



WHAT IS MANUFACTURING AND WHERE DOES IT HAPPEN?

The U.S. Should Reconsider Plans to Mask Trade Deficit by Reclassifying Factoryless Production and Contract Manufacturing

BY ROBERT E. SCOTT

U.S. statistical agencies have proposed major changes to the definitions of manufacturing and services that would fundamentally change our understanding of what manufacturing is and how it affects the economy. Specifically, the Office of Management and Budget (OMB) has issued a proposal for changes to the North American Industry Classification System (NAICS) that would take effect in a 2017 revision. NAICS is used by the myriad federal statistical agencies that collect, analyze, and publish statistical data related to the U.S. business economy, including U.S. trade. Agencies most affected would include the Bureau of Labor Statistics (BLS), the Bureau of Economic Analysis (BEA), and the U.S. Census Bureau. In brief, NAICS 2017 would implement a previous but suspended plan (NAICS 2012) to classify factoryless goods

producers (FGPs) such as Apple and Nike, most of which are now in wholesaling or management of companies (both service industries), into manufacturing. The proposal would also move trade by manufacturing service providers (MSPs), such as China's Foxconn (which builds Apple products) into services. MSP establishments in the U.S. have been and will remain in manufacturing, but the jobs and output that are traded would be moved into services.

The NAICS 2017 proposal—which is part of a broader, international, behind-the-scenes effort to redefine and recalculate U.S. and international trade accounts—would artificially inflate measures of U.S. manufacturing production and employment by arbitrar-

ily moving wholesalers such as Apple and Nike into manufacturing, and shifting substantial quantities of goods imports into services imports. This would reduce the reported U.S. trade deficit in goods (on a balance of payments basis), with no change in the underlying U.S. balance of trade. And it would make it appear that U.S. manufacturing output has increased when, in fact, much of the actual manufacturing production has been offshored.

U.S. manufacturing has lost 5.5 million jobs since 1997, due in large part to the growth of U.S. goods trade deficits with China and other countries (Scott 2012, 2014; Bureau of Labor Statistics 2014). This decline is a real policy problem that requires effective solutions. Covering up the problem by manipulating manufacturing and trade statistics will reduce the pressure for real changes to help rebuild U.S. manufacturing and reduce U.S. goods trade deficits.

The challenge to U.S. manufacturing from rewriting trade statistics comes at a particularly critical time. Rebuilding U.S. manufacturing is critical to restoring the health of the domestic economy. But President Obama and U.S. negotiators have continued to promote trade and investment deals—such as the U.S.-Korea Free Trade Agreement and the proposed bilateral investment treaty with China—that have, or are likely to, increase U.S. trade deficits and cost the United States many more manufacturing jobs. Suppressing measured trade deficits through statistical manipulation is no substitute for better trade and manufacturing policies. Congress should order a comprehensive review and evaluation of recent and planned changes to U.S. international trade and national accounting statistics, and of the international standards on which U.S. trade accounting systems are based.

This policy memo outlines a number of negative outcomes should OMB's NAICS 2017 proposal for revising the treatment of activities by factoryless goods producers and manufacturing service providers go forward:

- NAICS 2017 would redistribute output and employment from wholesaling, management of companies, and other service industries to manufacturing, with no change in total U.S. GDP, national income, or employment. Reported U.S. manufacturing shipments could increase “significantly,” i.e., by 7 to 30 percent.
- The restructuring called for by the OMB in NAICS 2017 would significantly change U.S. trade and production statistics in two major ways:
 - First, the mix between goods and services trade will change. U.S. goods imports would be reduced and services imports would be increased (with no change in the total U.S. goods and services trade deficit). U.S. exports would also increase to reflect shipments of goods produced abroad by MSPs that are sold to other countries without being returned to the United States. These changes will artificially reduce U.S. goods trade deficits with China, Bangladesh, Vietnam, and other major destinations for international outsourcing.
 - Second, proposed changes in the treatment of trade with MSPs will require the United States to implement value-added trade accounting, which will weaken fair trade enforcement and further distort U.S. trade data by artificially (and inaccurately) reducing estimated trade deficits with countries such as China.
- In order to fully implement the OMB recommendations on reclassifying FGPs in manufacturing, statistical agencies will need data that are not now collected in any surveys. Therefore, there will be no immediate changes in U.S. trade statistics. Nonetheless, full implementation of NAICS 2017, and related international standards, would fundamentally

alter estimates of the size of U.S. goods and services trade deficits and the structure of the economy.

- On balance, OMB's NAICS 2017 FGP proposals would artificially inflate the measured size of the U.S. manufacturing sector by shifting firms from wholesaling and other service industries into manufacturing, and by treating the domestic and foreign sales of products whose production has been outsourced as part of *domestic* manufacturing output.
- OMB's NAICS 2017 FGP and MSP proposals would disguise the outsourcing of U.S. manufacturing production by making it appear that FGP production is taking place in the United States when most or all of that production has been outsourced.

The OMB should withdraw its NAICS 2017 plan to implement NAICS 2012's proposed new standards regarding FGPs and MSPs, and it should remand the issue to the OMB committee that handles trade statistics policy for reconsideration. There are legitimate reasons for wanting to learn more about the activities of FGPs, including their impacts on shipments, employment, and trade. However, there is no need to introduce value-added accounting in U.S. trade statistics just for this purpose, nor is there a need to artificially manipulate U.S. trade statistics. Government agencies can collect data on the activities of these firms in supplemental surveys without changing the fundamental nature of U.S. trade statistics, or the definition of where manufacturing takes place.

Background

On May 22, 2014, the Office of Management and Budget (OMB 2014) solicited comments on proposed revisions to the North American Industrial Classification System (NAICS).¹ NAICS was created in 1997 as a unified industrial classification system for the U.S., Mexico, and Canada. The 2014 proposal, referred to as NAICS 2017, was developed by OMB's Economic Classification Policy Committee (ECPC) to respond to the rapid

growth of establishments that design products but outsource most or all of the production process. U.S. Census Bureau data show that both foreign and domestic outsourcing are common (Bayard, Byrne, and Smith 2013).²

Essentially, NAICS 2017 seeks to operationalize a proposal that the ECPC made in NAICS 2012 but deemed too costly and time-consuming to implement at that time. In both NAICS 2012 and 2017, ECPC proposes to classify establishments involved in outsourcing as belonging to one of three classes: 1) integrated manufacturers (IMs); 2) factoryless goods producers (FGPs) or 3) manufacturing service providers (MSPs). IMs are traditional manufacturing establishments that both design and manufacture products, such as General Motors plants. FGPs are outsourcers such as Apple and Nike locations that design their own products and exert some control over the production process, while also marketing and distributing their products, but outsource manufacturing activities.³ MSPs are foreign or domestic firms and establishments that are engaged in contract manufacturing, such as Foxconn, maker of Apple computer and electronic products and China's largest private employer (Culpan 2014).

Further, as the NAICS 2012 proposal before it, NAICS 2017 would move FGPs, most of which are now in wholesaling or management of companies (both service industries) into manufacturing. The proposal would also move trade by MSPs into services. MSP establishments in the U.S. have been and will remain in manufacturing (as is the case with IMs), but the jobs and output that are traded would be moved into services. The proposal is hard to understand but some examples illustrate the changes. The proposals would move establishments of Apple, which are now in wholesaling, into manufacturing. It would also treat the manufacturer of many of Apple's signature products, Foxconn in China (that country's largest private manufacturing company), as a service provider, effectively moving Foxconn and its more than

1 million employees out of manufacturing into services (Culpan 2014).

Before we turn to the specific ramifications of the proposal, it's helpful to provide a little background on how the proposal is connected to a series of related developments in international classification standards.

The treatment of outsourcing under international standards

While the OMB announcement has focused public attention on the issue of FGPs and proposed changes to the NAICS system in its 2017 revision, these developments are part of a much larger set of changes that have taken place, or are in planning, in U.S. and international trade and national accounting statistics and the agencies that guide their collection, including the Organization for Economic Cooperation and Development. This larger set of changes includes recent and proposed changes in the U.S. International Economic Accounts (Borga and Howell 2014) published by the U.S. Bureau of Economic Analysis. Current and planned changes in U.S. international accounts will fundamentally alter the treatment of contract manufacturing (by MSPs) in U.S. international trade, shifting a substantial share of U.S. goods trade into services trade. Changes in the treatment of MSP production and trade are potentially much more far-reaching than any proposed changes in the treatment of FGPs. This issue deserves much more attention than it has received from the OMB, the ECPC, and in the public debate about the FGP issue.

Changes to U.S. international accounts—and related changes in U.S. gross domestic product (GDP) measurement and National Income and Product Accounts (NIPA) are being made in response to recent developments in international accounting standards, specifically the International Monetary Fund's *Balance of Payments and International Investment Position Manual, 6th Edition (BPM6)* (IMF 2009), and the United Nations' System of National Accounts 2008 (United Nations 2009).⁴ U.S.

national accounts and the NAICS 2017 standards in particular are influenced by and will influence future development of these and other international trade and accounting standards, as shown below. This report will review and analyze planned changes in the treatment of FGPs, and then examine changes in the treatment of MSPs in trade and production statistics and the evolution of international accounting standards.

The growth of outsourcing and the decision to classify FGPs in manufacturing

The desire to collect more data on the activities of outsourcers such as Apple and Nike is based, in part, on the rapid growth of the outsourcing of manufacturing production, especially to other countries.⁵ Under NAICS 2007 there was no clear guidance on how to classify outsourcing establishments into industries. The majority of FGP establishments were in wholesale and retail trade, but others were located in other service industries (e.g., management of companies; engineering; computer programming and system design) and manufacturing (e.g., semiconductors) (Bayard, Byrne, and Smith 2013).

According to the ECPC (2007, 4) the characteristics of an FGP include:

- owns the rights to the intellectual property or design of the final manufactured product;
- may or may not own the input materials;
- does not own production facilities;
- does not perform transformation activities;
- owns the final product produced by the MSP partners; and
- sells the final product.

The FGP will not have data on production worker payrolls or capital expenditures on plant or equipment. It will be able to provide data on the number of units produced and the market value of the final product(s).

OMB (2007) proposed to classify FGPs in the manufacturing sector, and this decision was included in the 2012 U.S. NAICS manual, according to OMB's proposal for 2017 (OMB 2014). However, OMB recognized that "considerable cost and lead-time [would be] required to implement this decision consistently across statistical programs using statistically sound methods" (OMB 2014, at 29629). Implementation for 2012 was suspended, but now the agency has proposed to implement these changes beginning in 2017. Implementation could be further delayed, but the decision to include FGPs in manufacturing was already taken by OMB in the NAICS 2012 manual. OMB is continuing to solicit public comments on this decision, which is described in more detail in ECPC (2007) and OMB (2014).

Problem #1: Proposal to reclassify FGPs as manufacturers would raise measured manufacturing output

OMB's ECPC says it chose to include FGPs in manufacturing in the NAICS 2012 revisions (ECPC 2007) to "provide a consistent and stable classification framework regardless of the changing outsourcing decisions." Under NAICS 2007, some FGPs were classified as in manufacturing and others were classified as in wholesaling or services industries. The advantage of classifying FGPs as manufacturing establishments is that it unifies treatment of all FGPs "across time and international borders" (ECPC 2007, 6).

The ECPC decision to include FGPs in manufacturing equates taking risks (making investments in intellectual property and/or the development of marketing channels) with productive activity. In addition, some productive activity by MSPs would eventually be moved out of manufacturing under these proposals (a "practical problem" acknowledged by the ECPC (2007, 8), but not discussed). This decision would drive a wedge between the

reported and actual location of production activity, as discussed below in the conclusion of this report.

The ECPC acknowledged that classifying FGPs as manufacturing establishments "will artificially increase the importance of manufacturing," and that manufacturing can be strictly defined by a "requirement for physical, chemical or mechanical transformation," but claims that this is "unreasonable" in the global economy (ECPC 2007, 8).

FGP production is an economically significant activity. Bayard, Byrne, and Smith (2013, 1) estimate that the consistent inclusion of FGP establishments in manufacturing will "introduce a significant discontinuity" in manufacturing statistics, and that "the value of manufacturing shipments would have been between 7 and 30 percent higher if FGP was included in 2002 and 2007." They also note that "FGP establishments are larger in terms of both employment and sales, and their employees have higher average earnings ... than establishments of other firms" (Bayard, Byrne, and Smith 2013, 1). They note that FGP establishments are more likely to employ engineers and other technical professionals and less likely to employ lower-skilled laborers (Bayard, Byrne, and Smith 2013, 14).

Thus, the incorporation of FGPs in manufacturing would raise measured manufacturing output and employment by significant amounts. Wages for FGP employees would likely exceed those of other manufacturing workers. Measured output and employment in other industries, principally wholesale trade and management of companies, would decline. Overall, no changes are expected in national output (GDP) or gross national income (GNI) (Ribarsky 2012, 15–22).

There are strong arguments for and against the inclusion of FGPs in manufacturing. Researchers would benefit from having comprehensive data on the outsourcing of manufacturing (both domestic and foreign). But the government should resist pure definitional changes that

expand manufacturing by sweeping in preferred wholesaling activity. On balance, if FGP statistics can be consistently and accurately segregated in the national manufacturing statistics, then there may be much to be gained from treating all FGP firms as a single class of producers.

However, the same cannot be said for proposed changes in the treatment of so-called manufacturing service providers (MSPs), otherwise known as contract manufacturers, and especially the decision to treat imports from such firms as services.

Problem #2: Changing FGP classification would lead to reclassifying contract manufacturing from goods to services trade

According to Jennifer Ribarsky, an economist with the BEA and author of several articles on FGP, “In order to fully implement the OMB recommendation to classify factoryless manufacturers in the manufacturing sector, statistical agencies need additional data that are not currently collected” in any U.S. surveys (Ribarsky 2012, 14). In order to oversee the required changes in U.S. statistical agencies, the ECPC chartered a Factoryless Goods Producers Working Group (FGPWG), which concluded, in part, that:

- revenues for MSP activities should include the full amount the establishment was paid for contract manufacturing services;
- data need to be collected for MSP activity and differentiated from other contract work performed at the same location;
- when a foreign MSP performs contract services for a U.S. establishment, the value of those services is classified as an import;

- when a domestic MSP performs contract services for a foreign entity, the value of those manufacturing services is classified as an export; and
- purchases of contract manufacturing services should be separately identified expenses; these expenses should be further broken out into purchases of foreign versus domestic manufacturing services. (Ribarsky 2012, 6)

A key point to note is that the working group clearly indicated that MSP trade would be counted as services. Mechanisms for doing so are spelled out below.

The Census Bureau and the Bureau of Economic Analysis have added test questions to a number of important business surveys to determine the feasibility of collecting such data. Answers to these questions are voluntary in the initial surveys. Depending on the responses received, businesses could be required to provide such data on future surveys. The surveys involved include the Census Bureau’s Report of Organization and Economic Census surveys; and BEA’s Benchmark Survey of U.S. Direct Investment Abroad (BE-10) and the Benchmark Survey of Transactions in Selected Services and Intellectual Property Products with Foreign Persons (BE-120). (Ribarsky 2012, 10–13)

The collection of the necessary data could be based on implementation of guidelines in the IMF’s *Balance of Payments and International Investment Position Manual, 6th Edition* (BPM6) on “goods sent abroad for processing,” and more generally, the “manufacturing services on physical inputs owned by others.” The implementation of the BPM6 standards “fundamentally changes the definition of what is considered export and import activity for firms that are offshoring transformation activity.” In particular, under these standards merchandise imports and exports “will no longer be determined by the physical movement of a good across the U.S. customs border” (Ribarsky 2012, 14). Specifically, goods owned and shipped from a domestic FGP to a foreign MSP will not be counted as U.S. merchandise exports if no change in

ownership occurs. Likewise, the value of the completed products returned from the foreign MSP to the domestic FGP will not be recorded as a merchandise import, but instead the value of the manufacturing service provided will be treated as an import of a service.

Problem #3: Reclassifying contract manufacturing as services would lower reported U.S. goods imports

The OMB and ECPC have chosen to define the activities of FGPs and MSPs even more broadly than BPM6, as shown below. Essentially, all goods imported from MSPs would be treated as services, whether the inputs were owned by the FGP or not. If fully implemented, this definition would greatly increase the volume of imports that are classified as services rather than goods.

In hypothetical models of goods and services transactions under BPM6, Ribarsky (2012, 15–22) shows that U.S. GDP will not be changed by the shift from previous goods-based trade accounting under BPM5 to FGP accounting under BPM6. However, goods imports would be reduced and services imports would increase in most examples. In addition, goods exports would also rise in the case where goods produced by a foreign MSP are sold to customers in the host country, as shown in Ribarsky (2012, 18–19)

Economists have assumed that the value of labor and capital services provided by MSPs would be small, relative to the value of the final products. An FGP that purchases manufacturing services from a foreign processor presumably pays the processor a much lower fee than the value of a transformed good that includes significant amounts of intellectual property products or includes significant management and marketing activities performed by the FGP.⁶

The BEA also indicates that any material inputs provided by the MSP would be included in U.S. imports. For

many products, purchased materials will represent the vast share of the production cost of the final, imported good. For example, in a widely cited paper, Xing and Detert (2010) estimated that in the manufacturing of the iPhone model 3G, materials such as flash memory, the display, touch screen, CPUs, camera, and communication devices were responsible for 96.4 percent of the export value of the product, and that manufacturing costs were responsible for only 3.6 percent of the final cost of each device.

Studies based on data from the 2002 Census of Wholesale Trade indicate that a significant share of firms in a wide range of wholesaling industries purchase contract manufacturing services (CMS) in at least 18 major wholesaling industries ranging from motor vehicles and parts, furniture, electrical and electronic goods, hardware and machinery in durable goods to paper, apparel, and chemicals in nondurable goods (Bayard, Byrne, and Smith 2013, Table 1a at 19). Contract manufacturing services are the products of MSPs, and the terms CMS and MSPs are used interchangeably in the literature.

Products traded by these establishments represent a significant share of total U.S. imports. While direct survey data on the imports of firms and establishments using CMS were not available, estimates of the potential volume of trade involved were developed for this report. A crosswalk from wholesale to corresponding commodity (agricultural) and manufacturing industries was developed using data for 3- and 4-digit NAICS industries represented in the Census list of wholesale CMS establishments.⁷ The industries listed were responsible for 52.5 percent of total U.S. goods imports in 2013. A rough estimate of the potential extent of CMS trade was developed using the CMS share in each corresponding wholesale industry to estimate potential CMS for each industry. The estimated total of potential CMS imports was \$237.3 billion in 2013, or 10.5 percent of total U.S. goods imports (EPI analysis of USITC 2014). Thus, the decision to treat the products of contract manufacturers

(MSPs) as services imports will significantly reduce U.S. goods imports and the goods trade deficit.

Problem #4: NAICS 2017 recommendations conflict with evolving international statistical standards for factoryless goods accounting

There are four different, interrelated sets of methodological concepts and procedures used by the international community to account for national income, industrial production, and international economic accounts (Doherty 2013). Multiyear projects over the past 10 years to evaluate and update each of these methodologies are ongoing, with slight differences in timing but much collaboration across groups.

The United Nation's International Standard Industrial Classification (ISIC) manual, Revision 4, referred to as ISIC4 (United Nations, 2010), says that if an establishment outsources part but not all of the production process it should be classified as if it were carrying out the complete process (Doherty 2013, 7). If the establishment outsources the complete production process, and it legally owns the inputs, then it is classified in manufacturing. If it does not own the inputs, it is classified in (wholesale) trade (or other service industries) (Doherty 2013, 7). The last two sentences form the basis for the accepted *international* definition of a factoryless goods producer, but the ECPC has adopted a broader definition of what constitutes an FGP, as discussed below.

Treatment of goods and services in the national accounts, specifically for GDP and national income accounting, is governed by the United Nations' *System of National Accounts 2008* (United Nations 2009), referred to as SNA 2008. Trade and international accounts fall under the influence of the International Monetary Fund's *Balance of Payments Manual, Sixth Edition* (IMF 2009), referred to as the BPM6.

Under previous editions of the SNA and BPM, goods transactions were to be recorded on a strictly cross-border basis. SNA 2008 and BPM6 changed how transactions of goods sent abroad for further processing and the resulting processed goods are *supposed* to be recorded. The new standards state that imports and exports should be recorded on a strict change of ownership basis. In cases where ownership does not change, as is the case with *some* goods for further processing, goods transactions should be excluded from trade flows. If the ownership does change, for the resulting processed good, the value of the processing service is supposed to be measured as a services trade flow (Doherty 2013, 8).

To further complicate matters, the United Nations' International Merchandise Trade Statistics manual (United Nations 2011), referred to as the IMTS 2010, recommends that all goods, including those for processing, be included in trade statistics "at their full (gross) value" (Ribarsky 2012, 14). At the present time, "U.S. merchandise trade statistics are compiled by the U.S. Census Bureau based on customs documents that reflect the physical movement of goods across borders" (Ribarsky 2012, 14). Thus, IMTS 2010 conflicts with the recommendations of BPM6 and SNA 2008. The IMTS standards do recognize the conflicts between these standards, and specifically recommend the following:

Taking into account the needs of international trade in services and balance of payments statistics where manufacturing services on inputs owned by others should be recorded, countries are encouraged to explicitly identify in their trade statistics (preferably by special coding) goods for processing and goods resulting from such processing where no change of ownership takes place. (Ribarsky 2012, 15, citing IMTS 2010 paragraph 1.21)

The ECPC defines FGP more broadly than the United Nations or the International Monetary Fund

The ECPC rejected the decision by various international statistical agencies (notably the United Nations in ISIC⁴, but also reflected in SNA 2008 and BPM6) to use legal ownership of inputs for classification as a means to distinguish FGPs that do manufacturing (and are classified with other manufacturing establishments) from those that do not (and are classified in wholesaling or other service industries) (Doherty 2013, 13; Ribarsky 2012, 6). The ECPC took the view that the entrepreneurial risk is the same whether the establishment performs transformation or outsources it (Doherty 2013, 13). It is important to note the equivalence established between taking risks (i.e., investment in R&D, product design) and actual transformation of inputs into final goods and services (a more traditional definition of manufacturing). The OMB-ECPC recommendation does not require ownership of materials for a unit to be classified in the manufacturing sector. Thus the number of FGP establishments and the volume of trade affected would be larger under the OMB-ECPC NAICS 2017 guidelines than under ISIC⁴.

There are indications that the United Nations' ISIC committee is considering a proposal to adopt the U.S. standards for definition of a factoryless goods producer. It remains to be seen whether the United Nations and International Monetary Fund decide to endorse U.S. recommendations for the treatment of goods in process (whether owned by FGPs or not). But currently, as Ribarsky (2012, 14) notes, the conflicts between the four international guidelines outlined here and the OMB recommendations for NAICS 2017 “need to be resolved before full implementation can occur.”

This international barrier to implementation is above and beyond the domestic barrier. Noting that “currently, there are no plans to change customs documents or procedures,” Ribarsky (2012, 15) concludes that U.S. goods

and services trade data will not be affected by the ECPC proposal unless and until Census and the BEA are able to collect new data on the activities of FGPs and MSPs. Ribarsky also notes that “the BEA continues to investigate options for implementing this new treatment of manufacturing services by adding questions on contract manufacturing to its international surveys.”

As a result of the conflicts between the ECPC definition of FGP and MSP activities and the structure of existing Census trade statistics, the U.S. statistical agencies will not be able to implement the trade aspects of the NAICS 2017 proposal by that date. Ribarsky (2012, 14) concludes, “In order to implement fully the OMB recommendation to classify factoryless manufacturers in the manufacturing sector, statistical agencies need additional data that are not currently collected in any of our surveys.”

Summing up: Effects of ECPC proposal on U.S. manufacturing trade and output

As noted in previous sections, changes in the treatment and definition of FGPs and MSPs called for in the ECPC proposal will ultimately have significant impacts on the reporting of U.S. manufacturing output, employment, and goods and services trade flows. This section shows just how large the effects would be. BLS economists claim that the impacts will come from both the ECPC NAICS 2017 proposal (“new industry classification rules”) and from new international accounting standards (“changes to national accounting procedures”—Doherty 2013, 20) discussed above. However, as shown above, the United States has both influenced and been influenced by recent developments in ISIC⁴, SNA 2008, and BPM6 statistical standards. The United States and other countries could choose to continue treating imports of goods transformed for FGPs in those goods' commodity of origin (i.e., treat them as the agricultural or manufactured products as they are now, on a

strictly cross-border basis). The NAICS proposal is nothing more or less than a plan to account for the activities of FGPs differently (and separately) from other entities.

Core flaws in the FGP and MSP proposals

Adaptation of merchandise trade statistics to accommodate goods in process for FGP firms will require a separate flag of some sort.⁸ Such goods could still be counted in merchandise trade statistics. Ultimately, if sufficient new accounting data can be obtained, FGP accounting as proposed by the ECPC would change the mix between goods and services. But FGP accounting would also fundamentally alter the *nature* of international trade accounting. FGP firms would be allowed to exclude products manufactured abroad (such as an Apple iPhone) from goods imports. Instead, Apple would record this transaction as a fee for services to its MSP, Foxconn in China. The fee would cover both the cost of the manufacturing services provided by Foxconn, and also the cost of all the materials purchased by Foxconn (or Apple) for incorporation into that product.

This shift has two important implications. First, goods imports are reduced and services imports are increased. Specifically, goods exports would increase to reflect sales of FGP products that are manufactured by MSPs (such as Apple iPhones and Nike shoes) abroad, and sold to customers in other countries (goods shipped directly by the FGP that never enter the United States would be included in U.S. goods exports). The proposed changes to trade statistics will artificially reduce the U.S. goods trade deficit. There will be a corresponding fall in the U.S. services trade surplus as U.S. services imports increase. These changes will make the headline U.S. goods trade deficits with China, Bangladesh, Vietnam, and other major hosts for offshored production look smaller. The total, overall U.S. goods and services trade deficit should not change, but the mix between goods and services is expected to change (Doherty 2013, 20).

President Obama and U.S. negotiators have continued to promote trade and investment deals like the U.S. Korea Free Trade Agreement (Scott 2014) and the proposed Bilateral Investment Treaty with China (Moreland 2014) that have, or are likely to, increase U.S. trade deficits and cost U.S. manufacturing jobs. Suppressing measured trade deficits through statistical manipulation is no substitute for better trade and manufacturing policies.

Second, Apple, and U.S. international trade statistics, would shift to an *international value-added* accounting system. That this would occur is reflected in the fact that BEA economists use value-added terminology to describe the changes that would occur in U.S. trade and GDP accounting in examples provided (see, for example, Ribarsky 2012, case 1 at 16).

The effects of a shift to an international value-added trade accounting system are more insidious than changes in FGP and MSP classifications. The World Trade Organization (WTO) and the OECD have promoted a shift to value-added accounting, which has at least the following problems (Scott 2013):

- It would weaken fair trade enforcement.
- It would increase U.S. trade-related job losses.
- It is based on flawed models that underestimate the value of imports from China and other countries.
- It also cooks the books, suppressing reported differences in bilateral trade balances between the U.S. and China, and the U.S. and other countries.
- It undercounts U.S. imports from China and other countries.

The shift to value-added accounting would be a costly policy mistake for the United States. The FGP policy proposal, as currently structured, would require the United States to begin the transition to international value-added accounting. This is a major policy decision that deserves separate, independent consideration, before deciding whether and how to account for FGP activities.

Threats posed by factoryless goods production are long-term, not immediate

Implementation of the FGP proposal would present major data challenges for U.S. statistical agencies. Some reclassifications of domestic establishments could take place in 2017, but there is little if any likelihood of any immediate, significant change in U.S. trade statistics.⁹ The Bureau of Economic Analysis has just released a major new “Comprehensive Restructuring of International Economic Accounts” (Borga and Howell 2014). This analysis follows the recommendations of BPM6 and SNA 2008. However, the BEA announced, in a major departure from BPM6, that it was “not implementing new treatment of manufacturing services on physical inputs owned by others (‘goods for processing’). ... Lack of adequate source data prevents the BEA from introducing new treatment at this time” (Bureau of Economic Analysis 2014). Thus, the BEA *currently* has no plan to introduce changes to core U.S. economic accounts.

Despite the methodological challenges noted above, “the BEA continues to investigate options for implementing this new treatment of manufacturing services by adding questions on contract manufacturing to its international surveys” (Ribarsky 2012, 15). It is apparent that the BEA is taking steps to begin collecting establishment-level data on trade in manufacturing services in order to estimate the trade activities of MSPs and FGPs. It is unclear whether these data will be sufficient to supplement or displace the firm-level trade data collected by U.S. Customs and Border Protection. Alternatively, the customs bureau could begin to identify goods for processing with special codes at some point in the future.

Thus, the shift to FGP and MSP accounting will have little if any impact on U.S. trade statistics in the next three to five years. However, if the OMB authorizes the ECPC and U.S. statistical agencies to implement the NAICS 2017 proposal, work will continue on the development of new questions on existing surveys which could introduce fundamental changes to U.S. trade accounting.

Conclusion: How large is U.S. manufacturing and where does it take place?

The OMB has issued a proposal for changes to the NAICS that would begin to take effect with revisions scheduled for 2017. This proposal would artificially inflate U.S. manufacturing production and employment and deflate U.S. goods trade deficits with many countries. It would also irretrievably change U.S. balance of payments accounting. It should be remanded to the sponsoring agencies for further study and revision.

There are legitimate reasons for wanting to learn more about the activities of factoryless goods producers, including their impacts on shipments, employment, and trade. However, there is no need to introduce value-added accounting in U.S. trade statistics just for this purpose, which is what would occur should the proposal go forward. Government agencies can collect data on the activities of these firms in supplemental surveys without changing the fundamental nature of U.S. trade statistics, or the definition of where manufacturing takes place.

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Endnotes

1. The deadline for comments on proposed NAICS changes is July 21, 2014; comments may be emailed to John.Burns.Murphy@census.gov.
2. “NAICS is a system for classifying establishments (individual business locations) by type of economic activity. . . . Federal statistical agencies use NAICS to collect or publish data by industry (OMB 2014).” Firms are collections of establishments that may be assigned to a number of different NAICS classifications.
3. The NAICS is a system for categorizing individual business establishments. Firms (such as GM or Apple) are a collection of such establishments. Some of their individual facilities (such as headquarters operations) could be classified as service establishments (involved in the management of companies), while the bulk are involved in manufacturing or the direct management of the manufacturing process (through design and marketing operations in a firm such as Apple).
4. The Agencies responsible for the U.N.’s System of National Accounts 2008 are the European Commission, the International Monetary Fund, the Organization for Economic Cooperation and Development, the United Nations, and the World Bank.
5. In principle, NAICS 2017 standards will apply to both domestic and international outsourcing of production. However, domestic MSPs will be classified within domestic manufacturing. Transactions between FGPs and MSPs will take place within manufacturing. The NAICS 2017 standards will reallocate production between establishments and firms, but will have no impact on overall domestic manufacturing output.
6. Based on private communications with staff from the Bureau of Economic Analysis.
7. Industries included were 111, 112, 315, 324, 325, 326, 3121, 3211, 3212, 3219, 3311, 3312, 3313, 3321, 335, 3326, 3327, 3333, 3334, 3339, 3342, 3344, 3345, 3254, 3363, 3371, 3372, and 3399. Source: EPI analysis of data from the USITC (2014.)

8. Under BPM6 and SNA 2008, goods that do not undergo a change in ownership would be excluded from trade. They would still be counted, but just flagged for later adjustment. Similarly, under the ECPC proposal, goods transformed for FGPs would have to be flagged in some way for later adjustment.
9. The treatment of “merchandising,” or resale of goods acquired abroad without substantial transformation, is also part of the FGP proposal. The BEA did move net merchandising transactions from services to goods in June 2013, as a part of its “Comprehensive Restructuring” of U.S. international Accounts (Borga and Howell 2014). However, the total value of merchandising was less than \$1 billion in 2013, approximately 0.1 percent of total U.S. exports.

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