# China's Experience Under the MFA/ATC

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# Introduction

**January 1, 2005**

- Textiles and clothing (T&C) fully integrated into the WTO
- Decades-long regime of T&C quotas ends
- China's T&C import quantities increased *six-fold* from 2000 to 2006
- U.S. imposes safeguards on (some) Chinese T&C

**We examine**

- China's relative treatment under the MFA and ATC
- China's quantity, price and quality response following quota relaxation
- Impact on other U.S. trading partners

# Background: The MFA/ATC Regime

**MFA – Multifiber Arrangement (1974-1994)**

- Signed in 1974
- Grew out of a series of voluntary export restraints imposed by the US and Europe on large Asian apparel and clothing exporters
- Kept textile and clothing (T&C) products out of GATT/WTO

**ATC – Agreement on Textile and Clothing (1995-2004)**

- Signed in 1994 as part of the Uruguay Round; ended the MFA
- Vehicle for integrating T&C products into GATT/WTO rules

# Background: The MFA/ATC Regime

ATC Integration of T&C products occurred in four phases
- Countries were free to choose which products were relaxed in each phase as long as a set share of 1990 import quantity was relaxed
- Countries generally relaxed "less-sensitive" products first

| Phase | Starting Date | Share of Export Volume Integrated | Increase in Quota Growth Rate | Number of HS Products Integrated |
|-------|---------------|-----------------------------------|-------------------------------|----------------------------------|
| I | January 1, 1995 | 16 | 16 | 318 |
| II | January 1, 1998 | 17 | 25 | 744 |
| III | January 1, 2002 | 18 | 27 | 745 |
| IV | January 1, 2005 | 49 | n/a | 2,978 |

- China not eligible for first two rounds because it was not yet a member of the WTO

# Data: US MFA/ATC Database

Country-category-year database
- Assembled from U.S. bilateral quota agreements from 1984-2004
  - 71 countries
  - 1986 data is missing
  - 1968-83 in process
- Quotas assigned in 191 "OTEXA categories" (e.g. cotton trousers)
  - Observation in database might be a super-, subset of these
  - Mapping of HS to categories included in database
- Observe
  - "Base quota" – set by specific limit
  - "Adjusted quota" – after borrowing/lending across categories/time
  - Exports

# Expired Performance Reports

Country: China
Agreement Term: 01JAN1994-31DEC2000
Agreement Period: See Category

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|                              |
|  EXPIRED   PERFORMANCE REPORT|
|                              |
|     Customs: 31DEC1999       |
|                              |
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| Level Coverage & Description | Unit & CONV Fact | Base Level | Adjustments Made | Adjusted Level | Imports Charged | _% Fill_ | Footnotes |
|---|---|---|---|---|---|---|---|
| 341    : 01JAN1998-31DEC1998<br>W&G COT. SHIRTS/BLOUSES,N-KNIT | DOZ<br>12.10 | 682,293<br>8,255,745 | COS | 718,719<br>8,696,500 | 698,089<br>8,446,877 | 97.13 | * |
| 341 -Y  : 01JAN1998-31DEC1998<br>COT NK BLOUSE WG 2+COL WARP/FILL | DOZ<br>12.10 | 409,376<br>4,953,450 | CO | 411,687<br>4,981,413 | 292,015<br>3,533,382 | 70.93 | * |
| 342    : 01JAN1998-31DEC1998<br>COTTON SKIRTS | DOZ<br>14.90 | 266,599<br>3,972,325 | CO | 271,931<br>4,051,772 | 271,931<br>4,051,772 | 100.00 | * |
| 345    : 01JAN1998-31DEC1998<br>COTTON SWEATERS | DOZ<br>30.80 | 128,774<br>3,966,239 | SSU | 132,632<br>4,085,066 | 121,660<br>3,747,128 | 91.73 | * |
| 347/348    : 01JAN1998-31DEC1998<br>Cot trousers/slacks & shorts | DOZ<br>14.90 | 2,341,850<br>34,893,565 | SCF | 2,529,199<br>37,685,065 | 2,529,199<br>37,685,065 | 100.00 | * |
| 350    : 01JAN1998-31DEC1998<br>COTTON DRESSING GOWNS, ROBES ETC. | DOZ<br>42.60 | 163,758<br>6,976,091 | SCF | 176,859<br>7,534,193 | 176,859<br>7,534,193 | 100.00 | * |
| 351    : 01JAN1998-31DEC1998<br>COTTON NIGHTWEAR/PAJAMAS | DOZ<br>43.50 | 547,437<br>23,813,510 | SCF | 590,267<br>25,676,615 | 590,267<br>25,676,615 | 100.00 | * |
| 352    : 01JAN1998-31DEC1998<br>COTTON UNDERWEAR | DOZ<br>9.20 | 1,637,299<br>15,063,151 | SCF | 1,753,594<br>16,133,065 | 1,753,594<br>16,133,065 | 100.00 | * |
| 359 -C  : 01JAN1998-31DEC1998<br>--OVERALLS AND COVERALLS ONLY | KG.<br>8.50 | 593,756<br>5,046,926 | SCF | 624,721<br>5,310,129 | 624,721<br>5,310,129 | 100.00 | * |
| 359 -V  : 01JAN1998-31DEC1998<br>--VESTS ONLY | KG.<br>8.50 | 873,526<br>7,424,971 | COSU | 873,177<br>7,422,005 | 486,449<br>4,134,817 | 55.71 | * |
| 360    : 01JAN1998-31DEC1998<br>COTTON PILLOWCASES | NO.<br>0.90 | 7,613,286<br>6,851,957 | COSU | 7,608,718<br>6,847,846 | 5,613,045<br>5,051,741 | 73.77 | * |
| 360 -P  : 01JAN1998-31DEC1998 | NO.<br>0.90 | 5,192,996<br>4,673,696 | SSU | 5,431,621<br>4,888,459 | 5,171,971<br>4,654,774 | 95.22 | * |

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An asterisk (*) in the footnote column indicates U.S. Customs data used.  A footnote page appears after each country.
S = Swing, SA = Shift Added, SS = Shift Subtracted, OS = Overshipment
     N = Consultation Level Increase, U = Carryforward Used, SU = Shortfall Used, O = Other (See footnotes)

# Outline of Empirical Results

**We examine**

- Quota coverage, i.e., percent of T&C imports covered by quotas
- The extent to which quotas are "binding"
- Quota growth rates

- Volume and price outcomes associated with quota removal
- Impact on other U.S. trading partners

# Quota Coverage, 1990-2004

## Fraction of Categories covered by Specific Limit

| Country | Fraction of Specific Limits (%) | Country | Fraction of Specific Limits (%) |
|---|---|---|---|
| China | 61 | Macau | 22 |
| Korea, South | 53 | Brazil | 22 |
| Taiwan | 51 | Poland | 22 |
| Hong Kong | 46 | Singapore | 21 |
| Indonesia | 42 | Uae | 20 |
| Thailand | 41 | Bangladesh | 20 |
| Malaysia | 39 | Mauritius | 18 |
| Mexico | 38 | Cambodia | 17 |
| Sri Lanka | 38 | Dominican Repul | 16 |
| Romania | 33 | Jamaica | 15 |
| Philippines | 31 | Egypt | 9 |
| Japan | 31 | Colombia | 6 |
| Pakistan | 25 | Guatemala | 4 |
| Turkey | 25 | Costa Rica | 4 |
| India | 22 | Honduras | 4 |

- ○ Countries varied greatly in the share of the T&C categories covered by specific limit quotas
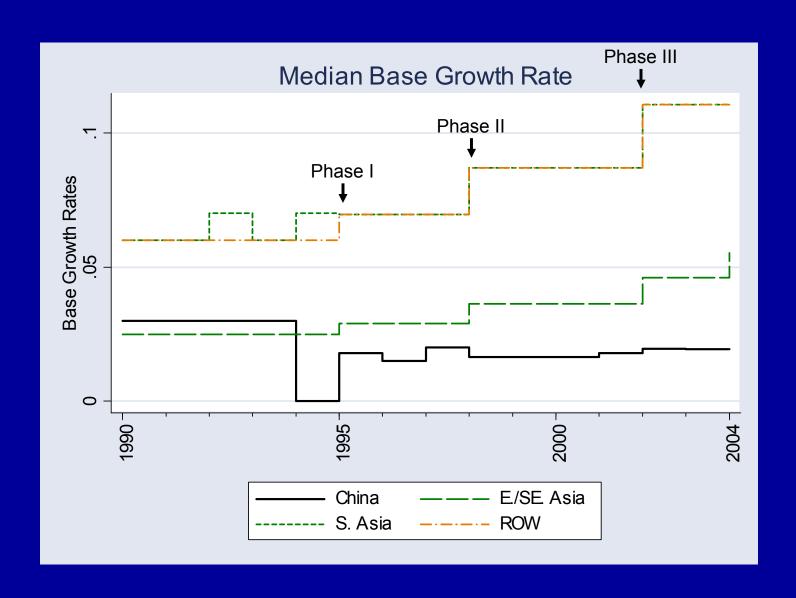
- ○ China tops the list

# Share of "Binding" Quotas, 1984-2004

**Binding Quotas**

- A quota's fill rate = Exports/(Adj Base Quota)
- Quotas are generally thought to be binding when fill rate > 90%
- China is among the most constrained by this measure as well

| Country | Percent Binding Quotas | Country | Percent Binding Quotas |
|---------|------------------------|---------|------------------------|
| Bangladesh | 81 | Dominican Republic | 29 |
| India | 65 | Malaysia | 23 |
| China | 64 | Singapore | 22 |
| Indonesia | 59 | Costa Rica | 21 |
| Pakistan | 57 | Turkey | 18 |
| Guatemala | 45 | Colombia | 18 |
| Hong Kong | 42 | Mauritius | 14 |
| Macau | 41 | Brazil | 12 |
| UAE | 39 | Romania | 11 |
| Philippines | 37 | Mexico | 9 |
| Sri Lanka | 36 | Egypt | 9 |
| Thailand | 36 | Poland | 8 |
| Cambodia | 32 | Japan | 7 |
| Korea, South | 30 | Jamaica | 2 |
| Taiwan | 30 | Honduras | 0 |

# Quota Growth Rates, By Region

# China Was Relative Constrained under the MFA/ATC

- Previous slides show that
  - A relatively high share of China's imports were covered by quotas
  - A relatively high share of China's quotas were binding
  - China faced relatively low quota growth rates
  - China also faced limited ability to adjust their quotas using flexibilities (e.g., carryover, carryforward, swing, etc.)

- We now examine quantity and price responses to quota removal
  - By phase of quota relaxation
  - Recall: China ineligible for relaxation of phase I and II products until 2001, when it joined the WTO
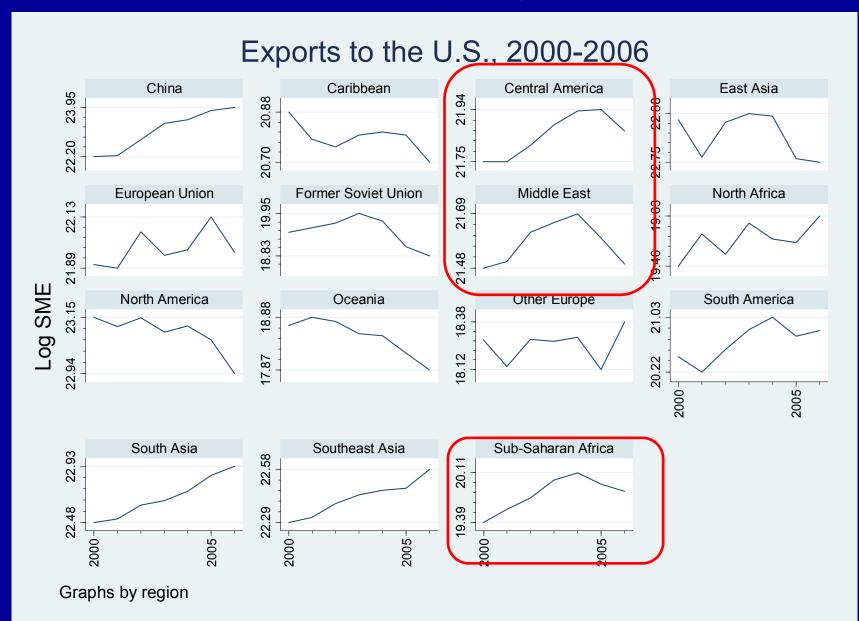
# China's Post-Liberalization Surge

| Region | Phase I | Phase II | Phase III | Phase IV |
|---|---|---|---|---|
| China | 9 | 9 | 306 | 271 |
| Caribbean | 47 | 0 | -12 | -1 |
| Central America | 33 | -10 | 6 | 1 |
| East Asia | -10 | 24 | 57 | -24 |
| European Union | 2 | -3 | 13 | 64 |
| Former Soviet Union | -50 | -21 | -18 | -61 |
| Middle East | -34 | -1 | 15 | -12 |
| North Africa | -46 | 23 | -8 | -4 |
| North America | 13 | 5 | 4 | -14 |
| Oceania | -42 | 48 | -15 | -52 |
| Other Europe | 102 | 12 | 21 | -30 |
| South America | -65 | -51 | 44 | -13 |
| South Asia | 33 | 18 | 5 | 20 |
| Southeast Asia | -47 | 18 | -13 | 0 |
| Sub-Saharan Africa | -53 | 10 | 69 | -16 |
| All Regions | 3 | 3 | 31 | 14 |
| All Regions (ex. China) | 3 | 2 | 9 | -2 |
| China (2002) | 42 | 32 | | |
| All Regions (2002) | 8 | 14 | | |

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# All T&C Exports, by Region 2000-06

## Exports to the U.S., 2000-2006



Graphs by region

# Outcomes: Quantity Growth by Phase

Regress change in quantity on full set of region-year dummies, by phase

$$\Delta \ln q_{crht} = \beta_{1rt} ChinaBound_{h,t-1} + \beta_{2rt} ChinaUnbound_{h,t-1} + \nu_{crht}$$

- c: country, r: region, h: HS code, t: time
- I.e., in 2005, report average change in quantities in China's bound and unbound products for each region

- Two rows for China: the change in the phase year and the change in 2002, the year it joined the WTO

# Outcomes: Quantity Response Quota Binding-ness

| Coefficients | Phase I Δ Ln (SME) Unbound | Phase I Δ Ln (SME) Bound | Phase II Δ Ln (SME) Unbound | Phase II Δ Ln (SME) Bound | Phase III Δ Ln (SME) Unbound | Phase III Δ Ln (SME) Bound | Phase IV Δ Ln (SME) Unbound | Phase IV Δ Ln (SME) Bound |
|---|---|---|---|---|---|---|---|---|
| Integration Year (2002 for Phase I-III) | | | | | | | | |
| x China | 0.41 *** | | 0.93 *** | 2.26 *** | 1.36 *** | 1.81 *** | 1.28 *** | 1.73 *** |
| x Caribbean | 0.21 | | -0.16 | -0.17 | -0.38 | -0.25 * | -0.36 *** | -0.30 *** |
| x Central America | -0.26 * | | -0.13 | -0.05 | 0.30 * | 0.10 | -0.19 | -0.26 *** |
| x East Asia | 0.16 | | 0.17 ** | -0.68 *** | 0.09 | 0.00 | -0.22 *** | -0.58 *** |
| x European Union | 0.01 | | -0.02 | -0.12 | -0.01 | 0.05 | -0.15 *** | -0.20 *** |
| x Former Soviet Union | 0.09 | | 0.28 | -0.07 | -0.49 *** | -0.22 | -0.92 *** | -1.14 ** |
| x Middle East | -0.07 | | 0.08 | 0.11 | 0.11 | -0.22 | -0.32 *** | -0.42 *** |
| x North Africa | 0.35 | | 0.33 *** | 0.31 | -0.17 *** | -0.25 | 0.01 | -0.09 |
| x North America | 0.01 | | 0.05 | -0.19 | -0.11 *** | -0.07 *** | -0.29 ** | -0.20 ** |
| x Oceania | -0.26 ** | | -0.17 *** | -0.55 *** | -0.13 | 0.03 | -0.19 *** | -0.26 *** |
| x Other Europe | 0.06 | | -0.12 *** | 1.72 ** | -0.11 | 0.14 | -0.02 | -0.04 |
| x South America | -0.15 | | 0.03 | 0.33 * | 0.21 | 0.29 | -0.14 | -0.11 |
| x South Asia | 0.31 *** | | 0.36 *** | -0.07 | 0.22 * | 0.34 | 0.09 | -0.08 |
| x Southeast Asia | 0.34 | | 0.23 | 0.20 | 0.26 | 0.06 | -0.04 | -0.11 |
| x Sub-Saharan Africa | -0.10 | | 0.02 | 0.16 ** | 0.38 * | -0.26 | -0.31 ** | -0.50 *** |
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# "Winners and Losers"

| | | | |
|---|---|---|---|
| **Kuwait (-2.89)** | **Taiwan (-0.55)** | UAE (-0.26) | Mozambique (0.05) |
| **Russia (-2.81)** | **Swaziland (-0.54)** | Ukraine (-0.25) | Malawi (0.05) |
| **Maldives (-2.35)** | **Sweden (-0.52)** | **El Salvador (-0.23)** | Slovakia (0.06) |
| **Micronesia (-2.14)** | **Ghana (-0.51)** | **Guatemala (-0.23)** | Trinidad and Tobago (0.09) |
| Georgia (-1.99) | Mali (-0.48) | **Gambia (-0.23)** | Iceland (0.09) |
| **Guinea (-1.85)** | Bahrain (-0.48) | **Turkey (-0.23)** | Vietnam (0.09) |
| **Oman (-1.82)** | Mauritius (-0.47) | Czech Republic (-0.21) | Chile (0.11) |
| Suriname (-1.38) | **Slovenia (-0.46)** | Lebanon (-0.21) | Germany (0.12) |
| **Cyprus (-1.35)** | **Poland (-0.45)** | Nicaragua (-0.21) | Cambodia (0.12) |
| **Albania (-1.25)** | **Venezuela (-0.45)** | Colombia (-0.20) | Indonesia (0.13) |
| **Kyrgyzstan (-1.24)** | **Argentina (-0.45)** | Ecuador (-0.18) | Bangladesh (0.15) |
| Kazakhstan (-1.21) | **Hungary (-0.44)** | Brunei (-0.17) | Switzerland (0.16) |
| Azerbaijan (-1.13) | **Barbados (-0.40)** | Australia (-0.15) | Armenia (0.16) |
| Tajikistan (-1.09) | **Belarus (-0.39)** | Brazil (-0.15) | Uzbekistan (0.18) |
| **Macedonia (Skopje) (-1.00)** | **Malaysia (-0.39)** | Belgium (-0.15) | Cook Islands (0.18) |
| **South Africa (-0.98)** | **Honduras (-0.37)** | Ireland (-0.14) | Bolivia (0.22) |
| **Ivory Coast (-0.91)** | Costa Rica (-0.36) | United Kingdom (-0.14) | Jordan (0.24) |
| Ethiopia (-0.91) | **Romania (-0.35)** | **Italy (-0.13)** | **Peru (0.24)** |
| **Syria (-0.90)** | **Finland (-0.35)** | Spain (-0.13) | Panama (0.25) |
| **Moldova (-0.87)** | Greece (-0.35) | Japan (-0.12) | Botswana (0.26) |
| **Korea, South (-0.85)** | Guyana (-0.34) | Namibia (-0.11) | **Uganda (0.30)** |
| **Mongolia (-0.84)** | **Dominican Republic (-0.34)** | Uruguay (-0.10) | Saudi Arabia (0.32) |
| **Nepal (-0.77)** | Haiti (-0.34) | Portugal (-0.10) | **Nigeria (0.48)** |
| **Israel (-0.72)** | Fiji (-0.33) | Croatia (-0.10) | Qatar (0.51) |
| **Singapore (-0.69)** | Latvia (-0.32) | Estonia (-0.07) | Bosnia-Hercegovina (0.63) |
| Zambia (-0.69) | **Sri Lanka (-0.31)** | Mexico (-0.07) | **Senegal (0.67)** |
| Bermuda (-0.69) | **Canada (-0.31)** | Paraguay (-0.04) | British Virgin Islands (0.69) |
| Sierra Leone (-0.68) | **Austria (-0.31)** | Turkmenistan (-0.04) | **San Marino (0.75)** |
| Jamaica (-0.65) | New Zealand (-0.31) | Kenya (-0.02) | **Malta (0.90)** |
| **Cape Verde (-0.62)** | **Zimbabwe (-0.30)** | Morocco (-0.02) | **Bahamas (1.35)** |
| **Hong Kong (-0.62)** | **France (-0.30)** | Tanzania (0.01) | Netherlands Antilles (1.60) |
| Belize (-0.61) | Egypt (-0.29) | Lithuania (0.02) | **Laos (1.88)** |
| **Denmark (-0.59)** | Norway (-0.28) | Tunisia (0.02) | Somalia (1.94) |
| **Madagascar (-0.57)** | **Philippines (-0.28)** | Pakistan (0.02) | Tokelau (2.05) |
| **Lesotho (-0.57)** | Bulgaria (-0.27) | India (0.03) | Mauritania (3.43) |
| **Macao (-0.55)** | **Thailand (-0.26)** | Netherlands (0.05) | |

Negative for 108 countries

Negative/Sig for 54 countries

Positive/Sig for 8 countries

# China's Unit Value Response

| | Phase I Δ Ln (Price) | | Phase II Δ Ln (Price) | | Phase III Δ Ln (Price) | | Phase IV Δ Ln (Price) | |
|---|---|---|---|---|---|---|---|---|
| Coefficients | Unbound | Bound | Unbound | Bound | Unbound | Bound | Unbound | Bound |
| Integration Year | | | | | | | | |
| x China | -0.14 * | | -0.38 *** | -0.81 *** | -0.54 *** | -0.66 *** | -0.37 *** | -0.53 *** |
| Observations | 41,100 | | 88,818 | | 97,482 | | 431,069 | |

# China's Quality

Did quota removal lead to quality downgrading?

- Demand driven hypothesis: shift consumption to higher quality goods
  - Harrigan & Barrows (2007) find that US consumers shifted toward cheaper imports in 2005
  - Calculate that China's quality fell 7%

- Supply driven hypothesis: producers upgrade product characteristics
  - Estimate quality using method from Khandelwal (2007)
    - Intuition: conditional on price, good with higher market share has higher quality
  - Evidence of relative quality downgrading in China's bound products in Phase III and IV

# Conclusions

China was relatively constrained under the MFA/ATC regime
- High share of imports covered by quotas
- High share of binding quotas
- Limited flexibility for adjusting quotas

When quotas were removed, China's T&C exports to the U.S. grew disproportionately
- Nearly all countries experienced export declines in Phase IV products in 2005
- New safeguards in place through 2008
  - Other mechanism exist to constrain China's exports through 2013 (Walley and Dayaratna-Banda, 2007)
- What about Vietnam, Cambodia and Bangladesh?

# Thank You!