Trade in New Poducts

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Motivation

- The link between trade and growth is usually assessed at a more aggregate level, in which case the causality between the two is unclear. To move beyond these aggregate statistics, we need more detailed information on the product variety of traded goods, and on the link between reductions in trade costs following the liberalization and product variety.

- Another dimension of the changing nature of China's comparative advantage is the observation of the emergence of exports of "new" product varieties - or previously non-exported products. This is observed in studies elsewhere to reflect declines in trade barriers which enhance a country's comparative cost advantage. Kehoe and Ruhl (2009) and Hummels and Klenow (2005) develop methodologies to observe these changes.

- These authors decompose the growth of individual countries' trade into that part due to countries exporting new products - what they call the "extensive margin" - and that part due to countries exporting more of the same products - the "intensive margin".

- Kehoe and Ruhl argue that extensive margin is important in explaining trade growth after liberalizations. Hummels and Klenow discuss that larger countries trade more at both margins.

- Broda and Weinstein (2006) argue that the effect of new goods and varieties in the United States economy is large and they estimate that the U.S. welfare is 2.6 percent higher due to gains accruing from the import of new varieties between 1972 and 2001. They note that China exported 710 different goods to the United States in 1972 as opposed to 10,315 in 2001.

Methodology and Results

- I perform the following new goods in trade exercise, based on Kehoe and Ruhl (2009). The basic idea is to see if the growth in trade flows is due to increased trade in new goods (extensive margin growth) or due to increase in the volume of trade in the same set of goods (intensive margin growth).

- I take four-digit Standard International Trade Classification (SITC, Revision 2) bilateral trade data obtained from United Nations Commodity Trade Statistics Database. The results, which are consistent with those obtained using Revision 3, are available upon request.

- Figure 1 and 2 show the results of this exercise for China's exports to the rest of the world. The sample covers the 1985-2005 period.

Figure 1. Composition of Exports: China to the Rest of the World

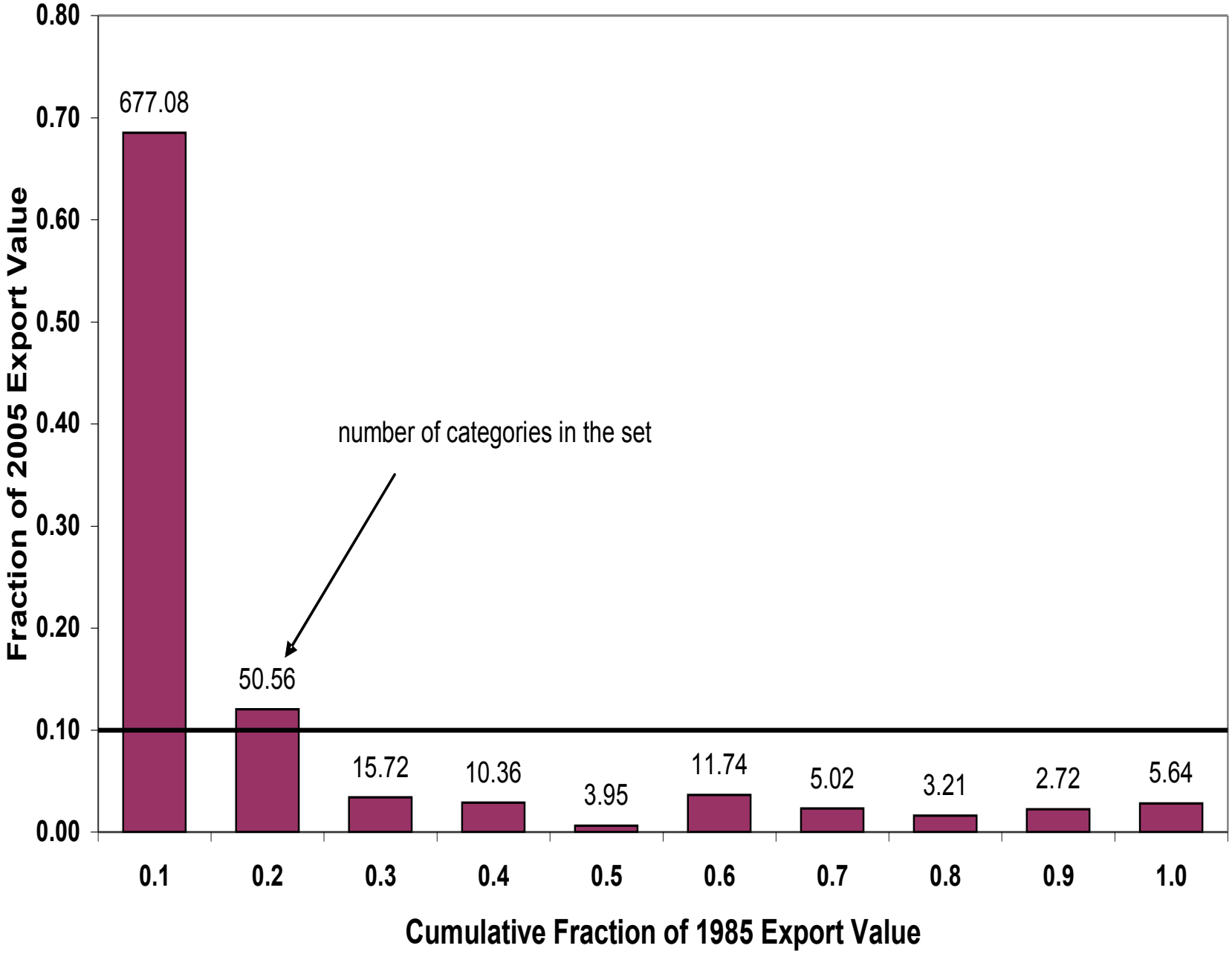
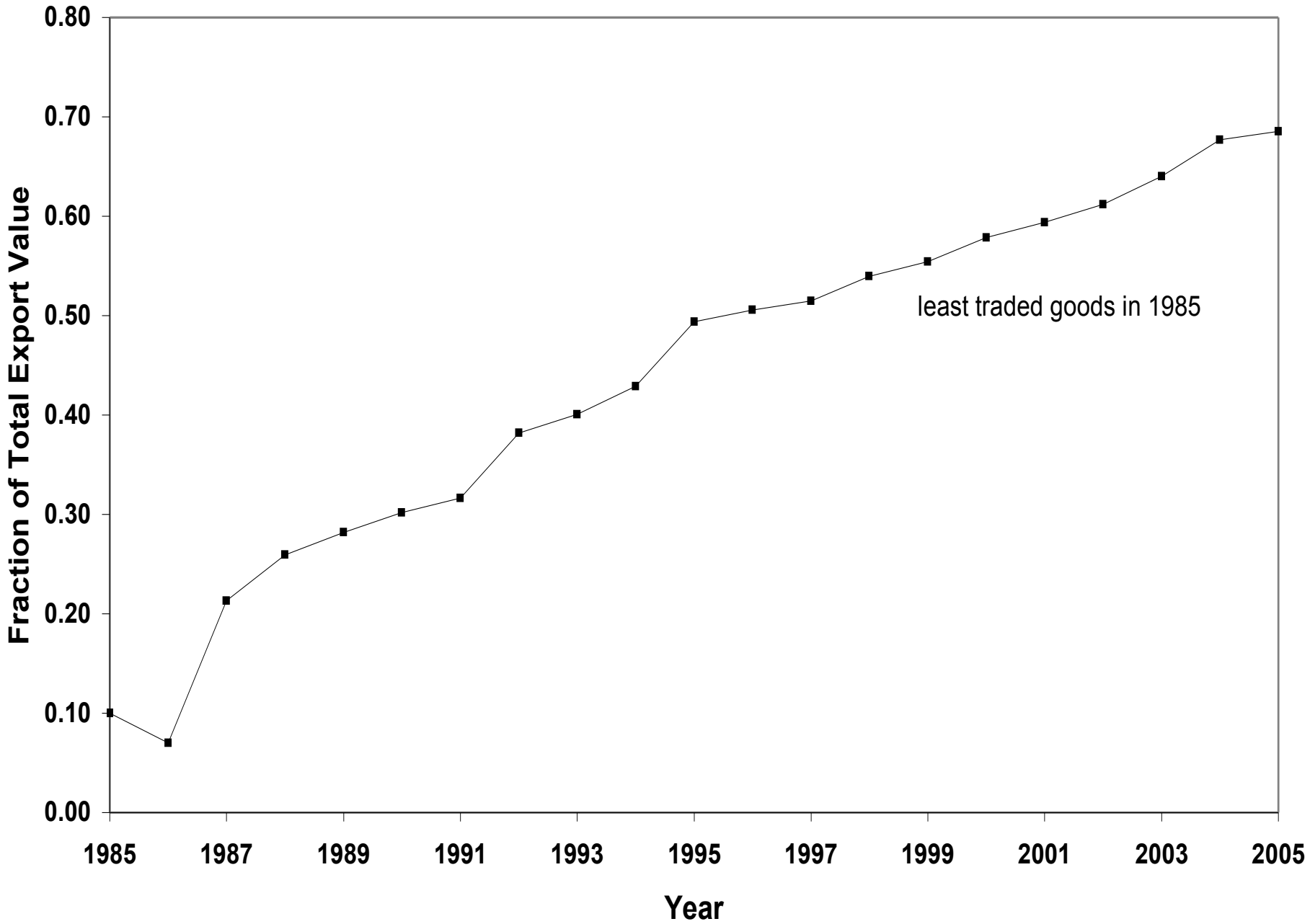


Figure 2. Exports: China to Rest of the World, 1985-2005



I explain the methodology following Kehoe (2005). There are 786 categories of goods in these data.

1. I rank categories in order of base-year exports, from categories with the smallest amount of trade to the categories with the largest amount.

2. I form ten sets of "10 percentile" export groups by cumulating export product categories - the first 677.08 categories account for 10 percent of exports, for example; the next 50.56 categories account for 10 percent of exports; the next 15.72 categories account for 10 percent of exports; and so on.

3. I calculate the share of exports in subsequent years accounted for by each set of categories.

Results

- What stands out in Figure 1 is that the largest increases in the share of exports occur for those sets of categories that accounted for the smallest amount of trade in 1985. The 677.08 smallest categories of exports from China to the rest of the world accounted for 10 percent of exports in 1985, but in 2005 these same 677.08 categories accounted for 68.50 percent of exports.

- Figure 2 depicts the evolution over the period 1985-2005 of the export shares of the set of categories least traded in 1985. This measure tracks the evolution of the least traded set of codes by computing the share of the least-traded goods in total exports for every year of the sample period. This allows me to see the timing of any changes in the trade of the least-traded goods. I note that these shares increase gradually and continuously over time.

- I find similar results for the Chinese imports from the rest of the world as presented in Figure 3 and 4. The findings suggest that the goods exported from China that were the least traded in 1985 account for a disproportionate portion of growth in trade, and document the expansion in export varieties from China due to the acceptance into the World Trade Organization after the year 2001.

- I replicate the Figures 1-4 to analyze China-Japan and China-U.S. bilateral trade relations and find similar results.

Figure 3. Composition of Imports: China from the Rest of the World

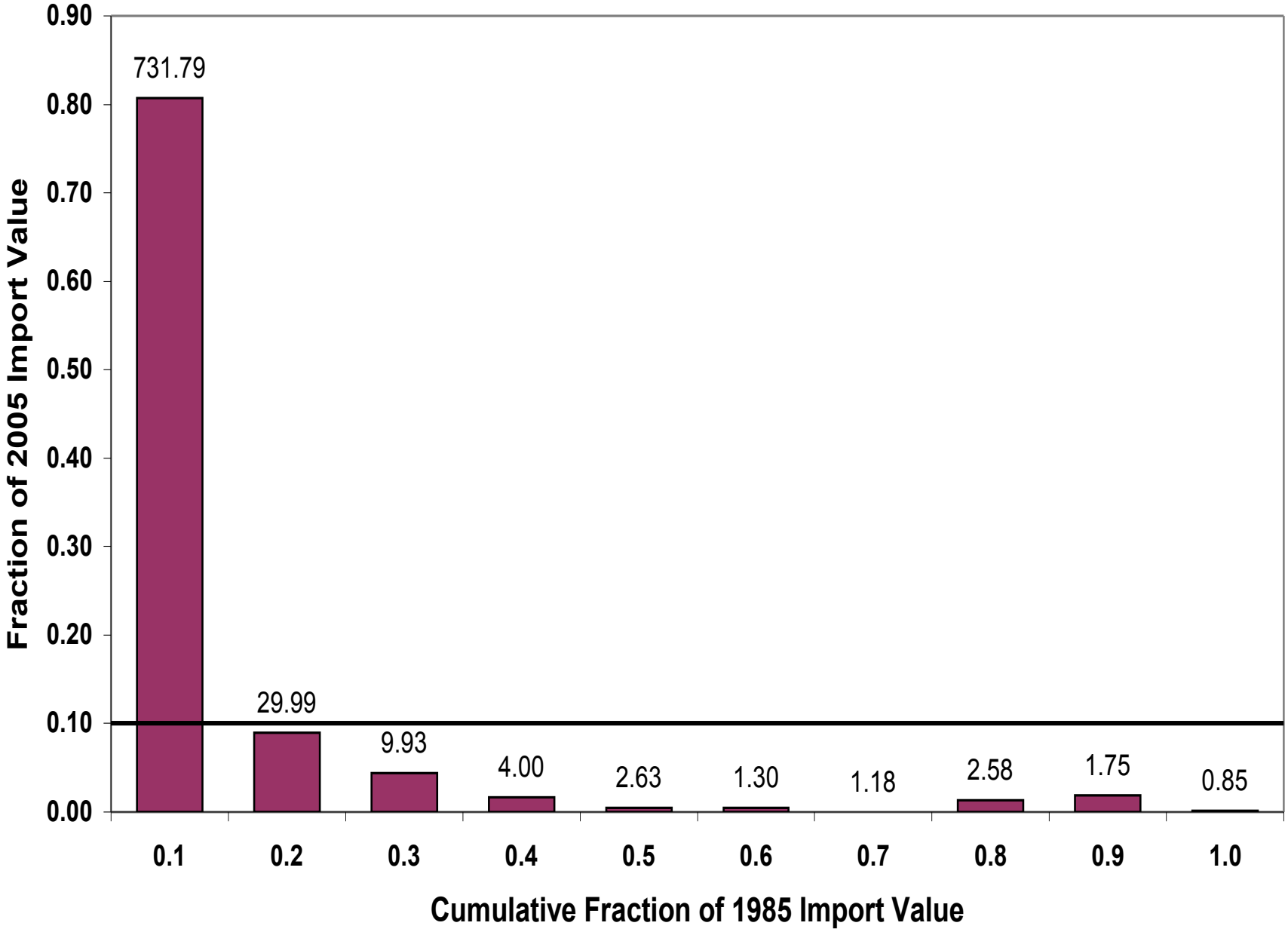


Figure 4. Imports: China from the Rest of the World, 1985-2005

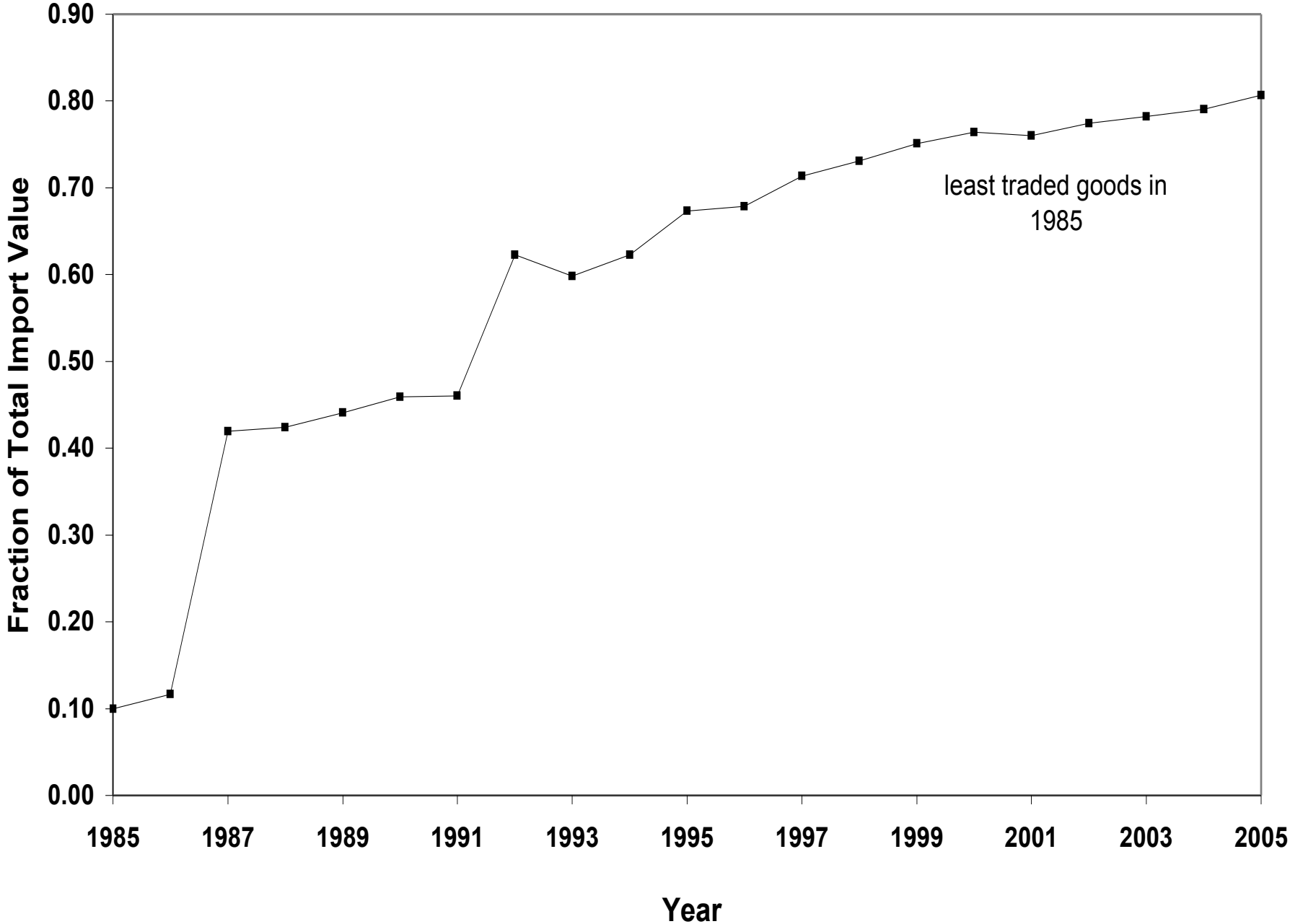


Figure 5. Composition of Exports: China to Japan

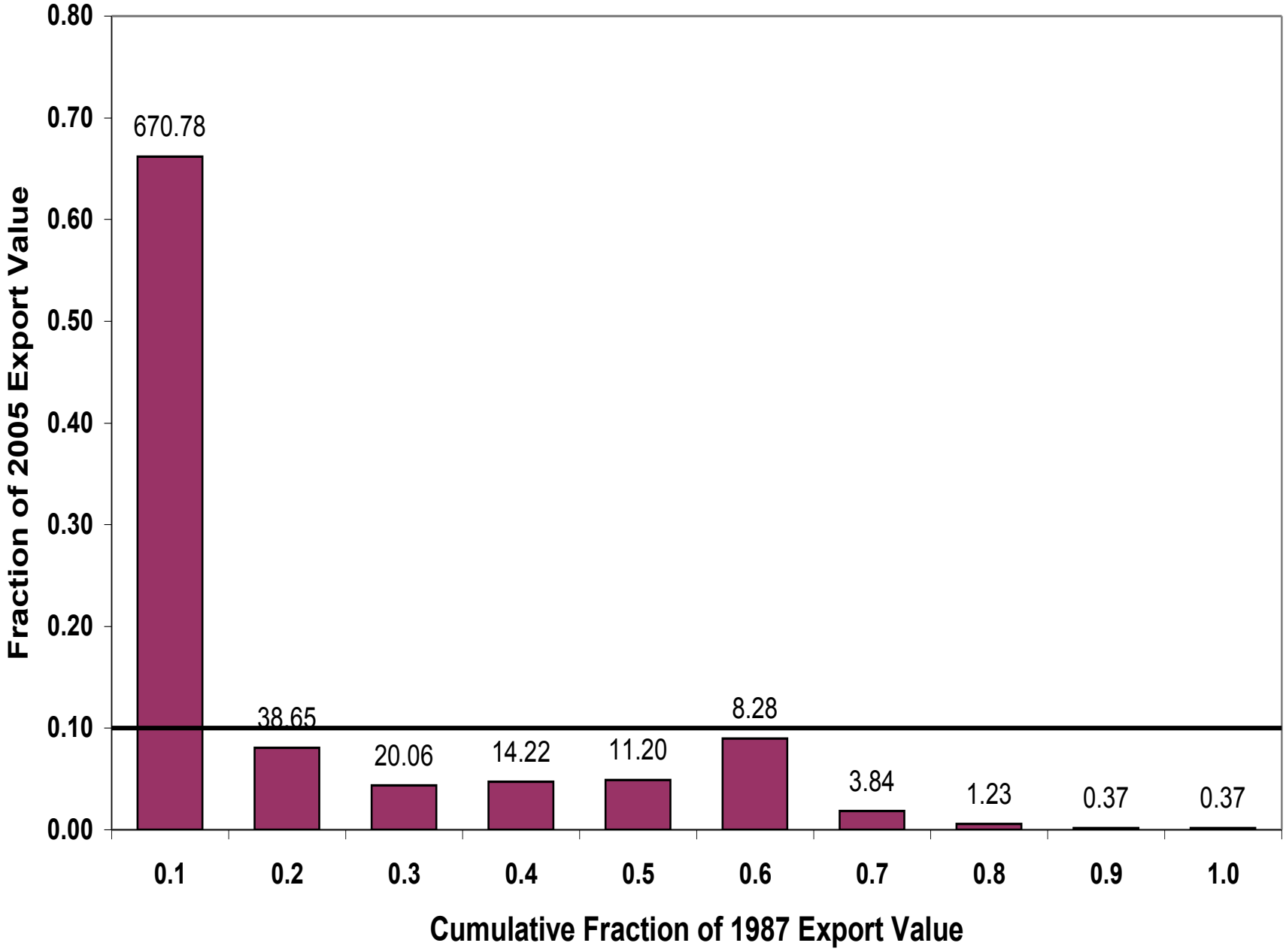


Figure 6. Exports: China to Japan, 1987-2005

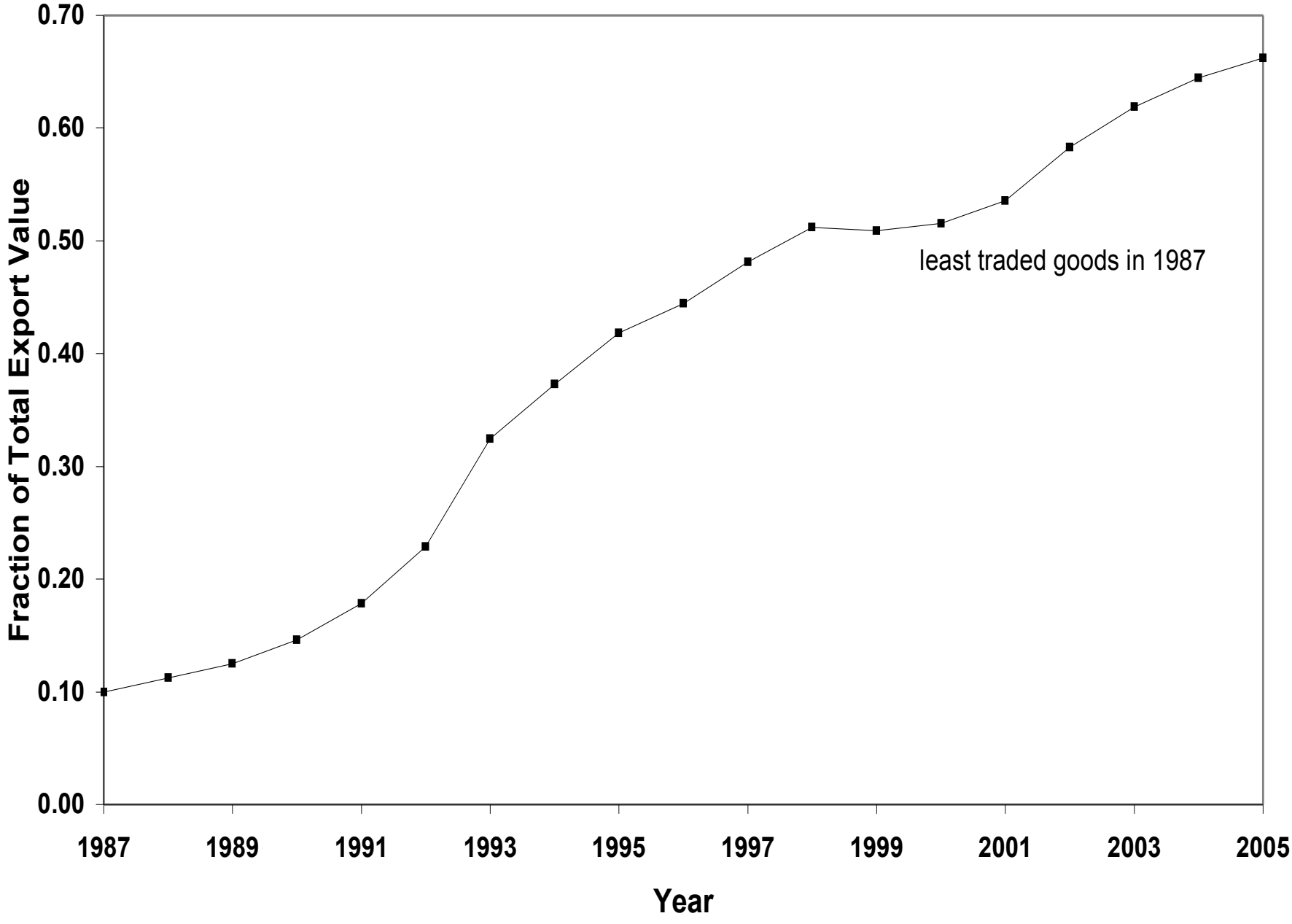


Figure 7. Composition of Imports: China from Japan

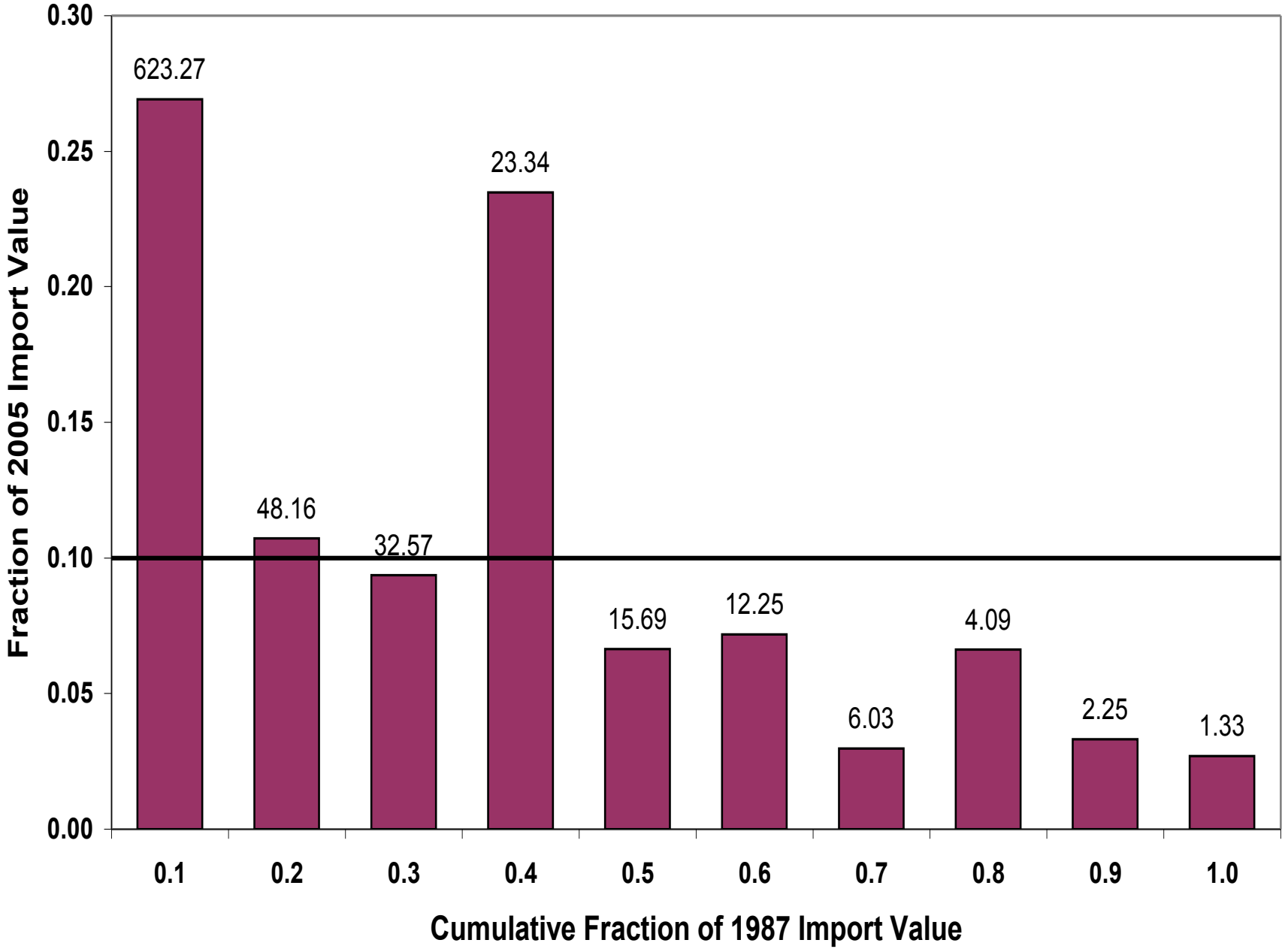


Figure 8. Imports: China from Japan, 1987-2005

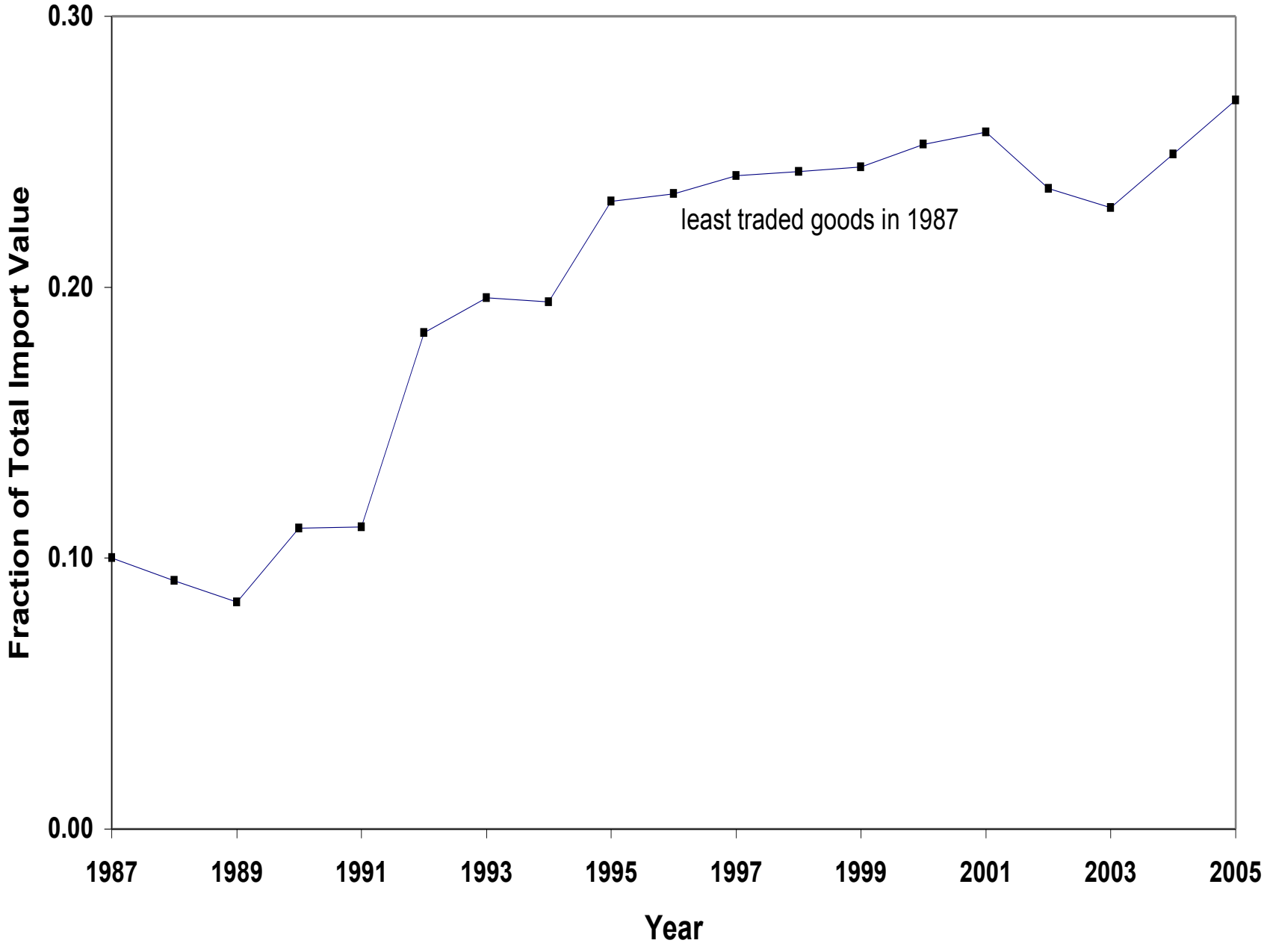


Figure 9. Composition of Exports: China to the United States

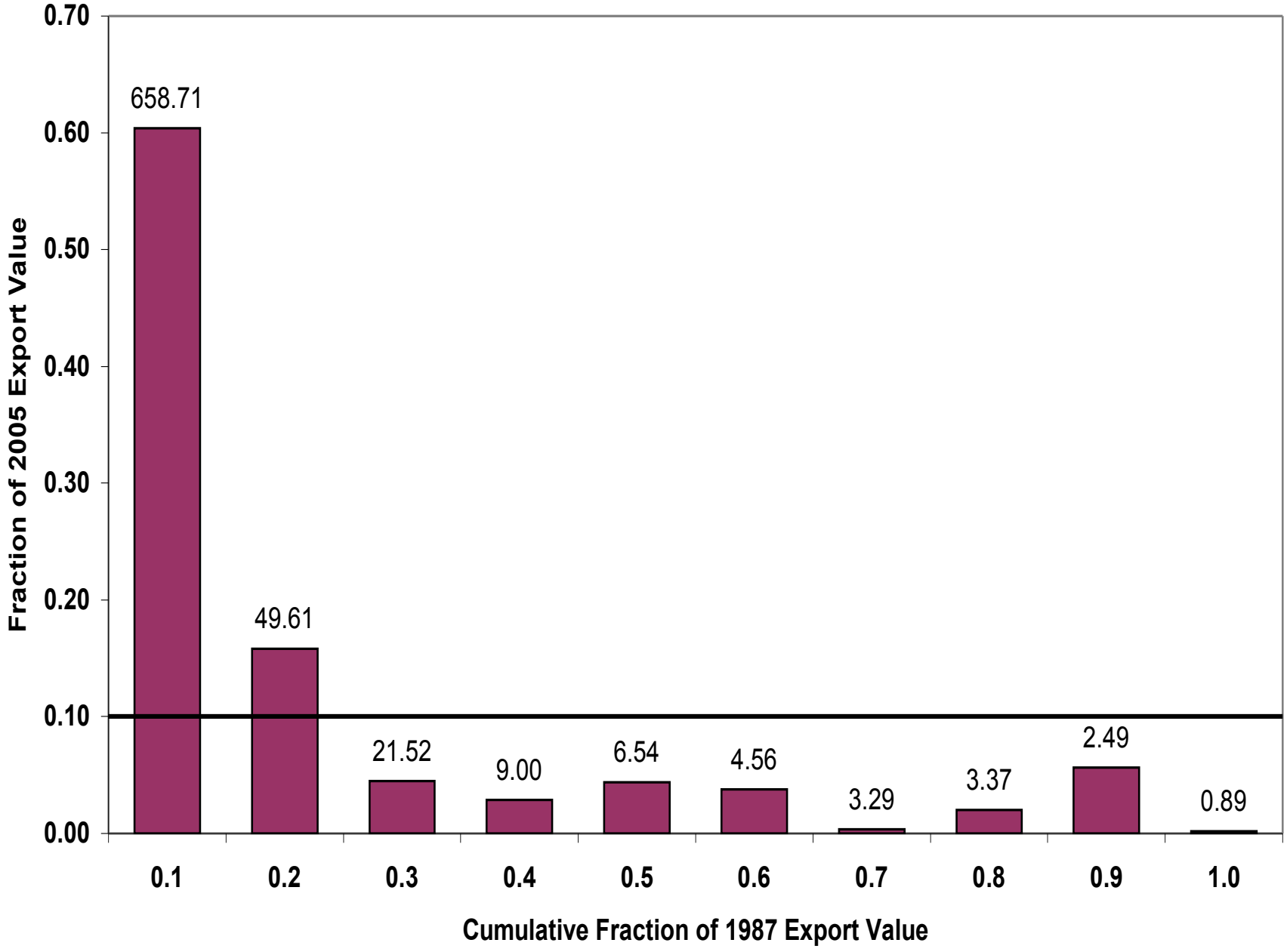


Figure 10. Exports: China to the United States, 1987-2005

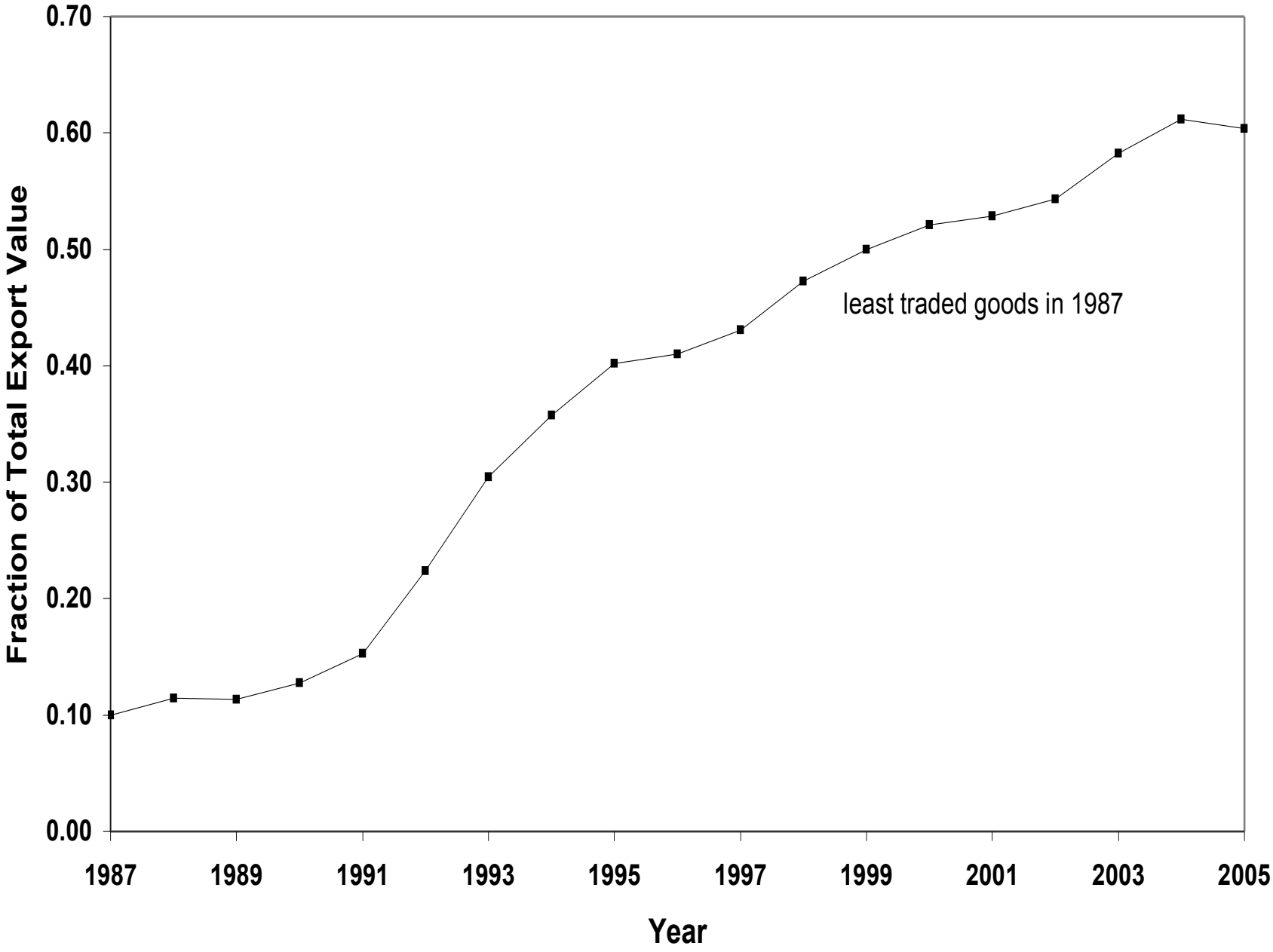


Figure 11. Composition of Imports: China from the United States

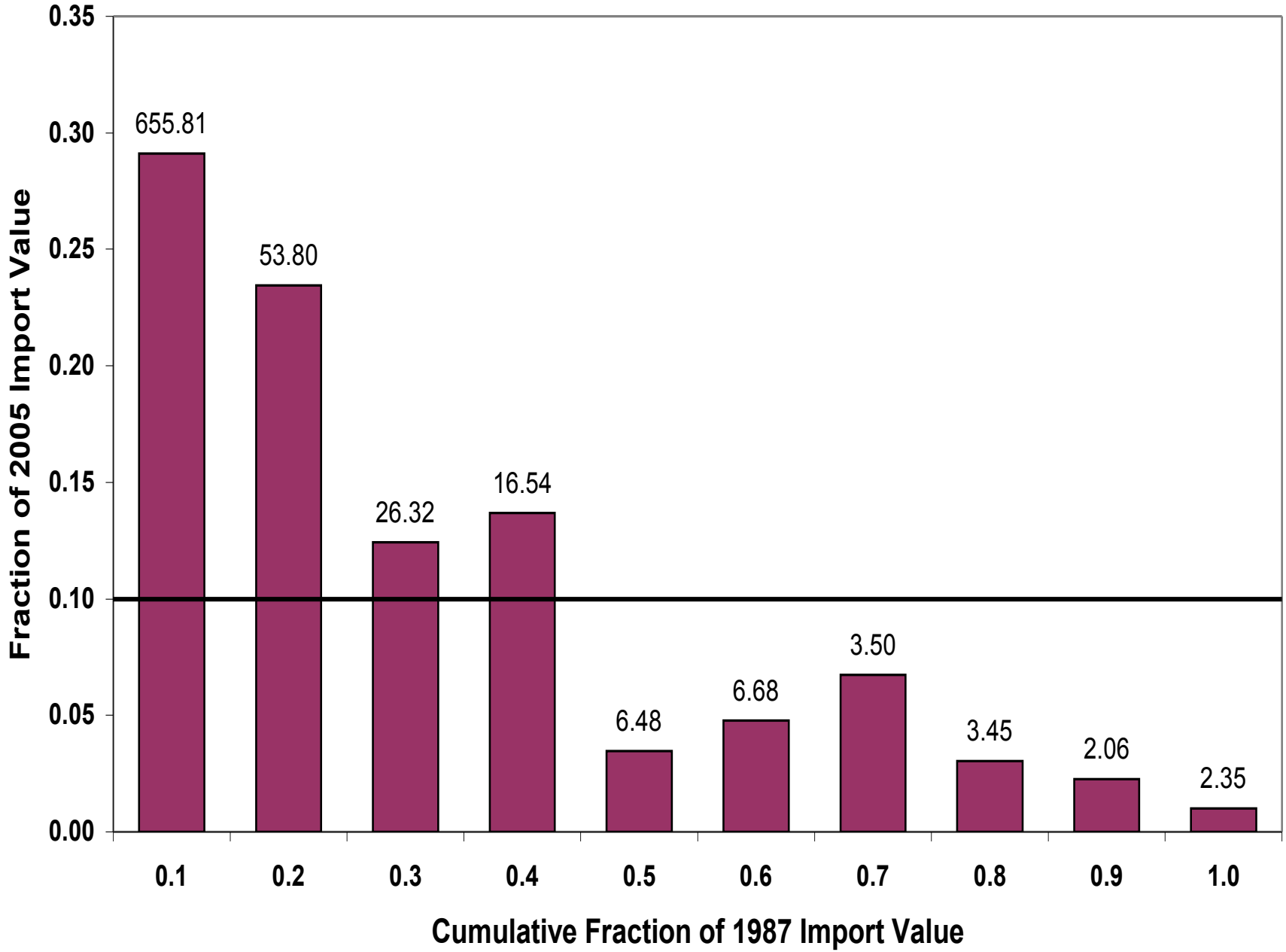
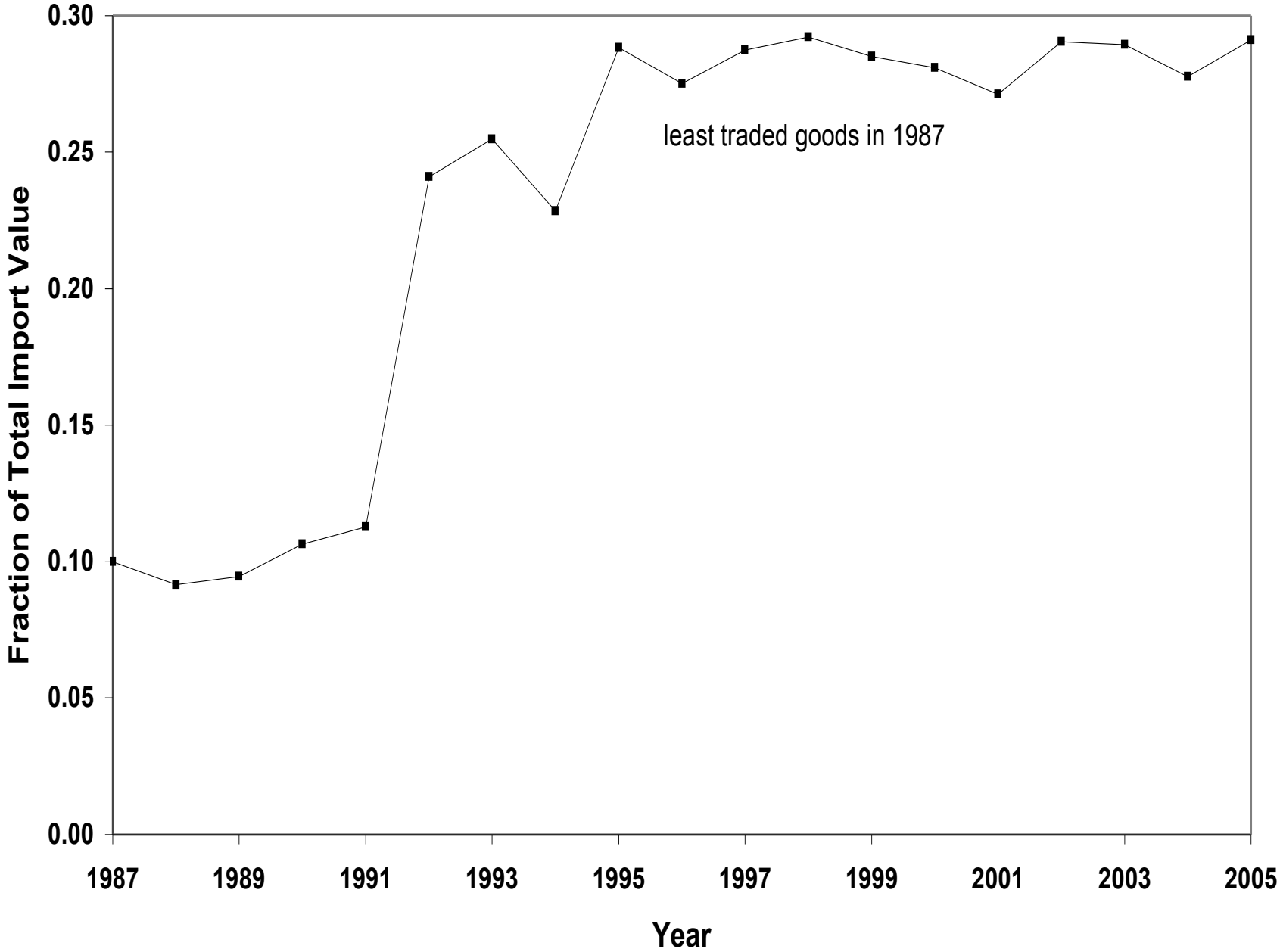


Figure 12. Imports: China from the United States, 1987-2005



References

- **Amiti, Mary, and Caroline Freund.** Forthcoming. "The Anatomy of China's Export Growth." In *China's Growing Role in World Trade*, ed. Robert Feenstra and Shang-Jin Wei, The University of Chicago Press.

- **Broda, Christian, and David E. Weinstein.** 2006. "Globalization and the Gains from Variety." *Quarterly Journal of Economics*, 121(2): 541-85.

- **Hummels, David, and Peter J. Klenow.** 2005. "The Variety and Quality of a Nation's Exports." *American Economic Review*, 95(3): 704-23.

- **Kehoe, Timothy J., and Kim J. Ruhl.** 2009. "How Important is the New Goods Margin in International Trade." Federal Reserve Bank of Minneapolis Research Department Staff Report 324.