

Dear Dr Usman and Prof. Tang,

As I wrote to you in a previous message, reading Figure 1 of your paper (*How Is China's Economic Transition Affecting Its Relations With Africa?*) made me wonder. Your data is taken from the Chinese customs website, which is not at all user-friendly. As an alternative, I used the platform of the UN agency Comtrade, which is much more user-friendly. The data is identical, which is to be expected since China forwards its own data. So, I was able to see that the list of countries that made up your "Top 22" was the result of a selection and not the real list, as shown in Table 1 below. For 2023, countries such as Qatar, Colombia, Canada, Ecuador, the United Kingdom and Ghana have been replaced by lower-ranked African countries such as Chad, Nigeria, South Sudan, Cameroon, Sudan and also by Indonesia. I understand your concern, but the situation of the various African exporting countries is so different that it is best not to lump certain countries together with the major exporters that are really important to China (Russia, Saudi Arabia, etc.). I suggest a way forward below.

In Table 1, the effect of rising oil prices is clearly visible, although the order of exporting countries is not affected by the calculation in terms of value or volume.

Table 1. – Revisited "Top 22" (Values and Quantities)

Exporter Countries	Value in 2019 (dollars)	Value in 2023 (dollars)	Growth / Contraction	Exporter Countries	Quantity in 2019 (kg)	Quantity in 2023 (kg)	Growth / Contraction
Russian Federation	37 424 058 343	60 679 212 744	62,1%	Russian Federation	77 642 400 000	99 550 328 575	28,2%
Saudi Arabia	40 174 670 196	53 877 583 957	34,1%	Saudi Arabia	83 329 560 000	88 391 575 026	6,1%
Iraq	23 850 151 714	35 211 318 086	47,6%	Iraq	51 798 040 000	57 767 695 501	11,5%
Malaysia	5 620 412 078	28 611 452 764	409,1%	Malaysia	12 033 632 000	46 939 955 132	290,1%
United Arab Emirates	7 526 757 616	26 640 397 462	253,9%	United Arab Emirates	15 279 577 000	43 706 241 409	186,0%
Oman	16 578 833 485	25 038 737 515	51,0%	Oman	33 866 380 000	41 078 557 780	21,3%
Brazil	19 181 757 794	22 952 893 710	19,7%	Brazil	40 161 410 000	37 785 355 000	-5,9%
<b>Angola</b>	23 224 440 673	18 547 493 050	-20,1%	<b>Angola</b>	47 341 950 000	30 316 222 062	-36,0%
Kuwait	10 814 354 276	15 218 838 213	40,7%	Kuwait	22 688 750 000	24 812 540 224	9,4%
USA	3 318 056 182	9 087 793 856	173,9%	USA	6 348 672 600	14 247 728 936	124,4%
Qatar	431 998 922	6 532 330 368	1412,1%	Qatar	858 309 600	10 463 264 000	1119,1%
<b>Congo</b>	5 712 544 976	5 183 878 755	-9,3%	Colombia	13 113 199 000	9 312 860 000	-29,0%
Colombia	5 558 900 525	4 871 495 358	-12,4%	<b>Congo</b>	11 957 792 000	8 516 205 000	-28,8%
Kazakhstan	1 332 145 461	4 180 489 735	213,8%	Canada	2 150 160 300	7 495 920 000	248,6%
Canada	899 587 252	3 951 802 047	339,3%	Kazakhstan	2 742 886 700	6 406 423 800	133,6%
Ecuador	886 034 827	2 332 769 764	163,3%	Ecuador	2 050 903 400	4 166 042 000	103,1%
<b>Libya</b>	4 816 400 597	2 196 208 368	-54,4%	<b>Libya</b>	9 400 963 000	3 338 310 500	-64,5%
<b>Gabon</b>	3 495 255 571	1 916 672 928	-45,2%	<b>Gabon</b>	6 933 954 000	3 130 650 000	-54,9%
United Kingdom	6 406 397 677	1 513 082 579	-76,4%	United Kingdom	12 543 609 000	2 225 079 000	-82,3%
Australia	1 211 350 119	1 266 380 386	4,5%	Australia	2 268 824 600	1 858 977 600	-18,1%
<b>Equatorial Guinea</b>	1 257 734 229	1 201 369 301	-4,5%	<b>Equatorial Guinea</b>	2 492 177 000	1 826 525 400	-26,7%
<b>Ghana</b>	1 822 030 222	1 088 886 461	-40,2%	<b>Ghana</b>	3 595 806 000	1 644 823 000	-54,3%

Let's look at the sixteen African countries that export crude oil to China (see Table 2 below). The value of crude oil exported to China by these African countries represents 9.6% of China's total crude oil imports in 2023, showing a 28% decline in the share of these African countries, while China has seen the total value of its imports increase by 39%. At the same time, the volume of oil exported by these African countries to China represents 7.6% of China's total crude oil imports in 2023. This represents a 42% decline in the share of these African countries, while China's total volume of imports increases by 10%. Table 2 also shows that of the sixteen African countries that have exported crude oil to China, all but four have seen the value of their exports fall by varying amounts, but the significance of this depends largely on the volumes actually exported. Three of these countries have such small

Table 2. – Sixteen African countries exporting crude oil to China (Values and

Exporter countries	Value in 2019 (kg)	Value in 2023 (kg)	Growth / Contraction	Quantity in 2019 (kg)	Quantity in 2023 (kg)	Growth / Contraction	Share in the value of Chinese imports in 2023
Angola	23 224 440 673	18 547 493 050	-20%	47 341 950 000	30 316 222 062	-36%	5,493199%
Congo	5 712 544 976	5 183 878 755	-9%	11 957 792 000	8 516 205 000	-29%	1,535306%
Libya	4 816 400 597	2 196 208 368	-54%	9 400 963 000	3 338 310 500	-64%	0,650450%
Gabon	3 495 255 571	1 916 672 928	-45%	6 933 954 000	3 130 650 000	-55%	0,567660%
Equatorial Guinea	1 257 734 229	1 201 369 301	-4%	2 492 177 000	1 826 525 400	-27%	0,355809%
Ghana	1 822 030 222	1 088 886 461	-40%	3 595 806 000	1 644 823 000	-54%	0,322495%
Chad	451 197 175	812 109 607	80%	940 018 000	1 331 421 953	42%	0,240522%
Nigeria	1 210 113 954	469 640 448	-61%	2 436 080 300	691 386 013	-72%	0,139093%
South Sudan	1 533 176 767	354 284 810	-77%	3 235 624 000	526 568 700	-84%	0,104928%
Cameroon	497 369 893	240 766 007	-52%	1 064 393 500	399 639 000	-62%	0,071308%
Dem. Rep. of the Congo	415 027 871	238 413 244	-43%	823 020 000	364 125 000	-56%	0,070611%
Sudan	315 549 363	104 520 184	-67%	631 194 822	160 067 649	-75%	0,030956%
Algeria	298 817 302	98 830 363	-67%	539 246 000	146 724 800	-73%	0,029271%
Côte d'Ivoire	65 744 062	84 810 926	29%	138 431 000	138 132 000	0%	0,025118%
Mozambique	0	42 262 586	∞%	0	61 206 000	∞%	0,012517%
Niger	427	1 743	308%	234	907	288%	0,000001%

exports (Côte d'Ivoire, Mozambique and Niger) that several decimal points are needed (0.025%, 0.012% and 0,000001% respectively) to understand their share in the value of Chinese imports; Chad has a slightly higher share at 0.2%. It is therefore important to consider the reliance of these sixteen countries on their client, China (see Table 3).

Firstly, we note that only Angola can claim to be a major supplier to China, as Angolan crude

Table 3. – Reliance on China ?

Exporting countries	Growth / contraction in total exports (value)	Growth / contraction in total crude oil exports (quantity)	China's share of the country's crude oil exports (value)	Share of crude oil imported by China (value)
Angola	6%	-20%	5,479505%	57%
Congo	8%	-28%	1,531479%	77%
Libya	21%	77%	0,648828%	7%
Gabon	2%	-23%	0,566245%	41%
Equatorial Guinea	0%	-53%	0,354922%	48%
Ghana	11%	-20%	0,321691%	26%
Chad	228%	133%	0,239922%	27%
Nigeria	2%	-25%	0,138746%	1%
South Sudan	-60%	-74%	0,104667%	62%
Cameroon	21%	-15%	0,071130%	10%
Dem. Rep. of the Congo	152%	22%	0,070435%	30%
Sudan	24%	9%	0,030879%	9%
Algeria	45%	-26%	0,029198%	1%
Côte d'Ivoire	21%	-19%	0,025056%	2%
Mozambique	55%	∞%	0,012486%	52%
Niger	31%	∞%	0,000001%	0%

oil imports account for 5.5% of China's crude oil imports. At the same time, Angola, which exports 57% of its crude to China, is truly dependent on its customer and any deterioration in its exports can only be damaging. The other African crude exporters are all very secondary sources of supply for China even if China represents a significant export market for several of these countries, including Congo (77%), South Sudan (62%), Equatorial Guinea (48%), Gabon (42%), and others.

A review of the overall situation reveals that 15 of the 16 countries (South Sudan being the exception) have experienced an increase in total exports, despite some countries witnessing a decline in their total oil exports. From 2019 to 2023, Libya, China's third-largest African supplier of crude oil (0.6%), saw a 21% increase in total exports in value and a 77% increase in their crude oil exports in quantity. Algeria, the thirteenth largest African supplier of crude oil to China (0.03%), saw its total exports increase by 45% in value, while its crude oil exports fell by 26% in quantity. In this latter case, the gradual drying up of its wells may explain the shortfall, rather than the drop in Chinese purchases.

Looking at crude oil exports from each of these countries, I would not write, "By contrast, China is buying and consuming less crude oil *from Africa*." Particularly given the extremely low level of Chinese crude oil imports from at least fourteen of the African exporting countries, instead I would write, "China is buying and consuming less crude oil *from Angola*." In fact, I would say that, always with the possible exception of Angola, this issue of African oil exports to China is not fundamentally a problem related to China and its current "economic transition" problems, but to African countries domestic situations including the impact of the pandemic and increased domestic oil consumption. For China, geopolitical factors may provide a more relevant explanation.

I felt that the complexity of the situation required a more nuanced approach than the one followed in your work, and I hope you will understand my concern.

Sincerely,

Thierry Pairault