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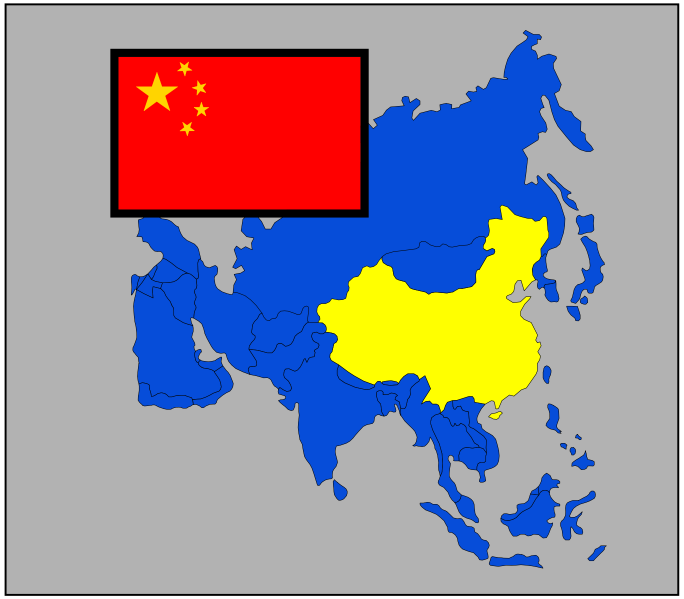

Why Has China Become A Major Furniture Producing Nation?

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INTRODUCTION

Over the past ten years China has exploded as a furniture source for markets around the world. In 1995 Chinese producers combined to rank third among supplier countries to the U.S. shipping $682 million of wood, upholstered, and metal furniture. In 2004 China supplied $8.68 billion of furniture products to U.S. buyers, a thirteen-fold increase. The country's furniture makers now account for nearly 48% of all U.S. furniture imports, up from only 2.5% in 1990 as shown in **Figure 1**.

In the face of this import tidal wave, over 250 U.S. furniture plants have been shuttered since January 2000, and 62,000 jobs have been lost. Of late, Canadian manufacturers, long the second leading source country for U.S. furniture imports, have begun to falter under Chinese competition and are now calling for protective tariffs. With excellent design execution and quality, Chinese and other foreign furniture makers have captured over 55% of the U.S. retail furnishings market.

While many observers blame low labor costs, exploitation of child labor, and currency manipulation, other critical factors have contributed to China's growth and the subsequent decline of U.S. furniture making. This presentation explores the genesis of the Chinese industry and the reasons for this continuing furniture phenomenon.

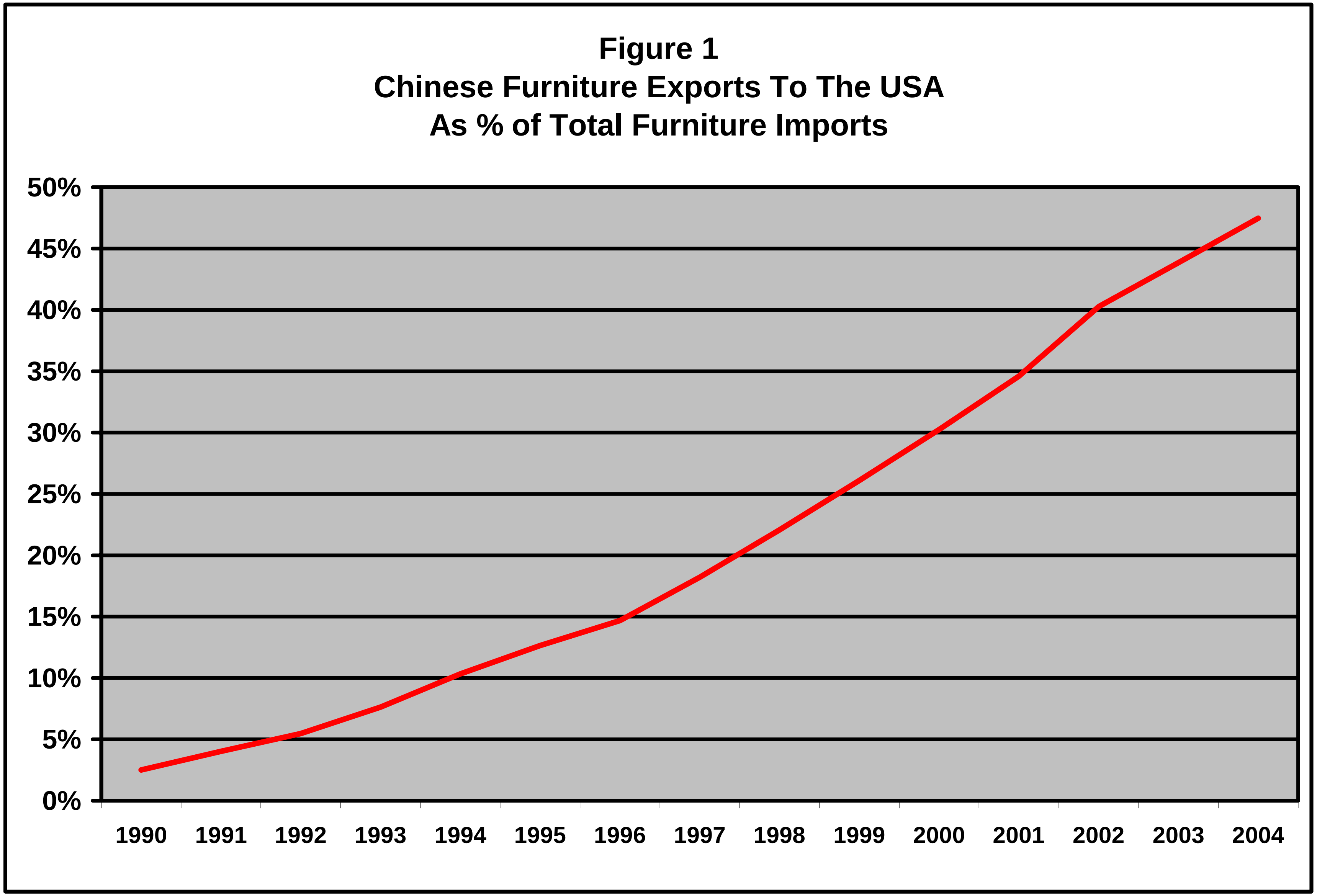


Figure 1
Chinese Furniture Exports To The USA
As % of Total Furniture Imports
50%
45%
40%
35%
30%
25%
20%
15%
10%
5%
0%
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004

PRIMARY CATALYSTS FOR CHINA'S ENTRY INTO FURNITURE EXPORT

Two primary factors drove the development of the Chinese export furniture industry:

1. Taiwanese Furniture Entrepreneurs

Furniture is a labor intensive product. Creating designs with features like carving, fancy veneering, and detailed finishes that U.S. consumers demand require lots of hands. Much of this labor is difficult, if not impossible, to replace with capital equipment.

Producing furniture profitably requires that labor content has a competitive cost. An hour of labor in a Chinese factory costs about US$0.64 including wages and benefits. In comparison a furniture worker in North Carolina costs an average of US$13 per hour.

But the low wage cost of Chinese labor vs. the U.S. did not kick start the furniture industry there. The critical impetus was the **relative wage in China and Taiwan**.

In the 1980's Taiwan was the leading exporter of furniture to the U.S.A. By 1990 Taiwanese factories were supplying U.S. markets with US$936 million of furniture products. Taiwan's exports represented over 27% of the US$3.4 billion of U.S. furniture imports.

By the late 1990's Taiwan had developed industries like electronics that manufacture products of higher value than furniture. These companies paid higher wages than furniture makers could afford. **Figure 2** shows the rise of Taiwanese furniture wage rates from 1975 to 1995.

Importantly, the percentage of Taiwanese furniture wages to US wages rose from 7% in 1975 to over 35% in 1995. Taiwanese factories were rapidly becoming uncompetitive with furniture plants in the U.S. and elsewhere. These changing economics also resulted in the growth of furniture export industries in

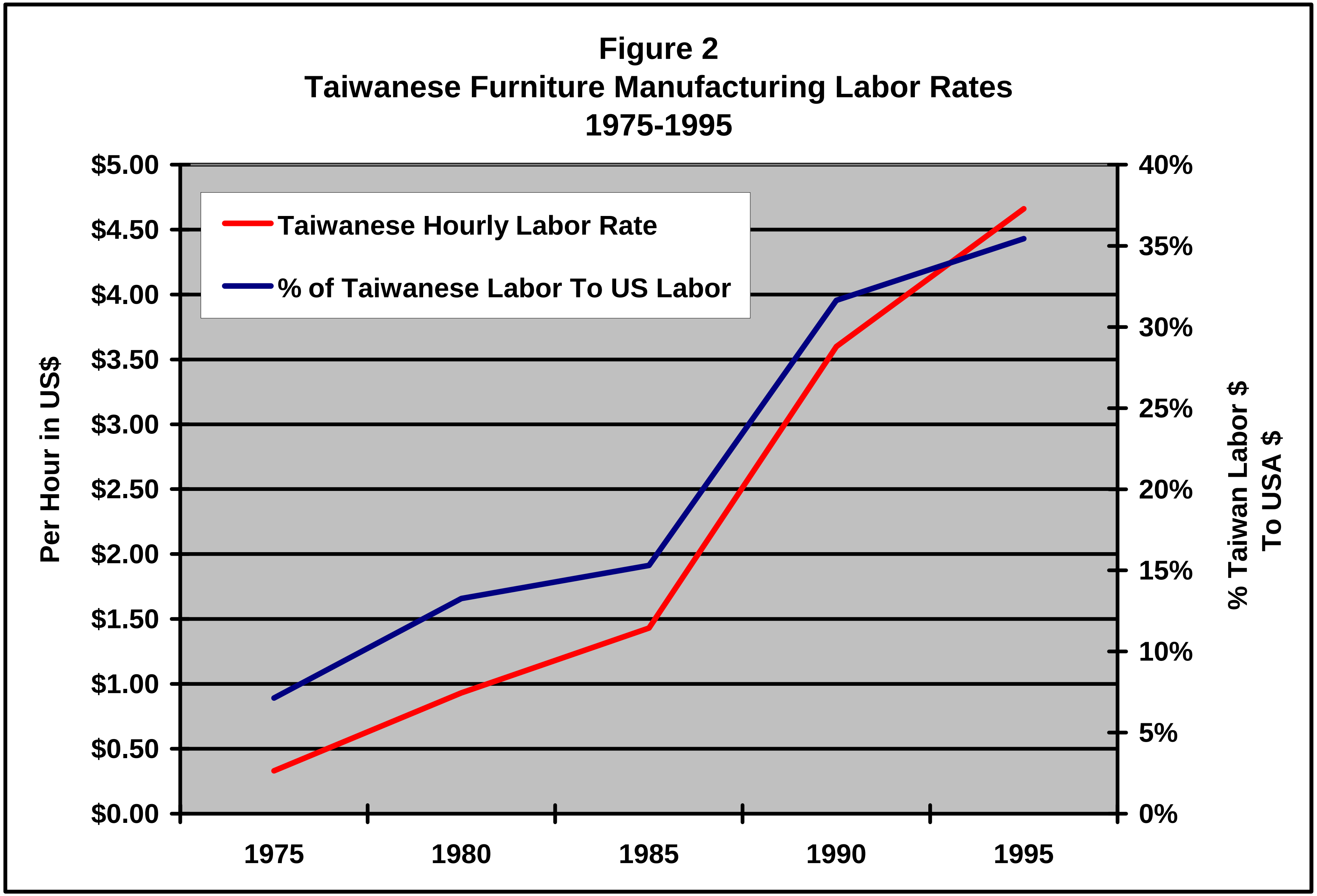


Figure 2
Taiwanese Furniture Manufacturing Labor Rates
1975-1995
Taiwanese Hourly Labor Rate
% of Taiwanese Labor To US Labor
Per Hour in US$
% Taiwan Labor $ To USA $
$5.00
$4.50
$4.00
$3.50
$3.00
$2.50
$2.00
$1.50
$1.00
$0.50
$0.00
40%
35%
30%
25%
20%
15%
10%
5%
0%
1975
1980
1985
1990
1995

other Far Eastern countries. By 1992 Thailand and Malaysia joined the top ten source country ranking followed by Indonesia in 1993. In 1995 the market share of these three countries peaked at 13.2% of all U.S. furniture imports. Note that their share of U.S. imports had declined to only 8.7% by 2004, another example of China's market dominance.

Taiwanese furniture makers, seeing their revenues shrink, began relocating their factories across the Formosa Straits to the Chinese mainland. These entrepreneurs found three key ingredients that enabled success in their new plants:

a) Productive Labor – Many Far Eastern countries offered low labor wages. However, labor cost in any product is the result of hourly wage rates for factory workers and the productivity of those workers. Knowledgeable observers estimate that a Chinese furniture worker is about one-fourth as productive as his U.S. counterpart. Combined with a wage rate of about US$0.64 per hour, this productivity level generates a labor cost of about 5% of selling price vs. about 25% in U.S.-made wood furniture. This combination created a hyper-competitive advantage.

b) Low Cost of Entry – The capital investment required to set up a furniture plant in China is low:

- **i)** Building space costs about US$3.50 to 4 per square foot vs. US$30 to 35 in the U.S.
- **ii)** The low labor cost justifies simple single purpose and thus less costly machinery.
- **iii)** Infrastructure such as dust extraction and finishing systems are not required to meet stringent environmental and safety regulations.
- **iv)** Plant sites are leased at low cost by the Chinese government.

As a result of these advantages, the cost of building furniture making capacity in China is 60% to 65% lower than in the U.S.

c) **Government Incentives** – Like state economic development agencies in the U.S., the Chinese government offered financial incentives for job creation. These incentives included the low cost plant sites mentioned above as well as rebates of value-added taxes on export sales.

As a result, Taiwanese furniture exports to the U.S. slowed dramatically over the last 14 years. **Figure 3** shows the tracks of Chinese and Taiwanese furniture exports to the U.S.A.

Without the momentum brought by the initial group of Taiwanese furniture entrepreneurs, China's industry would undoubtedly have started slower and experienced a lower growth trajectory.

Those customers who relocated their orders to the Chinese factories also played a critical role in igniting China's furniture exports.

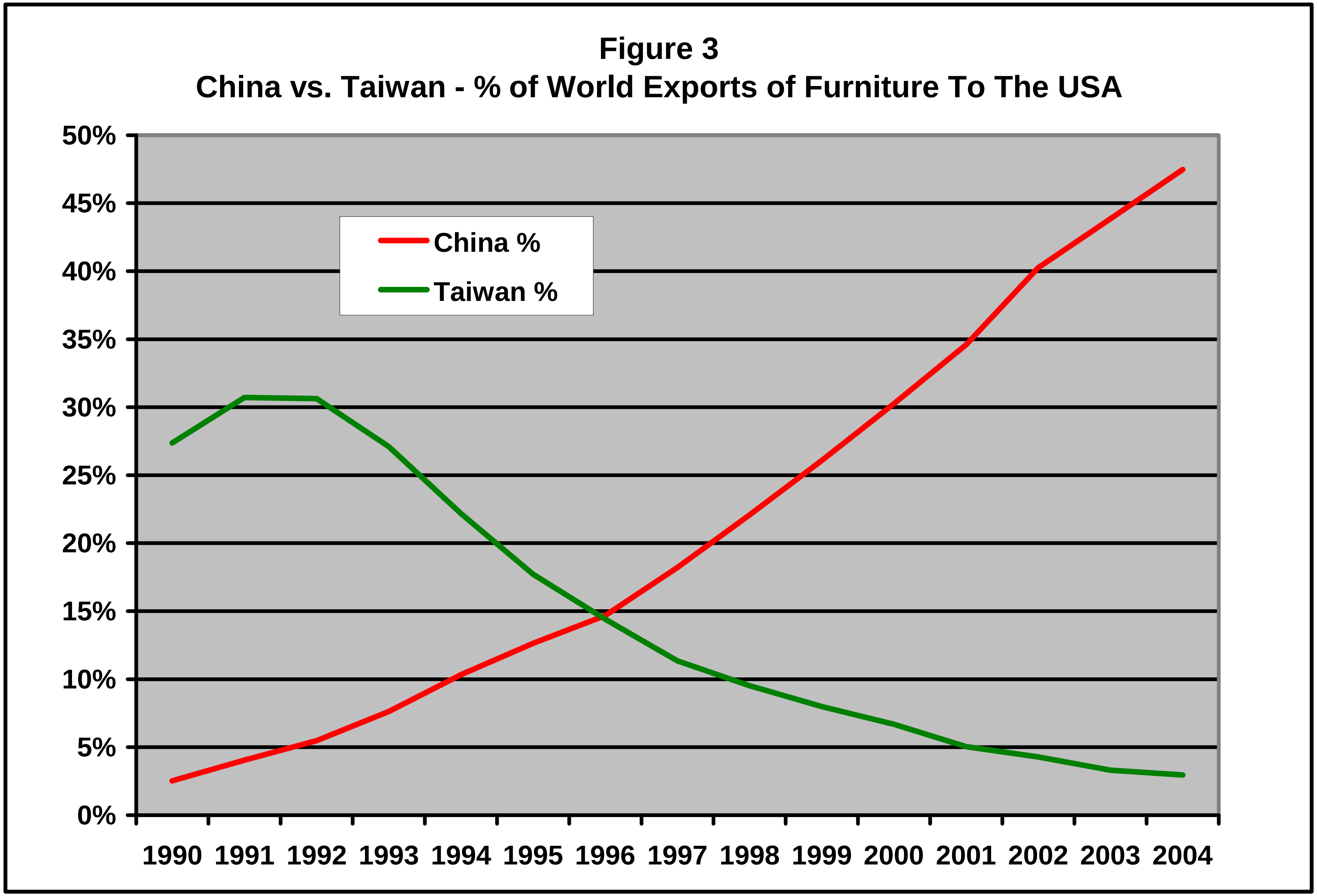


Figure 3
China vs. Taiwan - % of World Exports of Furniture To The USA
50%
45%
40%
35%
30%
25%
20%
15%
10%
5%
0%
China %
Taiwan %
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004

2. Willing U.S. Customers

By 1990 Taiwan and other Far Eastern furniture producing countries had proven the benefits of importing to U.S. furniture executives:

a) Lower Costs – Comparable products were 20 to 30% less in price.

b) More Design – Design features that could not be duplicated cost effectively in U.S. plants.

Given this supply of affordable, design-rich products, U.S. furniture makers incorporated imported chairs, occasional furniture, accents, and other labor intensive items into their lines. Facing increased costs for labor and compliance to safety/environmental regulations, U.S. companies opted to move more products offshore. The growth in Chinese shipments of wood furniture is shown in **Figure 4**. Note that significant bedroom furniture shipments only began in 1996.

Concurrently these U.S. firms also chose to slow or stop investing in their domestic plants. **Figure 5** shows the history of capital investment in the U.S. wood furniture industry during the 1990's. These decisions have contributed to the liquidation of over 50% of U.S. wood furniture capacity since 1995.

Across a wide range of product categories, the values provided by plants in China and elsewhere have proven compelling. Importers can offer high quality, design-rich products at lower prices while generating higher profit margins than domestically made furniture. For these reasons, criticizing today's furniture companies and executives for shifting production to China is simply wrong. With minor exceptions producing the furniture that U.S. consumers demand in U.S. plants is much less profitable and often a losing proposition.

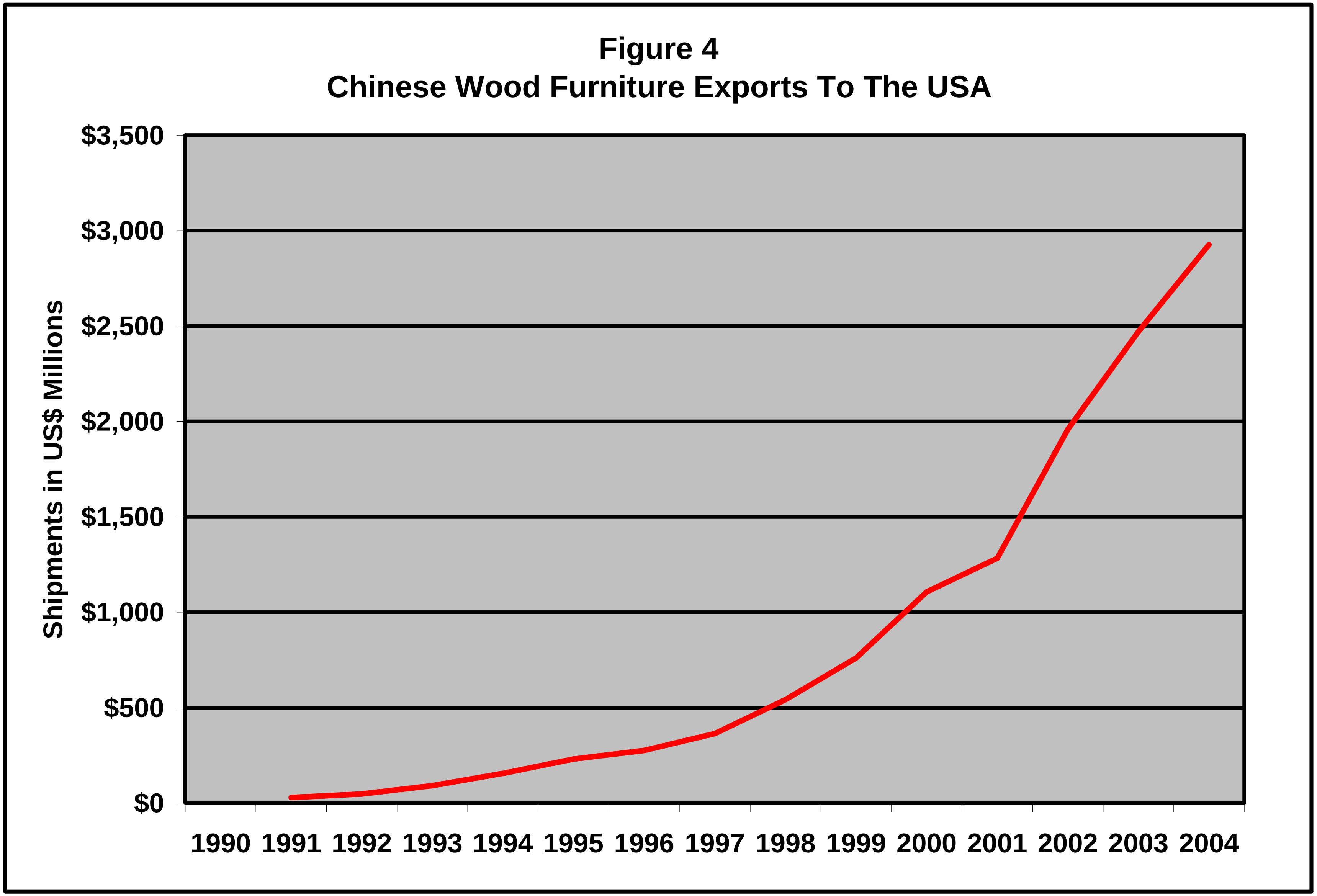


Figure 4
Chinese Wood Furniture Exports To The USA
Shipments in US$ Millions
$3,500
$3,000
$2,500
$2,000
$1,500
$1,000
$500
$0
1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004

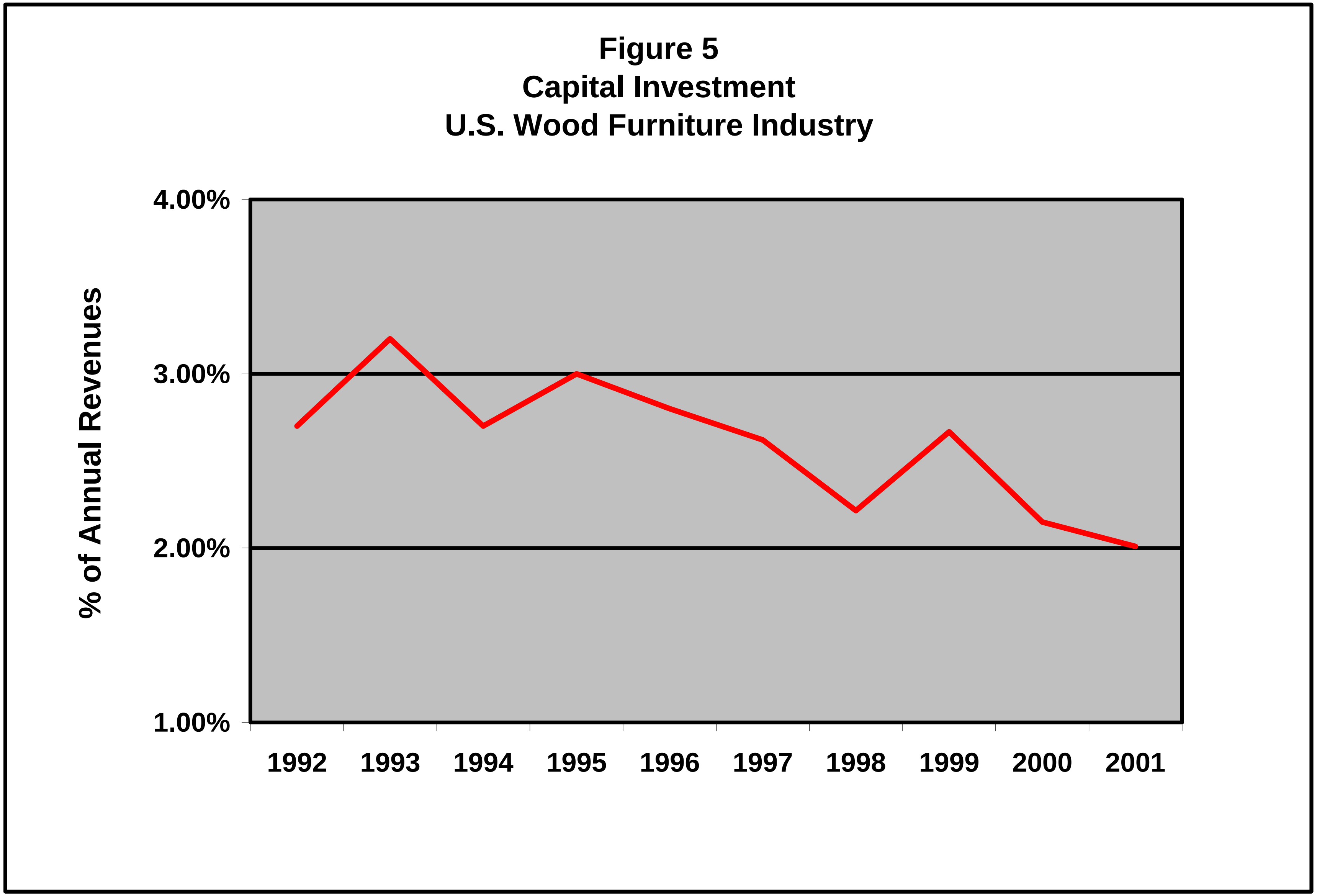


Figure 5
Capital Investment
U.S. Wood Furniture Industry
4.00%
3.00%
2.00%
1.00%
% of Annual Revenues
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001

The Chinese furniture tidal wave has resulted in price deflation since 1999. According to the U.S. Bureau of Labor Statistics, wood bedroom prices peaked that year and declined by 5% over the next four years. By comparison the Consumer Price Index, the universal metric for inflation in the U.S., rose by 10.4% during that period.

As a whole, the furniture industry is producing more units every year and getting paid less. The ultimate beneficiary is the consumer.

In today's marketplace, companies who cannot provide their customers more for less are on the fast track to oblivion. Don't forget, at the end of the day, only customers create jobs.

ADDITIONAL CATALYSTS

Taiwan's furniture entrepreneurs and willing U.S. buyers provided the genesis of China's export furniture industry. Many other factors have abetted its continuing growth:

1. Fast, Inexpensive Ocean Transport

The movement of furniture imports from China and elsewhere is facilitated by the global intermodal containerized transport system. In the twenty years since 1980, container movements through U.S. ports increased by 200%. During that period the cost of container shipment remained virtually flat.

Since the mid-1990's China has invested heavily in their port infrastructure to support their export industries. Hongkong is the world's largest container port, and six other Chinese ports are ranked in the top 25 ports in the world.

The shipping time for containers from Shenzhen, a major Chinese port, to the U.S. West Coast is about 15 days; to the U.S. East Coast, about 33 days. By comparison the times from Malaysia are 25 and 37 days respectively. The faster shipment can translate into lower inventory and better customer service.

A 40-foot container of furniture from the Port of Shenzhen, China, to the U.S. West Coast costs about US$2,400. By comparison the cost of a 53-foot trailer of furniture to the West Coast from North Carolina is US$3,200. So there is little difference in freight cost when shipping to the US West Coast, one of our largest and fastest growing consumer markets.

2. Availability of Popular Raw Materials

Inexpensive ocean transport also plays a part in the use of North American hardwood lumber and veneer in Chinese-made furniture. The container rate from the U.S. East Coast to Shenzhen is less than US$1,000. The sizeable discount for westbound transit is the result of the huge imbalance of trade between China and the U.S. This imbalance requires ocean shipping lines to reposition thousands of empty containers back to China for loading.

Thus Chinese producers suffer little cost disadvantage to use popular North American hardwoods and veneers.

As a result of these transport economics, China is the second ranked destination for U.S. hardwood lumber behind only Canada. Its imports of U.S. hardwoods have grown 90 fold since 1994.

Another key ingredient in furniture design is the finish. U.S. consumers, in contrast to their European counterparts, prefer complex finishes often requiring eight or more stain, glaze, and clear coats. Chinese plants have benefited significantly from the presence in China of coating suppliers with extensive U.S. experience. These firms have established coating plants in China and located experienced technicians there to work with Chinese producers. With their global network of offices and plants, these coating companies have facilitated the development of finishes applied in China for the U.S. market.

These finishes often allow the use of less-expensive wood species.

3. Fixed Currency Exchange Rate

For the decade prior to July 21, 2005, the Chinese renminbi was pegged to the U.S. dollar at a rate of 8.28 renminbi to the US$. That day China dropped the dollar peg and began trading their currency against a basket of world currencies. As of January 1, 2006, the exchange rate had fallen to 8.07 renminbi to the dollar.

The stability of the currency removed any foreign exchange risk from purchase contracts/agreements between U.S. buyers and Chinese factories. The product development and introduction cycle for imported furniture often runs nine to twelve months. Thus this factor has been an important trade enabler.

4. Digitization of Information & The Internet

The development of a standard data description language, XML, and SOAP, its related transport protocol, enabled the Internet. With these standards digitized data, words, and pictures could be exchanged between unrelated software programs. This event not only permits quick transfer of information such as product specifications and drawings but collaboration on design, production, and supply chain management.

As Thomas Friedman wrote in his book The World Is Flat, the development of the internet was “the Genesis moment for the flattening of the world.”

With these advantages Chinese furniture entrepreneurs have developed a highly profitable industry. Recent initial public offerings of shares in two Chinese furniture manufacturers revealed the extent of these profits:

Profitability of Chinese Furniture Manufacturers

Company/Product	Gross Margin		Operating Margin	
	2004	2005 (5 months)	2004	2005 (5 months)
Samson Holding Ltd/ Wood	32.12%	34.73%	16.89%	19.56%
Kasen International/ Upholstery	15.20%	16.32%	12.26%	12.54%

By comparison the performance of U.S. furniture producers over the period 1994-2004 is shown below:

Profitability of U.S. Furniture Manufacturers

Company/Product	Gross Margin		Operating Margin	
	1994	2004	1994	2004
Wood Furniture	19.51%	22.69%	4.25%	6.39%
Upholstered Furniture	18.91%	20.65%	5.04%	4.56%

Source: BDO Seidman LLP, Accountants & Consultants

WHAT DOES THE FUTURE HOLD?

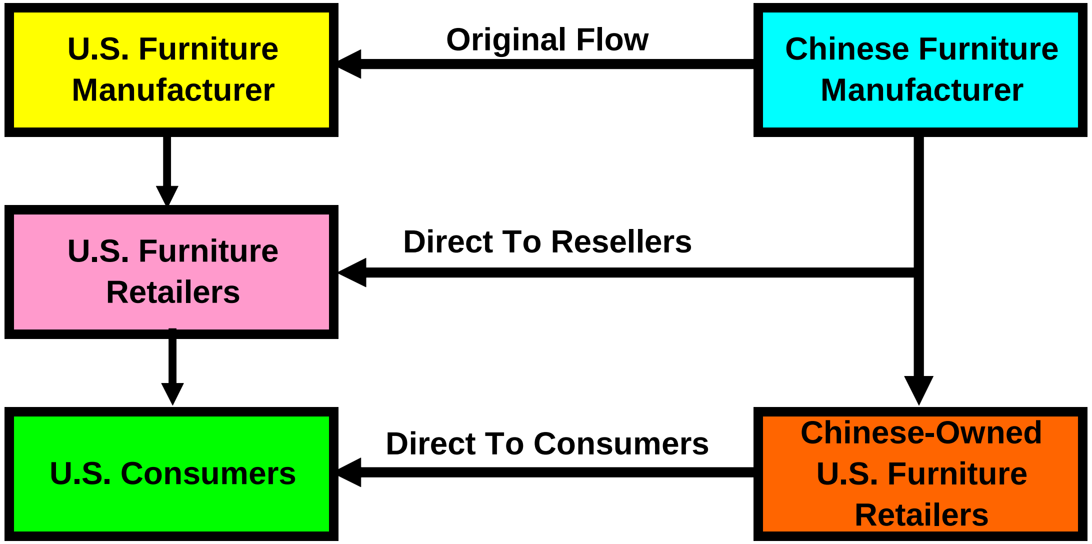
In economic time, the Chinese furniture industry is maturing rapidly. Two characteristics evidence this evolution:

1. Vertical Integration

In their infancy stage Chinese furniture companies were primarily contract suppliers to U.S. furniture manufacturers. As such, they were reliant on their U.S. customers to develop and distribute products for U.S. consumers. The U.S. furniture companies acted essentially as middlemen in this value chain. The Chinese plants simply produced orders, loaded containers, and received immediate payment.

As their product capabilities developed, companies from China and other Asian countries began selling directly to U.S. retailers effectively replacing the development/distribution role played by the U.S. furniture companies. Today at least 20 Asian factories now have a U.S. sales force selling direct to U.S. retailers. Many offer domestic inventories from which to ship less-than-container orders. Additionally about twelve U.S. sales organizations represent consortiums of Asian factories.

Note also that the some sophisticated Chinese furniture makers are developing company-owned and operated retail stores in the U.S.



Product Flows From Chinese Producers

2. Competition

With the development of vast furniture making capacity in China, internal competition is heating up.

InFurniture magazine recently reported that the growing number of plants seeking to fill their order books is keeping prices low. One factory executive noted in an interview, "With costs increasing, our margins are growing thinner and thinner."

Other factory owners are complaining about smaller competitors trimming costs by ignoring laws governing worker safety and the environment. In recent years these same complaints were heard from U.S. furniture makers about their Chinese competitors.

Furniture makers who thrive on low-cost labor are now competing with higher tech industries like electronics that pay higher wages and offer better working conditions.   In addition, the Chinese government has raised the wages of farm workers in rural area in an effort to keep food production growing. This new policy has reduced the flow of low-cost workers to the large coastal cities where manufacturing is primarily located.

Revisions in Chinese labor laws have also contributed to higher labor costs. Overtime and vacation pay are now twice the normal wage rate, and overtime is limited to a maximum of 36 hours per month.

A labor shortage in a country with a one billion plus population is difficult to believe. Perhaps this shortage is self-inflicted by factory owners unwilling to pay a wage sufficient to attract enough workers. One company executive recently said, “Nobody wants a price war on salary. You can offer better working conditions but not more pay or else workers will be shifting from job to job for an extra $1 per week.”

To combat eroding profits some Chinese producers are shifting up market to goods with higher margin opportunities. The production of lower-priced goods is moving to Vietnam and other developing countries new to the large-scale, export furniture industry. Once again the industry is chasing lower cost labor in pursuit of even lower ex-factory selling prices.

Like most products, the market for furniture shrinks as prices increase. Moving up market results in lower unit production and thus reduces capacity utilization. This latter consequence can translate into higher unit overhead costs and negatively impact profit margins. The strategy of shifting to higher-priced products will also bring external competition from emerging furniture makers in countries like Vietnam.

These emerging factors will require intelligent responses from Chinese furniture executives. Among their opportunities are:

1. Investments in Higher Productivity

Experts estimate that Chinese wage rates are rising by about ten percent annually. Thus the good old days when managers solved production bottlenecks by simply throwing more labor into their plants may be over in the Chinese furniture industry.

As always, productivity is the key to offsetting higher wages and the key to sustaining competitiveness. Opportunities abound in Chinese furniture plants to improve productivity through higher tech machinery, better material handling, streamlined plant layouts, and computerized control software. Will Chinese furniture executives embrace sound engineering as a solution or simply watch as the industry shifts to countries like Vietnam with even lower-cost labor?

2. Investments in Supply Chain Management

Vertical integration will undoubtedly bring more complexity to the Chinese producers' value chains. Both U.S. producers and retailers are requiring finished goods warehousing in China to enable shipping containers of mixed products. Those companies who choose to sell directly to retailers will find out what most U.S. furniture makers already know – dealing with thousands of small and large customers is complicated. Scheduling production and managing inventories of finished goods to satisfy the demands of this larger customer base result in inefficiencies. Hidden costs like quality charge-backs and storage expenses abound. In short, *the Chinese have seen the furniture business at its simplest* – take an order, schedule it at the factory owner's convenience, ship finished goods upon completion, and get paid immediately after shipment.

Chinese furniture companies must develop management skill sets in production control, demand planning, and logistics to meet this new complexity.

3. Expansion Into Other Furniture Products

Upholstery imports have not penetrated the U.S. market to the extent of wood furniture. That situation is changing as China develops fabric mills, cut-and-sew plants, upholstery factories. **Figure 6** illustrates the growth of Chinese upholstery-related exports to the U.S. over the past six years. Chinese upholstery makers are now taking market share from producers in Italy, long a supplier of leather sofas and chairs to the U.S.

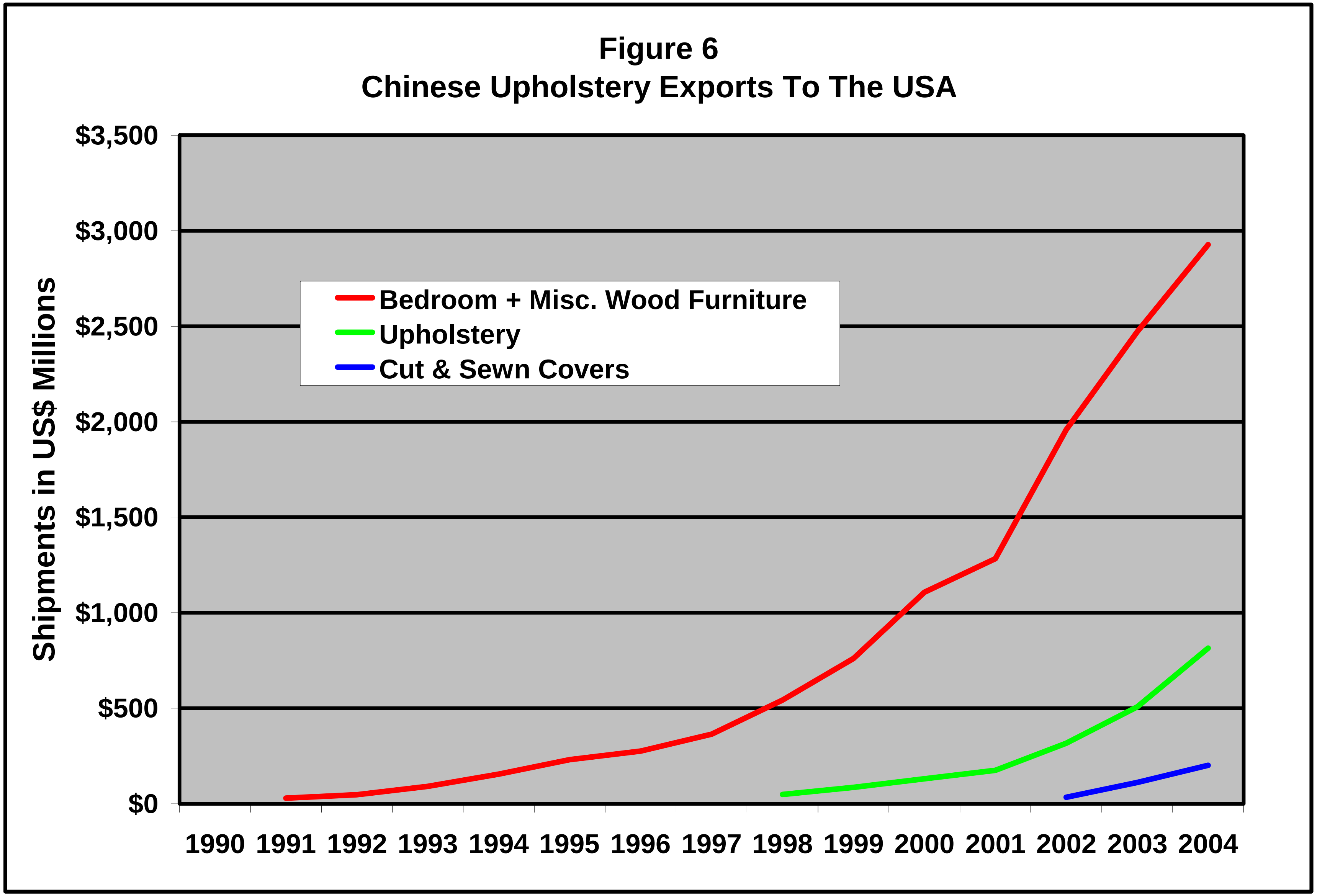


Figure 6
Chinese Upholstery Exports To The USA
Shipments in US$ Millions
$3,500
$3,000
$2,500
$2,000
$1,500
$1,000
$500
$0
Bedroom + Misc. Wood Furniture
Upholstery
Cut & Sewn Covers
1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004

CONCLUSION

By the mid 1990's the U.S. furniture industry was fast becoming addicted to low-cost furniture products made in Taiwan and other Pacific Rim countries. Soon after a core of Taiwan's producers relocated their operations to mainland China, the hook was set. The expertise of these Taiwanese entrepreneurs, the advantages offered by China's labor and government incentives, and the complicity of the U.S. furniture business combined to deal a mortal blow to casegoods manufacturing in the U.S.

In today's fast moving world, competitive advantages can disappear virtually overnight. In recent history the period of one country's industrial dominance is shortening. As a country's economy strengthens, it typically moves to higher value-added products. Furniture production for the U.S. market has shifted from Great Britain, to New England, Michigan, Virginia, the Carolinas, and Mississippi, to Mexico, Taiwan, the Pacific Rim, and finally China. Is China the final stop on this long journey? Or will another country's advantages beckon another set of furniture entrepreneurs to its shores. Stay tuned.

- *Art Raymond*

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