Commodity Markets*, IMF Working Paper WP 12/115, May 2012, p. 21; T. Helbing, V. Mercer-Blackman, K. Cheng, *Commodities Boom. Riding Wave*, Finance and Development 2008, March, p. 13; M. Francis, *The Effect of China on Global Prices*, Bank of Canada Review, Autumn 2007, pp. 13–25.

<sup>&</sup>lt;sup>7</sup> Cf. *Trade and Development Report*, UNCTAD, New York 2013, pp. 52–55. <sup>8</sup> *Ibidem*.

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Source: UNCTAD Statistical Database, http://unctadstat.unctad.org (5.06.2014); www.imf/external//np/res/commod/table1.pdf (5.06.2014).

The second direction of China's impact on price movements in international trade is the supply of manufactured goods. At the moment the country has become the world's leading exporter, and its exports are visibly dominated by manufactured goods (which account for nearly 95 per cent of total exports). What should be emphasised in this context is China's extremely dynamic growth in exports (with the 2012 index at 822, 2000 = 100). While expanding its share in the global exports (from 3.8 per cent in 2000 to nearly 12 per cent in 2013), China becomes the major player affecting global prices of manufactured goods, contributing to their relative (and sometimes even absolute) fall. For instance, between 2001 and 2012, when China's export prices increased by mere 21 per cent, and the global increase amounted to 80 per cent, export prices in transition economies (mostly Russia) tripled (index: 334, 2000 = 100).<sup>9</sup>

<sup>&</sup>lt;sup>9</sup> UNCTAD Statistical Database, http://unctadstat.unctad.org (2.05.2014).

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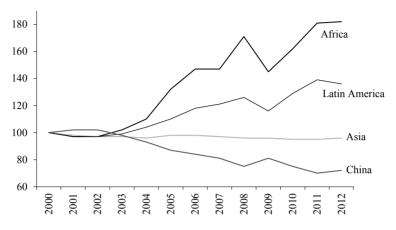


Figure 4. *Terms of trade* of developing countries in the years 2000–2012 (2000 = 100)

Source: UNCTAD Statistical Database, http://unctadstat.unctad.org (2.05.2014).

As a consequence of the impact of the above phenomena, China's *terms of trade* in the 21<sup>st</sup> century have become unfavourable (cf. Figure 4) as the index decreased in 2012 by as much as 30 per cent in relation to 2000. In the literature of the subject it is also argued that China's huge demand for primary commodities and its policy of low export prices "improve" the *terms of trade* of the country's trade partners while deteriorating its own.<sup>10</sup> At the same time, however, the economy contributes to changes in commodities in their exports and cheap manufactured goods in their imports, which suppresses the development of their own production of the latter goods. These issues will be explored in more detail further in the study.

The processes shown above shape also the increasing unit value export. In Africa's exports it more than tripled while in Latin America's – more than doubled. These countries witnessed clearly primarisation of exports. Asia, on the other hand, reported in that period price rises

<sup>&</sup>lt;sup>10</sup> Cf. e.g. P.E. Robertson, *The Global Impact of China's Growth*, Discussion Paper 13.13, The University of Western Australia, January 2012, p. 4.

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of less than 60 per cent, i.e. below the world average (80 per cent) – cf. Figure A.1.

The policy of low export prices followed by China and other Asian economies (reflected in their changing *terms of trade*) drove the growth in export volume, which efficiently offset the weak price rises. Between 2000 and 2012 China's export volume reported a seven-fold increase whereas the global export volume in that period grew by mere 58 per cent. Africa's and Latin America's performance was even poorer in terms of their export volume growths – the two regions reported increases of only 25 and 46 per cent, respectively – see Figure A.2.

It seems clear, therefore, that China's raising a high demand for primary commodities contributes to improvement in the *terms of trade* of exporters of these commodities on the one hand, and to primarisation of their exports (mostly in Africa and Latin America) on the other. All these processes lead, however, to a relatively slow growth in export volumes reported by the latter countries, as for objective reasons the output and export volume of primary commodities are growing less dynamically than manufactured goods.

It should be pointed out that the literature emphasises potential unfavourable (especially long-term) effects of primarisation of exports in developing countries. The issues related to high volatility of prices (and related income from exports of food and resources) and advantages of a more stable growth, based on the country's own manufacturing industry, are stressed in particular. The authors explore this problem in more detail in the context of re-dependence on exports of primary commodities in South America, particularly Brazil (i.e. reprimarisation of exports).<sup>11</sup> The region had earlier reported a relatively fast industrial development, and the effects of the industrial policy followed by many countries in the region were also positive.

<sup>&</sup>lt;sup>11</sup> Cf. e.g. G.M. de Paula, *op.cit.*; cf. also on this topic R. Jenkins, *op.cit.*, pp. 4–7; K.P. Gallagher, R. Porzecanski, *China and the Latin America Commodities Boom: A Critical Assessment*, University of Massachusetts Amherst, Working Paper Series No. 192, February 2009, pp. 5–12; A. de la Torre, T. Didier, M. Pinat, *Can Latin America Tap the Globalization Upside?*, Policy Research Working Paper No. 6837, The World Bank, April 2014.

In this context is should be emphasised that the prices of primary commodities have recently (in the years 2012–2014) not only become stable but in fact even dropped (both in nominal terms and in relation to manufactured goods) – see Figure 3. UNCTAD statistics show at the same time that Africa's and Latin America's exports (i.e. two regions with strong primarisation of exports) dropped in 2013 by 6.4 per cent and 0.4 per cent, respectively, in comparison to 2012. Asia's exports, in turn, increased in 2013 by 3.6 per cent, while the global exports grew by 2 per cent.<sup>12</sup>

# 3. Deindustrialisation and demanufacturing

The above presented transformations in international trade were, naturally, related to respective changes in the structure of the world GDP (cf. Table A.2). They also diverted from the tendencies observed in previous periods. A general long-term tendency in economic growth – almost in line with the tendency described in economic literature – involved sectoral transformations seen as an increasing role of services at the expense of not only agriculture but also industry (mining and manufacturing). A shrinking share of agriculture (from 10.4 per cent in 1960 to merely 3.6 per cent in 2000) was particularly visible. The decreasing role of industry (both mining and manufacturing) – although relevant (by approx. 10 percentage points) – was not that spectacular. This last process could be defined as sectoral deindustrialisation as it refers to industry as a sector of the economy.

The 21st century, on the other hand, has seen an entirely different phenomenon – a shrinking share of services in the global GDP (from 67.5 per cent in 2000 to 65.9 per cent in 2012). Two major reasons seemed to explain this fact. Firstly, it was related to the financial crisis and the resultant diminishing role of the financial sector (following, among others, the introduction of regulations limiting its activity). A view was common that over-financialisation of the contemporary economy had been the primary reason behind the global financial crisis. Secondly,

<sup>&</sup>lt;sup>12</sup> UNCTAD Statistical Database, http://unctadstat.unctad.org (2.06.2014).

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a significant factor was the aforementioned dramatically rising demand for primary commodities, particularly in developing countries (mostly China and new industrialised economies). It contributed to primary commodity price rises (in agriculture and mining). The latter phenomenon may, therefore, explain the increasing share of total industry in the global GDP in the 21<sup>st</sup> century, accompanied by the shrinking share of the manufacturing (cf. Figures 5–7).

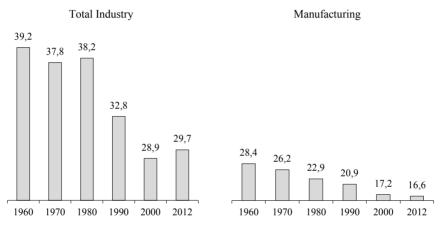
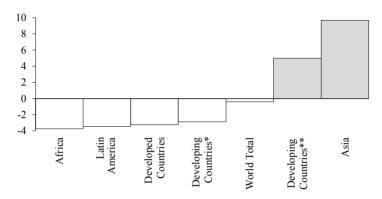


Figure 5. Share of industry in the global GDP in the years 1960–2012 (%) Source: *UNCTAD Statistical Database*, http://unctadstat.unctad.org (2.05.2014).

As shown in Figure 6, in the 21<sup>st</sup> century the share of the manufacturing in GDP has continued to decline (i.e. demanufacturing). This tendency has been observed both in developed countries (a fall from 17.5 per cent to 14.2 per cent, i.e. by 3.3 percentage points) and non-Asian developing countries. In Africa, for instance, this share dropped by as many as 4 percentage points, and in Latin America – by nearly 3.5 percentage points (including Chile – almost 8 percentage points).<sup>13</sup> It should

<sup>&</sup>lt;sup>13</sup> For more on the topic see e.g. G.M. de Paula, *op.cit.*; K.C. Fung, A. Garcia-Herrero, M.N. Ospina, *Latin American Commodity Export Concentration: Is There a China Effect?*, BBVA Working Paper 13/06, Hong Kong, January 2013.

be emphasised that demanufacturing can be observed in the entire group of developing countries (excluding China) which reported a decrease in the index by 2.8 percentage points.



\* Excluding China; \*\* Total.

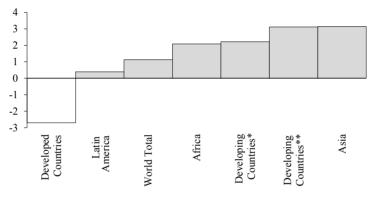
- Figure 6. Changes in the share of the manufacturing in GDP by groups of developing countries in the years 2000–2012 (percentage points)
- Source: own study based on UNCTAD Statistical Database, http://unctadstat.unctad. org (26.06.2014).

China's contribution to this tendency is best seen in the fact that the entire group of developing countries (i.e. including China) reported a 6.6 percentage point increase in the share of the manufacturing, and the developing Asia alone – a 10 percentage point increase. This analysis leaves no doubt as to China's role in the development of the demanufacturing phenomenon observed in most of the regions in the  $21^{st}$  century. The world, on average, reported a relative stabilisation of the share of the manufacturing in GDP (a slight decrease by 0.3 percentage points).

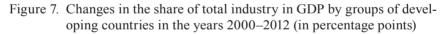
Different conclusions can be derived from the analysis of the data presented in Figure 7. It seems that contrary to common views on deindustrialisation of the economy in the 21<sup>st</sup> century, the share of total industry in the global GDP (including mining) increased by approx. 1 percentage point (from 28.9 per cent to 29.7 per cent). Although the share of total

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industry in developed countries shrank (by nearly 3 percentage points) it clearly rose in developing countries (by more than 3 percentage points). This increase in the total industry was seen not only in Asia but also in Africa and Latin America – i.e. regions experiencing demanufacturing. These processes are related to the aforementioned rise in the demand for primary commodities and their prices in the  $21^{st}$  century, which boosted mining and primarisation of exports.



<sup>\*</sup> Excluding China; \*\* Total.



Source: as for Figure 6.

In this context it should be emphasised that the output of mining increased rapidly throughout the 21<sup>st</sup> century. Between the years 2002 and 2010 alone it nearly quadrupled in terms of value,<sup>14</sup> whereas the world GDP less than doubled in that period.<sup>15</sup> It means that mining was growing twice as fast as the world GDP thus significantly increasing its share therein.<sup>16</sup>

 $<sup>^{14}</sup>$  Cf. The role of mining in national economies, International Council of Mining and Metals, October 2012, p. 3.

<sup>&</sup>lt;sup>15</sup> Estimates based on Handbook of Statistics, UNCTAD, New York 2013, p. 414.

 $<sup>^{16}</sup>$  As a side note, it can be pointed out that in this period the share of agriculture in the global GDP dropped from 3.6 to 4.4 per cent – cf. Table A.2.

The discussion above leads to a conclusion that, strictly speaking, contrary to popular beliefs, it is demanufacturing (defined as the dropping share of the manufacturing industry in GDP) rather than deindustrialisation<sup>17</sup> which has been observed in the 21<sup>st</sup> century, especially in developing countries. It seems that the views on deindustrialisation are usually related to the fact that their authors identify the manufacturing industry with total industry. Naturally, such an approach is not correct from both conceptual and formal point of view. For instance, in the statistical sources published by UNCTAD under the sector "industry" the following subsectors are distinguished: manufacturing, mining, utilities and construction.<sup>18</sup>

# Conclusion

The discussion presented in this study allows presentation of several general conclusions:

Firstly, in the 21<sup>st</sup> century we have been observing clearly the process of primarisation of exports understood as a gradual increase in the share of primary commodities in the global exports of products. It is related strictly to the increasing role of China (and other developing countries) in the global economy and exports, and to new price relations resulting mostly from China's export policy.

Secondly, the new price relations in international trade have contributed to more dynamic exports (also economic growth) in developing countries whose exports are dominated by primary commodities. It is feared in the world literature, however, whether in the long term the increasing dependency of developing countries on exports of primary

<sup>&</sup>lt;sup>17</sup> Cf. e.g. A. Wood, J. Mayer, *Has China De-industrialised other Developing Countries?*, QEH Working Paper Series, Working Paper No. 175, June 2010; *Brazilian Manufacturing in the Face...*, p. 1; J.A. Ocampo, *The Development Implications of External Integration in Latin America*, World Institute for Development Economics Research, Working Paper No. 2012/48, May 2012, p. 4.

 $<sup>^{18}</sup>$  UNCTAD Statistical Database, http://unctadstat.unctad.org (28.05.2014) – methodological explanations.

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commodities (i.e. a certain reprimarisation) will not have such negative results as those witnessed in the past.

Thirdly, an indirect effect of primarisation of exports is the dependence of the developing countries on China, also in terms of imports. Its reflection is a significant growth in the imports of manufactured goods from China which suppresses the role of total manufacturing in importer's GDP. This phenomenon is commonly defined in the literature as deindustrialisation, which does not seem to be precise. Demanufacturing is offset in most cases with the increasing role of mining, which in turn leads to reindustrialisation (i.e. a growing share of total industry in GDP) in developing countries.

#### Annex

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Specification	1960	1970	1980	1990	2000	2010	2012
Primary commodities, of which:	44.5	33.3	40.8	26.5	23.1	30.9	34.2
food	17.6	13.5	10.2	9.3	6.7	7.4	7.5
fuels	10.0	9.4	23.8	10.5	10.6	15.6	18.8
Manufactured goods, of which:	55.5	66.3	57.3	70.5	73.3	65.6	62.6
machinery and transport equipment	22.0	29.4	25.5	35.8	41.1	33.7	31.8

 Table A.1

 Commodity structure of the world exports in the years 1960–2012 (%)

Source: Współczesna gospodarka światowa..., p. 35; UNCTAD Statistical Database, http:// unctadstat.unctad.org (2.05.2014).

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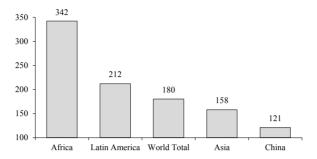


Figure A.1. Dynamics of export unit values in developing countries in the years 2000–2012 (2000 = 100)

Source: http://unctadstat.unctad.org (26.06.2014).

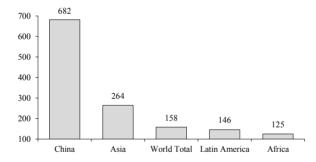


Figure A.2. Dynamics of export volume in developing countries in the years 2000–2012

Source: as for Figure A.2.

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#### Table A.2

Global GDP structure by types of economic activity in the years 1960–2012 (%)

Specification	1960	1970	1980	1990	2000	2012
Agriculture	10.4	9.8	7.1	5.4	3.6	4.4
Industry, of which:	39.2	37.8	38.2	32.8	28.9	30.1
manufacturing	28.4	26.2	22.9	20.9	17.2	16.9
Services	50.4	52.4	54.7	61.8	67.5	65.9

Source: as for Figure A.2 and Handbook of Statistics, UNCTAD, New York 1992, p. 446.

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