Data Construction and Issues

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Asian Development Bank

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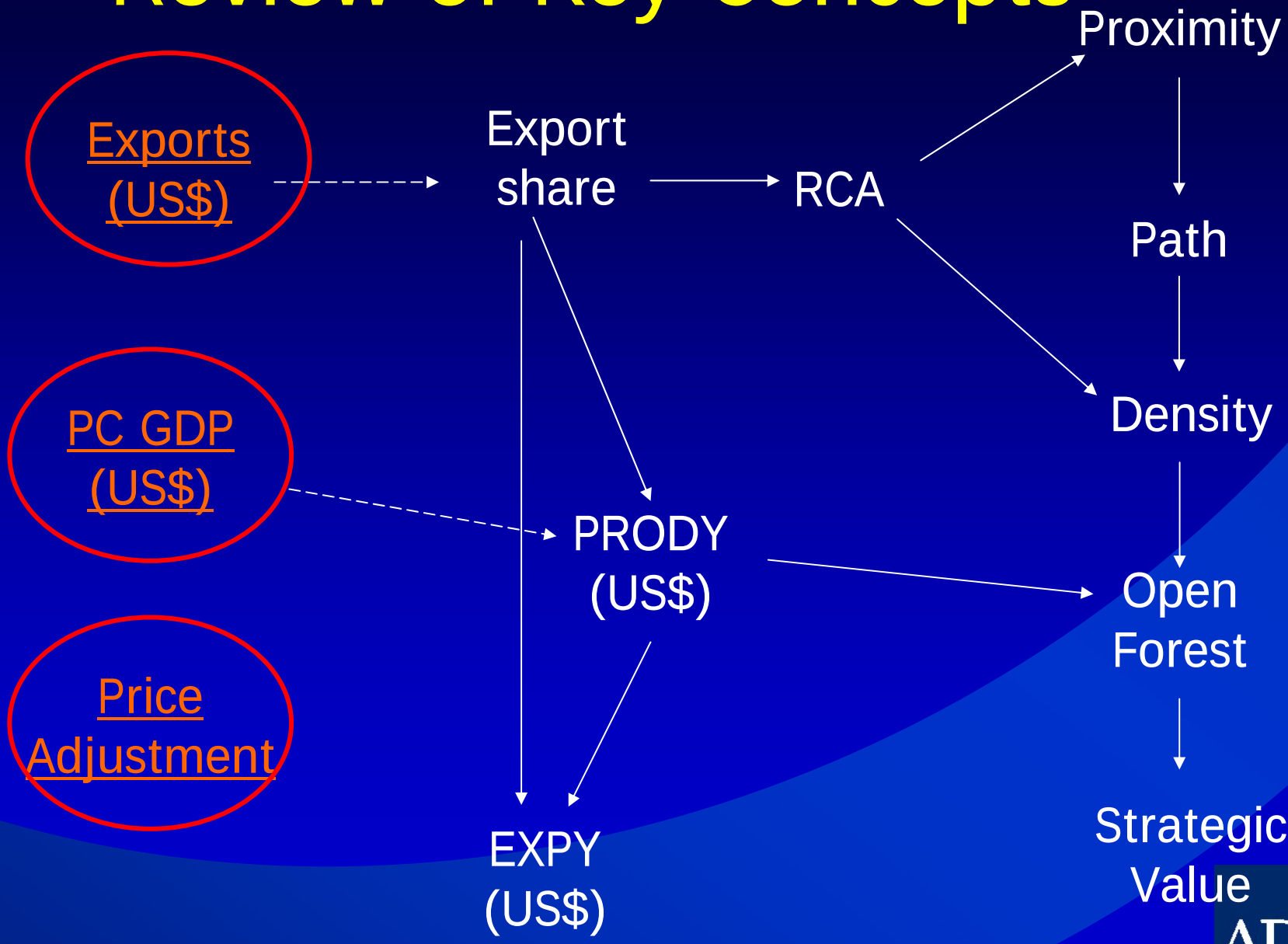
Objectives of the session

- Data requirements
- Data issues

Review of Key Concepts



What are the data needed to construct the ST indices?

- Trade values
- Per capita income
- Prices of key commodities

DATA CONSTRUCTION

1. Data: Bilateral trade by commodity (1976-2006)
2. Datasource: Comtrade SITC2 Ag4
3. Exports of CAREC+4 member countries were estimated based on the following data:
    a. IMPORTS – AFG, GEO, TJK, TKM, UZB
    b. EXPORTS & IMPORTS – ARM, AZE, CHN, KAZ, MNG, PAK
    c. EXPORTS - KGZ
4. For those falling under (3.b), exports is estimated as equal to imports declared by the trading partner if import data is >0, otherwise it is equal to exports declared by the reporting country
5. The final set of data replaces the exports data of the CAREC+4 countries in the World Exports database

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Other Issues

- Mirror Statistics have their own limitations partly due to:
  - Valuation of imports at CIF and valuation of exports at FOB
    - Implications on the analysis of transport costs
  - Re-exports
    - Implications on the analysis of trade volume

To partly address this issue, the final set of data is selected based on comparability of totals to the reconciled Feenstra bilateral trade data figures and other consistency checks, such as in the case of Kyrgyz Republic.

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Some Issues on Trade Statistics that need to be addressed

- Capturing ST in Xinjiang Uygur Region
- There is a need to improve customs declaration of trade values in each of the CAREC member countries

Thank you

DATA SOURCES, ISSUES

Data	Source	Level of reporting	Issue	Possible Solution
EXPORT VALUE (nominal US$)	UN COMTRADE SITC REV2 AGG4	By trading partners By Commodity By Year	No data for AFG, TJK, TKM and UZB	Estimate exports using mirror statistics

DATA SOURCES, ISSUES

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EXPORT VALUE (nominal US$)	UN COMTRADE SITC REV2 AGG4	By trading partners By Commodity By Year	No data for AFG, TJK, TKM and UZB	Estimate exports using mirror statistics
Per capita GDP 2005 PPP I$	WB WDI	By country Year	No data for AFG	Use alternative data sources PWT, ADB SDBS

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DATA SOURCES, ISSUES

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EXPORT VALUE (nominal US$)	UN COMTRADE SITC REV2 AGG4	By trading partners By Commodity By Year	No data for AFG, TJK, TKM and UZB	Estimate exports using mirror statistics
Per capita GDP 2005 PPP I$	WB WDI	By country Year	No data for AFG	Use alternative data sources PWT, ADB SDBS
Price	IMF Commodity Price Index; IMF-IFS	By commodity	Sharp fluctuations in the prices of key commodities	Adjust value of exports during periods with sharp price fluctuations

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Mirror Statistics

Country's export= sum of imports declared by partner countries

IMPORTS (US$)

period	exporter	commoditycode	importer	import
1976	Afghanistan	S2-0575	Finland	10
1976	Afghanistan	S2-0575	Ireland	10
1976	Afghanistan	S2-0575	Norway	10
1976	Afghanistan	S2-0575	Sweden	10
1976	Afghanistan	S2-0741	Saudi Arabia	5
1976	Afghanistan	S2-0741	Saudi Arabia	6
1976	Afghanistan	S2-2120	Denmark	2
1976	Afghanistan	S2-2120	Finland	2
1976	Afghanistan	S2-2120	Norway	2
1976	Afghanistan	S2-2120	Sweden	6
1992	Turkmenistan	S2-0579	Germany	3
1992	Turkmenistan	S2-0579	Lithuania	4
1992	Turkmenistan	S2-2631	Belgium-Luxembourg	1
1992	Turkmenistan	S2-2631	Bulgaria	1
1992	Turkmenistan	S2-2631	France	1
1992	Turkmenistan	S2-2631	Germany	1
1992	Turkmenistan	S2-2631	Italy	1

Sorted by:
year
exporter
commodity

ESTIMATED EXPORTS (US$)

period	exporter	commoditycode	export
1976	Afghanistan	S2-0575	40
1976	Afghanistan	S2-0741	11
1976	Afghanistan	S2-2120	12
1992	Turkmenistan	S2-0579	7
1992	Turkmenistan	S2-2631	5

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PRICE INDEXES

Source of raw data: IMF Commodity Price Index; IMF-IFS

- Data on crude oil was rebased to 2000 (original data are 2005-based)
- Data on prices were used to derive price indexes for cotton, copper, aluminum
- Below are the prices/indexes used for each commodity (the ones that are closest to the commodity being adjusted were selected):

Commodity description	Commodity code	CAREC Countries affected	Descriptor of price index used
Crude oil	3330	AZE, GEO, KAZ, MNG, TKM	Crude oil (petroleum), price index, simple average of 3 spot prices (Dated Brent, West Texas Intermediate, and the Dubai Fateh)
Petroleum gas	3414	KAZ, TKM, UZB	Crude oil (petroleum), price index, simple average of 3 spot prices (Dated Brent, West Texas Intermediate, and the Dubai Fateh)
Copper ore	2871	ARM, GEO, MNG	Copper, grade A cathode, LME spot price, CIF European ports, US$ per metric tonne
Copper & copper Alloys	6821	ARM, KAZ, UZB	Copper, grade A cathode, LME spot price, CIF European ports, US$ per metric tonne
Aluminium	6841	AZE, GEO, TAJ	Aluminum, 99.5% minimum purity, LME spot price, CIF UK ports, US$ per metric tonne
Gold, non-monetary	9710	ARM, GEO, KGZ, MNG, UZB	Gold London Av 2nd Fix

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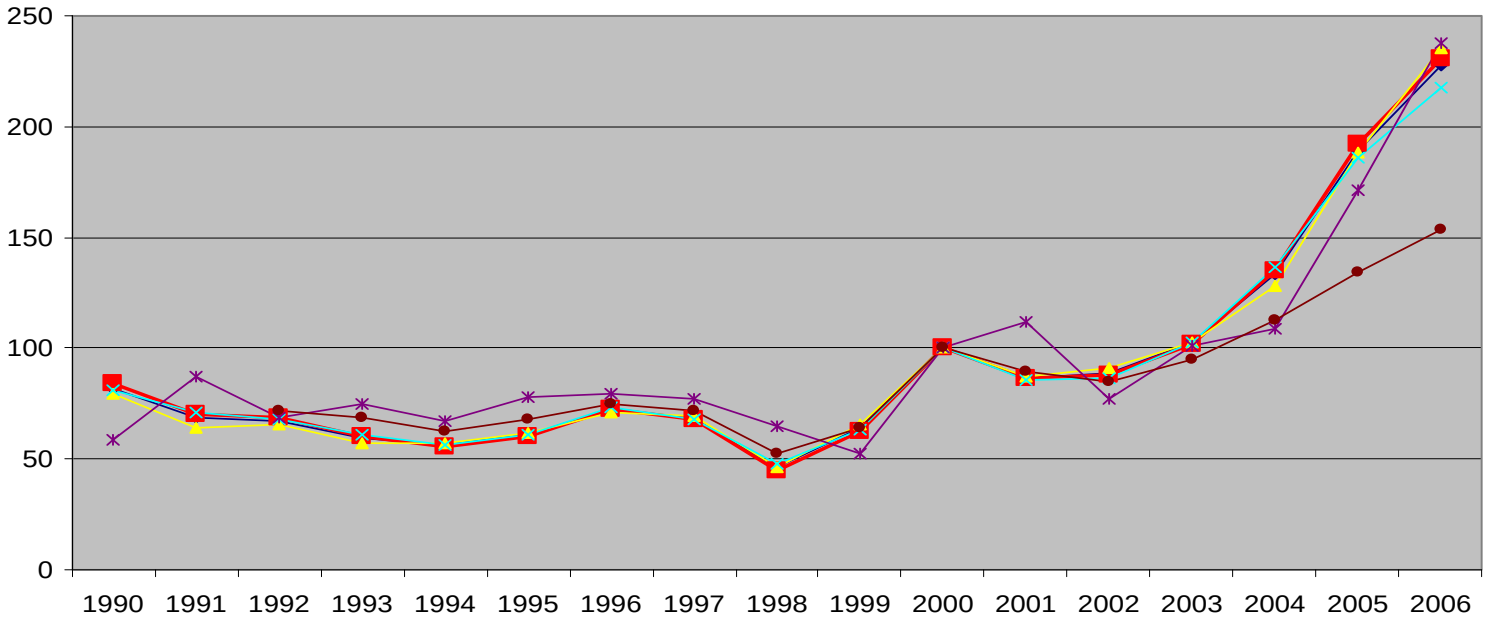
PRICE INDEXES (2000=100)
Crude Oil & Natural Gas



- Crude Oil (petroleum), simple average of three spot prices; Dated Brent, West Texas Intermediate, and the Dubai Fateh, US$ per barrel
- Crude Oil (petroleum); Dated Brent, US$ per barrel
- Crude Oil (petroleum); Dubai Fateh, US$ per barrel
- Crude Oil (petroleum); West Texas Intermediate, US$ per barrel
- Natural Gas, Russian Natural Gas border price in Germany, US$ per thousands of cubic meters of gas
- Natural Gas, Indonesian Liquified Natural Gas in Japan, US$ per cubic meters of liquid

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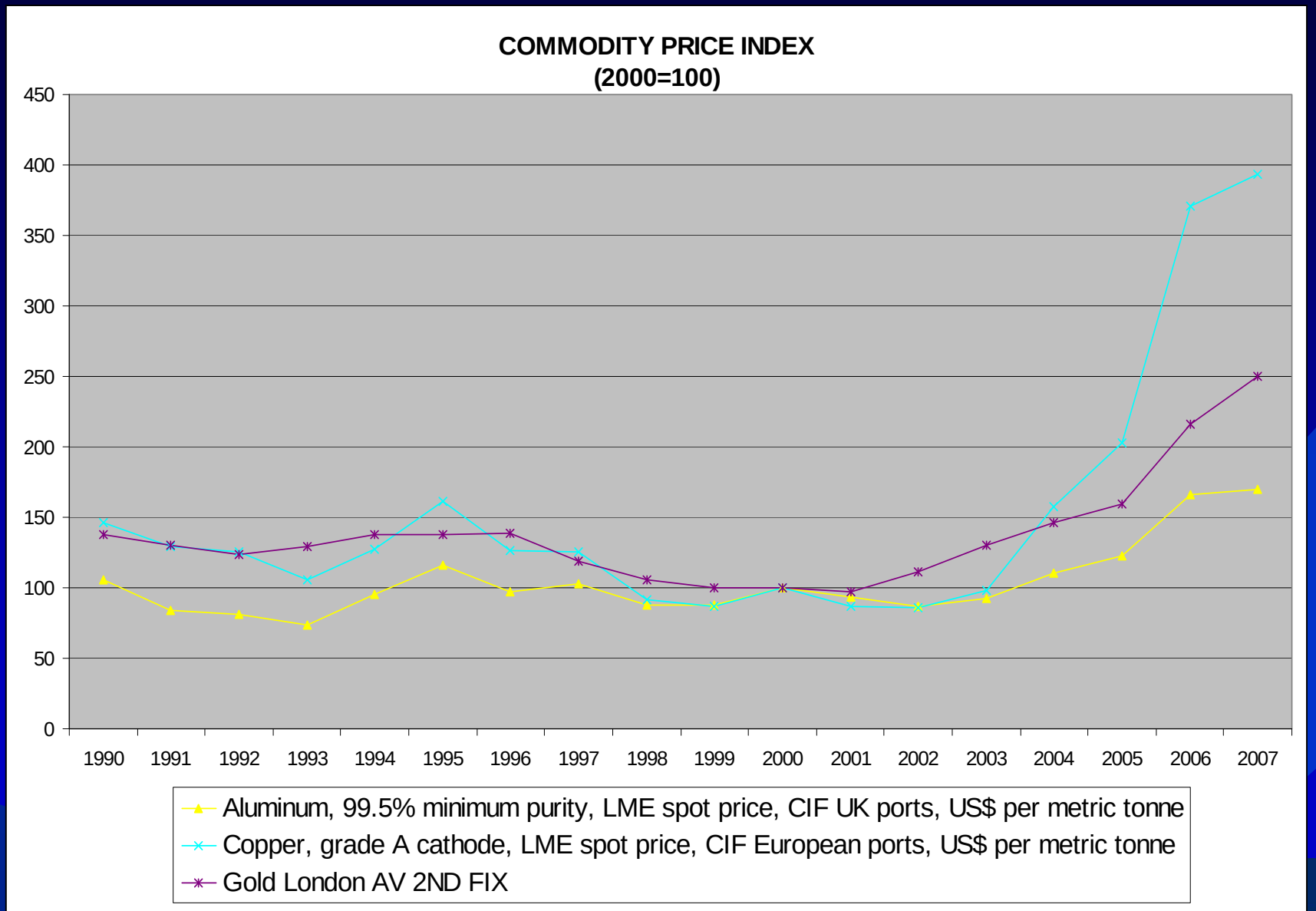
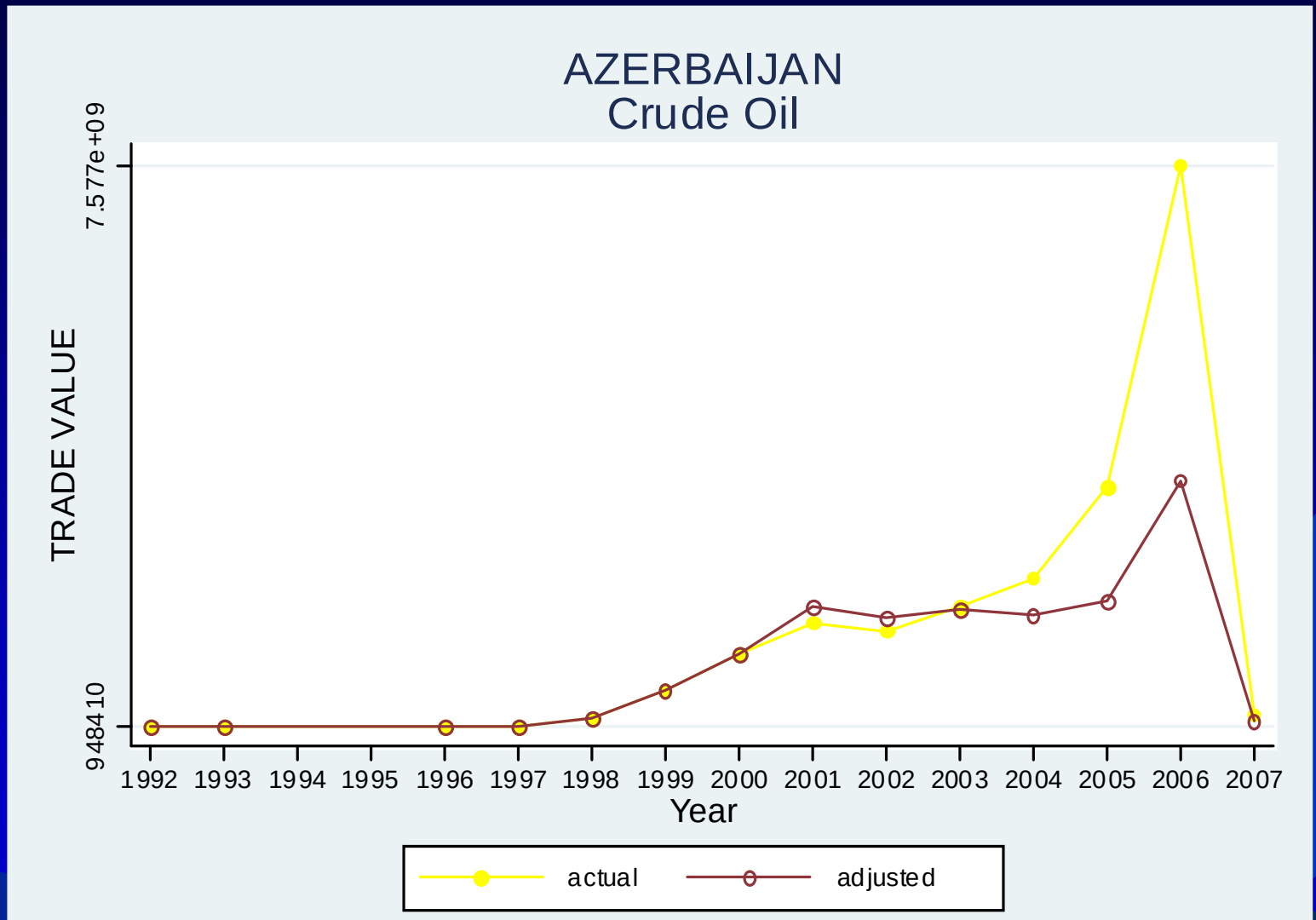
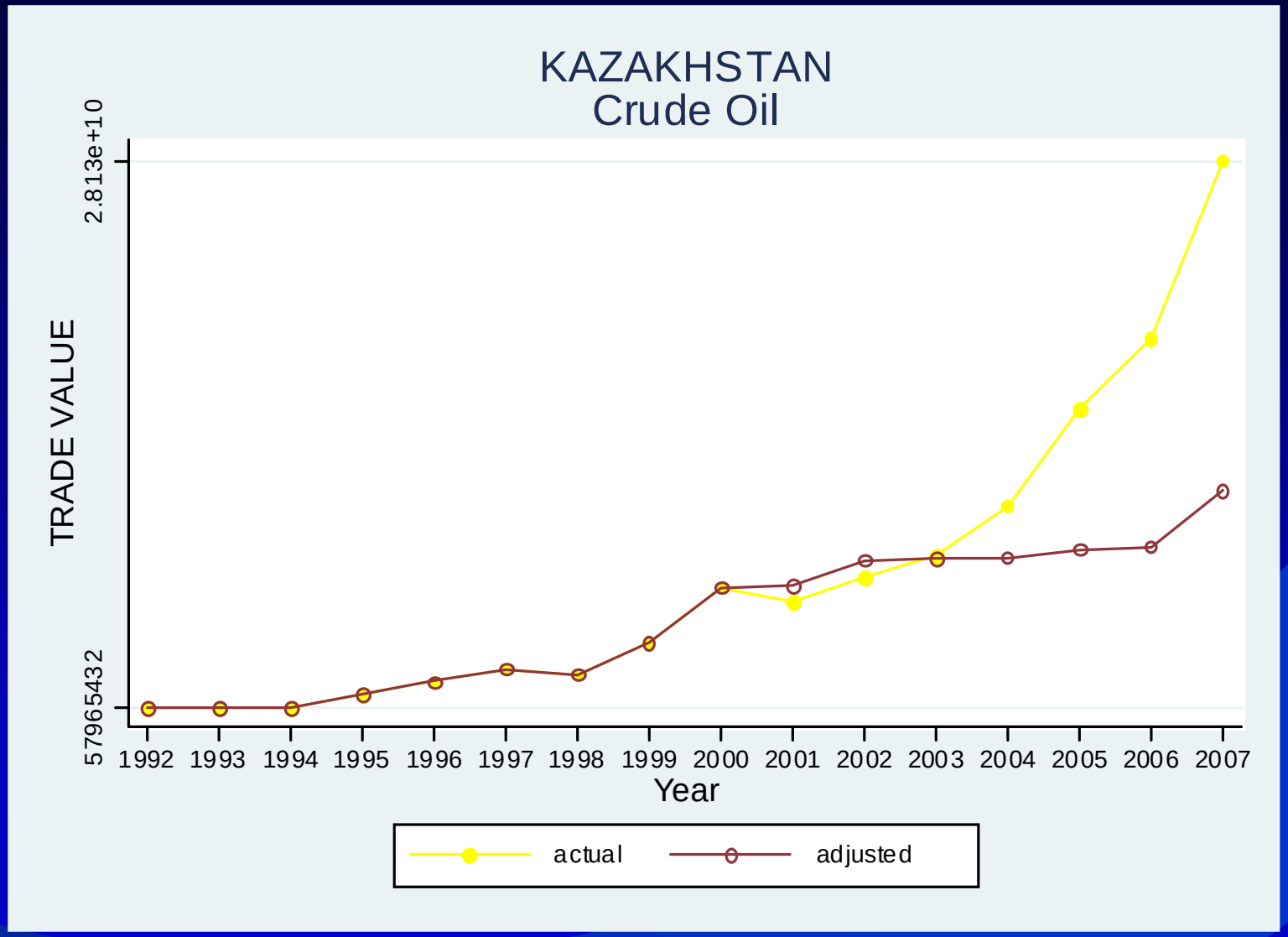
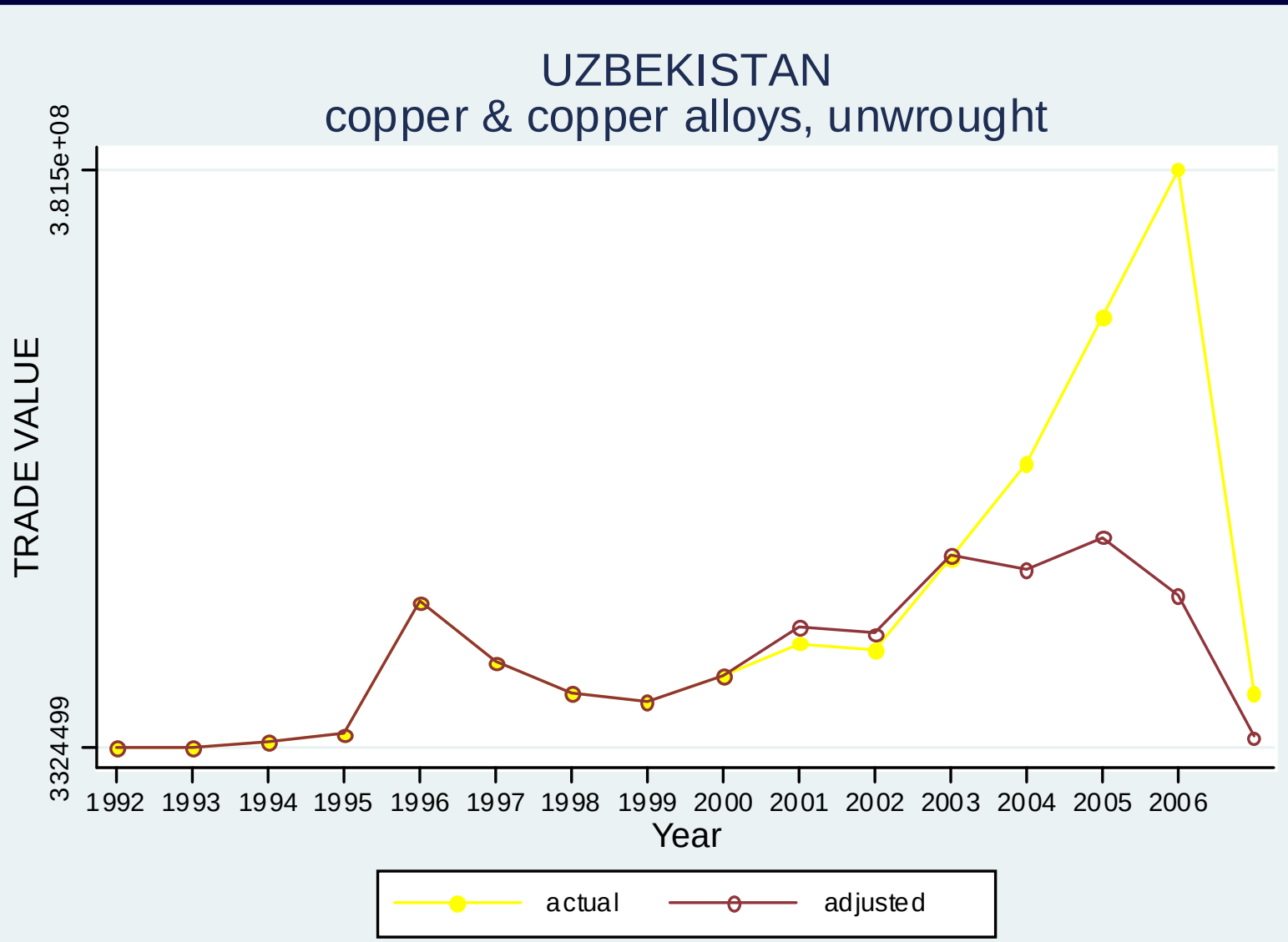
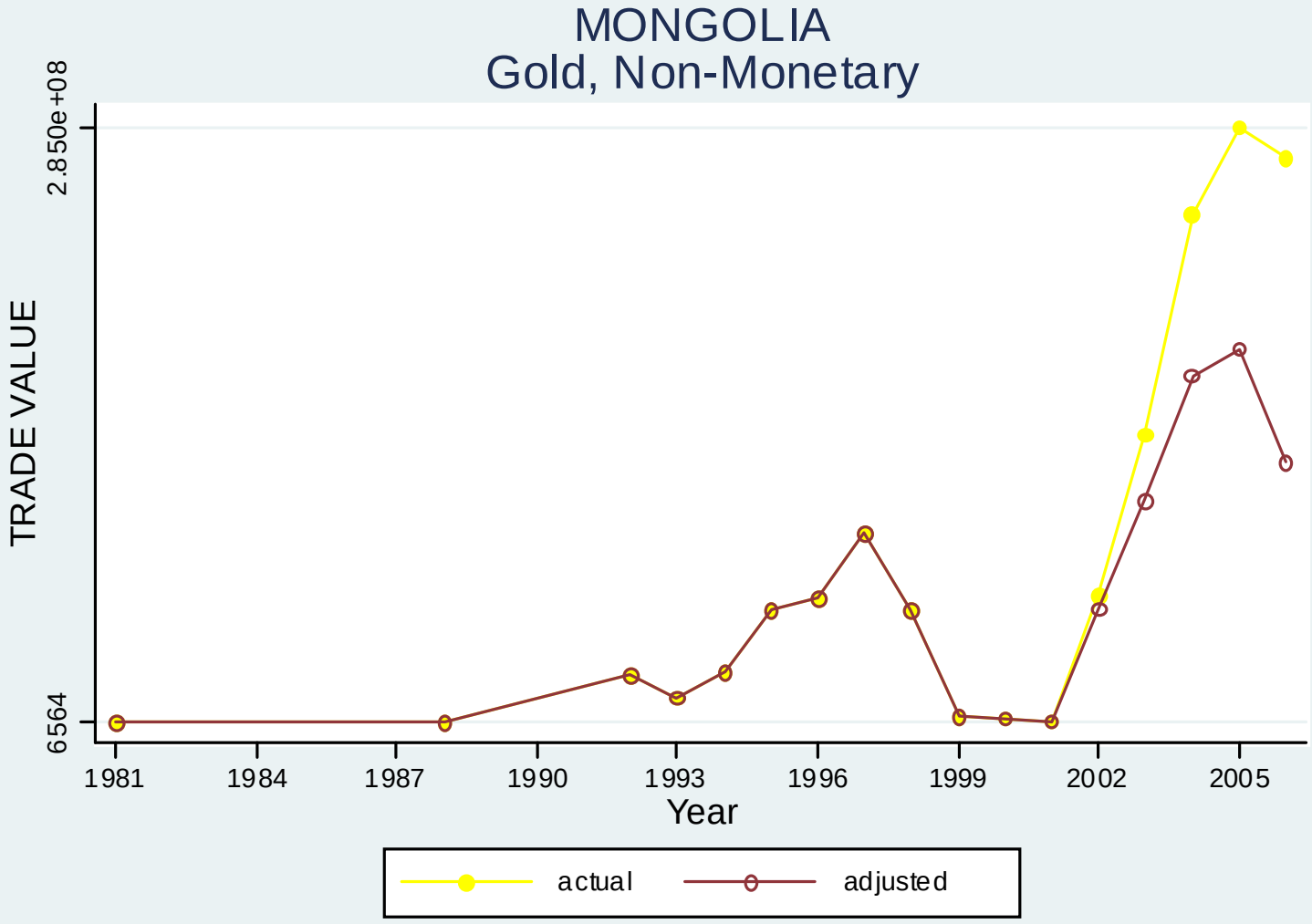

COMMODITY PRICE INDEX
(2000=100)
450
400
350
300
250
200
150
100
50
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
Aluminum, 99.5% minimum purity, LME spot price, CIF UK ports, US$ per metric tonne
Copper, grade A cathode, LME spot price, CIF European ports, US$ per metric tonne
Gold London AV 2ND FIX


AZERBAIJAN
Crude Oil
TRADE VALUE
7.577e+09
948410
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
Year
actual
adjusted


KAZAKHSTAN
Crude Oil
TRADE VALUE
2.813e+10
57965432
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
Year
actual
adjusted


UZBEKISTAN
copper & copper alloys, unwrought
TRADE VALUE
3.815e+08
324499
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
Year
actual
adjusted


MONGOLIA
Gold, Non-Monetary
TRADE VALUE
2.850e+08
6564
1981
1984
1987
1990
1993
1996
1999
2002
2005
Year
actual
adjusted

http://comtrade.un.org/

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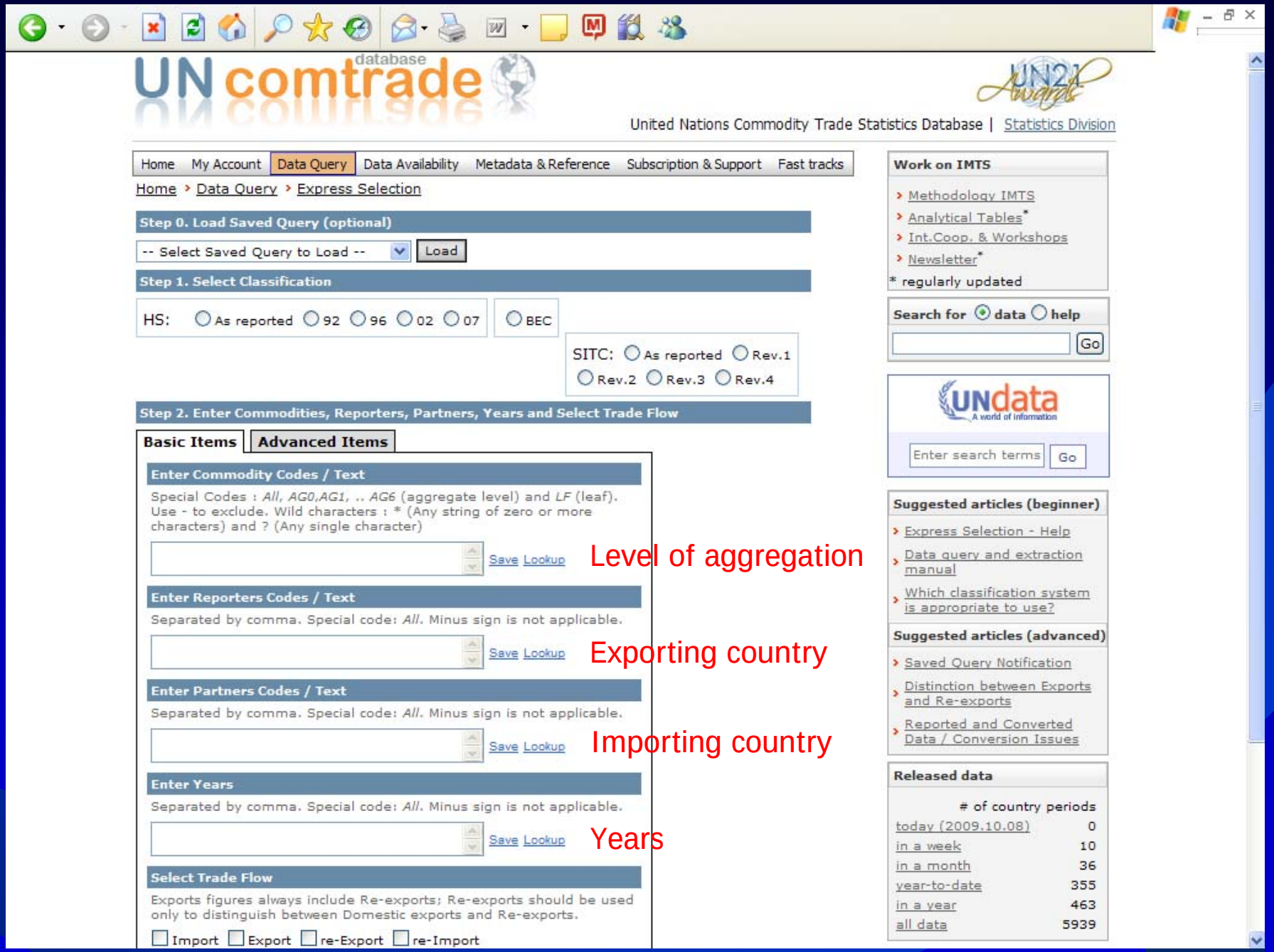
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Subscription & Support
Fast tracks
Home › Data Query › Express Selection
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-- Select Saved Query to Load --
Load
Step 1. Select Classification
HS: As reported 92 96 02 07
BEC
SITC: As reported Rev.1 Rev.2 Rev.3 Rev.4
Step 2. Enter Commodities, Reporters, Partners, Years and Select Trade Flow
Basic Items
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Enter Commodity Codes / Text
Special Codes : All, AG0,AG1, .. AG6 (aggregate level) and LF (leaf). Use - to exclude. Wild characters : * (Any string of zero or more characters) and ? (Any single character)
Save Lookup
Level of aggregation
Enter Reporters Codes / Text
Separated by comma. Special code: All. Minus sign is not applicable.
Save Lookup
Exporting country
Enter Partners Codes / Text
Separated by comma. Special code: All. Minus sign is not applicable.
Save Lookup
Importing country
Enter Years
Separated by comma. Special code: All. Minus sign is not applicable.
Save Lookup
Years
Select Trade Flow
Exports figures always include Re-exports; Re-exports should be used only to distinguish between Domestic exports and Re-exports.
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Methodology IMTS
Analytical Tables*
Int.Coop. & Workshops
Newsletter*
* regularly updated
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UNdata
A world of information
Enter search terms
Go
Suggested articles (beginner)
Express Selection - Help
Data query and extraction manual
Which classification system is appropriate to use?
Suggested articles (advanced)
Saved Query Notification
Distinction between Exports and Re-exports
Reported and Converted Data / Conversion Issues
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in a month 36
year-to-date 355
in a year 463
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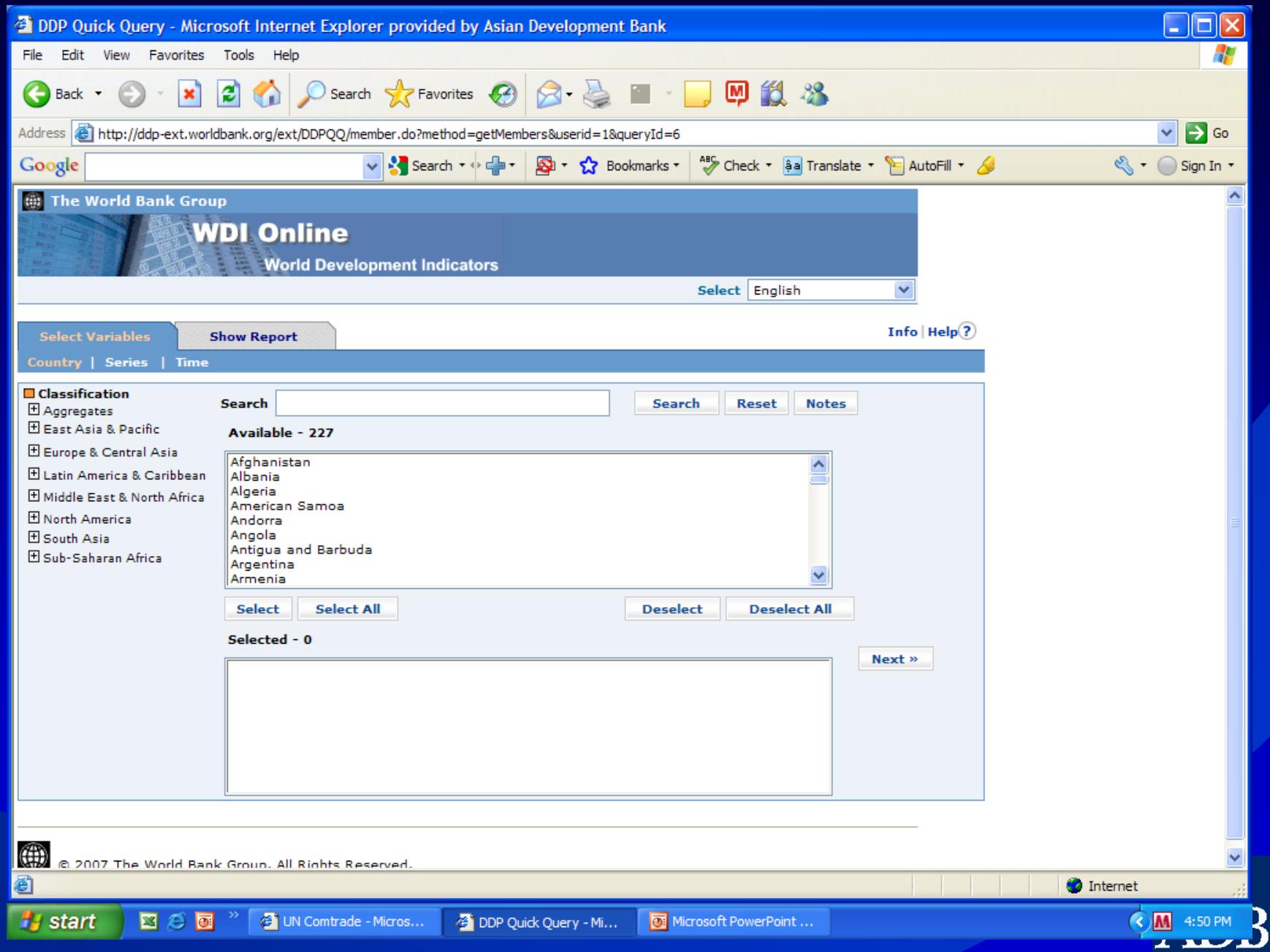
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The World Bank Group
WDI Online
World Development Indicators
Select English
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East Asia & Pacific
Europe & Central Asia
Latin America & Caribbean
Middle East & North Africa
North America
South Asia
Sub-Saharan Africa
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Algeria
American Samoa
Andorra
Angola
Antigua and Barbuda
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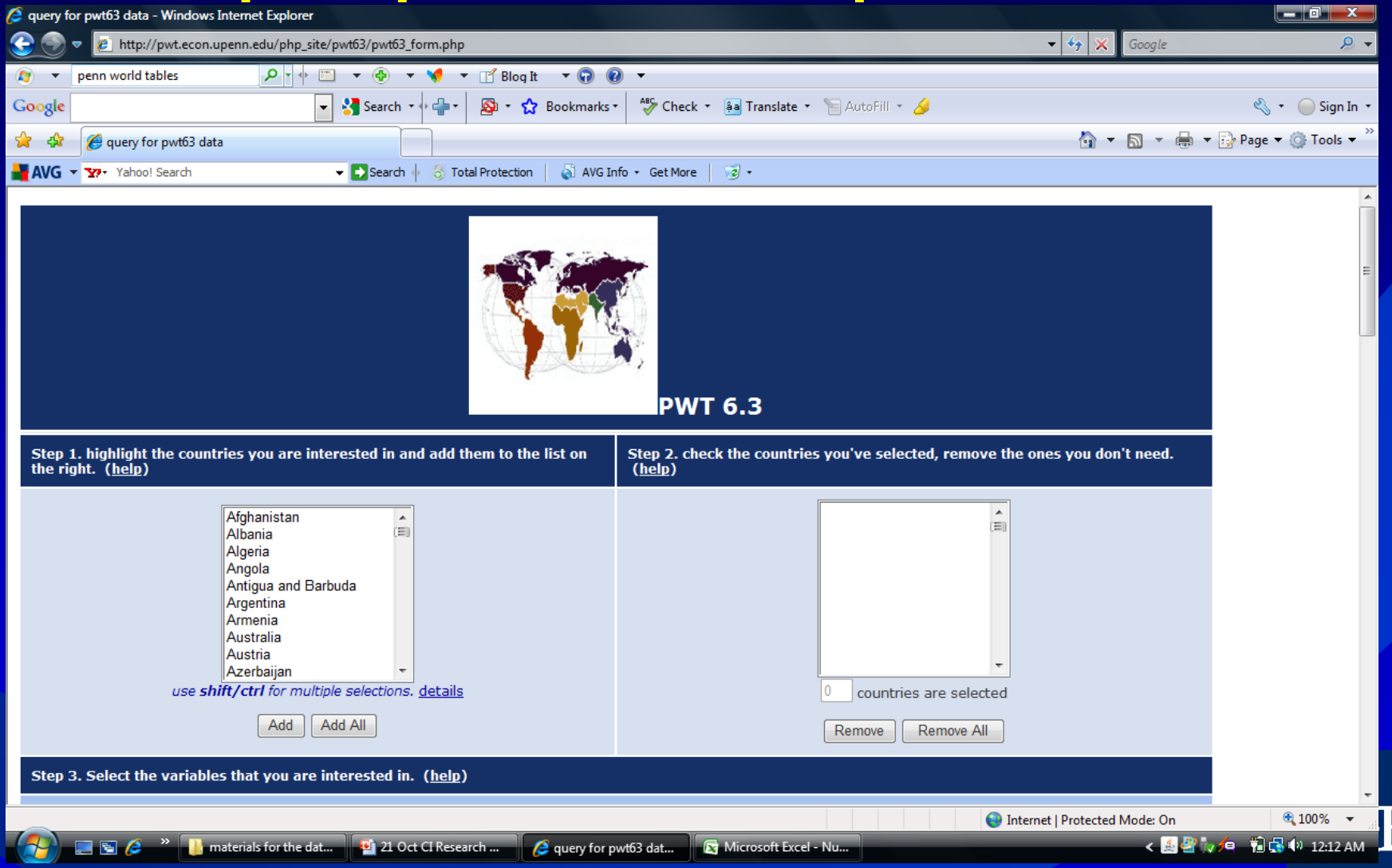
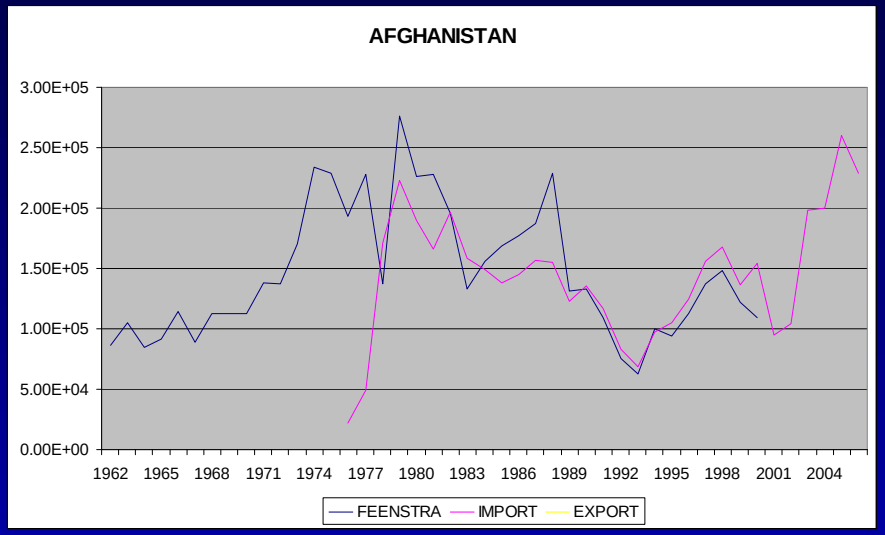
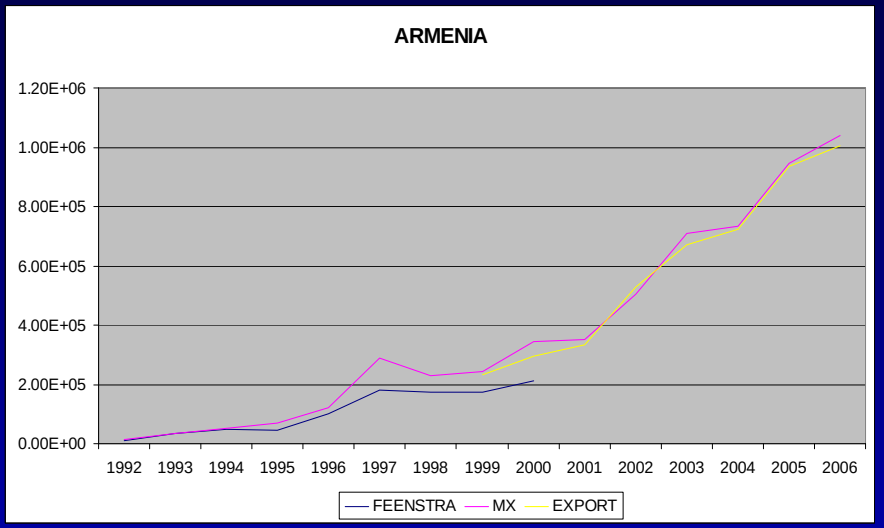
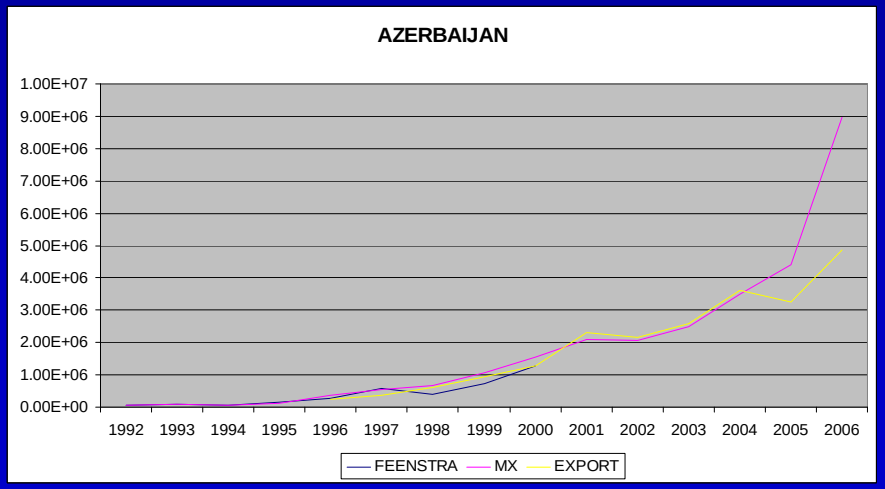
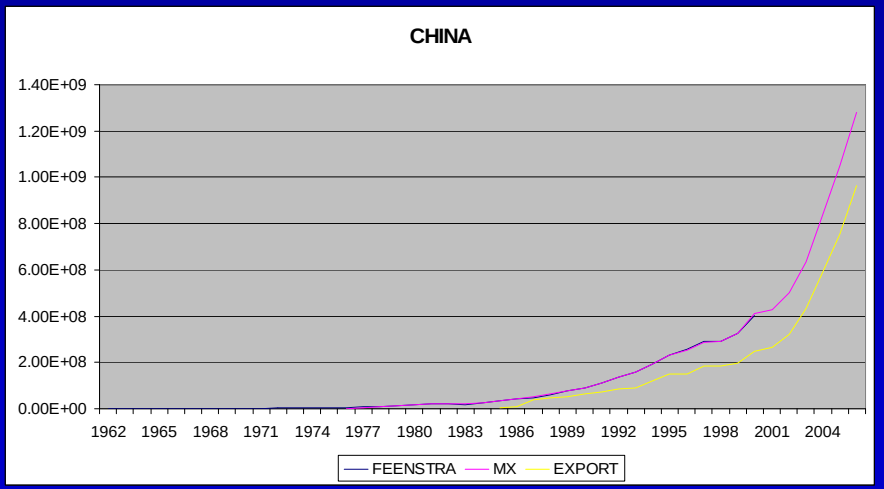


Imports vs. Exports









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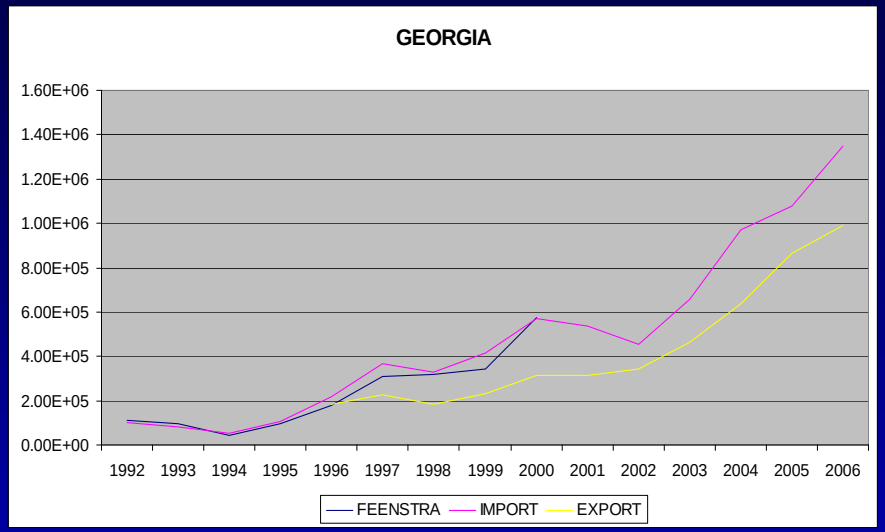
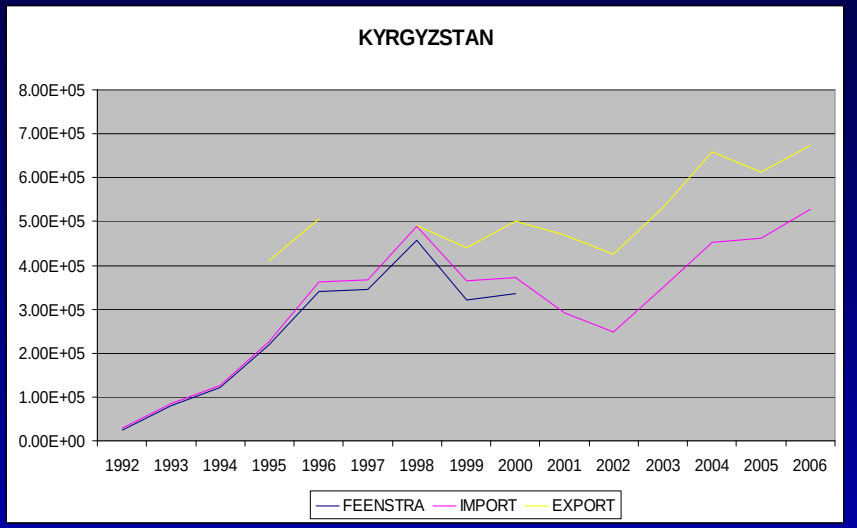
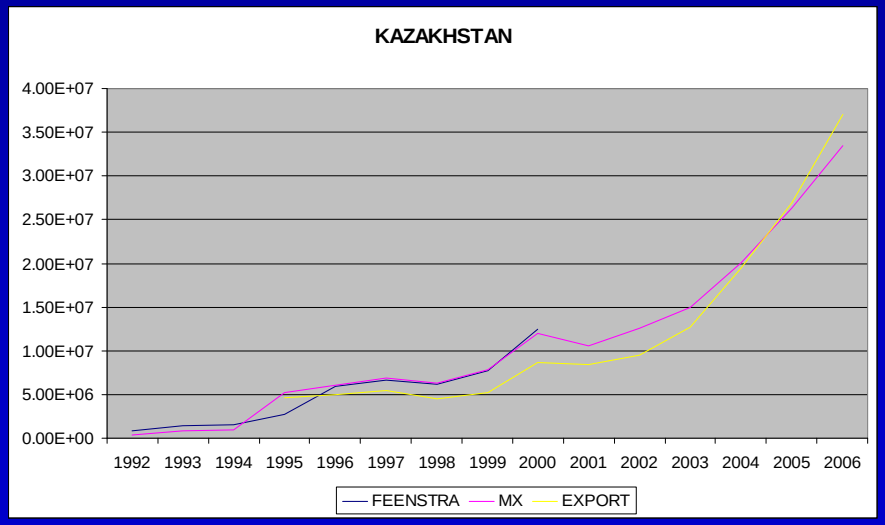
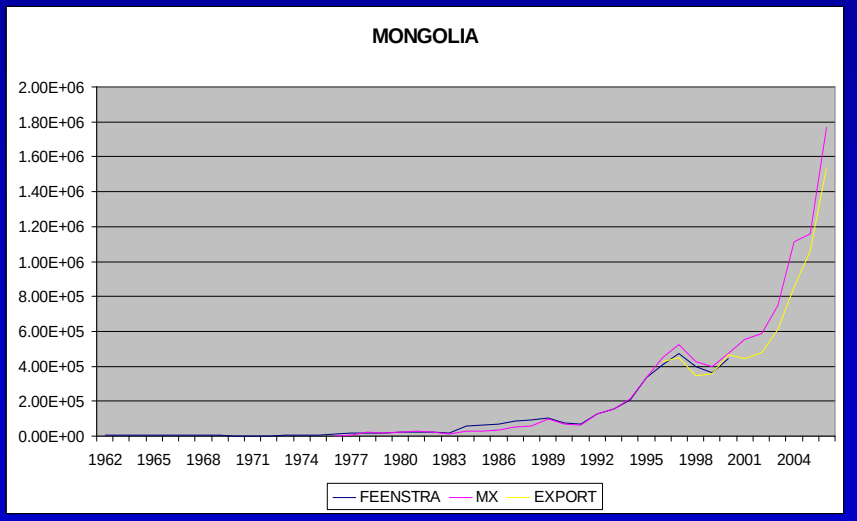
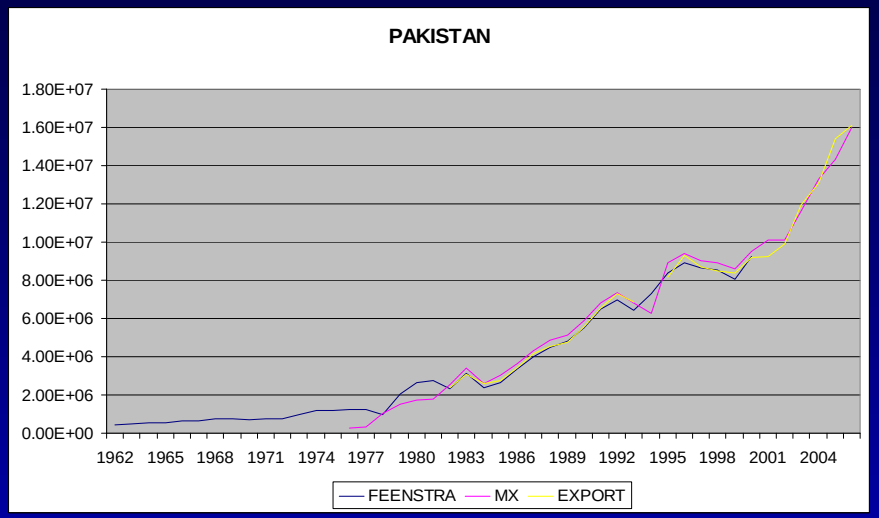


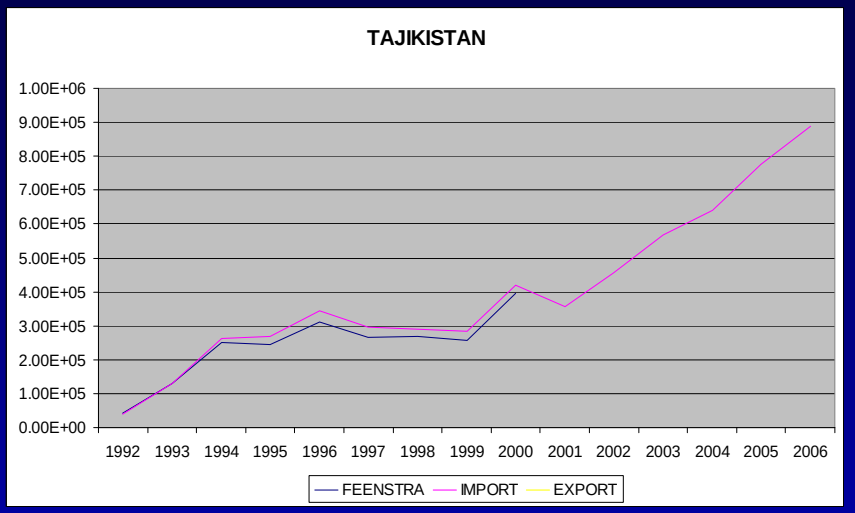


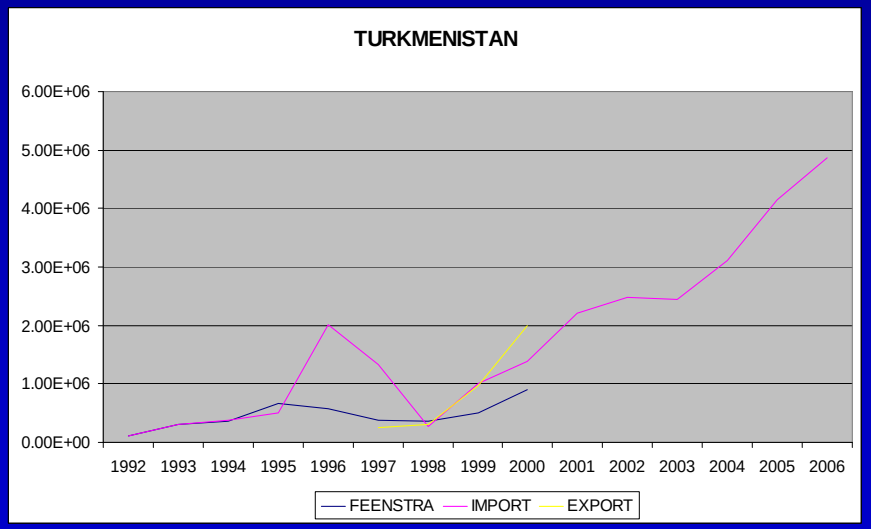


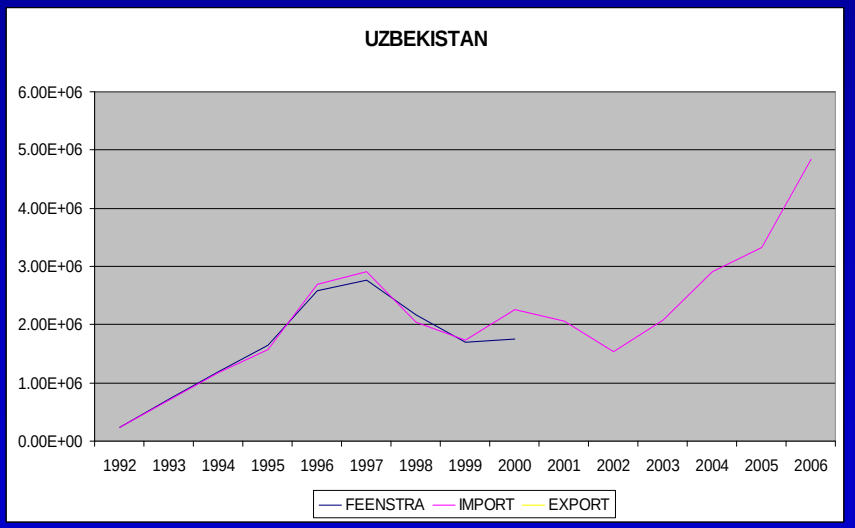


Imports vs. Exports









KYRGYZ REPUBLIC (using import)

Commodity	PRODY	1992	1995	2000	2003	2005	2006
Parts, nes, and accessories of headings 873, 8743, 87454 or 8748	20,649			0.00	3.39	0.01	0.00
Glass, cast, rolled, etc, surface-ground, but no further worked	14,185		0.02	0.03	1.76	6.76	5.48
Other wheat and meslin, unmilled	13,308			0.00	1.37	0.06	0.08
Electric filament lamps and discharge lamps; arc-lamps	12,530	0.14	0.57	3.61	3.50	2.07	2.21
Plastic packing containers, lids, stoppers and other closures	12,452	0.03	0.04	1.41	1.64	2.68	2.28
Base metals, nes and cermets, unwrought (including waste and scrap)	12,052	0.15	8.72	0.20	1.11	0.17	0.61
Electric current	11,328		6.54	4.18	4.35	6.76	4.15
Leather of other bovine cattle and equine leather	9,643	0.36	0.04	0.05	1.43	3.14	2.79
Cast, rolled glass (flashed or wired), unworked, in rectangles	9,572		0.29	0.02	2.30	0.00	
Womens, girls, infants outerwear, textile, not knitted or crocheted; other outer garments of textile fabrics, not knitted, crocheted	8,517	0.00	0.10	0.12	1.34	1.47	1.05
Waste and scrap metal of iron or steel	7,987		0.21	1.20	7.89	11.12	4.40
Fruit, fresh or dried, nes	7,904	0.01	0.00	2.21	0.97	1.39	4.05
Other non-ferrous base metal waste and scrap, nes	7,432	2.83	18.80	15.05	7.06	4.48	7.93
Refined sugar etc	6,945			0.27	2.08	2.90	0.74
Men's and boys' outerwear, textile fabrics not knitted or crocheted; trousers, breeches and the like	6,769			0.54	1.55	1.13	1.28
Cement	4,479		0.38	0.56	1.52	2.87	4.05
Gold, non-monetary (excluding gold ores and concentrates)	3,498	19.85	0.02	29.21	8.22	0.58	0.00
Beans, peas, other leguminous vegetables, dried, shelled	3,298		0.02	0.09	1.32	2.23	4.48
Tobacco, not stripped	2,679		0.19	10.39	4.25	2.38	2.13
Raw cotton, excluding linters, not carded or combed	2,056	4.29	11.76	6.76	13.73	9.48	8.06
sub-total		**27.66**	**47.70**	**75.90**	**70.78**	**61.68**	**55.77**
EXPY		**10,467**	**9,549**	**7,094**	**8,860**	**9,437**	**9,261**

Note: Based on export share in 2003

KYRGYZ REPUBLIC (using export)

Commodity	PRODY	1992	1995	2000	2003	2005	2006
Other parts and accessories, for vehicles of headings 722, 781-783	20,168		1.06	0.44	1.27	1.54	1.48
Special transactions, commodity not classified according to class	19,892		0.75	0.00	0.64	3.54	1.16
Glass, cast, rolled, etc, surface-ground, but no further worked	19,203		0.00	0.01	0.78	3.11	3.70
Salts of metallic acids; compounds of precious metals	13,674		0.00	0.06	0.80	0.00	0.00
Plastic packing containers, lids, stoppers and other closures	12,550		0.01	1.11	1.18	2.33	2.43
Electric filament lamps and discharge lamps; arc-lamps	12,497		2.45	2.31	2.93	2.55	2.61
Electric current	12,064		9.95	15.89	3.60	3.33	3.72
Bovine and equine hides, raw, whether or not split	9,630		0.00	0.77	0.80	0.50	0.18
Construction materials, of asbestos-cement or fibre-cements, etc	9,210		0.42	0.61	1.48	1.66	1.35
Waste and scrap metal of iron or steel	8,853		0.15	0.81	1.06	1.85	1.33
Other non-ferrous base metal waste and scrap, nes	8,317		3.83	4.91	0.83	0.62	0.86
Refined sugar etc	7,207		3.73	0.18	1.25	1.82	0.72
Men's and boys' outerwear, textile fabrics not knitted or crocheted; trousers, breeches and the like	6,798			0.21	0.92	0.70	0.79
Cement	4,510		0.50	0.39	1.10	2.13	3.16
Nuts edible, fresh or dried	4,429		0.07	0.16	0.62	0.28	0.59
Cast, rolled glass (flashed or wired), unworked, in rectangles	4,228		1.01	0.03	2.20	2.22	0.38
Beans, peas, other leguminous vegetables, dried, shelled	3,352		0.00	0.31	0.83	1.46	2.50
Gold, non-monetary (excluding gold ores and concentrates)	3,302		0.00	38.91	48.75	37.58	30.58
Tobacco, not stripped	2,701		3.14	5.90	2.21	1.71	1.42
Raw cotton, excluding linters, not carded or combed	2,063		5.25	6.38	7.97	6.54	5.28
sub-total			**32.32**	**79.39**	**81.22**	**75.47**	**64.24**
EXPY			**11,305**	**7,514**	**6,455**	**7,918**	**8,597**

Note: Based on export share in 2003