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U.S. Offshoring:

Implications for Economic Growth and Income Distribution

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1. Introduction

The rapid expansion over the past twenty years of U.S. imports of intermediate goods and services—offshoring—is the clearest indicator of the development of global production networks that has reshaped the world economy. In this paper we first assess the effects of offshoring on income distribution and growth in the US and then we turn to a broad consideration of its implications for developing countries and Latin America in particular. We report two basic findings. The first is that offshoring has contributed to the historic increase in the share of U.S. income going to profits, but this profit income has not been used for investment purposes as assumed in the standard economic models of the long-term gains from offshoring. Second, while there has been a marked expansion of Latin American exports to the US, especially by Mexico, there is no evidence of broad-based “industrial upgrading” in that region. We define upgrading as a proportional rise in the share of world manufacturing value added relative to the share of world manufacturing trade. We conclude that the second finding is partly the result of an asymmetry of market

structures in global production networks, in which lead firms and large first-tier suppliers are able to pressure downstream suppliers to reduce costs, to induce more competition among suppliers, to offload a greater share of risk onto suppliers, to limit suppliers' access to some advanced technologies and, most importantly, to create barriers to entry that limit prospects of "moving up" the supply chain. These findings make us skeptical of the magnitude of any "dynamic" benefits of offshoring that are so cited in support of the neo-liberal vision of the global gains from increased market-based international integration.¹

2. US Offshoring: An Overview

2.1 *Extent of Offshoring*

The rise in international offshoring is typically attributed to technological changes that have reduced the cost of rapid transport of goods and information. The revolutions in container shipping and in digital communications have increased the efficiency of breaking production processes into parts and locating those in different locations. These factors, combined with the liberalization of trade and foreign investment have made the "fragmentation of production" an international phenomenon.

U.S. trade in intermediate goods (as opposed to final goods) account for a large and growing share of total input use in the U.S. According to Yi (2003), up to half the increase in the volume of US trade over the past 20 years is the result of intermediate goods trade. The level of intermediate goods imports rose steadily in the 1980s and 1990s and by 2003 had reached levels exceeding 35 percent of inputs in a number of manufactured goods

¹ See, for example, the recent comments by Federal Reserve Chairman, Ben Bernanke (2006).

sectors, as shown in Figure 1. Intermediate imports by the services sector are lower than in manufacturing, but have also grown very rapidly in the last five years. Figure 2 gives sectoral data for 2003.

— Figures 1, 2 about here —

2.2 Governance of globalized production

According to Coase's (1937) theory of the firm, the result of the decline in transport and communications costs should be a greater reliance on markets, that is on arm's-length transactions rather than on intra-firm production. Arndt and Kierzkowski (2001, p. 33), for example, envision a diminished role for the multinational corporation in organizing international production: "As the price of international service links declines, and as knowledge becomes more widespread, we now suggest that the necessity for containing various production blocks under the umbrella of a multinational organization is systematically being reduced." Langlois (2003) sees the decline in transactions costs as bringing in a new, post-Chandlerian era of industrial organization, in which markets increasingly reassert their efficacy relative to hierarchies. He writes: "[T]he visible hand—understood as managerial coordination of multiple stages of production within a corporate framework—is fading into a ghostly translucence."²

Is the transactions costs view of the trends in the organization of globalized production borne out by the evidence? The answer depends on the region and the type of input. We use a broad definition of internalization, based on data for U.S. "related-party

² Langlois, 2003, p. 3.

trade” (defined as where the importer or exporter owns five percent or more of the firm with which it is trading), for the period 1992-2004.³ Arm’s-length imports (those not transacted between related parties) have been remarkably constant as a share of total goods imports—not what the transaction-costs theorist predicts. And for the cases of U.S. trade with East Asia and Eastern Europe, the share of related party trade has risen. In 2004, over 25 percent of imports from China were related party, over 30 percent from Eastern Europe and over 60 percent from Mexico and South Korea. These trends are shown in Figure 3. For each of these regions, trade with the U.S. has become increasingly of the intra-firm type, the opposite of the trend predicted by the transactions cost paradigm.⁴ On the other hand, the rising intra-firm trade share growth of U.S. trade partners such as China and South Korea and the constancy of the aggregate share implies that the intra-firm share with many industrialized countries must have declined, supporting the Coasian view in these cases.⁵

— Figure 3 about here —

The governance of trade also differs between goods and services. U.S. imports of services have become increasingly traded on an intra-firm basis since the early 1990s, both in value terms, and relative to all goods and services trade. The rise is clear in the area of “Other Professional Services,” shown in Figure 4. The average annual growth rate of intra-

³ We use the related party trade data because of the country-level detail they provide in comparison with the BEA data on intra-firm trade. In the BEA data set, intra-firm trade is defined as trade between the parent firm and its majority owned affiliates, whereas the related-party trade includes trade between two firms in which one firm has at least a five percent equity interest in the other. The aggregate figures for the U.S. have very similar patterns in the two data sets.

⁴ See Gereffi (2006) for a discussion of the case of U.S.-Chinese trade.

⁵ China, South Korea and Taiwan have a combined share in total U.S. merchandise trade of more than 15%. The data are unfortunately not readily available on trade with Europe.

firm imports of computer- and information-related services, a subcategory of business, professional and technical services exceeded the arm's length import growth rate by 50%.

— Figure 4 about here —

3. Offshoring and Economic Growth: The Sources of Profits

3.1 *Theoretical debate*

The debate over the governance of trade has not generally been linked to the question of the welfare effects of offshoring.⁶ International trade economists agree that in the short run the offshoring surge has brought efficiency gains, but may not have been beneficial to US welfare overall because of inadequate assistance to displaced workers. Even Samuelson (2004), one of the founders of the modern theory of international trade, has expressed concern about the negative effects of outsourcing on U.S. well-being. Samuelson made two basic points. The first was that while it is a standard result in trade theory that trade liberalization will bring winners and losers, it has become a commonplace to assert that the potential for winners to compensate losers has been presumed adequate proof of the actual unambiguity of the gains from trade liberalization.

Samuelson's second point was that productivity gains by one country which offset the existing pattern of comparative advantage could reduce or eliminate gains from trade and actually hurt the other country, by reducing its terms of trade or eliminating the basis for

⁶ In the 1980s, as inward FDI to the U.S. expanded, there was a debate over the question of whether "ownership mattered". (see Reich, 1990 and Tyson, 1991). In a developing country context, Amsden (1999) has argued for the importance of domestic ownership. None of these arguments were in the context of the predominance of global production networks, however.

trade entirely. Samuelson takes this case to apply directly to that of offshoring today, in which a component of the production process, previously performed in the U.S., is subsequently outsourced to China or India.

Samuelson's intervention in the debate over the U.S. effects of offshoring met a strong response from free traders, most prominently in a paper by Bhagwati, Panagariya and Srinivasan (2004). Bhagwati and his co-authors (and more directly Panagariya, 2004) did not reject Samuelson's logic, but claimed instead that Samuelson's model is irrelevant to the contemporary issue of outsourcing which is about the creation of newly-traded services such as call centers and medical x-ray analysis rather than international competition in an already-traded sector. When a previously non-traded good or service becomes a tradeable, the productivity gains in the foreign country (which Samuelson identified as hurting the home country) lead to gains in the home country because the home country did not previously trade the good or service subject to the productivity gain.

While the Samuelson-Bhagwati debate received a lot of attention in the popular press, the more serious claims for the benefits of offshoring have been linked to its expected *dynamic* effects on importers and exporters. The expansion of U.S. offshoring of intermediate goods and service is expected to raise U.S. productivity, leading to an expansion of investment and a higher rate of economic growth.

For the developing countries, the dynamic gains from increased intermediate goods exporters are the income expansion from exports (with a multiplier effect) and the possibility

of future industrial upgrading in global production networks, which by definition are associated with capturing more of value added and thus income.

3.2 The Dynamic Effects of Offshoring as a Boost to Profits

Thus while economists cite the famous Ricardian principle of comparative advantage to show the static benefits of outsourcing to all countries, the view that offshoring will benefit the US economy overall hinges on another argument found in Ricardo—his theory of economic growth and especially of the link between international trade and domestic investment.⁷ In Ricardo's view, the importance of trade liberalization was through its impact on the profit rate. He saw agricultural protectionism as keeping the price of food high, and, as a consequence, pushing up the real wage. Relatively cheap food imports would lower the real wage paid by employers and thus raise the rate of profit. A higher profit rate would induce a more rapid rate of investment which in turn would generate a higher rate of economic growth.

A similar dynamic is implied in much of the applied work on the effects of offshoring on the US economy, for example in Catherine Mann's (2003, 2006) commonly-cited analysis of information technology (IT) hardware offshoring. The positive outcome is the result of the capital deepening that comes from increased business purchases of IT hardware in response to the price reduction from cheap imports. Mann estimates that imports of IT hardware between 1995 and 2002 accounted for 20% of the observed decline in IT hardware prices and as a result raised U.S. real GDP by 0.3 percentage points over what it would have

⁷ The original statement is Ricardo (1815). See also Maneschi (1986).

been otherwise.⁸ Her analysis shows that the strongest case for services offshoring is not found in the static efficiency gains identified in the traditional theory of international trade, but in the dynamic process of capital deepening that can occur when the outsourced good is an input to production. The higher capital intensity of production following the price decline leads to higher productivity and output.

The central question is thus whether offshoring is leading to higher profits and if these profits are then being invested and bringing higher productivity and output. On these issues, there is surprisingly little empirical research.⁹ Firm level surveys (for example, McKinsey Global Institute, 2003) find that services offshoring reduces costs to the firm by around 40% for the outsourced activity. Dossani and Kenney (2003, p. 7) report that a 40% cost saving represents the hurdle rate of return on services offshoring. A number of large firms they survey reported savings considerably higher than this. Gorg and Hanley (2004), using a sample of 12 Irish electronics manufacturers, find that firm-level profits are directly related to outsourcing for large firms (in employment terms) and not significantly related for the small firms in the sample. In a study of small- and medium-size Japanese firms, Kimura (2002) found no relation between subcontracting and profitability. In a study of German manufacturing firms, Gorzig and Stephan (2002) found outsourcing of materials

⁸ Mann's estimate has been lauded by many as proof of the positive long-term effects of outsourcing and has been criticized by others for overstating the share of IT capital income in total national income and thus for overstating the implications for GDP growth. For praise, see Bhagwati et al. (2004). For a critique, see Bivens (2005).

⁹ Most of the research focuses on the wage gap between high-skill and low-skill workers and leaves aside issues of profits and the profit share. See, for example, Dell'mour et al. (2000), Geisheker (2002), Head and Ries (2002), Anderton and Benton (1999), and Gorg et al. (2002).

to be associated with higher profits but outsourcing of services to be associated with lower profits.

Services offshoring in particular has expanded most rapidly during a period when corporate profits in the U.S. have reached a historic high, and the share of corporate profits in national income is higher than at any time since 1969. Has offshoring contributed significantly to these trends? To test this proposition, we estimated a multivariate model of the profit share, adding a measure of offshoring while controlling for variables commonly used in models of the profit or wage share, including the sectoral share of total employment, labor productivity, and capital intensity. The model follows the specification of Bentollila and St. Paul (2003):

$$\begin{aligned} \text{PSHARE}_i = & \beta_0 + \beta_1 (\text{EMPSHARE}_i) + \beta_2 (\text{CAPINT}_i) \\ & + \beta_3 (\text{LPROD}_i) + \beta_4 (\text{OFFSHORE}_i) + \varepsilon_i, \end{aligned}$$

where PSHARE is the profit share, EMPSHARE is the sector share of total employment, CAPINT is the ratio of capital to value added, LPROD is labor productivity and OFFSHORE is the level of offshoring.

We estimated the model using OLS for a cross-section of 50 two-digit SIC sectors by looking at the percent change in all variables over the period 2000-2003. The regressions rely on a very small sample, thus the results, presented in Figure 5, are merely suggestive. The offshoring variable is positive and significant. The same results were found when we regressed these variables on the percentage change in the sectoral profit rate. The profit share model estimates are given in the bottom half of Figure 5. In sum, changes in the profit share

at the sectoral level during 2000-2003 are positively and statistically significantly associated with changes in offshoring.

— Figure 5 about here —

3.3. Dynamic Gains and the Use of Profits

The increase in profits and the profit share has not been met by an expected rise in business investment. Figure 6 shows the profit share (defined as corporate profits after tax with inventory valuation and capital consumption adjustments relative to national income) and the ratio of private fixed investment to profits for the U.S. on a quarterly basis from 1970-2006. The gray areas in the Figure correspond to recessions and are included because both variables have a clear cyclical pattern. The profit share generally rises well into the cycle and then begins to fall as the downturn approach, bottoming out during the recession. The ratio of investment to profits normally does the opposite, falling as the economy moves into the upturn and then rising as investment growth drops in relation to profits as the economy approaches recession. The pickup in profits relative to investment sends the ratio down as the economy recovers.

These same patterns are seen in the most recent recovery period since the end of 2001. But the amplitude of the shifts are larger than any period since World War II, reaching levels in the profit share not experienced since the late 1960s. Similarly, the investment to profits ratio has reached unprecedented levels. The peak in the profit share in the last two cycles is well above historical (post World War II) norms, and even at its lowest point in the cycle is well above peak levels in previous cycles. As the economy appeared

headed toward slowdown in late 2006, there was not yet any sign in the data of the expected cyclical decline in the profit share or a rise in the ratio of investment to profits.

This evidence indicates that the dynamic Ricardian model is functioning only up to a point. Offshoring is contributing to lower costs of production, higher profits and a higher profit share, but this is not being matched by a rise in investment that would spur productivity gains and economic growth.

— Figure 6 about here —

Another implication of this pattern of profits and investment is that the liquidity of the corporate sector is considerably higher than usual. Dividend payments rose to almost \$577 billion during 2005, up almost 7% from 2004, and at a significantly higher rate than anytime since 1980. Relative to national income, dividend payments rose to 5.3 percent in 2005, compared to 3.9% in 1995 and 2.6% in 1985.¹⁰ These figures indicate a long-term trend that reflects many factors unrelated to offshoring. But given the contribution of offshoring to corporate profits, there is the likelihood of a connection.

Merger and acquisition activity has surged since 2002, and soared to \$1.23 trillion in the first three quarters of 2006, representing a year-on-year increase of 30%.¹¹ The Financial Times reports that the most recent M&A-activity pushed this cyclical peak past the internet bubble.¹² Finally, corporations are buying back stock at an unprecedented rate of \$164

¹⁰ Source: BEA and author's calculation.

¹¹ Thomson Financial (2006).

¹² Financial Times, December 21 2006, "M&A in 2006 beats tech boom"

billion in the first half of 2005, almost double that in the same period in 2004.¹³ Over the past two years, and for the first time since the mid-1960s, the corporate sector is a net lender to the rest of the economy.¹⁴

Another possible use of cash flow is for investment abroad. But relative to domestic investment, foreign direct investment, and especially the net outflow of foreign direct investment, is very small, averaging 2.9% of total investment over the period 1990-2006. This is above levels in the 1970s (1.6%) and the 1980s (2.2%), but still not high enough to explain the use of funds by non-financial corporations.¹⁵

4. U.S. Offshoring and Latin American Trade

The U.S. expansion of offshoring activity has contributed to demand for imports from Latin America. U.S. imports from Latin America exceeded \$400 billion in 2005 and are steadily approaching 20 percent of that region's gross domestic product. The greatest beneficiary has been Mexico, which enjoyed more than 11% annual growth in exports to the

¹³ Wall Street Journal, October 24 2005, Page A2: "Rising Stock Buybacks Align with Repatriated Profits"

¹⁴ Flow of Funds, Board of Governors of the Federal Reserve System. Taylor (2005) et.al. report net borrowing cycles by major sectors for the US-economy post WWII. The business sector's net borrowing—investment expenditures less undistributed profit income—turned negative only occasionally and shortly and appears to be at all time high levels since the late 1960s. Bivens and Weller (2005) attribute this cash position of corporations to a longer-term change in corporate governance. Bates et al. (2006) find the cash-to-assets ratio of U.S. firms to be at a historic high and attribute this to risk, that is an increase in the volatility of cash flow. Hedging this risk requires more cash holdings relative to the value of assets.

¹⁵ Another possibility is that investment is simply lagging behind its usual cyclical pattern. Two oft-cited possible factors in such an investment lag are (a) the overhang of information technology investment resulting from the bust after the dot.com boom and (b) the effects of higher productivity growth in the late 1990's that lowered investment needs for a given amount of output growth. With the U.S. economy headed by many indications into another slowdown, it does not appear, however, that there will be a return to the pattern seen in previous cycles.

U.S. since signing the NAFTA in 1994. Figure 7 shows the change over time in the share of Latin American exports that go to the US. By the late 1990's, almost 90 percent of Mexican exports were to the U.S. For the Caribbean countries this reached 65-70 percent in the same period. The rest of Latin America also experienced increased reliance on the U.S. market, while the rest of South America has consistently shipped about 40 percent of its exports to the U.S. over the past 25 years. Figure 8 compares country shares of total Latin American exports to the U.S. and shows just how dominant Mexico has become. In the 2001-2004 period, 67 percent of Latin American exports to the U.S. were from Mexico and most of Mexico's dominance occurred before the NAFTA agreement went into effect in 1995.

Even in services trade, there is rapid growth in U.S. imports from Latin America, albeit beginning from low levels and certainly well below the level of services imports from Asia, for example. Figure 9 shows Business, Professional and Technical services by region and selected Latin American countries. Argentina, Brazil and Mexico in particular have made considerable inroads into this new part of the U.S. market.

— Figures 7, 8, 9 about here —

5. Trade and Industrial Upgrading in Developing Countries

5.1 Power in Value Chains

The nature of economic development has been transformed by the emergence of global production networks. Whereas previously export-oriented industrialization meant competing strictly according to comparative advantage, today the predominance of global

production networks means that economic development is now closely tied to a nation's industries' ability to successfully enter these networks, to become a supplier in the supply chain, and then to "move up" into higher value-added activities in the global supply chain. "Industrial upgrading" is the new synonym for export-oriented industrialization.¹⁶

But the structure of these global supply chains also creates a number of potential obstacles to industrial upgrading. Supplier firms face enormous competitive pressure from other suppliers to keep costs low, to keep quality consistently high, and to continue to deliver on schedule or risk losing the contract. Suppliers must bear much of the risk of carrying inventory in the face of volatile demand, are sometimes limited in the technologies they can adapt, and are often blocked from moving to the top of the supply chain by the expensive and successful branding strategies of the lead firms.

This asymmetry of market structures in global supply chains is depicted in Figure 10, which shows the value added and markup over costs of firms in a hypothetical global supply chain. Oligopoly lead firms seek to promote competition and risk-bearing among suppliers. The limits to the expansion of value added by suppliers are felt in the limited ability to control markups over cost and through the resulting need to control labor costs.

— Figure 10 about here —

5.2 Measuring Industrial Upgrading

To assess the degree of industrial upgrading, we define a "coefficient of upgrading," as follows:

¹⁶ See Milberg (2004).

$$z = [\Delta VA\% / \Delta x\%]$$

where $\Delta VA\%$ is the percentage change in the country's share of world manufacturing value added and $\Delta x\%$ represents the equivalent for world manufacturing exports.

If $z > 1$, then we say the country has experienced industrial "upgrading." If $z < 1$, then we say the country (region) has experienced "downgrading."

Figure 10 shows evidence on z and its components for various countries and regions. Developing countries have very successfully expanded their share of world exports of manufactured goods. But in general their share of manufacturing value added has not increased proportionally. As a result, most developing countries, and in particular all of the sample Latin American countries, can be described by downgrading. Mexico is a particularly extreme case, having seen a more than six-fold export share expansion and effectively no increase in its manufacturing value added share.¹⁷ Korea and India, by contrast, experienced upgrading. Korean increase in its share of world export value added was more than twice its increase in manufacturing export share. For India, $z = 1.34$, with more than a doubling of its share of world manufacturing value added. Note that while the value of z for China is 0.7, China had massive expansion of both its manufacturing export share (723%) and its share of manufacturing value added (446%). While these increases are greater than for any other country in our sample, in general the Asian economies show a very different profile than those of Latin America. Even those Asian economies with $z < 1$ showed on average a

¹⁷ Similar findings on Mexico are reported in Moreno-Brid (2005).

doubling of value added share at the same time that their export share was rising by four and five times.

These findings on industrial upgrading are supported by recent studies showing that the export-led growth strategy adopted by most developing countries following the debt crisis in the 1980s (in place of the previous strategy of import substitution industrialization) has suffered from a “fallacy of composition” problem. That is, it may be advantageous for one country if it alone achieves exporter status in a particular industry. But if many countries make the same calculation, all countries will be unable to capture the same advantage because of lower prices that follow from the expansion of world supply.¹⁸ Thus the picture on upgrading provided by the calculation of the upgrading coefficient z is supported by data on trends in the terms of trade faced by many developing countries. The situation would appear to be a contemporary version of the Prebisch-Singer dilemma. In the contemporary context, developing country firms have made the transition to manufacturing exports, yet are again suffering the terms of trade stagnation predicted by Prebisch-Singer in earlier years.¹⁹

8. Conclusion

¹⁸ See Mayer (2001), Blecker and Razvi (2005) and Palley (2000) for empirical evidence of this phenomenon.

¹⁹ For a review of the evidence on the terms of trade, see Kaplinsky (2005). In addition to terms of trade weakness in developing countries, the endogenous asymmetry of market structures also implies higher inequality in these countries. Competition among suppliers requires both low markups in supplier firms and careful control of wages. Even China, with its explosive growth in output and exports, has seen little increase in average wages and almost no convergence of its wages with wage levels in the industrialized countries (Glyn, 2006). We leave for future research the question of how the distribution of value added in specific Latin American cases has been affected by the expansion of U.S. offshoring.

U.S. offshoring may have brought static efficiency gains, but there is reason to doubt that this has translated into dynamic gains. For the US itself, the rise in profits and the profit share has not brought the expected increase in investment, even when we account for business cycle patterns. In Latin America and other developing regions, the rise in export shares in manufacturing has not translated into a proportionate increase in value added. This is manifest in the stagnant terms of trade for many of these countries despite their successful transition from commodities exporters to exporters of manufacturers. Moreover, the heightened inequality in the U.S., to which offshoring has recently been a significant contributor, is matched by downward pressure on wages in developing country firms competing to supply in global production networks. The asymmetry of market structures in global production networks, with oligopoly firms in lead positions and competition among first- and certainly second-tier suppliers, has meant intense pressure on suppliers who, in seeking to maintain markups must keep wages low and to resist improvements in labor standards that might lead to a shift in the supply process to another firm or country.

How could upgrading occur in the context of the asymmetry described above? Bigness certainly helps, as scale economies both internal to the firm and economy-wide can lead to productivity gains that can raise value added.²⁰ Domestic ownership is also a potentially important feature, since it supports the accumulation of local managerial skill and the retention of profits in the domestic market. A pro-development policy framework is also

²⁰ Applebaum (2005) documents the growth of many huge Chinese plants, especially in the apparel and electronics sectors. Gough (2005) and The New York Times (2006) report that in some cases these firms are beginning to exert some pricing power.

important, and this can come from domestic political authorities or from international economic institutions. Developing countries need to build markets that can promote upgrading. These could be the markets of the developing countries themselves, expanded through regional integration, or they could be the markets of the industrialized countries. If it is the latter, then developing country firms will have to upgrade despite the structural asymmetries that are part of the current trend of offshoring.

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Figure 1 and 2 (to be finalized)

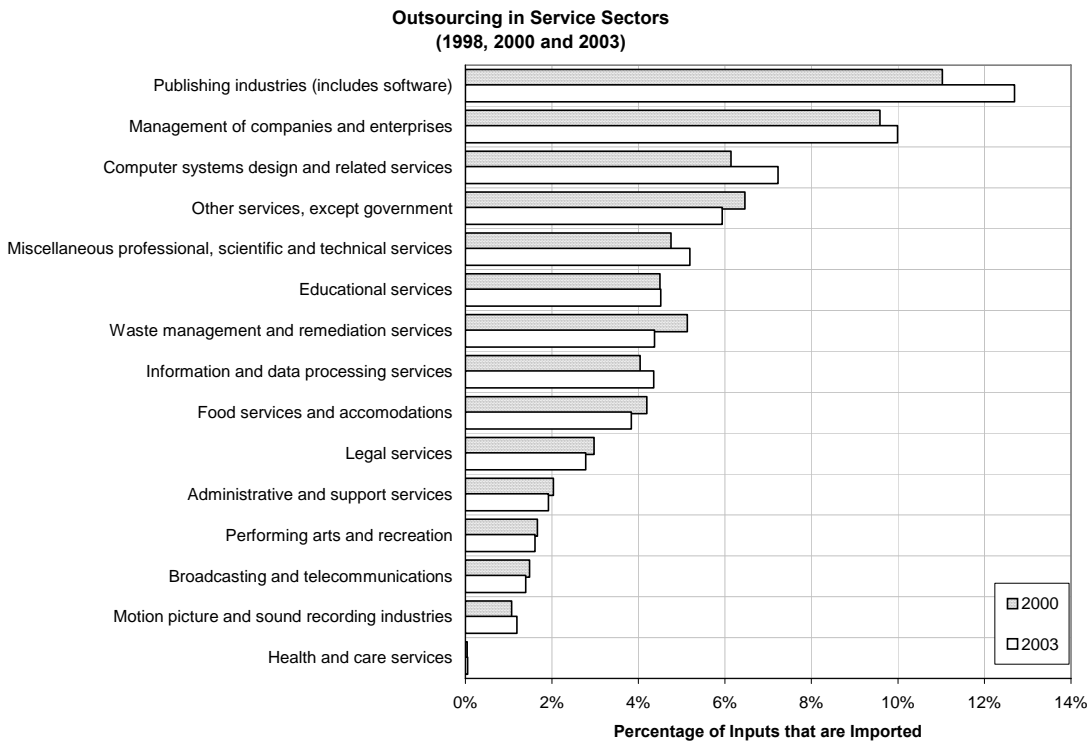
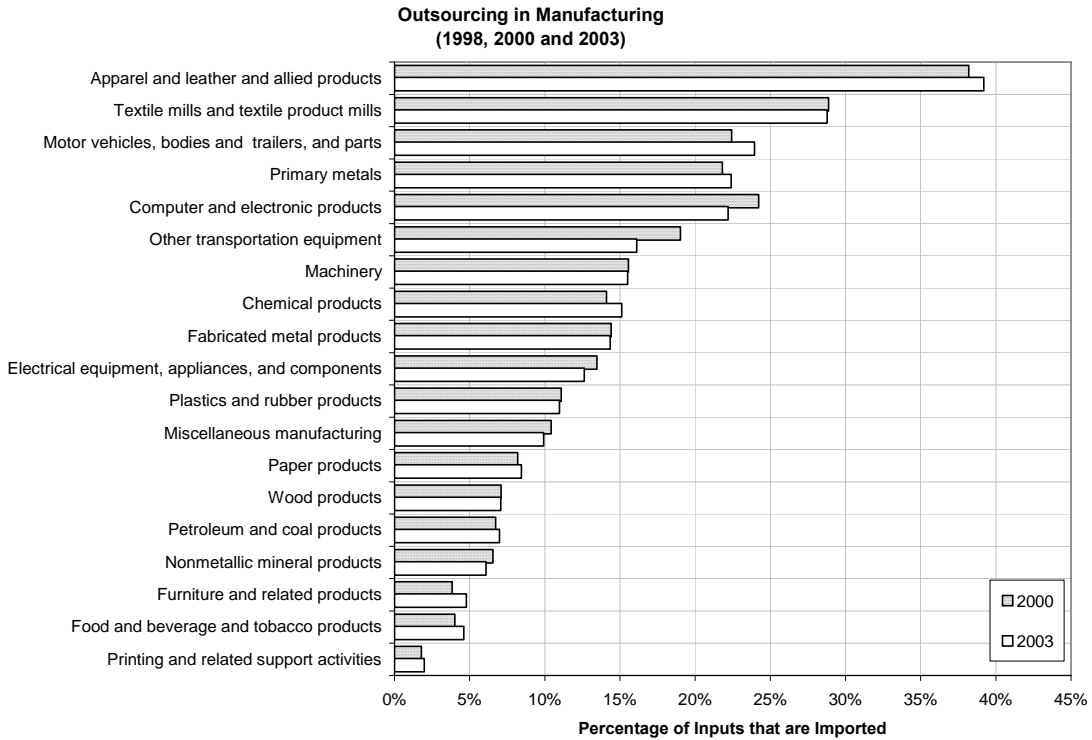


Figure 3:
US-imports from a related party as a share of total goods imports,
Selected countries, 1992-2004. (Percent)

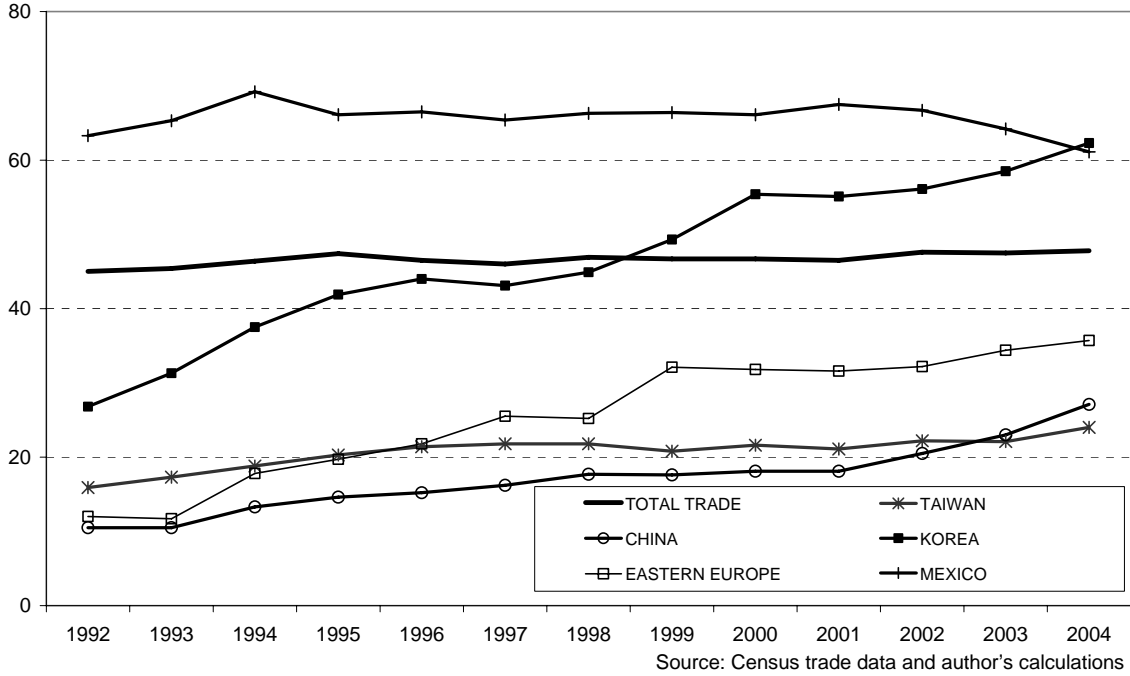


Figure 4:
US intra firm trade of Other Private Services
as a share of total trade in Other Private Services, 1986-2004.
(Percent)

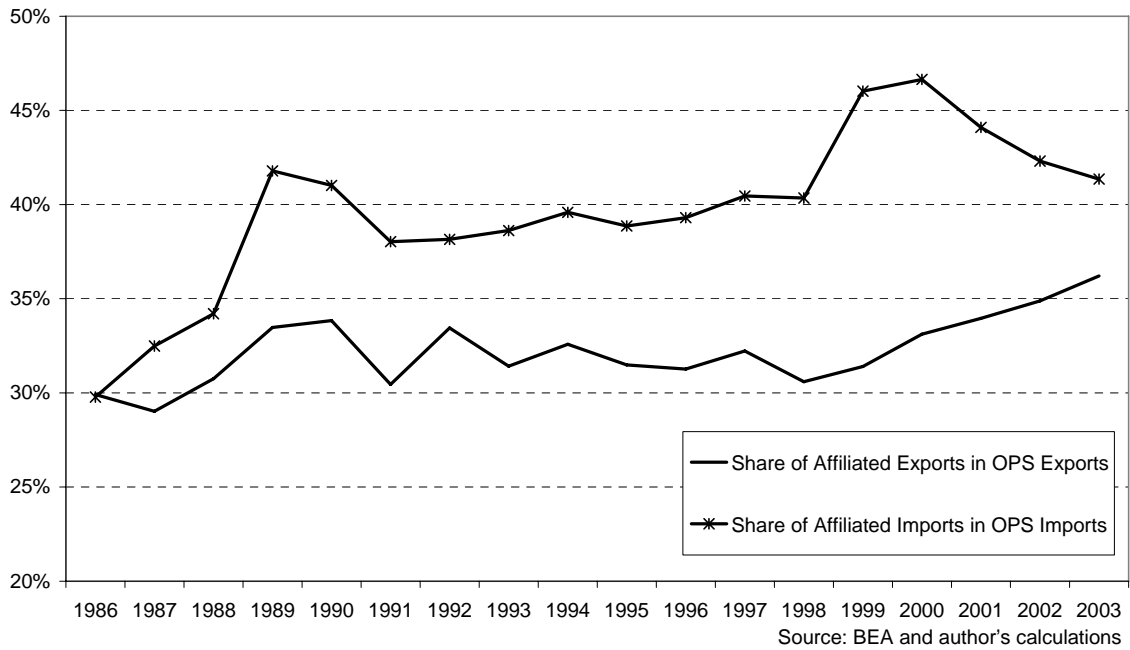


Figure 5a: Profit Share Regression Results

(All variables in percentage change from 2000-2003)

	All	Manufacturing	Services	Other
Outsourcing	0.9657*	-0.1347	1.3194*	0.9282*
Employment share	0.5377	-0.6780	-3.1440*	-0.8205*
Labor Productivity	0.9173*	0.4866*	0.2269	1.0326*
Capital Intensity	1.1883*	-0.1764	0.5027	-0.0701
Constant	-0.2660*	-0.1653*	0.0640	-0.0397
Adjusted R ²	0.35	-0.06	0.63	0.42
F	7.64	0.75	6.83	0.58
N	50	19	15	16

Figure 5b: Profit Rate Regression Results

(All variables in percentage change from 2000-2003)

	All	Manufacturing	Services	Other
Outsourcing	0.9240*	-0.0700	1.1933*	0.8908*
Employment share	0.4622	-0.6154	-2.7677*	-0.8101*
Labor Productivity	1.7962*	1.2664*	1.5917*	1.9540*
Capital Intensity	0.2053	-0.8925	-0.6213	-0.9877*
Constant	-0.2428*	-0.1638	0.0276	-0.0314
Adjusted R ²	0.42	0.41	0.64	0.72
F	9.89	4.16	7.27	7.1
N	50	19	15	16

(Note: * significant)

Source: BEA and author's calculation

Figure 6:
Profits and Investment, 1970:I-2006:III

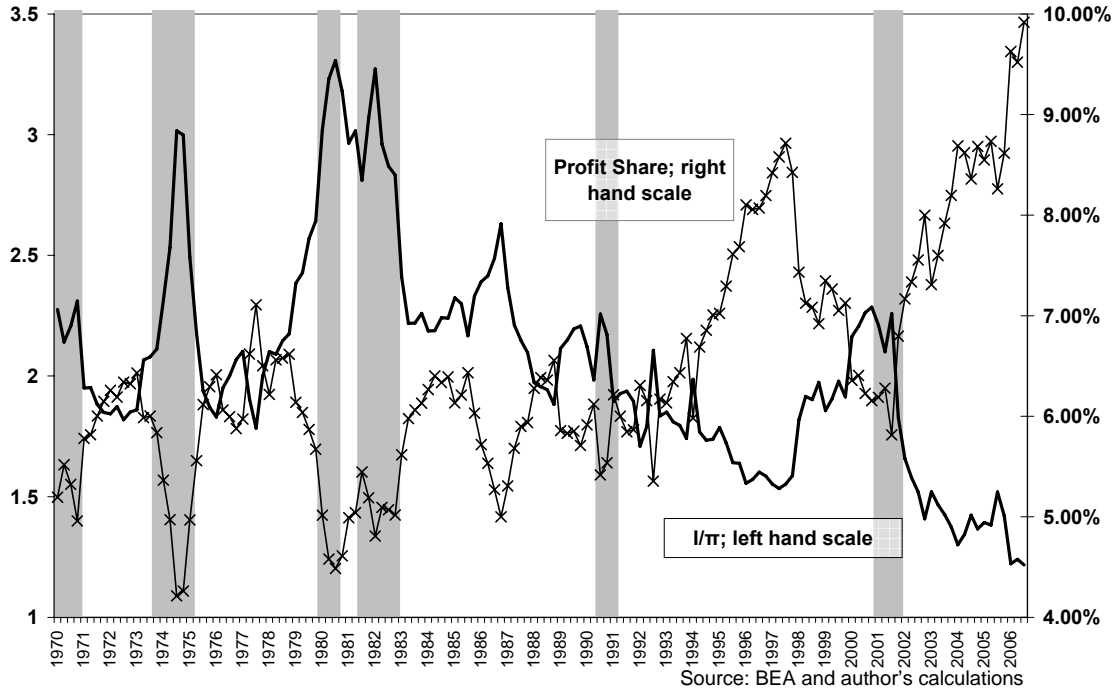
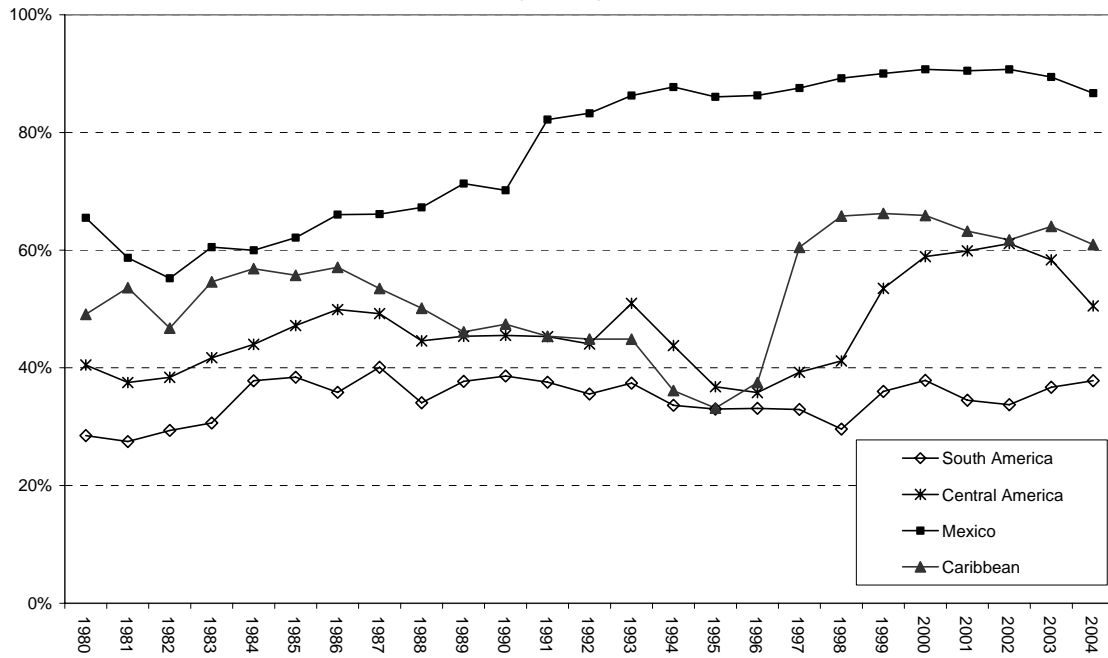


Figure 7:
Share of LA-Exports to the US, Weighted Averages (US), 1980-2004
(Percent)



Source: Unctad Trade Database (2006) and author's calculations

Note: These trade shares represent the percentages of regional exports that are destined for the United States. To account for the relative size of the export flows, the series are averages weighted by individual country's exports to the US.

Figure 8:
Latin American countries' share in the regions exports to the US, 2001-2004.
(Percent)

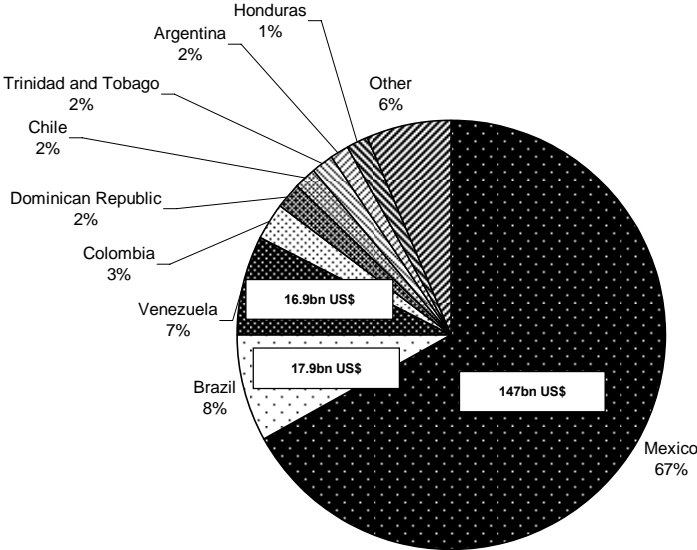


Figure 9:
Business, Professional and Technical Services Trade by Region

	Annual Averages, 1986-2003					
	Level 1986 Millions of \$	Level 2003	Growth	Stand. Dev. Growth	Share	Share Growth
All countries	1,303	11,393	14%	0.12		
Canada	283	3,319	18%	0.24	19.26%	3.64%
Europe	467	4,455	16%	0.23	40.69%	1.01%
Latin America and Other Western Hemisphere	70	903	19%	0.28	6.75%	4.28%
Argentina	1	91	120%	4.36	0.47%	68.83%
Brazil	1	171	57%	1.31	0.88%	32.77%
Chile	n.a.	16	20%	0.46	0.13%	6.58%
Mexico	54	278	13%	0.23	3.06%	-0.52%
Venezuela	1	24	69%	2.09	0.26%	10.46%
Bermuda	0	31	78%	1.63	0.17%	52.65%
Other	12	293	27%	0.43	1.77%	11.10%
Asia and Pacific	334	2,019	13%	0.20	24.86%	-1.15%
ROW	149	697	11%	0.17	8.45%	-2.20%

Source: BEA and author's calculation

Figure 10: Industrial Upgrading

	<i>1</i>	<i>2</i>	<i>3</i>
	<i>Growth of</i>	<i>Growth of</i>	<i>Upgrading</i>
	<i>Share in World</i>	<i>Share in World</i>	<i>(2/1)</i>
	<i>Manufacturing</i>	<i>Manufacturing</i>	
	<i>Exports</i>	<i>Value Added</i>	
	<i>80/83 to 00/04</i>	<i>80/83 to 00/04</i>	<i>80/83 to 00/04</i>
<i>Latin America</i>			
Argentina	6%	-25%	-3.98
Bolivia	129%	-14%	-0.11
Brazil	-29%	-23%	0.79
Chile	122%	40%	0.33
Colombia	37%	11%	0.30
Costa Rica[2]	526%	41%	0.08
Ecuador	87%	-12%	-0.14
El Salvador[2]	163%	13%	0.08
Guatemala[2]	101%	-3%	-0.03
Honduras[2]	364%	30%	0.08
Mexico[2]	672%	5%	0.01
Nicaragua[2]	147%	-53%	-0.36
Panama[2]	17%	-7%	-0.40
Paraguay[3]	85%	0%	0.00
Peru	-31%	-21%	0.69
Uruguay	-53%	-42%	0.78
Venezuela	95%	-16%	-0.17

Figure 10 ctd

<i>Emerging Asia</i>			
Hong Kong SAR	117%	42%	0.36
Indonesia	703%	111%	0.16
Korea, Republic of	69%	176%	2.57
Malaysia	480%	173%	0.36
Philippines	510%	-13%	-0.02
Singapore	156%	106%	0.68
Thailand	521%	202%	0.39
China[1]	723%	446%	0.62
India	83%	110%	1.34
<i>Developed Countries</i>			
Germany	-26%	-27%	1.06
Japan	-34%	-4%	0.11
United Kingdom	-23%	-42%	1.80
United States	-8%	-19%	2.23

Notes: For some countries, data on manufacturing exports was not available for 1980-1983. The years below indicate the earliest period available: [1] China: 87-90; [2] Costa Rica, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama: 86-89; [3] Paraguay: 83-86

Source: BEA and author's calculation