

# **China's Rapidly Changing Trade Flows**

**Testimony of**

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**To the US-China Economic and Security Review Commission**

**Hearing on Research and Development,  
Technological Advances in Key Industries,  
and Changing Trade Flows with China**

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I thank the Co-Chairs and the other Commissioners for inviting me to testify this morning.

My name is Charles McMillion and I am president and chief economist for MBG Information Services, a 20-year-old business information, analysis and forecasting firm based here in Washington.

I am especially pleased for the opportunity to talk with you today about the extremely important transformations that recently have occurred and continue to occur in China. In my view there are no more vital national security matters than these in the world today and yet this Commission is one of the very few prominent institutions giving these issues the rigorous attention they deserve.

Before discussing directly this panel's topic of China's transformed trade flows, I should provide a few words of context. China's real annual GDP growth accelerated sharply after China gained admission to the World Trade Organization in January 2002, averaging 10.5% growth per year with growth of 11.9% in 2007. This is more than twice the growth rate of the global economy and four times the average 2.6% GDP growth in the US. Economists normally expect that countries growing faster than the world economy will have trade deficits while countries growing slower will have surpluses.

Along with soaring trade surpluses, it must be appreciated that consumer, investor and government spending growth in China also has been spectacular. Growth in industrial production since 2002 averaged 15.5% per year in China compared with US growth of 1.8%. From infrastructure, education and R&D to housing, motor vehicles, airplanes, mobile phones, computers, machine tools, financial and information services, leisure and hospitality, China's domestic spending growth has been extremely strong.

Yet despite China's soaring growth, its current account surplus rocketed from \$17.4 billion, 1.3% of GDP, in 2001 to \$371.8 billion, 12.3% of GDP, in 2007. Over the past six years China has accumulated global current account surpluses of \$932 billion. China's current account surpluses now are substantially larger even than its surpluses in goods trade because China has relatively insignificant deficits in services

but now has very substantial -- and rapidly rising -- net returns to its foreign investing and lending, and booming "transfer" earnings from construction crews and others working abroad.

These enormous current account surpluses, strong foreign investment in China -- the world's leading when M&A is excluded -- and other factors, has built up China's war chest of foreign currency reserves from \$212 billion at the start of 2002 to reach \$2 Trillion in the next few weeks. This past April alone, China added \$74.5 billion to its reserves -- more than \$100 million each hour. Together with China's newly restructured and healthy, financial system, and their large firms' new access to equity and bond markets, China is now uniquely capable of cherry-picking today's worldwide "fire sale" opportunities for patents, talent, natural resources, brands, distribution channels and much more.

Because of China's large net imports of mineral fuels and ores (particularly iron ore) its global surplus in manufactured goods is larger than its surplus for all goods or even than its current accounts surplus. China edged out Germany in 2007 to become the world's leading exporter of manufactured goods and China is now the largest manufacturing exporter to the US, the EU-25 and Japan. (Last year China even edged out Canada -- with its large mineral fuels exports -- as the leading overall exporter to the US.)

China's global surplus for manufactured goods soared from \$30.9 billion in 2001 to \$401.4 billion in 2007 and appears on track to reach the unprecedented level of over \$500 billion in 2008. Although skyrocketing import prices for mineral fuels, ores and foods are reducing China's global surplus for all goods by -11% so far in 2008, China's surplus in manufacturing goods is up 34% through May.

China's manufacturing trade surplus has rocketed in recent years as it moved away from its historic role as a processing center -- merely assembling imported parts -- and has "localized" modern, dynamic supply chains in most industries. China has also dramatically shifted its manufacturing sector emphasis from more traditional to modern technology-driven industries.

Textiles and apparel accounted for all or most of China's global manufacturing surplus until 2004. But in 2007 China's rocketing surplus in electrical and non-electrical equipment (including computers) and parts surpassed the surplus for textiles/apparel and -- soaring by 60% so far in 2008 -- could have a surplus this year that is half-again as large as for textiles/apparel.

Trade flows are being affected by the loss in value for the US dollar. But from January 2002 until June 2008, the dollar was allowed to fall only -17% against the Chinese Yuan while it fell -18% against the Japanese Yen and -43% against the Euro. That is, during this time the Yuan strengthened by 17% against the dollar but it weakened slightly against the Yen and sharply against the Euro.

These currency changes together with China's strong, effective set of trade and industrial policies have dramatically transformed China's economy and its trading patterns. China's auto production has almost quintupled since 2001, surpassing Germany in 2006 as the world's 3rd largest producer. Continuing its rapid growth even now, China will likely pass stagnant US and German production in 2009 to become the world's largest producer and could rapidly extend its leadership thereafter.

China's domestic auto sales have also soared since 2001 and China is now the world's 2nd leading auto market behind only the US. Yet China's auto and parts sector achieved a global trade surplus in 2005 and that surplus is surging; by 83% last year and by 44% so far in 2008. Most important for anticipating developments over the next few years, China's auto surplus is now driven by its soaring global trade surplus in auto parts while its export of fully assembled vehicle remains relatively small but is expected to expand dramatically over the next three years.

China's market for aerospace -- especially for commercial airliners -- is also one of the fastest growing in the world. Yet rapid growth and modernization of domestic aerospace production limits China's overall aerospace trade deficit and has created a global surplus in aerospace parts in 2007 and again this year.

Information technology has been a key focus of China's economic and trade modernization. China's production of computers rocketed past that of Japan in 2003 and that of the US in 2004 to become the world's ever-more dominant producer. Again, despite world-leading domestic sales growth of over 20% per year, the localization of IT component parts producers allowed China to increase its global surplus for computers and parts from \$8.1 billion in 2001 to \$73.5 billion in 2007 and perhaps \$83 billion this year.

The ratio of China's computer and parts exports-to-imports soared from 2.6 in 2001 to 4.7 in 2007 indicating a sea-change in value added. Similarly dramatic changes in patterns are evident throughout the IT sector including for cellular phones and mobile devices where China's global surplus soared from \$2.9 billion in 2003 to over \$50 billion in 2007 and likely will exceed \$60 billion this year.

One of the more important indicators of China's economic and trade modernization is the loss of the long-held US surplus in a dynamic category of products defined by the US Department of Commerce as our most Advanced Technology Products. Globally, the traditional US surplus in ATP turned to a deficit for the first time in 2002. Since then, the US has suffered ATP deficits that -- in nominal value -- are far larger than any past US ATP surplus. The US ATP deficits are also far larger than current US earnings abroad for all intellectual property -- royalties and fees.

Very large and worsening US trade deficits with China in ATP elements of machinery and electronics (including computers and other IT products) result in unprecedented US ATP trade deficits with China that more than account for the entire US global ATP deficit. With US import payments for ATP from China almost four times as much as export earnings, the US ATP deficit with China is more than eight times the US deficit with Japan. China now accounts for 27% of US ATP imports (by value) and for only 7% of US ATP exports.

Finally, the US no longer accounts for China's entire global trade and current account surplus. Because of currency movements, trade and industrial policies, China's now has soaring surpluses with the EU-25 that more than offset China's large, politically instrumental deficits with Taiwan and other Asian neighbors.

The EU-25's deficit in traded goods with China has worsened sharply from -\$45.7 billion in 2001 to -\$216.2 billion in 2007. As with the US, China's surplus with the EU is almost entirely in manufactured goods dominated by modern machinery and electronics, including information technology products.

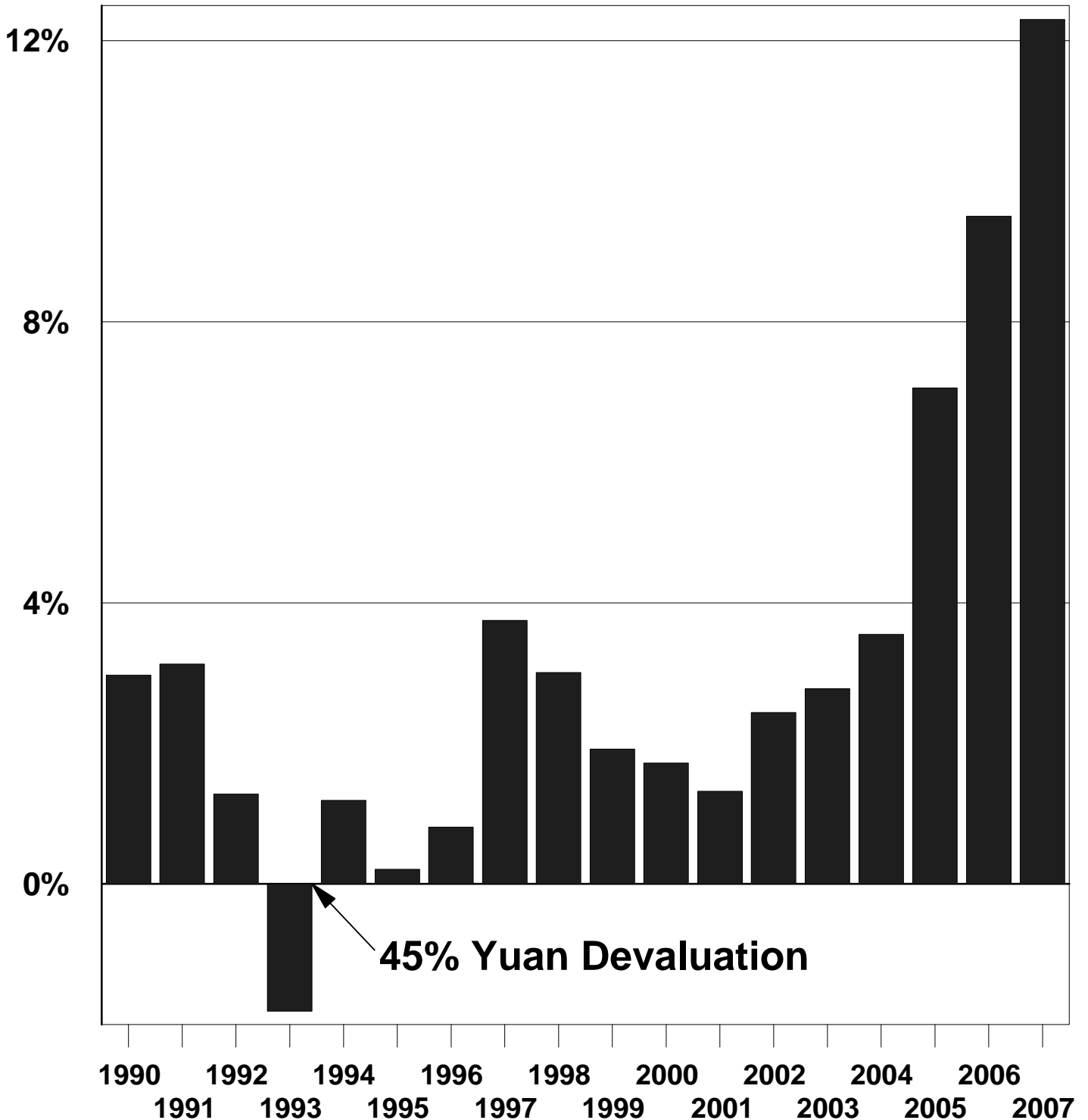
The enormous external imbalances in China's rapid economic and trade modernization now adversely threaten not only the US but the EU as well. This would seem to be an opportune time for bold, cooperative policies in the common interest.

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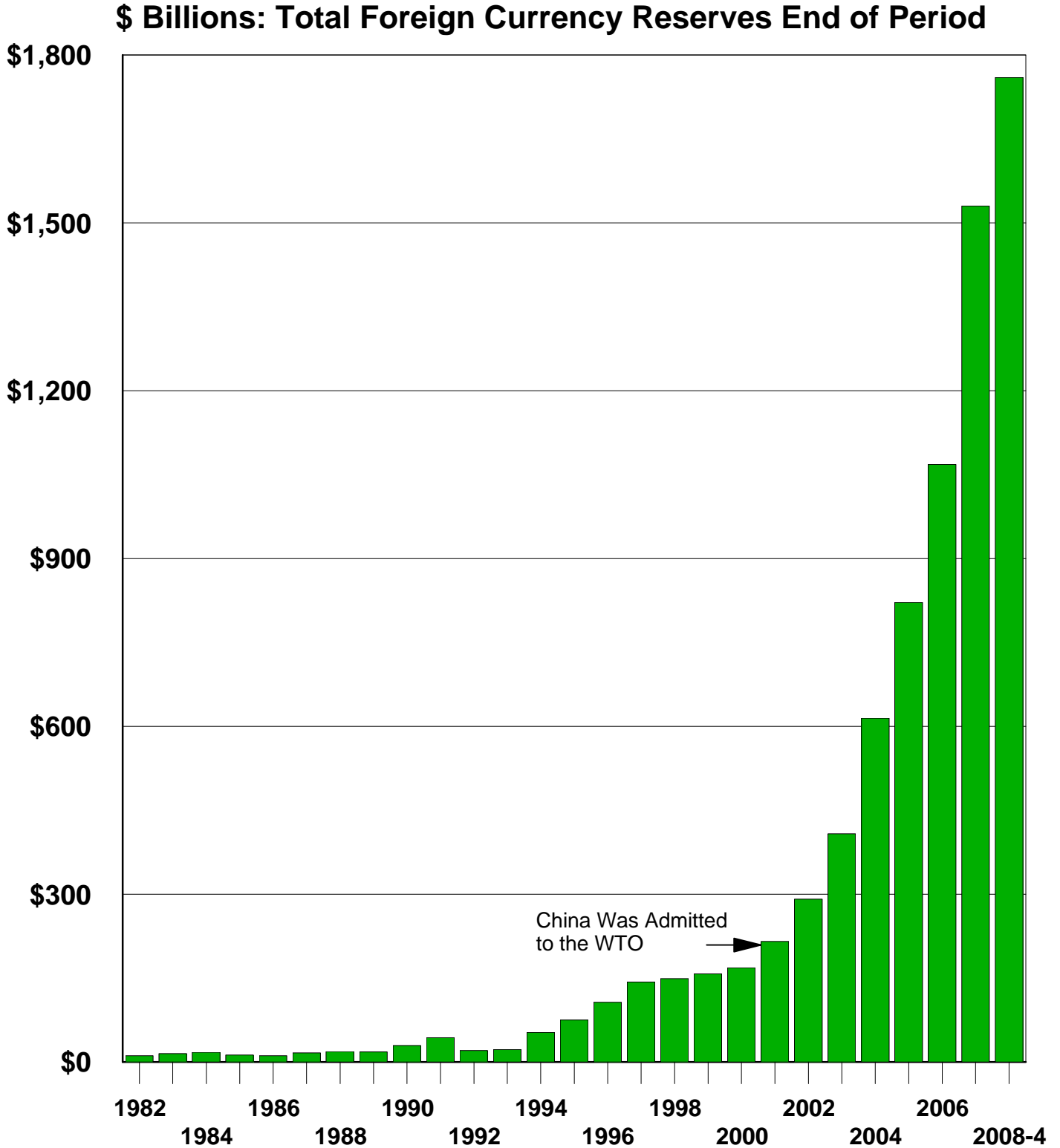
Dr. Charles W. McMillion is president and chief economist of MBG Information Services, a business information, analysis and forecasting firm based in Washington, DC. He is a former Associate Director of the Johns Hopkins University Policy Institute and a former Contributing Editor of the *Harvard Business Review*. Dr. McMillion can be reached at 202-544-6490 or "CWM@MBGInfoSvcs.com"

# China's Global Current Account Surplus

**%: China's Current Account Balance as Percent of GDP**



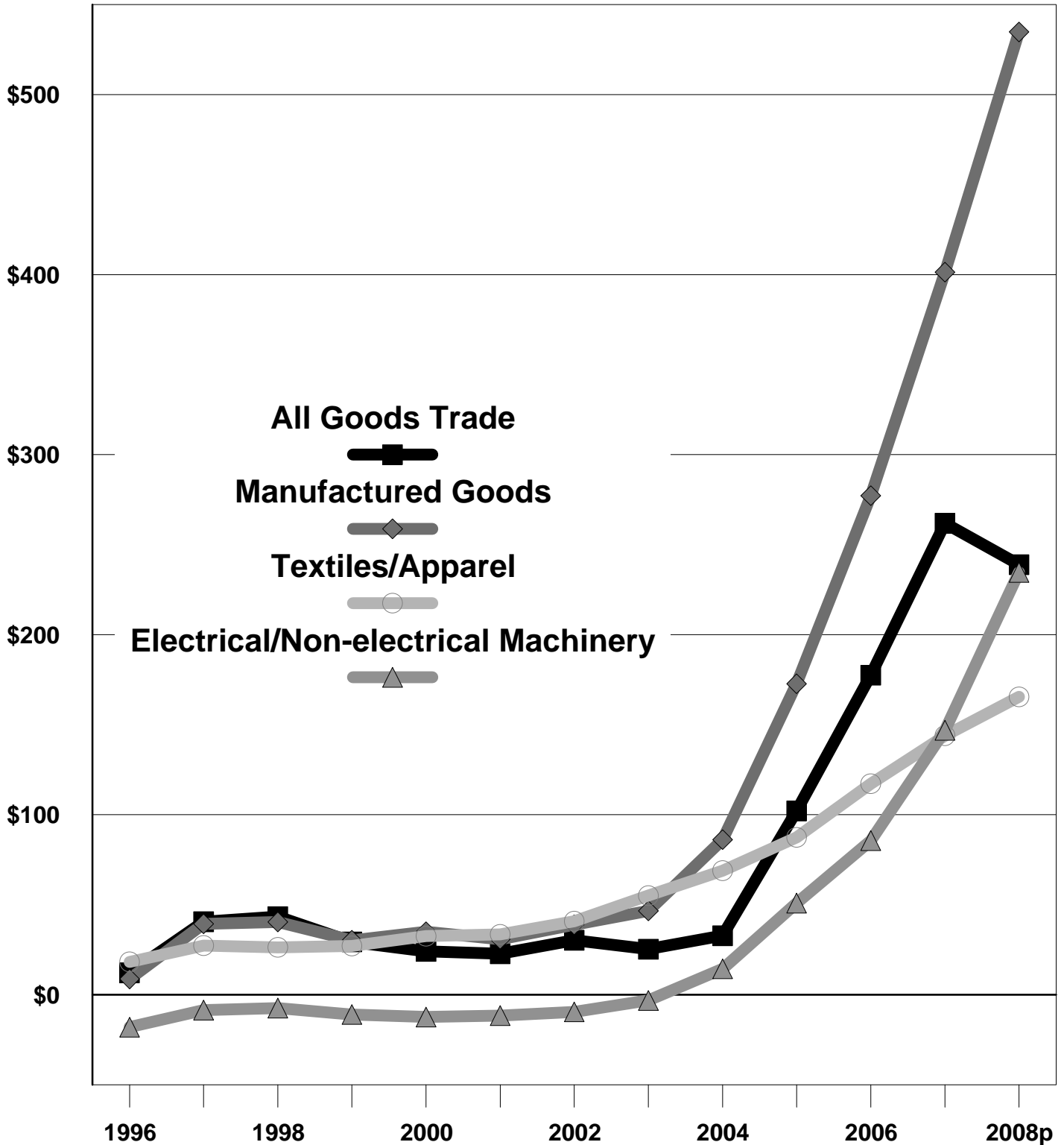
# China's War Chest of Foreign Currency Reserves: Unprecedented Capital for Strategic Objectives



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# China's Soaring Global Balance in Goods Trade

\$ Billion: Annual Global Balances



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China Census, Global Trade Info. Services & MBG Information Services 2008p projected from Jan-May actuals.

# China's Soaring Post-WTO Trade Surplus With The World: 2002 - 2008

Even With 10% to 12% Annual GDP Growth, Surplus Shifts from Commodities to Key Manufactured Goods

HS Codes: \$Millions of Annual Trade Balance	2001	2002	2003	2004	2005	2006	2007	2008-p	Totals 2002-'08
Manufacturing Totals: HS28-96 less raw cotton HS5201...	\$30,858	\$38,886	\$46,598	\$86,185	\$172,773	\$277,250	\$401,376	\$534,767	\$1,557,835
Merchandise Totals.....	22,841	30,339	25,377	32,836	102,105	177,530	261,894	238,940	869,021
Machinery/Computers: HS84-85.....	-11,557	-9,503	-3,134	14,441	50,910	85,650	146,951	234,604	519,919
Textiles and Apparel HS50-63 less 5201 raw cotton.....	33,569	40,886	55,111	68,955	87,427	117,239	143,924	165,475	679,017
Agriculture Totals: HS01-24 .....	5,699	7,083	5,137	728	4,296	6,581	2,283	-5,338	20,771
84 Mechanical/Computers.....	\$6,959	\$1,343	\$11,844	\$26,803	\$53,416	\$77,190	\$104,223	\$135,733	\$407,866
85 Electrical Machinery And Equipment And Parts There.....	-4,598	-8,159	-14,978	-12,362	-2,507	8,460	42,727	98,871	112,053
61 Articles Of Apparel And Clothing Accessories, Knit.....	12,984	15,465	20,130	25,163	30,180	44,186	60,553	66,334	262,011
62 Articles Of Apparel And Clothing Accessories, Not.....	18,217	19,826	24,301	28,191	34,222	42,842	46,317	50,166	245,865
94 Furniture; Bedding, Cushions Etc.; Lamps And Light.....	7,239	9,454	12,239	16,480	21,546	27,012	34,659	43,369	164,758
95 Toys, Games And Sports Equipment; Parts & Access.....	8,811	11,253	12,837	14,600	18,520	21,878	25,786	33,543	138,417
73 Articles Of Iron Or Steel.....	3,935	4,496	6,079	9,066	13,337	19,839	28,682	30,081	111,580
64 Footwear, Gaiters And The Like; Parts Of Such Arti.....	9,759	10,788	12,583	14,731	18,507	21,205	24,579	27,431	129,824
89 Ships, Boats And Floating Structures.....	1,228	1,319	2,211	2,122	4,228	7,572	11,270	19,697	48,418
72 Iron And Steel.....	-8,707	-10,929	-18,816	-12,166	-11,127	5,117	16,938	17,588	-13,395
63 Made-Up Textile Articles Nesoi; Needlecraft Sets;.....	3,668	4,353	6,107	7,698	10,221	11,938	13,387	16,977	70,681
42 Articles Of Leather; Saddlery And Harness; Travel.....	6,906	7,739	9,388	10,080	11,171	12,046	13,716	16,102	80,242
87 Vehicles, Other Than Railway Or Tramway Rolling St.....	237	-692	-3,725	-1,133	4,329	5,341	9,750	13,564	27,435
86 Railway Or Tramway Locomotives, Rolling Stock, Tra.....	1,991	1,959	3,586	5,148	5,923	5,446	8,121	9,759	39,943
69 Ceramic Products.....	1,617	2,185	2,736	3,580	4,739	5,956	6,208	7,737	33,141
96 Miscellaneous Manufactured Articles.....	1,270	1,493	1,822	2,473	3,187	3,847	5,174	7,033	25,030
76 Aluminum And Articles Thereof.....	-764	-159	40	236	1,111	3,076	4,833	6,962	16,100
83 Miscellaneous Articles Of Base Metal.....	1,212	1,665	1,963	2,953	4,055	5,488	6,922	6,672	29,719
54 Manmade Filaments, Including Yarns & Woven Fabri.....	-1,706	-904	151	1,358	2,119	2,798	4,037	6,340	15,899
20 Preparations Of Vegetables, Fruit, Nuts, Or Other.....	1,421	1,647	2,034	2,436	2,942	3,586	5,170	6,208	24,024
58 Special Woven Fabrics; Tufted Textile Fabrics; Lac.....	177	510	849	1,162	1,862	2,526	3,921	5,804	16,634
55 Manmade Staple Fibers, Including Yarns & Wovens.....	-272	-471	-472	134	1,133	2,703	3,559	5,395	11,981
16 Edible Preparations Of Meat, Fish, Crustaceans, Mo.....	2,031	2,307	2,654	3,463	4,339	5,447	5,766	5,211	29,186
68 Articles Of Stone, Plaster, Cement, Asbestos, Mica.....	855	1,045	1,276	1,565	2,222	2,987	3,750	4,678	17,524
60 Knitted Or Crocheted Fabrics.....	24	574	868	1,182	1,773	2,487	3,407	4,666	14,957
48 Paper And Paperboard; Articles Of Paper Pulp, Pape.....	-2,166	-2,428	-2,088	-1,789	-456	1,189	2,810	4,600	1,839
82 Tools, Implements, Cutlery, Spoons And Forks.....	1,770	1,990	2,347	2,913	3,593	4,160	5,011	4,574	24,587
70 Glass And Glassware.....	-145	151	302	950	1,919	2,642	3,881	4,519	14,364
07 Edible Vegetables And Certain Roots And Tubers.....	1,536	1,689	1,940	2,132	2,530	2,959	3,244	4,222	18,715
28 Inorganic Chemicals; Organic Or Inorganic Compound	1,222	1,084	866	882	2,128	1,340	3,259	4,083	13,642
81 Base Metals Nesoi; Cermet; Articles Thereof.....	526	420	751	1,425	1,645	1,941	2,547	3,879	12,609
22 Beverages, Spirits And Vinegar.....	427	449	439	482	305	504	-38	3,201	5,342
59 Impregnated, Coated, Covered Or Laminated Textile.....	-701	-571	-400	-111	304	562	1,135	3,106	4,027
52 Cotton, Including Yarns And Woven Fabrics Thereof.....	717	1,567	1,572	-296	362	-238	1,634	2,819	7,420
65 Headgear And Parts Thereof.....	616	742	932	1,169	1,432	1,735	1,943	2,350	10,303
46 Manufactures Of Straw, Esparto Or Other Plaiting M.....	582	719	876	1,029	1,137	1,306	1,589	2,123	8,779
67 Prepared Feathers And Down And Articles Thereof.....	840	899	967	1,085	1,208	1,403	1,743	2,095	9,400
66 Umbrellas, Sun Umbrellas, Walking-Sticks, Seat-Sti.....	605	579	662	828	951	1,135	1,373	1,607	7,135
49 Printed Books, Newspapers, Pictures And Other Prin.....	116	278	357	562	715	903	1,360	1,599	5,774
57 Carpets And Other Textile Floor Coverings.....	458	522	591	715	870	994	1,226	1,593	6,511
98 Special Classification Provisions, Nesoi.....	-1,103	-916	-311	-421	-397	373	-289	1,526	-436
50 Silk, Including Yarns And Woven Fabrics Thereof.....	715	671	714	922	1,200	1,296	1,286	1,520	7,611
03 Fish And Crustaceans, Molluscs And Other Aquatic L.....	1,262	1,312	1,471	1,723	1,470	1,589	1,319	1,386	10,270
92 Musical Instruments; Parts And Accessories Thereof.....	322	396	525	688	797	886	1,058	1,351	5,701
09 Coffee, Tea, Mate And Spices.....	521	528	596	832	885	935	1,014	1,284	6,076
56 Wadding, Felt And Nonwovens; Special Yarns; Twine.....	-70	-69	-55	-23	154	268	473	1,202	1,949
05 Products Of Animal Origin, Nesoi.....	479	462	523	726	791	802	840	1,105	5,249
44 Wood And Articles Of Wood; Wood Charcoal.....	-1,161	-1,308	-1,176	-183	705	2,118	1,827	1,007	2,989
91 Clocks And Watches And Parts Thereof.....	819	825	985	994	897	889	996	951	6,538
21 Miscellaneous Edible Preparations.....	218	281	234	138	406	587	728	881	3,255
33 Essential Oils And Resinoids; Perfumery, Cosmetic.....	234	317	480	537	701	868	980	839	4,722
11 Milling Industry Products; Malt; Starches; Inulin;.....	27	23	6	-19	25	-11	287	766	1,079
71 Natural Or Cultured Pearls, Precious Or Semiprecio.....	1,415	1,509	1,450	1,795	2,062	2,283	1,868	766	11,732
08 Edible Fruit And Nuts; Peel Of Citrus Fruit Or Mel.....	68	177	257	298	411	544	720	734	3,141
36 Explosives; Pyrotechnic Products; Matches; Pyropho.....	283	317	352	397	451	504	555	592	3,168
53 Vegetable Textile Fibers Nesoi; Yarns & Woven Fa.....	185	167	91	83	140	174	115	587	1,357
01 Live Animals.....	309	290	209	110	220	270	301	478	1,878
13 Lac; Gums; Resins And Other Vegetable Saps.....	35	41	22	14	50	80	116	471	794
78 Lead And Articles Thereof.....	227	206	193	336	404	644	584	441	2,809
19 Preparations Of Cereals, Flour, Starch Or Milk; Ba.....	320	312	379	458	520	502	476	356	3,003
43 Furskins And Artificial Fur; Manufactures Thereof.....	311	355	684	1,671	2,272	868	568	324	6,741
25 Salt; Sulfur; Earths And Stone; Plastering Materia.....	567	346	83	-275	1	426	-356	290	515
24 Tobacco And Manufactured Tobacco Substitutes.....	119	191	185	221	152	102	97	270	1,219

## China's Soaring Post-WTO Trade Surplus With The World: 2002 - 2008

Even With 10% to 12% Annual GDP Growth, Surplus Shifts from Commodities to Key Manufactured Goods

HS Codes: \$Millions of Annual Trade Balance	2001	2002	2003	2004	2005	2006	2007	2008-p	Totals 2002-'08
17 Sugars And Sugar Confectionary.....	-221	-53	-20	-84	-29	-155	83	125	-132
93 Arms And Ammunition; Parts & Accessories Thereof...	11	14	14	19	26	37	57	93	259
35 Albuminoidal Substances; Modified Starches; Glues;...	-276	-297	-329	-334	-279	-335	-308	91	-1,792
06 Live Trees And Other Plants; Bulbs, Roots And The...	13	10	4	13	8	36	48	40	159
97 Works Of Art, Collectors' Pieces And Antiques.....	15	18	15	23	38	53	66	35	248
80 Tin And Articles Thereof.....	204	55	57	83	-173	-147	-29	28	-126
23 Residues And Waste From The Food Industries; Prep;	-344	-363	-276	-444	-827	-782	-279	6	-2,965
45 Cork And Articles Of Cork.....	-8	-9	-8	-11	-10	-4	-13	-15	-70
14 Vegetable Plaiting Materials And Vegetable Product....	-22	-0	-27	-44	-19	-46	-28	-26	-190
32 Tanning Or Dyeing Extracts; Tannins And Derivative...	-576	-701	-1,056	-1,046	-595	-511	-224	-54	-4,185
79 Zinc And Articles Thereof.....	375	182	108	-243	-616	-162	112	-70	-689
10 Cereals.....	427	1,169	2,145	-1,478	18	218	1,445	-100	3,417
18 Cocoa And Cocoa Preparations.....	-53	-44	-61	-66	-66	-60	-64	-183	-544
04 Dairy Produce; Birds' Eggs; Natural Honey; Edible.....	-27	-78	-129	-214	-195	-263	-292	-329	-1,499
34 Soap Etc.; Lubricating Products; Waxes, Polishing.....	-48	-77	-157	-222	-300	-371	-377	-518	-2,022
37 Photographic Or Cinematographic Goods.....	-40	-44	18	50	96	-290	-475	-568	-1,213
51 Wool And Fine Or Coarse Animal Hair, Including Yar...	-816	-763	-365	-373	-300	-143	-573	-634	-3,151
40 Rubber And Articles Thereof.....	-447	-476	-1,158	-933	-77	-1,036	545	-1,306	-4,440
38 Miscellaneous Chemical Products.....	-1,204	-2,346	-3,125	-2,331	-2,367	-3,168	-2,445	-2,193	-17,976
30 Pharmaceutical Products.....	-249	-340	-481	-465	-590	-868	-1,402	-2,223	-6,370
02 Meat And Edible Meat Offal.....	244	40	-111	230	155	61	-786	-2,658	-3,069
31 Fertilizers.....	-1,197	-2,003	-960	-976	-2,040	-1,312	830	-3,889	-10,350
41 Raw Hides And Skins (Other Than Furskins).....	-2,265	-2,297	-2,617	-3,192	-3,259	-3,809	-4,785	-5,308	-25,267
75 Nickel And Articles Thereof.....	-313	-376	-769	-1,051	-1,871	-3,064	-5,783	-6,898	-19,813
88 Aircraft, Spacecraft, And Parts Thereof.....	-3,865	-3,614	-4,024	-4,442	-5,866	-9,648	-9,095	-7,936	-44,625
29 Organic Chemicals.....	-4,377	-5,589	-8,873	-14,718	-15,901	-14,316	-17,765	-12,970	-90,132
47 Pulp Of Wood Or Other Fibrous Cellulosic Material;....	-2,726	-2,884	-3,875	-5,277	-6,147	-7,086	-9,499	-13,398	-48,166
15 Animal Or Vegetable Fats And Oils And Their Cleava..	-658	-1,471	-2,802	-4,045	-3,023	-3,533	-7,249	-14,307	-36,429
39 Plastics And Articles Thereof.....	-8,565	-9,339	-11,052	-14,953	-15,549	-15,605	-18,906	-22,573	-107,978
74 Copper And Articles Thereof.....	-4,265	-4,917	-6,207	-8,335	-9,835	-11,344	-21,878	-22,640	-85,155
12 Oil Seeds (Soy Beans) & Oleaginous Fruits or Grains..	-2,433	-1,837	-4,536	-6,152	-6,775	-6,792	-10,637	-23,884	-60,613
90 Optical, Photographic, Cinematographic, Measuring,...	-3,327	-6,108	-14,569	-23,859	-24,523	-26,224	-32,398	-45,308	-172,988
26 Ores, Slag And Ash.....	-4,086	-4,099	-6,925	-16,702	-24,799	-31,027	-52,976	-103,554	-240,083
27 Mineral Fuels, Mineral Oils And Products Of Their.....	-9,117	-10,969	-18,190	-33,552	-46,623	-71,283	-84,763	-157,043	-422,422

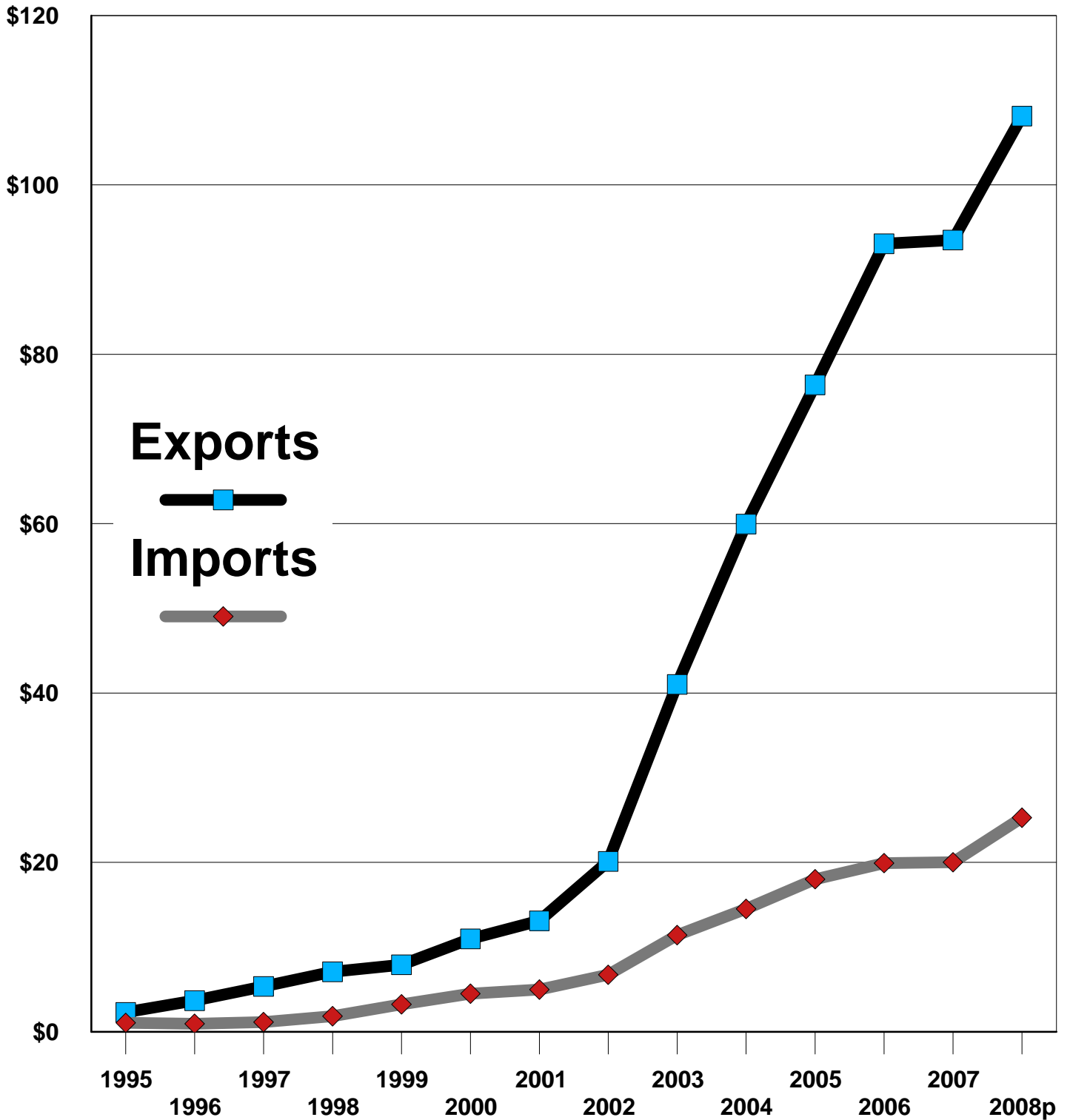
China Customs Ministry and MBG Information Services 2008 estimates are projected from Jan-May 2008 actuals



# China's Global Computer and Parts Trade

## Computers and Component Parts: HS 8471

\$ Billions Each Year: China's Global Exports and Imports



# US Advanced Tech Trade With China

## \$ Billion US ATP Exports and Imports With China

