The Fiber-Textile-Apparel Value Chain:

Mexico and China Compared

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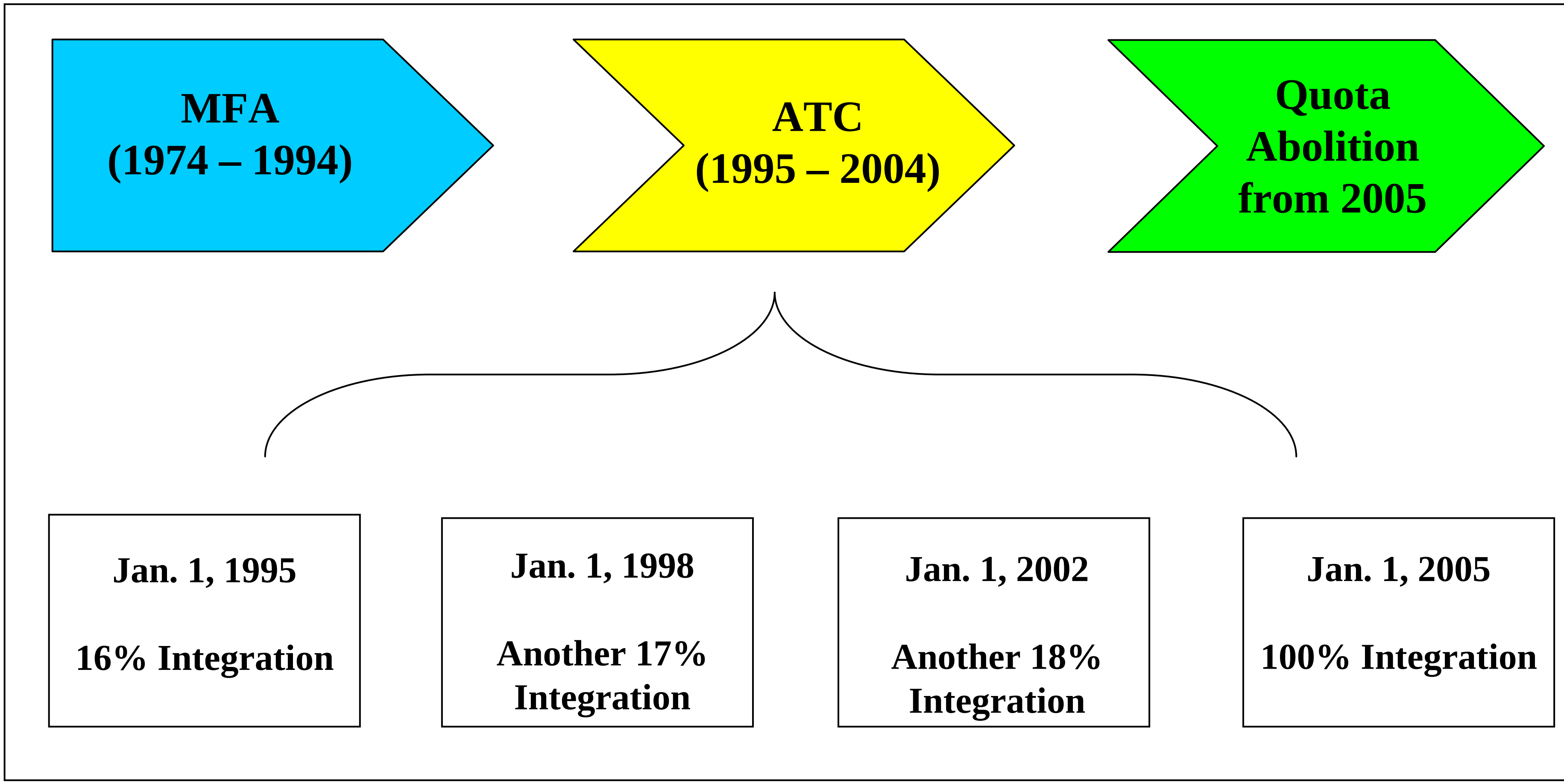
Apparel Chains in Mexico & China

- Consequences of 2005 phase-out of apparel quotas
- Old and new models of global sourcing in the apparel value chain
- Industrial upgrading: Mexico vs. China
- Head-to-head competition in U.S. market
- How can Mexico compete with China?

2005 Phase Out of Quotas and the Consolidation of the Apparel Value Chain

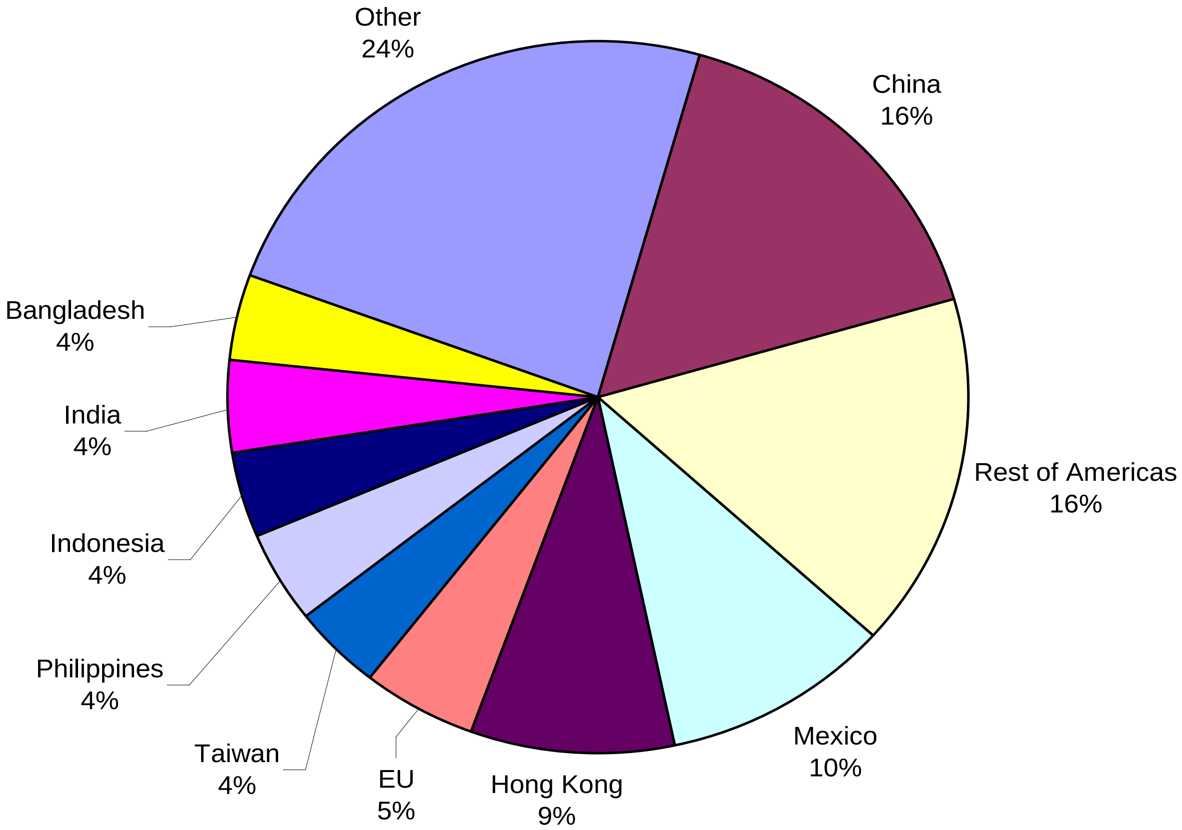
In 2005, Multi-Fiber Agreement Ends



Source: World Trade Organization.

Figure 1

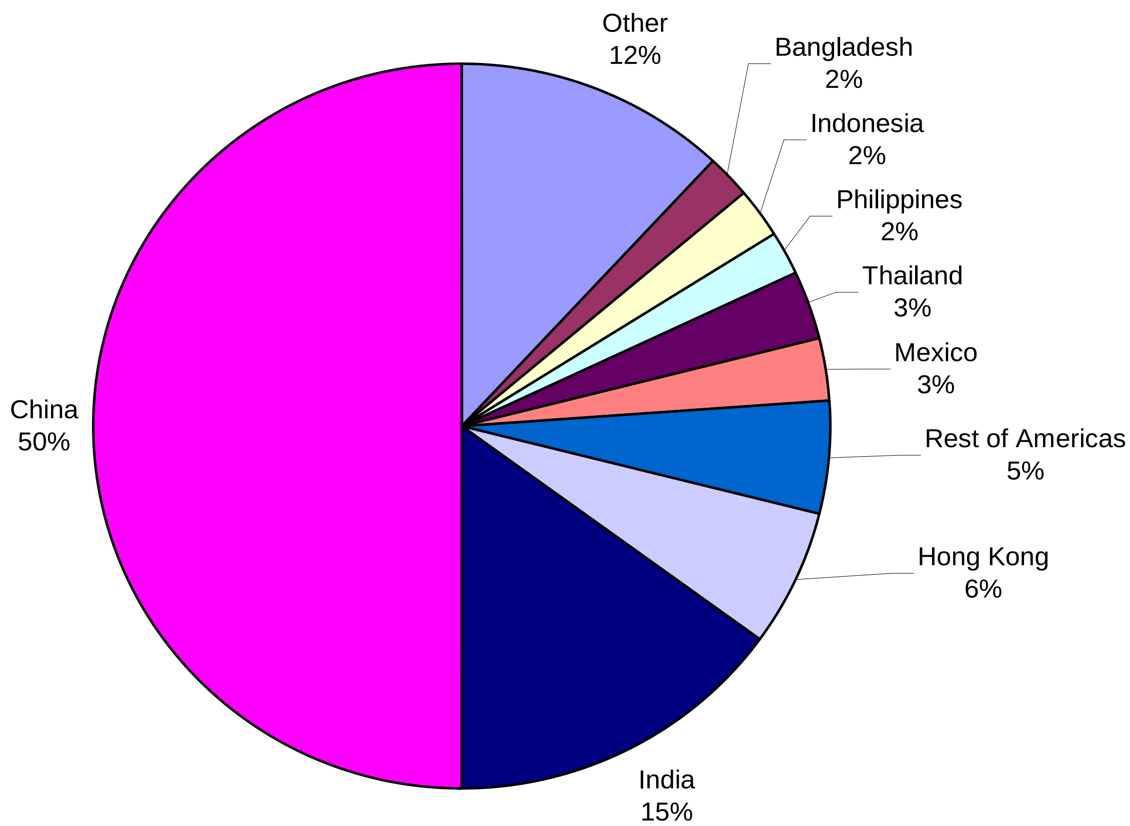
Major clothing exporters' share of the US market 2004



Source: *Financial Times*, July 19, 2004, p. 11.

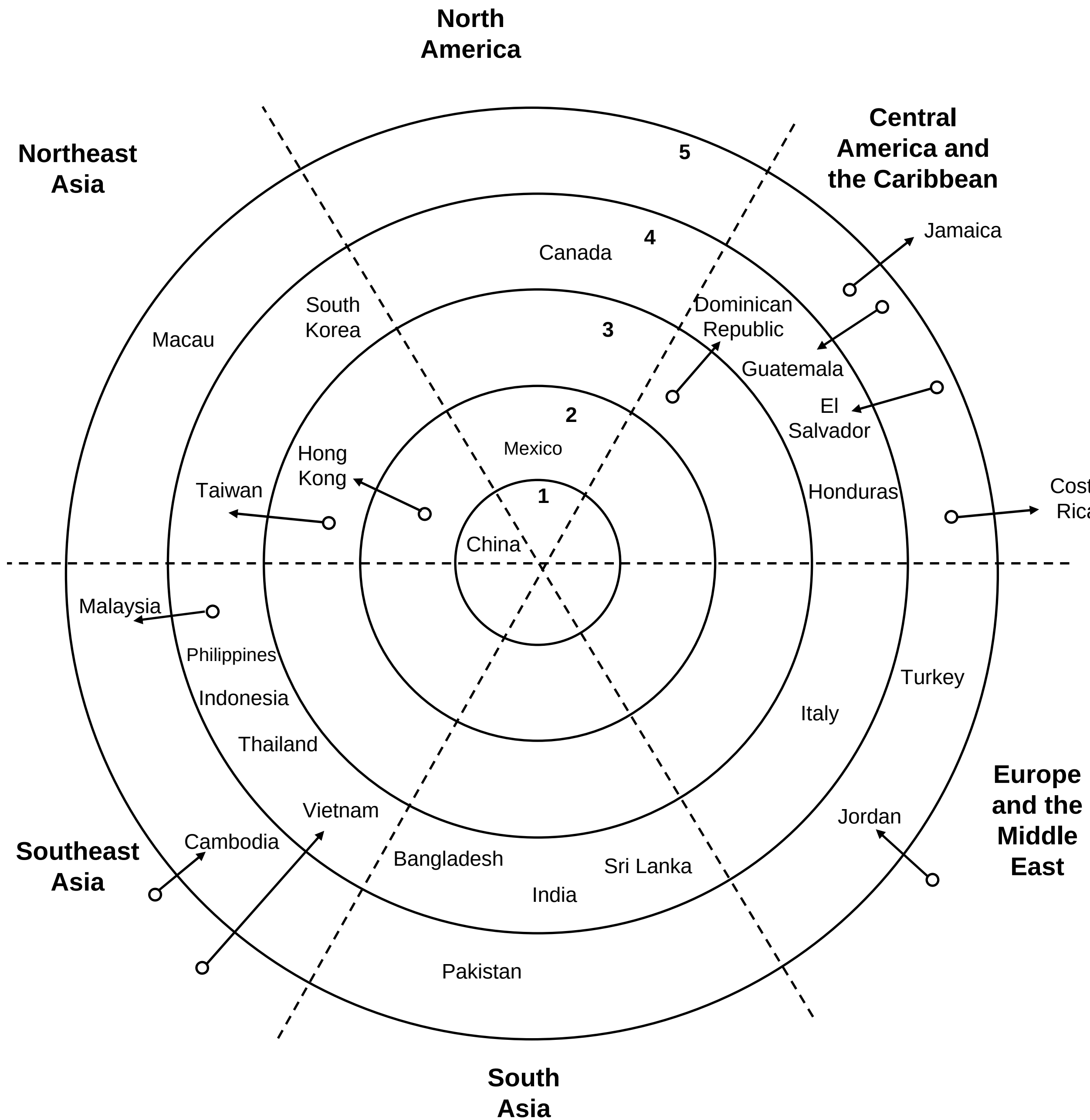
Figure 2

How U.S. market shares may rank after elimination of MFA quotas



Source: *Financial Times*, July 19, 2004, p. 11.

Figure 3: Shifts in the Regional Structure of US Apparel Imports from 1996 to 2004[1]



[1]The 2004 position corresponds to the ring where the country's name is located; the 1996 position, if different, is indicated by a small circle. The arrows represent the magnitude and direction of change over time.

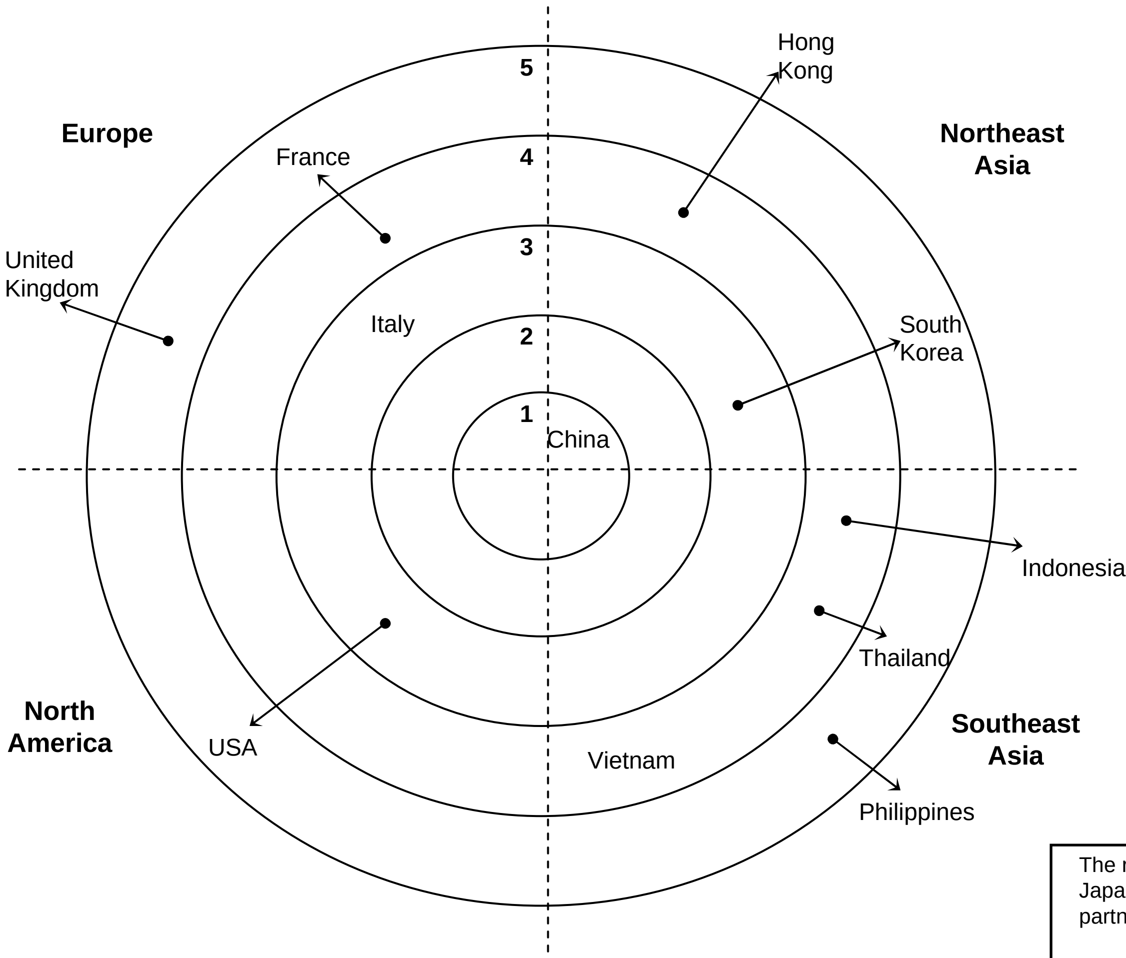
Source: Compiled from official statistics of the U.S. Department of Commerce, U.S. imports for consumption, customs value.

The rings indicate the share of total U.S. imports in U.S. dollars by partner country:

1. 10% +
2. 6.0% - 9.9%
3. 4.0% - 5.9%
4. 2.0% - 3.9%
5. 1.0% - 1.9%

Total value of U.S. clothing imports was $41.6 billion in 1996 and $72.3 billion in 2004.

Figure 4: Shifts in the Regional Structure of Japanese Apparel Imports from 1996 to 2004[1]



The rings indicate the share of total Japanese imports in U.S. dollars by partner country:

1. 25% +
2. 10.0% - 24.9%
3. 4.0% - 9.9%
4. 2.0% - 3.9%
5. 1.0% - 1.9%

Total value of Japanese clothing imports was $19.7 billion in 1996 and $21.7 billion in 2004.

[1]The 2004 position corresponds to the ring where the country's name is located; the 1996 position, if different, is indicated by a small circle. The arrows represent the magnitude and direction of change over time.

N.B.: **From 1996 to 2004, China's import share of the Japanese apparel market grew from 59.4% to 80.9%.**

Source: UN Comtrade, SITC 84 ("Articles of apparel and clothing accessories").

Table 1

Top 7 Apparel Exporters to the United States, 2000-2005

	2000		2001		2002		2003		2004		2005	
	Export Value (US$ bill)	% of Total	Export Value (US$ bill)	% of Total	Export Value (US$ bill)	% of Total	Export Value (US$ bill)	% of Total	Export Value (US$ bill)	% of Total	Export Value (US$ bill)	% of Total
China	8.5	13.2%	8.9	13.9%	9.6	15.0%	11.4	16.7%	13.6	18.8%	19.9	26.1%
Mexico	8.7	13.6%	8.1	12.7%	7.7	12.1%	7.2	10.6%	6.9	9.6%	6.3	8.3%
Hong Kong	4.6	7.1%	4.3	6.7%	4.0	6.2%	3.8	5.6%	3.9	5.4%	3.6	4.7%
India	2.0	3.1%	1.9	3.0%	2.1	3.2%	2.2	3.2%	2.4	3.3%	3.1	4.1%
Indonesia	2.2	3.4%	2.4	3.7%	2.2	3.4%	2.2	3.3%	2.5	3.4%	3.0	3.9%
Vietnam	0.05	0.1%	0.05	0.1%	0.9	1.4%	2.4	3.5%	2.6	3.6%	2.7	3.6%
Honduras	2.4	3.8%	2.4	3.8%	2.5	3.9%	2.6	3.8%	2.7	3.8%	2.7	3.5%
Total	64.3		63.9		63.8		68.2		72.3		76.4	

MAJOR TRENDS IN THE POST-QUOTA WORLD

China will benefit most from the end of MFA quotas

Consolidation is likely to accelerate

- More mega-factories will emerge post-2005
- Retailers will cut down on the number of sourcing countries

Remaining factories will have to provide higher level services (logistics, customs clearance, and product design)

Time to market considerations will allow regional producers to maintain a role in apparel sourcing

Pressures for “ethical sourcing,” corporate codes of conduct, independent monitoring and labor standards will grow

Four Models of Global Sourcing in the Apparel Value Chain

4 Models of Apparel Sourcing

1. **East Asian NIEs Model (under MFA quotas)**

   National exporters in Hong Kong, Taiwan, and S. Korea offer full-package apparel to U.S. buyers, using "triangle manufacturing" networks in low-cost countries

2. **Mexican Model (post-NAFTA in 1994)**

   NAFTA's rules of origin create an incentive for shift from assembly (*maquila*) to full-package production in Mexico, although U.S. firms coordinate the entire process.

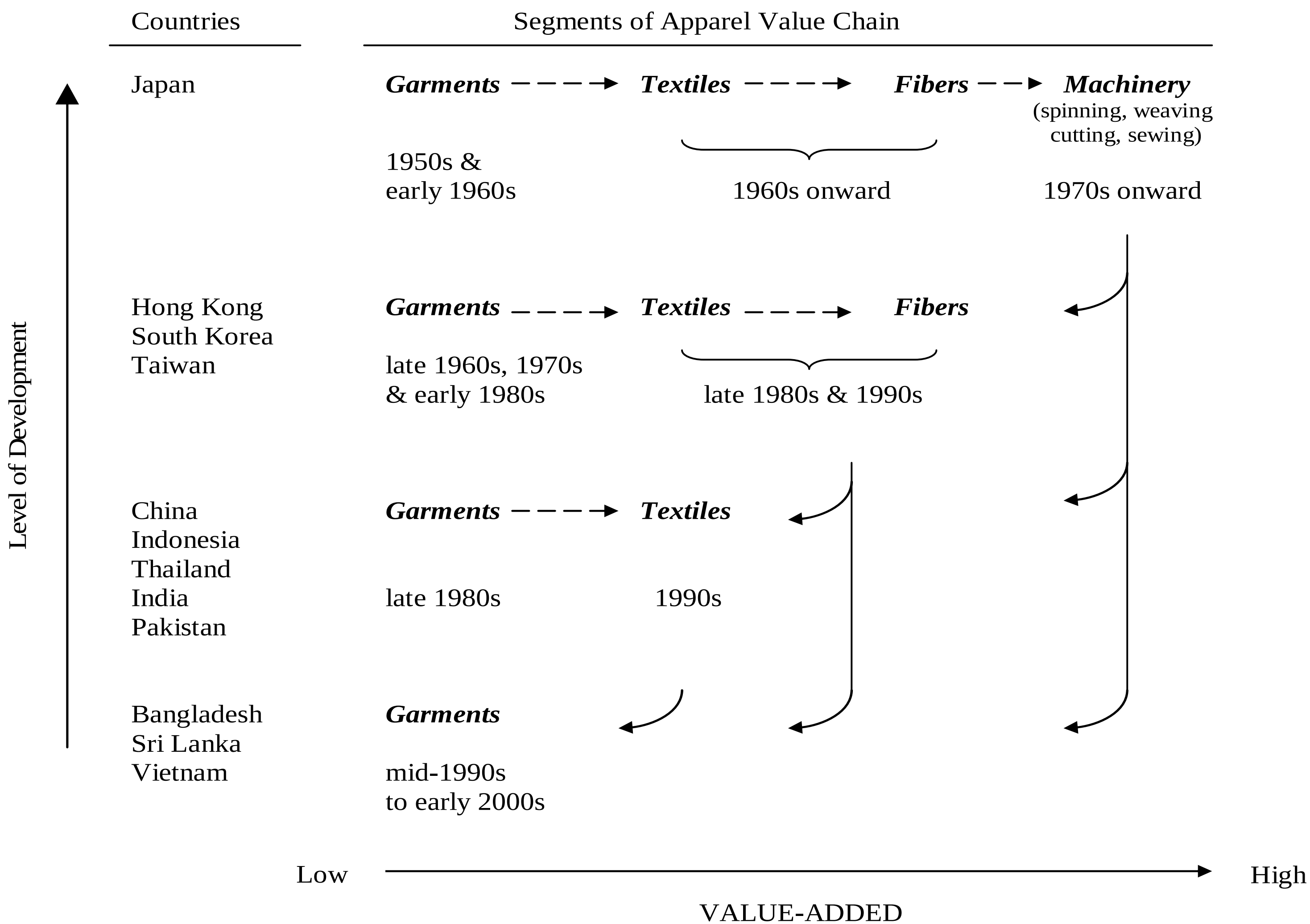
3. **Caribbean Basin Model (CAFTA)**

   Traditional production sharing prevails based on low wages, an EPZ format, preferential U.S. access through CAFTA, and limited use of Asian textile inputs

4. **China Model (post-2000)**

   Use supply-chain cities to exploit economies of scale and scope in exports, and upgrade local suppliers to develop their own brands, designs, and higher quality garments.

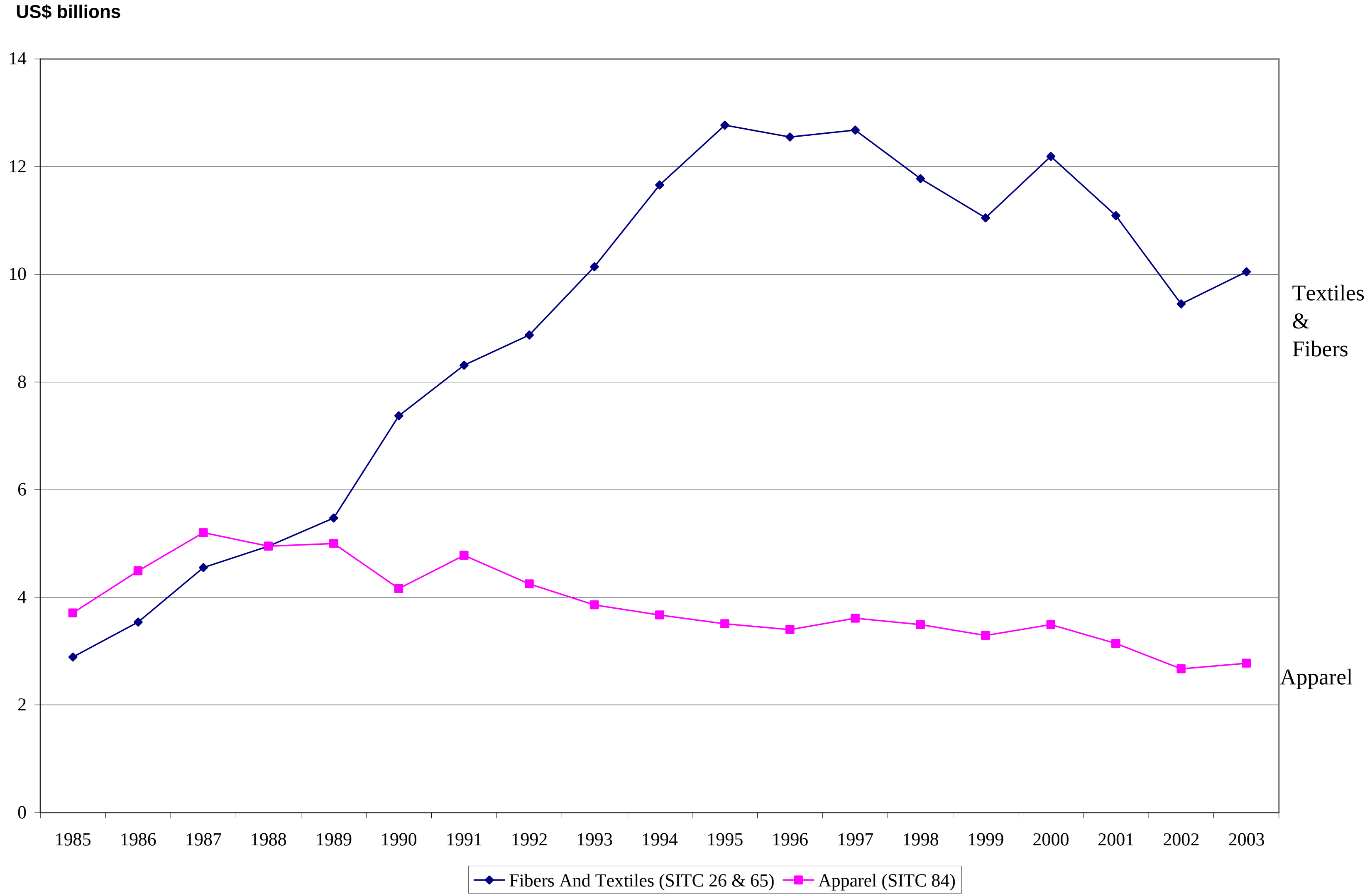
Figure 5: Industrial upgrading in the Asian Apparel Value Chain



Notes: *Dotted arrows* refer to the sequence of production and export capabilities within economies. *Solid arrows* refer to the direction of trade flows between economies. *Dates* refer to a country's peak years for exports of specific products.

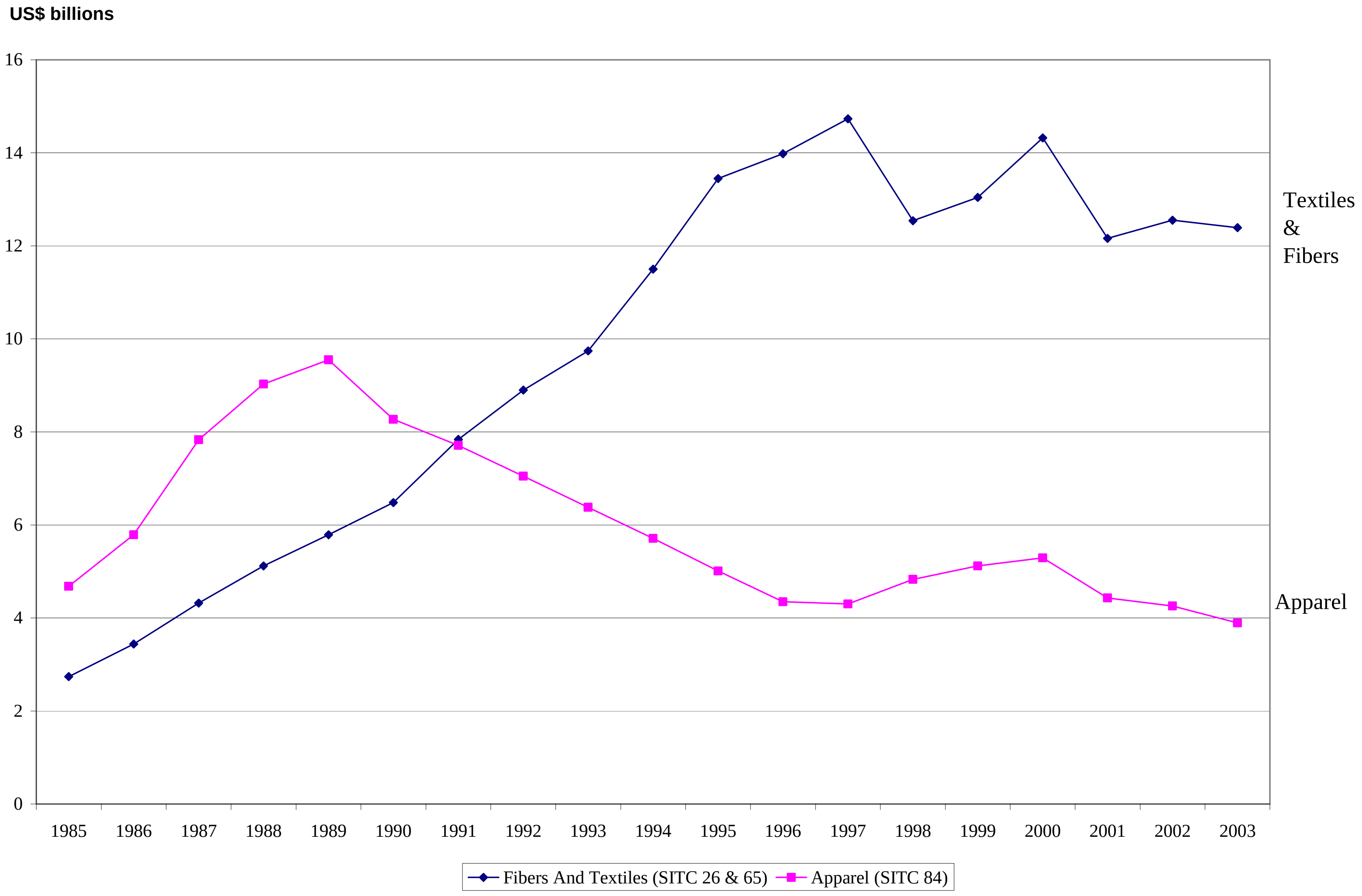
Source: Gary Gereffi, "The global economy: Organization, governance, and development," in Neil J. Smelser and Richard Swedberg, *The Handbook of Economic Sociology*, 2nd ed (Princeton University Press, 2005), p. 172.

Figure 6: Taiwan: Apparel vs. Fiber and Textile Exports, 1985-2003



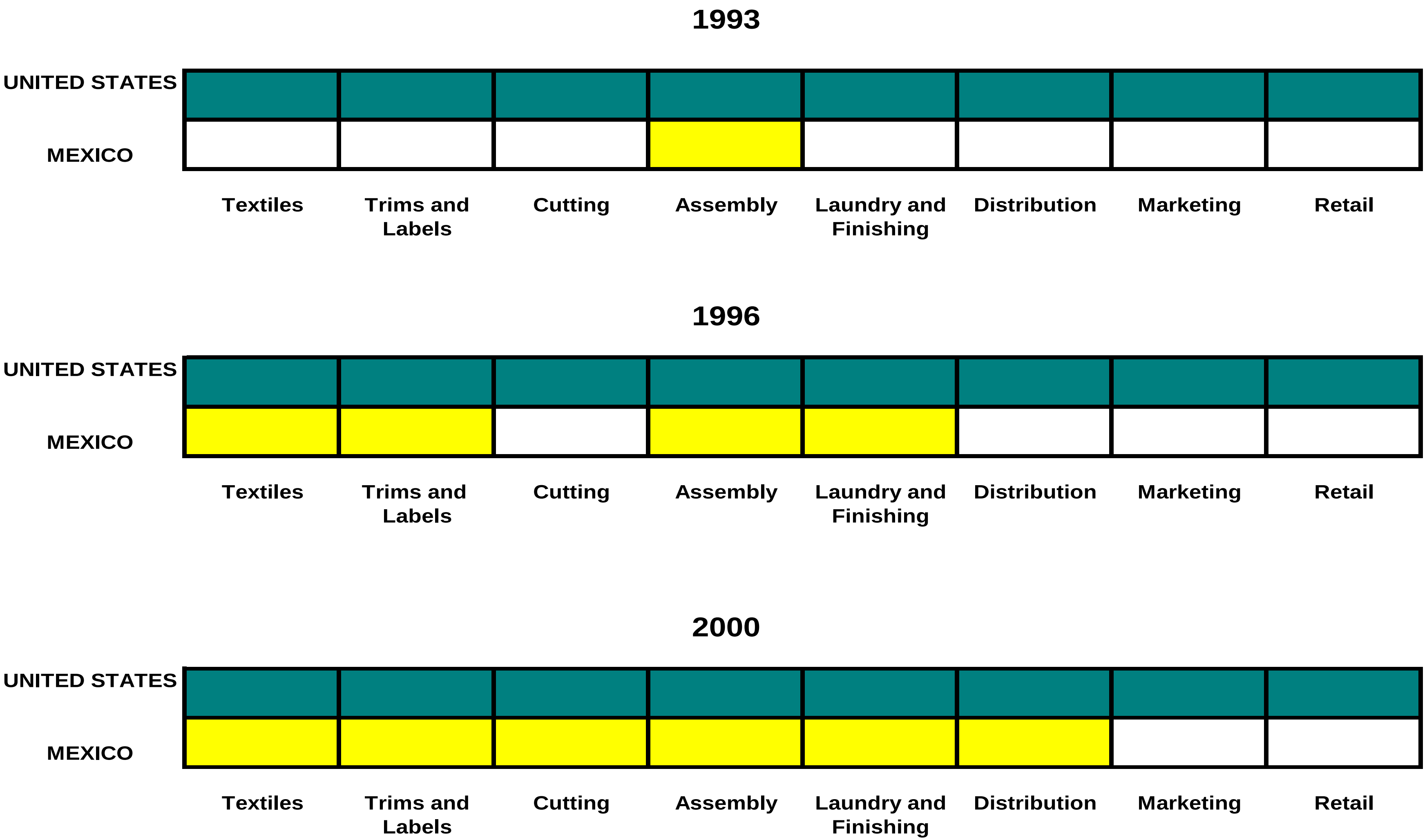
Source: World Trade Analyzer, based on United Nations data for SITC 84 (“Articles of apparel and clothing accessories”).

Figure 7: South Korea: Apparel vs. Fiber and Textile Exports, 1985-2003



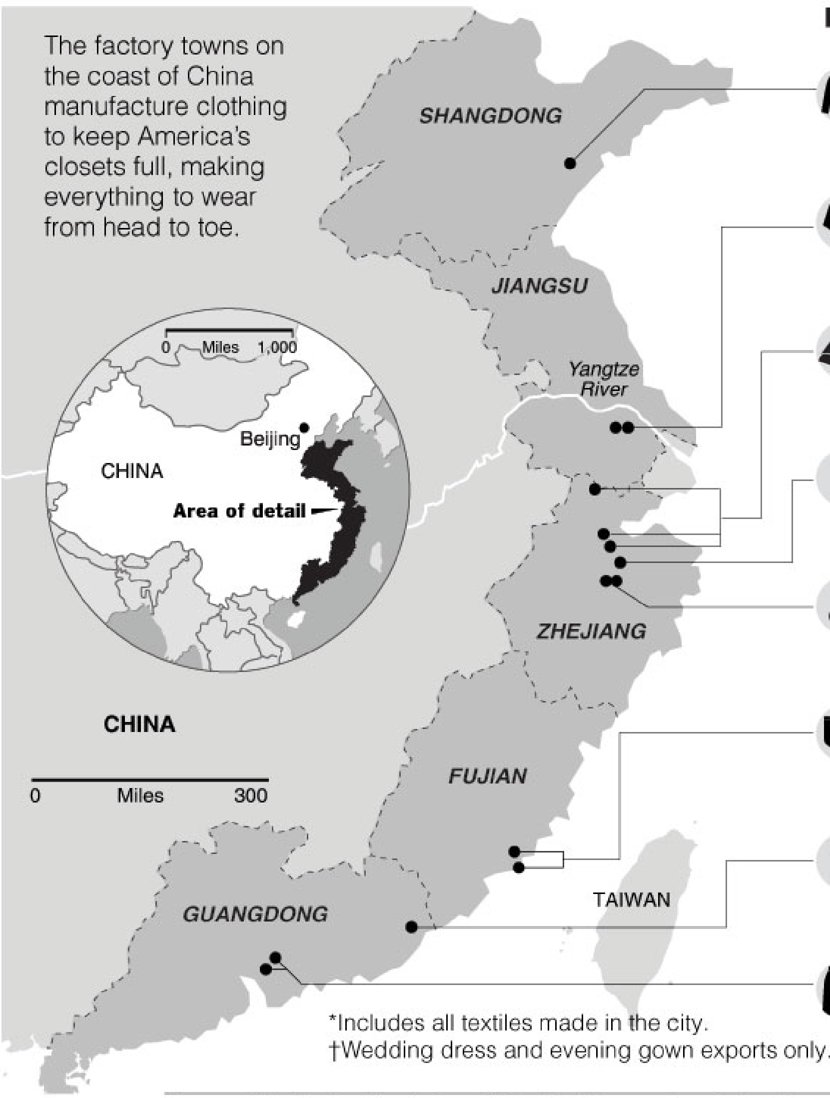
Source: World Trade Analyzer, based on United Nations data for SITC 84 ("Articles of apparel and clothing accessories").

Apparel Commodity Chain: US and Mexico



China’s Supply Chain Cities in Apparel

Made in China, Shipped Worldwide



Factory orders, 2003

	PRODUCTION	TOTAL SALES	U.S. EXPORTS
MEN’S WEAR *Zhucheng*	100 MILLION PIECES	$600 MILLION	$100 MILLION
CASUAL WEAR *Haiyu, Changshu*	160 MILLION PIECES	$260 MILLION	$ 58 MILLION
DOWN-FILLED PRODUCTS *Xintang, Hangzhou, Xiaoshan*	26 MILLION PIECES	$470 MILLION	$290 MILLION
TIES *Shengzhou*	300 MILLION PIECES	$1.21 BILLION	$384 MILLION
SOCKS *Datang, Zhuji*	9 billion PAIRS	$1.57 BILLION	$240 MILLION
UNDERWEAR *Jinjiang, Shenhu*	969 million PIECES	$360 MILLION	$290 MILLION
WEDDING DRESSES, EVENING GOWNS *Chaozhou*	510 million PIECES	$950 MILLION*	$640 MILLION†
JEANS *Xintang, Zengcheng*	225 million PIECES	$1.04 BILLION	$480 MILLION

*Includes all textiles made in the city.
†Wedding dress and evening gown exports only.

Sources: China National Textile Council; Shenhu Underwear Association; Datang Town Government

The New York Times

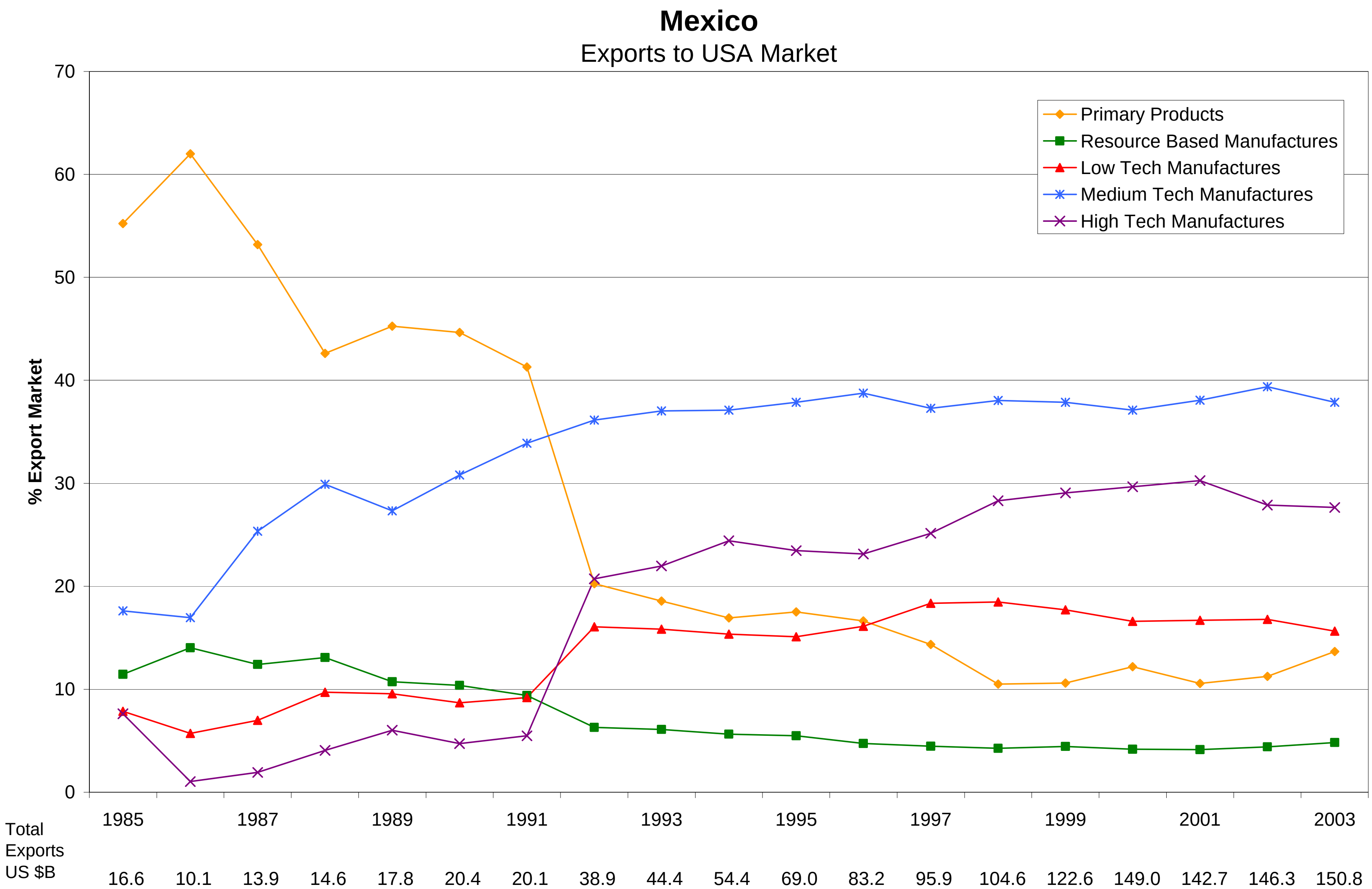
Source: David Barboza, “In roaring China, sweaters are west of socks city,” *New York Times*, Dec. 24, 2004.

Comparing Industrial Upgrading Trajectories for Mexico and China

Mexico’s Industrialization since 1985

- Export oriented (mainly to U.S. market)
- Highly diversified
- Shifting emphasis from primary product exports & intermediate goods to manufactures
- Within manufacturing, medium-tech and high-tech exports are displacing low-tech exports

Graph 1: Composition of Mexico's Exports to the U.S. Market, 1985-2003

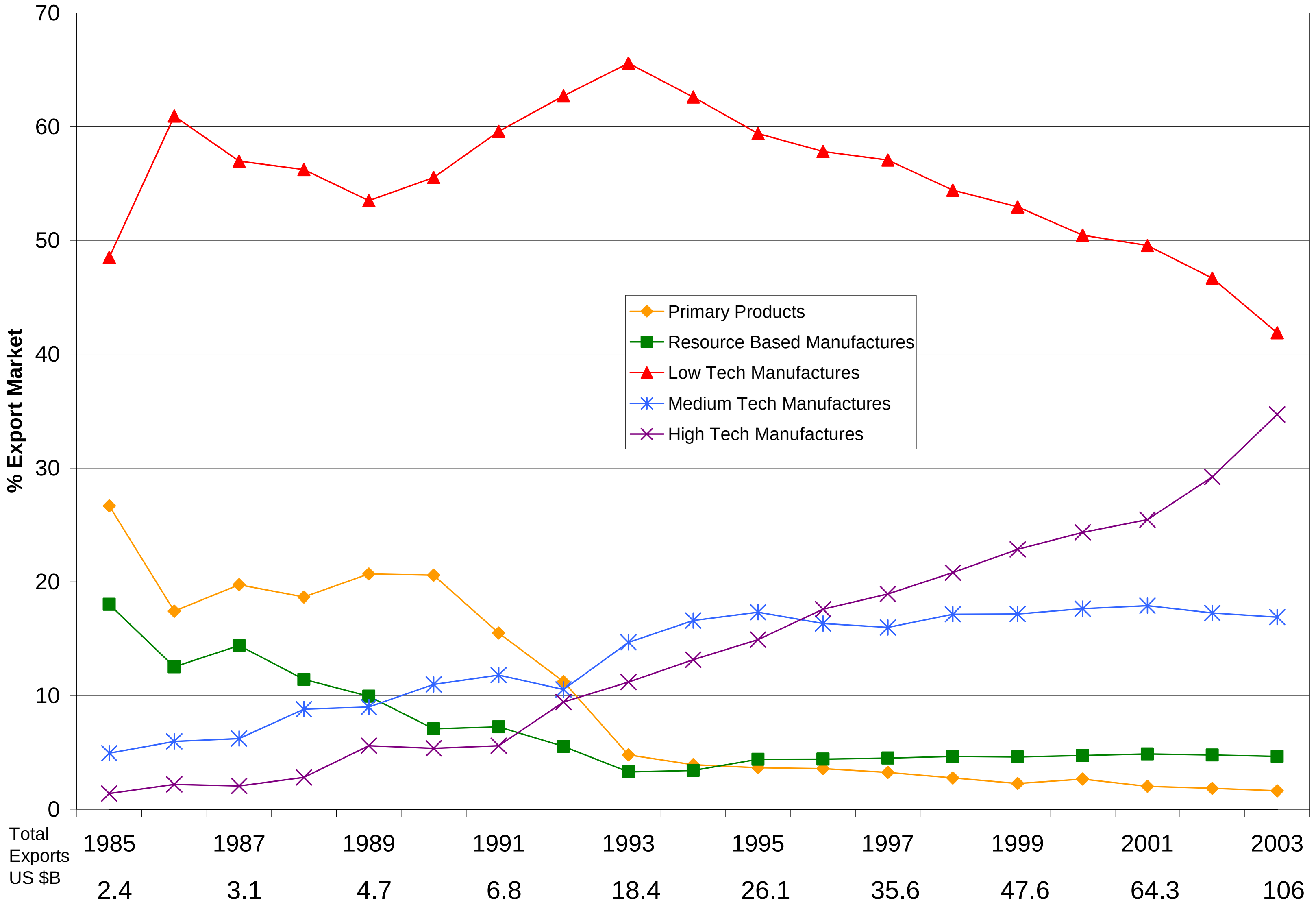


Source: World Trade Analyzer.

China’s Industrialization since 1995

- Sustained & diversified export dynamism
- Decline of low-tech manufactured exports
- Increase in medium-tech and high technology manufactured exports
- China’s science & education policy emphasizes high-tech parks & ICTs
- Business services weak outside of big firms

Graph 2: Composition of China's Exports to the U.S. Market, 1985-2003



Source: World Trade Analyzer.

Mexico vs. China

- Head-to-head competition in U.S. market
- China is world's leading exporter of many manufactures, esp. consumer goods
- China and Mexico are typically among the top three exporters to the U.S. market in many product categories
- China is moving ahead of Mexico with dominant market shares in the United States, especially in 2000-2004 period

Table 2. Top 50 US Imports in which Mexico and/or China hold 20% or more of the US market, 2004

Mexico			China		
Product (SITC categories)	% Market Share in USA	Change in Market Share 2000-2004	Product (SITC categories)	% Market Share in USA	Change in Market Share 2000-2004
773- Equipment for distributing electricity	58.8	-2.0	894- Baby carriages, toys, games and sporting goods	78.2	13.6
761- Television receivers	46.2	-17.3	851- Footwear	68.8	6.9
782- Motor vehicles for transport of goods/materials	40.4	8.8	848- Apparel and clothing of other than textile	53.0	44.8
716- Rotating electric plant and parts	32.9	0.0	763- Sound or television recorders or reproducers	49.8	22.3
772- Electronic app. such as switches, relays, fuses	29.2	4.7	775- Household type equipment	46.0	8.8
762- Radio broadcast receivers	25.3	-0.2	752- Automatic data processing machines & units	41.0	29.7
778- Electrical machinery and apparatus	21.2	2.8	762- Radio broadcast receivers	40.3	4.9
713- Internal combustion piston engines & parts	21.1	4.1	821- Furtniture and parts thereof	39.3	15.7
771- Electric power machinery and parts	20.9	-4.0	658- Made-up articles of textile materials	39.0	14.8
872- Instruments and appliances for medical or veterinary purposes	20.5	0.3	893- Articles of plastics	36.1	5.2
			899- Miscellaneous Manufactured Articles	32.8	-10.0
			771- Electric power machinery and parts	31.1	9.3
			759- Parts and accessories of automatic data processing machines	31.1	19.6
			699- Manufactures of metal	24.2	10.5
			764- Telecommunications equipments & parts	23.9	13.6
			898- Musical instruments and parts	22.0	13.5
			842- Women's apparel of woven textiles	21.4	5.6
			778- Electrical machinery and apparatus	21.1	9.2

Source: United States International Trade Commission and US Department of Commerce

Table 3. Mexico's and China's Competing Exports to the United States, 2000-2005

			2000		2005		Change in Market Share 2000-2005
SITC category	**Product**		**Value (billions)**	**Share of US market**	**Value (billions)**	**Share of US market**	
752	Automatic Data Processing Machines and Units	Mexico	6.4	11.5	5.7	8.9	-2.6
		China	6.3	11.3	29.9	47.1	35.8
		US Total	55.9		63.5		
764	Telecommunications Equipments and Parts	Mexico	9.1	20.6	7.7	12.7	-7.9
		China	4.6	10.3	17.5	28.9	18.6
		US Total	44.3		60.6		
778	Electrical Machinery and Apparatus	Mexico	3.1	18.3	4.4	21.8	3.5
		China	2.0	11.9	4.4	22.1	10.2
		US Total	17.1		20.0		
784	Auto Parts and Accessories	Mexico	4.6	16.3	7.9	18.6	2.3
		China	0.4	1.5	2.0	4.7	3.2
		US Total	28.4		42.3		
821	Furniture	Mexico	3.2	16.9	4.3	7.1	-9.8
		China	4.5	23.6	13.2	21.7	-1.9
		US Total	18.9		60.6		
84	Articles of Apparel and Clothing	Mexico	8.7	13.6	6.3	8.3	-5.3
		China	8.5	13.2	19.9	26.1	12.9
		US Total	64.3		76.4		

Source: USITC as of March 3, 2006: http://dataweb.usitc.gov/

Main Competitors in the US Market for Articles of Apparel and Clothing (SITC 84)

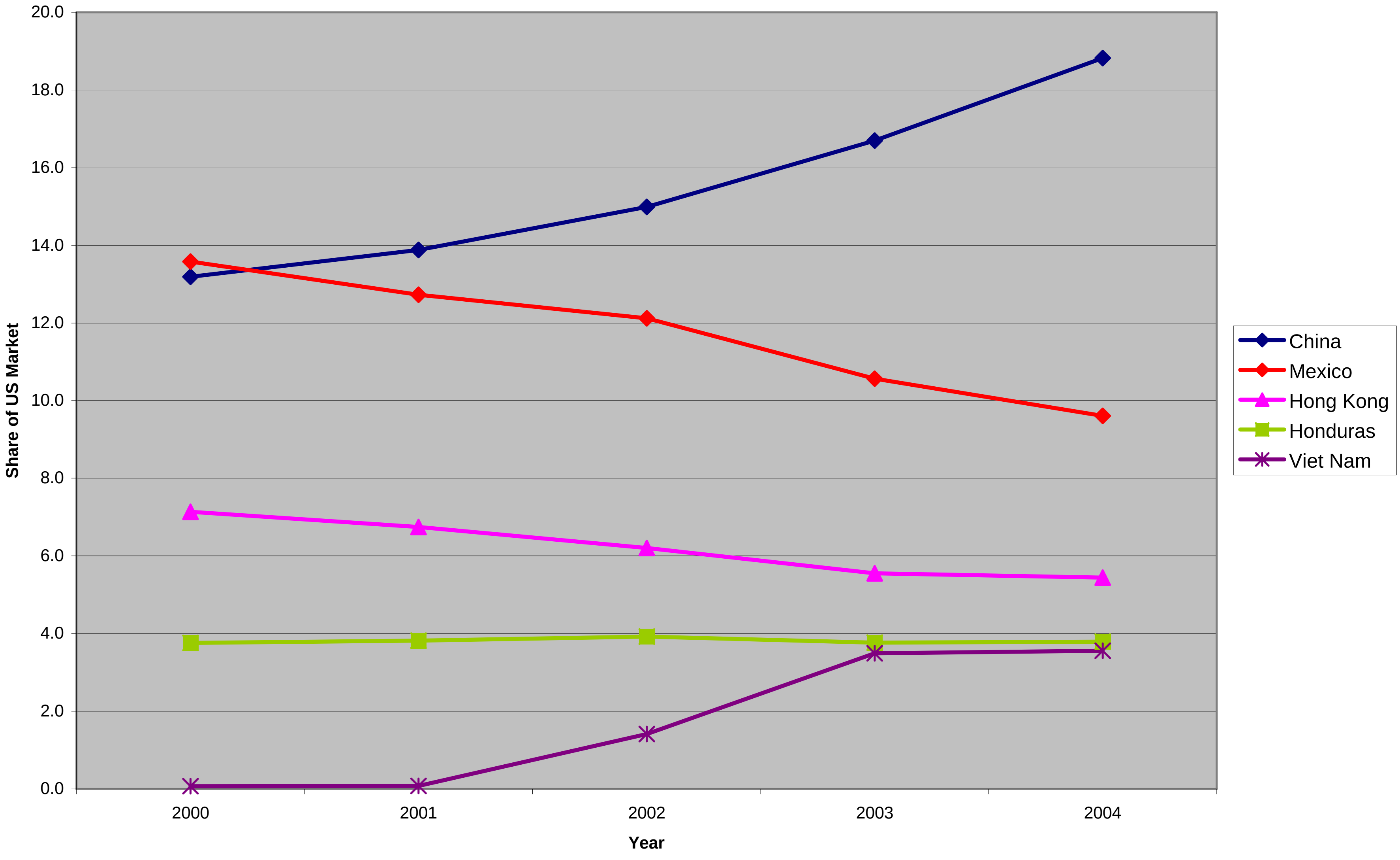


Table 4. Mexico's and China's Competing Apparel Exports to the United States, 2000-2005

SITC category	Product		2000 Value (billions)	2000 Share of US market	2005 Value (billions)	2005 Share of US market	Change in Market Share 2000-2005
84	Articles of Apparel and Clothing	Mexico	8.7	13.5	6.3	8.3	-5.3
		China	8.5	13.2	19.9	26.1	12.9
		US Total	64.3		76.3		
841	Mens/Boys Outerwear; Not Knit	Mexico	2.3	17.3	2.1	15.3	-2.0
		China	1.0	7.5	2.2	16.1	8.5
		US Total	13.3		13.7		
842	Womens/Girl Outerwear; Not Knit	Mexico	2.0	13.6	1.2	6.6	-7.0
		China	2.3	15.6	5.8	31.9	16.2
		US Total	14.7		18.2		
844	Womens/Girl Outerwear; Knitted	Mexico	0.7	14.3	0.4	6.2	-8.1
		China	0.2	4.1	1.2	18.5	14.4
		US Total	4.9		6.5		
845	Articles of Apparel of Textile Fabric	Mexico	2.9	13.9	2.1	8.4	-5.6
		China	2.3	11.1	6.1	24.3	13.2
		US Total	20.8		25.1		
848	Apparel and Accessories, Except Textile	Mexico	0.1	2.0	0.1	1.6	-0.4
		China	2.3	45.1	3.1	55.4	10.3
		US Total	5.1		5.6		

Source: USITC as of March 3, 2006: http://dataweb.usitc.gov/

Why is China gaining U.S. market share over Mexico?

- China is a lower-cost producer overall (labor costs lower, but not transport & tariffs)
- China has huge scale economies
- China has a coherent and multidimensional upgrading strategy – diversify and add high value activities
- China is using direct foreign investment to promote “fast learning” in new industries
- China uses access to its domestic market to attract TNCs and promote knowledge spillovers

How can Mexico compete with China?

- Take advantage of proximity to U.S. market (e.g., quicker time to market; large & heavy goods; made-to-order customized products)
- Eliminate comparative disadvantages (bureaucracy; low productivity; poor utilities & transport infrastructure; education)
- Move into high-value activities within GVCs (e.g., R&D, design, engineering, business services)
- Use domestic market as an asset

Lessons from Torreon's

Blue Jeans Cluster

Table 5

MAIN U.S. CLIENTS FOR TORREON APPAREL EXPORTS

Type of Clients	1993	2000
Manufacturers	Farah (M) Sun Apparel (M)	Sun Apparel-Jones of NY (M) Aalfs (M) Kentucky Apparel (M) Red Kap (M)
Branded Marketers	Levi's (BM,M) Wrangler (BM,M)	Levi's (BM,M) Wrangler (BM,M) Action West (BM,M) Polo (BM) Calvin Klein (BM) Liz Claiborne (BM) Old Navy (BM) Tommy Hilfiger (BM) Donna Karan (BM) Guess (BM) Chaps (BM)
Retailers		Gap (BM,R) The Limited (BM, R) K-Mart (R) Wal-Mart (R) JC Penney (R) Sears (R) Target (R)

M=Manufacturers
BM=Brand Marketers
R=Retailers

Table 6

APPAREL INDUSTRY INDICATORS FOR TORREON / LA LAGUNA*

Variables	1993	1998	2000	2004**
Total Output (garments per week)	500,000	4.0 million	6.0 million	4.0 million
Output per Company (garments per week)	Max. 50,000	Max. 230,000	Max. 480,000	Max. 300,000
Mexican Denim in Export Production	1-2%	5%	15%	15%
Assembly Price per Piece	US$0.90 - 1.10	US$1.20 - 2.05	US$1.60 - 3.00	US$2.00 - 3.00
Employment	12,000	65,000	75,000	40,000

* Torreon is the center of La Laguna, a higly integrated economic region formed by two additional cities (Gomez Palacio and Lerdo) and several rural communities. Although each city is a distinct political entity, they form an integrated production zone.

** These statistics are preliminary estimates from research carried out in Torreon by H. Michael Rosenberg, Harvard University, during July-August 2004. Permission to cite these figures is gratefully acknowledged.

Key Changes in Torreón since 2000*

- Laguna producers expanding “full package”
  - Shift to “fashion” vs. single-style, long production runs
  - More local sourcing, design, and brands
- Mexican companies go to U.S. for orders
- Government attitudes more supportive
  - New integrated apparel complex being created, mostly made up of medium-sized producers
  - Common ventures emerging, like fashion training and shared childcare
- Economic burden greatest for small and isolated firms

*Preliminary results from research by H. Michael Rosenberg, Harvard University, October 2004.

Conclusions

- There is a globalization paradox
  - The dramatic expansion of production capabilities reflected in global outsourcing creates heightened anxieties in both developed and developing countries regarding jobs and sustainable development
- The global economy is concentrated at the top and fragmented at the bottom
  - The real opportunities to move up in value chains are concentrated in a small number of developing economies, and for developed economies, in high value activities within these chains

- Development strategies require a national vision, but also need to be balanced and decentralized
  - China has a more focused development strategy than Mexico
  - Industrial policies are being implemented at the subnational level
  - Regional markets supplement national ones, and can reduce the pressures from global competition

- Labor and environmental standards matter

  As much of the world's apparel production becomes concentrated in China, pressures to follow "ethical sourcing" procedures will intensify

  - China will need to upgrade its labor standards and working conditions, or it will be embroiled in continuous battles with NGOs and social activists
  - Mexico could turn relatively higher labor & environmental standards into an asset in its exports to the U.S. market

Thank you

for your attention!