

# NEW YORK MERCHANDISE EXPORTS

by

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## ABSTRACT

New York's merchandise export performance has lagged that of the U.S. economy over the first part of the 1990s. Such slippage could be due to slow growth in export markets, a concentration in slow-growth product lines, and/or declining competitiveness relative to the overall U.S. economy. We find that none of these factors fully explains the declining share of New York merchandise exports. New York's export markets are growing nearly as fast as the U.S. foreign market; New York exports are more concentrated in the industries with fastest export growth than the U.S. average; and New York's unit labor costs by and large compare favorably with overall U.S. unit labor costs. Rather, total New York manufacturing output has been slipping behind U.S. manufacturing in a way not explained by relative unit labor cost trends. The lagging performance of New York goods exports appears to be a symptom of broader problems within the New York manufacturing sector.

November 8, 1995

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### Overview

Since at least 1990, New York merchandise export performance has not kept pace with that of the United States.<sup>2</sup> While U.S. exports grew at an average of 6.8% per year from 1990 to 1994, New York exports grew at only 0.8% per year over this same period. New York exports as a share of U.S. exports have declined steadily over the 1990s, falling from 7.3% of the total in 1990 to only 5.8% in 1994 (Chart 1). Such slippage could result from slow growth in export markets, a concentration in slow-growth product lines, and/or declining competitiveness relative to the overall U.S. economy. In this note we first review the market and product mix of New York's manufacturing exports. We then compare New York unit labor costs by industry with those for the United States as a whole.

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<sup>1</sup>We thank Ethan Harris, James Orr, Rae Rosen, Barbara Walter, and colleagues from the lunch-time seminar for helpful comments and suggestions. The views expressed are our own and are not necessarily shared by the Federal Reserve Bank of New York or the Federal Reserve System.

<sup>2</sup>Considering its role as an international financial center, New York could well rank as the largest exporting state if data on service exports were available on a state-by-state basis.

We find that none of these factors fully explains the declining share of New York merchandise exports. New York's export markets are growing nearly as fast as the U.S. foreign market; New York exports are more concentrated in the industries with fastest export growth than the U.S. average. New York's unit labor costs by and large compare favorably with overall U.S. unit labor costs. Rather, total New York manufacturing output has been slipping behind U.S. manufacturing in a way not explained by relative unit labor cost trends. And, within manufacturing, a declining portion of New York's output is being exported while the opposite trend holds for the U.S. economy. The lagging performance of New York goods exports appears to be a symptom of broader problems within the New York manufacturing sector.

### **New York export data**

A relatively new resource permits analysis of U.S. exports on a state-by-state basis.<sup>3</sup> Although we would prefer to study

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<sup>3</sup>State export figures presented in this paper were obtained from the Massachusetts Institute for Social and Economic Research (MISER) of the University of Massachusetts. MISER data are drawn from Census Bureau data tape number EQ912, issued quarterly. This tape aggregates export-origin information from Shippers' Export Declarations (SEDs), which are filed for virtually all merchandise exported from the United States. On every SED, shippers are asked to identify the "point (state) of origin" of the export. Some shippers leave this item blank and, as a result, about 25% of the value of U.S. exports identified on the Census tape is unallocated by state. MISER addresses this gap by applying a formula to unallocated data, breaking down the category and reassigning export values to individual states. Although the resulting adjusted numbers provide a coherent picture of state exports, the accuracy of the figures is unknown

New York merchandise exports over a longer time period, we limit our analysis to the 1990 to 1994 period by reason of data comparability. In 1990, the basis for measuring U.S. exports to Canada (our biggest trading partner) was shifted to Canadian customs data. This method of data collection is more complete than reliance on export manifests, and caused New York's exports to Canada to register much higher than in previous years. Also, beginning in 1990 a number of changes were made to the SIC-based codes, including the addition of antiques and art to the used and second-hand merchandise category.

We exclude from the export total certain goods with special characteristics. Exports of primary metals are unusually high due to New York's position as the country's leading exporter of non-monetary gold. Gold exports are volatile and driven by external factors; they bear no relationship to New York's competitiveness and have little impact on New York employment. We excluded non-monetary gold exports from both New York and U.S. total exports on a country-by-country basis.<sup>4</sup> We also excluded

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because MISER's reallocation procedure cannot be validated. Another problem with the Census data is that instructions for filling out the SED allow shippers to choose among several alternate definitions of the state of origin. The implications of this choice is that exports attributed to a given state may not have actually been produced in that state but only stored in and distributed from there. Notwithstanding these limitations, the MISER-Census data provide the best up-to-date source of information on state exports.

<sup>4</sup>To obtain state data at this level of detail, we used New York City customs district data instead of the state-of-origin data used elsewhere. Customs district export data may include goods manufactured in other states and shipped out through New York City and exclude other goods manufactured in New York but

two other smaller categories that share some of the characteristics of gold: jewelry and precious gems (included in miscellaneous manufactures), and works of art and antiques (included in used and second-hand merchandise).<sup>5</sup> Thus, when we refer to total exports in this paper, we mean exports less non-monetary gold, jewelry, and used and second-hand merchandise.

### **New York export patterns**

If New York's exports were concentrated in slow-growth countries, poor market growth could explain lagging export growth. Likewise, an industry mix specialized in low-growth products, would similarly handicap New York State's export performance. Neither of these disadvantages applies to New York export patterns.

### **Geographic breakdown**

Mexico provided the fastest growing market for U.S. merchandise exports over the past five years. U.S. exports to Mexico were some 80% higher in 1994 than in 1990. Over this

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shipped from a different port. In the case of gold, however, these distortions are likely to be minimal.

<sup>5</sup>We subtracted data on exports of jewelry from miscellaneous manufactures in the same manner as for the gold data. In the case of artwork and antiques, however, the customs district data appear unrepresentative of New York state exports. Therefore, we eliminated the entire used and second-hand merchandise category from the total export measure. This distinction should not significantly affect our conclusions, as it results only in the further exclusion of used bulldozers, leather waste, and retread tires.

interval, exports to Mexico averaged almost 9% of the U.S. total. Over this same period, only 3% of New York's exports went to Mexico (Table 1). Asia constitutes another high growth market. U.S. exports to the Asian NICs<sup>6</sup> stood 45% higher in 1994 than in 1990 and represented 11% of the total. New York benefitted just as much as the rest of the country from this expansion, as it also exported 11% of its total to Asia.

Canada, the largest trading partner for both the United States and New York, has also been one of the fastest export growth markets. By far, the largest contribution to U.S. export growth last year came from Canada. And New York's access to this market is even greater than the U.S. average. So while New York missed out on much of the growth in exports to Mexico, the state is well represented in other major growth regions. Average demand in New York's top seven markets grew 1.6% per year (using New York market shares) between 1990 and 1994. Using U.S. market shares, demand in the same seven markets grew 1.8%, only marginally faster than the New York average. Aggregate market growth does not differ enough to explain New York's lagging export performance; if the difference in country markets were the only factor, New York's share of U.S. merchandise exports would have slipped only from 7.3% to 7.2%.

Relative export performance by country points to lagging growth of New York exports. As shown in Chart 2, U.S. exports to Canada and Mexico grew by a substantially higher margin from 1990

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<sup>6</sup>Hong Kong, Taiwan, Korea, and Singapore.

to 1994 than did New York exports. New York exports to the United Kingdom, Japan, Switzerland, and Germany actually declined over the period. Even if New York had the same geographical export distribution as the United States, the State's exports would still have significantly under performed.

#### Industry composition

An explanation to slower export growth could lie in the industry composition of New York exports. The major sources of U.S. export growth over the 1990 to 1994 period were in the (SIC) manufacturing sectors of transportation equipment<sup>7</sup>, electrical machinery<sup>8</sup>, instruments<sup>9</sup>, industrial machinery<sup>10</sup>, and chemicals and allied products<sup>11</sup>. While New York exports are under-

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<sup>7</sup>Motor vehicles and parts, aircraft and parts, ship building and repair, railroad equipment, motorcycles, bicycles and parts, guided missiles and spacecraft.

<sup>8</sup>Electricity distribution equipment, household appliances, electrical lighting and wiring, radio and TV receivers, communications equipment and electrical components.

<sup>9</sup>Measuring and controlling devices, optical instruments, surveying and drafting instruments, hydrological, hydrographic, meteorological and geophysical equipment, navigation systems, surgical, medical and dental instruments, ophthalmic goods, photographic equipment and watches and clocks.

<sup>10</sup>Computers and peripheral equipment, engines and turbines, farm machinery, construction machinery, elevators, cranes, refrigeration machinery and various other types of machinery used for the manufacture of goods.

<sup>11</sup>Basic chemicals, such as acids, alkalies, salts, and organic chemicals; chemical products to be used in other manufactures, such as synthetic fibers, plastics materials, dry colors, and pigments; finished chemical products, such as drugs, cosmetics, soaps, paints, fertilizers, and explosives.



represented in the transportation equipment (13% of total compared to 18% for the United States) and chemicals (6% vs. 10%) industries, they are equally or more highly concentrated in other high growth industries (Table 2). New York exports are more highly concentrated in electrical machinery (14% vs. 11%) and in instruments (11% vs. 5%). Concentration in industrial machinery is about the same (16%). A look at slow growth sectors shows the reverse. Rather than being concentrated in slow growth sectors, New York exports are under represented in most of the slower growing industries, including the largest of these, agriculture. If New York exports had grown category-by-category at the average U.S. pace, the total would have grown by an average 7.5% per year from 1990 to 1994 compared with total U.S. growth of 6.8% per year.

Comparison between New York and U.S. exports by industry shows that New York has competed well in a few industries. The State has outperformed the U.S. average in its largest export sector, industrial machinery (Chart 3). And a resurgence of crop and livestock exports in 1993 and 1994 helped New York State outpace the U.S. average in agriculture. However, New York has under performed the country in all other major categories except miscellaneous manufactures (and perhaps chemicals, where the gap is small)<sup>12</sup>. Exports of transportation equipment stayed flat,

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<sup>12</sup>New York exports of "other manufactures" have underperformed the U.S. average. However, it is difficult to analyze this category as a sector, since it consists of a variety of unrelated small industries, none of which would make a large enough contribution to export growth to merit individual

electrical machinery exports declined, and exports of instruments grew only 1.5% per year. In all, categories representing 30% of New York merchandise exports outperformed the U.S. average while the remainder under performed.

### **New York labor competitiveness**

If neither market growth nor industry concentration explains New York's faltering export performance, poor competitiveness of its manufacturing industries could explain an overall decline. Surprisingly, comparison of unit labor costs<sup>13</sup> between New York State and the U.S. average shows that New York enjoys a labor cost advantage in the five largest manufactured export sectors and for total manufacturing (Chart 3).

As seen in Chart 3a, ULC trends are consistent with export performance for some of the industries. New York has been outperforming the United States in exports of industrial

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analysis. In the majority of industries in this category (about 2/3), New York's exports have been growing slower than the U.S. average. In terms of New York export share, the largest of the under-performing sectors is printing and publishing, which accounts for only 3.0% of New York manufactured exports. The largest of the outperforming industries, paper and allied products, accounts for only 2.0% of New York exports. The point in recording this residual category is that, collectively, these sectors are not doing as well in New York as in the United States as a whole.

<sup>13</sup>Output by industry is based on nominal Gross State Product. The ratio of industry output to the respective industry employment provides a measure of productivity. Unit labor cost for each industry is calculated by dividing average hourly earnings by productivity. The gross state product data are from the U.S. Department of Commerce, Bureau of Economic Analysis; the employment and earnings data are from the U.S. Department of Labor, Bureau of Labor Statistics.

machinery since 1990. This superior performance is consistent with the relative productivity and unit labor cost (ULC) trends. New York's ULC has been declining relative to the U.S. since 1985 and has been lower than the U.S. average since 1986. (The Gross State Product data are available only up to 1992.) In the industrial machinery sector, the relationship between unit labor cost and exports fits well with the theory of comparative advantage; New York reestablished a unit labor cost advantage in 1986, and since (at least) 1990, New York exports from this sector have grown faster than the U.S. average.

New York export performance in transportation equipment has fallen behind that for the United States since 1991. In a larger perspective, New York's output of transportation equipment has lagged U.S. output since the late 1970s. The relative decline in New York's total output over this period is consistent with its higher-than-average unit labor cost. However, the deterioration in export performance since 1991 actually took place after a substantial narrowing of the gap between New York and U.S. unit labor costs for transportation equipment. Although the New York ULC remains above the U.S. average, New York's relative ULC has been declining since 1986. This pattern is consistent with output movements in 1989 and 1990, when New York output continued to expand while U.S. output began to decline. Since 1990, though, New York output has declined more rapidly than the U.S. average, so the recent lag in export performance could well reflect an overall shift away from the production of

transportation equipment in New York.

Chart 3b shows that the expected relation among ULC, output, and exports does not hold in all cases. In electrical machinery exports, New York has been under performing the U.S. average since 1990, with New York exports of electrical machinery actually declining in 1992. New York's relative competitiveness, however, does not explain this decline, as the relative ULC was no higher than that of the United States in 1988 (the first year of ULC data for this industry due to limitations of U.S. wage data for electrical machinery) and has remained below the U.S. ULC through 1992. New York and U.S. growth paths for electrical machinery output were similar from 1975 through 1984, but since the mid-1980s New York output has been declining relative to total U.S. output.

Despite New York's competitive advantage based on ULC, New York exports of instruments have lagged behind U.S. exports. This lag is not accompanied by any significant shifts in competitiveness, as New York's ULC for instruments has remained well below the U.S. average between 1988 and 1992 (U.S. wage data for instruments begin only in 1988). Output of instruments was relatively flat for both the U.S. and for New York through 1986. But as U.S. output expanded sharply in 1987 and 1988 (nearly doubling in two years), New York output increased only moderately by comparison. Since 1989, New York production of instruments has fallen slightly while U.S. output has held steady. However, over the entire period from 1975 to 1992, New York has maintained

a consistent and wide productivity advantage in the instrument industry, a pattern not seen in most other industries.

While the relative ULC in chemicals has fluctuated substantially since 1975, on average New York's ULC has been below the U.S. average and has declined somewhat since 1989. Nevertheless, New York's output of chemicals did not share the strong growth enjoyed by the overall industry since 1985. Although New York chemical exports lagged behind the U.S. in 1991, relative export performance has improved notably since then. The strong relative export performance in 1993 and 1994 suggests either a solid recovery in New York chemical output since 1992 or an increased export share in the two most recent years.

For the manufacturing sector as a whole and in almost all of the major manufacturing industries, New York's lower unit labor cost has provided a competitive advantage relative to the U.S. average. This labor cost advantage is at odds with New York's export performance, where New York has lagged the United States in almost all manufacturing sectors. Output and export performance have worsened together. Since 1982, New York's manufacturing output has slipped progressively behind U.S. manufacturing output despite New York's consistent relative unit labor cost advantage. And, New York's export orientation within

the manufacturing sector has recently declined, while an increasing share of U.S. output has been exported.<sup>14</sup>

### **Other measures of competitiveness**

Although labor cost is not the only cost of production, it is the largest of input costs and is often used as the basis for comparison of (international) competitiveness where comparable data on other production costs are not available. Nevertheless, other costs of doing business beyond unit labor cost could be reducing New York's competitiveness and encouraging manufacturing firms to expand capacity outside the state. "The 1995 Development Report Card for the States"<sup>15</sup> represents one example of an attempt to compare all business costs across states. The "Report Card" develops several measures of New York State's overall business climate.

A number of factors in New York's report card are consistent with the trends we observe in manufacturing output. Although New York enjoys one of the lowest rates of business closings, it ranks only 37th among states in new company growth and 46th in new business job growth. And while New York compares well in the level of overall competitiveness of existing businesses, it ranks

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<sup>14</sup>The share of New York manufacturing output directed to export markets declined from 41% in 1990 to 37% in 1992. Over the same period, the ratio of U.S. exports of manufactures to total output rose from 35% to 38%. Granted, the comparison period is short. The two data sources overlap for only three years; export data on the revised basis begin only in 1990 and gross state output data are not yet available beyond 1992.

<sup>15</sup>Published by the Corporation for Enterprise Development.

poorly (42nd) in manufacturing capital investment, consistent with the slide in relative manufacturing output. Although the average level of New York's income is high,<sup>16</sup> the state ranks only 36th in pay growth. New York's high scores on human, technological, and financial resource indicators are consistent with the state's high relative manufacturing productivity. The employment, pay, and productivity scores are consistent with New York's improving relative unit labor cost.

Indicators suggest other factors contributing to a relative decline in manufacturing activity. New York State ranks poorly in a number of categories that could increase the cost of doing business in the State. Most notably, New York has the highest unit energy costs of all the states and ranks among the highest in urban housing costs. Additionally, New York scores poorly in highway and bridge adequacy.

The tax structure can also discourage business activity in a given state. The Report Card assigns New York an average ranking on a number of state tax stability and fairness measures. Another study directly attempts to compare the level of state and local taxes in New York to other states.<sup>17</sup> This study identifies disparities between the tax and spending structures of

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<sup>16</sup>New York enjoys the second highest average annual income among states and fifth highest traded sector personal income per worker. These rankings, of course, are pushed up by New York City service sector incomes.

<sup>17</sup>"Analysis of Local Government Tax Burden and Expenditure Trends" prepared by M&T Bank, First Empire State Corporation, 1995

New York state and local governments and those of other states that could discourage businesses from locating in New York. In 1992, New York's combined state and local taxes were the second highest among the states per capita. The local component of these taxes was the highest in the nation and more than twice the U.S. average. Excluding the exceptionally high New York City taxes, New York's per capita local taxes are still 75 percent above the average and more than 50 percent higher than the next highest "peer" state<sup>18</sup>, Illinois. The study also compares the tax structure of Wyoming County, a small rural county, to similar counties in the peer states. While Wyoming County enjoys one of the lightest tax burdens in New York state (per capita local government revenues and expenditures are 28 and 31 percent below the state average, respectively), its per capita tax revenues and expenditures are still 43 and 49 percent, respectively, above the average for its peer counties.<sup>19</sup> The study submits that two causes of New York state's heavy tax burdens are high state mandates on local spending, particularly welfare and education, and multiple layers of local government.

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<sup>18</sup>Other states of similar size and characteristics include: California, Texas, Florida, Ohio, Pennsylvania, Michigan, and Illinois.

<sup>19</sup>Excluding Wyoming County's unusual hospital expenses, these figures are reduced to 20 and 27 percent above peer counties.



## **Conclusion**

We set out to review New York's merchandise export performance and to uncover factors that could explain New York's declining share of manufactured exports. The three main suspects were specialization in slow growth markets, adverse concentration in slower growing export goods categories, and lack of labor competitiveness in New York manufacturing. None of these factors explains the decline. New York's export markets grew every bit as fast as the average U.S. market between 1990 and 1994. And New York's manufactured exports are not concentrated in low-growth categories. The five fastest growing export categories represent the same share of the U.S. total (60%) as they do of the New York total. Finally, New York's manufacturing labor costs are below the U.S. average. We find that New York's declining share of manufacturing exports cannot be attributed to external market factors or to high labor costs. Admittedly, the period 1990-94 is too short to perform rigorous statistical analysis of New York export trends. Nevertheless, the emerging pattern is too troubling to wait for more data before drawing attention to the export slippage.

Moreover, the disturbing trend in New York exports parallels a general decline in New York manufacturing output over a longer period of time that also defies explanation by relative unit labor costs. Somehow, U.S. manufacturing industries recovered from the strong dollar of the mid 1980s in a way that New York industry did not (Chart 3). Despite consistently lower unit

labor costs since 1975, growth in New York's manufacturing output has not kept pace with that of U.S. manufacturing as a whole. Although moderate through 1984, the U.S.-New York manufacturing output gap has widened from 1985 until 1992, while New York's unit labor cost has declined faster than the U.S. average. New York's higher labor productivity has more than offset the State's somewhat higher manufacturing wage over this period.

A host of other factors could underlie the relative decline in manufacturing output and exports. Independent measures indicate that New York State lags other states in new company and new job growth, in transportation infrastructure, and is saddled with the highest energy costs among states. New York's state and local tax burdens rank high compared with states of similar size and characteristics. Finally, state regulatory burdens on business are often cited anecdotally as a factor dampening manufacturing activity in New York. Non-labor cost, the success or failure of firm strategies, and the tax and regulatory climates are difficult factors to quantify. The purpose of this paper has been to show that the "usual" suspects fail to explain New York's lagging export performance. Clearly, work is warranted to understand the other factors behind New York State's manufacturing export and output slippage.

## APPENDIX

### Gold, Jewelry, Art and Antiques

Total New York exports perform reasonably well relative to the U.S. total. Total New York exports, though lagging the United States in the early 1990s, appear to be keeping up if not for a bad year in 1994 (Chart 4). However, two anomalous categories distort the export total and misrepresent the underlying strength of New York State's export sector. The primary factor behind the seeming 1993 recovery in New York exports was a huge increase in shipments of gold bullion. Between 1992 and 1993, the value of gold exported from New York City nearly quadrupled, from \$1.8 billion to \$6.7 billion. Because most U.S. gold exports are shipped from New York (just less than 80% in 1993), this increase represents a much larger proportion of New York exports than of U.S. exports (13% compared to 1% in 1993). The gold surge inflated New York exports in 1993.

On the other hand, shipments of art, antiques and jewelry (which combined accounted for more than 3% of New York total exports last year) have constituted a significant export drag since 1990. Art and antique exports fell by more than 47% for both New York City and the United States between 1990 and 1994. Over this same period, exports of jewelry from New York City and from the United States fell 34% and 4%, respectively. For both art and jewelry, the declines bore more heavily on New York total exports than on the U.S. total because of the high concentration of exports of these goods from New York. This decline also misrepresents New York's export sector for several reasons. Exports tallied in these categories mostly represent goods shipped from, but not manufactured in New York, so they are not representative of New York value added. Second, the decline in the value of art exports owes primarily to price fluctuation and not volume change. As seen in Chart 5, the New York City customs district export value data closely follows the international art market price index. This price series illustrates the art market boom of the late 1980s, with prices spiking dramatically after 1986, peaking in 1990, and collapsing in 1991 and 1992. The use of 1990 as a base year for exports incorporates what turned out to be an unsustainable peak in art exports. A representative picture of New York export performance, then, requires excluding gold, jewelry, art, and antiques from the comparison.

Table 1

# Major Export Markets

Percent of total, 1990-94 average

	<u>NY</u>	<u>US</u>
Canada	23	21
Asia	11	11
United Kingdom	9	5
Japan	9	11
Switzerland	7	1
Germany	4	4
Mexico	<u>3</u>	<u>9</u>
Total	65	63

# Table 2      Composition of Exports

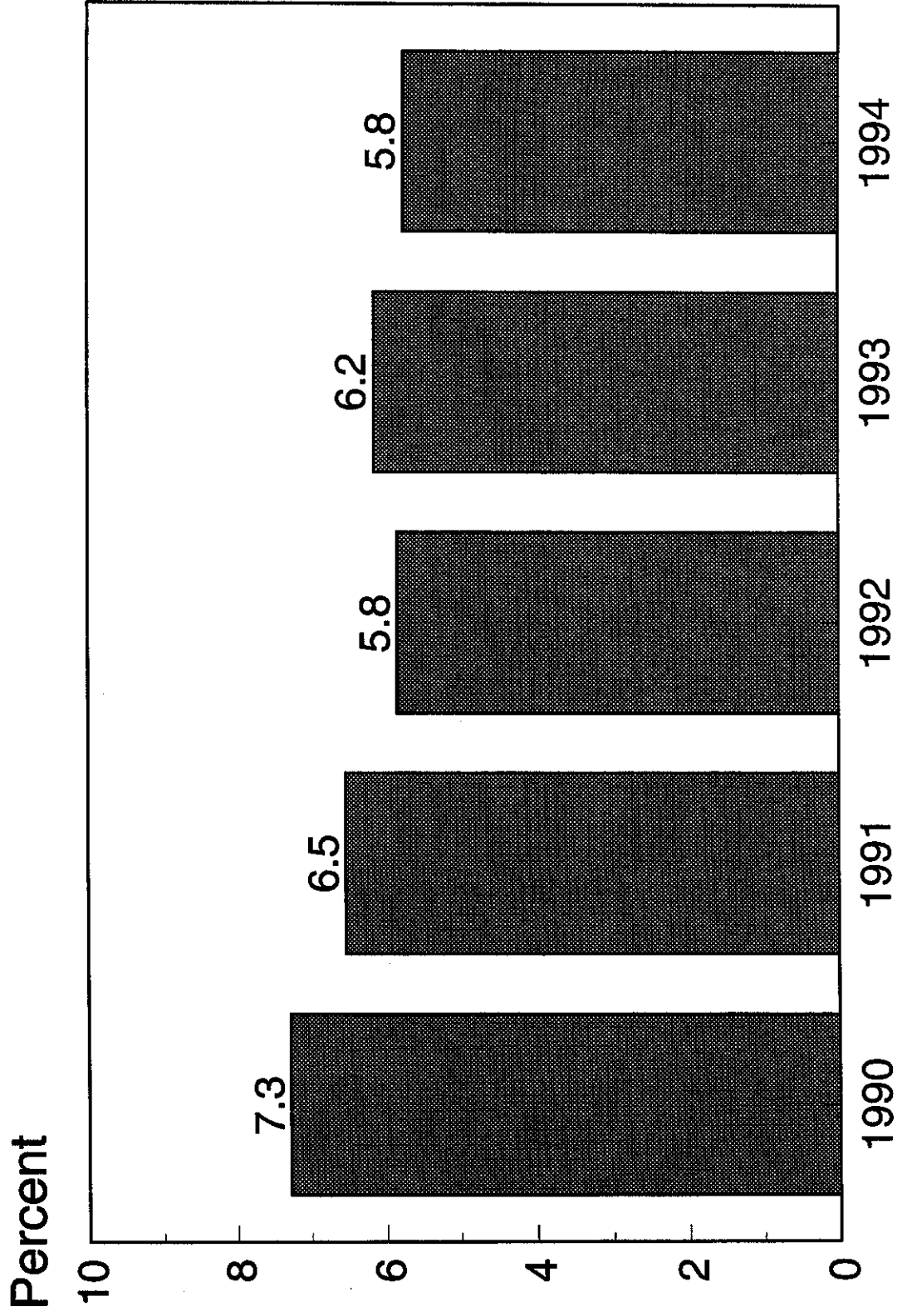
Percent, 1990-94

(Growth rate shown in parentheses)

	<u>NY</u>		<u>US</u>
Industrial Machinery	16	(11.2)	16 (7.3)
Transportation Equipment	13	(-0.0)	18 (5.7)
Electrical Machinery	14	(-2.9)	11 (12.9)
Instruments	11	(1.5)	5 (7.6)
Miscellaneous (excl. Jewelry)	9	(4.3)	1 (9.0)
Chemicals	6	(5.3)	10 (6.6)
Other Manufactures	28	(-4.8)	32 (6.8)
Agriculture	1	(5.2)	6 (0.3)
Mining, Oil & Gas	<u>1</u>	(1.8)	<u>1</u> (-4.9)
Total	100		100

Chart 1

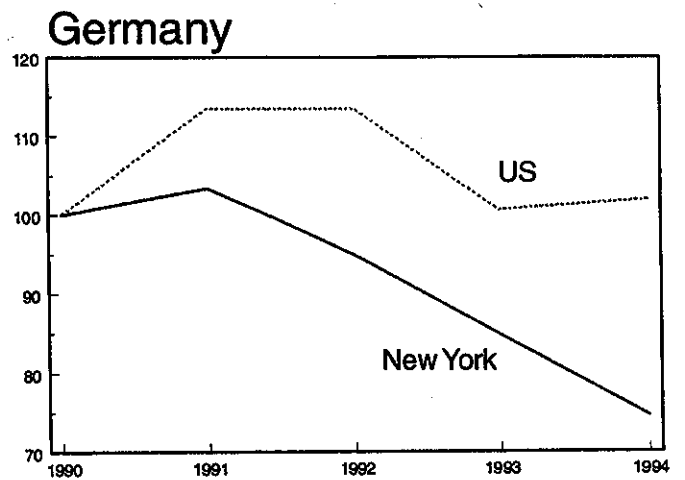
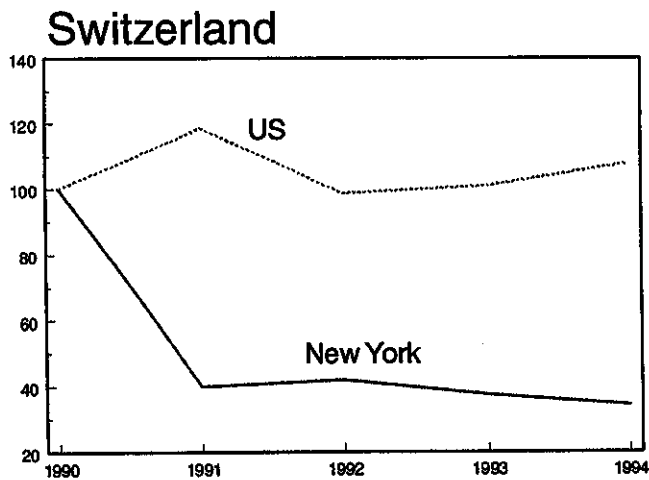
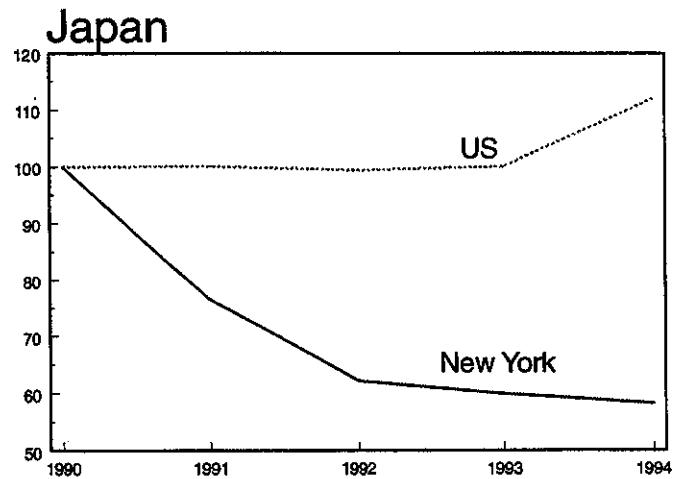
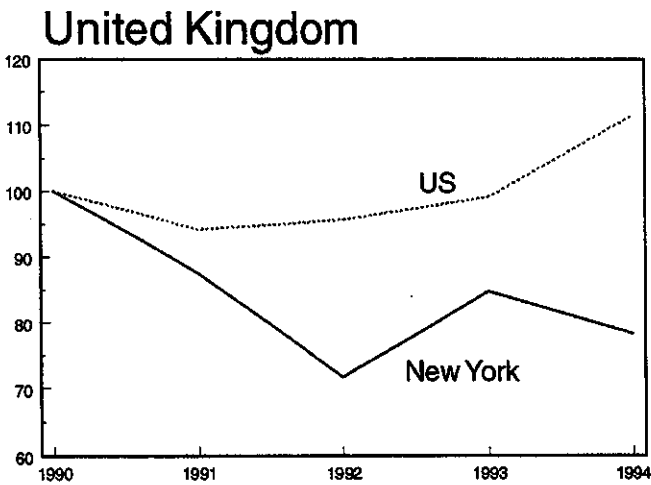
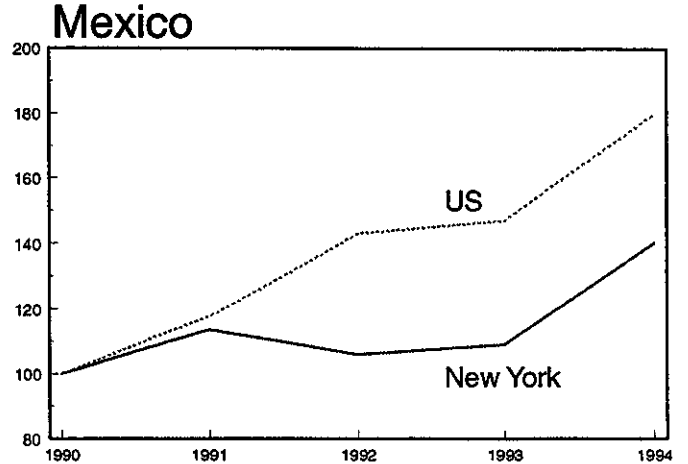
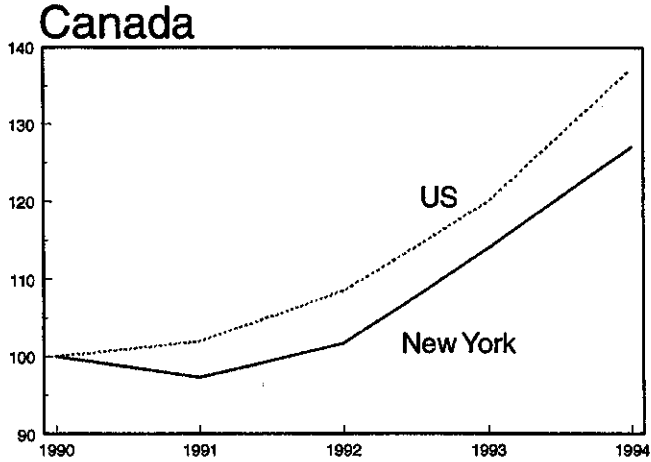
# New York Share of US Exports



# Chart 2

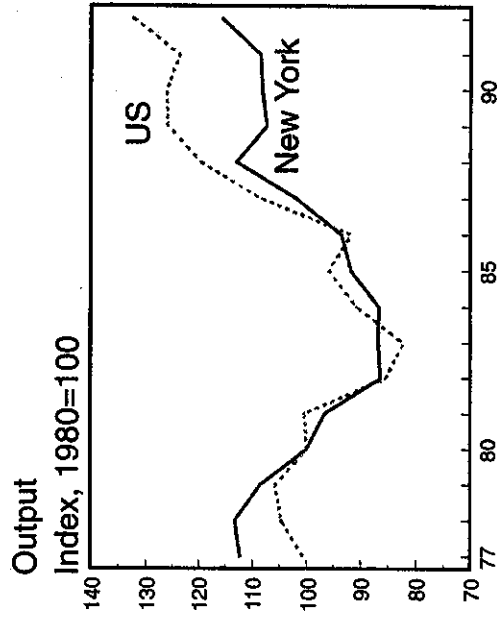
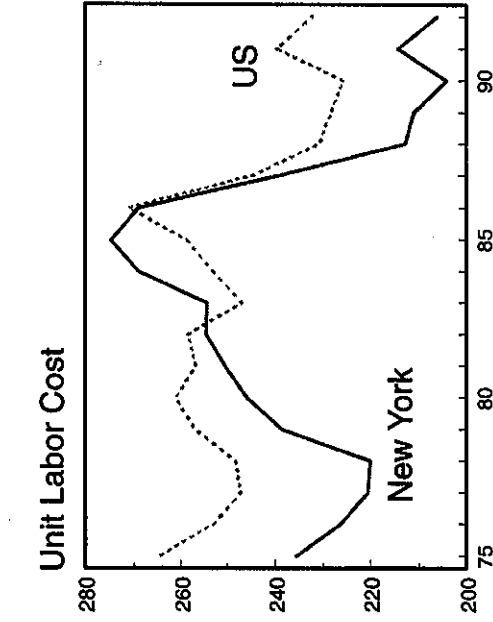
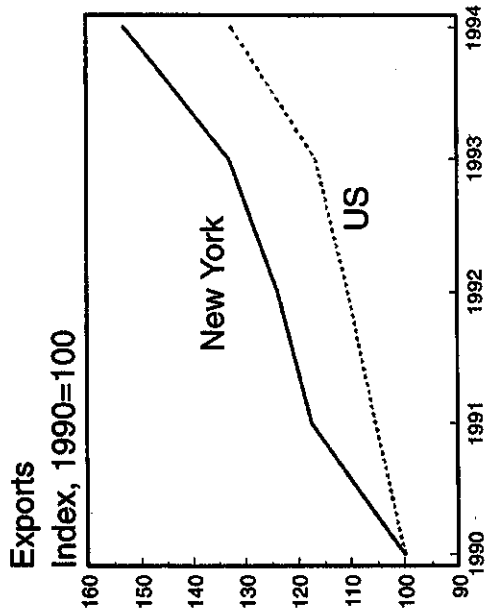
## EXPORTS TO MAJOR PARTNERS

Index, 1990=100

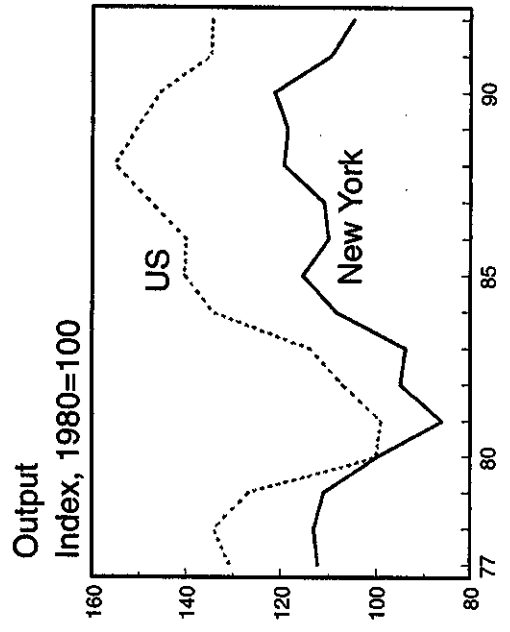
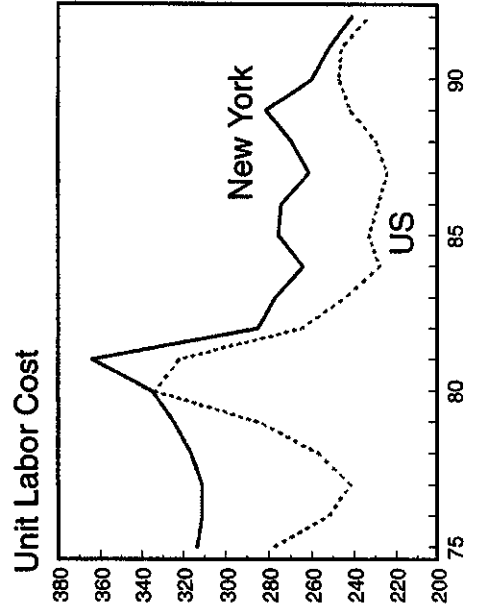
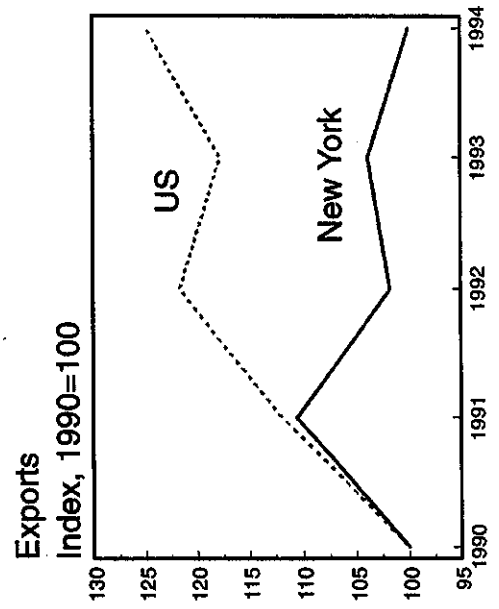


# Chart 3a

## Industrial Machinery



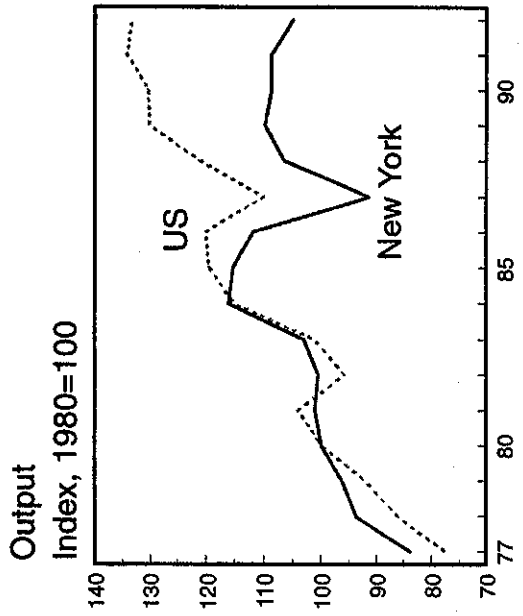
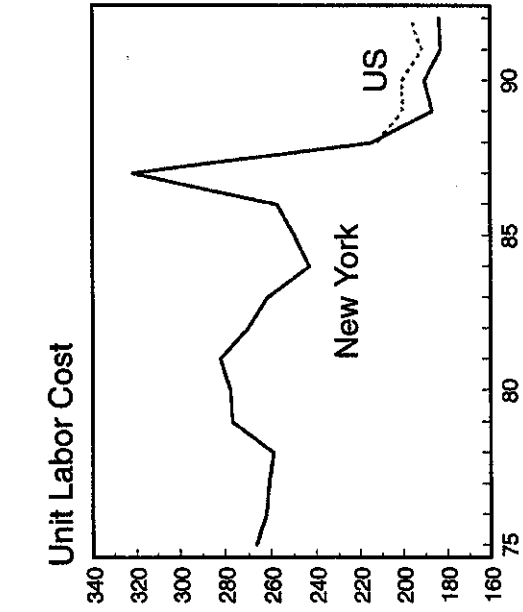
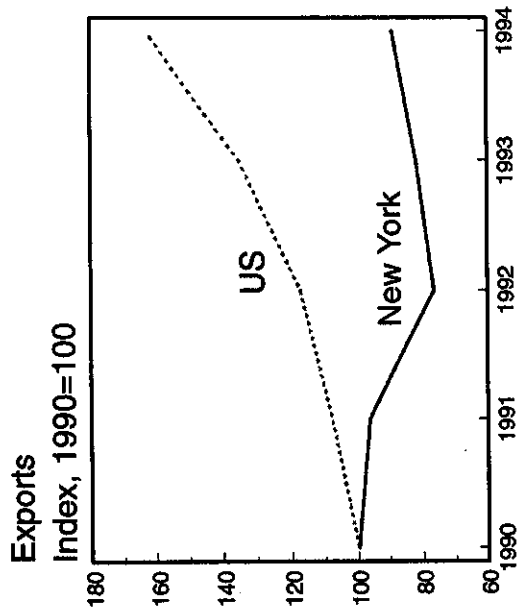
## Transportation Equipment



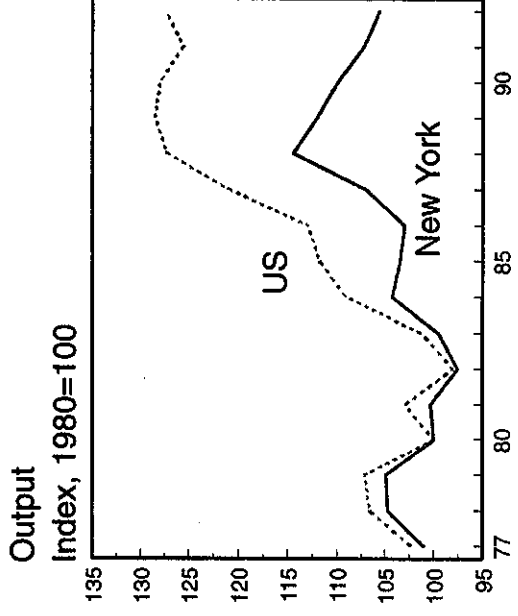
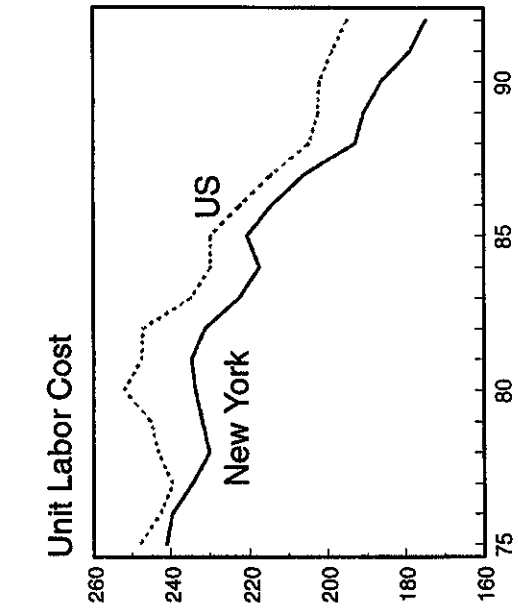
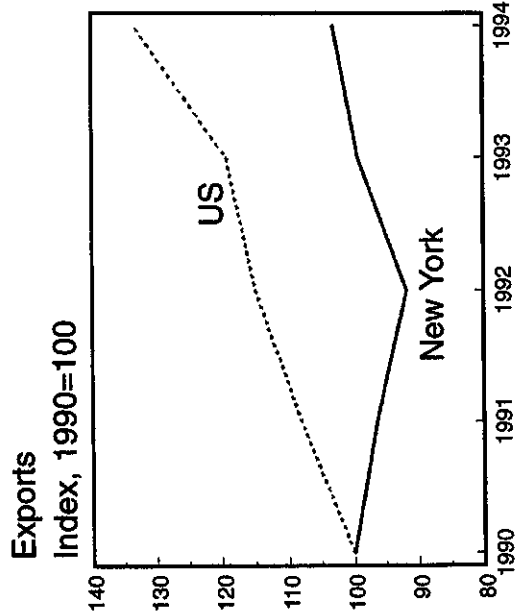


# Chart 3b

## Electrical Machinery



## Total Manufacturing /1



/1 Excluding gold, jewelry and used and second-hand merchandise

Chart 4

### Total Exports

Index, 1990=100

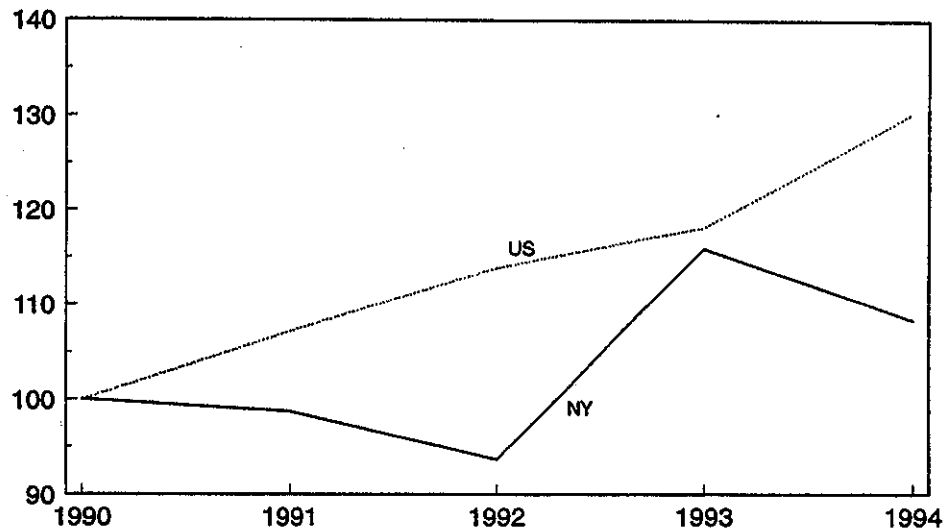
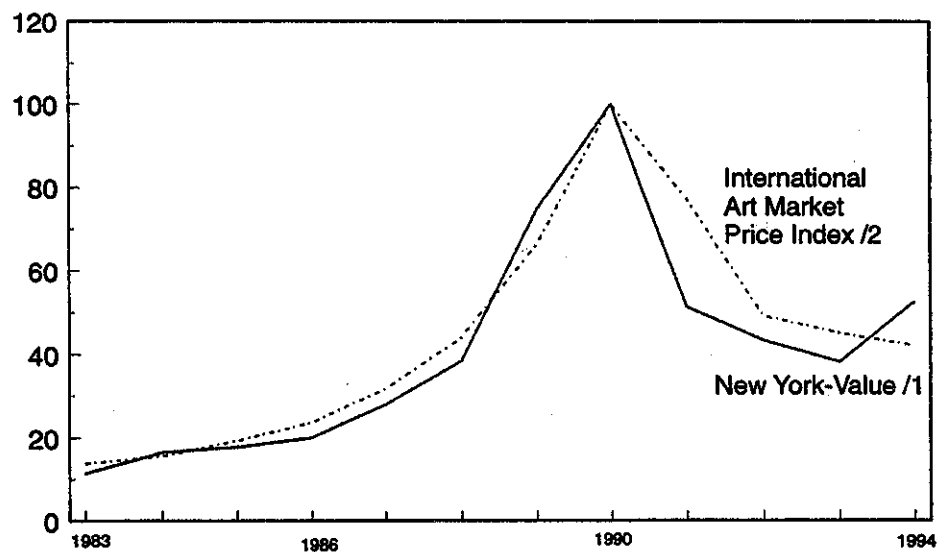


Chart 5

### EXPORTS OF ART AND ANTIQUES

Index, 1990=100



/1 New York City customs district data, value of exports  
/2 Art Market Research, London