

SCEPA POLICY BRIEF

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Spurring Growth Dynamics from Services Offshoring

Melissa Mahoney, William Milberg and Markus Schneider, Rudi von Arnim^{*}

^{*}William Milberg is Associate Professor of Economics at The New School for Social Research and a Faculty Research Fellow at the Schwartz Center for Economic Policy Analysis. Melissa Mahoney, Markus Schneider, and Rudi von Arnim are Research Associates at the Schwartz Center for Economic Policy Analysis. Correspondence for the authors can be sent to MilbergW@newschool.edu. The authors would like to thank Josh Bivens, Paul Davidson, Teresa Ghilarducci, Andrew Glyn, David Howell, Bob Kerrey, and Christian Weller for comments on a previous draft. Remaining errors are the responsibility of the authors.

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1. Introduction

The rapid expansion over the past five years of U.S. imports of information technology (IT) and IT-enabled services has been a clear boon to the economies of India, China, Singapore and a number of other developing countries. The debate over the welfare effects of offshoring focuses on its impact on the U.S. International trade economists agree that in the short run the offshoring surge has brought efficiency gains, but has not been beneficial to US welfare overall because of inadequate assistance to displaced workers. Accordingly, most economists support an expansion of Trade Adjustment Assistance – which currently only covers manufacturing – and a wage insurance plan funded by a tax on employers.

Some economists calculate, however, that over time there are significant gains from services offshoring. These longer-term gains are not rooted in traditional free trade theory, but in a model of economic growth in which lower input costs lead to more investment, which in turn brings higher productivity and output. In this policy brief, we question the extent to which this growth dynamic has operated in the case of services offshoring, and propose a set of policies that would both promote the positive growth dynamic and distribute the benefits of services offshoring more broadly.

While the globalization of services has in many cases lowered their cost to business, there is no clear indication that this has led to increased demand for these services overall. The cost savings revert to firm profits and the question of long-term economic effects then hinges on the share of these additional profits that are invested. As predicted by many of the studies of offshoring, profit shares are up across affected sectors above what they would normally be at this stage of the business cycle. But the evidence is that firms are raising dividend payments, buying back their own shares and undertaking mergers and acquisitions at higher than historical rates and spending on investment goods and services at lower rates.

Instead of relying on faith in the private sector's dynamism, Americans deserve a serious policy response. We oppose tariffs or other forms of protection which seek to stifle the process, and instead we focus on ways to share the benefits of offshoring more equitably and to encourage the dynamic aspects of the process to promote economic growth. We identify three levels at which policy intervention could be effective. At the first level is support for the direct "losers" from services offshoring, that is workers who lose their jobs and those re-employed at lower pay. At the second level are incentives for firms to reinvest profits at a higher rate, including tax incentives for R&D, rescinding tax cuts on dividend income, complementary public investment and a low interest rate monetary policy. At the third level are broad policies to enhance innovation by making health insurance and old age pensions portable and more fully provided by the government.

2. Services offshoring and jobs

The rise in services offshoring has been driven to a great extent by technology: With the unimagined expansion in capacity of the internet and telecommunications, today any information that can be digitized can be used and manipulated anywhere in the world. The level of services imports is still not very high compared to imports of manufacturers or in relation to services exports, but services imports are growing more rapidly than exports and have been for over ten years.

Figure 1 shows the growth in U.S. imports and exports of private services for the period 1992-2004 and their levels in 2004. The overall balance on services has deteriorated slightly over the period, with some specific private services showing considerable import growth. The trade balance in Other Private Services and its component Business, Professional and Technical Services remained in surplus in 2004, despite more rapid growth in imports. The trade balance worsened significantly in certain subcategories of Business, Professional and Technical Services, in particular Computer and Information, Management and Consulting and Research, Development and Testing and Accounting, Auditing and Bookkeeping. The share of these services in total services imports remains small. However, a number of studies conclude that the official statistics understate the level of offshoring activity, perhaps because so much of it is occurring on an intra-firm basis.¹

--Figure 1 about here--

Even the official figures show a very rapid growth of Business, Professional and Technical services imports from selected Asian countries, in particular India, China and

¹ Nasscom data on Indian software exports to the U.S. are 5-10 times those reported in official U.S. government data on imports. See also GAO (2004).

Singapore. From 1997 to 2003, U.S. imports of Professional and Technical Services grew at an annual rate of 12 percent, with average annual growth of 22 percent from China, 23 percent from Singapore and 61 percent from India. As many analysts have noted, services offshoring is different from offshoring in manufacturing because it includes many higher-skill jobs, including accountants, programmers, designers, architects, medical diagnosticians, and financial and statistical analysts. With continual improvement in information and communications technology, there is likely to be a rapid broadening of the scope of services subject to international trade. Blinder (2005, p. 18) estimates that “the share of current U.S. jobs that will be susceptible to offshoring in the electronic future is two to three times what it is today.” And it is likely that this susceptibility will continue to cut across high-skill and low-skill occupations.² Given the size and growth of the pool of educated workers in East Asia, South Asia and Eastern Europe, there is clearly plenty of room for growth in these imports, even in higher-skill sectors. According to Richard Freeman (2005), “The huge number of highly educated workers in India and China threatens to undo the traditional pattern of trade between advanced and less developed countries.”³

Estimates of the U.S. employment effects of these trends vary widely. Forrester’s projection of 3.3 million jobs lost over 15 years has been the subject of much controversy, but may turn out to be a reasonable guess. According to our own calculations, non-manufacturing employment was 1.2 million lower as the result of trade pattern changes between 1998 and 2003, almost the same decline in jobs embodied in manufacturers trade

² Lohr (2006), for example, summarizes a recent report for the National Academies on the expected rapid expansion of offshoring of corporate R&D activity, especially in India and China.

³ Predictions vary on the magnitude of expansion in the scope of services trade. In addition to Blinder (2005), see Kletzer and Jensen (2005) and Bardhan and Kroll (2003).

over the same period.⁴ These represent a small proportion of the overall U.S. labor force, but given the expected continued high growth in services imports and the problem of underreporting, it may turn out that the Forrester projection is low. The key, over the long run, lies in the business response to the cost savings from offshoring, and the offsetting employment gains that can bring.

3. Offshoring and economic welfare

From the perspective of the standard theory of international trade, the fragmentation of production, including the offshoring of intermediate services, constitutes a furthering of the division of labor that enhances the gains from trade beyond those achieved when trade is limited to final goods and services. According to Arndt and Kierzkowski (2001, pp. 2, 6):

spatial dispersion of production allows the factor intensity of each component, rather than the average factor intensity of the end product, to determine the location of its production. The international division of labor now matches factor intensities of components with factor abundance of locations...[E]xtending specialization to the level of components is generally welfare-enhancing.

Heroism in the static context

Behind this rosy picture, however, are a number of heroic assumptions. Four in particular stand out:

- (1) There is no international capital or labor mobility.
- (2) The trade balance will automatically adjust over time to zero.
- (3) There is always full employment.

⁴ Our calculations are contained in Mahoney et al. (2005). Note that Groshen et al. (2005) get very similar results.

(4) Winners can potentially compensate losers and still be better off than before.

If we relax these assumptions, then we can consider the possibility that services offshoring can create unemployment in the U.S. and lead to a worsening of the balance of trade. In fact, the assumptions (1) – (3) are closely connected. When capital is mobile, then it will move to where production costs are lowest, that is, absolute advantage will play some role in determining the location of production.⁵ A trade imbalance can be associated with net employment gains or losses in a particular country. That is, if an expansion of imports does not automatically generate an equivalent expansion of exports, then job losses can result.

Even standard trade theory predicts that trade liberalization will bring both winners and losers. Free trade is best because of the *potential* for the winners to compensate the losers and still remain better off than before liberalization. This is assumption (4). Many have expressed doubt about the merits of this assumption when in fact compensation rarely occurs.⁶

To these doubts about the benefits of services offshoring, Paul Samuelson (2004) adds the issue of a possible deterioration of the terms of trade as the result of low-cost import competition in affected services. In a prominent response to Samuelson, Bhagwati, Panagaryi and Srinivasan (2004) claim that Samuelson's point is irrelevant,

⁵ See Jones (2000) for a formal model.

⁶ Even Paul Samuelson, the founder of the modern theory of free trade, expressed doubt, writing: Should noneconomists accept this as cogent rebuttal if there is not evidence that compensating fiscal transfers have been made or will be made? Marie Antoinette said, "Let them eat cake." But history records no transfer of sugar and flour to her peasant subjects. (Samuelson, 2004, p. 144) Responding to the many criticisms he received following the publication of this article, Samuelson (2005, p. 243) added that "[N]one of my chastening pals expressed concern about globalization's effects on greater inequality in a modern age when transfers from winners to losers do trend politically downward in present-day democracies." To their credit, Bhagwati et al. (2004) do support an expansion of U.S. Trade Adjustment Assistance to compensate losers from trade – an implicit recognition, however, that offshoring has brought potential, not actual, improvement.

since services offshoring is about the creation of newly-traded services such as call centers and radiology reports rather than services already traded. While Bhagwati et al. are right to criticize Samuelson on the issue of *new* tradeability, they by no means refute his claim that offshoring of services can have negative welfare effects in the U.S. They conclude that overall benefits from outsourcing require the compensation of displaced workers or the ability of displaced workers to find other jobs with the same pay, an issue on which there is at best mixed evidence.⁷

The large and growing overhang of unemployed labor in developing countries means that, in a world where absolute cost competitiveness plays a role in determining the pattern of trade, the U.S. will face continual pressure to raise imports. The traditional strategy of upgrading to higher value added sectors and protected niches will provide only temporary relief since a considerable and growing share of the labor overhang in developing countries is relatively high-skilled.

Faith in the dynamic context

While economists cite the famous Ricardian principle of comparative advantage to show the benefits of outsourcing to all countries, the view that services offshoring will benefit the U.S. 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.⁸ In Ricardo's view, the importance of trade liberalization was

⁷ Moreover, Bhagwati et al. take up only a part of the problem. They rule out consideration of intra-firm trade, that is, trade within multinational corporations. Intra-firm trade accounts for a large share of trade in goods and a growing share of services trade. If the issue of the welfare effects of outsourcing on the labor market hinges on the degree of import competition, then all imports must be included in the analysis. Moreover, intra-firm trade presumes prior foreign direct investment, the capital movement that is problematic for the standard trade theory. McKinsey (2003), for example, includes profit repatriated from offshore service providers as part of US gains from offshoring. See von Arnim et al. (2005) for more discussion of this point.

⁸ The original statement is Ricardo (1815).

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 U.S. economy, for example in Catherine Mann's (2003) commonly-cited study of 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 been otherwise. 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.⁹ In any case, her study 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.

⁹ For praise, see Bhagwati et al. (2004). For a critique, see Bivens (2005).

4. Profits and reinvestment

The same positive dynamic is less likely in the case of services offshoring. There is less reason to believe that a price decrease in certain services such as back office operations or software programming leads to a greater than proportional increase in demand, as was the case for hardware components.¹⁰ The price declines in semiconductors and the explosion in computing power and information technologies throughout the 1990s brought about tremendous increases in demand, as not only businesses, but also private households and the government installed these technologies and upgraded them more often. Offshored business services, on the other hand, involve tasks common to the business process before the rise of information technologies. Information technologies allow these tasks to be undertaken abroad. But even with dramatic cost savings and potential price decreases, it is not clear what the demand response will be.

In sum, the price declines from offshoring of services may be bringing an increase in profits without the same proportional rise in business spending. Moreover, economies of scale in services are not as evident as in manufacturing, so the incremental investment may not provide the same productivity boost in services as it has in manufacturing.¹¹

Of course, higher profits can also be passed through to higher wages or lower consumer prices, but this does not appear to be the case in the recent period. Most evidence shows that average earnings have stagnated at the same time that increased offshoring has weakened labor markets, both directly by raising the number of job

¹⁰ There is scant research on price elasticities of demand in services, especially business services. One recent study of household demand for all services suggests that services demand is rather price inelastic, but elastic in some types of services. See Gardes et al. (2004, page 25 and Table A1).

¹¹ See Blinder (2005) for a discussion of Baumol's disease in the context of the rise of services offshoring.

seekers and indirectly by diminishing wage demands when the threat of offshoring is credible. And there is little evidence of relative price dampening in service-intensive sectors, as service sector prices are up by more than the GDP deflator since 2000. The point is that the beneficial dynamic from a skewed distribution of the static gains from offshoring can be undermined if profit reinvestment does not follow the cost-saving trade.

The structural changes taking place in certain regional subcategories of the services trade balance are, despite the high growth rates, too small to be held accountable for the large increase in the level of undistributed profits in the U.S. corporate sector over the past five years. Still, offshoring has certainly contributed to higher margins. Services offshoring has expanded most rapidly during a period when corporate profits have reached a historic high, and the share of profits in total industry value added is higher than at any time since 1969.

These aggregate trends in the profit share are reflected in studies at the firm and industry levels. Firm level surveys find that services offshoring reduces costs to the firm by around 40% for the outsourced activity.¹² 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. Data on GDP by industry shows that the profit share of value added in a number of IT services sectors fell as the dot.com bubble burst in the late 1990s and has since rebounded dramatically, and in some cases beyond the level enjoyed in the 1990s boom. Figure 2 shows that the profit share in Computer System Design and Information and Professional, Scientific and Technical services has almost attained the levels of the mid-1990s. The

¹² See McKinsey Global Institute (2003).

Information and Data Processing sector has experienced a rise in its profit share to a level above that enjoyed in the boom period.

-- Figure 2 about here --

For the period 2000-2003, we calculated a strong positive correlation between profit share growth and the growth in offshoring in services, while for manufacturing sectors in this period the correlation is small and negative, presumably because offshoring in manufacturing had already reached very high levels by 2000. Services offshoring and their threat are certainly a contributing factor in the unprecedented rise in profits and the profit share, even in comparison with other business cycle recoveries.

The use of profits

The increase in profits and profit shares – both economy-wide and in many services sectors – has not been met by an expected rise in business investment. While profits rise procyclically, investment usually rises by even more in the upturn, so that the ratio of profits to investment normally falls as the economy moves toward the cycle peak. Figure 3 shows that this has not been the case in the latest recovery, as the ratio of profits to investment in the corporate sector has risen dramatically since 2000 and to a level higher than in previous recoveries.

-- Figure 3 about here --

One implication of the pattern shown in Figure 3 is that the liquidity of the corporate sector is considerably higher than usual. Dividend payments rose to almost \$100 billion in the first half of 2005, up almost 20% from the same period in 2004, and at a significantly higher rate than anytime since 1992. Merger and acquisition activity has surged since 2002, and is running at a rate of about \$1 trillion this year. This is not the

level of the late 1990s, but is otherwise high. Finally, corporations are buying back stock at an unprecedented rate of \$164 billion in the first half of 2005, almost double that in the same period in 2004. 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.¹³

5. Policy Response

Offshoring is a sensible strategy by firms seeking to cut costs and raise profit by focusing on “core competence.” But unregulated private markets will not always meet social demands. In this case, there is no clear evidence that the investment response to cost savings from services offshoring – and the productivity and employment growth that should result – have materialized at the magnitude hypothesized in the dynamic model. Are there policies that could stimulate such a positive growth dynamic? Tariffs on services imports are not a viable strategy for promoting gains from trade and overcoming the long-term employment problems associated with import competition in services. Tariffs would hurt developing countries and, since the services are inputs to production in the U.S., would also hurt U.S. firms that import such lower-cost services. A similar effect would result from a large and rapid U.S. dollar devaluation, something many economists have called for in response to the ballooning of the U.S. current account deficit. While some targeted devaluation is appropriate, a large and rapid dollar devaluation would be disruptive and, like a tariff, hurt U.S. trading partners and especially those holding large amounts of dollar reserves.

Rather than adopting protectionist tariffs or beggar-thy-neighbor devaluation policies, the U.S. should move to raise competitiveness by sharing the burden of

13 . Flow of Funds, Board of Governors of the Federal Reserve System. Bivens and Weller (2005) attribute this to a longer-term change in corporate governance.

adjustment between firms and workers and encouraging productive reinvestment of the cost savings from offshoring. We identify three levels of policy reform.

Level 1: Adjustment assistance to compensate losers

The expansion of Trade Adjustment Assistance (TAA) to raise benefit levels and the duration of benefits and, most importantly, to expand coverage to the service sector is a crucial first step in sharing the benefits of offshoring in a more equitable fashion.

Although the 2002 Trade Act expanded eligibility and funding, it does not include service sectors except very indirectly. And despite its expanded funding, the number of workers covered and the actual outlays remain tiny, rising from about 100,000 workers in 2000 to about 148,000 in 2004.¹⁴ Many fewer participated in the training component of TAA assistance. Proposed legislation by Senators Baucus and Coleman goes some distance in remedying the problem and should be passed immediately.

Wage insurance would further protect the losers from offshoring, especially if premiums are paid by employers and it does not substitute for existing unemployment benefits. The small wage insurance component of the current TAA program is inadequate and covers only manufacturing. The idea of the wage insurance proposal is to provide for a wage subsidy to those workers who lose their jobs for reasons beyond their control (from trade or other factors) and find new jobs at lower pay. The plan thus addresses an important problem of adjustment, specifically that reemployment often comes at a lower wage. We agree with McKinsey (2003) that employers can and should cover the cost of the insurance premium out of their savings from offshoring. Brainard et al. (2005) put the total cost of an insurance plan that covers 50% of lost wages (with a maximum annual benefit of \$10,000 for two years) at \$3.5 billion or \$25 per worker per

¹⁴ See www.doleta.gov/tradact/certs.

year. They note (2005, p. 2) that “this is a small price to help displaced American workers get back to work more quickly, seek opportunities in new sectors and gain more valuable reskilling through on-the-job training.” For slightly higher premiums, even more of the wage-loss gap could be covered.

Level 2: Subsidies and taxes to spur profit reinvestment

The second level of policies is aimed at raising the elasticity of investment with respect to profits. Here we support two types of incentives, one using tax policy, the other using public investment to “crowd in” private business spending. On the tax side, we support expanding the coverage of investment tax credits, increased tax credit for R&D investment and accelerated depreciation. These instruments are not unproblematic. The great risk of such tax incentives for business is that they become simply a loophole rather than a spur to employment, innovation and productivity growth. Accelerated depreciation schemes are particularly prone to such abuse. One way to avoid this is to include employment requirements for eligibility. Also, these programs should be implemented at the national level to avoid interstate competition.

The recent reduction in the tax rate on dividend income and capital gains has contributed to a reduction in the incentive for profit reinvestment and redistributed income in favor of wealthier Americans. Reinstating these taxes creates an incentive for firms to retain and reinvest rather than distribute and push firms to raise funds through capital markets. Thus the case for reinstating past tax levels on dividend income and capital gains is based both on equity and efficiency considerations, since it will encourage new investment expenditure out of corporate profits, promoting the productivity growth and employment growth that will also provide a more equitable distribution of income

gains. Congress should act quickly – for example in the current tax bill associated with the budget reconciliation bill – to return tax rates on dividends and capital gains to former levels.

Investment is more responsive to overall conditions of demand in the economy than it is to small tax advantages. Thus any system of expanded investment tax incentives should be undertaken in conjunction with an expansionary macroeconomic policy, including targeted public investment and a low-interest monetary policy. Infrastructure investment, in transportation, communications and internet access can induce private investment. Also, public investment in research and in the training of more high-skill workers can promote profitable business investment. Federal spending on R&D as a share of GDP has fallen since the early 1990s, and has focused excessively on defense rather than on sectors that would spur domestic economic activity, such as energy.

Level 3: Portable benefits for increased efficiency and equity

Ideally, the regulatory environment and the system of providing social protection would promote innovation, rapid adjustment to changing patterns of international competitive advantage and productivity growth, and would spread the burden of such adjustment across the economy. The existing social contract in the U.S. works neither for corporations, who suffer from high costs of health insurance and pensions to the point where that has become a primary reason they move offshore, nor for workers, who lose all benefits when they lose a job and in many cases must work with no benefits other than a wage or salary. Thus at this third level of policy reform, we propose a reformulation of the way social protection is provided and financed. Health insurance, old-age pensions, child care and other needs of two-worker families should be provided at some minimum

level irrespective of job or job status – employed or not. This would make such benefits “portable” and ease the burden of adjustment for those displaced by technological innovation or trade. The costs of such a comprehensive and portable program must be shared more broadly across business, consumer and the wealthy. Madrick and Milberg (2006) broadly lay out such a plan and show how it can be financed with modest increases in personal taxes, payroll taxes and corporate taxes. It is time to rethink the relation between government and the private sector in the era of globalization. As the wealthiest nation in the world, the U.S. is in a position to do this in a way that compensates globalization’s losers and encourages a positive profit-investment dynamic.

6. Conclusion

The benefits of offshoring of services to the economies of India, China and some other East Asian and Eastern European countries are significant to those economies and are likely to increase. Income growth in those countries also drives U.S. exports, offsetting job losses from offshoring. Services offshoring has not yet reached levels that constitute a serious labor market disruption in the U.S., but affected workers have not been adequately compensated and its dampening effect on wages is hard to quantify. The rate of growth of services offshoring is high and the potential for expansion is great, so the fears of American workers of all levels of skill and training are not misplaced.

At the same time, the cost savings from offshoring are considerable, and offshoring has corresponded with historic highs in the profit share of national income. Despite the profit increases, rates of investment have not grown accordingly. As services offshoring increases, neither the heroic assumptions of static trade theory, nor the faith in

the dynamic of profit reinvestment give us much confidence that the long-run positive effects articulated by Bhagwati, Mann and others will be realized.

A more realistic approach would consider that expanded trade in intermediate services is likely to create unemployment and income inequality, but has the possibility of generating gains in productivity and economic growth that can more than offset the negatives. We propose policies at three levels. First, we support the expansion of the benefits (level and duration) and coverage of TAA and its wage insurance to include services workers, with insurance premiums paid by corporations. Second, we support tax credits to promote investment and public spending on infrastructure and technology to “crowd in” private investment and the ending of the current tax reductions on capital income especially dividends. Third, we support a broad reform of health insurance, pensions and unemployment insurance, to make them fully portable, that is available to workers when they switch or lose their jobs. This approach pushes the policy discussion forward to the issues of how to make the economy more flexible without reducing the well-being of those adversely affected by corporate offshoring efforts.

Finally, adjustment to economic change is easiest and less costly to society when economic growth is more rapid. When aggregate demand is rising rapidly the labor market effects of offshoring are likely to be absorbed elsewhere in the economy. This simply brings out the importance of a pro-growth adjustment to the U.S. international payments imbalance rather than a deflationary policy of trade protectionism and large dollar devaluation.

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Figure 1: Trade in Services by Type

[Millions of Dollars]

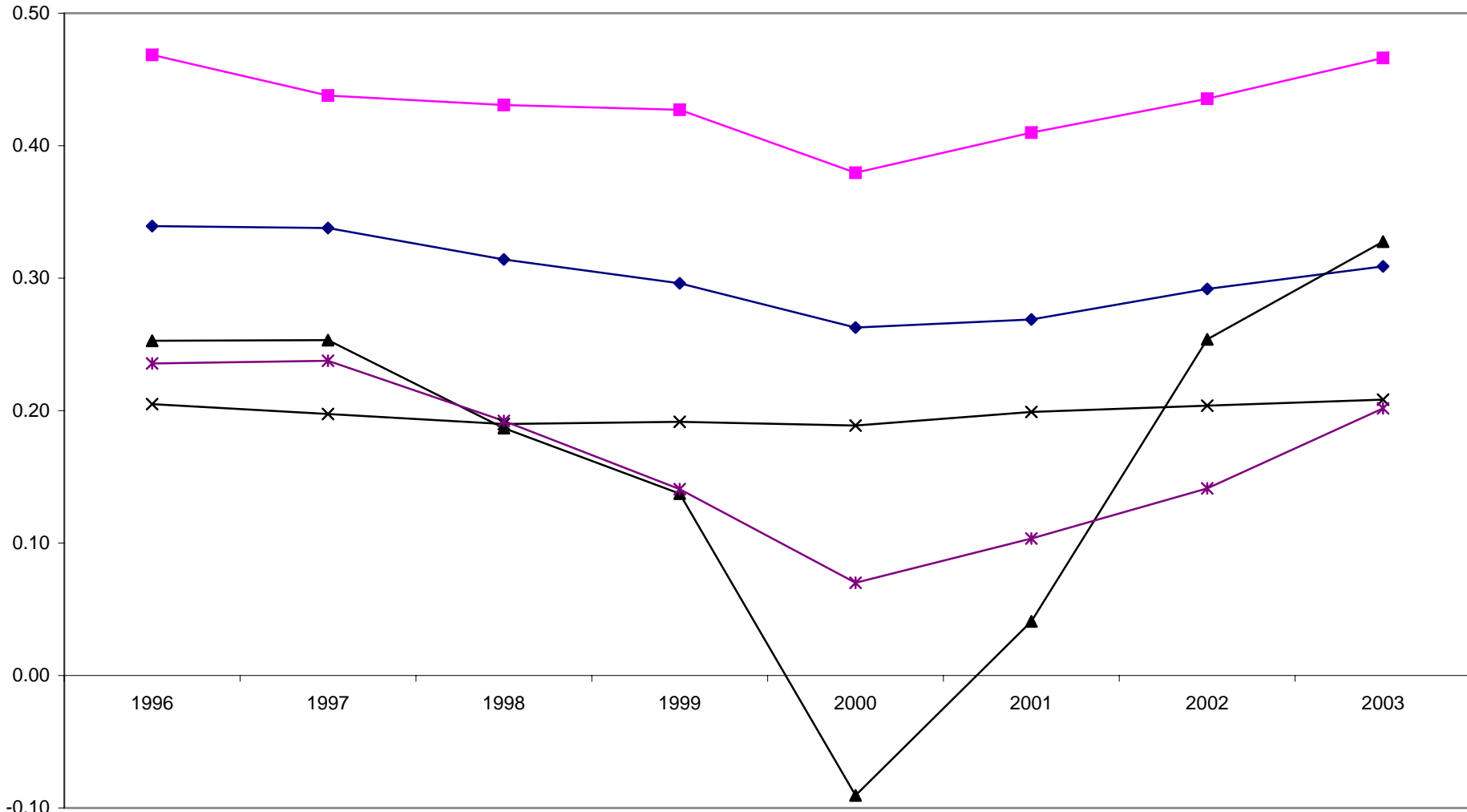
	EXPORTS				IMPORTS				Trade Balance in 2004
	2004	Average Annual Growth (92-04)	(01-04)	No. Obs.	2004	Average Annual Growth (92-04)	(01-04)	No.Obs.	
Total Private Services	323,362	5.90%	5.89%	13	258,069	8.00%	8.26%	13	65,293
Other Private Services	140,518	8.99%	7.27%	13	90,663	11.21%	11.16%	13	49,855
Education (1)	13,523	6.76%	5.68%	13	3,525	13.58%	15.38%	13	9,998
Financial Services	27,397	12.15%	11.82%	8	11,168	10.04%	0.62%	8	16,229
Insurance Services	6,125	17.16%	22.10%	13	29,882	18.43%	21.67%	13	-23,757
Telecommunications	4,374	4.71%	0.91%	13	4,365	-2.20%	-2.72%	13	9
Business, Professional and Technical Services	71,009	7.24%	6.43%	8	40,737	10.26%	10.23%	8	30,272
Computer and Information Services (2)	8,501	8.24%	8.45%	8	5,804	26.08%	8.68%	8	2,697
Management and Consulting Services	4,452	n.a.	1.97%	4	5,023	n.a.	24.36%	4	-571
Research, Development and Testing Services	9,807	n.a.	13.29%	4	4,727	n.a.	27.87%	4	5,080
Operational Leasing	8,234	13.04%	12.30%	8	1,184	2.79%	4.23%	8	7,050
Other Business, Professional and Technical Services	40,018	3.22%	4.27%	8	24,000	5.43%	7.01%	8	16,018
Accounting, Auditing and Bookkeeping Services (3)	299	8.37%	-7.08%	13	720	19.01%	13.12%	13	-421
Other Services	18,089	6.86%	3.93%	13	987	6.42%	15.84%	13	17,102
Film and Television Tape Rentals	10,480	12.82%	6.04%	13	341	19.43%	41.79%	13	10,139
Other	7,609	2.50%	1.30%	13	646	3.78%	7.89%	13	6,963

Notes:

1. Education consists of expenditures for tuition and living expenses by students studying in foreign countries, so these are transactions between unaffiliated parties.
2. Includes computer and data processing services and database and other information services.
Source: U.S. International Services: Cross-Border Trade 1986-2004, and Sales Through Affiliates, 1986-2003, <http://www.bea.gov/bea/di/1001serv/intlserv.htm>, BEA and Author's Calculation
3. Accounting, Auditing and Bookkeeping is reported as an addendum by the BEA, because it consists only of arm's length trade.

Figure 2

Profit share of gross output in selected service sector industries and sub-industries, 1996-2003

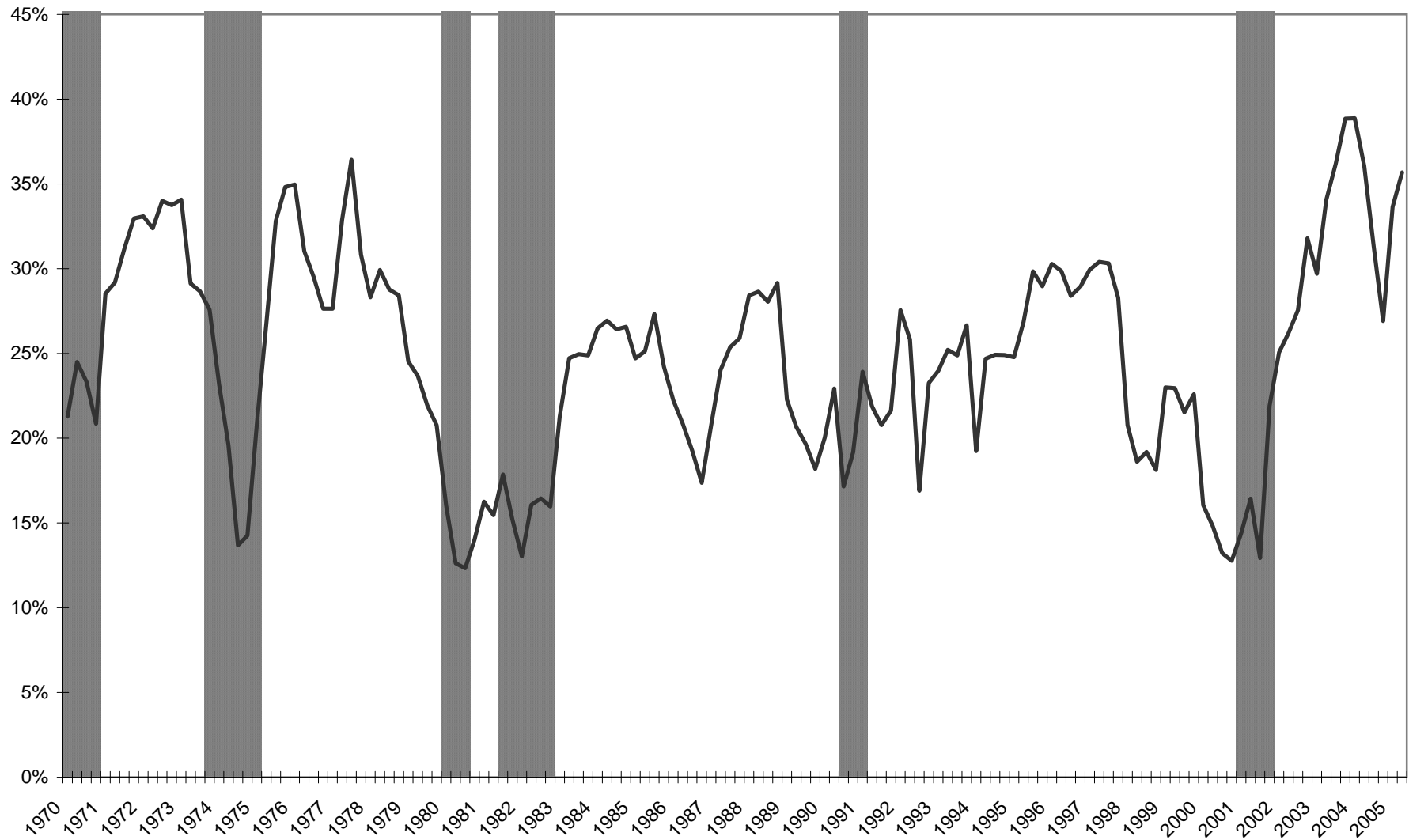


- Information
- Professional, scientific, and technical
- Health care and social
- Information and data processing
- Computer systems design and related

Source: Author's calculations from: U.S. Bureau of Economic Analysis, Annual Industry Accounts: Gross-Domestic-Product-(GDP)-by-Industry Data, See also http://www.bea.gov/bea/dn2/gdpbyind_data.htm; U.S. Bureau of Economic Analysis, Annual Input-Output Tables, Last updated: November 15, 2005. See also http://www.bea.gov/bea/dn2/i-o_annual.htm

Figure 3

Ratio of Profits to Investment, 1970:Q1-2005:Q2



Source: National Income and Products Accounts, <http://www.bea.gov/bea/dn/nipaweb> BEA and Author's Calculation.
Shaded areas indicate recessions as defined by NBER.